THE METRO DENVER WATER STORY

A Memoir

By

Charles C. Fisk
Charles Fisk 1998: 80th Birthday on Maui where he began writing this Memoir

Also by Charles C. Fisk

- Colorado Water Congress Newsletter (1958-62)
- Western Water Newsletter (1961-62)
- From Whence They Came — A Family History (1996)
- The Road From St. Croix Falls — An Autobiography (1997)
The author gratefully acknowledges the assistance of these persons in helping write, edit and publish this book:

Micki ... my wife for 63 years.

Carolee ... our daughter.

Dr. Daniel Tyler, Professor Emeritus, History Department, Colorado State University.

Phyllis Record of Record Services, Inc.

And I Carolee wish to thank Daniel Tyler, Patty Rettig, Elizabeth Michell, Phyllis and Kathy of Record Services, Dakota Indexing, ACE Printing San Rafael, Ca. for pulling this project together. A project I inherited after my father’s death in 2005.
For the old water buffaloes.

The men who fought in Colorado's water wars in the 1950s, '60s and '70s with dignity, enthusiasm and skill.
... If I dared to wish
for Genius, I would ask for
the Grace to write.

The Canterbury Tales
Aldous Huxley
Writer's Note

This is not just another book about Denver's history, although there is much history in it. I am, or was, an engineer — a rather strange kind of engineer — one who likes to write.

I am one of the old water buffaloes, now in my mid-eighties. I have wallowed in the swamps of Colorado's water wars and have lived in Colorado — mostly in Metro Denver — since 1946. During most of my professional life I was a consultant in private practice, specializing in water rights, water supply and hydrology.

I have no personal agenda. No axes to grind, nothing to prove, nothing to gain professionally. This book was not written for profit or for private commercial gain. It was written to tell the water story in a historical context, because I believe its understanding is important.

I have discarded the historian's usual baggage — footnotes and sources — in the search for simplicity and clarity. I have used quotations more frequently than most writers, in order to make the text more interesting and understandable. My hearing disability during this writing has prevented my use of telephone calls and interviews and has greatly limited my usual investigative procedures.

Charles C. Fisk
Aurora, Colorado
2005
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FOREWORD

Unfortunately, most people who read the following pages will only know Chuck Fisk by what the author has chosen to write about. Hidden from the words on paper is the complex, deep thinking, sensitive, engineer who poured the last of his energy into writing this book. Fisk died in June 2005, a month after he finished the “Memoir.” Begun in 1997, it is the culmination of a career devoted to water rights, water supply, and hydrology -- a profession that had its beginnings for him in a love of the Wisconsin outdoors, a stint with the Civilian Conservation Corps during the 1930s drought, and a stimulating relationship with the foremost conservationist, Aldo Leopold, at the University of Wisconsin-Madison.

Anyone wishing to understand the man behind the “Memoir,” should read Fisk’s The Road From St. Croix Falls. It is a self-effacing, totally honest, and introspective auto-biography that traces the singular events of family struggles and intersperses this journey with doses of philosophy, literary references, and visceral questions about the meaning of life itself. Having spent a large part of my own university experience working in the field of water law, water development, and water history, I can say I have never met a civil engineer with Fisk’s ability to communicate the complexities of his subject with such eloquence. His singular perspective on water’s historical context, and his remarkable willingness to reflect on personal events as these related to and influenced his professional life, make the auto-biography a “must read” for anyone interested in this thoughtful, competent, and articulate Coloradan. Where appropriate, I have quoted from this work.

Fisk’s father died when he was only seventeen. There was no life insurance, no money in the bank, and the nation was in the midst of the Great Depression. He graduated from high school, then lied about his age to get into the Civilian Conservation Corps. The hard outdoor work and military regimen stimulated Fisk’s love of nature; the income he earned provided funds for college. The CCC also sharpened his response to physical and emotional challenges. “There were bad times - hard, cold, hot, boring work; loneliness; uncertainty about the future,” he wrote. “But it was the beginning of a life of my own. And (I would learn many years later) the most precious thing in life is its uncertainty. There isn’t any real virtue in certainty.” (p. 84)

Next challenge: the University of Wisconsin! Fisk struggled in the first few years, but gradually he learned how to study, improved his grades, and found stimulation in the lectures and field trips of Professor Leopold, whose teachings introduced Fisk to the concept of environmental ethics. Leopold’s son, Luna, had just graduated from a newly created five-year program at the university that included agriculture and engineering. Degree in hand, he accepted a job with the Bureau of Reclamation as a hydrologist, then joined the Army Air Corps as a meteorology cadet and weather officer. Fisk followed the same path. He obtained his B.S. in agriculture in 1941 and his B.S. in civil engineering in 1942. Two days after receiving the second degree, he married Elsie “Micki” Rennie, then accepted a position in the Army Air Corps, studying meteorology as an aviation cadet at the University of Chicago.
As with most Americans posted to combat zones, World War II had a profound impact on Fisk. He shipped out to the Philippines in February 1945. The war was almost over, but his duties as weather officer for the 42nd Bomb Group brought him into contact with Japanese bombers flying nuisance raids against Allied forces. Loneliness and boredom gave him ample time to think about his future. He wrote to the Denver Chamber of Commerce inquiring about jobs and weather. “Their reply mentioned the Bureau of Reclamation. Denver’s weather sounded like Camelot.” (p. 157)

When he finally returned in 1946 to Micki and two children after a thirteen-month absence, Fisk was faced with several job possibilities. Following a trip to Washington to check out possible employment as a river forecaster, he decided on a different path; assistant hydraulic engineer at the Bureau of Reclamation (USBR) in Denver. At that time, the Bureau had the best engineering organization in the world. Fisk liked his work, especially when he was assigned to assist a group of Chinese who had been sent to the United States to get help in designing the Yangtze Gorge dam. Enchanted by the magnitude of the project, he wrote an article about his work with the Chinese. The essay, now part of the Papers of Charles C. Fisk, was rejected as too political. This was a time when the Chinese communists were attempting to take over their country, and once they succeeded, the Bureau was no longer interested in helping them with the Yangtze Gorge Project. The Cold War had begun!

But the article proved a milestone for Fisk. His writing was recognized by superiors as a fair and readable treatment of the subject and before it was rejected by the commissioner’s office, his immediate boss submitted the essay to Reclamation Era, the Bureau’s official publication. Fisk learned about bureaucratic sensibilities from this experience, but he had also found an outlet for his creative side to which he would respond more fully when he accepted a new job with the Denver Water Board (DWB).

The position as water rights engineer with the DWB launched Fisk’s broader interest in the history of Colorado water. He was immediately accepted by the DWB’s testy and opinionated lawyer, Glenn Saunders, because he was open to learning from him and viewed Saunders’ tutelage as precisely the advantage he needed to make a success of himself. Fisk was a hard worker, but he was also one of those “Depression youngsters,” hungry to make a mark in the world and rarely satisfied when his achievements were recognized. Fisk even found time to play handball with Saunders, and for a short time, he was “mesmerized by [Saunders’] ability and personality.” (p.219) But he also realized that his quest for recognition was contrary to the conservation principles he had learned from Professor Leopold. Saunders steam rolled anyone who opposed his aggressive use of the law to obtain advantages for Denver, and he was particularly insensitive to Colorado’s West Slope population which viewed Denver as a bully, insensitive to the future needs and development of that part of the state. When the Colorado Water Congress came into being, as a result of East and West Slope compromises over the filling criteria of Glen Canyon Reservoir, Fisk offered to write and publish a newsletter for the Congress, based on the style of the popular Kiplinger Washington Newsletter. The first issue came out in 1958. It received immediate praise. Finally, as Fisk noted, “I had a new and exciting love: western water development. I had as they say in spy novels, gone over to the other side. The Colorado Water Congress Newsletter produced many complimentary letters. I had, at last, found a way to utilize my writing ability without
irritating others. It paid off. I became well and favorably known by water professionals in Colorado.” (p.222)

But Fisk’s days in the DWB were numbered. Saunders became irritated with his independence, growing confidence, and willingness to question his head strong attorney mentor. The relationship became intolerable when Saunders berated him as “nothing but a goddamned carpetbagger.” (p.228) Fisk resigned in 1961 determined to work for himself as a consulting engineer. It was a big step and it was risky. But as Jim Lehrer had stated to a Vassar commencement audience when he faced a similar denouement at The Dallas Morning News, “…to search for a safe place is to search for an end to a rainbow [you] will hate once [you] find it…[B]eing hurt is a healthy by-product of risk and commitment.” For Fisk, a new mantra was born, contrary to the Depression born need for security that had dominated his earlier years: It is far [b]etter to have tried and failed than never to have tried at all. (pp.230, 231)

For the next twenty-three years, 1961-1984, Fisk’s career blossomed as a consulting water engineer based in Denver. He was sole proprietor with no employees, and he never solicited work. As readers of the “Memoir” will note, Fisk does not elaborate on his many assignments, but his thought process and principal interests may be followed in eleven notebooks of clippings he collected during the writing of this “Memoir.” These books (4,500 pages) are available to researchers at Colorado State University’s Water Resources Archive.

One of his assignments was to evaluate the water rights of the Crystal River Ranch in Carbondale. That ranch, on which I grew up during the Fifties and Sixties, was sold by my father to the Anschutz Land and Livestock Company. Almost immediately, Phil Anschutz asked Fisk to do a report on the ranch’s unique water rights. Located on a large mesa, the Crystal River Ranch has always depended on a long and vulnerable nineteen-mile ditch that weaves its way through rocky and unstable ground, up and down ravines, and under seasonal streams by means of corrugated steel flumes. It brings water from the west bank of the Crystal River to irrigate approximately 1,600 acres on the main ranch. Fisk’s 1967 report for Phil Anshutz, the wealthiest man in Colorado at that time, provided engineering data and historical background on the ranch’s use of water since Frank Sweet and Clay Jessup had constructed the original canal at the turn of the century. The report for Anschutz was typical of the work he did for other well heeled clients: the president of Continental Air Lines, Exxon Corporation, the King Ranch, front range cities, and several irrigation districts.

Why he was in such demand is explained by Fisk himself. “I had the essential ingredients for consulting: ability, integrity, reputation, and referrals. I was listed in Marquis Who’s Who in the West and Who’s Who in Colorado for many years, and many attorneys either knew me, or knew a little about me. That’s where most referrals originated. Wherever there is a water rights problem in Colorado there usually is a water attorney there and he usually needs a good water rights engineer to work with him. Few of them liked Glenn Saunders, but they all respected him. He was my mentor for six years and they respected that training.” (p.240)

Full circle! Past experiences, as painful as some of them had been, all combined in Fisk’s favor as he reached the zenith of his career in the mid-Eighties. By then it was time to retire, to enjoy Micki and his family of four children, and to spend time with his hobbies: hiking, canoeing - described by Fisk as an experience that “stirs my romantic
juices;” (p.317) --music, books, cross country skiing, and chess. He hoped and expected to live to be a hundred, and he was encouraged by Sigurd Olson, one of America’s most beloved nature writers, to get busy with his writing. “I have also looked over the News Letters you edited as part of your work.” wrote Olson, “and I can see you have absorbed much of the same philosophy and feeling for this earth as Frank [Waters] has. In everything you say are echoes of his basic understanding and the truths that come from him as naturally as breathing. Why don’t you do some writing? You already over the years have done a lot. Being an engineer specialist, dealing with hydrology and water rights, you would have a different approach, a very different one, and your words and ideas will have power because your experience has given you a unique slant. Don’t try to write like me, Grayson, Enos Mills, Leopold or John Muir. Write as only you can see the world and no one else.” (pp. 343-344)

Thus was born the idea of doing a family chronicle (From Whence They Came - A Family History, 1996), an autobiography (The Road From St. Croix Falls, 1997) and this “Memoir” (The Metro Denver Water Story, 2005) which is essentially a history of Denver’s water development, enriched by stories relating to the bigger picture of Colorado’s past and present struggles with equitable water distribution. All three volumes were written with passion, candor, and a love of the written word.

Chuck Fisk would have written more had he lived longer, and he would have become increasingly poetic in his descriptions of water. “I love the music of nature,” he wrote, “…gurgling water, wind in the trees, elk bugling, birds singing…Music, I believe, is one of the brightest colors of beauty. There are many other colors: a sunrise, a sunset, the innocent face of a child, the courage in the face of an old man or woman. I like what Somerset Maugham said in his 75th year: ‘I think there is in the heroic courage with which man confronts the irrationality of the world a beauty greater than the beauty of art.’” (p.368)

What he felt about his own demise can only be imagined. After talking to him at some length when he was already well into his Eighties, and reading his written works, I have concluded that he was a man of singular courage and common sense. As with us all, he speculated about death, but he had a gleeful, dispassionate view of his mortality. “What awaits us on the other side?” he asked. “I like what Sig Olson left in his typewriter: ‘A new adventure is coming up and I’m sure it will be a good one.’ I’ve had some fun with reincarnation, but I’m not ruling it out. I’m not ruling out the God or Spirit, proclaimed by various religions throughout the world I think there is some kind of Power, or Force, or Something, beyond our present understanding and comprehension. Whatever, my soul will be under its control. I’ll find out soon enough.” (p. 379)

Chuck Fisk left his mark as a water engineer. He was also a Renaissance man!

Daniel Tyler
Steamboat Springs, Colorado
March 2007
IN THE BEGINNING

A TOWN NEEDS SOMETHING to get it started. A lake, an ocean, a river -- something! For Denver it was a no-account river.

The South Platte's not much of a river. It's no Mississippi, or Missouri, or Columbia, or Colorado. Neither is the mainstem Platte formed downstream below its two branches, the North and South Platte. Indians living downstream near the Platte's confluence with the Missouri called it Ne Braska, meaning flat. French explorers called it La Platt, also meaning flat.

In 1720, Pedro de Villasur led a Spanish military expedition northward from Santa Fe. When he reached the river now known as the South Platte, he named it Rio Jesus Maria.

Major Stephen H. Long passed through the South Platte's broad valley in 1820. "In regards to this section of the country," he wrote in his journal, "I do not hesitate in giving the opinion that it is almost wholly unfit for cultivation and, of course, uninhabitable by a people depending on agriculture for subsistance." He included the Platte Valley in his description of the High Plains east of the Rockies as being “The Great American Desert”.

Isabella Bird, the adventurous English traveler, described the South Platte in 1873 as "shriveled into a narrow stream with a shingley bed six times too large for it and fringed by shriveled cottonwoods."

Mark Twain, a former Mississippi River pilot, knew a river when he saw one. He didn't think much of the South Platte. In Roughing It, he wrote: "The yellow, muddy South Platte, with its scattering flat sand bars and pygmy islands - a melancholy stream straggling through the center of the enormous flat plain, and only saved from being impossible to find with the naked eye by its own sentinel rank of scattering trees standing upon either bank.

"The Platte was 'up,' they said - which made me wish I could see it when it was down, as if it could be sicker or sorrier ... It's such a small thing. If it were my river, I wouldn't leave it out at night. Why, some dog would come along and lap it all up."

Louisa Ward Arps, the Denver historian, wrote that the South Platte, "has less water and more mischief than any other western river."

James A. Michener, who lived and worked in northeastern Colorado, described the South Platte in Centennial: "It's a bewildered, nothing of a river ... a mean, pestiferous bother ... a mile wide and an inch deep - too thick to drink and too thin to plow."
Michener's too thin to plow metaphor would find a better fit in Wyoming's Powder River. But his *nothing of a river* will linger long in the language of the South Platte.

The South Platte isn't much to start a town, or a city, or a metropolis. Or even a water story. I am - or was - an engineer, accustomed to straight-line thinking. A rifle, aimed at getting from here to there in the most efficient manner, without looking right or left to notice the historical scenery. But the passage of time has a way of putting all things into proper perspective. I am now convinced that my water story must be built upon a solid historical foundation. I must become a historical shotgun with a broad sweep, so that water can find its proper level within the context of historical events.

So - the first two chapters will be history, about Denver's first two decades - the foundation. Let's start with Chauncey Thomas, an early Denver historian, and see what he had to say:

*There is no reason, nor ever was, why Denver should be where it is Y What made Denver was a ferry over the Platte at what was soon named Ferry (now 11th) Street, the only crossing possible in wagons for miles up and downstream and, most of all, the comers were not interested at all in Denver, but in gold in the mountains.*

Yes, Chauncey, the comers were not interested at all in Denver City, but in gold in the mountains. But before that it was gold in Ralston's Creek, Cherry Creek and Little Dry Creek.

It started with a small goldseeking party bound for California in 1849. They paused long enough in their westward journey to pan several small tributaries of the South Platte. One of the men, John Ralston, found some gold in a small stream. They named it *Ralston's Creek*.

Word of Ralston's gold strike traveled east rapidly. It reached the small town of Auraria, in the gold mining region of northern Georgia, home of William Green Russell, farmer and occasional prospector.

Russell was a striking figure with braided whiskers and waxed moustache. Everyone called him *Green*.

Green Russell was an ex-fortyniner. Modest gold-finding success in California did not quench his thirst for the elusive metal. He decided to go to Ralston's Creek. Maybe this time ...

Green and his brothers, Dr. Levi and Joseph, and other Georgia relatives and friends formed a party and started their long trip west. They were joined along the route by others and when they reached Cherry Creek, in June 1858, the party numbered 108.

When the Russell party crossed the South Platte they lost a wagonload of food and valuable supplies. They went on to Ralston's Creek, where they found little gold. After several weeks of fruitless search, 75 men left to return to their homes.

Green Russell assembled the remaining men and issued a challenge: "If only one man will stay with me, I will remain until I satisfy myself that no gold can be found, if it takes all summer. Who will stay?"

Ten stayed, plus Green's two brothers. They went to Cherry Creek where one man found some color. Green Russell examined it and exclaimed, "Our fortune is made." Others gathered around and began digging furiously. They panned about a hundred dollars worth of gold. The excitement waned and they decided to look elsewhere.

They went up the South Platte to the mouth of a small tributary - Little Dry Creek - in present Englewood. They made a placer strike in the creek bed's sand. It wasn't much - less than a
thousand dollars worth of gold - but it made history. It started the famous *Pikes Peak Gold Rush.*

John Cantrell, a mountain man, passed through the Russell party's camp at Little Dry Creek and picked up a three-ounce sample of gold dust. He carried it with him back to Kansas City and showed it to some friends. A few other mountain men did likewise and their stories reached many receptive ears. The gold news spread like wildfire and took on a life of its own.

The Kansas City *Journal of Commerce* had a banner headline that could barely contain its electrifying news: The New Eldorado! Lesser headlines screamed, Gold in Kansas Territory!! And in the Pikes Peak Mountains! Arrival of Gold Dust in Kansas City!

All of Colorado's Front Range was called *Pikes Peak* at that time. Pikes Peak guidebooks sprouted by the dozens in Kansas City, Omaha and other towns in Kansas Territory. This statement in one of them was typical: *Gold exists all through the region. It can be found anywhere - on the plains, in the mountains and by the streams. In fact, there's no end to the precious metal. Nature herself is converting the very sands of streams to gold.*

A party of about fifty from Lawrence, Kansas Territory, decided to go to the Pikes Peak gold fields. It included two wives. One of them was a 20-year-old bride named Julia Holmes. She wore fluffy pants called bloomers, named for Amelia Bloomer, the militant editor of a woman's rights publication.

When the Lawrence party camped at the foot of Pikes Peak, Julia heard that very few men, and no women, had reached the summit. So Julia, with her husband and two other men, climbed to the top of Pikes Peak on August 5, 1858.

* * *

Let's pause in our historical journey and consider *Pikes Peak.* More specifically, Zebulon Montgomery Pike.

As a 26-year-old army lieutenant, Pike was sent up the Mississippi in 1805 to find its headwaters. The highest elevation he reached was the top of a 500-foot hill in Iowa, near where the Wisconsin joins the Mississippi. It has been known ever since as *Pikes Peak,* now part of an Iowa state park. Perhaps it should be called *Pikes Peak I.*

The next year - 1806 - Lt. Pike and a small band of soldiers were sent west on a mission which included finding the origin of the Arkansas River. Then he was to go south to the headwaters of the Red River and follow it back to the Mississippi. Such was the military's misunderstanding of the geography of the region at that time. And their misunderstanding of Pike's ability to find the headwaters of any of these streams - Mississippi, Arkansas, Red.

Pike's fame would follow a torturous route. He and his men went west to the Arkansas and traveled up it to a camp site which would now be in downtown Pueblo. In the distance they saw a high peak, which Pike named *Grand Peak.* Let's climb it, Zeb probably said to his troops. It was late November.

Pike's journal tells us that he and his men started walking towards Grand Peak wearing light overalls and no stockings. They encountered "middle-deep" snow and temperatures that reached 4 degrees below zero. Pike wrote in his journal:

*The summit of the Grand Peak, which was entirely bare of vegetation and covered with snow, now appeared at a distance of 15 or 16 miles ... and would have taken a*
whole day's march to have arrived at its base, when I believe no human being could have ascended to its pinical (sic).

Pike decided not to climb Grand Peak, (which was fifteen miles farther away than he thought anyway), but they did climb a nearby peak, probably Mt. Rosa. Next, the group headed up the North fork of the Arkansas River (called Four Mile Creek); then overland to the South Fork of the South Platte. The trek continued over a mountain pass until they found another river, which Pike thought was the Red.

Wrong again. It was the Arkansas!

Pike's journal tells how he and his party spent Christmas Day 1806:

Dec. 25. It being stormy weather and having meat to dry, I concluded to lie by this day. Here I must take the liberty of observing that, in this situation, the hardships and privations we underwent were on this day brought more fully to our mind, having been accustomed to some degree of relaxation, and extra enjoyments.

But here, 800 miles from the frontiers of our country, in the most inclement season of the year - not one person clothed for the winter - many without blankets, having been obliged to cut them up for socks, etc., and now lying down at night on the snow or wet ground, one side burning whilst the other was pierced with the cold wind - such was the situation of the party, whilst some were endeavoring to make a miserable substitute of raw buffalo hide for shoes, etc.

Pike and his men pushed on, in the dead of winter. They never did find the Red River. Their journey ended when they reached Alamosa in mid-February 1807, where a Spanish patrol found them.

Pike continued his army career and was a general when he was killed in action in the War of 1812 on April 27, 1813. The name Grand Peak was changed to Pikes Peak to honor him. Pikes Peak II?

Why isn't it spelled Pike's Peak? Ed Quillen, a Denver Post columnist, recently wondered about that. "I think 'Pikes Peak' is barbaric," he wrote. "There was no one involved named 'Pikes' ... But the U.S. Board of Geographic Names abhors apostrophes."

Of course, Pike's isn't the only Colorado peak sans apostrophe. How about Longs Peak and Byers Peak and many others?

* * *

It was much later - September 6, 1858 - when the Lawrence party arrived at Little Dry Creek. They found the diggings cleaned out and the Russell party gone. They decided to salvage something from their long journey by staking-out a townsite. They called it Montana City.

On today's map, Montana City would be about where West Evans crosses the South Platte. The Lawrence party found a better site downstream, on the east side of Cherry Creek near its mouth. They called it St. Charles.
They staked out an area of about a square mile. It could now be described as extending south from the 20th Street viaduct to Cherry Creek; east to Broadway; north to Larimer Street; and west to the South Platte River. Coors Field would be just northeast of it. The Montana City site was abandoned.

Historians don't agree on the origin of the name St. Charles. Some say it relates to King Charles III of Spain, who owned the land in Father Esclante's time. A more likely version traces the name to St. Charles, Missouri, home of Charles Nichols, a town promoter with the Lawrence party.

They called him Old Charlie, but Nichols was only 38-years old.

The Lawrence party formed the St. Charles Town Company and obtained "title" to the land from two trappers who lived at the mouth of Cherry Creek with their Arapaho wives. William McGaa and John Simpson Smith were called squawmen.

McGaa sometimes called himself Jack Jones when he wanted to escape the burden of past indiscretions. At other times he claimed to be the son of a British nobleman who had run away to sea as a boy and eventually settled in the Pikes Peak region. He was a trapper, scoundrel and, in his later years, a drunk.

Smith wasn't much better. He was complex - "a mixture of goodness and evil, cleverness and meanness, caution and recklessness." He lived among the Indians and was three times married to Cheyenne women. In January 1859, after a dance, he broke his squaw's back with a three-legged stool for dancing without his permission.

On better days, John Simpson Smith was an excellent Cheyenne-Arapaho translator, very useful during treaty negotiations. At such times he was affable, given to back slapping, and his white friends called him Uncle John.

The Lawrence party naively obtained title for their St. Charles townsite from the two squawmen, McGaa and Smith. The Arapahos owned the land by treaty with the U.S. government, but the concept of land ownership was alien to them. They did not object when the squawmen claimed title to St. Charles townsite on behalf of their Arapaho wives. McGaa and Smith were given shares in the St. Charles Town Company for their land "title."

The Lawrence party decided to return home for the winter. They departed four days after the Russell party returned to Cherry Creek. They entrusted their interests to McGaa and Smith and left Old Charlie Nichols to build a cabin on the townsite as evidence of their claim.

Green Russell and his brother, Oliver, decided to winter in Kansas City and return in the spring with men and supplies. Levi Russell, an M.D., remained at Cherry Creek with other men from the Russell party. They would establish another townsite, across the creek from St. Charles.

On October 20, 1858, William Foster of the Russell party staked-out a townsite of about 2,000 acres south of the South Platte and west of Cherry Creek. Dr. Russell named it Auraria, after his home town in northern Georgia. It came from the Latin word for gold - aura.

They formed the Auraria Land Company and went along with the squawmen's title charade by giving them shares in the company. Then they incorporated Indian Row into the townsite.

Indian Row was a group of six rough-hewn log houses and a few tents comprising the first white settlement at the mouth of Cherry Creek. It included the first trading post and the residence of a Mormon - Samuel N. Rooker - and his family. It also included the residence and business place of Addie LaMont.

Addie LaMont was a beautiful, dark eyed girl, 19 years old. She came west from St. Louis in a wagon train with her husband, a clergyman. He disappeared one night during the journey with a
lady of doubtful reputation.

When the wagon train reached Indian Row, this beautiful young girl announced to her unsuspecting fellow travelers, "As a God-fearing woman you see me for the last time. As of tomorrow I start the first brothel in this settlement. In the future my name will be Addie LaMont. Any of you men in need of a little fun will always find the flaps of my tent open."

*   *   *

While all of this was going on at the St. Charles and Auraria townsites, another party left Leavenworth, K.T. on October 3, 1858, bound for Pikes Peak. Their leader was William Larimer.

William H. Larimer, Jr., was a veteran town planner. He served as a major general in the Pennsylvania militia. He was an active abolitionist and he had been a candidate for governor in Pennsylvania.

Larimer founded Larimer City near Council Bluffs, Iowa. He moved to Nebraska in 1855 and became a member of the Nebraska territorial legislature. He was in Leavenworth, Kansas Territory, when the Pikes Peak gold bug bit him.

It was a bug of a different variety. Gold was not what Larimer wanted most. He wanted to lay-out a townsite and profit from the sale of lots and real estate.

It was the 22nd of November 1858 when Larimer, accompanied by a small party, reached Cherry Creek. He quickly evaluated the townsite situation and ordered his men to drive stakes into the heart of St. Charles.

Old Charlie Nichols saw them. "You can't do that," he shouted. "It's been surveyed and staked out for over a month. We have a prior right. This cabin proves it ... I am not alone. We have a company ... the St. Charles Town Association. We drew up our constitution the last of September and William Hartley did the surveying in October. He ran lines for a few streets and our secretary, Dickson, drove that stake over there claiming a square mile."

"There ain't no stake there," Larimer's man declared. The Lawrence party's stakes were gone, removed during the previous night. Larimer's men ignored Nichols and placed four cottonwood logs on end to mark a square area of about 2,200 acres, east of Cherry Creek and south of the South Platte. It extended from the river and creek to a point near present 13th Avenue and Logan Street.

General Larimer jumped the St. Charles townsite claim. There's no doubt about that. There are several versions of how he did it. The above account by the late Denver historian Caroline Bancroft is one. Some say Larimer did it by persuasion, aided by a bottle of bourbon. Others say he gave Nichols a choice: hanging or joining Larimer's town company. Regardless of how Larimer did it, the way he did it inadvertently set the tone for Denver's subsequent annexation policy: Take it!

Larimer called his townsite Denver City, to honor James Denver, the governor of Kansas Territory, which then included his townsite. He wanted to convince the political powers in K.T. that his townsite claim was valid. He did not know that James Denver had resigned from the K.T. governorship and had returned to Washington, D.C. When he found out, he gave the new governor a hundred lots in Denver City.

Samuel Medary was the new governor of Kansas Territory. Fortunately, Larimer did not change the name of the new townsite to Medary City.
Denver City was named, probably wrongly, for James Denver - lawyer, politician, soldier, stranger to his namesake city. He fits much better in California history. Since we cannot escape James Denver in any account of our city's beginning, we should know something about the man. He was born in 1817 on a farm near Wilmington, Ohio, where he lived until about 1838. He became a school teacher and law student in Kentucky and graduated from a law school in 1844. He practiced law in Ohio and Missouri.

Denver served with distinction in the U.S. Army as a captain in the war with Mexico. He joined the California gold rush in 1849, then engaged in the mining trade in California. He killed a man in a duel and was elected to the California Senate. He headed an expedition that rescued an immigrant party snowbound in the High Sierra. Denver served as California's secretary of state and as a U.S. Congressman from California.

When Denver did not seek re-election to Congress, he was appointed U.S. Commissioner of Indian Affairs. In 1857, President Buchanan asked him to become governor of strife-torn Kansas Territory. He resigned in October 1858 and returned to his former position in the nation's capital.

President Lincoln promoted James Denver to brigadier general in 1861 and he served in General Sherman's army in the Civil War until 1863. Then he returned to law practice and politics. He was considered twice for nomination as president, but didn't quite make it. He died in Washington, D.C., in 1892 at age 75 and was buried in Wilmington, Ohio.

* * *

The Denver City Town Company proceeded to lay-out its streets. Colonel Samuel Curtis, a civil engineer, established a baseline along the old wagon road that extended to the South Platte. It later became 15th Street. Then he established another baseline at right angles that passed in front of Larimer's cabin. Other streets were laid-out parallel to these two baselines.

The Auraria Land Association laid-out streets in Auraria. They were parallel and perpendicular to Cherry Creek.

Larimer and McGaa, on behalf of the Denver City Town Company, initially named the principal streets in their townsite. Lawrence and Larimer were named for members of the original Town Company. Blake Street honored the first merchant, Charles H. Blake. Arapahoe Street honored the local Indians. Wazee was McGaa's latest wife. Wewatta was his mistress. It's the Arapaho word for clear water. McGaa named a street for himself.

Arapahoe - Arapaho - which is it? It's both, unfortunately. Arapahoe is attached to more names in Colorado: the county, an important street in downtown Denver. In the telephone directory's white pages, businesses all use the e ending.

Indians on Colorado's eastern plains were known as Arapahos. Colorado has Arapaho Pass, Arapahoe Ski Area and Arapaho National Forest. Some say the word Arapaho means Dog Eater.

That little letter e - it's so important. Add it to corps and you get corpse. Add it to dam and you get dame. It has the best location on all keyboards. It has more pieces in the game of Scrabble than any other letter.

The letter e? Where was I? Oh, yes, Arapaho and Arapahoe. We'd better move on.

* * *
McGaa's son, William Denver McGaa, was born in Auraria in March 1859. He was part Indian, so early chroniclers didn't report him. The first white child born in the Cherry Creek settlement was John Denver Stout, born five months after baby McGaa.

The reputation of William McGaa deteriorated after the street naming. He became a drunken nuisance and, in 1866, McGaa Street was renamed Holladay, for Ben Holladay, owner of the Central Overland California & Pikes Peak Express Company.

Holladay Street, unfortunately, became known as Denver City's Red Light District. The name Red Light originated with railroad signals. The words, in railroading, meant stop. Brakemen were expected to have their red lanterns with them at all times. They were not allowed to bring their lanterns into bordellos and cribs on Holladay Street, so they hung them outside. Hence the name, Red Light District.

The Holladay family did not want its prestigious name associated with the center of prostitution in Denver City. In 1887 they petitioned Denver City Council to change the name to Market Street.

Market Street seemed to be an innocuous name, but businesses on the street outside of the red light district did not want to be identified with the flesh market. In 1897 Market Street east of 23rd became Walnut Street. In Auraria, it was renamed Walnut Street.

What about Old Charlie Nichols and John Simpson Smith? Didn't they deserve to have streets named for them?

Apparently not. As a final insult to Nichols, General Larimer moved into old Charlie's cabin while his mansion was being built. On Larimer Street, of course.

Denver City's 1858 Christmas was brightened by the arrival of Lacy Richens Wooton, a trail blazer and entrepreneur. Wooton carried a much admired reputation as a scout and Indian fighter. He was better educated than most of the frontiersmen, but you wouldn't know it from his talk.

When the name of Vasquez Fork was changed to Clear Creek, Wooton protested vigorously. "Cler Crik ain't cler," he shouted. "It's muddy."

Wooton arrived at the town settlements, Auraria and Denver City, well equipped with entrepreneurial instincts and two heavily loaded wagons. He pitched a large tent and knocked the heads off two barrels of liquor he had purchased in Taos, New Mexico. He called it Taos Lightening - a concoction he claimed was of highest quality. Others said it would kill at forty yards.

Before unloading merchandise from his other wagon, Wooton invited everyone to attend his Christmas party. News of free booze spread rapidly. Before nightfall men from both settlements "got hilarious" and Wooton became Uncle Dick - the name by which he would be affectionately known in Colorado history.

The men were so grateful they gave Uncle Dick some land in Auraria, where he built a saloon called Uncle Dick Wooton's Western Hall.

General Larimer decided to stake-out another townsite across the river. In a letter to his wife, Larimer described how he and Collier crossed the South Platte:

I had a cold bath. I waded with my boots on and after crossing I put on my buffalo shoes, but my feet were frozen. I took off my coat and put my feet in the sleeves and Mr. Collier rubbed them until he restored circulation. The river was frozen with the exception of about thirty feet which we waded in three feet of water. We had a blanket which we placed on the ice to change into our clothes.
Colorful, dangerous characters were seen on the streets of Denver City and Auraria during that first historical winter of 1858-59. *Big Phil*, the Cannibal, was one. His real name was Charles Gardner. His western name noted his size and his coming from Philadelphia. He was big, shaggy, dirty and repulsive. He lived with the Arapaho along the South Platte.

*Big Phil* had turned cannibal on several occasions when he was caught in snow storms. He openly boasted of having devoured two of his Indian wives, an Indian brave and a Frenchman. He did not stay long at the Cherry Creek settlements, fortunately. He was killed in Montana in 1874.

General Larimer tried to brighten that long, cold winter by issuing an inspirational pronouncement:

> We are satisfied by our prospects here and (we) intend to stay until this country is fully explored. There is wealth here not only in the mines, but in the soil.

> Reports of rich strikes are coming in from the mountains whose stores of precious metal may never be exhausted. And already men are making arrangements to settle on the land in the spring and go to farming. They are getting lumber to build houses.

> The late financial panic which has prostrated every branch of trade will bring an influx of enterprising people. We have innumerable treasures sufficient to justify immigration to the fullest extent! ... We have laid the foundation for a city, an outlet for the gold bonanza and for the Rocky Mountain Region.

It was the first public indication of Larimer's interest in agriculture. No one else seemed interested, until William Byers arrived.

*Byers was interested in agriculture - and much more. It didn't take him long to make a big splash in Denver City's historical waters. Bigger, by far, than Larimer.*

* * *

William Newton Byers was born in Madison County, Ohio, in 1831. His great-grandfather and his grandfather served with distinction in the Revolutionary War. His father was born in Pennsylvania and moved to Madison County, Ohio, where he cleared and developed a 300-acre farm. He later farmed near Muscatine, Iowa.

Byers worked summers on the family farm in Ohio and attended public school winters. He was a student at the academy of West Jefferson, Ohio, during the winter of 1848-49. In 1851, he became a government surveyor in western Iowa. Byers was a U.S. government surveyor on the West Coast in 1852-53 and in 1854 he returned to Nebraska, where he was a U.S. Surveyor. He was elected alderman in Omaha in 1853.

Byers married Elizabeth Minerva Sumner in November 1854 in Muscatine, Iowa. She was a granddaughter of Robert Lucas, who was governor of Ohio and later twice governor of Iowa. Elizabeth grew-up on the family farm, but she and her family later moved to Iowa, in the shadow of their successful patriarch. Will Byers found her there, courted her vigorously and sent her some poetic bouquets:
Something in every part of thee
To praise, to love, I find;
But dear as is thy form to me,
Still dearer is thy mind.

Byers was dashing, persuasive and he had a way with words. Will and Elizabeth were married in 1854 and they settled in Omaha. Will was elected to Omaha's first town council. He became a member of Nebraska's first territorial legislature in 1854-55.

While living in Omaha, Byers wrote one of the 31 guidebooks to the Colorado gold fields published in 1859. Elizabeth - Libby - noted her husband's writing ability and saw future possibilities in the newspaper business in the Cherry Creek settlements. She had heard countless stories about people going west looking for gold and she knew such people hungered for news.

William Byers, endowed with ancestral pioneering spirit, left Omaha with two friends, a thousand-pound printing press and printing supplies. All were loaded on two wagons. After traveling six weeks they arrived at Cherry Creek on April 20, 1859.

The heavy handpress was hauled up to the second floor of Uncle Dick's log saloon, the only two-story building in town, near the present intersection of Speer Boulevard and Auraria Parkway. Byers selected it because it had a plank floor and the only glass windows in town.

Three days later, Byers published the first edition of the Rocky Mountain News, beating a competitor by 20 minutes. Jolly Jack Merrick arrived eight days before Byers with a printing press. But he did a little prospecting and socializing before setting up his press.

After losing the close race to become the settlement's first newspaper, Jolly Jack printed one issue of the Cherry Creek Pioneer. Then he sold his press and equipment for $30 and left town to search for gold in the hills.

The first edition of the Rocky Mountain News had a boat departures column. It reported boats that had embarked carrying passengers bound for the States. Then Byers added, "May they have a prosperous journey down the Platte."

Before going to press, Byers had to add a postscript: "Since writing the above we learn that two of the above boats have been upset, their freight lost and their passengers returned to try their fortunes in the mines again."

The 1858 gold strike, triggered by the Russell party's modest strike at Little Dry Creek, petered out. The comers gradually realized that the Pikes Peak guidebooks had betrayed them. General Larimer became the focal point of their wrath, although he had not been part of the deception. His bodyguard, Captain Pegleg Bassett, was murdered.

Byers, as one of the many publishers of the unfortunate Pikes Peak guidebooks, was branded The Rocky Mountain Liar by some of the disillusioned, but D.C. Oakes, another publisher, fared worse. He stopped at a fresh grave when traveling to Cherry Creek from Missouri and read this inscription on the wooden marker: "Here lies the body of D.C. Oakes. Killed for aiding the Pikes Peak hoax."

Panic seized the disillusioned gold seekers and they rushed back to the States. A faded Pikes Peak or Bust was still visible on the side of the canvas top of many prairie schooners. Underneath it, on some wagons, in brighter paint, was this: Busted by Gosh. Or, Bound for America.

Byers returned to Omaha in the summer of 1859 and put his wife and their two small children, along with all their possessions, in a covered wagon drawn by two horses. It was a long,
difficult trip and cultured, refined Elizabeth Byers later remarked, "Had I known the hardships and experiences which lay before me in this pioneer country, all the gold in the mountains could not have induced me to come. But, on the other hand, the experiences developed in me traits and qualities which I knew I would not have possessed otherwise."

Libby's hardships included the loss of her first two children, who died before their second birthdays. And her husband's amorous adventures.

*Wandering Will*, as Byers called himself in his diary, had a wandering eye for beautiful women. He was attracted to Hattie Sancomb and became one of her many suitters, while publicly portraying himself as a family man.

The novelty of Byers' affair with Hattie eventually wore off and he tried to end it. There are various accounts of how he did it, but all include Hattie going after Will with a pearl-handled pistol. She didn't put an end to Will, but she ended his political life. He had been - before Hattie - the popular choice to become the first governor of Colorado Territory.

Libby endured the humiliation with courage and understanding. Tom Noel, Denver historian, recalled her recently in an article in the *Rocky Mountain News*:

*In 1899, Elizabeth declined a stained-glass window in the Colorado State Capitol, saying her family was already honored there by her husband. With a tinge of bitterness, she added: 'While I gladly accord my husband every honor he is entitled to, and rejoice that he is so honored and appreciated by his fellow citizens, I remember that he and I stood shoulder to shoulder through the trials and hardships of pioneer life, and that I ought not to stand alone in the light of reflected glory.'*

Noel mentioned that before Libby Byers died in Denver in 1920, she told the younger ladies, "We pioneer women raised Denver. Yes, indeed, we raised her from a lusty, noisy infant to the sedate, beautiful city she is today."

William Byers loved to climb Colorado's mountains. He attempted to climb Longs Peak in the early 1860s, but didn't reach the top. He tried again in 1868 and succeeded. His climbing party the second time included John Wesley Powell, the one-armed, courageous, adventurous man who towers historically above all others in the world of water in the West.

It is fitting that a high peak near Fraser is named for William Byers. And Byers Canyon, between Granby and Kremmling. There is a Colorado town named for him.

We will leave colorful Will Byers now and pick up his trail again later.

Remember Big Phil the Cannibal? George Jackson was one of his friends. He was one of the stayers, after the 1858 gold rush. After many discouraging searches for gold, George happened to be on Chicago Creek, a small tributary of Clear Creek, above present Idaho Springs.

It was the cold morning of January 7, 1859 and Jackson built a fire on a sandbar. He used his hunting knife to dig in the warm sand near his fire and he uncovered a large gold nugget!

Jackson said later, "I jumped up and down and told myself the story I would tell Tom Golden and Black Hawk when I got back to our camp under Table Mountain." His companions refused to return with him to the site of the gold strike. They stayed in their comfortable camp, now in the City of Golden.

Jackson met another gold-seeker, a Georgian named John Gregory. He was described as "a wild, harum-scarum drinker and gambler, practically uneducated, although he could read and
write." He was also described as "a ragged, sorry-looking specimen wearing half an overcoat."

Gregory tried to find the location described by Jackson. But instead of going up Chicago Creek, he went up the north branch of Clear Creek. He was near the present boundary between Black Hawk and Central City, on May 18, 1859, when he found gold in his first panful.

It was the beginning of the Gregory diggings - later called "the richest square mile on earth." It triggered Colorado's second gold rush.

The 1859 gold rush was much bigger. Nearly 100,000 gold seekers rushed to Clear Creek. A Kansas newspaper editor counted 12,000 wagons in ten days, all bound for Pikes Peak. A rare copy of the 1859 Denver Directory described the scene:

_They came in all kinds of conveyances and in all possible shapes. Their household-laden 'prairie schooners,' slowly pulled onward by sorry-looking quadrupeds of every description, were followed by memorable, but ill-fated, handcarts and their human means of motion, and the rear was usually brought up by the infatuated poor devils who had the fool-hardiness to venture across the desolation of the Great Plains with their all upon their backs and now landed on Cherry Creek in rags and filth with shoeless and swollen feet._

It was one of the largest mass migrations in American history.

Green Russell returned and hurried up Clear Creek in May 1859. He made a big gold strike three miles from Gregory's diggings, in what later became known as Russell Gulch. It made Green Russell a very rich man.

* * *

Horace Greeley, famous editor of the _New York Tribune_, arrived at the Cherry Creek settlements in June 1859. He came by stagecoach with a group of eastern newspaper men.

Greeley told his _Tribune_ readers that Denver City and Auraria were plagued by too little water and that their population of several hundred - mostly men - were deprived of almost all creature comforts, except whisky. He warned, "Next to outright gambling, the hardest way to obtain gold is to mine for it. A good farmer, or merchant, will usually make money faster ... by sticking to his business than by deserting it for gold digging."

Greeley was able to look beyond 1859 and predict that an agricultural empire would be created in northeast Colorado. He wrote that the key would be construction of "high and tight dams" in the mountains, so that water that fell in the mountains could be diverted downstream to the fertile, but dry, prairie, for "manufacturing or for irrigation, as the need shall be most urgent."

It is remarkable that a man from New York City would understand the importance of water in semi-arid Colorado Territory. He told his _Tribune_ readers, "This region is destined to be a favorite resort and home of civilized man. I have never visited a region where physical life could be more surely prolonged or fully enjoyed."

Some miners decided to play a joke on the famous Mr. Greeley. They salted a partly-worked mine by using a shotgun to spray gold dust into the diggings. They showed Greeley how to pan gold and took him to the prepared spot. Greeley was amazed to see the gold in his pan. "Gentlemen," he announced with dignity, "I have seen with my own eyes and the news of your rich discovery shall
Some historians say Greeley's famous Go West Young Man, Go West in the Tribune was largely responsible for Colorado's 1859 gold rush. At least it accelerated it.

* * *

The golden days of 1859-1861 did not last. Bust again replaced boom. The gold was there, in great quantities, but it was mixed with other metals and difficult to remove. Hard-rock mining, unlike placer diggings, was not suited to individual entrepreneurs. It was complex and it required large amounts of capital.

Faced with little money, no gold, and the prospect of a long, cold mountain winter, most of the disillusioned gold seekers wanted to return home. The 1859 Directory told the bizarre story of the go-backers:

All possible contrivances were resorted to by those who were unprepared for a return trip, to raise the wherewithal to accomplish the journey home.

Every morning the clamorous oratory of a street auctioneer, who let his powers of persuasion play upon the ears of a generally numerous but moneyless audience, could be heard on the principal streets, offering rifles, pistols, clothing, boots, picks, shovels - in fact, whatever pertains to a regular outfit, at prices that did, in most instances, not cover one-tenth of the original cost.

And then, the last spare shirt, the revered new boots, being sold and the proceeds pocketed, off they went afoot, their packs on their shoulders, on horseback and in wagons.

The stayers found that Denver City was a rough town in 1859. There were more than 30 saloons, but no schools, libraries, hospital or churches. Prostitution was the second largest business. Many residents lived in tents. Arapahos lived in tepees near the South Platte.

The second gold rush brought many lawless, vicious men to the Cherry Creek settlements. There were many murders, with most survivors successfully claiming self-defense. Nearly every man carried a revolver and a knife and they were frequently used. There were no organized courts, so residents set-up a People's Court.

The People's Court convicted and hanged two men in 1859. The first was a young man named Stoeful, who killed his brother-in-law. He was hanged on a cottonwood tree at present Tenth and Wazee Streets. The executioner was Noisy Tom Pollack, Auraria's blacksmith. Stoeful and his victim were buried in Denver's first cemetery, "on a high sandy hill up Cherry Creek."

There were a few other plantings on the high sandy hill. Jack O'Neil, a prosperouos and popular gambler, was shot in ambush after a card game turned sour. The burial ground became known as Jack O'Neil's Ranch. Many years later the bodies were removed and the old cemetery site became part of Denver's Cheesman Park.

The stayers tried to be optimistic. Richard Whitsett, president of the Denver City Town Company, platted and surveyed lots, then sold them. Or tried to. He needed more business, so he
wrote to a prospective immigrant:

> And now our beautiful city may be said to be on its feet. It will be the Queen of the West, and it is where you ought to come and settle while land is cheap. Come and put your money in here with us and you will never rue the day you done it.

> Those southern desperados from Georgia who located their city on the west side of Cherry Creek have reached the end of their rope ... Their doom is sealed already and Denver is the only bob-tailed hoss that I have bet all my money on and you and me will live to see marble palaces lining its streets.

Byers moved his printing office and his big, heavy printing press to the neutral dry bed of Cherry Creek, which divided the two towns. It was a stilted structure placed well above the placid water.

The newspaper's name showed no favoritism. First, Cherry Creek, K.T., appeared on its masthead. Then Auraria and Denver. None of this smoothed ruffled civic feathers.

Byers recognized the need to consolidate Auraria, Denver City and Highland (a town only on paper). He needed Larimer's help. He praised and flattered the general in his newspaper. He encouraged Larimer to take the lead in consolidation efforts.

Golden City inadvertently helped the consolidation efforts. Its leaders, called the Golden Crowd, were making a strong bid for regional dominance.

The Golden Crowd wanted two things: the area's commercial trade and transfer of the territorial capital to Golden. They achieved the latter goal for only a short period, but their efforts aroused Larimer. He looked west and declared, "Counter-measures of consolidation and more congenial relationships between Denver and Auraria are not our only alternative but an absolute necessity for the survival of all."

On December 3, 1859 the Provisional Legislature passed an "Act to Charter and Consolidate the Towns of Denver City, Auraria and Highland." The act declared the three towns to be "hereby erected into a city by the name ... of the City of Denver, Auraria and Highland."

It was an awkward, unlikely name aimed at overcoming local jealousies, but it was a start. In accordance with provisions of the provincial charter, an election was held on December 19, 1859 to ratify the new city charter. It was ratified by a vote of 377 to 302.

On December 26, 1859 Denver and Auraria citizens held a joint meeting and agreed to call the consolidated town Denver City. In late March 1860 Auraria citizens held a mass meeting and adopted this resolution:

> Whereas, the towns at and near the mouth of Cherry Creek are and ought to be one; therefore be it resolved, that, from this time, Auraria proper shall be known as Denver City, West Division.

Aurarians weren't entirely ready to let go. The resolution provided that the Auraria town council should remain intact and that the title to the town site should remain with the Auraria Town Company.

Forget the ambiguities. It was time to party. Or, at least, time to celebrate the consolidation
of Auraria and Denver City.

On the cold, clear, moonlit night of April 5, 1860, residents from both sides of Cherry Creek gathered at the recently constructed Larimer Street Bridge, now a symbol of civic unity. Celebratory gunfire preceded several speeches. General Larimer was the main speaker. Andrew Sagendorf of Auraria read the resolution of consolidation. It all ended with rousing cheers and another burst of gunfire.

The first step toward regional dominance by Denver had been taken. Most of the crowd returned to saloons to celebrate, aided by Taos Lightening supplied by Uncle Dick.

Larimer gloated a little in a letter to his family back East. "The Auraria Town Company have been cursing me ever since I came into Denver, but the other night they turned in and gave me a donation of four lots ... This is a nice present. They and I are now cheek-by-jowl good friends. They say they highly appreciate my energy, that I have beaten them fairly."

Consolidation did not decrease lawlessness in Denver City. An outlaw group called the Bummers roamed the streets. Byers launched a protest campaign in his newspaper. The Bummers kidnapped him and took him to a saloon, where they threatened "to stop his attacks by stopping his breath." A friend helped Byers escape through a back-door.

A vigilante group known as the Stranglers was organized to fight the Bummers. They succeed in driving the bad guys out of town and residents relaxed enough to think about organizing some kind of government that could bring law and order. But first they had to decide on some form of broader government. Should they recognize the jurisdiction of Kansas Territory, or should they try to create a new territory? Or should they try to create a state?

In November 1858, a group of 35 men met in Auraria to discuss the problem. They decided to play both territory angles as a temporary expedient. They elected a delegate to the Kansas territorial legislature and they sent a man to Washington to lobby for creating a new territory.

In February 1859, the K.T. legislature created five counties in the western part of its territory. The Cherry Creek towns were placed in Montana County. But it was only a name, because the elected officials never took office. So the citizens of Auraria and Denver City met in Auraria in April 1859 to start the process of creating their own territory or state.

Territory or state? The territory proposal won by a vote of 2,007 to 649. In a special election in October 1859, Beverly D. Williams was elected to represent the new Territory of Jefferson in Congress and delegates were elected to organize a constitutional convention. The convention framed a constitution, which was later adopted.

The provisional territorial legislature met in early November 1859, and elected officials took office. Byers removed Kansas Territory from his newspaper's masthead and replaced it with Jefferson Territory.

Always optimistic, Byers brightened his front page with this statement. "We hope and expect to see it stand until we can boast of a million people and look upon a city of a hundred thousands souls."

The territorial legislature met in early December 1859 and passed an act to charter Denver City. The consolidated city was given corporate powers, power to own real and personal property inside and outside the city and various other powers a city needs. In a vote on December 19, 1859, the charter was ratified and the candidates were voted into city offices.

Was it legal? Sort of. It could function, pending actual legal action in Washington, as long as it was backed by public opinion. Strictly speaking, Jefferson Territory was illegal and so was the
The municipal machinery moved very slowly, as Clyde King noted in his *History of the Government of Denver*, published in 1911:

No sooner had the new officials assumed office than events arose that made all such traditional municipal machinery impotent as a governing agency. In the very month that the council held its first meeting, the unruly element in the city became wantonly destructive.

One party of men took armed possession of the Denver town site under pretense of securing title through the agriculture preemption law. Only after a show of force by the citizens of Denver did they desist in their attempt.

In the same month there occurred an armed broil, currently known as the 'turkey war' between two bands of reckless men. A vigilance committee's prompt action averted bloodshed.

About the same time, a gang of thieves was operating all too successfully in Auraria. A public meeting was held and the gang was ordered to leave the place within five hours. A military company ... patrolled the streets. The next day the thieves disappeared, though not before they twice attempted to shoot principal witnesses against them. Such disorder continued in both towns throughout the succeeding months.

Denver City's citizens were discouraged. One wrote this in a letter to his former home in Vermont: "There is no hope of perfect quiet in our governmental matters until we are securely under the wing of our National Eagle."

In late December 1859, the board of directors of the Denver City Town Company sent S.W. Beall, an ex-governor of Wisconsin, to Washington to promote Denver's interests. His primary objective was to secure a territorial designation. As compensation he was given "one original share in Denver City."

Beall took with him a petition signed by 831 residents, which prayed for "early extinguishment of the Indian land title, a subsequent survey and sale of the public lands, the establishment of an assay office, and the creation of a new territory from contiguous portions of New Mexico, Utah, Kansas and Nebraska."

Two bills were introduced creating a new territory, but neither passed. Congress did approve, however, favorable disposition of the Indian Treaty and the start of overland mail service. Legislation was reintroduced in the next Congress and approved, after southern members of the Senate withdrew.

Congress authorized creation of the Territory of Colorado in February 1861. Its boundaries embraced 103,478 square miles, equal to the combined area of Pennsylvania, New York, Massachusetts, and New Jersey.

President Lincoln named territorial officials and a territorial legislature was elected. One of its most important early acts was to grant Denver City an *official* charter. It defined the boundaries
of the city, which included the three original Cherry Creek towns, and it fixed the procedure for annexing additions. It defined the city's powers, city council's organization and procedures and it provided for appointment of executive officials. It was essentially the same as the previous unofficial territorial charter.

The legislature of Colorado Territory created the County of Arapahoe, with Denver its capitol. It revised Denver City's charter, but did not change its power to annex land. It acquired title to lots within the original congressional land grants.

The congressional land grant law of 1844 provided for entry of town sites of 320 acres. Each of the three Cherry Creek towns entered 320 acres. When they consolidated, the total 960 acres was in legal limbo until 1864, when Congress passed the Relief Act of the Citizens of Denver. It gave Denver City legal title to the 960 acres.

A probate judge for Arapahoe County paid the U.S. government $1.25 an acre for the grant land, then placed it in trust. Owners of land within the grant were given 90 days to file their claims. Unclaimed land became city property. There were many conflicts over titles and much litigation, some of which was settled by the Territorial Supreme Court.

General Larimer became depressed over crime in the streets and by lack of interest in agriculture. He left Denver in 1861 and went to Washington, where he lobbied for appointment as governor of Colorado Territory. When that failed, he and Samuel S. Curtis went east to command Union troops in the Civil War. Then both of these town founders disappeared from Denver history.

* * *

President Lincoln appointed Colonel William S. Gilpin to be the first governor of Colorado Territory in May 1861. Gilpin was young, rugged, handsome, gifted with a golden voice and persuasive powers. But his view of Colorado's future was very unrealistic.

"Gilpin saw the West," wrote Wallace Stegner, "through a blaze of mystical fervor, as part of a grand geopolitical design, the overture to global harmony; and his future conception of its resources and its future as a home for millions were as grandiose as his rhetoric, as unlimited as his faith, as splendid as his capacity for inaccuracy."

Gilpin was described by Denver historians Stephen Leonard and Thomas Noel as "a man of deep foresight and shallow common sense." He visualized that irrigation would turn the West into a new Garden of Eden. And much more.

Gilpin discovered that governing Colorado Territory was not the prestigious job he anticipated. The executive branch consisted of himself, a U.S. Marshall and a secretary. The seat of government occupied three small rooms above a harness shop on Larimer Street.

The Civil War started in January 1861 and in late July Governor Gilpin was ordered to raise two companies of infantry for the Union cause. There was no money in the territorial treasury, so Gilpin issued $375,000 in federal promissory notes to fund the First Colorado Volunteers. The U.S. Treasury Department initially refused to honor the unauthorized notes and Gilpin's bad checks forced him to resign.

Gilpin found a place in the history of Denver, Colorado and the West. He owned most of the land where Denver's present Civic Center is located. Colorado's Gilpin County was named for him. He wrote three books about the importance of railroads and mining. His maps were recognized as the most accurate available. Gilpin had flaws, but he should be remembered for his vision of how
the West would shape the destiny of our country.

*   *   *

Colorado Territory was eleven months old when President Lincoln appointed his friend, Dr. John Evans, to be its second territorial governor.

Evans was born in Ohio in 1814. His father was a successful businessman. John obtained a medical degree at Clermont Academy and practiced medicine in Indiana. He was instrumental in establishing an insane asylum in Attica and he became its first superintendent.

In 1845, Evans became a professor at Rush Medical College in Chicago, where he worked eleven years with distinction. He edited the *Medical and Surgical Journal* and founded the Illinois General Hospital of the Lakes - Later Chicago's Mercy Hospital.

Evans became active in the Methodist Church and, in 1853, he urged that a Methodist school of higher learning be established in Illinois. He and a few others selected a site for the school in a suburb of Chicago. It was later named *Evanston*, in his honor. The school became Northwestern University. John Evans was the first president of Northwestern's board of trustees. Most historians credit him with founding Northwestern and, later, the University of Denver.

Quite a man, John Evans, but he had a quirk or two. He invented a mechanical hand with eleven steel fingers for extracting a baby from a woman's birth canal. He never quite understood why mothers rejected his mechanical hands. John once went fishing in Illinois. He was bitten by mosquitoes and thereafter "was seldom seen again away from his home or office, except to hurry from one to the other."

In today's world, John Evans would be known - at this stage of his career - as a man with great upward mobility. But which direction would it take him? Into medicine? Religion? Industry? Politics?

Evans was one of the most prominent speakers at the first Republican Party convention, held in Aurora, Illinois. He became a warm, personal friend of Abraham Lincoln - the convention's nominee for president of the United States. When President Lincoln offered Evans the governorship of Washington Territory in 1861 he declined. When he offered him the governorship of Colorado Territory, after Gilpin resigned, Evans accepted. He believed that Colorado would soon become a state and he wanted to become its first U.S. Senator. The governorship would be a good stepping stone to higher office.

Governor Evans was faced with a money pinch caused by Gilpin's depreciated script and the ending of the second gold rush. He tried to restore public confidence by issuing optimistic statements about the economy and the imminence of statehood. He was comfortable in economic and political arenas, but the Indian problem baffled him.

The 1851 treaty with the Indians was a sham. Thousands of white settlers ignored it and dispossessed Cheyennes and Arapahos of land the U.S. Senate had guaranteed they could have. This injustice was supposed to have been corrected by a new treaty in 1861, which exchanged guaranteed lands for five million acres in the Arkansas River Valley. They later included the best irrigated farmland in the valley.

The U.S. Indian Bureau ordered the two Indian tribes to relocate, give up hunting and learn how to farm on 40-acre plots. It was a big mistake, a prescription for trouble.

People tried to explain to Governor Evans why the Cheyennes and Arapahos would not
become farmers. He listened, but insisted that the savages could not continue to block Christian progress by their inefficient use of land.

As territorial governor, Evans was officially in charge of Indian affairs within the territory. He issued a proclamation authorizing citizens in Colorado Territory to kill and destroy all hostile Indians in sight. It was a big mistake.

All Indians were not hostile. It was left to settlers' judgment to distinguish hostiles from friendlies. Evans urged friendly Indians to go to their reservation in the Arkansas River Valley.

The distinction between friendly and hostile Indians vanished in mid-June 1864. Four Arapahos raided the Van Wormer Ranch 25 miles southeast of Denver City. They murdered the tenant Hungate family and stuffed their bodies in a well. Van Wormer took the four mutilated corpses to Larimer Street and put them on public display.

* * *

They called it Denver City, in the beginning. It wasn't a city. It as an isolated village in the summer of 1864. Separated from the States by hundreds of miles of open prairie. There was a telegraph line, but it was frequently cut. There was a stage line, but an Indian raid on a stage station halted service, so there were no mail deliveries. The Hungate murders hung over Denver City and outlying ranches like an ominous, dark cloud. There was tremendous pressure on Gov. Evans to do something!

When tensions peaked in the summer of 1864, Gov. Evans requested that the U.S. War Department send 10,000 troops to end the Indian hostilities in eastern Colorado. The federal government refused, but finally agreed to finance a small volunteer militia for a limited period of time - 100 days. Evans then formed the Third Colorado Regiment to end Indian attacks - in 100 days. Some called them the Hundred Dazers.

John Milton Chivington was placed in charge of the Third Colorado. Colonel Chivington was a Methodist preacher and an ardent abolitionist. He had helped establish churches and a pioneer Sunday School in Denver City. He was a Methodist soulmate of Gov. Evans.

Chivington was heroic in the Civil War's Battle of Glorieta Pass in New Mexico in March 1862. When the battle stalemated, Chivington and his troops sneaked behind Texan Confederates and destroyed their supply train. This forced them to retreat and it stopped them from seizing the Colorado goldfields.

Chivington took command of the victorious First Colorado after its victory at Glorieta Pass. He also commanded the Colorado Military District. This placed him in close contact with Gov. Evans and his Indian problems.

Chivington helped Evans promote volunteer enlistments in the newly formed Third Colorado Regiment. Then he took command of it, sensing that a dramatic victory over the Indians would lead to his promotion to brigadier general and - later - perhaps a Colorado seat in the U.S. Congress.

While all of this was going on between Chivington and Evans, some Cheyennes and Arapahos were making peace overtures at Fort Lyon. They persuaded Major Edward W. Wynkoop, Fort Lyon commander, to lead a peace party to the Smoky Hill River to confer with tribal chiefs. Wynkoop persuaded the chiefs to accompany him to Denver City to meet with Evans and Chivington.
They met on September 28, 1864 at Camp Weld. Evans told the chiefs to surrender to military authority if they wanted peace. Chivington told them to go to Fort Lyon, surrender and receive protection. Several Indian groups moved to the fort. Wynkoop returned to Fort Lyon convinced that peace had been achieved.

The prospect of peace with the Indians embarrassed Gov. Evans. After lobbying Congress so vigorously for a large number of federal troops because of the threat of an Indian War, an early peace would make him appear ridiculous. What would he do with his Hundred Dazers? They hadn't had a single skirmish with the Indians. The public was beginning to ridicule *The Bloodless Third*.

Chivington didn't like the peace overtures. Without a glorious battle victory over the Indians, his ambitious career plans would evaporate.

It was an awkward situation for Evans and Chivington, until a series of events changed it. Col. Wynkoop was relieved of his command at Fort Lyon and was replaced by Major Scott Anthony. When relations with the new commandant broke down, most of the Arapahoe Indians left for winter camping; however, a group of Cheyenne who were already headed for Ft Lyon in the pursuit of rations and to sue for Peace, were told they could not enter Ft. Lyon, and must go back to Sand Creek, which they did.

Gov. Evans went to Washington, D.C., in November 1864. Historians don't agree on why he went.

Chivington appears to have taken matters into his own hands. He assembled the Third Colorado Regiment, now known as the *Chivington Brigade*, and headed for Fort Lyon. There he announced his intention to attack Black Kettle's peaceful village at Sand Creek. "I have come to kill Indians," he said, "and believe it is right and honorable to use any means under God's heaven to kill Indians."

When Chivington issued his attack order, Lt. Cramer and Captain Soule objected vigorously. They didn't agree to join Chivington's Third Colorado until they were assured that it would only attack hostile Cheyenne Dog Soldiers near the Smoky Hill River.

Chivington increased his troops to between 750 and 1,000 soldiers (accounts vary) by adding several veteran companies from the First Colorado stationed at Fort Lyon. And four 12-pound howitzers. They left about 8 p.m., marched all night and arrived at Black Kettle's sleeping village at dawn's first light.

Capt. Soule and Lt. Cramer and their troops refused to fire their weapons on the helpless Indians. They watched in horror as the first shots were fired. Black Kettle stepped out of his lodge and raised an American flag and also a white truce cloth. John Simpson Smith, the controversial trader and interpreter, did likewise. Major Anthony shouted, "Kill the sons-of-bitches."

The terrible massacre lasted six to eight hours. Accounts vary as to number of Indians killed. Probably about 163, mostly women and children. Some escaped, including Smith and Black Kettle. Smith's half-breed son was taken prisoner, then murdered the next day in his lodge.

There were repercussions. Lt. Cramer and Capt. Soule wrote letters documenting the atrocities at Sand Creek. They sent them, individually, to Major Wynkoop, who met with General Samuel R. Curtis, commandant at Fort Leavenworth. Wynkoop showed Curtis the Soule-Cramer letters. He also sent a copy of Cramer's letter to Hiram P. Bennett, Colorado Territory's delegate to Congress.

General Curtis was very angry. He ordered Wynkoop to return to Fort Lyon, take command, and investigate the "Chivington Massacre." Wynkoop's report, with its supporting affidavits,
resulted in action by both Congress and the military.

In January 1865, the U.S. House of Representatives passed a resolution calling for an investigation of the Sand Creek Massacre. The Senate adopted a resolution withholding payment to the Third's volunteers until hearings had been held on Sand Creek.

The military commission investigating Sand Creek convened in February 1865. Capt. Soule and Lt. Cramer both testified against Chivington. Their testimony was corroborated by other military men. The commission adjourned on April 20, to give Chivington time to prepare his defense. Three days later, Captain Soule was murdered in Denver City.

When the military commission reconvened, Chivington presented affidavits accusing Soule of theft, drunkenness and cowardice. Soule's defense documents included a statement that he believed he would be killed because of his testimony against Chivington.

Military police captured one of Soule's killers, but he quickly escaped. The killers disappeared and never faced prosecution. The arresting officer who testified against Chivington was found dead in his hotel room. Poisoned!

After two congressional committees and the Judge Advocate General's Office released their reports on Sand Creek, the Soule-Cramer letters disappeared. They had not been made part of the public record.

Complications from an injury in August 1864 forced Lt. Cramer to interrupt his testimony before the Sand Creek Military Commission. He continued to serve in the First Colorado until November 1865, when he retired to a farming community in Kansas, where he died in 1870 at age thirty-one.

Governor Evans was summoned to Washington to testify before the congressional committee investigating Sand Creek. He was devastated when President Andrew Jackson removed him from the governorship of Colorado Territory in 1865.

The congressional committee declared Chivington's raid "a cowardly and cold-blooded slaughter, sufficient to cover its perpetrators with undeniable infamy, and the face of every American with shame and indignation."

Explain this: How can a man - Chivington - be a hero one time and a cowardly butcher another time?

Colonel Chivington and his Third Colorado volunteers returned to Denver City in late December 1865 to celebrate their Sand Creek "victory." Some of the soldiers strung 100 scalps of Indian men, women and children across the stage of the Denver Opera House. Indian body parts were displayed.

Chivington's name has been both honored and vilified. The town of Chivington in Kiowa County was named for the colonel. Longmont has a street about three blocks long named for him. Efforts to name a major east-central Denver parkway for him failed. But Denver City voters elected Chivington county coroner in 1891.

In 1909, the Colorado Legislature placed a Civil War monument on the west side of the capitol building, under a bronze soldier. The monument lists Colorado's Civil War battles and military organizations. Sand Creek is listed as a "battle" and Col. Chivington is listed under the First Colorado, but not the Third.

When Chivington died in 1894, a large crowd attended his funeral. He was buried in Fairmount Cemetery. A tall granite headstone mentions Glorieta Pass, but not Sand Creek.

Sand Creek ended John Evans' political career, but not his historical legacy. He would move
on and do great things for Denver and Colorado.

* * *

It's a wonder Denver City survived the turbulent sixties. The highs and lows caused by the goldseeker's comings and goings. The violence. The weird politics. And - The Fire! The Flood!

A fire started in Cherokee House at 15th and Blake at 2:30 a.m. on April 3, 1863. Sleepers on both sides of Cherry Creek were awakened by screams of Fire! Fire! Fire!

A brisk wind swept the flames from building to building. Seventy wooden buildings were destroyed and losses totaled $250,000. Denver City was nearly destroyed, but rebuilding began immediately, using brick instead of wood.

During the night of May 20, 1864, an even greater disaster occurred.

Cherry Creek - that miserable, despised bed of sand that crept through the two Cherry Creek towns - went on a rampage. Scorned as a stream and used for building sites on its wide bottom, it rose in fury, roared down without warning from its watershed, and ravaged Auraria and Denver City.

It swept away cheap bridges, killed 20 persons, and destroyed nearly a million dollars worth of property. In 1864 that was a very large financial disaster. The flood hit Auraria harder, because of its lower west bank.

Professor O.J. Goldrick, schoolmaster and newspaperman, wrote an eyewitness account of the 1864 Cherry Creek flood. Here is part of it:

*About the midnight hour of Thursday, the 19th, when almost all in town were knotted in the peace of sleep ... a frightful phenomenon sounded in the distance and a shocking calamity presently charged upon us...*

*Presently, the great noise of mighty waters, like the roaring of a Niagara, or the rumbling of an enraged volcano burst upon us, distinctly and regularly in its sounding steps, as the approach of a tremendous train of locomotives ... Alarm flew around, all alike were ignorant of what to think or say or do, much less of knowing where to go with safety, or to save others ...*

*The waters, like a pall, were spreading over all the inhabited lower parts of town. Nature shook about us ... next reeled the dear old office of the Rocky Mountain News, the pioneer of hardship and honor, and down it sank with its Union flag-staff, into the maelstrom of the surging waters, soon to appear and disappear between the waves.*

Years later, when a well was being dug at the foot of 15th Street, workmen struck part of the News' old hand press, 12 feet below the surface. About the same time, parts of the large cylinder power press were found in a bar in the South Platte, opposite the foot of 20th Street.

In the autumn of 1898, the lever of Byers' old hand press, with some of the type embedded, and other printing appliances, were uncovered by workmen digging a foundation on 14th Street. These relics were placed in the Colorado Historical Society's collection.
The 1864 Cherry Creek flood washed away all remaining hostile feelings between inhabitants on both sides of Cherry Creek. It also put a stop to building on the treacherous sandy bed of Cherry Creek. But it didn't sink Will Byers.

Byers bought the Commonwealth Printing Company, discarded the name, and within a month after the flood he was again publishing his newspaper - the *Rocky Mountain News*.

* * *

David Moffat and Walter Cheesman arrived during the turbulent sixties. Both were part of Denver's beginning.

David Halliday Moffat was born in 1839, in the village of Washingtonville, New York. His father, David Halliday Moffat, Sr., was called Long David, to distinguish him from David, Jr., the youngest of seven children.

Long David was a successful businessman. David Jr. left home at age twelve, after a country school education. He went to New York City and found a job as a bank messenger. By age 16 he was the bank's teller. He later became a bank teller in Des Moines, Iowa, where his brother lived. When David was 17, he became teller at the Bank of Nebraska in Omaha.

Moffat speculated in Omaha real estate and became a paper millionaire before he was twenty. Property values rose and fell and, during one of its longer falls, David's fortune disappeared. In 1859, he liquidated the bank's assets and paid off its creditors and stockholders.

In Omaha and elsewhere there were book stores owned by the Woolworth brothers, C.C. of St. Joseph and S.B. of Omaha. David Moffat frequented S.B.'s bookstore, as he turned to reading to rectify his lack of education. That early deprivation so impressed David that he erected a library, late in his life, in his home town, Washingtonville.

S.B. Woolworth noticed David Moffat's strong desire to improve himself. He and his brother were looking for a capable young man to open a branch store in the Pikes Peak gold country. They offered Dave a partnership and the firm of C.C. Woolworth and David H. Moffat, Jr., was formed. The buying would be done by C.C. and Dave would do the selling.

In mid-February 1860, the new firm's stock was loaded on four wagons. Drivers were hired for three of them and Dave drove the fourth. They arrived in Auraria in March. The book and stationary store was soon established on Ferry Street (now 11th), between Larimer and McGaa in Auraria.

It was an unlikely location for such a business. The riverfront between Blake Street and the South Platte was filled with covered wagons, with mules and oxen on tether. Campfires blazed at night, suggesting an army unit at bivouac.

David Moffat's business flourished in this frontier setting. Subscriptions were taken for eastern newspapers and Dave delivered them for 25 cents each. He impressed Byers by placing newspapers from Chicago and St. Louis on his desk before the mail arrived. Moffat's freight wagons brought them.

Moffat's store had 6,000 rolls of colorful wallpaper of varied patterns in stock and they were in great demand. His business thrived and he moved his store to a better site at 15th and Blake in Denver City, in the Post Office building. The postmaster, Samuel Curtis, left to command a Civil War regiment and Dave was asked to serve as postmaster.

On an autumn day in 1861, David Moffat boarded a mail and express coach in Denver City
and headed east to attend to some unfinished business - Frances A. Buckhout. Fanny, now eighteen, lived in Mechanicsville, New York. She was well established among Hudson Valley aristocracy. On December 11 Dave married his boyhood sweetheart.

Dave and Fanny returned to Denver City by train and stage. The latter was described as "a swaying, jolting box, creaking on leather hinges, a journey that only love could find endurable."

Dave and Fanny's first home was a small frame cottage in Auraria, where their first child, Marcia, was born. Later they moved into a two-story frame house in Denver City on Lawrence, between 15th and 16th Streets. They shared the house with Dave's Omaha friend, George Kassler, and his wife. Byers and Kassler later joined in various business activities.

David Moffat appeared to be settled, but he confided to a friend, "I set my mark when I started for Colorado. I determined to make seventy-five thousand dollars. When I have done that I will go back to New York and enjoy myself."

Moffat prospered with his store, post office and insurance businesses. He often spent evenings at the Broadwell House, where he mingled with leading citizens of Denver City, including Governor Evans.

Evans appointed Moffat adjutant general of Colorado Territory in 1865. Dave had many opportunities to enter politics, but he declined all of them. In 1867 he became cashier at the new First National Bank of Denver. It was a position that provided executive power and many privileges.

First National was formed in 1865 by Jerome B. Chaffee and Eban Smith, after they became rich operating the Bobcat Mine in Central City. Chaffee was the bank's president and Smith was a director. Moffat later associated with these men in mining deals that produced much of his fortune. He was First National's president for many years.

By the mid-1860's David Halliday Moffat, Jr., was well known in Denver City as a successful and influential businessman. So was Walter Cheesman.

* * *

Walter Scott Cheesman was born on Long Island in 1838. He was the youngest of nine children. His father was involved in bookbinding and paper mills. Cheesman and Moffat had somewhat similar beginnings. They were nearly the same age and both were the youngest members of large, prosperous New York families.

The Cheesman family's financial reverses in 1854 caused Walter to seek employment in Chicago, where his married sister lived. Walter found employment there, at age 16, with a firm of wholesale druggists.

In 1860, Walter's brothers, Edward and Will, went to the Pikes Peak country, where they started a ranch on Ralston's Creek and a drugstore on Blake Street, between 15th and 16th Streets, near Moffat's store.

Letters from Edward and Will Cheesman sparked Walter's interest. Both brothers had poor health and Walter joined them in 1861 to manage the drug store. The brothers returned to Long Island. Before he died, Will wrote to Walter:

_I hope you do not regret the step you have taken in going to Pikes Peak - and that you will be able to make a little - but we all feel that you have made a great mistake._
and very little confidence is felt that you will be able to do as well there as in the States. It requires a very peculiar kind of man to attain success in such a country.

Walter Cheesman was not peculiar. He was very special. His biographer, Edgar C. McMechen, described him:

When we consider that Mr. Cheesman came to Denver as a young man and during nearly a half-century effort, continually exhibited this serene sureness of himself and in the future of the city we begin to understand his power and influence ...

Cool, impassive and retiring, with a brilliant business ability which inspired confidence among his contemporaries, Mr. Cheesman exerted a tremendous influence in the community. He combined calculation and foresight with imagination and possessed the ability to analyze facts correctly, the power to set the goal and adhere steadfastly to it; to convert adverse circumstances to beneficial use.

Walter moved the Cheesman Drug Store to the southeast corner of the block. It was the beginning of his tendency to acquire corner locations in most of his future real estate transactions. Walter acquired the adjoining lot and erected a 2-story building that became known as the Cheesman Block. It burned in the tragic 1863 fire. Cheesman promptly rebuilt a brick structure and lived, for several years, over the drug store.

Moffat became Walter Cheesman's closest friend. They associated in various business ventures, including the First National Bank of Denver. Cheesman eventually became president of the bank. Moffat was its president for many years.

So there they were in Denver City - four remarkable young men. William Byers, John Evans, David Moffat, Walter Cheesman. They arrived during the turbulent sixties by different routes and from different backgrounds. They were there in the beginning, when Denver City was up and down and going nowhere.

By the end of the 1860s, these four men had become the core of Denver City's first generation power elite. In the 1870s, they would build, with the help of others - especially General William Jackson Palmer - the spiderweb of steel that would make Denver the Queen City of the Plains. They were men to match our mountains.
IT WAS A DAY TO REMEMBER - May 7, 1859 - the day the first stagecoach arrived in Denver City and connected it to the outside world.

Actually, two stagecoaches rolled down that dusty trail that later became 15th Street. They traveled in pairs for protection. Two brand new Concord coaches with their bright paint gleaming came to an abrupt stop at present 15th and Blake.

The Concords were still swaying on their leather-band suspensions when twelve weary, excited passengers stepped down, amid loud cheers from the assembled crowd.

It happened because the Denver City Town Company offered 53 lots and nine company shares to the Leavenworth & Pikes Peak Express Company if it would provide the first stagecoach connection. It was the vital event that jump-started Denver City and provided a key building block in the historical foundation that supports the Metro Denver Water Story.

Fifteenth and Blake - the terminus of L&PP's long route west from Leavenworth, Kansas Territory - became the focal point for business and socializing. Hotels and saloons wanted to be near the stage terminus. Auraria's post office and several businesses relocated there. Letter hungry settlers gravitated to 15th and Blake to watch the stages come and go. It was the high point of their daily lives. Few could pay the cost of riding in the coaches, but all could enjoy the excitement.

L&PP spent $250,000 for 52 Concord coaches, 1,000 mules, drivers' salaries and stage stations scattered along the 687-mile route. It was owned by John Jones and William H. Russell (not the Georgian, William Green Russell).

There were several routes from Leavenworth to Denver City. The Smoky Hill route went straight across the eastern plains. It was dangerous and lacked water and game. The South Platte extension of the Overland Trail was 150 to 200 miles longer than the Smoky Hill route, but it was easy to follow, had ample water and game, and it was much less dangerous.

L&PP used the Smoky Hill route.

L&PP's initial trailblazing was remarkable. A surveyor rushed ahead, placing rock cairns every 25 miles to mark the sites of stage stops. L&PP sent a cook, a tent and supplies to each site to await the arrival of the first stagecoaches. Permanent facilities would later replace the tents.

When the stage driver approached a station he blew a bugle, or horn, which alerted the two
station men. They quickly harnessed a fresh team and switched teams when the stage stopped. Five minutes were allowed for the change. If there were ladies in the coach, the driver would allowed them a few more minutes - to pick daisies.

Freighting was the larger, less glamorous part of L&PP's business. A large train of big, wooden-wheeled Murphy wagons required more than 300 oxen and a reserve herd of 20 or more. And several mules for riding and herding. It was a big, potentially lucrative business, as Nell Brown Propst reported in Forgotten People, A History of the South Platte Trail:

*It was said that the easiest way to get rich (during the Gold Rush) in a hurry was by freighting. Obviously, all of those people rushing to the gold fields would need food and the other necessities of life. The freighting business moved in almost overnight, it seemed. During the summer of 1859, three wagon trains left each week from Omaha, which was only one of several starting points.*

L&PP became over-extended and it was taken over by Russell, Majors and Wadell in October 1859. They formed a new company called the Central Overland California & Pikes Peak Express. Most people called it COC&PP. The lengthy name was awkward, but it covered all the possibilities envisioned by the company's president, William Harrison Russell.

COC&PP was chartered for mail service by the legislature of Kansas Territory in April 1860. Russell, whose L&PP stage business had failed, conceived another glamorous undertaking - the *Pony Express*. It would be, like the imaginative and flighty Russell, successful in every way except financially.

Jeff Thompson, mayor of St. Joseph, Missouri, inaugurated the Pony Express with these inspiring words:

*The mail must go. Hurled across two thousand miles of desolate space - Fort Kearney, Laramie, South Pass, Fort Bridger, Salt Lake City. Neither storms, fatigue, darkness, mountains, nor Indians, burning sands or snow must stop the precious bags. The mail must go.*

Each rider traveled about 75 miles, stopping at stage stations frequently for a fresh horse, making the change in a couple of minutes. The Pony Express quickly became a glamorous western institution. It lasted only 19 months, but that was long enough to give future writers of western fiction an ample supply of story material.

Russell and his business associates lost $200,000 in their Pony Express venture. High operating costs and arrival of the telegraph killed it.

COC&PP developed a large freight business, with 1,500 employees and more than 8,000 yoke of oxen. It became over-extended and it ran out of money. Disgruntled employees called it the *Clean Out of Cash & Poor Pay.*

Hello, Ben Holladay!

Benjamin Holladay was a tall, sandy-haired, aggressive young man. At age 18 he became an orderly for General Alexander Doniphan, who was involved in the Mormon conflicts in 1838. When the Mormon leaders surrendered and were imprisoned, Holladay befriended and assisted some of the Mormon women and children. His kindness was brought to the attention of Brigham
Young, the Mormon leader, who would later repay Holladay for his kind deeds.

Ben Holladay's rise in business was rapid. He started as a store clerk in Weston, Missouri. During his 10-year stay in Weston, he operated a saloon, a drug store, a general store and a packing plant. Then he formed a partnership with Theodore F. Warner and started a freighting venture. Warner provided the financing and Holladay supplied oxen, wagons, and drivers.

In 1861, Holladay made a loan to struggling COC&PP. He installed his cousin, Bella Hughes, as president of the newly reorganized company. By the end of the year, Holladay had taken possession. He formally purchased the company in April 1862 for $100,000 cash. He also assumed debts totaling $500,000.

Congress passed the Daily Overland Mail Bill for a route through the central region and overland to California. It included a provision that Denver and Salt Lake City would have mail service, either directly or by branch lines. Because of the Civil War and Confederates on the Santa Fe route, the government transferred all mail to the Overland route.

But that would take a while. From April to June 1862, the U.S. government, preoccupied with Civil War problems, did not send mail over the Overland Trail. People in Colorado Territory had to wait while letters from back east went by boat all the way around Cape Horn, then east from California. This caused the people in Denver City to dislike Holladay, who had promised direct mail service.

Henry Villard, author of a guidebook, described Holladay as "a genuine specimen of the successful Western pioneer of former days, illiterate, coarse, pretentious, boastful, false and cunning." But Holladay's employees liked him. He was, by that time, "imposing, with his bald head and fine beard."

Holladay made sure that his employees were paid on time. He built big repair shops at the ends of the sections. He had a traveling blacksmith shop troubleshooting on each section of the trail. Delays because of breakdowns were rare. Employees were proud of Holladay's stage line.

Holladay changed COC&PP's name to Overland Stage Line in the summer of 1862. He wanted to take advantage of the fame of the Overland Trail and the reputation of his chief competitor, John Butterfield, who operated the Overland Mail. Holladay's Overland soon acquired a reputation for being fast and on time.

By this time mail for Denver City was coming up the Platte again. The main Overland Trail went up the South Platte from Julesburg to Latham, a few miles southeast of present-day Greeley. Then it turned north up the Cache la Poudre and on along the old Cherokee Trail.

Residents of Denver City and Golden were furious. They wanted Holladay's route to go south from Latham, up the South Platte, and then west over the Rocky Mountains. Holladay ignored them. Denver City would continue to receive mail three times a week.

Ben Holladay relished his growing importance in the West. He made annual inspection trips over the entire Overland Stage route, from St. Louis to Placerville, California. He sat in a private coach with special spiral springs and luxurious appointments. There was a flag on the top of his coach, with a large BH insignia. It announced the presence of its famous passenger - the Stagecoach King.

* * *

There was much talk in Denver City and Golden City about a transcontinental route
extending west over the Rocky Mountains to Salt Lake City. Golden's leading citizen, William A.H. Loveland, thought railroad hub was a name much better suited to Golden than Denver. It would fit well with the designation of Golden as the capital of Colorado Territory.

William Austin Hamilton Loveland was born in Massachusetts in 1826. He grew up in Illinois, served in the Mexican War as a volunteer, and was wounded at Chapultepec. He mined gold in California, then returned to Illinois where he prospered in the mercantile business.

Loveland heard about the gold in Colorado Territory and loaded a wagon with hardware and goods most likely to be needed in a frontier settlement. He arrived in Golden City in 1859 and set up a mercantile business.

Loveland's business was successful and he quickly became a dynamic local leader. Colorado historian Marshall Sprague described Loveland as "tall, narrow hipped, broad shouldered, with a striking profile. There was about him something that suggested the sweep and beauty of the pass above Georgetown that bears his name."

Give Loveland a horse, saddle and a couple of six-shooters and he could pass as a hero in a Louis L'Amour novel. But Loveland wasn't that kind of man. He was, most of all, ambitious. Cornelius W. Hauck described him in Narrow Gauge to Central and Silver Plume:

His aspirations didn't stop at building a mercantile business and a railroad; he also envisioned developing coal and iron mines and building iron and machinery factories to turn Golden into a little Pittsburgh in the West.

The Golden Crowd, led by Loveland, called a public meeting to discuss the forming of a party to locate a feasible pass for a railroad route over the mountains west of Golden City. It would be a very important meeting.

* * *

Talk of a transcontinental railroad did not spring up overnight. It had been on back burners for a long time. People realized, as early as the 1830s, that a transcontinental railroad was necessary to bind the country together and open up the West.

In 1832, a Michigan newspaper called for a railroad from New York City to the Mississippi River, across it and the Missouri, up the Platte, over the Rocky Mountains and on to Oregon. By 1835, railroad fever was sweeping across many of the states and territories.

The steam locomotive was invented by George Stephenson in England in the 1820s. American engineers made many improvements on Stevenson's iron horse. First a swivelling track was placed under the front end of a locomotive. This enabled it to turn around curves by almost any radius. Then a lantern, a cowcatcher, the T-rail and improved brakes. By 1850 the steam locomotive was ready for transcontinental duty in the United States.

In 1853, four survey parties set-out to find a transcontinental railroad route. One of them, led by Captain John Gunnison, went up the Arkansas River Valley, across it and the San Luis Valley and over Cochetopa Pass. It would not become a transcontinental route.

Abraham Lincoln, prior to his presidency, was a successful railroad attorney in Illinois. He was very interested in the possibility - indeed the necessity - of a transcontinental railroad. Grenville Mellon Dodge, 28 years old, was widely recognized as an outstanding railroad location engineer.
After Lincoln finished a political speech in Council Bluffs, Iowa, a meeting was arranged between Lincoln and Dodge. Stephen E. Ambrose reported the conversation in his recent book, *Nothing Like It In The World*:

'Dodge, what's the best route for a railroad in the West?' Dodge instantly replied, 'From this town out the Platte Valley.'

*Lincoln thought that over for a moment or two, then asked, 'Why do you think so?'

Dodge replied that the route of the forty-second parallel was the 'most practical and economic' for building the railroad, which made Council Bluffs the 'logical point of beginning.'

'Why? Lincoln wanted to know.

'Because of the railroads building from Chicago to this point,' Dodge answered, 'and because of the uniform grade along the Platte Valley all the way to the Rocky Mountains.'

*Lincoln went on with his questions, until he had gathered from Dodge all the information Dodge had reaped privately doing surveys for the Rock Island Railroad Company on the best route to the West. Or, as Dodge later put it, 'He shelled my words completely and got all the information I collected.'

This quote may be speculative, but if true it could have been an important factor in the genesis of a transcontinental railroad - the *Union Pacific*.

Horace Greeley made a trip west to California. He wrote about the trip in his 1860 book, *An Overland Journey from New York to San Francisco in the Summer of 1859*. "Let us resolve to have a railroad to the Pacific - to have it soon," he wrote. "It will add more to the strength and wealth of our country than would the acquisition of a dozen Cubas."

The congressional key to the building of a transcontinental railroad was the Pacific Railroad Bill, passed in May 1862. President Lincoln pushed hard for it, even though he was consumed by Civil War problems.

The Pacific Railroad Bill was so complicated and incomprehensible it had to be changed substantially. A similar, but vastly improved bill was passed by Congress in 1864. President Lincoln signed it on July 2, the day the Confederate Army crossed the Potomac and prepared to invade Maryland.

The 1864 Pacific Railroad Bill authorized two new railroads that would complete the transcontinental railroad. The Central Pacific Railroad would go east from California over the High Sierra to Salt Lake City. The Union Pacific would go west from Omaha over the Rocky Mountains to Salt Lake City.

Union Pacific had difficulty getting organized. The 1864 Act appointed 163 men to work out a provisional organization. They selected Samuel R. Curtis as temporary chairman. He wanted Dodge to be UP's chief engineer, but Dodge refused, preferring to remain in the army, where he had
an outstanding Civil War record. Dodge finally said he would accept the VP job, after the war ended.

President Lincoln sent Dodge to St. Louis to command the Department of the Missouri, which included all land between the Missouri River and the Rocky Mountains. Dodge's mission was to subdue the Indians, so that a transcontinental railroad could be built across the plains.

President Lincoln, newly re-elected, delivered his annual message to Congress on December 6, 1864. He devoted a paragraph to the transcontinental railroad. In April 1865, as the Civil War ended, Abraham Lincoln was assassinated.

In April 1866, General Dodge took leave of absence from the army and became Union Pacific's chief engineer, on the condition he would have complete control of location and construction.

UP construction was run like a military operation. That was the only way it could have succeeded. Dodge's foremen were former Union officers. His graders and track layers had participated in the Civil War. All were used to receiving orders and carrying them out.

UP's track reached the hundredth meridian, 247 miles west of Omaha, on October 6, 1866. Should Union Pacific go northwest from Julesburg to Cheyenne and cross the Rockies at South Pass in Wyoming? Or should it go southwest to Denver City and cross the Rockies at a higher elevation?

So much depended on that decision!

*        *        *

Central Overland California & Pikes Peak Express Company asked Jim Bridger, the famous guide, to investigate a route along the old Cherokee Trail from Denver City up the Cache la Poudre to a junction with the proposed transcontinental railroad route through Wyoming. This irritated William Loveland and the Golden Crowd and precipitated a public meeting in Golden City on March 2, 1861.

Loveland told the assemblage that they should hire their own guide to find a transcontinental railroad route west of Golden over the Rockies. And - he knew just the man to do it. His name was Edward L. Berthoud.

Eduard Louis Berthoud was born into a sophisticated French-Swiss family in 1828. He was brought to the United States at age two. Eduard became Edward and Louis often became Lewis. The French Bare-too became Berthoud.

Berthoud, at age seventeen, enrolled in engineering school at Union College in New York. His older brother, Alexander, preceded him with a reputable reputation. Alexander was Phi Beta Kappa and he founded Chi Psi, then a secret society, now an honorary civil engineering society.

Edward was also elected to Phi Beta Kappa and Chi Psi. His classmates included Chester Arthur, who would become president of the United States. Edward graduated in civil engineering with highest honors.

After graduation, Berthoud worked on railroad construction in the Midwest and in Panama, "a veritable hell on earth." He survived, but a large percentage of the Panama Canal work force died of malaria.

Berthoud left Panama in October 1852. He worked on railroad location and construction in Kentucky and Indiana and, in 1856, he married Helen Farrell. They settled in Leavenworth, K.T., where Ed worked on various engineering jobs.
Gold rush fever hit Leavenworth and Berthoud felt its magnetism. He prepared a sketch map for sale entitled, "A Map of Routes to the Gold Regions of Western Kansas." He established an imaginary engineering branch office in Denver City and listed it in the Leavenworth City Directory.

It was a long straddle, with his real foot in Leavenworth and his imaginary foot in Denver City. Finally, the strain was too great and Edward succumbed to his own imagination. He and Helen left Leavenworth in March, 1860 and arrived in Golden City a month later.

Berthoud was a remarkable man. Robert C. Black III described him in *Railroad Pathfinder*: "His eyes were of the palest blue, yet very keen, and they looked out upon the world with unfeigned curiosity, though not always with admiration. He was in no way an aesthetic. Physically, he was intended for frontiers, mentally for the sciences."

Berthoud would occupy a revered place in Colorado history, but most historians would treat him lightly. Robert Black was the first to publish his biography, in 1988.

Berthoud soon came to know Golden City's movers and shakers - W.A.H. Loveland and George West. West, two years younger, brought extensive experience in journalism with him to Golden. And an irreverent sense of humor. Years later, when challenged to a duel, he chose as weapons "thundermugs at twenty paces. Roll 'em or throw 'em." He was Golden's version of William Byers. Camp George West, near Golden, was named for him.

There are various historical versions of the roles played by Loveland and Berthoud in discovering Berthoud Pass. I'll use the one that says Loveland selected and promoted Berthoud at the public meeting on March 2, 1861. I'll use Black's version of what happened next. A survey party of eight was formed and:

Berthoud considered himself fortunate to acquire, at the last minute, the services of James Bridger, the renowned wilderness scout. The alleged pass was singularly elusive. It was then, and remains, quite invisible from either of its conventional approaches. Even Bridger was unaware of its existence, a professional deficiency that appears to have put him in a sour mood...

The story of the first crossing of Berthoud Pass has been treated many times and need not be told again in detail. A base camp was established on May 10 beside the debris of a major avalanche; Bridger wandered sulkily off into an alternative valley, while Berthoud and most of the others pushed directly upward. ... On May 12, Berthoud and his companions, moving easily along the skyline, literally tumbled into their pass.

Several succeeding days were required to open a proper track, but on the 17th, complete with horses and mules, they negotiated most of the crossing. Berthoud later declared it was accomplished with 'surprising ease,' but any veteran of the route may question this, and indeed his own formal report made explicit reference to snowbanks and deadfalls. They did tarry between flounderings to bestow their names upon prominent torrents and promontories. The pass itself was reserved for Berthoud.

Bob Black died recently. He and his wife, Reggie, were our friends. They were veterans of
hundreds of crossings of Berthoud Pass, between their home in Denver and their home at Sky Valley Ranch near Tabernash. So were we, between our homes in Aurora and Winter Park Ranch near Fraser.

After its discovery, the Berthoud party, minus Bridger, descended into Middle Park and camped beside the Grand (Colorado) River. Then they returned triumphantly to Golden City. Word of Berthoud's discovery spread quickly. There was intense excitement in the gold mining districts. On May 30, 1861, a grand banquet in Golden City honored the Berthoud party. It lasted from noon to midnight and it was attended by many notables including an official of the Overland Stage Line, William H. Russell

Talk of a transcontinental railroad over Berthoud Pass flourished. Bella M. Hughes, William H. Russell and Ben Holladay were particularly enthusiastic. Together they provided funds sufficient to finance a more elaborate expedition headed by Berthoud. It left Denver City on July 6, 1861, destination Salt Lake City.

Bridger, now in a happier mood, was rehired as guide. The party included Berthoud's brothers-in-law, Frank and Charles Farrell, and a young surveyor named Redwood Fisher. He and his descendants would leave large footprints, later, in the history of Grand County.

They traveled fast. Moving westward, they attempted little more than an overview. The going through Middle Park was relatively easy, but beyond it they encountered a formidable mountain divide. Bridger led them over it, using an Indian trail he traveled in 1854 with the Anglo-English eccentric sportsman, Sir St. George Gore. Berthoud recorded it in his notes as Gore's Pass, later known officially as Gore Pass.

They traveled between river valleys, from the Bear (Yampa) to the White and to the Green. They ascended the Uinta River Valley to the Great Basin watershed. They entered Provo and, on August 4, Salt Lake City. They left Brigham Young's Provo residence on August 10 for the long trip home.

Berthoud spent more time on the return trip observing and writing reports. His reports of the vast coal resources of northwestern Colorado were the first by a trained observer. But some of his reports were filled with unwarranted optimism which pleased, but also misled, his sponsors. Black commented:

"Berthoud's reports positively effervesced. The route, he pointed out, was remarkably short: from Provo to Denver it totaled 424 miles, whereas by Bridger Pass in southern Wyoming it was 623 miles and by traditional South Pass, 841 miles. Consequently, it would shorten the distance from the Missouri River to California by at least 200 miles..."

"Berthoud reduced the considerable relief with encouraging words: a wagon road of 'easy' grade could, he estimated, be put through for no more than $400,000. He even took time to expound (contrary to habit) upon the superior beauty of the scenery."

"Any resident of northwestern Colorado will at once perceive the grand deficiency - nothing was said about winter. Berthoud himself could not have been unaware of this inconvenience, but he apparently fell into the common error of subsidized explorers in trying too hard to please his patrons."
Territorial Governor John Evans ordered a new survey of the Berthoud Pass route. Frances M. Case, an engineer, investigated and found the route too steep for a railroad's maximum grade of 116 feet per mile. He reported that if this route were used for a railroad, a tunnel would be necessary.

In April 1861, Bella M. Hughes replaced William Russell as president of COC&PP (later Overland Stage Line). Hughes had been a lawyer, public official and soldier. He had obvious capabilities but he was different than Denver City's emerging power elite. He was older (over 40), a Southerner and a Democrat. He was a confidant and cousin of Ben Holladay.

Hughes arranged for another survey to locate a route from Denver City to Salt Lake City. The survey party left Salt Lake on June 3, 1865 and arrived in Denver City four months later. It was accompanied by a military detachment of 150 men and 22 wagons. These were the first wheeled vehicles to cross Boulder (later Rollins) Pass.

Hughes then made a rare strategic mistake. He decided to use Berthoud Pass, rather than Boulder Pass, for a wagon road. He obtained a charter for the Berthoud route and the territorial legislature granted a charter and right-of-way over Boulder Pass to a man named Rollins, who had formed the Middle Park & South Boulder Wagon Road Company. The Overland Company did not complete its Berthoud Pass project.

John Quincy Rollins was born in New Hampshire in 1816. He was the son of a clergyman and the second of nineteen children. He was a man of many talents - farmer, miner, freighter, road builder, town platter, promoter. He also was the best billiard player west of the Mississippi. He was, reported a newspaper in 1873, "a tall, broad gentleman with pleasing face and manners and iron-gray hair. He looks like a son of toil."

In 1865, Rollins guided a hundred Mormons with thirty-nine teams to Utah. He took them across Boulder Pass under terrible conditions. Men, women and children carried part of their wagon's contents on their backs to lighten the load. They sang hymns to cheer the weary.

The Rollins Road, forty miles long, was completed in 1873. Boulder Pass, which it crossed, became known as Rollins Pass.

Rollins gave his name to the town of Rollinsville on South Boulder Creek. He continued constructing his wagon road down through Middle Park to Hot Sulphur Springs. The road was never used much by wheeled vehicles, probably because of its roughness. In 1880 a diarist described the Rollins Road: "Of all the Damned Humbugs ever allowed to exist in a civilized community the Rollinsville Road is the biggest ... We were jolted and jostled in the highest state of the art."

* * *

Back now to Edward Berthoud. He volunteered for Civil War service in 1862 and served as an army captain until 1866. Then he and Helen returned to Golden City. He found Bill Loveland deeply involved in plans for a railroad extending directly west across the spine of Colorado. Golden City, naturally, would become the railroad division point.

Loveland incorporated the Colorado Central Pacific Railroad Company and placed on its board of directors five representatives of the Union Pacific Railroad. Berthoud, aided by Percy T. Browne, a young engineer from Union Pacific, surveyed a railroad grade up Clear Creek Canyon.
with the congressionally mandated maximum of 2-1/4 percent. They provided nearly a mile of tunneling in the canyon and a 2-3/4-mile tunnel under Berthoud Pass.

By late 1866, Union Pacific's track-laying had reached Julesburg. General Dodge had to chose between two routes to Salt Lake City. The northern route would pass through Cheyenne, which would become UP's division point and its Rocky Mountain headquarters. The southern route would go southwest to Denver City (or Golden City) and across the Rockies.

The stakes were huge - for Cheyenne, Denver City and Golden City. Which route would General Dodge select?

Dodge sent survey parties to investigate three passes west of Denver City: Berthoud, Rollins and Cache la Poudre. Then he decided to take a personal look at the passes. He took with him two consulting engineers and the government representative on UP's board of directors. They examined the Berthoud Pass route and gave it their approval. There was much congratulatory backslapping in Denver City and Golden City.

The Dodge party moved on to Rollins Pass. Then, all of a sudden, all hell broke loose and Loveland's goose was cooked. Bob Black tells the story:

As they contemplated the site of the later crossing at Rollins Pass, winter struck. Wind and snow beyond imagination swept them from the tundra lip into the high cirques of Middle Boulder Creek; in a blinding white-out they cut their animals loose, listened to the faint and fatal crashings, and scarcely reached the shelter of the timber themselves.

For the Union Pacific representatives, it was enough. They made no effort to discover whether weather conditions on Berthoud's Pass might have been less terrible, and from the foothills General Dodge summarily canceled Colorado by telegraph. The government director, Williams, completed the rejection at length and in writing in March 1867.

Governor Evans appealed directly to UP's president. He pointed out the advantages of a Denver route. President Dix said No! The most feasible route - Berthoud - would require a 3-1/2 mile tunnel which would be 2,000 feet higher than the crossing in Wyoming.

Cheyenne was jubilant. Its Daily Leader smirked, "Denver is too near Cheyenne to ever amount to anything." Thomas C. Durant, UP's vice president, said, "Denver is too dead to bury."

It was a humiliating defeat for Loveland and Berthoud and, of course, Denver City's power elite. Berthoud went into state and federal politics, where he managed to lose much of his hard won reputation. Then he became involved in building Colorado Central. It evolved from Colorado and Clear Creek Railroad Company, formed by Golden City's power elite - Loveland, Berthoud and Teller.

Teller? Who's he?

* * *

Henry Moore Teller would make quite a mark in Colorado history. We should know something about him.
He was born on a farm in western New York in 1830. Marshall Sprague described him in his book, *Colorado*: "He was quiet, studious and reserved - a teetotaler whose high moral principles were written in his pale, austere face and shock of stiff brown hair rising from his high forehead." Sprague also described Teller as "a man to be feared because of his unblemished character and skill as an orator."

Teller was admitted to the New York bar and practiced law in Illinois before coming to Central City in 1861. He quickly became Central's leading citizen.

So he wasn't exactly one of Golden's leading citizens. But - well, Central City is close enough.

Teller's reputation was diminished a little in 1868 when he was at least partly responsible for causing John Evans to lose his bid to become one of Colorado's first two senators. He told Congress that Colorado was disqualified from statehood because it had less than half the population Evans and others claimed for it.

Why would Teller say that?

Because he wanted to become one of Colorado's first senators. When Colorado achieved statehood on July 1, 1876, Teller and Chaffee were appointed senators. Teller later resigned to become President Arthur's Secretary of the Interior.

Teller found a soulmate in Bill Loveland. Both visualized a transcontinental railroad over Berthoud Pass. As a first stop they formed a group of locals and eastern venture capitalists to incorporate a railroad in 1865. They called it the *Colorado & Clear Creek*.

*C&CC* would have three branches, with Golden City the hub. One branch would go up Clear Creek to Central City and Idaho Springs. Another would go to coal fields near Boulder. The third would go east to Denver City. Central City's newspaper, the *Colorado Times*, gloated, "There is little of the Denver egotism about the Golden City folks. We can hope for advantages from Golden City that Denver in her exclusiveness would never grant."

It was projected as a standard gauge railroad. Loveland, filled with enthusiasm, went east to obtain funds for building the railroad. He didn't get them, but Union Pacific officials expressed interest. That was all the encouragement Loveland needed. He returned to Golden and, with Teller's assistance, reorganized their railroad company as the *Colorado Central & Pacific*. It would be the first of several Colorado railroads to use the magic word *Pacific* in their titles. It implied transcontinental aspirations.

Colorado Central would extend from UP's tracks in Cheyenne south to Golden City. There would be a spur from Golden City to Denver City, thereby demoting that would-be metropolis to second class status as a suburb of Golden City. CC's main line would go west over or under Berthoud Pass to Salt Lake City. Loveland, Teller and Berthoud hoped UP would build this western main line.

Union Pacific was only interested in using Colorado Central as a feeder line, something it couldn't do itself because of charter limitations. In 1867 it approved a Colorado Central branch line extending from Cheyenne to Golden City, with the three branches Loveland planned. Colorado Central would become a thinly disguised UP subsidiary.

By June 1867, Colorado Central's secretary and chief engineer, Captain Berthoud, was ready to begin staking route lines. All he needed was financing.

UP couldn't provide financing. All it could do was provide rails and rolling stock. CC would have to raise $600,000 for grading and ties. It asked the six counties affected by CC's connecting
railroad to contribute $100,000 each by issuing bonds. Five voted affirmatively. Jefferson County attached unacceptable strings to their funds.

Then Loveland, Teller, Berthoud and the Golden Crowd were hit with a double whammy. The capital of Colorado Territory was moved back to Denver City and its leaders decided to build their own railroad connection with the UP in Cheyenne.

*   *   *

Union Pacific's decision to bypass Denver City, along with Durant's "too dead to bury" sneer, energized the stronger spirits in Denver City, its emerging power elite - William Byers, John Evans, David Moffat and Walter Cheesman. They formed the Denver Board of Trade, forerunner of the Denver Chamber of Commerce.

The Board of Trade incorporated the Denver Pacific Railroad & Telegraph Company, with capital stock of $2 million. Bella Hughes was named president and David Moffat treasurer. Directors included John Evans, Walter Cheesman, Luther Kountz of Colorado National Bank and F.M. Cox, the engineer who made the first thorough survey of the Berthoud Pass route.

It was a powerful group with deep pockets, especially those reaching into the First National Bank of Denver (Moffat and Cheesman) and Colorado National Bank (Kountz). Byers cast a fearful editorial eye westward and urged quick action. His Rocky Mountain News cautioned that if Denver Pacific's tracks were not laid quickly, "everybody would move away. We could not afford to pay our freight ... we should break ground tomorrow."

Denver Pacific asked UP to contribute rails and rolling stock. It refused. Congress was urged to give DP a land grant. It had more urgent post-war problems to consider. DP's boosters made passionate speeches. Corporate financial arms were twisted. Citizens were urged to buy DP stock, or make pledges, or donate labor.

Nothing happened. The situation appeared to be almost hopeless. Then the logjam broke. Congress approved a land grant that gave Denver Pacific 9,000 acres along its proposed route. The Board of Trade raised over $300,000. Arapahoe County voters approved a $500,000 bond issue to help Denver Pacific.

The morning sun shone brightly over Denver City. It was going to be saved from second class oblivion!

Loveland, Teller, Berthoud and the Golden Crowd watched all of this with dismay, as their dream of making Golden City the region's rail hub went down the Denver Pacific drain.

Loveland did not give up. In the spring of 1868 he began letting grading contracts, relying on the questionable $100,000 from Jeffco bonds. By the end of the year 11 miles of grade had been finished from Golden east along Clear Creek. Bridges were constructed and ties were laid. Should it intersect Denver Pacific's line north of Denver City or should it go in another direction toward a northern connection with Union Pacific?

Loveland, Teller and Berthoud decided to route Colorado Central through Marshall, Boulder, Longmont and Greeley, then on to a connection with UP at Julesburg. It got as far as Longmont, where it was stopped by the 1873 financial panic. Plans were changed and, in 1877, Colorado Central laid tracks through Fort Collins to Cheyenne. Denver Pacific later built the line from Greeley east to Julesburg.

It was quite a comedown for Loveland, Teller, Berthoud and the Golden Crowd. They had
to settle for local traffic, while Denver City became established with a direct connection to the first continuous rail line from the Atlantic to Salt Lake City and, later, to the Pacific Ocean. Colorado's first iron horse race was over.

The contract to build the Denver Pacific to Cheyenne was taken jointly by former Governor John Evans, David Moffat, Walter Cheesman and several associates. Construction started in May 1868 and continued for about two years.

The first four locomotives purchased by Denver Pacific were named John Evans, Walter S. Cheesman, David H. Moffat and Thomas Edgerton. On June 23, 1870, the Moffat locomotive pulled the first work train from Cheyenne to Denver City.

It was a time for great celebration in Denver City!

* * *

Kansas Pacific Railroad was another thinly disguised subsidiary of Union Pacific. Its pedigree included the old Leavenworth, Pawnee & Western, for whom Berthoud had worked before coming to Golden City. It was building unsteadily westward with Colorado its goal.

Kansas Pacific's construction stalled near the Colorado border. Its directors debated whether to extend their rails north to connect with UP as originally planned or go south to Colorado's Arkansas River Valley and then on down to Texas.

Evans convinced KP's directors to head southwest to the Queen City of the Plains - Denver. It would give Kansas Pacific transcontinental status by using DP's line from Denver to Cheyenne.

Some railroad historians view the agreement Evans negotiated with Kansas Pacific as a sellout. But it helped DP complete its line to Cheyenne and it helped KP complete its line to Denver City. And it brought General Palmer into Colorado's emerging spiderweb of steel.

William Jackson Palmer was born in Delaware in 1834. He was raised in a Quaker home in Pennsylvania. He became fascinated with steam locomotives and railroads as a young boy. At age 17, Palmer went to work for the Hempfield Railroad. At 19, armed with a letter of endorsement from J. Edgar Thomson, the railroad's president, and letters from other influential friends of Thomson, Palmer went to England and France to study railroading, mining and steam locomotives.

The narrow gauge concept was born in England, where an on-going battle of words was raging between its two foremost railroad engineers. Isambard Kingdom Brunel favored broad (standard) gauge track which, in England at that time, was seven feet wide. George Stephenson liked narrow gauge, 4 feet 8-1/2 inches wide, the same as standard gauge in the United States. Palmer observed this verbal battle and became intrigued with the narrow gauge concept.

When Palmer returned to the States in 1856, he became Thomson's private secretary. In 1862, he left the railroad company and formed an elite cavalry troop that joined Union forces in the Civil War. Palmer's troop was expanded to regiment size and called the 15th Pennsylvania Cavalry.

The 15th, under Palmer's leadership, was very successful and Palmer was soon commanding a brigade. At age 19, he became the second youngest brigadier general in the Civil War. Only General Custer was younger.

When the war ended, General Palmer was highly decorated and could have had an outstanding military career, but he chose to pursue his first love - railroading - with the Union Pacific's Eastern Division.

Palmer led a railroad survey party in 1867 to find the best route to California from Kansas
City. He made the 4,000-mile round trip by horseback. Although the UP did not complete this plan, General Palmer would remember it.

In 1869, Union Pacific's Eastern Division became the Kansas Pacific and General Palmer was elected to its board of directors. He was asked to survey routes to extend the Kansas Pacific through Colorado Territory to Denver City.

General Palmer became convinced that the route should follow the Arkansas River to Pueblo, then go north along the Front Range to Denver City. But Kansas Pacific decided to take the most direct route.

Construction crews started at each end of KP's route. When the crews came within about 10 miles of each other, a flag was placed at the midpoint and each team raced to capture it.

The race started at five on the morning of August 15, 1870. The rails met 10 hours later. Record time for laying track - 102 miles in 10 hours! The fastest time in the history of railroad building.

A thousand guests had been invited to take a special train from Denver City to watch the joining of the rails. When they returned, they were General Palmer's guests at a celebratory dinner. Among them was Dr. William A. Bell, a young Englishman who would later become Palmer's associate in all his business ventures.

General Palmer's management skills, as well as his conviviality, impressed Denver City's power elite - especially John Evans. Both men believed Colorado would be relatively worthless if it did not have a network of railroads, with Denver City its hub.

General Palmer wanted to build his own railroad, from Denver City south along the Front Range. But he needed money - *Big Money* - to do it. He left the Kansas Pacific and tried to obtain funds from local interests. Big Money, he quickly realized, was in the East. In spring 1869, General Palmer headed for the bankers' green in New York City.

During the long train ride east, General Palmer met William Proctor Mellen, a prominent New York attorney with many important connections. They were joined in conversation by Mellen's 19-year-old daughter, Mary Lincoln, who had the nickname *Queen*. She was described as "a small, demurely elegant, snub-nosed creature with a low musical voice." Thirty-five-year-old Palmer took one look and fell madly in love. He contrived to accompany Queen and her father all the way to their home in Flushing, Long Island. He stayed there as a house guest until Queen consented to marry him.

The Denver and Rio Grande Railroad Company - the *Rio Grande* - was incorporated in October 1870, with capital stock of $2.5 million. William Proctor Mellon was elected chairman of its board of directors.

The Rio Grande would be narrow gauge. Real narrow, with tracks only three feet wide. Significantly different than the four standard gauge railroads operating in Colorado at that time.

Construction of Denver & Rio Grande Railroad started at Denver City in January 1871. In October, the Rio Grande's first tiny train sped south to Fountain Colony. It traveled the 76 miles of new, narrow gauge track at the astonishing rate of 15 miles an hour.

Palmer's narrow gauge trains had many advantages. Costs were greatly reduced. They were ideal for Colorado's steep, winding mountain grades. The locomotives weighed only 20 tons. Rolling stock was so light strong winds could sometimes blow the train off the track.

An incidental benefit rooted in Palmer's Quaker morality was that his narrow sleeping cars solved the double occupancy problem inherent in cars of normal dimensions, when travelers
unknown to each other might be berthed in the same single bed. It was impossible for more than one passenger to occupy a berth in Palmer's sleeping car.

The creation of new towns along his railroad was one of General Palmer's primary objectives. A member of his survey crew mentioned that there was an excellent location for a town at the junction of Fountain and Monument Creeks, opposite the entrance to Ute Pass. Palmer looked at it and agreed. He decided to make a town site there and call it Colorado Springs.

General Palmer and several of his associates, including General Robert A. Cameron from Union Colony and the Englishman, Dr. Bell, formed the Colorado Springs Company. It would layout the town site, sell lots and start businesses. Dr. Bell's English connections persuaded many English families to settle in Colorado Springs in its early years.

Let's pause here and talk about William Jackson Palmer and the woman he loved, Mary Lincoln Mellen - Queen.

Palmer has been described as "a small, tidy, dapper young man with a split personality - a poet's idealism combined with a hard-as-nails gift for corporate management." Palmer's soft-side revealed a poet, idealist and romanticist. He was in that mode when he wrote his I had a dream letter to Queen in January 1870, before they were married.

I had a dream last evening while sitting in the gloaming at the car window. Shall I tell you? I thought how fine it would be to have a little railroad a few hundred miles in length, all under one's own control with one's friends, to have no jealousies and contests and differing policies...

In this ideal railroad all my friends should be interested... I would have every one of these, as well as every other employee on the road, no matter how low his rank, interested in the stock and profits so that each and all should feel as if it were their own business...

Then I would have a nice house-car made, just convenient for you and me, with perhaps a telegraph operator and secretary, to travel up and down when business demanded.

They were married in 1870. Palmer told Queen about the beauty of Colorado during their 4-month honeymoon in England. He promised his bride that he would build a grand house for her in Colorado Springs.

General Palmer first purchased 10,000 acres at $1.25 an acre to establish the Fountain Colony, which later became Colorado Springs. Later, he purchased an additional 2,225 acres in a beautiful valley near Garden of the Gods. Then he selected 800 acres in the valley for their estate.

Palmer built a 22-room frame house. They named it Glen Eyre - in the valley of the eagle's nest. They remodeled the house in 1881 and planned, later, to make it a castle.

General Palmer and Queen had three daughters. Her health eventually required her to move to a lower climate - first the East Coast, then England, where she lived with her daughters. The general visited them frequently.

Queen died in England in 1894, at age 44. Palmer was devastated. He brought Queen's remains and his daughters to Glen Eyre. He completely remodeled the house again, this time
converting it to a 4-story, 67-room English Tudor stone manor, with 32 bedrooms, 22 bathrooms and 24 fireplaces. Palmer dedicated it to Queen's memory and his promise to her. It now belongs to a Christian group - the Navigators - who use it for spiritual retreats and a Bed and Breakfast for overnight stays and English teas.

* * *

Back now to Palmer, the railroad builder. He was, indeed, a rare bird - one of the few men able to convert their dreams to reality. He would build a spiderweb of steel, under the control of himself and his friends and it would extend not a few miles but hundreds of miles. He would make his dream come true. He would be the first to span Colorado by rail, linking Denver with Grand Junction and points west.

Palmer's soft side and business side joined in an all-out promotional campaign aimed at attracting both investors and tourists. A poet, an essayist and a songwriter were hired to boost both his railroad and Colorado scenery. Palmer's writers spoke of "mechanical monsters with lungs of copper and breath of steam" chugging "up and down steeps of the Great Divide, over the chasms deep and wide." Palmer hired a promising young photographer to provide beautiful Colorado scenery for postcards and brochures. His name was William Henry Jackson. Jackson would later achieve national greatness as a nature photographer. Tourism, thanks to Palmer and Jackson, would become a major industry in Colorado.

The promotional pamphlets reached receptive eyes in England. There soon were so many English immigrants that the young village of Colorado Springs was called Little London by some of its citizens.

Palmer's railroad reached Colorado Springs in October 1871 and Pueblo in 1872. A spur line was built west to the coal fields near Florence. Pueblans felt betrayed by Palmer, who located his depot at South Pueblo, when Pueblo voters did not give him land and other goodies.

Then the Rio Grande headed south toward Raton Pass - the pass of the rat.

Other railroads also coveted the route over Raton Pass. Kansas Pacific wanted to extend south to Pueblo. The Atchison, Topeka & Santa Fe, approaching Pueblo from the east, wanted to route its line over Raton Pass. Both needed financial support and they asked Pueblo voters to approve bond issues to help them, which they did.

For Kansas Pacific, it wasn't enough. Drained financially by the 1873 panic, it bowed out of the race to Raton. The Santa Fe pushed ahead. It had deeper pockets and a much more rhythmical name. Glen Miller's World War II song - The Atchison, Topeka and the Santa Fe - lifted the spirits of millions of servicemen and their friends and families back home. The railroad's name had a rhythmic beat, like the name of the poet, Edna St. Vincent Millay.

Colorado's second iron horse race had started. Palmer's Rio Grande against the Santa Fe. The prize: Raton Pass.

The Santa Fe reached El Morrow, only 15 miles from Raton Pass, in April 1876. It sent a land agent forward, covertly, to obtain right-of-way from the owner of the toll road over Raton Pass. The Rio Grande was a little slower, but it also sent a land agent to obtain a right-of-way. Its man, burdened with General Palmer's moral baggage, did not attempt to hide his identity.

The owner of the toll road was Uncle Dick Wooten, late of Denver City. He said he relocated at Raton Pass, the lowest crossing between Colorado and New Mexico, because Denver
City was so unstable. For whatever reason, he prospered there, collecting tolls and selling Taos Lightning.

Uncle Dick was aware of the competition for his valuable right-of-way. He made no commitment to the Rio Grande's advance agent. He spent more and more evenings relaxing with a Basque sheepherder with a friendly smile. The sheepherder matched Uncle Dick drink for drink and delighted him by playing tunes on an old fiddle.

Palmer's advance agent was well aware of his boss' high moral standards and he observed them to the letter. He was no match for the friendly fiddler, who finally identified himself as land agent for the Santa Fe.

Would Uncle Dick, his good friend and drinking buddy with whom he had spent so many pleasant evenings, consider allowing him to purchase his right-of-way for the Santa Fe?

Of course he would accommodate his good friend. The agreement was consummated with the assistance of a jug of Taos Lightning. A few months later the first Santa Fe steam engine crossed Raton Pass. It was named Uncle Dick.

The Santa Fe then announced its intention to lay rails through the 1,000-foot-deep Royal Gorge and up to Leadville, home of the rich silver bonanza. General Palmer considered Leadville his territory and he was not about to concede it to a rival.

Colorado's third iron horse race had begun. The prize: Leadville. It would be even more spectacular than the second race. It would make national headlines.

The Royal Gorge was key. Its control became the central issue of seemingly endless trials that raged through Colorado courts. General Palmer was irritated by the many writs, injunctions, court orders and subpoenas. So was the Santa Fe. It decided to use another approach.

The Santa Fe assembled a hundred bad men led by the notorious Bat Masterson and his lieutenant, "Doc" Holliday. They were placed, fully armed, on a special train headed for the Royal Gorge.

There was no bloodshed, thanks to Jay Gould, the powerful eastern financier and gobbler of railroads, big and small. He had recently gotten control of the Rio Grande. The Santa Fe could not risk tangling with the powerful Jay Gould. It accepted Gould's offer of $1.4 million cash for track it had laid in the Royal Gorge. It released its bad men and the Rio Grande moved triumphantly into Leadville in 1880 and into Durango - another of Palmer's railroad-created town - in 1881.

There are other, less colorful, versions of the races for Raton Pass and Leadville. Historians often have different versions of the same events. Given a choice, I'll select the most colorful version every time.

The Rio Grande's main line passed through the Black Canyon of the Gunnison. The last mile through the canyon took more than a year to build. Newspapers reported that the Rio Grande had more men building its railroad than were in the U.S. Army at that time.

Litigation and high construction costs forced General Palmer to finally share his railroad with others, particularly Jay Gould, the shrewd exploiter of troubled railroads. Later, David Moffat would control the Rio Grande and convert it to standard gauge.

The Rio Grande finally reached Utah, where it was stopped because, being a private corporation not charted by Congress, it could not cross the state line. So Palmer and his new associates formed another company in Utah - the Rio Grande Western. As a private company operating in Utah, it was able to obtain the rights-of-way necessary for laying rails to Salt Lake City.

The Rio Grande and its extension, the Rio Grande Western, became the longest narrow
gauge railroad in the world.

*    *    *

Back, again, to General Palmer, the man. He loved to ride horses on his estate with his daughters and friends. On the paths around Glen Eyre and in the Garden of the Gods nearby. In 1906, his horse stumbled and threw him. He was paralyzed, but not stopped.

Palmer's doctor designed a special, form-fitting case, stuffed with hair and feathers, that fitted comfortably into the general's Stanley Steamer automobile. When placed there, he could go wherever his driver would take him.

The general's doctor refused to give him permission to attend the 35th reunion of his Fifteenth Pennsylvania Cavalry - ten months after his accident. So Palmer brought the 280 old soldiers to Glen Eyre and treated them to the best time of their lives.

There was a big parade, led by General Palmer in a dazzling white uniform, reclining comfortably in his form-fitting case in the white steamer. A few months later, Palmer and his daughters made a trip to England and the Continent. If only Queen could have been with them!

General William Jackson Palmer died in 1908, two years after his accident. He was one of Colorado's greatest men.

*    *    *

The Denver Pacific, Kansas Pacific and the Rio Grande were largely responsible for making Denver City the hub of the spiderweb of steel built during the 1870s. They spurred its fantastic growth.

Denver City's population was 4,749 in 1860. It decreased to 3,000 in 1861. There were decreases during the next three years. Fire. Flood. Then slow recovery to 3,500 in 1866 and to 4,739 in 1870 - ten less than in 1860. Denver City's population grew over 700 percent during the seventies, due to the railroads, reaching 35,629 in 1880.

Other Colorado railroads made significant contributions to population growth during the seventies. John Evans was into railroads big time. He became known as Napoleon Evans, because of his railroad ambitions and his organizational genius. Forget Sand Creek. See the real John Evans, now firmly entrenched as one of the most powerful of Denver City's power elite.

Evans formed the Denver South Park & Pacific Railroad Company in 1873. It had two branches, southern and northern. The southern route included the Alpine Tunnel, about half-way between Buena Vista and Gunnison. The Alpine Tunnel was, for its time, a railroad engineering marvel - 1,800-feet long at an elevation of nearly 12,000 feet. Its construction progress was followed by engineering journals all over the world.

South Park's northern branch also raced with Palmer's Rio Grande to reach Leadville. When gold was discovered near Leadville in 1877, a frenzied rush of fortune hunters hit Leadville. The Denver Times reported, "Today men are amassing colossal fortunes there, with thousands digging and delving towards the same result. Its equal has never been known on the American continent, if not in the civilized world."

The South Park's narrow gauge railroad became one of John Evans' greatest accomplishments. The railroad poet, Cy Warman, said "Its little locomotives could curve on the
brim of a sombrero." Its longest straight line of rails was 7.84 miles near Fairplay in South Park. If it went to Leadville from Fairplay, South Park's distance from Denver City to Leadville would be over a hundred miles less than the Rio Grande's route. Jay Gould wouldn't allow it to happen.

Gould intervened and arranged a truce between South Park and Rio Grande. He had acquired a controlling interest in the South Park, which he later sold to Union Pacific. Another route (longer) to Leadville was selected for the South Park.

Two branches of the South Park separated at Como. The Highline branch went over Boreas Pass to Breckenridge, Dillon, Kokomo and Leadville. The other branch went over Trout Creek Pass into the Arkansas River Valley and on to the Gunnison coal fields.

The "constantly scheming" John Evans had more fish to fry. Or, more accurately, more rails to lay. In 1882 he incorporated the Denver & New Orleans Railroad Company, with intent to lay rails from Denver City to the Gulf. It didn't get there, but it caused a lot of controversy. Let's just say that it went through Elizabeth and it provoked a rate war.

We should add that the town was named for Evans' sister-in-law, Elizabeth G. Hubbard. And - Evans' D&NO caused Rio Grande's supporters in Denver City, the Tribune and the Republican, to be on the receiving end of one of John Evans' rare public outbursts. Both newspapers, Evans shouted, were party to "one of the foulest conspiracies in the history of the country."

The Colorado Central found its real home, and a respected place in Colorado history, in its narrow gauge railroad into the Front Range mining country. CC's backers brought small steam locomotives previously used to fill Boston's Back Bay. After reconditioning, they were used on routes to Black Hawk, Central City and Georgetown.

The 4.7-mile Georgetown Loop, completed in 1877, made 3-1/2 complete loops, climbing to Silver Plume from Georgetown. Tourists came from all over the world to ride the Loop and photograph its wonders.

By 1890 there were sixteen small railroads operating in Colorado, with the Rio Grande the largest. Walter S. Cheesman, a late-comer to the ranks of Denver City's power elite, was involved behind the scenes in much of this rail activity.

Cheesman left big footprints on the early history of Colorado's railroads. He helped organize and build the Denver & Boulder Valley Railroad, which opened the Marshall coal fields to the Denver Pacific. He was DP's vice president and one of the incorporators of the Denver & South Park and the Denver & New Orleans. When Gould bought control of the South Park in 1880, Cheesman became its vice president. He was a trustee during the Rio Grande's receivership in 1884 and a director of the Denver Northwestern & Pacific - the Moffat Road.

These railroad builders opened up Colorado to commerce in the 1870s. They made it possible for Denver City to develop and grow and become the Queen City of the Plains. Without them there would be no Metro Denver Water Story.

There were so many, but the greatest of them all, at least in Denver and Colorado water history, was David Moffat. And Walter Cheesman, as we'll see later.

Moffat's struggle to build the Moffat Road, more than any other of his many accomplishments, made him a legend among Colorado's railroad giants and Denver's water history.

Moffat's many business interests extended to banks and utilities, as well as railroads. Colorado historians seem to have difficulty describing David Moffat. Dave shied away from publicity. He wrote few letters, kept no journals, wrote no memoirs. His legend grew to maturity.
after his death.

David Moffat was a solid, intelligent, congenial man. Harold A. Boner described him in *The Giant's Ladder*:

> He was never hurried, never anxious or preoccupied. No problem was ever pressing enough to crowd out of his life the intervals of casual conversation, the good-natured social activity, and the simple enjoyment of good eating and drinking.

> This quality was perhaps the central index of his strength and it never failed him to the end. One of his closest associates in the final years of his life, when he was carrying the burdens of a titan, summed up his impression of Dave by saying, 'He was the most relaxed man I have ever known.'

The First National Bank of Denver thrived during the seventies, largely due to the mining assets Moffat directed into it. He became First National's president in 1890 and held that office for twenty-one years, until his death. Dave purchased interests in several Leadville mines and he became known as one of Colorado's silver kings.

When David Moffat sold his holdings in the Denver Pacific, Kansas Pacific and Boulder Valley railroads in 1880, his assets ballooned. He became a director of the Rio Grande in 1883 and its president in 1885. Under his leadership the Rio Grande won the iron horse race to Tennessee Pass against Colorado Midland.

David Moffat, Walter Cheesman and a few others founded the Denver Club in 1880. It has survived to this day as an elite social club for Denver's business people.

After Moffat's close friend and business associate, John Evans, died in 1893, he developed a close relationship with John's son, William Gray Evans, mainly through their controlling interests in the Denver Tramway Company.

William Gray Evans was called W.G., Will, Bill and Gray. I'll call him Gray, for no particular reason. Perhaps because he married his beautiful cousin, Margaret Gray. Gray Evans was born in Evanston, Illinois in 1855. He was educated in Denver schools. He attended a private school in London in 1870 with young Thomas (Tad) Lincoln. He graduated from Northwestern University in 1877.

Gray Evans returned to Denver and worked as a bookkeeper for his father. In the early 1880s, he opened a real estate, loan, and collection agency with his cousin. He was described by Allen duPont Breck in *John Evans of Denver* as a shy young man and,

*Will always remained a visionary, more interested in works of service to the community, full of plans, never in the full sense of the word a 'man of business.' The sub-title of a biography calls him 'a western business executive,' and this is perhaps the best term to use.*

Others treated him less kindly. Leonard and Noel in *Denver* quoted gossip columnist Polly Prig who described Gray Evans as "a little, stocky man, with square shoulders and a square head," and "an expressionless, impassive sort of face, with cold gray eyes and a firm hard mouth." They also quoted Edward Keating, managing editor of the *Rocky Mountain News*, who saw Gray Evans
as "Napoleon Bill - rich, able, politically unscrupulous."

Much of the flack directed at Gray Evans was due to his involvement with the Denver Tramway Company. He was its president from 1902 to 1913 and became known in Denver as the *Tramway King*. Electricity, which had taken time by the throat, powered Tramway, and also Gray Evans.

Gray Evans and his sister, Anne, made a memorable vacation trip to northwestern Colorado in 1896. The trip inspired Gray. He saw unending acres of virgin timber and vast, unexplored coal beds. All of this appeared to him to be an empire awaiting development. He told his friend, David Moffat, about it.

Gray and Dave agreed that a railroad that crossed the continental divide and extended north from the Grand River to the Yampa, then down into Utah, would put Denver on a direct transcontinental railroad route and it would bring vast natural resources into Denver.

David Moffat thought about it for a long time. Could he do it? Was there time? He was in his early sixties, no longer the tall, slim man that came to Denver in 1867. Years of gracious living had taken their toll. He had confided to close friends that he did not expect to live beyond age seventy-five.

Dave's beloved granddaughter was the first to know. Cubby was a small girl in 1900. She watched her grandfather as he stood on his veranda and looked steadily at the mountains to the west. Suddenly he turned and looked at her. "Cubby," he said, "I'm going to bore a hole through those mountains."

"What with, grandfather?"

"With dynamite, Cubby."

"What for?"

Grandpa Moffat considered that important question. Then he replied, "For people to get through, Cubby."

Gray Evans visualized an electric railroad over the divide. With a flexible wheelbase, it could navigate much steeper curves than conventional steam powered rolling stock. David Moffat favored large, powerful steam engines.

Denver Tramway officials incorporated the Denver & Northwestern Railway in 1901. It would be an electric line extending initially from Denver to the coal mines near Leyden. Later, the articles of incorporation were amended to include a route west across the continental divide and down to Hot Sulphur Springs.

Gray Evans and Gerald Hughes, Tramway's attorney, went to New York City to raise funds for the D&NW. They were very surprised to receive an urgent telegram from David Moffat. "Return at once," it said. "I have decided to build a steam railroad from Denver to Salt Lake City ... Electric line too slow."

Gray Evans controlled Tramway, but David Moffat controlled Gray Evans. And Gerald Hughes.

Evans and Hughes were stunned. Moffat understood and tried to soften their misgivings when they returned to Denver. Then he summoned his longtime friend and associate, A.C. Ridgway, a veteran mountain road builder.

Moffat described his mountain railroad plan and asked Ridgway to become his general manager. A.C. replied, "Mr. Moffat, if I were you, I would not build that road at this time." Dave's reply was memorable: "I am going to build this road to develop Colorado and you are going to build
it for me... I want this to go down in history as my greatest effort in railroad building."

Moffat obtained a $22.5 million loan for his railroad from eastern financiers. "It was not easy," he told friends later. When they asked why, he said "Gould and Harriman."

Financier Jay Gould controlled the Rio Grande. Edward H. Harriman controlled the Union Pacific. Moffat's proposed route would go almost directly west between Gould's and Harriman's railroads and it would shorten the distance from Denver to Salt Lake by 160 miles. They felt threatened and they would try to stop Moffat.

Moffat asked Gerald Hughes to draw up incorporation papers for a railroad that would replace the Denver & Northwestern. Call it the Denver Northwestern & Pacific. It soon became known as the Moffat Road.

Incorporators included David Moffat, Charles J. Hughes (Gerald's father), A.C. Ridgway and Walter Cheesman. They formed another company - Colorado-Utah Construction - to build the railroad. It would be financed, at least initially, by issuing DNW&P bonds. Ridgway would manage it.

Moffat Road construction was difficult and expensive. Thirty-one tunnels were required along South Boulder Creek. Harriman sent timbermen and prospectors into the field to file fraudulent claims on rights-of-way Moffat needed. It was clearly harassment for the claims had no legal validity, but it slowed construction and increased costs.

Moffat had to choose between three passes over the continental divide. He sent eight surveying parties into the field in the summer of 1902 to find the best route. Rollins Pass was selected. Then the railroad would follow the Fraser River down through Middle Park to the Grand (Colorado) River. Then down through Byers Canyon to Kremmling. Up to Steamboat Springs. Down to Salt Lake City. The ascending grade would be two percent. The descending grade would be no steeper than 1.25 percent.

Construction costs soared. Twenty-two more tunnels had to be drilled between Rollins Pass and Glenwood Springs. Moffat had to make another trip to New York City to obtain funds. When he returned, in December 1902, he said, "We have met active opposition from the strong financial combines controlling the roads north of Denver."

A week later, Moffat announced that he was planning a financial combine that would include First National, a financier in Providence, R.I., and the Boissevain family in Holland. Dave was First National's president and he owned 72% of its stock.

Then Harriman struck again!

When Moffat Road surveyors reached the head of Gore Canyon, they found surveyors already at work. They were working for an unknown company called Hydroelectric Power. It was incorporated in Denver in September 1902. Harriman arranged for a newly formed shadow corporation - New Century Light & Power - to purchase Hydro.

Harriman's New Century planned to build a dam and power plant in Gore Canyon. A large reservoir would extend upstream. The project was designed to block the Moffat Road.

Harriman sent undercover land agents into the field to take options on ranches which had rights-of-way needed by the Moffat Road. In March 1902 New Century obtained an injunction against Moffat Road laborers working in Gore Canyon. Charles Hughes, Moffat's attorney, had it removed.

It was economic, legal and political hardball, a game that Harriman was skilled at playing.

Moffat obtained a temporary restraining order that prevented New Century from further
activity in Gore Canyon. It was ignored. A contempt citation was issued. It was ignored.

Union Pacific and Rio Grande placed enough directors on the board at Union Station in Denver to control it. In June 1904, they barred the Moffat Road from use of Union Station.

Moffat reacted quickly. Within a month he had a temporary platform operating at 15th and Delgany. Later, he built a permanent depot at 15th and Bassett, on property owned by the Denver Water Works Company, which Moffat helped incorporate in 1902.

The Gore Canyon railroad war continued. Harriman sent six "engineers" to see the chief engineer of the recently established Reclamation Service - F.H. Newell. They suggested to Newell that the broad valley above Kremmling was ideally suited for a reclamation reservoir. It could store water for use downstream in Arizona and California. What a feather in the Reclamation Service's political cap! They let Newell know that E.A. Harriman, a very important man, favored it.

Late in the afternoon of March 18, 1922, Gray Evans sent this telegram to David's wife Fanny: "Mr. Moffat was feeling bright all yesterday and walked about his room last evening. The chill this morning did not seem a severe one. He seemed to be recovering, but passed away suddenly." He was seventy-three.

Moffat's body was placed in the state capitol building. Thousands passed by it slowly and mournfully as it lay in state. Then it was taken to the Moffat mansion at 8th and Grant for a private service.

During the service all Moffat Road trains and all Denver Tramway street-cars paused for five minutes of reverent silence. Moffat Station was draped in black. It was a very sad day in Denver.

David Holladay Moffat was buried in Fairmount Cemetery under an inexpensive tombstone. Many years later it was replaced by a large granite tombstone better suited to his revered place in Colorado history.

Do we remember David Moffat when we ride in comfortable Rio Grande coaches from Denver through the Moffat Tunnel to the Winter Park Ski area and on to Glenwood Springs and Salt Lake City? Through fifty-three tunnels carved out of solid rock with blood, sweat and most of David Moffat's money?

The Moffat Tunnel - the railroad tunnel. There now is another, smaller tunnel adjacent to it that is equally as important - the Moffat Water Tunnel.

The story of these two tunnels will be told in a later chapter.
Here is a land where life is written in water,
The West is where the water was and is,
Father and son of old; mother and daughter;
Following rivers up immensities
Of range and desert, thirsting the sundown ever.

COLORADO IS A LAND where life is written in water. These profound words by Colorado's late, revered poet laureate - Thomas Hornsby Ferril - are inscribed in the rotunda of our state capitol building, among murals depicting Colorado's dependence on water.

Colorado's history is written in water. It starts with irrigation - harvesting April's rivers.

Irrigation! Picture the early irrigators with their high, muddy boots and their long, pointed shovels. Sometimes, armed with shotguns. See the ditchriders, first on horseback, later in pickup trucks with a friendly dog in the back. Remember all those fights at the headgates with the water commissioner, or whoever else tried to interrupt the flow of water onto thirsty hay meadows and gardens. It all fits comfortably into the fabric of how the West was won.

Early Hispanic settlers in the San Luis Valley were Colorado's first irrigators. They dug an acequia in 1852 and called it the San Luis People's Ditch. It diverted water from Culebra Creek and later obtained Colorado's first recorded water right.

Many people lived in placitas and went out to their fields to work. Their fields were laid-out in long, narrow strips, usually bordering on water. There was a large public pasture called a vega. It was a combination of private and public land, common to their culture. The farmers selected a major domo to distribute their irrigation water equitably.

More plazas were built and more ditches were dug. It wasn't long before irrigation flourished in the San Luis Valley.

The earliest known attempt to irrigate land along the Front Range occurred in
1859, when David K. Wall dug a short, crude ditch and diverted water from Clear Creek to irrigate his vegetable garden.

Wall had done it before, in California. Before coming to Colorado, David and his brother John ran a freighting business to supply mining camps. As a side venture, the brothers irrigated 25 acres of potatoes and garden crops on the North Fork of the Trinity River and sold them to the miners.

David saw a similar opportunity when he arrived in Golden City, which had become a supply hub for gold mining on upper Clear Creek and in Gregory Gulch. Now an experienced irrigator, Wall made a profit of nearly $2,000 from his vegetable garden in 1859. Others noted his success and started digging irrigation ditches to divert water from Clear Creek.

Jonas Wannamaker was one of Wall's converts. He began irrigating 62 acres of land east of Golden. His Wannamaker Ditch was later given the first priority on Clear Creek when its water rights were adjudicated.

* * *

Two outsiders - both eastern newspaper men - were the first to arouse interest in large-scale irrigation in northeastern Colorado. Horace Greeley was the first, then Nathan Meeker.

Greeley was a serious, moral man with strong socialist beliefs - an unintentional character, as Marshall Sprague noted in Massacre: The Tragedy at White River

Greeley, six years older than Meeker, had been born even more acutely poor in New Hampshire. He too was self-educated. At the very least he deserved to be called a character. He had the pink, mild face of a contented infant. His voice was a squeak and his whiskers were limp as corn silk. His handwriting was unreadable. He wore outlandish clothes. Though his income was large, he was usually short of cash, being a soft touch for endless charities. He was a Free-soiler and a student of spiritualism. He abhorred artists, opera, Paris, the theater and Turkish baths which 'destroyed the electrical coating of the body.' He opposed Catholics and Germans because, he said, they drank too much beer.

Greeley made his New York Tribune the most powerful newspaper in the United States. He used it to express his version of the conscience of America.

Greeley must have had a warm side, because people called him Uncle Horace and jokes were played on him. History treats him well. Kansas Territory named two towns for him - Horace and Tribune. And, of course, Greeley was named for him.

Gene Fowler recalled Greeley's encounter with the South Platte in Timberline:

Horace went on a prospecting hike. Mounted on a mule, and with an old white hat of copious brim pressed to his Socratic forehead, Horace came to
the Platte.

This spring freshets had made of that river a roaring tide. Uncle Horace plunged in and began to buffet the torrent. He was washed from the back of his palfrey. The awestruck settlers saw the mule emerge and the white hat go sailing downstream. The celebrated maestro of the quill was nowhere in sight.

Finally, the Westerners espied editorial bubbles rising to the surface, and then the almost albino noggin of the learned writer.

Now a boat hook is one of the rarest of utensils in Colorado family life, yet someone appeared with a boat hook and made thrusts at the floundering leader of the Fourth Estate.

It so happened that the rescuers' boat hook got a purchase in the seat of Horace's trousers. But no matter, he was drawn ashore, half drowned, but graspingly grateful.

Another story places Greeley at Palmer Lake, where he stopped at a boarding house to get a shave. He didn't know that the proprietors were royalty - self-proclaimed royalty. "Count" Henri Murat cut hair. "Countess" Katrina Murat washed clothes.

Katrina became known as the Mother of Colorado because on July 4, 1859 she made the first American flag in the Rocky Mountain region. She made it by cutting long strips of broadcloth from her skirt, from Henri's nightshirt, and from silk from a dress she had worn at a ball.

Henri's claim to fame rests on the stool he placed Horace Greeley on before he shaved him. Gene Fowler recalled the event:

The porter-barber-count placed Uncle Horace on a three-legged stool and lathered him. The journalist moaned beneath the razor. When the operation was concluded, the count solemnly charged Uncle Horace five dollars!

It is said that this tonsorial indulgence led Greeley to shun barbers thereafter and to grow that immortal crop of chin whiskers which one may see in bronze, if one cares to look from the doorway of Barney Gimble's New York store.

If Greeley was a character, so was Nathan Cook Meeker. At least he was different. Marshall Sprague wrote that Meeker was an original, like Frémont, Gilpin and Palmer.

Meeker was born in 1817 on a farm in Ohio, near Lake Erie. George Washington congratulated his grandfather with a handshake for contributing eighteen sons to the revolutionary army. Nathan's parents were less prolific, going more for quality. Nathan was their first child.
Meeker taught himself to read and write at age five. He tutored his younger brothers and wrote poems at age twelve. He did not like manual labor. He told his father that he could grow better crops by using better farming methods. Arguments followed and Nathan left home at age seventeen. He had various jobs, saved his money, and went to New York City to write poetry.

The editor of the New York Mirror finally agreed to publish some of Nathan's poems, which spoke of the evils of drink and the merits of labor (by others). Meeker was an atheist, an idealist, a visionary. He celebrated his 26th birthday by writing a sonnet. Marshall Sprague described him in Massacre: Tragedy at White River.

By now he was a handsome man, tall, lean, eager and blue eyed. He had a nice smile which he tried to make worldly-wise and cynical to conceal his wild romanticism, his indestructible hopefulness. Next to debt, he hated slavery the most, and then conformity, capital punishment, Daniel Webster, luxury and New England conservatism. In his quest for perfection, he studied all the lush revolts of a revolt-loving period - the celibate Shakers, the amorous Oneida Community, the fanatic Mormons, the Brook Farm transcendentalists. He favored agrarianism and hard work, temperance and eugenics, Jacksonian reform and eating carrots for better vision at night.

Nathan tired of the life of a starving poet and returned to the small community of Euclid, near his parent's farm. He became interested in articles in the New York Tribune about Fourierism - the social system proposed by the Frenchman, Francois Marie Charles Fourier.

Followers of Fourierism believed competition and individualism stifled human nature and that government should be replaced by communal associations called Phalanxes. Each phalanx would have about 1,800 adults who would provide all necessary industrial and social services.

Fourier died in 1837, mostly unnoticed in France, but his social scheme swept across the States. Men of stature, such as Nathaniel Hawthorne and Ralph Waldo Emerson, liked it. It seemed to embrace all the ideas Nathan Meeker considered important.

The economy of a Phalanx was based upon raising and marketing crops. Proceeds were divided into twelfths - 5/12 to laborers, 4/12 to capitalists, and 3/12 to what they called talent: doctors, teachers, book-keepers, etc. Nathan was in the talent group.

Nathan married Arvilla Delight Smith in 1844. He persuaded her to move to a Fourier phalanx 50 miles south of Euclid, where they lived until it was dissolved in 1847. He was a storekeeper and he studied western history, particularly Frémont's reports and stories about the Mormon colony in Utah.

Nathan's reading inspired him to write a novel - The Adventures of Captain Armstrong, published in 1856. It didn't attract much public interest, but he sent a copy to Horace Greeley and asked for his professional opinion.

Meeker struck spiritual gold! Greeley's socialistic views were very similar to his own. Nathan had literary style and first-hand knowledge of agriculture, mostly acquired by observation. Greeley hired him to work for the Tribune, first as a Civil War correspondent,
later as agricultural editor. Meeker soon became the most popular agricultural columnist in the Union. And, best of all, he found a true soul mate in Horace Greeley.

Nathan continued to write about the West. His second book, *Life in the West*, published in 1866, sold well. Meeker and Greeley both believed that growth in the West would save the Union from economic problems it faced when the Civil War ended - particularly if this growth could be guided by Fourier's socialistic principles.

Greeley encouraged Meeker to use his agricultural articles to promote socialistic agrarian communities. He sent Nathan west in late 1869 to prepare a series of articles and look for a tract for a communal community.

Meeker went west as far as the Kansas Pacific would take him, which was near the Kansas-Colorado border. General Palmer was on the same train and he filled Nathan's receptive ears with glowing accounts of the Pikes Peak region.

Nathan visited South Park, looking for a tract suitable for an agricultural colony. He had almost decided on an area near Eleven Mile Canyon when he met Will Byers, who was working part-time as a land agent, selling land owned by the Kansas Pacific Railroad Company.

Byers' pitch probably went something like this: I have a beautiful, 12,000-acre tract near the mouth of the Cache la Poudre that is just what you are looking for. It's a steal for only five dollars an acre. What a bargain! What an opportunity!

Nathan returned to New York filled with enthusiasm. He soon had Greeley's approval and backing. They would call it *Union Colony*.

Nathan used his influence as the most widely read agricultural columnist in the States to solicit volunteers for Union Colony. He wrote his famous *Call* in a *Tribune* article on December 14, 1869. It was a call for men to start an agrarian community of temperance, monogamy and religious tolerance, where all worked for the common good at tasks they most enjoyed doing.

Meeker's call was accompanied by an enthusiastic endorsement written by Horace Greeley. The call and its endorsement were reprinted everywhere. The response was overwhelming. There were thousands of inquiries.

A promotional meeting was held in New York City. Greeley presented Meeker, who told the cheering audience that those who answered his call would be able to provide money enough to buy land in Colorado, "well watered with streams and springs, dotted with pine groves and with an abundance of coal and stone." He told the appreciative audience that Union Colony would be a cultural model for the world. And - hear this - the cost is only ninety cents an acre!

More than enough people subscribed, at $155 a head, to purchase the 12,000-acre tract. They began arriving the following spring. Each received a town lot and 160 acres of irrigable bottom land. Most of them were educated and had various skills.

The colonists included a former Civil War general, Robert A. Cameron, and an irrigation engineering expert, E.S. Nettleton.

Cameron was born in Brooklyn. He was a town planner who would later plat Greeley, Fort Collins and Colorado Springs. Cameron's Cove near Mt. Rosa would be named for him.

E.S. Nettleton had invented a device for measuring stream flow. He had studied
irrigation methods used along the Nile and Euphrates and in China, Italy, India and Spain – and along the Rio Grande in the San Luis Valley. He recognized that the flat land near Union Colony had exciting irrigation possibilities.

Meeker and Greeley continued to promote their program to remake America along the lines of their communal Union Colony - a much better alternative, they proclaimed, than capitalism. Meeker named the small settlement of colonists Greeley, which pleased his boss and mentor.

Communal living in an irrigation economy has practical advantages, as Mormons in Utah had discovered. Men working together could build large irrigation ditches, diversion dams and regulating reservoirs. Men acting alone could not do this. However, as time passed, Union Colony irrigators became less socialistic and more utilitarian in their attitude.

Horace Greeley tried to guide his Union Colony converts from his Tribune office in New York City. He imposed some impractical rules, such as: "Thou shalt not sell liquid damnation within the limits of the Colony." Rum, he proclaimed, would undermine community spirit.

Greeley tried to nourish weakening socialistic spirits by sending a carload of fruit trees from Virginia to Union Colony. They would, he thought, provide the soft, fragrant look of the old South. The colonists’ cattle quickly devoured the young trees, after lack of water had taken its toll.

Greeley then advanced the colonists $25,000 to buy fifty miles of smooth-wire fence to hold vagrant cattle in their communal pasture. This was a few years prior to the invention of barbed-wire fence by Joseph Glidden, an Illinois farmer who called it bob-wire.

Old settlers laughed at the fence that "Father Meeker built to protect the Saints from us Heathens 'round about." Meeker irritated the old settlers by buying their homesteads. Their anger increased when they heard that Meeker regarded them as "a loose bunch morally." Nathan's brother further irritated them by calling them squatters in a Tribune article.

Meeker wrote many laudatory articles about Union Colony in his agricultural column in the New York Tribune. They caused the price of lots in the new settlement of Greeley to rise from $25 to $500.

Union Colony bore no resemblance to the utopia Meeker described at the promotional meeting in New York City. The cost of this treeless, barren land was $5 an acre, not ninety cents. The colonists discovered that William Byers had included in the sale of land to Greeley a section (640 acres) that Kansas Pacific did not own or control.

Meeker urged the colonists to organize a stock and dairy association which would have a common herd milked by communal hands. The dairy would support a bakery and a laundry for communal households. But the colonists refused to risk their money on this Meekerian adventure and the herd had to be sold at a loss.

Meeker was a visionary who had little or no business sense. He would sacrifice everything, including his family's welfare, in order to advance his socialistic objectives. He spent his own money on colony expenses and often forgot to seek reimbursement from Greeley.
Nathan Meeker's savings of more than $10,000 melted away. Yet he built the most expensive house in Greeley. He was in debt in October 1870 when he borrowed a thousand dollars from Greeley to start the *Greeley Tribune.*

In 1872, Greeley sought the presidential nomination on the Liberal Republican ticket. He won the nomination and both Greeley and Meeker devoted most of their energy to the political campaign. Meeker's *Greeley Tribune* "reeked with Horace Greeley propaganda." This split Union Colony into bitter factions.

Greeley was not a popular presidential candidate. Mrs. Greeley became ill and Horace stayed beside her, without sleep, until she died. Nine days later, Grant was re-elected in a landslide.

Greeley did not recover from his wife's death. His mind broke and he died insane in New York City on November 29, 1872. The funeral service was attended by President Grant, Vice President Colfax, Chief Justice Chase and a thousand others.

Back in Union Colony, Nathan Meeker might have continued to live a productive life, in spite of his eccentricities and frequent poor judgment. Most of the colonists liked him and admired his fantastic energy and his willingness to sacrifice himself and his money for improvement of Union Colony. They saw him as a selfless, mostly harmless, visionary.

It was Meeker's irrigation fiasco that led to his downfall and placed Union Colony at the doorstep of Colorado water history.

Guided by the learned E. S. Nettleton, Meeker allotted $20,000 from communal funds to dig four ditches to irrigate 20,000 acres. The first ditch, three miles long, cost $27,000 and irrigated only 200 acres. The colonists waited a week for the water to reach the end of the ditch. The ditch was supposed to water the colonist's gardens. They dried-up for lack of water.

Nettleton, backed by Meeker, built a millrace costing $10,000 to provide water power for a corn grinding mill. There wasn't enough water, most of the time, for both irrigation and corn grinding.

Nettleton's Canal No. 2 was 36 miles long and 32 inches wide on the bottom. Digging started in 1870 and was completed in 1872.

Ditch No. 3 was intended for the town of Greeley.

The total cost of Nettleton's four ditches reached $412,000. There was much grumbling about the cost and some of the colonists, led by General Cameron, left Union Colony and moved upstream, where they built their own irrigation ditches.

Cameron's ditches diverted water from the Cache la Poudre above Nettleton's headgates. The stage was set for Colorado's first water war.

During the hot, dry summer of 1874, Cameron's ditches diverted all of the water in the river. Downstream, at Union Colony's headgates, the river was dry. The colonists asked General Cameron to let some water flow downstream. He refused.

Union Colonists proposed that an impartial arbitrator make a fair division of the water. There was no response. "From that day forward," wrote David Boyd, the colony's historian, "the people of Union Colony set their heart upon having a law enacted to enable them to have the water of the river distributed according to the vested rights of all concerned."
The seeds of Colorado's historic doctrine of prior appropriation had been sown. It will be discussed in a later chapter.

Meeker failed to achieve his socialistic goals at Union Colony. He tried to achieve them in another location, on Colorado's Western Slope, as superintendent of the White River Utes Reservation. Marshall Sprague wrote about it:

_With all his experience in handling sophisticated white colonists, he ought to be able to manage simple savages. He would win their love and confidence and raise them out of their misery by teaching them the wonders of modern society._

It didn't happen. The Utes did not want to become farmers. They did not want to work on Meeker's model irrigated farm. On September 29, 1879, spurred by accumulated rage and bitter resentment, they attacked. Meeker and most of his men were massacred.

There was a bullet hole in Meeker's head and a heavy logging chain around his neck. He had been dragged around the compound by a Ute Indian's pony. A flour barrel stave had been jammed down Meeker's throat. It was the end of socialized irrigation in Colorado.

* * *

Irrigation was an important part of Denver's early history. It spawned the historic City Ditch - one of the first big efforts to bring irrigation water to dry, dusty Denver City.

The City Ditch's history starts in November 1859, when Capital Hydraulic Company was organized to deliver South Platte River water through a ditch to Denver City. The company was incorporated in February 1860 under a special act by the Kansas Territorial Legislature.

Capital Hydraulic built a headgate on the east bank of the South Platte, on Richard Little's Farm. It spent $10,000 to dig two miles of ditch. When they diverted water into it, they discovered that its engineer - John M. Clark, a recent graduate of Troy University - had not given any fall to the ditch's grade. Water refused to move in it without gravity's pull.

Capital Hydraulic's discouraged promoters dropped the scheme and fired Clark who fled from the engineering profession. He found work where his mistakes would not be so noticeable - with the Chicago Telegraph Company. He later became its president.

It wasn't a total loss. Several of Capital's stockholders and others organized the Platte Water Company in 1867. Its incorporators included some names that would become famous, such as Will Byers and A. C. Hunt, who later became the governor of Colorado Territory.

Platte Water Company hired Richard Little, a former railroad location engineer, to restore gravity to its rightful place in the irrigation ditch's construction. He will have a prominent role, later, in the Littleton chapter.

Platte Water Company planned to extend the ditch to Brown's Bluff (Capitol Hill) to water potato fields and gardens in Denver City. They would call it the Witter Ditch for
Daniel Witter, one of the company's incorporators.

Witter was a '59er and looked for gold in South Park. His wife, Clara, was a half-sister of Schuyler Colfax, who will be discussed in the Aurora chapter. Clara's political connections led to Daniel's appointment as U.S. tax assessor for Denver City. He built the town's first apartment building.

The Witter Ditch didn't get off the drawing board due to lack of funds. Then John Smith offered to build the ditch for $10,000 plus half of the Platte Water Company's capital stock. Smith's offer was quickly accepted.

John W. Smith came from Pennsylvania. He passed through Kansas on his way to Colorado where he developed land south of Colfax Avenue and east of Brown's Bluff. He named several streets east of Grant: Kansas (later Logan); Pennsylvania; Pearl, for his granddaughter.

The Smith Ditch, as it was now called, would divert water from the South Platte six and a half miles further upstream, just south of the Plum Creek confluence. It would extend 26-miles to Brown's Bluff.

Smith (1815-1895) was one of Denver City's leaders in the sixties and seventies. He was a competent businessman and he bought parcels of land along the route of the ditch. So did Henry Porter, who married Smith's daughter. These land parcels along the Smith Ditch helped Porter acquire one of Denver's great fortunes.

John Smith was also innovative. Instead of using teams of oxen with plows and men with shovels to excavate his ditch, he used a rotary canal builder and railroad excavator, transported by wagon from Illinois.

Smith's machine was described as "a mammoth four-wheel outfit, partaking partly of the appearance of a fire engine, an artillery wagon, a mowing machine and a colossal steam plow." It was pulled by ten yoke of oxen and it was said to do the work of a hundred men. It must have been quite a sight to behold.

Louisa Ward Arps captured the unusual character of the Smith Ditch in her book, Denver in Slices:

At one place along its surveyed course the sagacious Mr. Smith observed a natural depression on the prairie - perhaps a buffalo wallow. In and out of this basin Smith ran his ditch. From the resulting lake he harvested ice in the winter. Today this lake is officially known as Smith's Lake, but is better known as the north lake of Washington Park.

By meandering to all points on the compass, the ditch arrived at Brown's Bluff above and to the east of the little town of Denver. Then it wandered off northeast. There was not a house in sight when it filled Dillon's Lake at 12th and Washington. This may have been its destination under Smith's contract. As to the dates of its building, the source that seems the most reliable states that Smith started to construct the ditch in 1865 and finished in May 1867.

The part of the ditch that most interested the citizens of Denver was that
which ran near the western edge of Brown's Bluff, later known as Capitol Hill. It was obvious that any branch from the ditch here would run downhill through Denver on the way to the river.

Denver needed water badly, especially in 1870. That spring the citizens decided that they could not stand their drab, dusty town another summer. They made a concerted effort to bring cottonwood saplings from the Platte bottoms and shrubs from Cherry Creek to plant in their yards. Lawns were seeded and flower gardens started by homesick women who had cherished seeds and roots all the dreary journey from 'America.'

It was easier to plant these efforts toward greenery than it was to make them grow. What to do for water! Buying water from the water wagons was expensive and well water had to be pumped. Even when Colonel Archer's Holly water started to flow through pipes, it was for domestic uses. So the City of Denver contracted with the Platte Water Company's chief stockholder, John W. Smith, to rent water from the ditch on the hill at $7,000 a year.

Presently an entrancing system of small streams flowed from the bluff's east of town. On the flat, the water was directed down each side of the streets toward the Platte River. One authority states there were 1,000 miles of lateral ditches watering what is now downtown Denver. Thirsty dogs and horses were delighted. Trees grew, gardens flourished, and lawns were praised for their greenness all summer long, as they are in Denver today.

Louis L'Amour described a buffalo wallow in one of his books: "A buffalo wallow ... was simply a place where buffaloes chose to wallow in the dust, just as a dog will. In so doing, they usually rubbed out the grass in an area that might be fifteen feet in diameter. The spot might be in constant use for some time, and as a result there would be a small hollow that would offer some protection from enemy fire."

Boys played in the Smith Ditch. So did hogs. It was legal for hogs to run loose in Denver City if they were licensed. They liked to wallow in the cool irrigation ditch water. An angry citizen complained, "When we voted to put the best men in office, we little thought that in less than three months they would turn our city into a hog ranch."

Denver City Council subcontracted with farmers and residents who built private laterals to divert water from the Smith Ditch. Residents were delighted with the way water from Smith's ditch was beautifying their city. But sometimes they fought over the water. In 1874, water police were appointed to patrol the ditch and keep people from fighting over water. By 1882, there were 30 water police headed by the water commissioner.

The year 1875 was dry and water in Smith's ditch didn't get to Denver. When the water police tried to shut down some upstream headgates, angry housewives attempted to drive them away with clubs, brooms, mops and second-hand umbrellas.

In 1902, another dry year, farmers defied the water police who had locked their
headgates. They opened the headgates with axes to let water flow into them, then stood guard with shotguns. Denver threatened to cancel the water contracts of these renegade farmers.

Denver's officials complained that the cost of renting water from Smith's ditch was too high. They asked city voters to approve a $60,000 bond issue to buy the ditch. The proposal was initially defeated, but approved later in a special election - by 14 votes.

Then someone remembered that the city charter prevented paying over $50,000 for any purpose. An agreement was negotiated to purchase the ditch for $10,000 a year for six years plus 10 percent interest on the unpaid balance. This went on until 1882, when the last installment was paid.

After several years' debate about whether the ditch should be publicly or privately owned, Denver City purchased the Smith Ditch in 1882 and renamed it the City Ditch. The Denver Water Board acquired it when it was formed in 1918.

During the 1880s, the manner of using City Ditch water became a major problem. Users in Denver City believed that the ditch's primary use should be domestic. Ditch users south of the city believed that the ditch rights for irrigation that were originally received by exchange for rights-of-way should be honored. Litigation followed and it, along with Union Colony's efforts (all discussed later), led to development of Colorado's original water laws.

The City Ditch still runs through Denver, supplying irrigation water to the Denver Country Club, Washington Park and City Park. Its number one priority is still intact, but it doesn't show much of its former beauty anymore.

Much of the City Ditch has disappeared into underground pipe. There remains only an occasional glimpse of its former glory as an open ditch, where children dangled their feet, swam, and sometimes drowned. The portion of the ditch that goes through Washington Park has been recognized as the Smith Ditch Historic District.

* * *

The High Line Canal has more history in it than all other Colorado ditches put together. It's continuing to make history. The High Line is now a formidable institution, not to be tampered with at the risk of serious social and political consequences.

All of this with a miserable, junior water right priority!

The High Line has an accidental legacy. No one, back in the late 1870s, when it was conceived, visualized its role 130 years later. It has been newsworthy throughout its long, colorful life. Its story has been told and retold in countless newspaper articles, historical papers, college theses and books.

What makes the High Line Canal so special?

There is no simple explanation. It's a long, interesting story.

The High Line Canal has high status now, after a checkered life of many ups and downs. This wise old canal has seen it all - the high hopes of its English founders, a long struggle for financial survival, and finally redemption by the green crowd - wealthy canal-side homeowners, enviros, bikers, hikers, nature lovers.
No other irrigation canal in the West has done more, with less, than the High Line.
The High Line has had various names: The Ditch, The Big Ditch, The English Ditch, Englishman’s Folly, Everybody’s Ditch, The Highline, and to some - particularly the Denver Water Board - the PITA. Pain In The Ass.

We can blame - or praise - President Ulysses S. Grant for planting the seed that grew to become the High Line Canal. He proclaimed, in a speech in Denver in 1873, "Build a large irrigation canal - a ditch extending from the Platte to the Missouri River. It would provide water needed to encourage settlement, increase economic development, enlarge the tax base, and give the transcontinental railroad something to haul."

Will Byers, in his dual role as land agent, grabbed Grant's grand idea and ran with it. He promoted the idea of a large canal diverting from the South Platte above Denver, along with other members of Denver's power elite - John Evans and David Moffat. Their combined efforts attracted English capitalists.

James Duff came to Denver from London in 1877 to manage the financial interests of Scotch and British venture capitalists. He found, according to the Denver Republican, no housing available, no business property for rent, 18% interest rates and money hard to get. He also found good investment opportunities.

Duff reported his findings to Lord James W. Barclay in London, a respected member of Parliament. Together they formed the Colorado Mortgage and Investment Company of London, later renamed Colorado Investment Company, Ltd. This company and its corporate spin-offs became known as the English Company.

In 1879, the English Company incorporated the Platte Land Company "to buy, farm, improve, irrigate and sell land ..., to buy or build houses, mills, factories, stores or hotels and to construct canals, ditches, reservoirs or railways, to lay water pipes and to exercise the rights of landowners."

Quite a plateful for the Scotch and English investors! Money poured into the Platte Land Company and Duff and Barclay put it to work.

The English Company built the Windsor Hotel, the Duff Block and the Barclay Block in Denver. Duff was one of the early organizers of the Denver Club and one of its early presidents.

It financed three large irrigation canals along the Front Range: Larimer and Weld, diverting from the Poudre; Loveland and Greeley, diverting from the Big Thompson; and the High Line, diverting from the South Platte - sort of like the canal Grant visualized. Only shorter.

English Company investors incorporated the Northern Colorado Irrigation Company in 1879. Its function would be to build and operate the High Line Canal, which would supply water to settlers who bought land from the Platte Land Company.

In December 1879, Duff negotiated a contract with Kansas Pacific to purchase all of its land grant tributary to the South Platte - 120,000 acres, extending 60 miles downstream from Platte Canyon.

The Platte Land Company was in business - Big Business!

Northern Company obtained a water right for the High Line Canal - 1,184 second feet, with a priority date of January 18, 1879. This should be adequate, said its famous irrigation engineer, Edwin S. Nettleton, late of Union Colony. He evidently did not know,
or care, that this priority date was junior to 87 other water rights in what later became Water District No. 8 in the South Platte River Basin.

Construction of the largest irrigation canal in Colorado began in spring 1880 and continued until 1883. They called it the High Line because it followed a meandering, snakelike, high line above the river for 71 miles. A 15-mile branch left the main canal 46 miles from its head gate.

The High Line's first owners visualized the canal as a quasi-river, forty feet wide and seven feet deep over its first forty-six miles. Then it would narrow to a width of twenty feet and a depth of 4.5 feet. The cost would be about $650,000. It would be an engineering wonder, worthy of high praise in civil engineering journals.

The High Line's engineering is still praised. An article in Colorado Heritage by James E. Sherow, said:

Quite an engineering feat. The canal bed follows the natural contours of the land in giant loops, dropping slowly in elevations from the foothills canyon at the southern edge out to the eastern plains.

So well thought out is its route that those who travel the path up and down the rolling hills would wonder at the seemingly perceived ability of the water to run uphill.

Yes, quite an engineering feat. Sort of like a large, beautiful airplane, propelled by a small prop engine.

The High Line's ditchriders, who first traveled along its path up and down the rolling hills, saw it differently than Sherow. The canal had serious design problems that caused it to overtop its banks at critical curves.

It soon became apparent that the High Line could not safely carry more than 600 second feet - little more than half its decreed amount. In recent years it has carried much less than that - about 200 second feet.

The High Line, from its beginning, had design and priority problems, but its headworks were impressive. Its 124-foot diversion dam was built on solid bedrock. Heavy timbers rose 14-feet with a 45-degree upstream slope. The backside was formed with impervious clay. Water was diverted into a tunnel 540-feet long, blasted through solid rock. The tunnel is still being used.

At the High Line's division point, 46 miles from its headgate, there are two branches. The west branch feeds Derby Lakes in Rocky Mountain Arsenal. The east branch winds through Green Valley Ranch, then comes to an end near D.I.A. At its end it curves in the shape of a question mark, as if to ask, Where do I go from here?

The old wooden flumes that once carried the High Line over creeks and gulches have been replaced by better structures. Unlike the City Ditch, most of the High Line is still open ditch.

The High Line has spawned many interesting farms. DeKoevend Farm, bounded on the south and east by the canal, is now DeKoevend Park. Herman DeKoevend was a High Line ditchrider.
Denver’s prominent Phipps family once owned a large amount of High Line stock. The Phipps Ranch is now Highlands Ranch.

The old Gutheil Nursery in Aurora, supplied by the High Line, became the site of Fitzsimons Army Hospital.

William Smith, a relative of Lord Barclay, settled on a quarter-section near the High Line's Sand Creek Lateral and donated land for the first school in Fletcher, now Aurora. Smith Road, near former Stapleton Airport, probably was named for him.

The Peter Glasier Farm, supplied by the High Line, became Lowry Air Force Base. Pete was known for his rodeos, chuck wagon dinners, and hayrides.

The English Company acquired Windsor Farm in what is now Aurora in 1882. This 480-acre farm was supplied with water from the High Line Canal. A lateral branched off to supply Windsor Lake, then went on to irrigate land in the rise above the City Ditch.

Windsor Farm grew produce and furnished delectable frog legs to the Windsor Hotel and its competitors, including the Brown Palace and the Hotel Metropole. It also supplied milk to the Windsor Farm Dairy. That dairy was later sold to Brown Canon, who also owned the land that Stapleton Airport would later occupy. The dairy's milk processing building at 19th and Blake still stands. It has been converted into a grocery store.

Windsor Farm had the purest, largest herd (300 head) of registered Holstein-Friesian cattle in the United States - an original importation from North Holland. It had an ample supply of thoroughbred Clydesdale horses, 165 hives of bees and a hog ranch raising Berkshires.

Windsor Farm, in its prime, was operated by 45 men. Its manager was Jim Chambers, for whom Chambers Road in Aurora was named.

Windsor Gardens, now a large retirement community along the High Line Canal, once was part of Windsor Farm.

The Brown Palace Hotel's brochure spoke proudly of beautiful Windsor Farm: "One of the pleasures of a stay in Denver to which all travelers are invited is the drive of seven miles to the Farm and through its avenues shaded by mulberry, elder and Russian poplar."

Shaded avenues - that sounds like a cemetery. Others thought so too. In 1890, a major part of Windsor Farm became Fairmount Cemetery.

In the summer of 1891 - Fairmount Cemetery's first year - the High Line Canal ran dry twice. The next year it was dry by August 16, the following year by July 7. Fairmount's directors hired a young German landscape architect and civil engineer - Richard Schuetze - to do something about the High Line's erratic water supply.

Schuetze enlarged Windsor Lake and converted it into a reservoir. He installed a pump in the High Line that lifted water 15 feet into a trench extending to the reservoir.

Schuetze conveyed water stored in Windsor Reservoir through concrete pipes to a high point near Mortuary Chapel, where distribution mains carried irrigation water to all parts of the cemetery grounds. This hydraulic wonder was called the Schuetze System.

Fairmount's 4,300 new trees, 1,900 shrubs and 380 rose bushes must have shuddered a little on July 7, 1893, when the High Line was shut off until the following spring. They were saved by the Schuetze System.

The High Line was shut off early again in 1896, a very dry year. In 1902, the High
Line didn't run at all and Fairmount paid dearly to connect to a domestic water main owned by Denver Union Water Company. Union's water cost Fairmount $3,588 - an obscene amount in 1902.

Expensive domestic water could not be a permanent source of supply for Fairmount, the most beautiful and park-like of cemeteries. Fairmount moved aggressively to shore-up its water supply system.

Windsor Reservoir was again enlarged. Deep artesian wells were drilled. By 1895, Fairmount Cemetery was, once again, a quiet place of beauty where Denver's dead could be honored and remembered. There was nothing like beautiful Fairmount anywhere else in the Rocky Mountain area. Many people visited it to enjoy its beauty, tranquility and quiet dignity.

Fairmount Cemetery and Windsor Farm existed because they received water from the High Line Canal. Both benefited from strong leaders - Chambers for Windsor and Schuetze for Fairmount. Schuetze's success was recalled by Daniel Halaas in a 1976 newspaper article:

Schuetze's success was nothing less than astounding. Within a year after he began his work, the condition of Fairmount's grounds had become the talk of all of Denver - the tree-lined circular drives, the carefully planned walking lanes, the flower arrangements - all were impressive and inspiring.

As the architect of this attractive setting, Schuetze's fame became such that when he completed his work for Fairmount in 1894, the City of Denver immediately engaged his services for the purpose of rebuilding City Park and designing Washington and Congress Parks. Additionally, he was given the prestigious task of landscaping the grounds surrounding the state capitol.

* * *

The High Line was impressive during its early years - mostly wet years. It caused land developers to salivate in anticipation of both agricultural and residential growth. Baron von Richthofen was one of them.

Richthofen was born in Silesia in 1848. He was an uncle of the famous flying ace, the Red Baron, of World War I fame. He was related to the geographer, Baron Ferdinand von Richthofen, for whom Colorado's Mount Richthofen was named.

Carrying impressive blood lines and a strong entrepreneurial spirit, Richthofen came to Denver in the early 1870s and plunged into several speculative ventures. In 1885, he published an unlikely book - Cattle Raising on the Plains of North America.

Baron Walter von Richthofen decided, after several failed ventures, that land on the prairie east of Denver and under the High Line Canal was ripe for development. He joined Mathias Cochrane's Montclair Land and Improvement Company and bought a section of land that had been part of the 1869 land grant to the Denver Pacific. On this land he built a castle.
Richthofen castle was, and still is, a remarkable, beautiful, stone structure. But his second wife (he divorced his first) did not want to leave the comfort and congeniality of a downtown Denver hotel suite. She didn't want to move way out east to a place on the hot, dry prairie, even if it was called a castle.

So the baron got busy. He planted trees, shrubs and flowers around his castle. He nourished them with TLC and water from a lateral out of the Windsor Ditch, supplied by water from the High Line Canal.

The word *ditch* did not sound like something with which a baron should be associated, so he called it a *moat*. It flowed north along today's Quebec Street, west to the castle, then down to where Montclair Park is now located.

Finally, after two or three years, the grass was green, flowers were blooming and birds were singing around Richthofen castle. The baroness reluctantly left her plush quarters in the Albany Hotel and moved out to the castle on the prairie oasis.

Peace was restored to the Richthofen household and the baron turned his attention to his land development. He called it *Montclair*. He tried, valiantly, to make it attractive to Denver's upper crust.

Richthofen planted trees along what is now Richthofen Parkway. Montclair, he declared reverently, should be a club unified for the purpose of excluding all that might destroy their peace of mind or offend their better tastes.

He tried to keep the undesirables out of Montclair by making lot sizes larger than usual and by requiring houses to be at least three stories high and cost at least $10,000 - a large amount of money at that time.

After Montclair was incorporated in 1888, its officials passed ordinances designed to appeal to the prosperous. The rich came, but very slowly, until the Colfax streetcar line was built to connect Montclair with Denver. Montclair is still considered a rather exclusive neighborhood.

As time passed, the baron spent less and less time at his castle. Like the baroness, he preferred the congeniality and splendor of Denver's downtown hotels. He felt comfortable associating with bankers, realtors and speculators.

Baron von Richthofen was at the Hotel L'Imperial in May 1898 when he died at age forty-nine of a ruptured appendix. His remains were shipped back to Silisea.

The widowed Baroness Louise von Richthofen died in Denver in 1904. Her ashes are interred beside an impressive Richthofen monument at the corner of Oneida Street and Richthofen Parkway. But, as the monument reminds us, *The Soul has migrated*.

Montclair has been declared a historic district. The High Line Canal created so much history in Metro Denver. Windsor Farm, Fairmount Cemetery, Montclair, and many historic farms. It wasn't easy. It was cursed by a low water right priority and it never came close to fulfilling its founders' ambitious plans.

* * *

The maximum acreage irrigated by the High Line was 25,500 acres in 1891 and 1892. In dry years, no land was irrigated. In 1901, the state engineer ordered the High Line's gates closed in order to supply water to senior downstream appropriators. A High
Line irrigator, armed with a rifle, patrolled the headgate area and threatened to shoot anybody who tried to shut the headgate.

The angry irrigator posted a crudely worded sign that expressed the opinion of "Drye and Indigment Farmers." They couldn't spell, but everyone understood that they could shoot.

The state engineer dispatched a superior force to the scene and closed the headgate. But he could do nothing to suppress the irrigators' anger. They were angry at him and they were angry at the Northern Colorado Irrigation Company which had imposed a surcharge on water deliveries from the High Line.

Buyers of irrigable land under the High Line were issued water rental contracts. They required annual payments to Northern of $1.75 per irrigated acre, regardless of whether it received any water.

In the mid-1880s, Northern imposed a surcharge of $10 to $30 an acre as royalty for the privilege of using water carried in the canal. Northern claimed absolute ownership of the water.

This irritated the High Line's irrigators, particularly Dr. B. A. Wheeler, a homeopathic physician in early Denver. He had a farm 10 miles east of Denver, watered by the High Line Canal. He objected to the royalty and was refused water.

Dr. Wheeler led other farmers in a legal fight against Northern Colorado Irrigation Company. It ended in January 1888, when the Colorado Supreme Court ruled that the High Line was a common carrier and Northern did not own the water. The company could charge for delivering water to the farmers, but could not impose a surcharge. It was an epochal decision for Colorado water law.

The High Line case had unexpected political consequences. Louisa Ward Arps explains in Denver in Slices:

What has the High Line case to do with the Populist Party in Colorado? Dr. Wheeler and the farmers who organized to fight the case joined other farmers from eastern Colorado who were suffering from a periodic drought. These groups, along with the idle silver miners and other victims of the economic slump fast bogging down the nation, helped form the Populist Party.

Other lawsuits were filed by High Line irrigators, claiming damages for crop failures. By 1888, Northern was in deep financial trouble.

Walter P. Miller, the man who drafted Northern's organization papers later reflected upon the company's problems: "The whole enterprise was in a certain measure a failure and (the investors) were discouraged. The cost of maintaining the canal as they had constructed it absorbed practically all of the revenue." He didn't mention the high cost of litigation.

In 1891, High Line irrigators took matters into their own hands. They formed the High Line Reservoir Company and assessed themselves $40 an acre to build a storage reservoir in South Park. Their efforts stalled, due to the death of their president and the 1893 economic depression.
High Line Reservoir Company had partially finished construction of Antero Reservoir by 1907, when it sold its interests to a group of Denver businessmen. They finished the construction in 1909 and bought all the remaining assets of the Platte Land Company. In 1910, they purchased the Northern Colorado Irrigation Company, whose assets (or liabilities) included the High Line Canal and Antero Reservoir.

The High Line now had new ownership, new management, and a high elevation storage reservoir to provide water during late summer and dry years. Would all of this enable the High Line to shake off the burden of its low priority and become one of eastern Colorado's revered, hard-working irrigation ditches?

No, it would not.

In 1915, Denver's utilities department contracted to purchase the High Line and Antero Reservoir. Litigation followed. The Denver Water Board inherited it all when it was formed in 1918. The purchase was finally completed in 1924.

The Denver Water Board now owns more than 85% of the High Line and Antero properties and water rights. It probably will eventually own at least 95%, perhaps all of it.

The historic High Line Canal is not the DWB's favorite adopted child. It is terribly inefficient. If logic ruled, the DWB would transfer whatever High Line water right it could to its South Platte intake, then sell or lease the canal's right-of-way.

The High Line's original decree for 1,184 second feet was reduced to 600 SF by the state engineer, due to lack of use and inability of the canal to carry more water. In 1993, the state engineer informed the DWB that 400 of the 600 SF would be listed as abandoned. The High Line had not diverted more than 200 SF for more than a decade.

Abandoned? That word is sacrilege with the DWB. Its manager, Hamlet "Chips" Barry III, explained: "You never abandon an East Slope water right. Even if we never run 600 we have the ability to transfer that right to another point - drinking water.

"Would I ever contemplate moving 600? No. We might move some of it. In fact, the DWB has purchased nearly all of the supplemental Antero rights, including Fairmount's, with an eye to transfers."

A compromise was reached with the state engineer. He lifted the High Line abandonment order after the DWB promised to not extend the canal towards DIA.

The Rocky Mountain Arsenal contracts for about half of the High Line's remaining water deliveries. Located at mile 65, it is the canal's last delivery. Because of high evaporation and seepage losses, it receives less than half of its headgate diversion. But the end of this burden is in sight.

The DWB, Adams County and the federal government signed an important agreement in October 1999. Funded by the feds, the agreement will deliver a dependable supply of drinking water to Adams County, help restore wildlife on the former arsenal site, and relieve the DWB of the burden of supplying the arsenal with water from the High Line Canal - all by year 2011.

The feds will surrender their claims on water deliveries from the High Line. In place of canal water, the former arsenal site will use the DWB's recycled non-potable water for its wildlife habitat. The treatment plant that will provide the non-potable water supply will probably be built by the DWB near East 56th Avenue and York Street.

In addition, the DWB will provide 4,000 acre feet of water annually to the South
Adams County Water and Sanitation District. On an interim basis, the DWB will lease 2,000 acre feet annually to the district. The deal also includes plans to build some small reservoirs on the South Platte or its tributaries during the next five years.

It looks like a win-win situation for all three parties. The DWB's next step probably will be to replace High Line deliveries to Fairmount Cemetery, at mile 47.5, the canal's third largest water user. It won't be easy, but if it could be done, the DWB could stop delivering High Line water below Cherry Creek, near Iliff Avenue and Parker Road - water for the lower 22 miles.

That would be a tremendous accomplishment! But the public relations aspect would have to be handled very carefully. Jim Carrier raised a red caution flag in a 1993 Denver Post article:

* * *


The High Line has so much history. Charles Bryant was its first superintendent. His son Hurley followed in his father's footsteps. Hurley's son Kirker became manager of
special projects for the Denver Water Board. There are (or were) other DWB employees whose historical roots are watered by the High Line Canal.

This old canal has followed a unique course throughout its long life. Back in 1933, in a Denver Post article, Colorado historian Caroline Bancroft wrote about the High Line's "unique colony" - ranchers, farmers and society suburbanites - "in a type of colonization reminiscent of an English village."

The High Line's first 14 miles still have a wild look. It changes its look after it passes through Chatfield Park and crosses County Line Road. That is where its past and future meet. A sign tells the High Line's rules and civilization rears its anxious head.

The High Line's first active headgate irrigates the polo field of the Cottonwood Riding Club. Its owners can't get enough water. They complain about the high cost of High Line water. "It's ridiculous to get money from one hundred people when the entire city of Denver enjoys the canal," said Chris Gandomear. "It's time to market the canal for its main use - recreation. It's not irrigation."

The High Line still irrigates the Flying B Ranch's hay meadow and pasture for a small herd of cattle. Johnny Bowen's High Line water costs $1,800 a year, "But we can't quit farming," he says, "taxes would skyrocket and capital gains would be a problem."

Taxes, capital gains - words that would puzzle the High Line's old-time irrigators and ditchriders.

At mile 36.5, the High Line waters Welshire Golf Course. It sees many backyards as it passes through upscale residential areas, including property that billionaire John Wolff and his wife, Judi, once owned. Jim Carrier of the Denver Post interviewed Judi in 1993:

_Each flower, each tree, is familiar to me. I know the secret lair of the fox and the awe of sunrise over my meadow. The change of the seasons remind me of the movements of a great symphony._

The High Line irrigates a hay meadow owned by the Temple Buell Trust. Temple Buell - the late architect and biggest benefactor of Denver's performing arts - now resides in Fairmount Cemetery. "I couldn't have the trees without (the High Line)," said the son-in-law of Temple and Margarie Buell as he looked at the canal.

The High Line is a social and ecological institution, not to be tampered with - at least on its upper 44 miles above Cherry Creek. The late Margarie Buell once organized the Slow Leak Yacht Club, whose members floated down the High Line on inner tubes, playing bridge and sipping champagne.

It's not just the affluent and important people of Metro Denver who consider the High Line a treasure that must be preserved. Some 300,000 people use the High Line Trail each year. Formerly a maintenance road, it was made part of the National Trail System in 1971. It was the first trail in Colorado to receive National Trail designation by the U.S. Department of Interior.

Realtors say the High Line adds 10 to 20 percent to the value of canal-side property.

The Canal Trail parallels the High Line for sixty-seven miles. It is a beautiful bike, pedestrian, equestrian trail. Through much of its length it borders many of Metro Denver's
beautiful parks. It is lined with trees - beautiful, old, majestic cottonwoods.

In 1976, many of the canal's 10,000 cottonwoods died. The DWB saw the dead trees as liabilities and started cutting them down. Some residents along the canal threatened to chain themselves to old cottonwoods tagged for the chainsaw. Since then, the DWB has been more amenable to preserving the old trees and vegetation whenever possible.

The DWB hired the Colorado State Forest Service to survey every tree along the High Line. In the 18-mile south suburban section it found more than a hundred trees that posed an immediate threat to canal users. New words appeared in the language of the High Line - Liability. Lawsuits.

In 1987, a grass-roots trail and tree protection organization was formed by concerned citizens to inventory and keep mature trees along the canal and assist in its maintenance. In 1993, the Denver Post's Trees for Tomorrow effort raised $40,000 to purchase 1,000 trees and 450 shrubs for the High Line. They were planted along 67 miles of the canal by 1,000 volunteers.

The High Line Canal Project has become a joint effort by the DWB, Volunteers for Outdoor Colorado, Aurora, Chatfield State Park, Colorado State Forest Service, Denver Parks and Recreation, Denver Urban Forest, High Line Preservation Association and others. Never before has a ditch, or canal, brought so many organizations together, working to make it a historic urban park - a jewel in a recreation network linking parks and pathways.

This venerable, old High Line Canal, with questionable ancestry, has become canal royalty.

It looks like the DWB probably will be able to stop delivering water to the highline below Cherry Creek by 2011 - if it can find a way to replace the delivery of water to Fairmount Cemetery and if some ingenious way can be found to keep the cottonwoods alive along the lower 22 miles without incurring horrendous canal losses to evaporation and seepage.

More ingenuity will be needed to operate and maintain the canal trail. A separate agency, perhaps a district with taxing powers, has been suggested. A Future Management Study Group fund by GOCO (Great Outdoors Colorado) grants will try to develop a feasible long range management plan.

Then there's the High Line's upper 44 miles, above Cherry Creek. Could the DWB eventually rid itself of this burden?

Perhaps, but it will be difficult. Besides the important users previously mentioned, there is McLellan Reservoir. It receives High Line water and it is owned by Englewood, who leases 1,000 acre feet of McLellan storage annually to Thornton for use in its well augmentation plan.

There might as well be signs posted along the High Line Canal above its Cherry Creek crossing saying, DON'T MESS WITH THE HIGH LINE.

*    *    *

Agriculture built Colorado, as Dr. Albert C. Yates told us in a September 2002
Denver Post column, when he was president of Colorado State University:

_Agriculture built Colorado, and today, agriculture may be the single most important factor in preserving our state's quality of life._

_Colorado enjoys a rollicking reputation as a boom-and-bust state, scaling dramatic peaks and sometimes plunging into equally dramatic valleys in industries ranging from mining to telecommunications. But throughout our state's history, agriculture has been a steady constant, one of our largest and most profitable industries and the one most closely linked with traditional values and steadfast character that exemplify the Western way of life._

True, but agriculture now produces less than 2 percent of Colorado's net economic value. Irrigation is an important part of agriculture in Colorado, but it's not _the _most important. Irrigation for feed crops, grains and vegetables represent less than a third of Colorado's farm receipts. The other two-thirds comes from livestock.

Peter Binney, Aurora's utilities director, tried to put irrigation water use in proper perspective in a March 2003 _Denver Post _column:

_Agriculture uses consume more than 90 percent of the water used in Colorado, while urban areas use less than 5 percent. There also is a corollary to the basic water allocation principle in our water laws: 'Last in time is last in right.' We have no concept of highest beneficial use, other than negotiated water transfers that would allow willing parties to move water to a new use, such as to cities or to instream flows._

_Water in Colorado flows uphill toward money. It's inevitable that more and more irrigated land within reach of Metro Denver will be converted to municipal uses. It's the new Western way of life._
WATER FOR DENVER

THEY DUG AND THEY DUG and they found not gold but water. Frances Parkman camped at the mouth of Cherry Creek in 1846 and wrote in his journal, "No water in creek. Dug hole and got some."

It became a way of life in Denver City. _Dig a hole and get some._ Early settlers drank water directly from Cherry Creek or the South Platte, until the water in both became too contaminated to drink, even for that septic time. Bottled water became popular, especially pure water from Baker's Spring. Walter Cheesman sold bottled water and water on draught at his drug store on the corner of 15th and Blake.

Small wells were dug in the Cherry Creek alluvium to supply drinking water for the early settlers. Some built their cabins around wells, where a small pump could supply water year-around. Until the water level dropped or a flood got them. Cherry Creek became an open sewer, but all of that and more was washed away by the 1864 Cherry Creek flood.

Cherry Creek's sands were versatile. They provided enough gold to excite early prospectors and start Auraria and Denver City. They provided enough water for Frances Parkman and others to dig a hole and get some. And they provided Denver City with enough water to quench its first thirst. It took some doing and James Archer was just the man to do it.

Colonel James Archer came from Ireland. He settled in St. Louis, where he developed a reputation as a blunt and candid promoter for the Kansas Pacific Railroad. He came to Denver in 1869 to obtain the $2 million needed to extend the KP to Denver after construction stalled near the Kansas-Colorado border. This effort brought him into close contact with Denver's first generation power elite. After completing his work for the KP, Archer settled in Denver and became one of its prominent businessmen.

Early historians treated Archer well. Jerome C. Smiley called him "one of Denver's forceful and valued citizens." He said the people in Denver were "indebted to the enterprise, energy and foresight of James Archer."

R. G. Dun & Company, predecessor of Dun & Bradstreet, investigated Denver's
leaders in 1871. It described Archer as "a man of high character and standing and very enterprising." Two years later, Dun described Archer as "one of the substantial men of the city."

Later historians were less complimentary. Historian Lyle W. Dorsett described Archer as "a cunning opportunist. He possessed a steel-like demeanor that matched his ambition. He had an unusually long, bushy beard which accentuated his balding head and piercing eyes. His deeply lined face enforced stern features that complemented his attitude towards business."

Let's delay judgment on Colonel Archer until we see what he did and, perhaps more important, what he didn't do.

Colonel Archer quickly recognized that gas, electric and water utilities were needed in Denver City. He understood that control of these utilities could yield big profits. He organized Denver City's first illuminating gas company, after two previous attempts failed. Denver was one of the Union's first cities to use gas for street and residential lighting.

Archer persuaded Denver City Council to grant his Denver Gas Company an exclusive 50-year franchise to produce and sell gas within Denver City limits. What did he give for this privilege? Historian Clyde Lyndon King answered that question in his 1911 History of the Government of Denver:

And what did the gas company give for this exclusive right to capitalize for fifty years the needs of a rapidly growing city, the center of a vast region certain of its minerals and harvests? What remuneration to the city? What assurances of proper extensions? And what powers did the city reserve to itself to regulate the rates and services of the company? No remuneration was demanded and, of course, none was offered; no provisions were inserted as to extensions; no reservations as to future control of rates or services were asked for and none were made... In essence, the company had for half a century the monopoly on gas in a promising city; the city had bartered away all control over that monopoly; and all for the sake of a booming village.

Quite a coup! Archer's gas company evolved into the Denver Gas & Electric Company, incorporated by Archer, Moffat, Cheesman and a few others. It became the Public Service Company of Colorado in 1923 and, in 2000, part of Xcel Energy, Inc.

By 1870 it was obvious that shallow wells could not provide an adequate domestic water supply. They were easily polluted and water levels fell rapidly. Dry holes remaining after wells dried-up were sometimes converted to privies, causing more groundwater contamination.

William Byers and David Moffat formed the Denver Artesian Water Company in 1870. Good idea, but wrong location. Their well, three miles east of Denver, produced little water and they abandoned it.

Colonel Archer, David Moffat and others organized the Denver City Water Company in October 1870. Archer became president and Moffat treasurer. Directors
included Walter Cheesman, Jerome B. Chaffee, and Edward M. McCook. It was a powerful group. McCook was the territorial governor of Colorado. Chaffee was a U.S. Senator from Colorado, who organized the First National Bank of Denver in 1865. He made a great fortune at Central City mines. Moffat, First National's president, became wealthy from gold mine holdings. Railroads were his forte. Walter Cheesman also became a wealthy man by investing wisely in real estate. He helped launch a railroad, was a First National Bank director for many years and eventually its president. Cheesman's greatest achievement would be obtaining water for Denver.

Archer obtained a franchise for the Denver City Water Company when franchises were legalized by the territorial legislature in 1872. Capitalized at $250,000, the Denver City Water Company constructed a wooden infiltration gallery in alluvium near the mouth of Cherry Creek, near present 15th and Bassett Streets. The gallery was 16 by 17 feet wide at the surface. Its sides were supported by peeled logs.

A pump house was constructed beside the gallery. It housed a newfangled Holly pump, purchased in New York City and transported by train to Denver. It also housed a coal-fired steam engine that powered the pump. These facilities were installed in January 1872.

A small crowd of dignitaries and interested citizens gathered around the Holly pump when it was tested. They watched anxiously when a hose was connected to the pump and a fire hydrant. Another hose from the hydrant was pointed skyward. The pump was started and valves were opened. The crowd cheered when water gushed more than a hundred feet into the air. Denver was about to enjoy its first domestic water supply. The newspapers called it Holly water. It could have been called holy water - a much revered commodity.

By late 1872, the Denver City Water Company had laid four miles of distribution mains and pipes in an area generally bounded by Cherry Creek and present Welton, Wazee and 21st Streets.

Another Holly pump was added in 1874, making total pumping capacity 4.5 mgd (million gallons per day). In January 1875, water in the underground pipes froze, after nine days of sustained cold weather. They were dug up and lowered two feet, to a depth of five feet.

By 1878, the Denver City Water Company was supplying a thousand taps and 158 fire hydrants. The Denver Times proudly proclaimed, AThere is probably not a city in the Union that has a better water service than Denver.

The good times would not last. Water seeping into the gallery became contaminated by untreated sewage in Cherry Creek. This triggered a typhoid outbreak that Leonard and Noel described in Denver - Mining Camp to Metropolis:

Water-borne typhoid ravaged the city in the summer of 1879. Six hundred caught the fever, 40 of them died. Mayor Richard Sopris blamed 'dry weather' and 'lack of rain'.

Dr. Charles Denison disagreed. He inspected the small reservoir near the company's wells and found it polluted by offal from slop buckets and from
refuse that washed in through Cherry Creek and West Denver's ditches. Denison advised people to buy water from the mountains. Others suggested drinking tea, coffee, or whiskey.

One NEWS correspondent faced a dilemma! If a man drinks water he imbibes wiggle-tails. If he drinks whiskey he gets the jim-jams. Now what is a body to do?

Kitchen faucets had to be equipped with strainers to catch various small aquatic creatures. Pollution and high pumping costs strained the water company's limited financial resources. Archer and others formed an auxiliary company in 1878 to build a new pumping station. They called it the Denver City Irrigation and Water Company.

The new location would be about two miles up the South Platte, more than a mile above the city's boundary at that time, near present Alameda Avenue. The pumps would be driven by the river's water power, rather than by steam, used at the 15th Street plant.

Way up the South Platte, where the water would always be pure, according to James Archer.

He was wrong! Like so many smart, ambitious men with a cunning streak, James Archer lacked vision. This deficiency was his Achilles’ heel, in history's long view of a man's character.

A diversion dam and ditch carried water to a small depression east of the South Platte that contained Titus Spring. It became Lake Archer, a regulating reservoir named after the colonel. It was located north of present Ellsworth Avenue and south of West 8th Avenue.

A gravity flow ditch extended from Lake Archer to a sump and pump house near present West 12th Avenue. Two Holly pumps pushed water from the sump into city distribution mains. Once again, Denver's growing thirst would be quenched by pure Holly water. But for how long?

Denver's water supply now seemed secure to Colonel Archer, along with his growing reputation. But time sometimes has a cruel way of dealing with a man's reputation in the semi-arid West, if he lacks vision. If he does not learn how to cope with time.

The 15th Street gallery and pumps eventually ceased operation. The two water companies were consolidated to form the Denver Water Company, capitalized at $1.5 million. Officers and stockholders remained the same. Colonel Archer died a short time later.

Colonel Archer does not rank very high in Denver history. Colorado historian Louisa Ward Arps thought he deserved a better fate: "It seems quite unfair that, except for a street named Archer Place and an enormous statue of him over his grave in Riverside Cemetery, nothing is left to remind Denver of the president of the first water company."

History often isn't fair, Louisa, but neither is life. But there still may be hope for Colonel Archer. As Denver Post columnist Ed Quillen wrote recently, "Whatever history offers, it isn't a verdict."

Catherine Archer inherited her late husband's controlling interest in the Denver Water Company. She appointed her brother-in-law, Frances McManus, president of the
company. He came to Denver from Reading, Pennsylvania. Then Catherine returned to the East.

Water from the new South Platte intake was not as pure as Archer anticipated. Water quality gradually deteriorated due to an accumulation of silt, vegetable matter and other noxious materials that appeared in Lake Archer and in its short feeder ditch.

The Denver Water Company constructed another gallery collection system on the east bank of the South Platte at present Mississippi Avenue, nearly three miles upstream from Lake Archer.

Lake Archer, bypassed and useless, dried-up. Louisa Ward Arps described the loss in *Denver in Slices:*

*The lake has dried up and who remembers Colonel Archer? The ditches, where boys loved to swim, have been filled in. Only the building that housed the pumps still stands. Enlarged, this is now the Denver Water Board's West Side Storehouse and Yard at 12th and Shoshone.*

Friction developed between two factions in the Denver Water Company. The Archer-McManus majority wanted to maintain the status quo. The Moffat-Cheesman minority opposed the expensive, stop-gap gallery projects and advocated a mountain source of water supply.

David Moffat and Walter Cheesman offered Mrs. Archer a choice. Buy our interests for $4 million or sell your interests to us for $4 million. She bought. It was a mistake she must have regretted at a later time.

By 1886, Denver's population had reached 54,000 and the Denver Water Company was once again struggling to meet demand. Temporary help arrived from an unexpected source: artesian water.

A man named McCormick was drilling for coal when he had to stop because of gushing artesian water. He had tapped what later became known as the Laramie Formation in the Denver Basin. It happened near today's Federal Boulevard and 17th Street.

By late 1886, more than 130 artesian wells had been drilled. Zang Brewery's well was among the first with a depth of 666 feet. Daniels and Fisher, of department store fame, struck artesian water at 750 feet. The Windsor Hotel's artesian wells were 750 feet deep. The Windsor offered take-home artesian water from its two wells for a small charge.

Free artesian water was available at the courthouse well near 16th Street, between Tremont and Court Place. It was nearly 1,000 feet deep and it continued to supply artesian water long after shallower wells had to be pumped.

Louisa Ward Arps described Denver's artesian water craze:

*As late as the turn of the century, it was not unusual for a businessman to stop at the Court House well on his way home from work in the evening. He would take a long drink and fill a bottle to carry home on the trolley car as a treat for his wife.*

*The newspapers were full of the benefits of artesian water as opposed to*
Holly water. Learned treatises were printed, discussing the mineral content of each well. The opinions of doctors were sought as to which well was best to cure which ailment. Finally an enterprising reporter asked, 'a noted liveryman of the city' to give his opinion on the efficacy of artesian water. The liveryman replied by pointing out the unusual number of runaway horses on the city streets. 'In every instance,' the liveryman stated, 'the horses have been drinking artesian water which gave them new life, new spirit, new energy and new kidneys ... [If you] had a runaway you may bet your sweet life he's taken fright at being brought near a ditch of Holly water. Why, I haven't a horse in my stable that I can get to cross the Platte River.'

Artesian water helped a little but the Denver Water Company needed more water. It formed an auxiliary company in 1886 to construct an underground water collection gallery in the alluvium of Cherry Creek about nine miles above Denver City. They called it the Domestic Water Company.

The new Cherry Creek gallery provided a limited supply of very good quality water, which was carried in an underground conduit to city distribution mains.

In 1888 two small, independent water companies were formed to supply water to developing areas north and west of Denver. Beaver Brook Water Company, with four artesian wells, obtained an exclusive franchise to supply water to Highland. Mountain Water Company obtained a similar franchise to supply Barnum.

In March 1889 Moffat, Cheesman and a few others incorporated the Citizens Water Company, with capital stock of $3 million. Moffat was named president and Cheesman was appointed to the board of directors. The First National Bank of Denver became treasurer. The stage was set for a bitter water franchise war.

* * *

Moffat, Cheesman and the First National Bank were a formidable combination. The bank's officers and directors were intensely interested in Denver's future. What investment could be better than stock in a water company with proven, capable leadership? Especially if it could obtain an exclusive franchise.

A month after incorporating Citizens Water Company, Moffat, Cheesman and others incorporated Mountain Works Construction Company. It would plan, finance, coordinate and implement all of Citizens' water facility construction. Cheesman became its president. It was the defining moment which led to Chessman becoming the dominant figure in the early development of Denver's water supply system.

Cheesman planned a gravity system that would initially draw water from a collection gallery in deep gravel beds underlying the South Platte at Platte Canyon, more than 20 miles upstream from Denver City. Excellent quality water flowed from the gallery through a 30-inch wood stave pipe to Citizens' distribution pipes. Construction was pushed so rapidly that water service began in October 1889.

During 1892-3 a 34-inch pipe was also laid from Platte Canyon. The gallery could
not supply enough water to fill both pipes, so Cheesman went 19 miles upstream to
develop an auxiliary surface water supply.

A large, mechanical filter plant was constructed which received water diverted
from the South Platte. Filtered water flowed by gravity through a pipe connecting it to the
34-inch pipe at the mouth of Platte Canyon. This supplemental supply became available in
April 1893. Citizens' customers rejoiced in an abundance of pure mountain water.

Cheesman continued his aggressive water supply development program. He
purchased a large, natural basin beyond Fort Logan and built embankments around it. It
became Marston Reservoir. Marston - the god of war?

A large filter plant was constructed beside the reservoir. A 44-inch water main
extended from the filter plant to distribution mains in Denver.

Citizens built a 30-inch wood stave conduit, 23 miles long, to carry additional
water from Platte Canyon to a clear water storage facility called Ashland Reservoir,
located in present Edgewater. Treated water from it flowed by gravity to Citizens'
customers in northwest Denver. Another 34-inch conduit from Platte Canyon transmitted
water to a clear water reservoir on Capitol Hill.

The Denver Water Company couldn't compete with Citizens Water Company. In
September 1891, the Denver Republican commented:

*The simple truth is that The Denver Water Company, with its expensive
pumping system, cannot compete successfully with the gravity supply
systems of the Citizens Water Company.*

Denver's population increased from 35,000 in 1880 to more than 106,000 in 1890,
due mainly to railroad construction. DWC tried to cope by purchasing the two small water
companies and then merging all of them into the Denver City Water Works Company.

It didn't work. Five months later, in April 1891, the entire property was sold to
American Water Works Company of New Jersey, which had recently been incorporated.

Citizens then delivered a knockout corporate punch. It offered free water to its
customers!

The Denver Republican's headline shouted, *Water for Nothing!* The text explained:
"Citizens Company offers its patrons an unparalleled gratuity. No charge until further
notice! The acme of a short competition is reached. Denver is the only city in the world
that can claim a distinction of having received gratuitous water from the supplying
company because of competition."

American Water Works Company quickly went into bankruptcy. In April 1894, all
of its assets were sold by a receiver at a foreclosure sale. The buyer: Citizens Water Company!

The Denver Republican lamented, "The free water service picnic will soon be a
cherished memory. It was too good to last."

All those water companies, starting with Colonel Archer. Each tried, each failed,
until Citizens arrived. High hopes, low financing, poor vision. The survivor - Citizens
Water Company - was led by Walter Cheesman and fed by a seemingly endless supply of
money from Denver's First National Bank. It was an unbeatable combination.
Citizens consolidated all of its properties into a new corporation - *Denver Union Water Company* - with Cheesman president, Moffat treasurer, capitalization $7.5 million. Denver Union Water Company acquired all of the franchises and privileges of the water companies it absorbed. It was, at last, the water monopoly Moffat and Cheesman envisioned.

Blue sky ahead! Then someone discovered that the franchise granted to Denver Water Company in 1890 had a troublesome clause:

> *At any time after five years from this date, the City Council may require said company to fix and schedule rates for private customers equivalent to the average rate prevailing in the cities of Chicago, St. Louis and Cincinnati for the same service.*

You can almost hear Walter Cheesman say it: No wonder they went bankrupt, agreeing to a silly clause like that.

Cheesman ignored it. He quickly raised Union's water rates as the *Denver Republican* predicted. Too high, claimed Denver City Council. Union must abide by the 5-year clause in the 1890 franchise. Union objected, claiming its water rates were at least 20 percent lower than rates in the other three cities.

The Denver City elections in May 1895 had, as its main issue, whether reliance should be placed in Union Water Company to honor rate-making procedures in its franchise, or whether Denver City should build its own water system.

This question wasn't put directly to the voters. It would be decided by the newly elected city council members. Union placed its candidates on the ballot and so did the opposition.

Walter Cheesman did not want to battle Denver City Council over water rates. He was not a skilled politician. He wanted to build a great dam high in the mountains, 60 miles west of Denver.

Mistakes were made. During the campaign prior to the May 1895 election, Cheesman stated in a public letter that Union stood ready at any time to take up the rate matter and that it would adjust rates in accordance with the terms of its franchise. Union's candidates for city council signed a written pledge that they would carry out franchise provisions.

David Moffat's interest and attention were focused elsewhere - on his Moffat Road. Cheesman was virtually left alone to fight a political battle which really did not interest him.

The vote was a draw but Mayor McMurray, who opposed Cheesman, was re-elected. After many long negotiating sessions, Denver City Council passed a measure drafted by Union. McMurray vetoed it and his veto was sustained.

Union Water Company didn't adjust its water rates after the election. It claimed, again, that it was impractical to base its rates on the 3-city average.

Denver City Council, again, demanded that Union fix its water rates in accordance with 1890 franchise provisions. Union refused. Then it voluntarily adjusted its rate structure by its own method which, it claimed, lowered general service rates 20 percent.
and lawn irrigation rates 45 percent.

City council bristled at Union's latest show of independence. It was acting just like that monopolistic Denver Tramway Company, controlled by Gray Evans.

Gray Evans was a powerful man. He also was David Moffat's best friend and trusted advisor. He had close ties to Walter Cheesman. His biographer, Allen duPont Breck, mentioned them:

*He was accused of supporting franchises for the Denver Union Water Company. Should he protest that he had no position with that company, the Denver Times was prepared to show that a mammoth consolidation of tramway and water company interests in the family had taken place after the marriage of young John Evans with Gladys, daughter of Walter Scott Cheesman, head of the water company. (Gray) Evans, the reader was told, was further conspiring to insure that at the next election the water franchise would be made a perpetual one.*

Union's franchise and rate problems continued. The water rate issue was the only item considered in the 1897 spring election. McMurray and his ticket were re-elected. Many water customers refused to pay their bills. Denver City Council passed an ordinance stating that Union failed to comply with provisions of its franchise and that it must, within ten days, lower its water rates.

Denver Union Water Company ignored this latest demand. In March, 1898, Denver City sued Union in Arapahoe District Court. The judge ruled that the franchise's rate-making procedure was impractical. He ordered Union to raise its water rates! That decision was upheld by the Colorado Supreme Court.

Walter Cheesman didn't seem to be very concerned about Union's rate problems. He was concentrating on constructing water facilities, mainly storage reservoirs. The embankment at Marston Reservoir was raised 12 feet. During the next several years it was raised another 16 feet, increasing its total storage capacity to about 28,000 acre feet.

Then he turned his attention to building a big dam in the mountains. He hired Charles Harrison to serve as chief engineer for both the Denver Union Water Company and the *South Platte Canal and Reservoir Company*, which had been formed to construct water projects.

Charles L. Harrison was born in Missouri in 1857. He obtained a civil engineering degree from Missouri State University in 1880. He worked on various engineering projects in the midwest and on feasibility studies on the Panama Canal route before coming to Denver.

Harrison found an excellent dam and reservoir site on the South Fork of the South Platte, in a narrow, winding gorge about a mile long, with granite walls rising very abruptly to a height of 500 feet.

It would be difficult to imagine a better dam site. The bottom of the gorge was quite narrow, only 30 to 40 feet wide. At a height of 50 feet, the width increased to about 600 feet at the top - 230 feet above the foundation.

The dam would be constructed of solid masonry with convex face, 173 feet thick at
the base, 18 feet thick at the crest. It would be built of large granite blocks quarried near the site and laid in a rich Portland cement mortar. The dam structure would be as solid and enduring as the granite rock at its base and on its sides.

The dam would form the arc of a circle with a radius of 400 feet, convex side upstream. Water pressure against the upstream face would wedge it tightly into the granite walls, making it a very safe structure. When the reservoir filled, it would have a depth of 220 feet at the dam - the world's deepest reservoir. It would store about 62,000 acre feet and it would become the world's highest artificial, large body of water.

It would be called *Cheesman Dam* and the reservoir behind it would be Lake Cheesman. It would provide enough water to supply water for a half million people in Denver. It would be pure mountain water - purer than that of any other city in the United States. Cheesman Dam was completed in 1905.

It was an engineering wonder for its time and it was the crowning achievement of Walter Cheesman's brilliant career. He was so involved in it that he did not notice the dark, threatening clouds forming on Union Water Company's political horizon.

* * *

The clouds had been gathering for a long time. Denver's public service corporations were struggling for monopolies. Franchises were awarded to utilities that exerted the greatest influence in city and party politics. Gray Evans thrived in this environment. So did his Tramway Company.

It obtained an "absolute" monopoly through a "perpetual" franchise. Tramway's brokers claimed in bond promotions that the company owned and controlled the entire city railway system, comprising 156 miles of track serving a population of about 175,000. They said Tramway's franchise was not limited in time and was, therefore, *perpetual*. They neglected to mention that the Colorado Supreme Court ruled that all public utilities, except gas companies, had a 20-year limit for renewable franchises.

Walter Cheesman's indifference to politics, David Moffat's preoccupation with his railroad, and Gray Evans' perceived arrogance were causing a change in public opinion. Platt Rogers, Denver's mayor (1891-1893), described the political situation in a speech given in 1894:

*The open and shameless bribery of the voters, and the fearless prostitution of the ballot box have scarcely been equalled elsewhere. The police force came to be looked upon as a political force. In the performance of its duties as the conservers of the ambition of the political bosses, the honest citizen found it extremely hazardous at times to attempt to vote under his own name. Ballot boxes were spirited away, returns altered and the will of the people thoroughly negated.*

An article in the *Denver Times* charged that Gray Evans had spent endless time and money bribing judges, corrupting legislators and helping secure appointments of supreme court judges who would be favorable to railroads and municipal franchises.
Many attempts were made to improve Denver's city government. At least eighteen special acts aimed at doing that were passed by the Colorado Legislature, but they were not enough. The citizens wanted home rule. A champion for their cause emerged rather suddenly and took center stage. His name was John Rush.

John A. Rush was born in Lawrence, Kansas. After graduation from Kansas State University in 1891, he was a court reporter for the Kansas City Journal. He studied law, moved to Elyria, a small community north of Denver City, and started a law practice.

Rush became Elyria town attorney and local political boss. He was elected to the Colorado Senate, where he became known as a strong advocate of municipal ownership of utilities and home rule for Denver.

Rush campaigned hard for a constitutional amendment for home rule for Denver. He toured the state and made many enthusiastic speeches. He wrote newspaper articles informing Coloradans of the advantages of home rule. In an article published in the Denver Times, Rush said:

> As a general rule, municipalities are the creatures and playthings of legislatures. The nation in national affairs may govern itself; the state in state affairs is supreme and the individual in his private business brooks no interference; but the municipality must have permission from the legislature for everything it does. This anomalous condition of affairs that places a collection of individuals under perpetual guardianship is a wrong to the citizens.

Creatures and playthings of legislatures? A little flamboyant perhaps, but John Rush was essentially correct. Colorado's government, through its governor's appointments, controlled Denver's boards for public works, police and fire. This state control almost led to a civil war between city and state.

The Rush Amendment was passed by the Colorado Legislature on March 7, 1901. Governor Orman signed it at 8:45 a.m. the next morning, before corporate powers could stop him.

It was historic. The Rush Amendment became Article XX of Colorado's constitution. It carved the City and County of Denver out of Arapahoe County and incorporated six small contiguous towns within its boundaries. It was ratified by Colorado voters in November 1902. Its constitutionality was questioned in subsequent litigation, but it was ultimately affirmed in 1904.

A 21-person delegation was formed in 1904 to draft a charter for the City and County of Denver. The delegation included a woman - Alice Polk Hill. Very unusual for that time. Cle Cervi and Nancy Peterson noted this in The Women Who Made the Headlines. When Alice was later asked if she felt out of place, she replied, "To tell you the truth, it did not occur to me that I was the only woman there."

If Colorado historians ignored Colonel Archer, what about John Rush? He deserves much more credit than has generally been given him. The Rush Amendment freed Denver from state interference in its daily affairs. An elected mayor would now appoint members of Denver's public works, police and fire departments. The government
of the City and County of Denver, not the state government, would henceforth determine
the Queen City's destiny.

One of the Rush Amendment's most important provisions concerned the granting
of new franchises to utility corporations. Previously, city council granted utility franchises
and it was widely known that council members often yielded to the political will of the
utilities. Now, all franchises would have to be approved by the taxpaying electorate.

The Rush Amendment set the stage for the important election in March 1904,
when voters elected Robert Speer as the first mayor of the City and County of Denver.

* * *

Robert Walter Speer was born in Pennsylvania in 1855. His father won distinction
for gallantry as a Union army officer during the Civil War. His mother came from one of
the community's leading families. Robert attended public school and continued his studies
at Dickinson Seminary in Williamsport, Pennsylvania.

Robert's sister, Margaret, also was a student in Williamsport. So was her best
friend, Kate Thrush. One afternoon the two girls were rowing a boat on the river, as Robert
sat on the bank and watched. The boat capsized and both girls were thrown into the water.
Robert leaped into the water and rescued them. He would marry the one with the name of a
bird.

Robert was employed in the office of the Pennsylvania Railroad when Margaret
was diagnosed to have tuberculosis. He left his job and took his sister to Pueblo, where the
climate was better for her illness. After several months, Margaret decided to return home
to die. Robert took her back and she died a short time later.

In early 1878, Robert also was afflicted with the dread disease. He hemorrhaged
violently and decided to return to Colorado for his health. He passed through Denver City
en route to a ranch in the country. Two or three years of fresh air and ranch life restored his
health.

Robert Speer left the ranch and found employment as a carpet salesman at the
Daniels and Fisher department store in Denver. By 1882 he was into real estate and
making money. He returned to Pennsylvania and married Kate Thrush. They decided to
make their home in Denver.

Within two years, Speer became prominent in Denver politics. City council was
Republican by a majority of one. Speer was a Democrat. In April 1884, city Council voted
by secret ballot for city clerk. Speer won by defeating the incumbent Republican, C.F.
Leimer. Leimer demanded a verbal vote and won. Speer refused to accept it, claiming he
had been elected by legal ballot.

Leimer took physical possession of the office of city clerk. One of Speer's
biographers, Edgar C. MacMehen, continues the story: "There followed a short parley, a
demand for the keys of the office, a curt refusal, and the next moment Leimer found
himself seated in the hallway, ruffled in spirit, but unhurt. This ended the conflict over
who was city clerk.

It launched Speer's political career. President Cleveland appointed him postmaster
of Denver. After four years in that job Speer returned to the real estate business. In 1891,
John L. Routt, a Republican, became governor of Colorado. One of his first acts was to appoint members of Denver's fire and police boards. He appointed two Republicans and one Democrat - Robert Speer. Routt had developed admiration for Speer when he (Routt) was mayor of Denver.

It wasn't long before Governor Routt was getting flack from his party's leaders. "We are supposed to have a Republican board," one complained, "but there is a young Democrat fellow down there at City Hall who is running the whole thing."

Speer continued to run the whole thing until the end of his term, but he ran it exceedingly well. When Alva B. Adams became governor of Colorado in 1897, he appointed Speer police commissioner of Denver City. In 1899, Governor Charles Johnson appointed Speer fire commissioner. In 1901, Governor James Orman appointed Speer president of the Denver Board of Public Works, where he served until he became Denver's mayor in 1904.

Robert Speer's climb up Denver's political ladder had been unusually fast. His public works job was a political plum. He used his unique ability to win friends and influence people to distribute patronage jobs very wisely. He developed friendships with people from many nationalities and economic levels.

Speer knew all the closets where city skeletons were hidden. He knew all the angles and internal politics of city government. When he ran for Denver mayor in 1904, he was the best qualified man, before or since, to seek the mayor's office.

It wasn't easy. Every newspaper in the city opposed him, favoring a Republican businessman. But Speer, during his years on city boards, had built the best political machine in Denver's history. He had the following and the ability to become Denver's first, and best, political boss.

It was a situation formed in heaven for Bob Speer. He was the right man at the right place at the right time. He would have, among his many accomplishments as mayor, a profound effect upon the organizational structure of Denver's water supply system.

Speer campaigned for mayor on a platform that advocated municipal ownership of the water utility. Would Cheesman's remarkable dam and his other accomplishments be enough to stem the tide of negative public opinion that threatened the very existence of his private water monopoly?

The answer was formed in 1907, a decisive year in Denver water history. Walter Cheesman, the heart and soul of Denver Union Water Company, died on May 31.

Edgar C. MacMechen reported the event and remembered the man:

*Mr. Cheesman's death ... was preceded by an illness of six months, the result of an attack of influenza, aggravated by asthma. During this last illness, when he was able to leave the house, his favorite ride was to the hill in Congress Park where he spent many hours watching the flaming sunsets that arched above the city he loved. This sentiment was common to all the early pioneers of Denver; a very deep and sincere attachment of which we have innumerable instances. They had seen the bare and sun baked plains; lived in the comfortless log cabins with their sod roofs and earthen floors. They had drawn water from the shallow wells where contagion lurked*
unseen; had sunk ankle-deep in the springtime mud; had choked in the heavy clouds of dust kicked up by plodding oxen.

All these things Mr. Cheesman had experienced but, to him, as he surveyed a city of comfortable homes surrounded by vivid lawns and shaded by arcing trees, the transformation had a deeper and more personal meaning. Water had made the desert verdant and it had been his brain and energy above all others that had given water to the thirsty land. This was the inner reward for his long years of hard work and sacrifice.

On that very hill where he sat now stands the graceful Greek memorial in white marble, given in his memory by his wife and daughter ... Shortly after Mr. Cheesman's death, City Council changed the name of Congress Park to Cheesman Park in appreciation of Mr. Cheesman's outstanding work as a city builder and in acknowledgement of his unfaltering faith in Denver's destiny ...

Mr. Cheesman had placed his finger unerringly upon the one vital point to determine that destiny favorably, and had devoted the major part of his life toward providing the city with a never-failing source of pure, sparkling water.

Walter Cheesman's legacy includes Cheesman Dam. It is still an integral part of Denver's water supply system. And Walter Cheesman, the man, will always be an important part of Denver's history.

* * *

A month after Cheesman's death, Mayor Speer sent an important letter to the Denver Union Water Company. It stated that he favored municipal ownership of the water utility if three conditions could be met. First, the purchase price had to be reasonable. Second, it had to be managed by a non-political board composed of businessmen. Third, a full investigation had to conclude that the city could provide better water service, at lower rates, than Union could.

Three crucial events in 1907 tilted the balance of power toward municipal ownership: Cheesman's death, Speer's letter, and then the Colorado Supreme Court's ruling against Union over water rates. It was this combination of adverse events, aided by growing public antagonism, that led to the demise of the Denver Union Water Company.

David Moffat became Union's president after Cheesman's death, but he was not nearly as enthusiastic as Cheesman about private ownership of the water company. Dave was much more interested in construction of his Moffat Road.

Mayor Speer's first condition - reasonable cost - was difficult to achieve. In 1909, five appointed appraisers recommended a purchase price of $14.4 million. It included $1.2 million for Union's "going concern." That didn't set well with the public. Objectors to
municipal ownership formed The Water Company's Consumers Protective Association. It viewed that going concern thing as evidence of the appraisers' unreliable procedures. They called for creation of a public utilities commission which could regulate utility rates.

In May 1910, a special election was held in Denver to vote on an initiated amendment to the city charter to create a Public Utilities Commission and to authorize the commission to offer Union $7 million for purchase of its water plant. If Union rejected the offer, the commission was authorized to spend up to $8 million building its own water plant, if voters approved a bond issue on September 6, 1910.

Denver voters passed the amendment and also the bond issue vote. But New York Trust Company sued the city to prevent the issuance of bonds, because the 1890 franchise obligated Denver to either purchase the company at its approved valuation or grant it a new franchise. Union joined in the suit.

The litigation progressed through U.S. District Court, the Circuit Court of Appeals, and finally arrived at the U.S. Supreme Court. In May 1913, the high court directed Denver to either (1) purchase Union's plant at its appraised value, or (2) build its own plant, or (3) renew Union's 1890 franchise.

The recently appointed PUC members focused on (1) and (2) and appointed a three-member committee to estimate their relative costs. In January 1914, the committee reported values of $10.045 million for (1) and $12.75 million for (2). Neither side of the argument liked the estimates. Negotiations continued until March, 1914, when city council passed an ordinance reducing Union's water rates by 20%.

This outrage infuriated Denver Union Water Company and it immediately challenged the ordinance in Federal District Court, claiming it unconstitutional. A special court-appointed master heard the case and, in October 1915, he reported that the ordinance was unjust and invalid. He placed the value of Union's plant at $13,415,899.

Once again, the controversy was appealed through court channels to the U.S. Supreme Court. Negotiations continued during the appeals and agreement was finally reached. Denver agreed to purchase Union for a price to be set by the Supreme Court, which determined it to be $13,415,899.

A special election was held in Denver on August 6, 1918, to decide whether the city should (1) purchase the Denver Union Water Company, (2) issue bonds for $13,970,000 for its purchase, (3) abolish the Public Utilities Commission and (4) turn the water system over to a Board of Water Commissioners. All four proposals were approved by substantial margins.

It was the end of the water company era and the beginning of the Denver Water Board era.

* * *

Eleven private water companies had tried to supply domestic water to Denver from 1870 to 1918. Ten failed. Denver Union Water Company survived and held a monopoly for a few years, but political problems led to its demise.

The new era gave birth to the Denver Board of Water Commissioners on August 6, 1918. Was it a wise thing to do? Oust Denver Union Water Company and bring in the
Denver Water Board? Was it overkill, or was it one of the most significant, far-reaching decisions Denver voters would ever make? Those questions would be debated for most of the century.

The term Denver Water Board is used as a general term that encompasses the Denver Board of Water Commissioners, the Denver Water Department and the current Denver Water. Its birth, at almost the same time as my birth, signaled the end of franchise corruption and political manipulation. Hopefully, it would end bickering and never-ending litigation over water rates.

It didn't.

Robert W. Speer, the much admired (and hated) political boss, is best known as the mayor who did so much to improve the beauty of Denver. No man, before or since, has done as much.

Mayor Speer turned the dismal dumping ground along Cherry Creek into a beautiful double boulevard. He made it possible to move the Denver Country Club from Overland Park to its present location. He converted Congress Park, which had been used as a burial place for paupers and unknown transients, into what became Cheesman Park. He acquired and set aside for public use two high points for viewing the mountains: Inspiration Point and Cramner Park.

Somewhat like General Palmer, Robert Speer had a soft, aesthetic side and a hard-core political side. Parks, boulevards, trees and flowers attest to his soft, creative side. Denver's 1918 charter, often called the Speer Charter, and the enabling legislation that created the Denver Water Board, attest to his hard political side. Speer's two sides were perhaps equal in history's long assessment.

The five-member Denver Water Board was given virtual autonomy. Board members would be appointed by the mayor to staggered six year terms, without approval by city council. No mayor, unless elected to more than one term, can appoint a majority. Neither the mayor nor city council can remove board members. The only power Denver voters have over the DWB is their right to approve, or deny, proposed water bond issues.

The DWB is mandated to operate like a business, free of political corruption and public exploitation. No other municipal agency in the United States except one - the Los Angeles Department of Water and Power - has as much power and authority as the Speer Charter granted to the Denver Water Board.

The DWB can obtain revenue by increasing water rates and by leasing surplus water to entities located outside city limits. All water revenues must be used for operation and maintenance of plant, for acquiring and protecting water rights and for planning and constructing for future needs. Water rights cannot be sold without approval by Denver voters.

Such power could not go unchallenged. In 1922, there was a proposal to amend the city charter and abolish the Denver Water Board. It was defeated by a four to one majority. In 1933, voters again decisively defeated a similar proposal. In 1948, Englewood sued the DWB over water rates and attempted to have rates regulated by the Colorado Public Utilities Commission. That effort also failed.

In 1982, Adams, Arapahoe and Jefferson counties sued the DWB in an attempt to have it regulated by the Colorado Public Utilities Commission. Denver District Court
approved the request, but PUC refused to provide such regulation. In 1986, the Colorado
Supreme Court reversed the District Court decision.

The Denver Water Board was born rich. Asset rich, but cash poor. It inherited only
$424 cash from Denver Union Water Company, but its assets included an efficient water
system capable of delivering 50 mgd of good quality domestic water. And a raw water
supply capability of nearly 60,000 acre feet per year. Plus storage and regulating capacity
totaling about 115,000 acre feet in Cheesman, Antero, Marston and Platte Canyon
Reservoirs. And a cash flow of about $1.5 million a year from Union's 270,000 customers.

Not a bad way to start a water utility business, thanks to Walter Cheesman.

*     *     *

On the day David Moffat died, Gray Evans wired his associates at the Moffat Road
and the First National Bank to prepare for a financial storm. By the time Moffat's body
arrived in Denver, a public announcement had been made that the Moffat Road would be
completed. It would be completed because of extraordinary efforts by Gray Evans and
Gerald Hughes.

Hughes persuaded a reclusive Leadville banker, Absolan V. Hunter, to invest
heavily in First National and become its president. Well known Colorado men of wealth -
Mahlon D. Thatcher, John K. Mullen, Crawford Hill - were made bank directors. Their
bank accounts saved First National. When Hunter died in 1924, Hughes became president
of First National.

Gerald Hughes was short, slender, quiet and very influential. His father had been a
U.S. Senator from Colorado. Later, Hughes, Sr. became chief counsel for the Tramway

After graduating from Yale, Gerald joined his father's prestigious law firm. He had
served four years in the Colorado Senate when his father died, two months before Moffat's
death in 1911.

One of Gerald Hughes' first acts after his father died was to bring Clayton C.
Dorsey into his law firm. They complemented each other very well. Dorsey was tall,
affable, made friends easily and was very influential among Republicans. His father had
been a U.S. Senator from Arkansas. Hughes and Dorsey were, in the words of Lyle W.
Dorsett, "a command post which would direct the economy and polity of Colorado for
another decade."

Gerald Hughes used his power base, along with Gray Evans, to save the Moffat
Road from financial ruin. He was asked to become its president, but declined. Charles
Boettcher, who also knew nothing about how to run a railroad, accepted, reluctantly. Then
Hughes, Boettcher, Lawrence Phipps and William Freeman signed an agreement prepared
by Hughes. It stated that none would sell their holdings in the Moffat Road until David
Moffat's goal had been reached - completion of the road to Salt Lake City.

There were strikes, operating deficits and terrible blockages by snow and wind on
the Hill and the Divide. The Hill was the long, difficult climb up to the Divide - Rollins
(later Corona) Pass - the high point of the Moffat Road. Both problems drained its
financial resources.
Horrendous drifts often covered the rails along the Divide. They defied the best efforts of up to five big steam locomotives led by the cutting edge of a giant rotary snowplow. A snow blockade that began in mid-winter 1913 was not broken until March. In March 1916, a 100-mile-per-hour wind uprooted snowsheds, filled cuts and tunnel portals and covered the rails with a deep, unbreakable, hard snow for six weeks.

Late in 1920, a bill was introduced in the Colorado Legislature to construct three railroad tunnels - two in southern Colorado and the Moffat. The Tri-Tunnel Bill was decisively defeated in November 1921.

The Colorado Legislature, perhaps nursing a guilty conscience, voted to place a stained glass window picturing David Moffat in the wall of the senate chamber. A public subscription provided funds for a suitable monument for Moffat in Fairmount Cemetery. If Dave had been alive he probably would have said, Thanks, but what about my tunnel?

In November 1921, Banker's Trust Company petitioned the court to junk the Moffat Road so that it could cut its losses. Moffat Road supporters, particularly Gerald Hughes, argued persuasively that the railroad was progressively reducing its deficit. The petition was dismissed, with reservations. The Moffat Road was given one last chance to become profitable.

Moffat Road supporters were desperate. They introduced another tunnel bill in the state legislature and they asked the U.S. government for a $6.5 million loan to construct the tunnel. It was refused.

On March 31, 1922, the Moffat Road received what many perceived to be a knock-out punch. Tunnel 16 below Tolland collapsed amid roaring flames which consumed 800 feet of dry-rotted timbering. It would take months to clear the wreckage and rebuild the tunnel. It was the Moffat Road's darkest hour since the death of David Moffat.

Then Fate lifted its hooded eyes and turned its attention to Pueblo, home of the fiercest objectors to the Tri-Tunnel Bill. A devastating flood on the Arkansas River wiped out the railyards and most of downtown Pueblo. Attitudes changed and, in April 1922, the Tri-Tunnel Bill passed. It created the Moffat Tunnel Commission and it provided funds to build the Moffat Tunnel.

Then Fanny Moffat went to see Gerald Hughes. "Gerald," she said softly, "I have come to tell you what happened the day Dave died." She explained that her husband had given her a ring to be given to Gerald because he was young enough to see the Moffat Road become a success. If she was in Denver and Dave was in New York when he died C? It doesn't matter.

Gerald was overcome with emotion, the story goes. Finally he said, "Frances, why on earth have you waited so long to bring me this message and the ring?" "Well," she said, "I just wanted to wait until I was sure."

The delay in passing the Tri-Tunnel Bill allowed time to change the tunnel plans from 3-miles at 10,000 feet to a 6.2-mile tunnel at 9,000 feet. Better. Less costly.

On February 26, 1928, the first train passed through the Moffat Tunnel. It was loaded with Moffat Road officials, politicians and happy Denverites, led by Gray Evans, Gerald Hughes, and other members of Denver's second generation power elite.

Fanny was not among them. She died on October 24, 1926 and was buried beside Dave at Fairmount. The massive stone placed over the two graves was not the rough-hewn
block of granite from the Moffat Tunnel that had been originally planned.

The first Rio Grande passenger train traveled from Denver through the Moffat Tunnel to Salt Lake City on June 16, 1934 on Moffat Road rails to a connection with the Rio Grande Western at Bond. There was a big celebration at Bond, but not in Denver. The Moffat Road had become, in effect, a subsidiary of Rio Grande Western, part of a large, powerful railroad combine.

David Moffat's dream of a railroad from Denver to Salt Lake City had finally been realized - 23 years after his death. Gerald Hughes' dream of a Moffat water tunnel faced an uncertain future. He understood that conversion of the Moffat Tunnel's pioneer bore to a water tunnel would be as vital to Denver's future as the railroad tunnel.

The pioneer bore paralleled the railroad tunnel, 75 feet from it. It was 10.5 feet in diameter and was first used for geological exploration, later for hauling away material from construction of the railroad tunnel.

Dewey C. Bailey succeeded Speer in 1919 as Denver's mayor. He also saw that it might be possible to use the pioneer bore as a water tunnel. Bailey sent a survey party led by Denver consulting engineer George Bull into the Fraser River Basin to stake-out a claim for water that could be diverted to the Eastern Slope through the pioneer bore. The date Bull arrived - July 4, 1921 - became the priority date for the Denver Water Board's Fraser River Collection System.

The Denver Water Board, in 1921, did not seem interested in converting the pioneer bore into a water tunnel. It was preoccupied with organizational problems. Nothing happened until Ben Stapleton became mayor in 1923.

* * *

Benjamin Franklin Stapleton was born on a Kentucky farm in 1885. He attended a small Kentucky college, then studied law in a Lebanon, Kentucky law office. He came to Denver in 1910. He left to serve in the Spanish-American War, then returned to Denver. He served as police magistrate and was elected juvenile judge on the Democratic ticket. He later served as Denver postmaster and state auditor.

George Kelly described Stapleton in The Old Gray Mayors of Denver as "Of medium height, he appeared tall because he was lean. Ben had a scholarly, almost ascetic appearance, accentuated by thin hair and metal-rimmed glasses, mod today, that gave him more than 20-20 vision when he focused on matters important to him."

When Stapleton became mayor, Gerald Hughes immediately brought the pioneer bore to his attention. Something had to be done quickly. The wooden support structure was rotting and threatening to collapse.

Stapleton acted quickly. He persuaded Denver City Council to appropriate $200,000 to reinforce the pioneer bore. The Denver Water Board finally began to act. Clearing rights-of-way for the Fraser River Collection System started in January 1926. In January 1929 the DWB leased the pioneer bore from the Moffat Tunnel Commission for 99 years at a dollar a year.

The DWB constructed Eleven Mile Reservoir in South Park in 1930-1932, with a storage capacity of nearly 98,000 acre feet. On November 1, 1933 it announced plans to
divert water through the pioneer bore and exchange it to Denver's intakes.

Things were going well for the 15-year-old Denver Water Board. It was finally hitting its stride. But on its horizon were dark clouds, or lack of them. Drought and George Beagle.

Ben Stapleton lost the mayoral election in 1931 to George Beagle, who ignored the work in progress on the pioneer bore. He spent the remaining $100,000 on other programs. When Ben regained the mayor's office in 1938, he made the water tunnel project his top priority. Three years of drought had nearly emptied Denver's reservoirs.

Mayor Stapleton asked Denver City Council to apply for federal PWA funds to convert the pioneer bore to a water tunnel. Fortunately, George Bull had become PWA's director for the region that included Colorado. Bull's office was in El Paso, Texas, but he understood the DWB's plan and needed little persuasion. He had made the first survey in 1921.

Stapleton and Bull developed a sweetheart deal for Denver. It was, nominally, a joint-participation project. Actually it was one-sided. The federal government would loan Denver $2.5 million to construct the Moffat Water Tunnel. The loan would be repaid in 30 years at a low interest rate.

Denver agreed to use PWA workers for construction for which it would receive $1 million cash from the federal government. Denver signed an agreement with the Interior Department in November 1934. Denver voters approved a $2.7 million bond issue for the water tunnel in September 1935.

A thousand men worked on lining the pioneer bore with concrete. On June 10, 1936, water diverted from Jim Creek, Buck Creek and the Fraser River poured through the Moffat Tunnel into South Boulder Creek. It was diverted downstream into Clear Creek. Then it was exchanged up to a canal out of Clear Creek that carried it to the DWB's Ralston Reservoir near Arvada. From there it was carried to the Moffat Filter Plant and into Denver's distribution mains.

Ralston Reservoir, capacity 11,300 acre feet, was named for Lewis Ralston, the early gold seeker who traveled along the Front Range in 1850, panning streams along the way, including the one that was later named Ralston Creek.

The original Williams Fork Reservoir was completed in 1938, to provide replacement for Denver's Moffat Tunnel diversions whenever the downstream call was senior to Denver's July 4, 1921 priority. The Williams Fork Collection System was completed in 1940.

Williams Fork diversions originally passed through the Jones Pass Tunnel into Clear Creek for exchange to Ralston Reservoir. In 1958, the 3.4 mile Vasquez Tunnel was constructed to carry Williams Fork water back across the Continental Divide to the Fraser Collection System, then into the Moffat Tunnel.

All of this water facility construction happened during the administration of Mayor Ben Stapleton. Stapleton's contributions to Denver's raw water supply system are mostly buried under his many other accomplishments.

Mayor Ben's accomplishments are legendary. He expanded Denver's mountain parks, with the notable assistance of George Cramner, manager of parks and improvements. Red Rocks Amphitheater was the crown jewel of their efforts. It was
constructed by the Civilian Conservation Corps during the Great Depression. Stapleton started construction of Denver's beautiful city and county building. He initiated Denver's Valley Highway, now part of Interstate 25. He acquired and developed land for a city golf course. He secured Lowry Airforce Base for Denver and Aurora.

Early in his tenure as mayor, Stapleton persuaded Denver City Council to purchase 1,200 acres of land “way out east in the sticks” from his friend, Brown Cannon. Cannon operated Windsor Farm Dairy and sold the acreage to the city for a grazing land price.

The Denver Post almost went berserk. It labeled the purchase "cronyism" and lambasted it with phrases such as Stapleton's Folly, Stapleton's Sand Dunes, and Cannon's Payoff." Stapleton persisted and the end result was Stapleton International Airport.

Ben Stapleton was the only Denver major, before or after, who was able to control the powerful Denver Water Board. George Kelly commented on this in The Old Gray Mayors of Denver:

All other chief executives watched this small powerful band of men become infected with a virus of independence that defied any mayoral antidote. But not Stapleton. He believed passionately that since he appointed the members, they should respond to his leadership. And they did.

As a consequence, Denver's water supply system, which is a good one, can be credited to his vision ... and to his cooperative appointees, their successors and to a mayor who came later at exactly the right time.

Ben Stapleton was the most powerful and most respected Denver mayor since Robert Speer. But he did not adjust well to conditions following World War II. A reporter casually asked him in September 1946, "How will Denver solve the tremendous problems created by all these newcomers?"

Stapleton was out-of-step with the times and his response may have cost him his mayor's job in the next election. "If these people," he said, "would just go back where they came from, we wouldn't have any problems here."

Ben Stapleton died in 1950, when he was eighty years old. His son, Benjamin, Jr., became a prominent Denver attorney and served many years with distinction as chairman of the Colorado Water Conservation Board.

A Rocky Mountain News headline reported Ben Stapleton, Sr.'s death in bold type. In an adjoining column, less conspicuous, was this headline: "Blue River Suit is Heard Here." Those two headlines said it all.

It was the end of the Moffat Tunnel era and the beginning of the Blue River Water War.

That story will be told in the next chapter. It's when the Denver Water Board's heavy lifting really started. When water for Denver became water for Metro Denver. It ushered in the water era of professionals, boardrooms, courtrooms, lawyers, engineers, specialists of all stripes and colors, wearing suits and ties and carrying their knowledge in bulging briefcases. It was the start of the DWB's Saunders Era.
THE BLUE RIVER WATER WAR lasted nearly fifty years, from the early 1940s to the late 1980s. It peaked in the mid-1950s in a crisis atmosphere that led to the Blue River Consent Decree.

This period might also be called the Denver Water Board's Saunders Era. It was during this period that the DWB developed its Blue River water supply. And many enemies.

Glenn Saunders dominated DWB's policy and litigation during this long period. He became one of the most powerful men in Colorado. Marc Reisner described Saunders in Cadillac Desert:

One of the three (most powerful men in Colorado) was Glenn Saunders, the chief counsel for the Denver Water Board. A brilliant man with a silver tongue, Saunders had, for more than thirty years, been the water lawyer in a state where water lawyers wield power that makes them objects of profound respect. Under his tutelage, the Denver Water Board had become a kind of understudy of the Metropolitan Water District of Los Angeles: a well-oiled, well-funded suprapolitical machine trying to purloin water from every corner of the state, all in the interest of turning Denver into the Los Angeles of the Rockies - a goal which has been largely achieved.

In a strictly legal sense of course, the Water Board didn't steal water. But cross the Front Range and go into the mountains, where most of Colorado's water originates, and the response to a mention of the Denver Water Board is likely to be an oath.

Saunders was the perfect symbol of this rough-and-tumble political machine. With his Dickensian visage, in his checked suits and pastel shirts and vivid ties, he was the city sharpie making ruthless inroads into the virgin old West - terrifying witnesses in the docket, shouting down citizens
at public hearings, and always scheming, pushing, plotting for more dams.

Saunders was, some believed, a cunning opportunist in the tradition of Colonel Archer. But he also had vision and the ability to turn vision into reality - inside the courtroom and out of it. It was a powerful combination of character traits.

Glenn Garfield Saunders was born in Denver in 1905. His father had a criminal law practice. One of the Saunders' neighbors was the chief engineer of the Denver Union Water Company. As a young boy, Glenn was invited to ride with the chief engineer in the company's big Stevens-Duryea open car to inspect the water system.

In the summer of 1918, when Glenn was thirteen, he was hired to watch the float gauges at the Capitol Hill Pumping Station. If a gauge lost pressure, a wood stave water conduit probably failed and this had to be reported immediately to the chief engineer. Quite a responsibility for a young boy.

Glenn was a careful listener to over-the-fence arguments about whether there should be private or municipal ownership of Denver's water system. His father was a right-wing conservative. Ben Sweet, also their next-door neighbor, was a liberal proponent of public ownership. Sweet later became a member of Denver's first Board of Water Commissioners.

Mayor Ben Stapleton added another dimension to Glenn's early indoctrination into the water business. After graduating from the University of Michigan law school, he decided he wanted no part of criminal law. Glenn told the story in his unpublished 1989 memoir, *Sixty Years of Water Law Practice*: "So I went to my old friend, Mayor Ben Stapleton, who had helped raise me during a period when he was a widower and who had inculcated in me some of his own very high ideals."

Ben Stapleton told Glenn that the Denver Water Department used one of the attorneys in the city attorney's office for its water litigation. His name was Malcolm Lindsey - apparently no relation to the well known Denver juvenile court judge, Benjamin Barr Lindsey. Ben was a small, dynamic man, revered in Denver history. Malcolm appears to emerge from Saunders' memoir as an ineffective man.

*Lindsey and I made an excellent combination. He had never gone to law school, but had studied law while being a court reporter in Trinidad, so that his education was from the grass roots up. A very quiet man, he did not like the vigor of a head-to-head contest. That is what I enjoyed most about the practice of law: the adversary proceeding. Consequently, I learned water law from him, and he sat as a spectator while I conducted litigation. I had nothing to unlearn about Colorado water law because the subject was not taught at the University of Michigan... and thus was enabled to learn water law at the hands of the people who were practicing it: such people as Walt McKendrie of Pueblo, Bill Kelly of Greeley, and Frank Delaney of Glenwood Springs.*

Saunders' first major water rights case was *City and County of Denver v. Sheriff*, in 1939. It involved Denver's right to divert water from the Western Slope through the
Moffat Tunnel to the Eastern Slope. The Western Slope trial judge ruled that Denver could not divert water out of the Colorado River Basin until it had exhausted its resources in the South Platte Basin.

In his memoir, Glenn commented on the judicial bias on Colorado's Western Slope: "At that time there were clearly two states, Colorado I, where the capitol was located east of the Continental Divide, and Colorado II, west of the Continental Divide. The judges, the legislators, and all local officials in Colorado II, so far as water law was concerned, had their own law for western Colorado and had never heard of the Colorado Constitution."

Saunders tells, in his memoir, what happened after he was hometowned by the trial judge, Charles C. Herrick:

Malcolm Lindsey ... was utterly shocked by this ruling, which was made from the bench about 10:30 a.m. one morning, at which time the judge announced that the court would reconvene at one o'clock to hear any motions we might have to make. It was a fine day, so A.P. Gumlick, who was president of the Board of Water Commissioners and present at the proceedings, and I, after thinking through what had to be done in court after lunch, proceeded to enjoy the day while Mr. Lindsey went off by himself in a high state of disbelief to prepare a motion for a new trial.

When we got back to court at one o'clock, Lindsey was so upset that after two sentences, he turned the matter over to me. I thereupon dictated the basis for the decree I thought we ought to have. This basis subsequently became the decision of the Colorado Supreme Court, reversing the lower court and instructing the lower court that the constitution covered the entire state of Colorado, being Colorado II as well as Colorado I.

It sounds a little self-serving, but it was vintage Saunders. Lack of confidence never intruded into his courtroom appearances, or elsewhere. He was flamboyant, yet very innovative in developing legal theories that later became Colorado case law. Such as water exchanges, water re-use, and first in-first out principle for reservoir storage. I worked closely with Saunders during most of the six years (1955-61) I was the DWB's water supply engineer.

It was during that first important water rights case, when Saunders took over for a bumbling Lindsey, that he forged a strong relationship, built upon mutual respect, with August P. Gumlick.

Called Gus by his friends, Gumlick was president of the Denver Water Board for many years. Retired from a plumbing business, he occupied a small cubbyhole in the water department offices on the first floor of the city and county building. He roamed the floor and kept his fingers on the pulse of the water department's daily activities.

Gus spent much time in Saunders' relatively spacious office. They discussed water policy and the people who were carrying it out. They were a strong team and they usually had their way on policy with members of the Denver Water Board.
The Denver Water Board changed the name of the Vasquez Tunnel to the August P. Gumlick Tunnel to honor their longtime late president. It has not named any water facility after Glenn G. Saunders, its longtime chief counsel.

Saunders was well established on the Western Slope as The Enemy when the Denver Water Board tried to get its Blue River water rights adjudicated in District Court in Eagle, where Judge William Luby presided.

It was very important that the DWB obtain the earliest possible priority date for its water rights on the Blue River and its tributaries. George Bull made some office studies of Blue River water supply in the early 1920s, but he made no field surveys there. The DWB made further studies of the Blue River in 1927, but did no field work.

There were reasons for lack of field surveys, the DWB would say: the Great Depression, World War II, shortages of steel and labor. Would these excuses hold up in Judge Luby's court in Colorado II? Of course not.

Judge Luby was in no hurry to adjudicate water rights in Water District 36, which included the Blue River. He had other cases to try. Did Saunders think he had nothing else to do? Let him wait.

Saunders became exasperated with Luby's delay. Would he ever get off his cantankerous butt and start adjudication proceedings? On November 16, 1942, the DWB filed suit in Luby's court to adjudicate its Blue River water rights claims.

It took Judge Luby ten years to adjudicate Blue River water rights. He finally ruled, in January 1952, that Denver's priority date for its Blue River project was June 24, 1946, rather than the 1927 date it had claimed. Furthermore, Denver could divert only 788 second feet through its proposed Montezuma Tunnel from the West Slope to the East Slope, rather than its claimed 1,600 second feet.

It was the first serious defeat the Denver Water Board had ever experienced in major water rights litigation. It quickly appealed Judge Luby's ruling to the Colorado Supreme Court.

On October 18, 1954, Chief Justice Mortimer Stone announced a four to one decision upholding Judge Luby. It was based upon three facts: Denver had made no survey on the ground to support its claimed priority date until 1946. It had changed its manner of diversion from a short, high tunnel to a lower, long tunnel and added a storage reservoir at Dillon. There was lack of continuous effort until February 16, 1946, the date of approval of the DWB's final Blue River Project. Another major defeat for the Denver Water Board.

* * *

The Denver Water Board might have obtained an earlier priority for its Blue River Project if its leaders had taken another path.

In 1940, the DWB and the Denver Chamber of Commerce joined forces to lobby Congress for federal funds to build Denver's proposed Blue River Project. The general plan included storage at Dillon, a 23-mile tunnel under the Continental Divide, many power plants and a large reservoir at the confluence of the North and South Forks of the South Platte.

Would the federal government please provide $75 million to help get the Blue
River Project started? It might have, earlier, when Roosevelt's New Deal was pumping money into such projects and men such as Ben Stapleton and George Bull could smooth the way. But the New Deal had developed congressional antagonism and war clouds on the European horizon were mesmerizing Congress. Denver's request was denied.

USBR - U.S. Bureau of Reclamation - had been planning a bigger Blue River Project for many years. It included 11 major dams, 320 miles of conduits and 8 power plants that could generate an annual cash flow of $4 million. Plus a large storage reservoir on the South Platte later called Two Forks.

In post-war 1946, the timing seemed right for obtaining congressional authorization of USBR's Blue River Project. Michael Strauss, USBR's aggressive commissioner, was looking for projects like this. USBR was tooling-up professionally for a gigantic dam building program. Congress was in a project authorizing mood.

Would Denver be interested in obtaining Blue River water from USBR's project? There were many meetings and discussions.

Saunders did not want the DWB to lose control of its Blue River Project by including it in a larger federal reclamation project. The DWB could do the same thing, minus the irrigation and power, without USBR and all of its restrictions. Or so it seemed to him.

Besides, Saunders didn't like that hydrology fellow in USBR's Denver office - Randy Riter. He explained this in his memoir: "Although one would expect the United States government to be trying to help all the citizens of the United States, some of its agencies have perennially opposed Denver's development of a water supply. Its witnesses testified many years ago that the waters being appropriated from the tributaries of the Colorado River were not needed by the people of Denver, and figures were brought together, particularly by one Randy Riter of the U.S. Bureau of Reclamation, to show that Denver's population growth would not be as projected by the Denver Water Department."

I was a junior engineer in Randy Riter's hydrology office. He was a very capable, dedicated engineer.

Gumlick became involved, along with Saunders, in the debate over whether Denver should participate in USBR's proposed Blue River Project. Saunders commented on Gumlick's view in his memoir: "A very frugal man from an economic standpoint, he felt that unlimited annexation to Denver should not be anticipated so that the people of Denver should not finance the Blue River Project, but that it should be financed by the areas outside the city through a Bureau of Reclamation project. To this end, the South Platte Water Users' Association was formed in the summer of 1942 with Wilham W. Gaunt, a Brighton attorney, as its president."

The South Platte Water Users' Association consisted of representatives from Colorado Springs and the counties of Adams, Arapahoe, Douglas and Jefferson. Saunders: "The effort to turn the Blue River Project into a reclamation project instead of a Denver project failed at the hands of the Colorado Supreme Court in Denver v. Northern Colorado Water District."

A skilled and motivated political leader such as Mayor Ben Stapleton in his prime, or Mayor Bob Speer, might have been able to bring USBR and the Denver Water Board together to build a joint Blue River Project - a project that would have included Two Forks
Reservoir. But there was no such leader available and the moment was lost.

* * *

While the adjudication of Blue River water rights finally was underway in Judge Luby's District Court, the U.S. Justice Department, acting for USBR, suddenly withdrew the Colorado-Big Thompson Project's water rights from the adjudication. Then it filed a quiet action suit in Denver Federal District Court.

Justice's lawyers claimed that the C-BT Project was an integrated unit that spanned two water districts on the Western Slope and four on the Eastern Slope. Therefore, one class action suit would be the simplest and proper way to adjudicate C-BT's Blue River water rights and, at the same time, clarify the interpretation of Senate Document 80.

Let's pause now on our trip to the Blue River and take a look at the Colorado-Big Thompson Project and Senate Document 80.

The year 1937 has an important place in the history of Colorado water. It was the year the Colorado Legislature passed the Conservancy District Act. It led to formation of the Northern Colorado Water Conservancy District, the Colorado River Water Conservation District and the Colorado Water Conservation Board. In the new age of acronyms they became NCWCD, CRWCD and CWCB. Along with USBR, established in 1902, they became part of the language of Colorado water.

NCWCD, headquartered in Loveland, was created primarily to contract with USBR for construction of the Colorado-Big Thompson Project, repayment of costs and project operation. CRWCD, headquartered in Glenwood Springs, was created to protect and utilize water rights on Colorado's Western Slope. CWCB, headquartered in Denver, was created to protect and develop all of Colorado's water resources.

The C-BT Project was authorized by Congress in June 1938, after intense negotiations. A 142,000 acre foot reservoir - Green Mountain - was the West Slope's _sine qua non_ for consenting to C-BT authorization. It was mandated by project authorization law to be the first C-BT facility constructed.

Green Mountain Reservoir seemed jinxed almost from its beginning. Labor violence erupted during its construction. Negotiations stalled, a strike was called, shots were fired. Governor Ralph Carr called out the Colorado National Guard to restore order.

The Guard arrived equipped with rifles, machine guns and two tanks. It stayed 28 days before returning to Denver - two days before the start of World War II.

Bad _karma_ at Green Mountain?

Yes, but it would get worse, because of Senate Document 80.

_Senate Document 80_ was a USBR document inserted into the congressional act that authorized the Colorado-Big Thompson Project. SD80 outlined the C-BT Project's plan of development, operating costs, cost-estimates and project repayment. It was reported to be the brainchild of Mills Bunger.

Mills Bunger was a USBR engineer and a longtime resident of Wheat Ridge, along with his brother who also was an engineer. Their detractors, who included Glenn Saunders, called them the _Bungling Bungers_.

Senate Document 80 was, in Saunders' opinion, "one of the worst operating
documents I have ever seen." Attacking SD80 became an obsession for Saunders.

Never before, or since, has such an innocuous sounding document as SD80 created so much controversy. You might say it created, and prolonged, the Blue River Water War.

By incorporating SD80 into the C-BT project authorization act, it became both federal and Colorado law. Or did it? That question would be debated endlessly, it seemed, in state and federal courts and elsewhere, pursued tenaciously by Glenn Saunders.

* * *

Back now to the unexpected withdrawal of C-BT water rights from the District Court adjudication and its placement in Denver Federal District Court. This aggressive federal action aroused intense anger in Saunders and John Barnard, who represented CRWCD. It was the first and last time they would agree on anything.

John Barnard lived on a ranch near Granby. He portrayed himself as a poor country lawyer defending precious Western Slope water rights from attacks by that big city tyrant Saunders. Each played his role to the hilt and each enjoyed every courtroom minute of it. After I left the DWB in 1961 and became a consultant, I worked on water rights litigation with Barnard and, more extensively, with his older son, John Barnard, Jr.

John Barnard, Sr., and Glenn Saunders temporarily put aside their differences to join forces against the U.S. Justice Department. Both believed passionately that the federal government had no right to interfere in the adjudication of water rights in district courts in Colorado.

So there they were, side by side, in Federal District Court in Denver, fighting a mutual enemy. They tried, without success, to get both cases (adjudication of C-BT water rights and interpretation of SD80) remanded back to District Court in Eagle.

* * *

There was no agreement between Saunders and Western Slope interests on interpretation of Senate Document 80. CRWCD, NCWCD, USBR and the Justice Department all opposed the Denver Water Board on SD80. The dispute centered on Green Mountain Reservoir's power pool.

Green Mountain Reservoir is located on the lower Blue River, a short distance above its confluence with the Colorado. Its replacement storage capacity of 42,000 acre feet would be used to replace C-BT's Western Slope depletions when they interfered with downstream senior priorities. This replacement pool was not an issue.

Green Mountain's 100,000 acre feet power pool was the issue. SD80 provided that it would provide power revenues to help finance construction of the C-BT Project, plus water for development of Western Slope irrigation projects. Or so it seemed to DWB's opponents. Saunders interpreted SD80 differently.

Ed Taylor, eminent Western Slope congressman, viewed the developing conflict over interpretation of Senate Document 80 with great apprehension. He was known primarily for the Taylor Grazing Act enacted in 1934 to control over-grazing on public lands. Taylor Reservoir on the Western Slope is named for him.
Taylor was a close friend of Charles Hansen, "Godfather" of the C-BT Project. They launched their careers together as cub reporters on a newspaper in Grand Rapids, Michigan. Ed sent an urgent letter to his friend, Charlie:

_The (main) consideration of that agreement (SD80) was really the construction of Green Mountain Reservoir to stabilize the flow of the waters of the Colorado River. Now Denver, a lot of promoters, real estate men, engineers and lawyers are trying to promote a scheme to take all of the water of the Blue River at a point above that reservoir ... While the whole matter is such a preposterous and brazen conception, nevertheless, its backing is very dangerous for the West Slope ..._

_I would like to have you people give notice to that Denver bunch that you are interested in having that Blue River water conserved for our benefit. I understand they have a report ... which says there is a large quantity of water that they can take without injury to us, but anybody with any sense knows that the diverters up the stream have a very big advantage over those down the stream ... Of course, you realize all of this without me mentioning it, but I want you to know that I feel perturbed about that scheme which apparently has the enthusiastic support of the DENVER POST and I suppose naturally a large part of the people of that entire region. They are not concerned at all about our welfare on the Western Slope._

Daniel Tyler, emeritus history professor at Colorado State University, described the volatile situation in his book, _The Last Water Hole in the West_: "What particularly upset the CRWCD and the NCWCD was not so much the small amount of work that Denver had pursued on the Blue River Project, but the arrogance of city officials who claimed immunity from previous commitments to the West Slope, especially Senate Document 80 stipulations."

Judge Clifford Stone from the Western Slope and CWCB's first director from 1937 until his death in 1953, noted that SD80 had been adopted into Colorado law, but the Denver Water Board (read Saunders) "had seen fit to claim that it would not recognize those principles, especially as they apply to prospective Western Colorado development."

Nobody could change Glenn Saunders' views about interpretation of Senate Document 80. The best anyone could do was to obtain a statement from the DWB that it would confine its claims to Blue River water to "an amount required for domestic use."

Barnard suspected that Saunders had a hidden agenda - use of Blue River water for irrigation until needed for municipal purposes. So perhaps DWB's statement had some value. Or did it?

The Justice Department's suit was assigned to the Federal District Court's presiding judge, Lee Knous from Montrose. Like Judge Luby, Knous took his time. After two years he consolidated the two cases and defined the issues to be resolved: adjudication of C-BT water rights and interpretation of Senate Document 80 regarding use of the power pool at Green Mountain Reservoir.
Efforts to bring the warring parties together in some kind of equitable compromise failed. CWCB, which should have played a leading role in forging a compromise, was rendered impotent by the death of Judge Stone and the resignation of his two key advisors - consulting engineer Royce Tipton and consulting water attorney Jean Breitenstein.

As the adversaries prepared for trial, lead attorneys were Saunders (DWB), Barnard (CRWCD) and Veeder (Justice Department). William H. Veeder had been a Colorado Springs lawyer. He left Colorado to work for the Justice Department in the nation's capitol.

Saunders recalled Veeder in his memoir: "He was the one who started the Santa Margarita cases in California (which nearly caused a revolution), a very dedicated public servant for the United States and a true believer that the United States should supersede the powers of all individual states."

It would be quite a show: city slicker, country boy and a True Believer. Where are the tickets?

In what appeared to be a last ditch effort to develop a compromise, representatives of all parties met at the Pepper Pod Restaurant in Hudson. It became an important meeting because it sowed seeds of compromise in unexpectedly fertile legal soil, enriched by the absence of Glenn Saunders.

Saunders was in an oxygen tent in a Denver hospital, felled by an asthma attack that probably was triggered by tension. He was replaced by Harold D. Roberts of the prestigious Denver law firm Holme Roberts Moore & Owen. Tyler: "It immediately resulted in a far less adversarial situation, allowing all concerned to seek agreement in the true spirit of give and take."

The attitude change extended to the sedate Washington offices of the Justice Department. True Believer Veeder was replaced as lead attorney by J. Lee Rankin, assistant attorney general. He asked each litigant to send two representatives to a meeting in his office. He suggested that one be an attorney and the other an advisor.

The DWB sent Roberts and Tipton. NCWCD sent Bob Barkley, its manager, and Bill Kelly, its attorney. CRWCD sent two attorneys: Barnard and Frank Delaney. Other representatives took seats in the background, as interested spectators.

Englewood came to the party by the back door. Tyler explained: "Barkley recalled that Englewood's attorney, Mark Shivers, came to Washington interested in the Blue River situation. At a meeting chaired by Veeder, Shivers mentioned that Englewood had purchased water rights from the Moffat Tunnel Water and Development Company. Veeder jumped all over him, claiming that not an ounce of due diligence had ever been done on those rights and that 'in all honesty, he couldn't understand how anybody had the intestinal fortitude to come before the Justice Department with such a feeble claim.'"

"Shivers, who had to be restrained from attacking Veeder, got his revenge almost immediately from other representatives in the Colorado delegation. As they walked back to the Washington Hotel, Kelly, Barkley, Delaney and John Barnard, Sr. ... expressed outrage at Veeder's remarks. They agreed to stipulate Englewood into the Consolidated Cases ... In such a manner, Veeder got his due and Englewood got rights to a decree that never has been developed."

Glenn Saunders believed he was instrumental in developing a negotiated
settlement in the Blue River water litigation. This is how he remembered it in his memoir:

\[\text{I appeared from time to time under heavy medication, emerging from my oxygen tent for a few hours. When it appeared that a negotiated settlement could not be reached, I contacted Ramsey Clark, a top legal person in the Department of Justice in Washington, and we worked out the sticking point by phone so that a negotiated decree was reached.}\]

Harold D. Roberts had much more to do with the Blue River Consent Decree than Glenn Saunders. Whether his appointment as lead counsel in the final stages of Blue River negotiations was the cause, or the result, of Saunders' asthma attack may never be known.

Roberts suffered a fatal heart attack on the night final agreement was achieved. Hudson Moore, president of the Denver Water Board and son-in-law of Walter Cheesman, credited Roberts with making "an indispensable contribution." The DWB later changed the name of its 23-mile tunnel from Montezuma to the Harold D. Roberts Tunnel.

The unlikely man that probably was most responsible for the Blue River settlement was Denver's Mayor Nicholson - the man George V. Kelly referred to in The Old Gray Mayors of Denver as "a mayor who came later at exactly the right time."

Timing is everything and General Will Faust Nicholson appeared at the front line of the Blue River Water War at exactly the right time.

Nicholson was a Dartmouth graduate, a reserve Air Force Brigadier General, and a two-time Colorado state senator. He was an unsuccessful candidate for the U.S. Senate in 1948 when he ran against powerful, popular Big Ed Johnson.

Nicholson was a big man, too, physically and in national politics. His friends called him Big Nick. He impressed General Eisenhower as advisor during Ike's successful bid for the presidency in 1952. It developed that Ike owed Big Nick a favor.

The real story about the out-of-court settlement that resulted in the Blue River Consent Decree was told by Nicholson in an interview taped in 1972. George Kelly excerpted important parts of that long interview and presented them in The Old Gray Mayors of Denver.

Mayor Nicholson: "The President asked what I wanted him to do. I told him, `If you will just get on the phone and call Herb Brownell (U.S. Attorney General) and tell him that you want our water question as the No. 1 item on the agenda for the Justice Department, that's all I want.'"

President Eisenhower acted and Nicholson took it from there. Meetings were held with Justice Department officials, which Nicholson didn't attend, but he exploited his political connections skillfully.

Nicholson:

\[\text{I attended none of these hearings, because I had other things to do on behalf of Denver. I went on several occasions to Brownell's office to try to do informally what the others were doing formally in the hearings conducted by Rankin.}\]
At one meeting, I had lunch in Brownell's private dining room and was seated between him and Rankin, which gave me a further opportunity to lobby for Denver. I was very agreeably surprised to find there a college mate of mine who was then the oldest civil service employee in the Justice Department. He was also attending the hearings. Later, I talked to him several times about them and received information that was helpful to me...

We all then returned to Denver. In October, the matter was scheduled to be heard in Federal Court here. Before the actual hearing, all interested parties got together. Over a period of several days they worked out three separate agreements, all adding up to the basic document on the issues. A decree was entered by Judge Knous giving us the rights to Blue River water.

The Blue River Consent Decree, signed on October 12, 1955, was a watershed event in Denver's water history. It gave the C-BT project a priority date of August 1, 1935, senior to Denver's date of June 24, 1946. It recognized Senate Document 80 as the controlling law for C-BT's Blue River operations. It obligated Denver to guarantee the annual filling of Green Mountain Reservoir. Its decreed storage capacity was increased to 160,000 acre feet, with replacement capacity of 52,000 acre feet and a power pool of 100,000 acre feet.

Denver was limited to storing and diverting water for municipal purposes only. It had to reimburse USBR for power revenue losses attributable to Denver's upstream operations. Denver would have to diligently try to reuse return flow from its Blue River water importations.

Denver's biggest loss was recognition in the consent decree that USBR's right to generate power at Green Mountain was senior in priority to Denver's right to store and divert Blue River water for municipal purposes.

The Denver Water Board lost the Blue River Water War. It was a bitter defeat, but it could have been worse. It could have dragged on, ad infinitum, if it had not been for the efforts of Harold D. Roberts and Will Faust Nicholson. But the DWB did get its Blue River water rights adjudicated.

* * *

So the controversy over interpretation of Senate Document 80 was finally settled. Or was it? Glenn Saunders didn't think so.

The opportunity for Saunders to once again attack the power pool at Green Mountain Reservoir came in 1959, four years after the consent decree was signed. Crown Zellerbach Corporation proposed construction of several paper mills along the Colorado River at and below Kremmling, if it could obtain a constant release of 15 second feet from storage in the power pool at Green Mountain Reservoir.

It was just what CRWCD wanted - use of water in the Green Mountain power pool for industrial development in Western Colorado. USBR liked it because it would demonstrate federal dominion and control over that water. (Crown Zellerbach would
contract with the Interior Department.) Saunders loved it because it gave him the opening he had been waiting for. It would jump-start Blue River water litigation again. Or so it seemed to Glenn Saunders.

The DWB informed USBR of its desire to be involved in any new interpretation of how water in the Green Mountain power pool would be used. *Tenacious? Yes.* Add that word to the growing vocabulary used to describe Glenn Saunders.

Saunders used CWCB meetings as a bully pulpit to express his views. "That water should be made available to all vested rights and not to just a few," he said. "The power pool had been established for the benefit of both East and West Slopes." That water, he argued, "may find its highest and best use for the people of Colorado in eastern Colorado."

Saunders argued further that Denver's required replacement releases for junior diversions from the Fraser and Williams Fork need not be made from the DWB's Williams Fork Reservoir. They could just as well be made from Green Mountain's power pool. Then Williams Fork Reservoir could be used by Denver for other replacement purposes. Perhaps, Saunders ventured, C-BT's 52,000 acre feet of replacement storage "could be better met out of some other source." (Read Williams Fork Reservoir.)

John Barnard, Sr., was livid. Saunders, he said, was attempting to "bastardize" the Blue River Consent Decree. "We still stand unprotected and forced to watch every gopher hole ... to see that it is not used for transmountain diversion."

Tyler: "What bothered Barnard most was that Denver's water supply appeared adequate to furnish a population more than twice its size, but the DWB under Saunders' urging continued 'crying to the board (CRWCD) and to the general public and to everyone who will listen that Denver ... and the adjacent areas ... are drying up.'"

Barnard once again questioned Saunders' motives. He believed that DWB wanted to acquire Blue River water, over and above its needs, to rent or sell to the highest bidder in the South Platte Valley. He had reached the end of his patience. "There ain't gonna be no more Blue River stipulations with the City of Denver as far as I'm concerned," he stated emphatically.

Fred G. Aandahl, Assistant Secretary of the Interior, was handed the Crown Zellerbach hot potato. He called all the litigants to Washington in an attempt to reach an out-of-court settlement. Barnard accused the DWB of "secret, ambitious, comprehensive, and entirely ruthless" plans to use Dillon Reservoir and the Roberts Tunnel "to take water wherever it can find it for irrigation and other purposes in the South Platte Basin."

Saunders replied that Denver had to plan for future growth. "Green Mountain power pool water," he said, "should be made available for future use and domestic purposes on both slopes of the continental divide." It was *deja vu* all over again. Almost.

Aandahl rejected the DWB's request to use Green Mountain's power pool for its replacement releases. In June 1962, Interior approved the Crown Zellerbach water purchase contract. The company never used the water.

The DWB purchased irrigated ranches along the Blue River below Green Mountain Reservoir and it enlarged its Williams Fork replacement reservoir. The 23-mile Harold D. Roberts Tunnel was completed in May 1962. Construction took six years and cost $51 million.
Dillon Dam construction was completed in July 1963, at a cost of nearly $19 million. On September 3, 1963, Dillon Reservoir's outlet gates were closed. Tightly! What about bypassing water for Green Mountain's senior water rights? Forget it!

Back to court they went. The Justice Department charged in Denver Federal Court that the DWB was violating the 1955 consent decree and was interfering with USBR's obligation to provide replacement for its C-BT transmountain diversions. Saunders replied that filling Dillon Reservoir had nothing to do with the consent decree. Denver was supplying C-BT's replacement obligations from Williams Fork Reservoir by exchange.

The Grand Junction Sentinel described Denver as "financially and morally bankrupt ... (whose) leaders don't care about the rights of others just so Denver's needs are taken care of. Glenn Saunders, in riding roughshod over everyone, is a fair example of all of Denver's official family."

Judge Alfred A. Arraj set a trial date for December 9, 1963. There were four issues: (1) Did Denver have a right to exchange Williams Fork Reservoir water for Dillon Reservoir water? (2) Could Denver take water at Dillon that might interfere with Green Mountain Power plant's prior direct flow rights? (3) Could Denver require releases to be made on its behalf from the 100,000 acre foot power pool at Green Mountain Reservoir?, and (4) Did Federal District Court have authority to enjoin and restrain Denver from proceeding with several cases that might have an impact upon the Colorado River Storage Project?

Here we go again! Will it never end? The Western Slope would have to battle Saunders this time without John Barnard, Sr. He died suddenly of a heart attack in October 1962.

Barnard's funeral services were held in a small church in Granby on a beautiful autumn afternoon. It was attended by his family and virtually all of the important water people in Colorado.

The DWB continued storing water in Dillon Reservoir until it filled in November 1964. On the following April 10th, NCWCD's water attorney, Jack Clayton, slumped over his desk and died of a heart attack. Jack had been working hard to develop a compromise the warring parties could accept. The Blue River Water War had claimed its third heart attack victim. Roberts. Barnard. Clayton.

The trial began and it didn't take long for Judge Arraj's patience to wear dangerously thin. First he confronted CRWCD's attorney, Frank Delaney. "Someday," Arraj said, "instead of coming to the continental divide, laying a shotgun up there, and pulling both triggers hoping to hit something, you will come into this court and tell me precisely what it is you want. Until you're ready to do so, I think we have had enough for today."

Glenn Saunders smiled when Delaney sat down. The next day he smiled at Judge Arraj and launched into a profound review of Colorado water law. Arraj cut him short. "Mr. Saunders," he said in a deep voice dripping with sarcasm, "I'm a Colorado native. I have been in the water business myself and I don't think I need your review of the appropriation doctrine, so let me make a suggestion. All of you go up there and sit down at a table. When you have come to some agreement, you come back and tell me. I'll be glad to listen. Until then, this court is adjourned."
It was Frank Delany's turn to smile. They hammered it out. The DWB relinquished its claims to the Green Mountain power pool in return for the right to substitute replacement water from storage in Williams Fork Reservoir for releases from Dillon Reservoir when the senior call is below Green Mountain.

The DWB would have no right, title, or interest in Green Mountain Reservoir or in water stored in it. Denver could use direct flow it diverted into Green Mountain Reservoir for exchange upstream to Dillon Reservoir, if it either replaced USBR's power losses or compensated it for power revenue losses.

Judge Arraj and all parties signed a consent decree that settled the first three of the four contested issues on April 14, 1964. Armistice Day for the Blue River Water War? Don't count on it.

The second Blue River Consent Decree was not challenged again until 1977, when the DWB once again refused to release water from Dillon Reservoir to Green Mountain Reservoir. USBR went to Judge Arraj, who ordered the DWB to comply with the 1964 consent decree.

The Green Mountain Water War then took a 90-degree turn - away from courtrooms into boardrooms, away from litigation into engineering and cooperation. It's an interesting story, triggered by actions of the Northern Colorado Water Conservancy District beginning in 1970.

* * *

Northern Colorado Water Conservancy District formed a municipal subdistrict (MSD) in 1970 to build the Windy Gap Project, which would supply water to six cities within its district boundaries: Boulder, Estes Park, Fort Collins, Greeley, Loveland, Longmont.

Windy Gap Project would pump about 48,000 acre feet annually from the Colorado River below Granby into existing C-BT facilities which would carry the water to the cities. Part of the project yield would be recovery of mandatory water releases from Granby Reservoir for fish.

There would be a small regulating reservoir and pumping plant at Windy Gap below Granby and nearly six miles of pipeline extending to Granby Reservoir.

MSD signed a carriage contract with its parent NCWCD in 1973. CRWCD filed a lawsuit seeks to invalidate the contract. After three years of litigation, courts confirmed the legality of MSD's carriage contract with NCWCD.

MSD was awarded conditional water rights for its Windy Gap Project in 1978. CRWCD immediately appealed to the Colorado Supreme Court. It ruled in 1979 that MSD failed to demonstrate that its Windy Gap Project would not adversely affect present or future water users in the Colorado River Basin. It remanded the case back to the Water Court, with directions for further proceedings.

Translation: Provide replacement storage for the Windy Gap project in addition to that provided for the C-BT Project in Green Mountain Reservoir.

The Western Slope appeared to be on the verge of an oil shale boom. It was
pushing for construction of five reclamation projects authorized by the Colorado River Basin Project Act. Western Slopers believed those projects should have priorities senior to the Windy Gap Project.

CRWCD set a price for withdrawing its opposition to Windy Gap: a 28,000 acre foot Azure Reservoir at a site on the Colorado River below Kremmling and another reservoir on Troublesome Creek. They wanted both reservoirs built with MSD funds.

The Azure site was found to be infeasible. In 1985, MSD and CRWCD negotiated a supplemental agreement to accommodate the changed conditions. It provided for a $10.2 million cash payment by MSD to CRWCD, which would remove MSD's obligation to provide replacement storage. CRWCD planned to use the money to construct a reservoir on either Rock Creek or Muddy Creek.

The Rock Creek site was found to be less feasible than a reservoir site on Muddy Creek, a Colorado River tributary above Kremmling. It could provide a 60,000 acre foot reservoir - more capacity than CRWCD needed or could pay for. It would be called Wolford Mountain Reservoir.

Wolford Mountain Reservoir would cost $47 million - far more than the $10.2 million CRWCD received from MSD. What to do? Hello, Denver Water Board!

Things were changing at the Denver Water Board. A decade had passed since Saunders moved out of DWB offices and established his own law firm - Saunders Snyder Dickson and Ross. He was no longer the DWB's chief counsel and he was 80 years old. His many years of legal combat had taken their toll. Much of the firm's heavy lifting was being handled by Jack Ross, who had been Saunders' associate and protege since 1956. He served as outside counsel for the DWB.

The DWB was tiring of Glenn Saunders, Jack Ross, Senate Document 80 - all of it. Its cost for fighting the Blue River Water War had been very high. Millions of dollars for legal fees. Serious loss of good will among the water people of Colorado. It was time for basic changes in the DWB's approach to Western Slope water problems.

*        *        *

Most of the old battle scarred water buffaloes were out of action - dead, retired, or almost retired. Management at the DWB and at the two water districts (CRWCD and NCWCD) was becoming much more assertive vis a vis their attorneys.

DWB's manager, Bill Miller, was firmly entrenched. So was Rollie Fischer at CRWCD and Larry Simpson at NCWCD. Fischer and Simpson were engineers. Miller was a former executive officer for two Denver mayors and before that he was a newspaper man. W.D. (Bill) Farr was MSD's president - its only president for many years. Highly respected. Named Citizen of the West in 1999, at age 88.

A meeting was scheduled at Glenwood Springs to discuss the financing of Wolford Mountain Reservoir. It would be attended by Farr, Fischer, Simpson and Miller. Lawyers were not invited to participate - a startling departure from previous procedures.

Daniel Tyler: "Some were angered. Kenneth Balcomb, former attorney for the River District, was incensed over being left out of negotiations. Sayre was equally miffed. Confronted with the fait accompli at a 1986 NWRA meeting, he felt that Simpson had betrayed him."
"He (Sayre) had been informed in general terms during three years of discussions, but the managers had agreed to leave the attorneys out of direct negotiations and Simpson had kept his word.

"Sayre was so much a part of the District after more than twenty years' service that he could not reconcile himself to being left out of the loop. He retired somewhat bitterly the following year."

John Sayre was nudged into retirement following a controversy with NCWCD's board over his billing procedures.

Negotiations continued. In 1986, conceptual agreement was reached. The *Four Party Agreement* was signed by the DWB, CRWCD, NCWCD and MDS. It was a monumental achievement.

Daniel Tyler: "Given that the agreement was made out of court and without attorneys, that it ended two lawsuits, and that its impact was felt throughout the entire Colorado River Basin, the understanding was truly unusual, precedent-setting, and full of hope for those tired of relentless water litigation."

The Denver Water Board was tired of litigation. It had lost three court cases (1955, 1964 and 1979) attempting to obtain water that was legally called past Dillon Reservoir by Green Mountain Reservoir's senior priorities. But its outside counsel, Jack Ross of Saunders Snyder Dickson and Ross, wouldn't let go.

The ink had hardly dried on the Four Party Agreement when Ross filed applications for storage rights at nine reservoir sites on Colorado River tributaries above Glenwood Springs. Ross wanted to find a site that would make DWB participation in Wolford Mountain Reservoir unnecessary, thereby enabling the DWB to fully utilize Green Mountain Reservoir storage capacity without Wolford.

Daniel Tyler: "Ross claimed that Denver was unilaterally entitled under Colorado water law to make such applications and was not required to seek prior approval from the Secretary of the Interior."

The 10th Circuit Court ruled in 1991 that Denver was obligated to first seek secretarial approval under terms of the 1964 stipulation regarding Green Mountain Reservoir.

What Ross couldn't accomplish by litigation was accomplished by negotiation and compromise. The DWB agreed to build a reservoir on either Rock Creek or Muddy Creek which would substitute for all intended replacement functions of Green Mountain Reservoir under Senate Document 80. This new reservoir would store replacement water for MSD's Windy Gap diversions and it would also serve as the DWB's replacement for its full utilization of storage in Green Mountain Reservoir.

Two big bargaining chips were placed on the East-West Slope bargaining table - Wolford Mountain Reservoir and Green Mountain Pumpback. There would be a third: settlement of the remand cases.

*Remand*, in legal jargon, means that a case is sent back to the lower court from which it was appealed, with instructions about the issues to be decided.

Several water rights cases involving East Slope v. West Slope interests were set for trial in 1987. The most important was the Denver Remand Case involving adjudication of numerous DWB filings on the West Slope, particularly those involving the Straight Creek
and Piney Units of DWB's proposed Roberts Tunnel Collection System.

The Four Parties Agreement had mutual benefits. DWB agreed to delay and reduce its Eagle River Project. It assured NCWCD and MSD that if it builds the Eagle-Colorado Project, it would be operated without adverse effects on MSD diversions at Windy Gap. DWB would lease 15,000 acre feet in CRWCD's proposed replacement reservoir on either Rock Creek or Muddy Creek. It would use that water for replacement of Green Mountain Reservoir water used in its Pumpback Project. And the remand cases would be settled.

There was another historic water meeting in July 1992. Historic because DWB's new manager, Hamilton "Chips" Barry, attended a CRWCD board meeting - something never done before. He offered to increase DWB's financial stake in Wolford Mountain Reservoir.

Barry offered to increase DWB's annual lease payments to provide an up-front cash payment sufficient to eliminate CRWCD's need for bond financing for construction of Wolford's Mountain Reservoir. In return, DWB would receive a 40 percent permanent interest in storable inflow to Wolford. DWB's use of Wolford water would be limited to replacement, but this use would indirectly increase DWB's dependable annual yield from the Blue River by 12,000 acre feet.

DWB's offer was accepted. It assured the construction of Wolford Mountain Reservoir.

All parties were happy. DWB got approval of its Green Mountain Pumpback Project and replacement storage in Wolford to support it. MWD got a dependable annual yield of 48,000 acre feet for use by the six cities and others. CRWCD got control of Wolford Mountain Reservoir and 25,000 acre feet of Wolford storage capacity to use as it pleased. It was a win-win situation for all of them.

Wolford Mountain Reservoir construction was completed in 1995. At the dedication ceremony Hubert Farbes, recent past president of the DWB, said Wolford Mountain Reservoir was a "symbol of possibilities. Wolford embodies what is possible when cooperation is chosen over confrontation. This project is a symbol of forward movement in the all too often stagnant water debates."

W.D. Farr, at the end of a 40-year tenure on NCWCD's board, said: "The journey traveled by the municipal subdistricts, the river district, and others to bring us here today was long, challenging, and ultimately rewarding. This reservoir provides many lasting water management opportunities and benefits. No longer can water projects be designed, built or managed in isolation. This project proves that."

The Wolford Agreement was all of that and more. It symbolized the end of the Blue River Water War.

Glenn Saunders died on May 1, 1990, at age 84. His law firm was dissolved, for reasons not made public. Glenn and his partners went their separate ways.

In retrospect, why couldn't Wolford-type cooperation have happened fifty years ago? Could the long Blue River Water War have been avoided if there had been no Glenn Saunders, John Barnard, Sr., John Sayre, Bill Veeder? If there had been different leaders with different attitudes? Those questions will linger long in Colorado's water history.
ANNEXATIONS. LAND GRABS. Ongoing political battles between Denver and adjacent areas that lasted eighty years - from about 1894 to 1974.

The territorial legislature, in 1874, took away Denver City Council's power to annex land, vesting that power solely with the petitioning landowner. There had been charges that the city was annexing land without the owner's consent in order to obtain additional taxes. The succeeding legislature compromised, by requiring approval of both the city and the property owner before an annexation could occur.

In 1890, the state legislature proposed that Denver be authorized to annex contiguous towns by enlarging its boundaries. There were objections and the legislature asked the Colorado Supreme Court to rule on constitutionality. It found this annexation procedure unconstitutional.

Denver's power elite must have controlled the state legislature, because its next step was an attempted annexation end run. The play could be called encircle the towns you want to annex. An old Apache trick.

The legislature extended Denver's boundaries to include all territory between it and boundaries of the four towns it wanted to annex - North Denver, Highlands, Colfax and Barnum. It also allowed Denver to annex certain non-contiguous strips of land just beyond those towns. One such strip was 5.5 miles long, a half-mile wide, two miles from Denver's boundary.

Such a flagrant attempt to force annexations could not go unchallenged. The Colorado Supreme Court found this legislative gambit unconstitutional, because non-contiguous territory cannot be annexed by a city. It ruled that Denver's boundary must end where the boundaries of intervening towns begin.

The legislature finally enacted an annexation law the high court could approve. It provided that any town, or city, if contiguous, could be dissolved and annexed to a city under a special charter, if 25 town or 50 city residents signed a petition which voters later approved. All rights, properties, legal actions and valid debts of the annexed municipality would pass unchanged to the annexing city.
Barnum, Highlands, Colfax, Harmon and South Denver were annexed by Denver between February 1894 and July 1897. The annexation parade had begun.

Barnum was named for Phineas T. Barnum of circus fame. He purchased 160 acres in 1865, southwest of Denver. The seller was Daniel Witter of the infamous Witter Ditch. Barnum also bought adjoining acreages and tried to develop an area of stately residential homes.

Barnum's development did not achieve the high status P.T. wanted. It became bourgeois, in spite of the high social status achieved by P.T.'s daughter-in-law, Helen W. Buchtel, who became Barnum's benefactor.

Robert Autobee described Barnum's land purchase in a Colorado Historical Society monograph, *If You Stick with Barnum*.

_On March 21, 1878, Barnum agreed to pay $11,000 for the acreage that soon would bear his name. The man who said, 'There is a sucker born every minute' was most likely sold a bill of goods himself when he bought the property. A commentator wrote in 1940 that Barnum could have bought all of what is now Park Hill and most of Capitol Hill (later to become two of Denver’s better neighborhoods) for $11,000._

The village of Highlands was settled around Highland Park, west of present Federal Boulevard and North of West 32nd Avenue. It was platted by Horatio B. Pierce in 1871 on his ranch. Highland (without the "s") Park was founded by General William Palmer and others. It was designed to resemble a Scottish links and platted to run diagonally, rather than north and south.

Highlands is discussed in *Rediscovering Northwest Denver*, by Ruth Wiberg. She recalled that Highlands' young boys all drank lemonade together on the large, enclosed back porches. Some grew up to follow their father's professions. Some became Rhodes Scholars at Oxford. Others became university presidents, judges, politicians, bank presidents, doctors, lawyers, historians, craftsmen.

So much pride in Highlands, before Denver annexed it in 1896, following litigation attempting to prevent it.

Historian Louisa Ward Arps was a native of Highlands. Her grandfather, Thomas Ward, settled on land in 1880 that is now along West 32nd Avenue. It seems likely that Ward Road, near Kipling, was named for Thomas Ward, or one of his relatives.

_South Denver_ included land where the Lawrence party staked-out Montana City on land that is now Overland Park. _Harmon_ was platted on the 320-acre farm of Edwin and Louise Harmon on the north bank of Cherry Creek between present Colorado and University Boulevards.

_Elyria_, a north-central suburb and home of John Rush, was platted in 1881 by A.C. Fisk, president of the Denver Land and Improvement Company. _Argo_ was established in 1878 and incorporated in 1879. Located in the north-central suburban area, it became the home of the relocated Boston and Colorado Smelter in an area of obnoxious odors created by refineries and stockyards. _Globeville_, north of the South Platte between Elyria and Argo, was laid-out in 1889 and incorporated in 1891. It also was the home of a small
smelter and it likewise became an industrialized area and home to a variety of obnoxious odors.

*Petersburg*, east of the South Platte, was platted in 1873 by Peter Mangus. *Valverde*, west of the South Platte and southwest of Denver, was platted in 1874 and incorporated in 1892. *Berkely* was incorporated in 1892 and annexed by Denver in 1904. *Montclair* was platted in 1884, incorporated in 1888, annexed to Denver in 1904.

Many other small, unincorporated communities were annexed by Denver prior to 1900. *Manchester*, for example, located west of the South Platte and south of Denver. It was the home of Overland Cotton Mills. *Villa Mills*, west of Denver, was another.

Denver gobbled them all up by aggressive annexations. So much interesting local history was pushed aside and largely forgotten.

The 1893 panic caused many municipalities to seek annexation to Denver for financial reasons. Denver's charter provided that it would assume the debt and obligations of the municipality it annexed. But when the town of *Fletcher* petitioned for annexation, Denver refused to annex it. It had too many debts and obligations. Fletcher later became Aurora. The *Metro Denver Water Story* would be vastly different if Denver had not refused to annex Fletcher in 1897.

The Rush Amendment created the City and County of Denver in 1904, with an area of 59 square miles. The amendment provided that school districts in annexed lands shall be merged with Denver's School District No. 1. Denver agreed to pay all of the bonds, indebtedness and obligations of the annexed school districts. Denver still has only one school district.

Outlying towns and rural communities that either annexed to Denver or were absorbed by Denver under terms of the Rush Amendment gained a dependable water supply and the many amenities a city can provide. But they also lost their unique, individual identities and personalities and much of their history.

Denver's annexations progressed steadily, but at a relatively modest pace, until the end of World War II. In 1950, the Denver Water Board notified *Englewood*, which received Denver water, that it would have to meter its residential customers, because of its high per capita water use. Denver was un-metered.

Englewood refused. The DWB retaliated by raising Englewood's water rates 32 percent. Englewood sued, claiming unjust disparity between the DWB's inside and outside city rates. DWB won the lawsuit, but lost Englewood as a water customer. Englewood became the first suburban city to break away from the Denver Water Board and establish its own independent water system.

The Denver Water Board, angry at Englewood, anxious about its Blue River water litigation, and fearful of drought, imposed a water service boundary around Denver in 1950. It was called the *Blue Line*, because it indicated the limits of Denver water service until Blue River water became available.

It appeared to the Denver Water Board that the Blue Line - its version of the Berlin Wall - was a logical and responsible action. But history's longer view, aided by knowledge of subsequent events, indicates otherwise.

The DWB's Blue Line caused several other cities, including *Aurora* and *Westminster*, to begin immediately to develop their own water systems. It fragmented
Metro Denver water service and created hostile feelings in the suburbs that would not go away.

The Blue Line was imposed at a time when Denver's suburbs were eagerly anticipating growth. It closed Denver's window of opportunity to demonstrate the leadership required to develop and operate a unified, integrated metro water supply and distribution system.

* * *

Denver's annexation policy ran into legal flack in 1955. It involved Denver's annexation of the new University Hills Shopping Center. Homeowners east of the shopping center petitioned Denver to annex their land and the shopping center. Denver accepted the petition.

Owners of the shopping center did not want to annex to Denver, because of its 3% sales tax. Arapahoe County had no sales tax. Denver also had a disproportionately high property tax. Arapahoe County did not want to lose the shopping center's property tax revenue. It hired attorney George Creamer to represent it.

Twenty-nine-year-old George Louis Creamer was something special. Before he died prematurely in 1973 at age forty-seven, Creamer was recognized as probably the most brilliant attorney in the Denver bar.

Judge Merle R. Knous, George's classmate in junior high school, said "On a personal level he was soft-hearted and thoughtful - almost like a kitten to those he knew and appreciated." But in the courtroom Creamer was a tiger. "Overpowering and overwhelming" was another friend's description of him.

Constitutional law was Creamer's domain. He found errors in the University Hills petition and it was declared illegal in Arapahoe District Court. Denver appealed and the Colorado Supreme Court upheld the ruling of the lower court.

Denver corrected its procedural errors, added more territory, and tried again. Success! Once again Arapahoe County lost turf and tax revenue to Denver but none of its antagonism.

Creamer won several other important cases against Denver. The Colorado Springs Gazette Telegraph noted this and commented in a long editorial:

The City of Denver has at least one tremendous advantage over many other urban centers. It numbers among its citizens a lawyer, stout of heart and strong on legal understanding, who frequently takes up the quarrel with bureaucracy and drives it to its lair. We are referring here to George Louis Creamer, attorney at law...

The stand taken by this slight-of-build, gentle voiced barrister has thrown the Denver schemers and planners into a tailspin. Off-hand, we cannot see how the court can do anything but listen and abide by the law so skilfully recited by a man who is a decoration to the legal profession.
The *Gazelle Telegraph*'s editorial was triggered by Creamer's successful attack on the city income tax that Denver Mayor Nicholson tried to pass. But George was equally successful in annexation cases against Denver.

A Jefferson County weekly newspaper, in a 1962 article, compared Creamer to the sainted dragon with the same name:

*Mention that George Louis Creamer may have an interest in a new law, and the government officials who passed it and must defend it before the courts alternately blanch with courtroom jitters and radiate with red hot anger.*

*For Creamer, like St. George of legend, is a slayer of governmental dragons who tackles his legal task with relish, fervor and a diabolical sense of humor.*

*He has been successful in making annexations hew to the line of legal correctness, and is participating in an appeal to the U.S. Supreme Court on the constitutionality of Denver's annexations of surrounding land ...*

*He is as quick to battle with the 17th Street interests of money and influence as he is a city council.*

In 1961, the Colorado legislature passed a bill that allowed Denver to annex *Glendale*, a tiny enclave of 640 acres entirely surrounded by Denver. A tiny town, but a big injustice, as George Creamer saw it.

Creamer sent a long letter to each state legislator on behalf of Glendale property owners. In it he said: "Denver has chosen, since 1952, and at a variance with a policy adhered to prior to that time for approximately 30 years, to engage in a wild territorial expansion.

"Essentially, it has annexed either undeveloped lands, at the insistence of land developers, thus giving those developers a major economic subsidy, or has sought to annex substantially developed lands having a large tax base, in order to provoke additional funds to Denver. This latter policy underlies the entire attempt to take Glendale ... It has been the constant attempt of Denver to absorb those areas of the counties having substantial business development, or potential economic importance, into the area of direct Denver tax control..."

"The result of these polices is to place the counties, who have increasingly important responsibilities, in a more and more critical position, by removal from them their substantial tax base...

"In short, we know of no basis for annexation by Denver save its own insatiable desire for territorial expansion, tax and revenue increase, and economic dominance."

Creamer's letter had much more to say. It had profound consequences. The Colorado Supreme Court embraced his views and Denver's annexation of Glendale was cancelled. Glendale is now a tiny, independent, thriving enclave entirely surrounded by
George Creamer was a diabetic and he never had good health. He was devastated during the last years before his death by diabetes complications. He became only a shadow of his former self. He became, as the title of his sister's book states, a *Fragile Advocate*.

George Creamer's death was a tragic loss for Denver and Colorado. Representative Dan Friedman of the Colorado House of Representatives made a statement before that body in which he said, "The man I am talking about is a man who dedicated his life to preserving (the) constitution."

"At times he did it in a fashion that irritated many public officials, because he got up and said, 'You can't do that - that isn't what the Constitution says.' This man had the greatest command of the English language that I have ever known. Someone once said he could read the telephone book and make it sound like Shakespeare. I think everyone rested a little easier because George Creamer was protecting the constitution."

It's a shame that George Creamer was not a water attorney and, in his prime, faced Glenn Saunders in the courtroom.

* * *

The Denver Water Board's Blue Line lasted ten years. It was lifted in 1960 after completion of Fraser and Williams Fork extensions and construction of Dillon Reservoir and the Roberts Tunnel were nearing completion. By the end of 1964, the DWB was serving 664,000 customers - 7,000 less than at the end of 1959.

All of a sudden Denver had a large water supply surplus. It embarked on an aggressive water marketing campaign, but water sales outside Denver were limited to municipalities and water districts. Outside-city customers could not mix DWB water with water from other sources.

Denver's annexation procedures were changed in 1965 to allow property owners to annex to Denver virtually at will. All they needed was approval by Denver City Council, Denver School Board and the Denver Water Board.

Denver's new annexation policy irritated officials in the three largest suburban counties. A Jeffco commissioner complained: "Seven men on the Denver School Board and thirteen members of the Denver City Council ... had only to reach agreement with the owner of a coveted parcel of suburban or county ground ... so twenty persons can control the destiny of huge areas of our counties."

Make that twenty-five persons. Don't forget the Denver Water Board.

School districts were key participants in the annexation war. Denver's school district was anxious to recapture affluent families who fled to the suburbs. Suburbanites did not want their children in Denver public schools because of their mandatory bussing and forced racial integration.

By 1970, the DWB was serving a population of 716,000. The City of Littleton signed a DWB total water service contract. So did the Southeast Englewood Water and Sanitation District. And many others.

In July 1972, Arapahoe County filed suit against the DWB in Arapahoe District Court to compel it to serve Arapahoe customers on the same basis as its inside-city
customers. It was a suit born of frustration, with no legal merit. It required less than a month to settle out of court. The DWB agreed that its water service would no longer be conditioned upon annexation.

In that same month, two Arapahoe County commissioners met behind closed doors with their counterparts from Adams and Jefferson Counties. A proposal was made to amend Colorado's constitution to require an affirmative vote of citizens living in an area before that area could be annexed by another county. There also was another proposal to simply freeze Denver's boundaries. They decided to seek help from Governor Vanderhoof.

Vanderhoof seemed overwhelmed by the annexation problems. Being from the Western Slope, he had no love for Denver, yet he wanted to find a fair solution. Diplomacy was not Vanderhoof's strongest suit. He met privately and separately with the county commissioners and Denver City Council, but there were no tangible results.

So Vanderhoof did what politicians always do when confronted with an insolvable problem. He appointed a committee to develop a solution. He called it the Select Committee on Metropolitan Cooperation.

In the November 1972 election, the DWB sought Denver voter approval of a $200 million bond issue to help pay for a 12-year, $355 million capital improvement program, most of which would be used to supply treated water to its suburban customers.

Denver voters defeated the bond issue. They objected to paying for facilities that would promote suburban growth. The DWB then ordered a moratorium on outside-city taps until funds could be obtained to finance its Foothills Project.

This didn't stop Denver City Council from accelerating its annexation efforts. There was no George Creamer to stop them.

During the first four months of 1973, there was a spurt of annexation activity by Aurora. It annexed 4,000 acres and was considering annexing 12,000 more. Denver wanted some of that territory, which included the Cherry Creek School District with its high income residents.

The Aurora-Denver annexation battle centered around Havana Street. A non-aggression pact on annexations was finally worked out at staff level, but not ratified by either city council. Boundaries were designated and there was agreement that Cherry Hills School District would remain intact, in Arapahoe County. Aurora essentially won this annexation battle.

In July 1973, Denver annexed more than 9,000 suburban acres. Then it pointed its big annexation guns at the Rocky Mountain Arsenal in Adams County and the 8,000-acres Johns Mansville property in Jefferson County.

Denver's planners thought the Mansville annexation would eventually increase Denver's tax base by more than $165 million. "We must annex," proclaimed Denver's planning director. "It is essential if we are not to become another Cleveland or Newark."

The Denver Regional Council of Governments decided to put its oar in the troubled annexation waters. It proposed creation of the Metropolitan Urban Service Authority, which would become "a cooperative metropolitan agency that would engender harmony and solutions."

It was unachievable, even if it was made to seem innocuous by not including water supply, schools and trash collection, leaving only solid wastes. MUSA was defeated in a
September 1973 vote.
Commissioners of the three suburban counties (Adams, Arapahoe, Jefferson) filed suit in Arapahoe District Court against the DWB, the City and County of Denver, Denver's mayor, and the Denver Planning Board. They wanted to compel the defendants to supply water to all citizens in their counties immediately, subject to payment of reasonable costs and service charges.

The *Aurora Sentinel*'s Douglas Bradley suggested that the county commissioners might have a hidden agenda: "Plaintiffs expected the unprecedented suit to uncover hitherto secret pacts within Denver's municipal organs and bare the conditional arrangements and strictures imposed in using water as an annexation weapon."

The county commissioners' suit also attacked the DWB's 1972 moratorium which they claimed stopped development in areas seeking a water supply. Noble objectives, but the suit was submerged by later political developments and was eventually dropped.

* * *

Vanderhoof's Select Committee on Metropolitan Cooperation was composed of Denver officials, state legislators and county commissioners. It announced, in January 1974, that it would prepare a constitutional amendment creating a *Boundary Control Commission*.

The commission would include three representatives from Denver and one from each of the three suburban counties. It would deal with annexations on a case by case basis. No annexation, or de-annexation, would occur without approval by majority vote of the commissioners. The *Boundary Commission Amendment* was placed on the November 1974 ballot.

In January 1974, Vanderhoof threatened to call a special session of the legislature to deal with urgent annexation problems. Pushed by that threat, Denver City Council imposed a six month moratorium on annexations. The DWB decided to continue its moratorium on new outside-city water service contracts.

All quiet on the annexation front? Not really. Denver used the quiet time to plan its next conquest - annexation of the 8,000-acre Ken Caryl Ranch in Jefferson County.

Ken Caryl was owned by Johns-Mansville Corporation, which had purchased it from A.T. (Cap) McDannald, whose two sons were named Ken and Caryl. McDannald purchased the Jeffco ranch after selling his large Hartsel Ranch in South Park.

The Denver Water Board was seen as a political weapon in the Ken Caryl annexation squabble. Jeff Rosen, a *Rocky Mountain News* reporter, wrote about it in January 1974:

> After insisting for years that it is nonpolitical, the Denver Water Board has found itself at the hub of a political controversy with a potentially vast impact on the city's future.

> Although no one will say it, the Board is expected to give a good deal of weight to political concerns as it decides on water service requests from a
host of suburban developments including the massive Johns-Manville complex in Jefferson County.

It's an open secret in city government that, legally autonomous or not, the Board has been told, or at least advised, by Mayor Bill McNichols' office to move slowly on suburban service requests to bolster the city's bargaining position when its lobbyists descend on the state legislature for the opening session.

Such a go-slow policy may also provide the muscle behind a last-ditch annexation push which many officials hope they can execute when Denver City Council's current moratorium expires April 1.

In its efforts to accomplish that push, and to win state aid to combat a myriad of fiscal problems ranging from medical care to housing, Denver's control over by far the largest water department in the area may be the only heavy artillery in the city's arsenal.

For while the city lobbyists talk of core city problems, moral obligations and equal tax burdens, it will be the unspoken issue of easy water service in a semi-arid climate which will run through everyone's mind.

And if the state legislature becomes bogged down in political infighting over efforts to prevent further Denver annexations, it may be the promise of swift water service within Denver's boundaries which will convince the Johns-Manville Corp. to take its 8,000 acre Ken Caryl Ranch from Jefferson County to Denver - a coup which could bolster the city's tax base and ease potential racial problems in the school system.

Schools were at the heart of the annexation dispute. Rosen: "What the counties really want is legislation preventing the Denver School District from growing further, increasing its tax base and taking white, middle-class students away from suburban classrooms. Conversely, a key motive behind Denver's entire annexation policy is to maintain a white majority in city schools ...

"And behind Denver's efforts to defeat an anti-annexation bill will be the seldom mentioned role of the water board which, in its power to grant or refuse new requests for water service, can quite literally decide the future of many proposed developments."

Water and politics. Do they mix? Of course they do. They certainly did during the early months of 1974.

* * *

After Denver voters defeated the DWB's 1972 bond issue, the DWB put its hired guns - public relations consultants - to work in an all-out effort to pass another water bond
issue.

The bond amount was reduced from $200 million to $169 million. Enough to finance part of a 12-year, $360 million capital improvement program. The PR men did not explain how a smaller bond issue could now finance a larger construction program during a period of very high interest rates.

The bond issue passed this time and, in mid-February 1974, the DWB lifted its 18-month moratorium on new outside-city water taps. Then it quickly approved water service for Johns-Manville's Ken Caryl Ranch, which would be subdivided into 3,500 housing units and J-M's $55 million corporate headquarters. But Denver did not annex either of them.

There were repercussions. State Senator Hugh Fowler asked the key question: "Is water a tool in Denver's annexation policy?" John Morehead of the Denver Post:

*The current legislative session is considering suburban-supported legislation that would either slow or halt entirely future Denver annexations.*

State Sen. Hugh Fowler, R-Littleton, said he hoped the decision by the water board would make other members of the Colorado Legislature realize why suburban lawmakers are trying to restrict Denver annexations.

Fowler said the water lines to the new service areas will go through the 'tenderloin' of prime developable land in Jefferson County and open a route for future annexations by Denver.

'Is water a tool in Denver's annexation policy?' Fowler asked. 'Denver says it isn't; the suburbs say it is.'

'The lifting of the moratorium is one more example of how it is used.'

*        *        *

The Colorado Legislature tried to do something in its 1974 session about managing growth caused by annexations. It passed a bill which gave each county a modest $25,000 grant to start preparing comprehensive plans. It let DRCOG (called Dr. Cog) arbitrate local conflicts. If the plans of two regions were in conflict, the Colorado Land Use Commission could try to resolve the disputes. It also passed a companion bill which asserted that cities and counties had nearly absolute powers to regulate land use within their respective borders.

It wasn't enough.
It was time to **Poundstone Denver**.
What is that? A stone that weighs a pound?
No! It's the name of a housewife who became an important lobbyist - Freda Poundstone.
Freda came to Denver from California after the Korean War. Her husband was a retired Air Force officer. This mother of five worked for a large liquor store (Harry Hoffman's) before opening her own package liquor store in Jefferson County. Barely five feet tall, Freda was quite a dynamic package.

Poundstone characterized herself as civic minded and politically active. In 1965, she became Colorado's first woman lobbyist, working on behalf of the liquor industry. She was such an effective lobbyist that others sought her services. By the early 1970s, she had become one of the most powerful personalities in Colorado politics.

The proposed constitutional amendment for a Boundary Control Commission to stop Denver wasn't strong enough medicine for Freda Poundstone. She became chair of Citizens for a Better Colorado, a bipartisan group. With Poundstone as its sparkplug, the group gathered many more than the 50,000 signatures required to put the Poundstone Amendment on the November 1974 ballot.

The Poundstone Amendment was a much stronger proposal than the Boundary Commission Amendment. It would, Freda claimed, seal Denver's boundaries in concrete. It would require that henceforth all large cities in Colorado could annex adjacent land only if that action was approved by a majority vote of residents in the county affected.

The suburban county commissioners didn't know which of the two amendments to support. The Boundary Commission Amendment was their baby. An Adams County commissioner expressed the opinion of many: "You can't be for the Poundstone Amendment too. You can't have them both. We agreed it would be one or the other, or else we are selling ourselves short."

Both amendments were approved by voters statewide. The Poundstone Amendment won by more than 100,000 votes, most of them coming from Adams, Arapahoe and Jefferson Counties.

Denver City Council did not expect this to happen. It underestimated the adverse effect that its annexations, particularly in 1973 and 1974, would have on suburban attitudes. Denver's assistant planning director commented: "Trading trinkets with these Indians never does any good. It's time we put our wagons in a defensive posture."

It was too late.

The Denver Water Board's reaction, if any, was mild. After all, it had contracts to serve 182 square miles outside Denver, of which 76 square miles were developed and 106 undeveloped. And 23 of the 117.6 square miles within Denver's boundaries were still open for development. Two Forks Reservoir would provide the water supply for all of this and much more.

Maybe.

The Denver Water Board's members were high caliber, successful business men with outstanding abilities. Its belvedere looked out on a pleasant Metro Denver scene. It underestimated the deep rumblings of suburban anger.

History's long view indicates that the Denver Water Board should have stopped trying to develop more water for the suburbs after Poundstone.

Kenneth Mitchell said as much in a 1992 interview with Denver Post reporter, Mark Obnascik. Mitchell looked back on his 40 years at the DWB, including substantial time as its planning director, and said: "We were very slow in recognizing the impact of
Poundstone. When Poundstone happened, Denver should have backed off and said, 'OK, metro area, have at it.' There's no great benefit to Denver to stay out in the lead on water."

Accurate perception is something to be admired - even if it occurs 18 years after its time. The truth, given time, usually prevails because there is no sliding by the judgment of history.

After Denver was Poundstoned in 1974, the winds of growth blew strongly in Denver's suburbs. They needed Two Forks Reservoir.

Would they get it?
AFTER THE ANNEXATION war ended, it appeared to many that Denver would stagnate, exist in perpetuity as it was in 1974. It also appeared that the Denver Water Board would control growth in the suburbs by constructing Two Forks Reservoir. John C. Bromley expressed this viewpoint in a 1975 Denver newspaper article:

If the first shot fired in the war between Denver and its suburbs was the annexation policy which Gov. John C. Vanderhoof aborted only by threat of a special session, then the second shot was the passage of the peculiar amendment to the state constitution named for its principal proponent, Mrs. Freda Poundstone ...

But enter now the Denver Water Board, which has just launched salvo number three in the metropolitan war. The Board ... has expended $1.8 million in its study of the two water diversion projects (Eagle-Colorado and Eagle-Piney) which, upon the creation of the proposed Eastern Slope storage facility, the much-debated Two Forks Dam, will supply water to Denverites until, at the very least, the millennium...

It is, I think, right to suppose that the primary reasons for the easy passage of the Poundstone amendment was the suburbs' fear of busing. If, in other words, there is to be a ghetto and busing is to relieve the pressures and injustices of the ghetto, let it all be within the City and County - and school district - of Denver.

So be it, said the voters - by an overwhelming majority. For the provisions of the Poundstone Amendment, and the current climate of fear surrounding busing, is such that if Mrs. Poundstone's amendment is not repealed, Denver will exist in perpetuity as it is today.

Except for the Water Board - which, as it sells water to suburbia, is
Denver's chief weapon in the war on growth...

So the price of the Poundstone amendment is diversion of water from the Western Slope sources and the storage of that water in the highly controversial Two Forks Dam. Since the water in the proposed Two Forks Dam will be Denver's - as is a large part of the water used by the suburbs - the board can enforce a moratoria on future suburban growth by refusing water and can - ever more importantly - raise the cost of Denver water to suburban users.

The old and ancient argument over whether Denver has enough water is now moot. With the passage of the Poundstone Amendment, Denver needs all the water it can get, if only to suggest to Denver's neighbors that Mrs. Poundstone and her supporters were in error.

There may be busing in Denver - but there could be a prohibitively expensive drought in the suburbs as well. The potential for harm in this antagonistic situation being obvious, the lodgement upon the 1976 general election ballot of a proposal to repeal the Poundstone Amendment should be among the first priorities of the governor-elect and the Legislature.

The Poundstone Amendment was not repealed. Denver did not exist in perpetuity as it was in 1974 and the Denver Water Board had no intention of becoming Denver's chief weapon in the war on growth. It wanted to construct its Foothills Project, as a prelude to Two Forks Reservoir and additional water importations from the Western Slope.

The Foothills Project included the 2,100-acre foot Strontia Springs Reservoir, which would regulate diverted water from the South Platte below Platte Canyon. After settling in Strontia Springs Reservoir, water would be diverted through a tunnel to the DWB's Foothills Water Treatment Plant. That plant would have an initial treatment capacity of 125 mgd, with future incremental increases until it reached 500 mgd when Two Forks Reservoir is constructed.

The DWB had the bond money to proceed with its Foothills Project. All it needed were a couple of federal permits. Problems were not anticipated by the board, composed primarily of Republican businessmen.

Would the recently elected Democratic governor - Richard D. Lamm - be a help or a hindrance in getting these permits? He was elected on a no-growth platform, but he seemed to favor water projects.

Marc Reisner, in Cadillac Desert, described Lamm as "young, humorless, prematurely silver haired ... a prototype of the New Age politician ... (He) had a reputation, in some circles, as a rather shameless opportunist. And even at the apogee of his alleged radicalism, he was never known as someone who didn't like water projects."

Reisner: "Whatever happened to Lamm, the one time radical environmental legislator? His former friend, Allan Merson, who beat Wayne Aspinall in the Democratic
primary in 1972, lost the general election and ended up as regional administrator for the EPA, thought he had his finger on it. 'Lamm got religion rather late in life,' Merson told an interviewer. 'Once a political aspirant gets elected, he finds he has this strange new dilemma: rather than worrying about what the people want to hear, he has to worry about what they want to have. There's a big difference. People move out here because of the Rocky Mountains, but if some huge hand came down and swept away the Rocky Mountains, a lot of them wouldn't even notice. They're too busy getting rich.

"Well, Dick Lamm was elected in the middle of the biggest boom in this state's history. He saw that the great big capitalist machine creating all the filth and ugliness and pollution was also making his constituents fat and sleek and happy.

"He came to feel that he had slighted the capitalist machine, which suddenly seemed to him to be working miracles. I mean, you look out from the capitol dome and all you see is brown, inhospitable plains on one side and ice-covered mountains on the other.

"It looks like a tough place. But the capitalist machine was scratching phenomenal wealth out of it. At some point Lamm realized that the whole damned machine runs on the impoundment of water. So he said, 'By God, we'd better impound some more water!'"

When the enviros looked at the DWB's proposed Foothills Project, they saw the footprints of Two Forks all over it. They had become, rather suddenly, a political force to be reckoned with in the West.

Major environmental laws were passed by Congress in the 1970s. The National Environmental Policy Act, passed in 1970, created the Environmental Protection Agency. The Clean Water Act (1972) included a section (404) which required the Army Corps of Engineers to grant or deny a Dredge and Fill Permit before a water project could be constructed.

There were more: The Clean Air Act (1970), the Endangered Species Act (1970), the Safe Drinking Water Act (1974). None of them were water project friendly. It was a time when the national environmental movement finally developed the bureaucratic and political clout it needed to accomplish its major goals.

Some Colorado water leaders were aware of the growing environmental threat. Congressman Wayne Aspinall, chairman of the powerful House Interior Committee, issued a warning at a large water meeting in 1971:

I would be remiss not to say a few words about the most acute problems facing water resources, indeed all resource-based economic development, at this time. I refer, of course, to the ecology binge as practiced by the lunatic fringe of the environmental movement. These are over-indulged zealots to whom balance means nothing and, in my mind, their motivation is suspect.

The enviros were eager to test their new strength. In December 1973, they brought suit in Denver District Court to limit the extent to which the DWB could sell water outside Denver. Plaintiffs included the Colorado Open Space Council, Zero Population Growth of Denver, Inc., Sensible Water Use Coalition, Inc., and Trout Unlimited.

District Judge Edward Byrne ruled in November 1974, that Colorado's constitution
does not limit the DWB's activities. In an unusually candid statement, Byrne implied that his heart was with the enviros, but the law was with the DWB:

_Sometimes the court agrees with the philosophy of one side and finds the law to be on the side of the other._

_I think the proper and direct way to determine this question would be to present a proposed charter amendment, which would restrict the power of the water board, to the people._

_It could be presented under the direct issue of whether the metropolitan area should be permitted to grow. I personally liked Denver better when it had 300,000 residents._

The plaintiffs' attorney didn't like Judge Byrne's ruling, even when softened by his comments. The attorney may have been approaching Aspinall's "lunatic fringe" when he said, "In effect, what the judge is saying is that the Water Board can buy water in Grand Junction and sell it in Cortez."

The DWB experienced its first major confrontation with enviros when it asked the EPA (Environmental Protection Agency) for a permit to construct its Foothills Project. But before that, it had problems with a young judge who appeared to have the instincts of a lawyer in what Saunders called Colorado II.

It happened when the DWB petitioned the Water Court in Glenwood Springs for rights to divert water from the Upper Eagle, Piney and Blue Rivers. Judge Charles Stewart appointed a referee to hear the case - Michael White, a Fort Collins water attorney.

White ruled in September 1975 that the DWB did not have authority to appropriate water for serving customers outside Denver. He found that the DWB failed to meet all requirements for securing water rights by not showing "definite intent" to appropriate and use the water.

Glenn Saunders was furious. With characteristic fervor, he exclaimed, "It flies in the face of reason." James Ogilvie, DWB manager, called White's ruling "amazing." But the Water Court in Glenwood Springs upheld it. The ruling was appealed to the Colorado Supreme Court, which reversed it.

Meanwhile, the DWB was purchasing hundreds of acres for its next generation of water projects on the Western Slope. It spent $5.4 million to acquire 1,737 acres in Eagle and Summit Counties. Land acquisition for Two Forks Reservoir had been underway for many years.

Back to the Foothills Project. The BLM (Bureau of Land Management) was selected to prepare the EIS (Environmental Impact Statement) required by law. EPA would supervise the study.

There was another federal agency permit requirement. The Corps of Engineers would have to issue or deny a Dredge and Fill Permit. If the Corps issued the permit, the EPA could veto it.

What's going on here? The DWB had bond issue money to build its Foothills
Project. The people had spoken. They want the project constructed. Why couldn't the DWB go ahead and do its job, like it has always done it in past - without interference by federal agencies?

Where had all of this permit nonsense come from so suddenly? The game had changed. The DWB was now looking at a stacked environmental deck.

By 1977, the Foothills controversy had become a stalemate. Faced with seemingly endless delays, the DWB decided, on June 1, 1977, to restrict the number of new taps that could be added to its entire water system. It set the maximum number of new residential taps at 5,210 until the Foothills Project was completed.

This moratorium sent shivers through Metro Denver's economy, especially among its homebuilders.

The political pot was boiling. EPA's Denver office chief - Allan Merson - openly predicted in January 1978 that the Foothills Project would not be built. The Homebuilders Association of Denver exerted strong political pressure. Finally, Merson relented - a little. Agreement was reached in the summer of 1978 to seek a mediated settlement.

Colorado's Congressman Tim Wirth was selected to be the mediator. Settlement was achieved in February 1979. In return for obtaining the necessary permits and ending environmental lawsuits, the DWB agreed to implement a water conservation program throughout its service area and to meet specific water conservation goals by specific dates.

Water conservation was not near the top of DWB planners' list of priorities. First, get the water rights. Second, build the projects. Water conservation should be held in reserve, for use during a severe drought.

Water requirements reduced by water conservation would work against DWB's claims for additional water rights in the water courts in Western Colorado. Now the enviros were trying to wipe out an important reserve and reduce DWB's potency in its never-ending courtroom battles for additional water rights.

The enviros regarded the DWB's implementation of a water conservation program as an important victory. They estimated that it would reduce annual water consumption about 80,000 acre feet. As frosting on their Foothills Project cake, the DBW agreed to pay the enviros' legal fees generated by the Foothills controversy.

After the Foothills Project was completed, the DWB lifted its outside-city tap restrictions and focused its attention on Two Forks Reservoir. This immense reservoir would have a storage capacity of more than a million acre feet and its cost would exceed $500 million.

Two Forks Reservoir would inundate 13.5 miles of prime trout fishing streams. Trout Unlimited, which had become one of the more outspoken enviro groups, expressed its anger publicly. So did the DWB's manager, William H. (Bill) Miller:

One of the most adamant opposition organizations, Colorado Trout Unlimited, claims a membership which is less than 1% of the fishing licenses in Colorado. According to a 1987 Colorado Division of Wildlife survey of sport anglers, 70% said they prefer lake fishing compared to 30% who listed a preference for stream fishing. There is a shortage of flat water recreational opportunities in the Denver area which Two Forks will help
relieve. Not only boat and shore fishing, but also power boating and other water sports would benefit from Two Forks. Yet to listen to the opposition, one might conclude the only purpose of the project is to upset the habits of a minority of stream sport anglers.

The Corps of Engineers was not anxious to become involved in the Two Forks controversy. It was in the dam building business (flood control and navigation). Unlike EPA, it did not have a hidden agenda, other than perpetuating its bureaucracy.

Governor Lamm recognized the magnitude of the controversy over Two Forks Reservoir. He considered himself an enviro and did not want to lose that constituency. He was taking political flack for his stand against having the 1976 Olympic Games in Colorado. And for his "duty to die" speeches, which irritated seniors. And for his views on immigration policy. He needed to do something to smooth ruffled political feathers and regain status.

So he appointed a committee.

It was called the Metropolitan Water Roundtable. It was large and broad-based. It included city officials, Denver water interests, Western Slope water interests, developers, farmers, and two enviros - Dan Luecke, a hydrologist with the Environmental Defense Fund and Bob Golten, head of the Colorado office of the National Wildlife Federation. Luecke and Golten, feeling outnumbered, agreed to serve only if the Colorado Environmental Caucus could serve the Roundtable as a sounding board and advisor.

CEC was becoming a political force. It originally included representatives of the National Wildlife Foundation, Colorado Mountain Club, Trout Unlimited, Environmental Defense Fund, League of Women Voters, Wilderness Society, Sierra Club, Sierra Legal Defense Fund, American Wilderness Alliance, Friends of the Earth and Colorado Open Space Council. A powerful group!

In the mid-1980s, the caucus was joined by the Colorado Wildlife Foundation, the Colorado Environmental Coalition, the National Audubon Society, the Western Colorado Congress and some others less well known.

Governor Lamm's Roundtable tried to agree on population, water demand and water conservation forecasts for Metro Denver, without success. During the fights over numbers, Luecke and Golten were labeled obstructionists. Luecke agreed to develop a computer model for an alternative to Two Forks by October 1982.

It wasn't easy. Luecke said later, "We were trying to figure out how the (water) systems worked, but they kept giving us vague answers. Finally, it became evident they weren't going to tell us how the system worked."

Luecke found that a smaller reservoir on the North Fork would be more feasible than Two Forks. The Roundtable wasn't convinced. It recessed in 1983, with all but Luecke and Golten agreeing that more storage was needed on the South Platte to supply Metro Denver's future growth.

The Colorado Environmental Caucus wanted two of their own - Lee Rozaklis and Bob Weaver - to review the Corps' work on the Two Forks EIS as it progressed. It hoped that they would steer the Corps and its consultants in the right environmental direction. The Corps asked the DWB to contribute $200,000 to the Caucus so that it could hire
Rozaklis and Weaver. Hire the fox to guard the henhouse?

The Caucus, meanwhile, was running media campaigns and organizing grassroots opposition to Two Forks.

The Environmental Defense Fund retained two consultants to analyze Two Forks Reservoir. They were Dr. John R. Morris, associate professor of economics at University of Colorado-Denver, and his assistant, C. V. Jones. After three years of study costing $50,000, Morris and Jones produced a 150-page report, Water for Denver: An Analysis of the Alternatives.

Dr. Morris appeared at a DWB meeting and presented his findings, conclusions and recommendations. He proposed that his recommendations be accepted, since they constitute the least expensive way of meeting future water demands. Morris' alternatives did not include Two Forks Reservoir.

Picture the setting. Five important businessmen, each with an impressive record of accomplishments, sat there in their board room listening to an associate professor of economics tell them that Two Forks Reservoir was not necessary. The thought must have occurred to more than one board member - what is going on here?

The DWB asked a select 4-member staff task force to review the Morris Report and give it their recommendations.

The subsequent 41-page staff review criticized Morris' assumptions, his analytical procedures and his blatant attempt at "social rate making." It cautioned against taking risks that might produce a serious water supply crises.

"Because of the many circumstances, attitudes and conditions," the staff review stated, "that are unknown and beyond reduction to econometric modeling, heavy reliance on a conservation strategy without parallel diligence in developing all possible raw water resources, runs the risk of producing a serious future water crisis for the Denver area."

The DWB filed the two reports and went about its business.

Mayor Federico Peña tried to tie Two Forks to changes in the use of regional facilities. He called a meeting of mayors and county commissioners in the metropolitan area to discuss ways of looking at governance differently. He noted the mismatch between financial support and use of regional facilities. He said there was a growing concern that basic quality of life issues such as air quality, transit, roadways, sprawl and solid wastes were not being adequately addressed.

Peña mentioned the DWB's applications for the Two Forks permit and said, "The Board will also indicate its belief that improved long term institutional arrangements for the Metropolitan area must be provided before undertaking the actual construction and operations of a South Platte storage facility." He concluded by saying, "The time has come to recognize inter-dependence in a way we haven't in the past."

The DWB issued an important water policy statement. "It's an exceptionally far-reaching document," said the board's president, Monte Pascoe. "It made very clear ... that water development needs to proceed hand-in-glove with a simultaneous effort which addresses a broader spectrum of urban concerns and a cooperative metropolitan-wide venture ... it is most important that the new arrangements needed by the metropolitan area be in place by the time development of permitted water supply facilities moves into the final design phase."
Translation: We will give you access to Two Forks water if you agree to "new arrangements" for metro services. The time has come for a metropolitan district of some kind that will include cost-sharing and joint planning, construction and operation of many services. Water supply is the key to putting it all together.

And - perhaps a strong joint effort will hold the enviros at bay.

Mayor Peña's efforts, aided by the Denver Water Board, led to the formation of the Group of Ten. It included representatives of the seven largest municipalities in the Metro Denver area and a commissioner from each of the three largest suburban counties.

The Group of Ten would consider shared costs and benefits when new development - meaning Two Forks - takes place. The possibilities were mind-boggling: mass transportation, air quality control, medical care for the indigent, cultural facilities, recreational facilities, water supply and distribution. A planner's dream!

Unstated, but understood: It all hinged on construction of Two Forks Reservoir.

The vehicle used to accomplish these noble objectives would be called the Metropolitan Denver Water Authority. It would not, initially, include special water districts served by the Denver Water Board.

The water districts were miffed at being left out of the action. They formed their own organization in 1985 and called it the Metropolitan Water Providers. They were a coalition of 42 water districts and suburban governments. They entered into an agreement with the DWB, whereby they would pay 80 percent of the cost and receive 80 percent of the Two Forks water supply. The proposed Authority faded into oblivion. The Providers and the DWB would fight the enviros to obtain EPA approval for the permit to build Two Forks Reservoir.

The Corps of Engineers released its EIS for Two Forks Reservoir in March 1988. It would receive public comments until June 10.

The Corps' EIS had become a bureaucratic monster - a massive 8-volume stack of technospeak two feet high that filled thousands of pages. It cost more than $40 million, paid 80/20 percent by the Providers and the DWB.

It was the most expensive and extensive EIS ever prepared for a proposed municipal water project. It was a consultants' bonanza and the applicants' economic nightmare.

On April 12, 1988, the DWB issued a position paper that predicted dire consequences if Two Forks is not granted a permit. More stringent water conservation measures. Mandatory lawn watering restrictions for new homes. A water rate structure aimed at reducing lawn watering. Increased use of non-renewable ground water. Renewed conversion of agricultural water rights to municipal use. Little or no incentive for cooperation on metropolitan social and economic problems.

Yes, sir, Dire Consequences! Big trouble right here in River City if Two Forks is not granted a permit.

EPA announced in May 1988 that it was opposed to granting a permit for immediate construction of Two Forks Reservoir. On June 1, the DWB sent an important letter to Governor Romer. It included this statement: "Our projection shows that water now available to the Board will be needed for build out of Denver and no water will be available to provide water service outside Denver."
Translation: If Two Forks Reservoir is not built, the DWB will not provide water service for new outside-city customers. This was a reaffirmation of its previously stated policy. Hindsight suggests that it probably was a strategic mistake.

Roy Romer would be Colorado's governor for 12 years. The Two Forks controversy was his first major political test. Armed with "brash self-confidence and boundless energy," Romer proposed a compromise.

Give the DWB the permit, but put Two Forks on the shelf for 25 years. This would give the DWB time to do the damage mitigation and the water conservation EPA wants. DWB would restudy its growth estimates. Some small, non-controversial interim water supply projects probably could be built before Two Forks construction began.

Whoa! Slowdown! Wait a minute! Did you say 25-year shelf life? Then you must believe that Two Forks water isn't needed for a long time. Is the DWB crying wolf when there's no water shortage wolf in sight?

A more politically adept and wiser Denver Water Board might have taken Romer's proposal, modified it, and ran with it. Shorten the shelf life to 12 or 15 years and start spinning its PR wheels. Be friendly and cooperative with the enviros instead of antagonizing them. Help them save face in the eyes of the public.

The DWB couldn't do it. It had painted itself into a political corner, with little wiggle room, by its repeated threats of dire consequences.

The Corps' hearings produced some interesting comments. A speaker at the hearing in Conifer, southwest of Denver, said, "Two Forks' backers keep their hearts in safe deposit boxes and are hypnotized by their pocket calculators. We'll outlive the bastards."

Another speaker said, "To paraphrase a previous speaker, we will not only outlive the bastards, we will out-sue them. This shouldn't be taken as a threat, but as a responsible promise." He was president of the National Wildlife Federation.

There were few Two Forks' supporters at the Conifer hearing. One of them, Arvada's mayor, said, "Without Two Forks we're going to have a major problem. Without the water, developers aren't going to come here." It took him a while to understand why he received a standing ovation.

Jim Olgivie, who had recently retired from USBR to become manager of the DWB, said it all in one profound sentence: "The biggest problem with Two Forks is that it was not built soon enough."

Marcia Hughes, attorney for the Providers, who later became the DWB's chief counsel, aimed a stinger at the enviros: "They haven't come up with any data; they're just sitting around wearing T-shirts."

The Corps held three public hearings on the Western Slope. In Grand Junction, a local told the cheering full house, "The supporters of Two Forks are putting profits of Eastern Slope developers before the health and economic viability of the people in Western Colorado."

CRWCD, the Western Slope's water protector and historically a bitter enemy of the DWB, was strangely silent. It had agreed to not oppose Two Forks as part of the Four Parties Agreement.

There were two hearings in Denver. A third and final hearing produced a surprise. Denver's Mayor Federico Peña seemed to side with the enviros.
DWB's engineering staff, long the epitome of efficient and professional expertise, suddenly appeared vulnerable. Some enviros sensed this and put aside, temporarily, their well-worn theme of damage to the environment. They aimed their big guns at sacred DWB territory - its engineering and economic expertise.

Dan Luecke said publicly that Two Forks Reservoir would cause "financial suicide." He said its cost would be close to $1.2 billion, not the $440 million estimated by the DWB. The estimated net yield for Two Forks Reservoir was much too high and hydrologically impracticable to achieve.

Luecke of the Environmental Defense Fund, Bob Weaver of Trout Unlimited, and Carse Postmueller of the National Audubon Society were effective in casting doubt in the public mind about the technical and economic merits of Two Forks Reservoir.

DWB staff members met many times with Jim Scherer, who replaced Allan Merson as EPA's regional director in Denver. He was more reasonable than Merson and he finally agreed to recommend approval of the Corps' EIS if the DWB would agree to accept his many conditions. DWB agreed.

There was hope. Charley Emily, Littleton's mayor and one of the Providers, sent a prescient letter to the editor:

Two Forks is either the essential glue in holding together a rational and effective metropolitan water supply system, or it is a monumental mistake rivaling the toxic waste dump in environmental damage.

An average citizen might well ask, after four years and $40 million worth of studies, how two such diametrically opposed views can be reconciled. This question is exactly the one facing each council or board member whose city or special district is participating in this project, as well as the federal agency staff who must approve the project.

After spending literally hundreds of hours of my time over the past four years reading material or listening to the debate, I have concluded that the two critical decision factors are reliability and risk ...

The problem is reliability. To the best of my knowledge, no area in the United States has achieved such high levels of conservation except under emergency drought conditions.

The professional staff who actually designs, builds and operates our water systems are much more cautious in making predictions about the long-term savings of conservation, or the exact amount of water that smaller projects would yield.

Assuming, however, that conservation and developing smaller projects are worth pursuing, why is it so important to have a permit for Two Forks now? The answer here is risk ...
There's a saying that in politics there are no final victories. Through their tactics to score a big political coup by killing Two Forks, the environmental community, which could make a positive contribution to improving water planning and management in the state, may exact a terrible price.

The resulting bitterness will make it extremely difficult to have a constructive dialogue on water policy in the future, and that's a sad commentary for Colorado.

Yes, indeed - a sad commentary for Colorado. But was anyone listening?

William Reilly became EPA's national director in spring 1989. He formerly was executive director of the National Conservation Foundation. Reilly received a 2-page letter objecting to Two Forks Reservoir, signed by leaders of the nation's nine largest environmental organizations and by a commissioner from Grand County.

It was all Reilly needed. When placed on his political scale, this 2-page letter outweighed the Corps' massive, $40 million EIS. He started his veto machine.

Colonel Stephen West, who headed the Corps' Two Forks EIS studies for more than three years, noted thirty instances in which information in the enviros' letter was inaccurate or mistaken.

He might as well have been talking to the wind. It was like Ray Stannard Baker's friend said in Native American: "Facts, facts, facts - superficial facts! Facts are one thing, truth is quite another. Reality is quite another."

Reilly was not about to be influenced by facts. His mind was made up before Colonel West's letter arrived on his desk. He rejected his regional directors' recommendation on March 24, 1989. He ordered Scherer to begin the bureaucratic process for vetoing the Corps' proposed permit for Two Forks Reservoir.

Reilly's sudden decision surprised everybody, even the enviros. Carse Postmueller quickly endorsed it. "We really think," he said, "Reilly has shown an incredible amount of integrity and leadership ... Everybody else in the decision-making process has passed the buck. The facts and truth about Two Forks are finally outweighing the political muscle of the Denver Water Board."

The truth was that the Denver Water Board had no political clout. There was no friendly president in the White House who owed one to Denver's mayor. Denver's mayor and Colorado's governor were luke warm about Two Forks. Denver's power elite and its 17th Street movers and shakers were no match for the aggressive enviros who had national support.

The enviros enlisted the aid of former President Gerald Ford, whose interest in Colorado water appeared to be limited to the watering of Vail's golf course. Ford sent a letter to his friend, President George Bush, which closed with this statement:

*I am sure that Mr. Reilly's decision to intervene in the Two Forks permitting process has led to efforts to involve the White House more directly in the decision. When feelings run high, balance is not easily*
From my perspective, Mr. Reilly made the right decision when he initiated the veto process. The citizens of Colorado on both sides of the Divide are well served by his actions, as are all citizens who care about protecting the natural habitat of the Colorado and Platte rivers.

The Denver Water Board owed its existence to the dissatisfaction of Denver's citizens with politics and corruption associated with utility franchisers. It wasn't supposed to be playing political games.

Yet here it was, seventy years later, faced with a political situation - environmental laws and enviro political clout - which it was powerless to influence and change.

Didn't Colorado's sacred water doctrine - first in time is first in right - mean anything anymore?

Yes, but it had been changed by congressional politicians with environmental leanings. First in time is still first in right - if the EPA grants a permit for facility construction.

Colorado's Republican Senator, Bill Armstrong, pressured Republican President George Bush to change Reilly's decision but, on March 31, 1989, Bush said he would not intervene. It was a day for Front Range water providers that would live in infamy.

It was a done deal, but Reilly went through the required bureaucratic procedures. He gave Two Forks' supporters 15 days to propose changes that might reverse the pending veto. Regional Director Scherer told Reilly he could not, in good conscience, reverse his recommendation on Two Forks. Scherer later resigned.

Reilly brought in an outside "arbitrator" - Lee DeHighns - EPA deputy regional director in Atlanta. If he was not otherwise persuaded, DeHighns would publish EPA's intent to veto Two Forks in the Federal Register. Then he would send the record to Reilly, who would finalize the veto.

It was, of course, a stacked deck. Everyone knew it, except the general public. Governor Romer, perhaps feeling a twinge of conscience, told the Rocky Mountain News, "I'm concerned about the consequences of this decision... I simply do not believe the federal government understands the conditions here."

Bob McWhinnie, formerly the DWB's planning engineer and now the Providers' manager, told the Denver Post: "We think what happened to us was a purely political decision, not based on the facts and not based on EPA regulations. We think we've been deprived of due process."

McWhinnie said Reilly's veto would destroy any opportunity for cooperation between the Denver Water Board and suburban cities. "Cooperation in the metropolitan area," he said, "is tied to us having an adequate water supply."

Monte Pascoe, president of the Denver Water Board, said at a press conference, "Rejection of Two Forks will have a devastating impact on the Denver Metropolitan area. The effects from something like this aren't felt in a day or in a month, but we now are in a terrible situation."

Rocky Smith, an organizer for the Colorado Environmental Coalition, was quoted
in *High Country News*: "The Denver Water Department, being the power mongering institution that it is, is likely to make good on their threats, until everybody gets nervous again and there's a big clamoring for Two Forks."

Walter Jessel, chairman of the Environmental Caucus, said the DWB's threats may be hurting it. "They will force the suburbs to band together and they won't need Denver anymore." Jessel, quoted in *High Country News*, said, "Pascoe's anger is damaging the image of Denver. While Romer is trying everything he can to attract business to Denver, he is being undercut by this petulance."

Jessel noted that "now that Two Forks won't be built, the Denver Water Department has an enormous kitty in its bank account that won't be spent on education, mass transit or other public works. The people of Denver will now have to reassess what this Water Board's functions should be."

What a mess! The Denver Water Board lost not only Two Forks, but also much of its former public esteem. Loose enviro cannons were firing at it from every direction.

The DWB's manager, Bill Miller, commented on EPA's unprecedented display of federal preemption and intrusion: "It seems to me that the prospects for any water projects in the Western United States have been dimmed considerably by the actions of the EPA in recent weeks.

"By this unprecedented display of federal preemption and intrusion into long-term local, state and regional planning, Reilly preempted local planning efforts designed to address local infrastructure needs with local dollars in full compliance with required federal permitting procedures.

"Considering the emotion-charged rhetoric of the environmental groups opposing Two Forks, all water storage projects seem to be their targets, wherever located. The opportunists' battle cry is *The Day of Large Dams is Over*."

"Much of the Two Forks rhetoric includes references to the South Platte Valley which, unlike thousands of other Colorado mountain valleys, was transformed overnight into a 'national treasure' by East Coast environmental writers who, quite likely, had never set foot in the South Platte River Valley. One, writing for an Eastern newspaper, in an unbridled flight of fantasy, called it the *St. Peter's Basilica of Trout Fishing*."

"To those of us who know the area, such descriptions are vastly overdrawn, though it is true Colorado does not have any unattractive valleys among the many it proudly possesses. But from the standpoint of firming up fund raising for environmental organizations, such flights of fantasy can be very important to the balance sheet."

The words of Charley Emily, Bob McWhinnie and Bill Miller were drowned out by chortling of the victorious enviros. Luecke told the *Rocky Mountain News*, "I can hear the funeral march from here. We have at this point seen the end of the big dam era."

Marv Ballantyne, former president of the Western Colorado Congress, said, "Hopefully, it signals the end of the almost arrogant power of the Denver Water Board, that they didn't have to consider anyone or anything but themselves. It's been a nasty situation on the Western Slope in the past. Whenever Denver wanted water, they would just come and get it ... Now it's a new era for Colorado."

The Providers wanted to battle EPA in the courts of law, but the Denver Water Board had had enough of it. The cost, in money and prestige, had been awesome. Mark
Obnascik, environmental writer for the Denver Post, commented on the cost in April 1990:

The bureaucratic slaying of Two Forks Dam has proven lucrative for at least one big project supporter: The Denver Water Board's law firm.

By charging up to $162 an hour to write memos, give speeches and field reporters' phone calls about Two Forks, the 17th Street law firm of Saunders, Snyder, Ross and Dickson has reaped $578,000 from Denver water customers in the past 11 months.

Public records show that the Water Board demanded so much legal advice that Saunders, Ross couldn't handle all the work. So it farmed out some business to the Washington firm of Patton, Boggs and Blow, which so far has received $172,000 from Denver for seven months of work.

Legal fees for 27 outside attorneys from the two firms are the biggest single expense Denver has amassed in its efforts to rescue the proposed South Platte River project from the Environmental Protection Agency.

Since the EPA announced plans to kill Two Forks in March 1989, water board customers have spent $974,700 total on legal fees, staff time and outside experts in an effort to build the 615-foot dam...

Board members say their 85-year old Two Forks investment is too valuable to give up without a fight. So the board plans to spend another million on Two Forks legal fees this year.

Ed Marston, editor of High Country News interviewed Glenn Saunders in the summer of 1989, less than a year before Glenn died:

Saunders worked as the Water Board's top attorney for 50 years, instilling the agency with his conviction that the Denver area had an absolute need for and right to West Slope water.

'People forget that this is a raw, harsh environment we live in, and that the elements imposed on us were not designed to help human life but to impair it,' Saunders told me when I visited him in his warm living room last summer. This sort of rhetoric still brings a room of water developers to their feet in affirmation...

Saunders says the Water Board's 'constancy of purpose' has forged its successes. He maintains that the agency's mission is still to build a water system 'for thousands of years in the future.' I asked Saunders about the seeming arrogance of this undertaking, since it ignores what those outside
of Denver may want or need.

'Arrogance?' he shot back. Rail thin and mentally acute, Saunders is composed of edges.

'Arrogance you say? Why, it's the kind of arrogance that runs the nation's space program, and builds great water systems, that separates the human mind from the mind of a rabbit.'

Vintage Saunders. With Two Forks dead and his own life nearing its end, Glenn was still speaking the language of an era that was over.

* * *

The defeat of Two Forks was a watershed event in Colorado water history. And Western water history. It marked the end of the big dam era - the end of massive transmountain water diversions in Colorado without the consent and cooperation of Western Slope water interests. It also marked a drastic change in Denver Water Board policy.

The Denver Water Board's April 1989 policy statement bristled with defiance and warnings of "dire consequences." It was replaced by a new policy statement in April 1992. Hubert Farbes, reappointed as DWB president, left no doubt about the DWB's intention to follow a New Path:

A new path for the Denver Water Board is emerging from the fog of confusion that cloaks metro water issues in the aftermath of the U.S. Environmental Protection Agency's veto of the Two Forks Project.

Denver water management officials, and the citizens they represent, cannot continue to shoulder primary responsibility for water supply development throughout the metro area.

The historic motive and incentive for large-scale water supply development by Denver has changed significantly in the past two decades; corresponding changes in institutional policy and expectations must occur as well.

It has not been easy to see this new path emerging, or to understand what it means - even for those who grapple with water issues every day ...

Because of the Denver Water Board's historic role in global planning for the area's water supply problems, people have continued to look to Denver for water even after the veto.
As uncomfortable as some relationships between Denver and its neighbors have been, suburban communities have come to expect Denver to advocate and lead water development for the entire metro area.

Therefore, it is of utmost importance that suburban residents clearly understand the cumulative effect of these events and issues I've described; for Denver's Water Board may no longer serve a central planning role for water supply under current institutional and political restraints. Having assessed Denver's assets and obligations, the Water Board is preparing for a different role in future metropolitan water supply and development.

It was a very candid way of stating the truth about the Denver Water Board's drastic change in water policy, brought about by the defeat of its long-cherished Two Forks Project. Not mentioned, but undoubtedly present, were the consequences of the 1974 Poundstone Amendment.

So - suburbs. You are now on your own. Don't rely any longer on the Denver Water Board to develop large additional water supply capability for your use.

The DWB's new policy was an affirmation of one of the West's basic rules: Adapt and Survive. Hubert Farbes and other like-minded board members learned it the hard way.

This policy reversal by the Denver Water Board was monumental - a complete reversal of more than fifty years of policy that featured aggression, confrontation and litigation, highlighted by the long Blue River water war.

This water policy reversal by the DWB in 1992 had a profound effect on water agencies in Metro Denver and on the Western Slope. The DWB will no longer try to obtain more water to support suburban growth outside its present service area. That responsibility was shifted to the suburban cities.

The Denver Water Board's retrenchment left suburban cities with a water leadership void. Some 500,000 residents in Metro Denver suburbs were saddled with water systems that would be stressed severely during the next big drought.

The DWB's New Path essentially provides that:

- It is obligated by contracts to provide total water service to all present distributors outside Denver who rely solely on the DWB's treated water. For the foreseeable future the DWB will not supply water to other areas outside Denver.
- It will provide water for full development (buildout) within its present service area. When water restrictions are necessary, they will be the same for customers inside and outside Denver.
- When meeting future water needs, including development of cooperative projects with others, it will proceed in an environmentally responsible manner.
- Its present water supply capability of 345,000 acre feet per year probably will meet projected demand until 2013, but it cannot rely completely on this projection because of risks.
- During the foreseeable future, it will try to maintain a safety factor of 30,000
acre feet, to protect against water supply risks, including a larger than anticipated drought.

- Its near term strategy is designed to produce an additional 55,000 acre feet, in order to extend its water supply beyond 2013 to 2030.
- Its longterm strategy is designed to produce the final 45,000 acre feet needed to extend its water supply target of 400,000 acre feet in 2030 to 445,000 acre feet at buildout.
- Its future water projects on the Western Slope will be developed cooperating with Western Slope entities, for the benefit of all parties.
- It recognizes that the Denver metropolitan area is a socially and economically integrated whole and that cooperative actions with other metropolitan agencies should be explored.

The Denver Water Board's *New Path* required new people at key staff positions - people with enviro leanings who were not tarnished by old out-dated attitudes. Bill Miller, an able administrator, was replaced as manager by Hamilton J. "Chips" Barry III. Barry arrived with solid credentials, including time as executive director of the Colorado Department of Natural Resources.

Ken Mitchell and other loyal long-time DWB staff members retired. Some were nudged a little by early retirement inducements. Good people, able veterans, but tarnished by Two Forks.

Marcia Hughes became the DWB's first female chief counsel. Charlie Jordan, known to be enviro-friendly, became director of public affairs. Denise Maes became the first female member of the DWB. The new look DWB appeared to be much more liberal than its predecessors.

There also were important changes at Denver City Hall and at the state capitol. Wellington Webb became Denver's first black mayor. Governor Romer fired his two top water officials: David Waller, director of the Colorado Water Conservation Board and Jeris Danielson, state engineer. They were feuding and Romer viewed it as a dangerous schism in state water policy.

Danielson angered the governor by making public statements about Colorado's lack of full use of Colorado River compact water. His statements had the ring of truth, but they appeared to Romer to be contrary to his publicly stated water policy.

On the Western slope, the Colorado River Water Conservation District fired its manager, Rollie Fischer, after 28 years on the job. His dismissal was reported to be due to financial abuses and extravagances uncovered by a reporter for the *Grand Junction Sentinel*. Forget his role in helping achieve the Four Parties Agreement. Out!

Ed Marston used his *High Country News* to proclaim, "Fischer's policies were firmly stuck in a vanished past."

A vanished past. A *New Era!* The legacy of Two Forks will linger long in Metro Denver's water history.
THE SOUTH PLATTE

THE SOUTH PLATTE is unpredictable and contrary. Most rivers in the United States flow north to south. We say up north and down south. But the South Platte flows south to north, from South Park to a point near Greeley where it is joined by the Cache la Poudre. Then it flows northeast across the High Plains to join its sister, the North Platte, in northwestern Nebraska. They become the Platte for the rest of their journey to the Missouri River below Omaha.

Early trappers called the South Platte the Braided River, because of its many turns. Early steamboat pilots called it a whore that wouldn't stay in her bed. Early residents said it was so muddy catfish had to come up to sneeze. No one seemed to take the South Platte seriously.

All of that changed during the terrible night of June 16, 1965, when the South Platte broke lose and ravaged Denver with a terrible flood.

A huge mass of warm, moist Gulf air became trapped in a pocket between Palmer Divide and the Front Range. It formed the upper part of a huge funnel pointed right at downtown Denver.

Clark Secrest told the story in a 1997 article in Colorado Heritage:

At Channel 4, Ed ‘Weatherman’ Bowman, preparing his usual dinnertime report, is handed a bulletin and is stunned by the news that a ten-foot wall of water is rolling into central Denver. It cannot be happening, he says to himself - not on the placid Platte.

As police and disaster authorities rush to warn people ahead of the flood crest, houses smash into bridges, electrical short circuits and broken gas lines cause fires, and tons of debris crash through the rail yards and industrial districts of central Denver.

Now it is the noise of it all that people will remember later - the roar and rumble and breaking as everything in the flood’s path is taken away.
The water is not ten feet high anymore; it is TWENTY feet and in some places a football field wide. Instead of the usual 300 cubic feet or even the 40,000 cubic feet thirty minutes ago - the Platte now carries an astonishing 150,000 cubic feet per second.

Four bridges spanning the Platte south of West Colfax Avenue - at Florida, Evans, Hampden and Oxford Avenues - are either washed out or so badly damaged by accumulated debris that they are closed; and to the north, spans are wasted away or closed at Forty-eighth, Fiftieth, Fifty-seventh, Sixtieth, Seventy-eighth, and Eighty-eighth Avenues.

To the east over Sand Creek, bridges at Peoria Street, Havana Street, Sable Avenue, and Chambers Road are gone. For a time, police halted all east-west traffic throughout the city, barricading all viaducts and bridges across the Platte.

Denver is sliced in half.

Meals are forgotten as panicked and unbelieving citizens flock to the hilltops and river banks to watch cars, transport trucks, huge trailers, houses and even warehouses bobbing down the Platte like floats on a fishing line. Electric poles snap along the roaring waterway, poking the darkened scene with bolts of arcing sparks...

The next morning, wholesale outages of traffic signal lights coupled with demolished bridges will result in what are termed the worst traffic jams in the city's history. Thousands of residents forced from their homes by high water now are sheltered at schools and churches.

"Finally," Secrest wrote, "the South Platte is getting some respect."

The 1965 flood left six people dead, caused about $530 million damages (in 1998 dollars), damaged 1,270 structures including 600 homes in Denver. Factories along the South Platte were inundated. Thousands of workers were kept from their jobs for days.

Joe Shoemaker wrote: "With a massive stroke, the South Platte - the funny, forgotten, nothing of a river - remembered itself to everyone - A century of disrespect and disregard had been revenged in a few unforgettable hours. Neglect and apathy were abruptly revenged."

* * *

Denver and Aurora were saved from much more severe flood damage by Cherry Creek Dam, a Corps of Engineers flood control project completed in 1946. The 1965 South Platte flood led to construction of two more Corps' dams designed to protect Denver from floods: Chatfield and Bear Creek. The latter stores flood water in Bear Creek.
Chatfield Reservoir stores flood water in Plum Creek and the South Platte River.

Cherry Creek Dam is a potential problem. It's the centerpiece of a beautiful state park. It is adjacent to homes of the affluent. It is the focal point of controversy over its flood control capability. Will it protect Metro Denver from a future catastrophic flood?

Maybe.

Not definitely. Not absolutely. There is considerable doubt about the Corps' 1940's estimate of maximum probable precipitation over the watershed behind the dam.

The technical definition of maximum probable precipitation for the Cherry Creek watershed has changed since the early 1940s when Cherry Creek Dam was designed. The so-called design storm is now a whopper - 25 inches of rain across the 385 square mile drainage area in 72 hours. Or so says the National Weather Service, which provides the Corps of Engineers with design flood criteria.

The Corps now says a storm only 75 percent of the maximum probable would cause the earth-filled Cherry Creek Dam to fail.

Failure of Cherry Creek Dam is not an option. Property damage and loss of life would be catastrophic. A 56-foot high wall of water - a giant, liquid bulldozer - would roar down Cherry Creek, ripping out homes and businesses including Glendale, Cherry Creek Mall, LoDo and the Central Platte Valley. There could be 10,000 human deaths and up to $15 billion in property damage. Cherry Creek Dam's emergency spillway would send surging floodwater down Tollgate Creek, causing terrible loss of life and damaging hundreds of homes in Aurora.

It must not happen!

Cherry Creek Dam can withstand the maximum storm of record, which occurred over its watershed in 1935. But starting in 1965, big storms have dumped more rain in a day over the Front Range than falls in a normal year. They triggered big floods in Denver in 1965, in Big Thompson Canyon in 1970 and in Fort Collins in 1997.

The Corps evidently has discarded plans to provide additional flood storage by constructing a dam at scenic Castlewood Canyon east of Castle Rock, where a dam was washed out in the 1935 flood. This leaves the alternative of raising Cherry Creek Dam - perhaps 15 feet or more.

Wait a minute! Hold everything! “What about us?” cry the affluent property owners who would have to move if Cherry Creek Dam is raised substantially. They have joined others (Greenwood Village, CWCB, Douglas County) to fund a $150,000 study which would evaluate the data used by the National Weather Service to develop its new maximum probable storm for Cherry Creek Dam. In another independent study, Colorado State University's hydrometeorologists will also review the data.

The Corps has already spent a million dollars investigating alternatives for flood-proofing Cherry Creek Dam. The solution will cost an obscene amount of money, not yet defined. Risk and weather technology will battle property owners for big stakes.

* * *

The South Platte can roar like a lion and coo like a dove. It didn't seem like much of a river during Denver's beginning. But its tributaries were famous. Cherry Creek,
Ralston Creek, Little Dry Creek and Clear Creek for their gold, Cache la Poudre for its irrigation.

After the gold rush faded into Colorado history, the South Platte was harnessed by dams and put to work for irrigators and cities. Its river basin now contains 782 dams and reservoirs. Its waters are used and reused several times before reaching the state line. The South Platte is one of the most used - and abused - rivers in the Rocky Mountain West.

When early settlers visited the South Platte it had a wide flood plain, up to three miles wide below Denver City. There were few trees - mostly cottonwoods - along its banks. It would sometimes stop flowing in late summer in its lower reaches.

The South Platte is different now. Often ten times narrower, five times deeper, much more forested along its banks. All due to regulation by upstream reservoirs and importations of water from the Western Slope.

The South Platte River Basin, which includes a half-dozen major tributaries - Cache la Poudre, Big Thompson, St. Vrain, Boulder, Clear and Cherry Creeks - is now home to more than three-fourths of Colorado's residents. It is the heartbeat of Metro Denver.

* * *

The South Platte now has beautiful parks along its banks as it flows through downtown Denver. So different than during Denver's beginning.

John Brisbane Walker built the first riverfront park in 1887, below the confluence of Cherry Creek with the South Platte, on the east side of the river, between present 15th and 19th Streets.

Walker used his park for baseball games between Denver City's best players and visiting teams such as the Chicago White Stockings. Denver historian Tom Noel noted that "Walker encouraged Denver teams by putting a keg of beer at each base. Each base hit, advance or steal, earned you a drink."

Coors Field, home of the Colorado Rockies, is located near the site of Walker's ballpark.

Walker also operated a steamboat which traveled down the river to Brighton. His showboat, *HMS Pinafore*, featured performances of Gilbert and Sullivan operas. His band's performances were called "the greatest musical event in the history of Colorado."

All of this ended, as did many other Colorado business ventures, with the 1893 Silver Crash. The site of Walker's Riverfront Park became a haven for Denver City's homeless and unemployed. For most of the next century, the area between the river and the railroad tracks became a no man's land.

It's completely different now. The site of Walker's Riverfront Park has become Commons Park. It was developed on 30 acres that formerly were industrial property: On the east side of the river, between 15th and 20th Streets, between the South Platte and the old railroad tracks behind Union Station.

The Commons Park site includes the former site of the old Grinnell Co. warehouse at the intersection of 15th and Little Raven Streets, generally recognized as the birthplace of Denver.
Commons Park now includes an amphitheater constructed with junk and rubble which had lined the banks of the South Platte. It has old-fashioned cottonwood trees familiar to the river's early visitors. There are benches and walkways. Some privately funded art is planned. A sky garden area lets visitors sit in a sunken area and gaze up at the stars. The old Farmers & Gardeners Ditch appears reborn as it provides water for Commons Park. All of this in the shadow of Downtown Denver's skyline.

It's a historical full circle. From Walker's Riverfront Park in 1887 to Shoemaker's Commons Park in 1998.

Shoemaker? Who's he?

Joe Shoemaker first came into public view as manager of public works in Denver Mayor Batterton's administration. Then he served in the Colorado Senate, where he sponsored legislation creating the Urban Drainage and Flood Control District. He was the Republican candidate for Denver mayor in 1971, but lost the election to Democrat Bill McNichols. He has been a member of the Denver Water Board.

Transformation of the South Platte was a central plank in Shoemaker's mayoral campaign. In 1974 he told Mayor McNichols the South Platte must be improved. The mayor formed the Platte River Development Committee. He put partisan politics aside and named Shoemaker to head PRDC.

McNichols gave PRDC $2 million in seed money and added $15 million later. These funds were used to help EPA shut down scores of South Platte polluters in and near Denver.

Joe Shoemaker founded the nonprofit Greenway Foundation in 1976 and dedicated it to preserving and enhancing Denver's waterways - especially the South Platte and Cherry Creek.

Confluence Park was created in 1976 by the Greenway Foundation and PRDC. Located at the confluence of Cherry Creek with the South Platte, it was the first crown jewel in the necklace of a dozen riverfront parks. Confluence was the catalyst that led to creation of other riverfront parks. It's at the center of the linear riverfront park system, between Speer Boulevard and 15th Street - where the Russell party found gold in 1858.

Greenway and PRDC sponsored a major South Platte clean up in 1998. It involved three political jurisdictions and it demonstrated Metro Denver's commitment to clean-up the river. Early on a Saturday morning 700 volunteers descended on the South Platte. They fished items out of the riverbanks ranging from engine parts to toilets. They cleaned the banks along 25 miles that used to be Denver's back alley.

Mayor Wellington Webb was an important influence on restoring the South Platte. His goal was to exceed Mayor Robert Speer in creating parks - including riverfront parks - in the city's remaining open space. He has added 2,350 acres of new parks, compared with Speer's 574 acres.

The Denver Water Board, in addition to its upstream flow regulation for fishermen, has regulated flow below its intake to benefit kayakers. It negotiated an agreement with two major downstream irrigation companies to maintain, whenever possible during the irrigation season, a minimum flow of 150 second feet past Confluence and Commons Park. Chips Barry called it "a shift in urban river policy and a milestone among water suppliers."
Kayakers love the South Platte's 10.5-mile journey through Denver. Particularly the river chute built for them downstream from Commons Park, adjacent to the old Tramway powerhouse. The Tramway Company built a small dam there in about 1901 to divert cooling water into its powerhouse. Another historical full circle: from Tramway's powerhouse diversion dam to Greenway's kayak boat chute.

The South Platte has been transformed. It now passes majestically and proudly through Metro Denver, alongside many beautiful small parks. But don't overlook Cherry Creek, which shares Denver's heritage and its remaking.

There's controversy upstream about Cherry Creek Dam's flood control capability. But downstream, near its mouth, Cherry Creek is peaceful, even romantic. Sort of like Venice.

Yes, Cherry Creek has a touch of Venice - punting!

Punting? You mean a practice field for Bronco punters? In Downtown Denver?

No - nothing like that. The Greenway Foundation has established a Punt the Creek program in LoDo. It has transformed a 12-block reach of Cherry Creek into a little bit of Venice - a boatable waterway with four locks, four access ramps, a new pedestrian path and numerous landscaped areas.

There won't be any ordinary boats on this section of Cherry Creek, but there will be punts - the Italian word for pontoons. The punts are 23-feet long with square ends and a depth of less than a foot. Four passengers can ride comfortably on them, with a poleman standing in back, Venetian style.

Joe Shoemaker got the punting idea while vacationing in Christchurch, New Zealand, where he took a punt ride on the Avon River. Later, he ordered five punts for Cherry Creek, handmade in Cambridge, England.

Punting on Cherry Creek wasn't easy to initiate. The most difficult problem was how to back the creek up to usable depths without interfering with Cherry Creek's primary function - passage of flood water through Denver to the South Platte. Obermeyer Hydro, Inc., of Fort Collins provided the solution.

Movable metal grates lie flat in the water over inflatable air bladders. When the punts are used, air pumps inflate the bladders. This raises the gates to form a small dam two feet high. There are four of these inflatable dams.

Ingenious! Romantic! New words in the language of Cherry Creek.

*   *   *

The South Platte's manmade harness includes many irrigation diversion facilities and big municipal dams: Cheesman, Eleven Mile, Spinney. And on its tributaries Montgomery, Antero, Gross, Ralston, plus several big flood control dams - Cherry Creek, Chatfield, Bear Creek.

It's a workhorse river, but it's also a playground - especially for trout fishermen.

The South Platte has much to offer fishermen. It is highly accessible and it has public places where trout swim in cold, clear water, eager for the fly. There are Gold Medal fishing in some reaches, due largely to regulation by Denver Water at Cheesman and Eleven Mile Reservoirs and by Aurora at Spinney Mountain Reservoir.
But the enviros want more. They want to make the South Platte above Metro Denver a *Wild and Scenic River*.

That potential designation sends chills up and down the spines of Metro Denver's municipal water suppliers - especially the Denver Water Board. It was the result of one of the many environmental laws passed by Congress in the 1960s and 1970s that formed an irresistible tide that swept environmentalists into power.

Here's what Congress passed:

- Wilderness Act: 1964
- National Trails Act: 1968
- Environmental Policy Act: 1969
- Creation of Environmental Protection Agency: 1970

The *Wild and Scenic Rivers Act*, passed in 1968 after six years of congressional deliberation, was in many respects an extension of the Wilderness Act passed in 1964. It was intended to preserve parts of designated rivers in their natural state, because of their wild, scenic and recreational uniqueness. Eight river segments (none in Colorado) were initially designated wild and scenic. Procedures were outlined for including other river segments in the national Wild and Scenic River System.

In 1986, an amendment to the Wild and Scenic Rivers Act set aside five segments of Colorado's Cache la Poudre River as either wild or recreational. This amendment was the result of a compromise agreement developed by Colorado Congressman Hank Brown.

In the 1980s, Colorado Senator Tim Wirth put a rider on an appropriations bill that requires the U.S. Forest Service to conduct studies to determine whether rivers qualify as wild and scenic under federal law. Enviros then asked the Forest Service to determine whether the South Platte above Denver should be recommended to Congress for wild and scenic river designation.

In 1998, USFS issued a draft report called the *South Platte Protection Plan*. It was the first step in the wild and scenic river designation process. USFS said the South Platte has enough *ORV* to qualify it as a Wild and Scenic River.

*ORV* - Off Road Vehicles? No, in Fedspeak ORV means *Outstanding Recreational Value*.

If the South Platte is saddled with a congressional Wild and Scenic designation, there will be no more dams constructed on the South Platte and its tributaries above Denver.

Would Congress approve such a designation? No, Colorado's congressional delegation would not allow it.

Or would it?

Congress, like the South Platte, can sometimes be full of unpleasant surprises.
So - it's sort of a chess game. USFS, well aware of the improbability of
congressional designation of the South Platte as wild and scenic, has been milking the negotiations cow. The DWB, also aware of the congressional situation, is taking no chances. It is cooperating with USFS to an extent far beyond its historical tendencies. It cannot allow USFS to control the South Platte above Denver.

USFS's South Platte Protection Plan includes a recommendation to designate 71 miles of the South Fork and North Fork as Wild and Scenic - without further dam and reservoir construction.

Bob Ewegen put his editorial finger on the crux of the problem in the Denver Post:

\begin{quote}
A wise woman once said that history's most famous lines were:

\begin{quote}
The check is in the mail.
Of course I'll respect you in the morning.
I'm from the federal government. I'm here to help you.
\end{quote}

That may explain the reaction of the Denver Water Board to the U.S. Forest Service's 'helpful' offer to designate 71 miles of the South Platte River and its North Fork as a 'wild and scenic' river...

It's not that the Forest Service has a hidden agenda here. The federal agenda is written in bold face type: DANCING ON THE GRAVE OF TWO FORKS DAM...

Now, instead of a common solution, each water entity has launched its own plan to slake its thirst.

I've long feared that, collectively, these alternatives to Two Forks may be more expensive, more environmentally damaging, and yield less reliable water than the defunct dam would have. But that's a tale for another day. For now, the Water Board has no plans to revive Two Forks - which was, after all, merely a bucket to store the water to which it has a legal claim. It is now avidly in search of alternate buckets.

But the Water Board sees the Forest Service proposal as more than sealing the doom of Two Forks. It believes it would preclude other efforts to develop Denver water rights as well by plunging the river into a legal 'limbo' from which no practical plans could ever emerge.

To preclude that, the Water Board worked with local environmental groups to develop an alternative plan that would go considerably above the federal standards for minimum stream flows and other considerations. In return for avoiding the federal straitjacket, the Water Board even offered to drop its holdings between Chatfield Reservoir and Eleven Mile Park, both existing...
state parks, into a 66-mile 'linear state park.'

By and large environmental groups welcomed the proposal, particularly the pivotal Trout Unlimited. But the Forest Service promptly blessed that alternative plan - and invited the Water Board to write it into law as part of the proposed federal 'wild and scenic' designation.

In short, having been offered a straightjacket, the Water Board and the enviros worked to design an alternative Eddie Bauer vest whose extra pockets and freedom of movement would be ideal for anglers.

The Forest Service replied, 'That's fine. Now if you'll just incorporate that vest into our straightjacket, we can get on with tying your hands behind your back.'

Simply put, that ain't gonna happen. Only Congress can make a wild and scenic designation and Congress won't act over the certain opposition of the Colorado delegation...

If everybody negotiates in good faith, our mild and scenic Platte can continue to serve as both a recreational wonderland and a major water supply. But if the feds insist on forcing their 'help' down our throats, look for a long dry spell ahead for cooperative planning.

Minimum flows are an important part of the DWB's alternate plan for the South Platte above Denver. The DWB would guarantee a flow of 35 second feet (cubic feet per second) in summer and 40 in winter from Cheesman Reservoir. Aurora would guarantee 20 second feet from Spinney Mountain Reservoir. The DWB's Eleven Mile Reservoir would be operated to maintain a stable, uniform bypass year-around.

In return for these and other concessions, the DWB and the Providers would retain certain development prerogatives, including the Providers' right to purchase a downsized Two Forks Dam. However, any attempt to revive Two Forks would be delayed 20 years after notice is given.


Glendale? What is tiny Glendale doing, dancing with the Big Boys? Lakewood? The South Platte above Metro Denver seems to be everybody's river.

The Providers have corralled all of those counties and cities and more than forty suburban water and sanitation districts. Quite a powerful group. They have retained attorney Marcia Hughes to represent them. She was the DWB's chief counsel before leaving to establish a private law practice in Lakewood.

The Denver Water Board appears willing to join with the Providers to contribute a
million dollars to an endowment fund for projects along the South Platte such as the proposed linear park. It also appears willing to lease land it owns along the South Platte for use in the proposed linear river park.

The DWB hired Lisa Purdy to seek approval of its South Platte Protection Plan - Bob Ewegen's Eddie Bauer vest.

The linear river park concept has tremendous public appeal. It might include about 15,099 acres, of which 1,934 acres are in private ownership, 1,631 acres in DWB ownership and 11,524 acres in national forest lands. It could be the world's longest, narrowest regional park. A 48-mile park along the South Platte and along the North Fork from Bailey Canyon to its confluence with the South Platte.

The River Park probably would require joint management by the Colorado Parks Department, Jefferson County Open Space, USFS and others. There would be trails, campgrounds, picnic areas. Rangers, biologists and land management experts would protect the river from excessive use. If it happens, the South Platte would become everybody's River of Dreams.

Will it all be enough to satisfy USFS and the enviros?

David Nickum of Trout Unlimited: "Frankly, at this point, it is a matter of the folks who gave us Two Forks telling the rest of us to trust them."

Benny Morson, *Rocky Mountain News* writer: "Steve Glazier, the Sierra Club's water resources chairman, says the only way his group would abandon its call for protection under federal law is if the water department signs away its right to ever again propose a dam."

It has been more than a decade since the enviros killed Two Forks Dam - an idea they say is now extinct. Dan Luecke, regional director of Environmental Defense, told a *Denver Post* reporter, "It was the last effort by the water dinosaurs to carry out what's really a 19th century idea. It was an old approach that was about to become extinct."

Enviros are celebrating the fact that no major in-stream dams have been built in the West since they killed Two Forks. They call their opponents' efforts to build Two Forks the *Dance of the Dinosaurs*.

The enviros may be risking the loss of a South Platte Eddie Bauer vest made of pure ecological gold.

* * *

*The Endangered Species Acts* passed by Congress in 1966 and 1973 have had unexpected consequences. Seemingly innocuous at first, they have become a formidable roadblock to future water development in Colorado and the West. They even threaten existing water operations.

How did this happen?

The first seeds were planted in 1945, when federal and Canadian wildlife officials and the Audubon Society joined forces to save the *whooping crane*.

More seeds were planted in 1961, when Robert Miller, a University of Michigan scientist, published a paper documenting declines of squawfish, bonytail fish and the razorback sucker.
These seeds were inadvertently fertilized in 1962, when the states of Utah and Wyoming, cooperating with federal agencies, poisoned trash fish in 450 miles of the Green River below Flaming Gorge Dam. It was a major undertaking - the largest of its kind in the country.

The objective was to kill trash fish so that trout would have a good habitat when they were transplanted into Flaming Gorge Reservoir. But it also poisoned some rare fish. This sparked a controversy over "reckless killing." It galvanized enviros and shook-up officials all the way to the Interior Department in Washington, D.C.

In 1966, Interior Secretary Stewart Udall steered the Endangered Species Preservation Act through Congress with almost no opposition. The law directed the Agriculture, Interior and Defense departments to preserve rare species on land under their jurisdiction, to the extent practicable.

That word - practicable - gave federal agencies enough wiggle-room to generally ignore the call to preserve endangered species.

One federal official did not ignore it. Nathaniel Reed, in a job interview with President Nixon in 1969, said he wanted ranchers to stop killing coyotes with poison that was also killing other animals and eagles.

Nixon was not known to be enviro-friendly, but he reportedly told Reed, "I don't know what it is, but you can have my assurance of support." Reed became the Interior Department's secretary for fish and wildlife. Nixon probably had no idea that his remark to Reed would lead to enactment of a new endangered species law with sharp enforcement teeth.

It was an easy sell. Saving species was feel-good lawmaking with no obvious downside. Interior Department staff rewrote the 1966 act to make its goal protection of ecosystems on which rare species depended. The government would not only save the rare species, it would also save the land and water they needed for survival. Perhaps most important, the rewrite eliminated practicable from the proposed legislation. Federal agencies would have to protect rare species without regard to cost.


Nobody seemed to understand the seriousness of the 1973 Endangered Species Act - not Congress, not Colorado's water agencies. The enviros, of course, understood it very well. So did Todd Hartman, of the Rocky Mountain News. In a December 2000 article, he said:

Congress had not the foggiest notion (of) what it had done, said Paul Lenzini, a lawyer for wildlife agencies talking about the result of the law in Noah's Choice. Lawmakers, he said, had 'no idea their ox was being gored'...

The law was supposed to save Majesty. Whooping cranes. Humpback whales. Bald eagles. Grizzly bears. But, as any biologist knows, most species don't live up to 'majesty.' Most, in fact, are fungi, plants, insects, a vast number of small, squishy, scruffy creatures that most Americans know
nothing about.

Congress began to understand what it had done a few years after it passed the law. Enviros championed a 2-inch perch whose only known habitat would be inundated when construction was completed on Tellico Dam on the Tennessee River.

Dam construction was stopped for five years while a lawsuit worked its way up to the U.S. Supreme Court.

The 2-inch perch won!

The U.S. Supreme Court, by a 6-3 vote, ruled in 1978 that the Endangered Species Act requires that endangered species be saved, whatever the cost.

The perch won the lawsuit, but lost the Tellico Dam battle. Tennessee's congressional delegation - apparently more astute than Colorado's in protecting its water interests - tacked a seemingly innocuous amendment onto the 1979 public works appropriation bill. It exempted Tellico Dam from all laws! Its gates closed a year later.

The Supreme Court ruling upholding the 1973 Endangered Species Law was very significant. Attempts were made to undo it, without success.

The impact of the 1973 Endangered Species Act was first felt in Colorado in the late 1970s. Riverside Irrigation Company and Public Service Company of Colorado obtained a right to store and use 60,000 acre feet in a proposed reservoir on Wildcat Creek, a small tributary of the South Platte near Brush. Consumptive use was estimated to be 11,000 acre feet per year for irrigation and power plant cooling. These plans were upset by the whooping crane and the enviros who loved it.

The sponsors of Wildcat Reservoir had to obtain a permit from the Corps of Engineers, to comply with the Clean Water Acts. The Corps asked USF&WS (U.S. Fish and Wildlife Service) to give it a biological opinion. Ask the fox to guard the henhouse?

USF&WS determined that Wildcat Reservoir would decrease the natural high water flows needed to clear out woody vegetation in the 50-mile nesting area of the whooping crane - 260 miles downstream on the South Platte in Nebraska!

Project sponsors would also have to replace the 11,000 acre feet per year that would be lost to consumptive use.

What about Colorado's sacred doctrine of prior appropriation? What about terms of the South Platte River Compact?

State Engineer Jeris Danielson expressed great concern about USF&WS's "Blatant attack on the water rights structure of the State of Colorado by a federal agency under the guise of Section 404 of the Clean Water Act" and the "unilateral abrogation of an interstate compact," which could be "a dangerous precedent to say the least."

USF&WS admitted later that releasing 11,000 feet annually from Wildcat Reservoir storage would have no impact on the whooping crane habitat. The assistant secretary of the Army directed the Corps to defer to state authority. But Federal Judge John L. Kane, Jr., ruled that denial of a Section 404 permit by the Corps was a proper exercise of federal power.

Judge Kane's ruling shocked Colorado water interests. NCWCD and others appealed. Attorney Gregory Hobbs (now a Colorado Supreme Court justice) argued that the environmental community wanted to transform the purpose of the Clean Water Act
from a pollutant discharge control program to a national water law that would govern the allocation, diversion, storage and use of water.

The 10th Circuit Court of Appeals rejected Hobbs' arguments and agreed with Judge Kane. The adverse effects of downstream water depletion on an endangered species - the whooping crane - would have to be considered. Section 404 of the Clean Water Act must not be circumvented.

It was a significant defeat for water interests in the West. It reached far beyond the fact that Wildcat Reservoir was not built. It was - for those astute enough to see it - a huge red flag waving in the direction of proposed Two Forks Reservoir.

Wildcat Reservoir was only the tip of the endangered species iceberg, toward which Western water agencies, on their version of the Titanic, were headed in a dense, bureaucratic fog.

Endangered species, known only to God and USF&WS, would later include the flower-loving fly, the pygmy owl, the Colorado butterfly plant and the Preble's mouse.

The Preble's meadow jumping mouse was first identified by naturalist E.A. Preble in 1895, when he found one in an irrigation ditch near Loveland. This little mouse is 3-inches long, weighs two ounces, has a 6-inch tail, jumps 3-feet horizontally and 12-feet vertically. When it's awake. It hibernates from September through May.

Preble's mice are found only in Colorado and Wyoming, nearly always within a few feet of streams or irrigation ditches. Northern El Paso County has one of the largest populations of Preble's mice. Potential habitats include 300-foot-wide corridors along 178 stream miles. This is also one of the hottest development areas along the Front Range.

Property owners and developers in this area have to obtain approval from USF&WS before doing anything that might adversely affect the Preble's mouse. Anything - adding a deck, repairing a road, building a new subdivision.

Mouse heaven. Developer hell. Worthy of this headline in a 1999 feature article in High Country News: Can the Preble's mouse trap growth on Colorado's Front Range? And in smaller print, "Many environmentalists see the listing of the Preble's mouse as a way to protect the foothill streams on the Front Range."

Construction projects in Southern California worth hundreds of millions of dollars were stopped for months until USF&WS could determine how many flower-loving flies there are in the Delhi Sands area and how they can be protected. This is the only fly to make the endangered species list.

In Arizona, a pocket-size bird - the Ferruginous Pygmy-Owl - stopped a big development which it visited in the summer of 1998 - 9,000 homes, four golf courses, three resort hotels. Construction stopped while officials tried to figure out how to protect pygmy-owls, which had been listed as endangered in 1997. A project engineer on the Dove Mountain Project said, "Nobody wants to design anything without having Fish and Wildlife first give tacit approval."

The Colorado butterfly plant is an obscure High Plains herb that some call a noxious weed. Its name came from the winged appearance of its blooms. The Smithsonian Institution filed a petition in 1975 to list it as endangered. USF&WS is now planning to list it as threatened. Can an endangered species listing be far away?

"It's the same old thing," said an aerial sprayer. "It's another thing they're adding
that doesn't need to be, but what can you do?"

How can a water project be constructed in Colorado without harming an endangered species? Without having USF&WS stop construction?

* * *

It's been nearly 15 years since the defeat of Two Forks. Dire consequences have not yet occurred, even with a severe drought. But planning is under way to construct additional storage capacity in the South Platte River Basin such as:

- Enlargement of Gross Reservoir (Denver Water)
- Reservoir at Leyden Gulch in Jefferson County (Denver Water)
- Antero Reservoir enlargement (Denver Water and Aurora)
- Eleven Mile Reservoir enlargement (Denver Water)
- Reuter-Hess Reservoir in Douglas County (Parker Water & Sanitation District)

Most of the water supply for filling additional storage capacity in the South Platte River Basin will come from the Western Slope, where cooperation is replacing litigation.

Denver Water, Aurora and Western Slope water interest have agreed to study the feasibility of constructing a large storage reservoir near Wolcott in Eagle County. The $100,000 study will take six to eight months to complete.

This could be the second major step along the cooperation path taken since the defeat of Two Forks Reservoir in 1989. The first step was the cooperative construction of Wolford Mountain Reservoir near Kremmling, completed in 1995.

The proposed new reservoir would be built on a site north of Interstate 70 near Wolcott, on 1,600 acres of land owned by Denver Water. It originally bought the 4-Eagle Ranch for a proposed 350,000 acre foot reservoir that would store water to supply a proposed pipeline under Vail Pass to Dillon Reservoir.

The new Wolcott Reservoir would hold up to 100,000 acre feet. Its primary function would be to supply Denver Water's and Aurora's Colorado River replacement requirements, so that they could divert more water upstream to the Eastern Slope. It would also provide water for Vail Associates and the Colorado River Water Conservation District.

In order to obtain the political and environmental support required for building this reservoir, Denver Water and Aurora would have to give up some of their legal rights to water in pristine wilderness areas in Eagle County, which they have had for a long time, but have been unable to use because of environmental and rights-of-way problems.

If negotiations eventually proceed to reservoir construction, it will be water diplomacy at its best. In the new era, featuring cooperation instead of litigation. It will bring new water importations to fill new storage capacity in the South Platte River Basin.
THE COLORADO - river of rivers - native home of hope and controversy. It's the best thing that ever happened to Colorado. And to California and Arizona. And, to a lesser extent, to Utah, Wyoming, New Mexico and Nevada.

The Colorado arises among Colorado peaks more than 14,000 feet high. Then it travels 1,450 miles to its delta in the Gulf of California. More than 70 percent of the Colorado's annual runoff originates in Colorado. California is the biggest user of Colorado River water, but it contributes nothing to its flow.

Is that fair?
No! But it's the Law of the River.
What's that?
It's a long story, which we will get to, eventually. But first, let's try to understand the river - its personality, its character. Frank Waters described it eloquently in his 1946 book, *The Colorado*.

Most rivers are confined to the needs and histories of men. Like roads, they seem inconsequential without their travelers. The Colorado is an outlaw. It belongs only to the ancient, eternal earth. As no other, it is savage and unpredictable of mood, peculiarly American in character. It has for its background the haunting sweep of illimitable horizons, the immensities of unbroken wilderness. From perpetually snow-capped peaks to stifling deserts below sea level, it cuts the deepest and truest cross-section through the continent ... 

The Colorado River system is at once an international headache, a geographic skeleton, a hydrographic puzzle, a roll call of the most familiar names in the whole Southwest, and a symphony complete from the tiniest high pizzicato of snow-water strings to the tremendous bass of thunderous
catastacts reverberating in deep canyons. At best we can here only distinguish its outline, call off its names.

The Colorado now carries nearly 140,000 acre feet of silt, or sediment, annually - ten times as much as the Nile and seventeen times as much as the Mississippi. Plus an annual salt load of nearly half a million tons. It is the most completely utilized river in the world. No water has flowed from its mouth into the Gulf of California during the past ten years or more.

It seems almost sacrilegious to think of the Colorado in terms of second feet, acre-feet, dams, reservoirs, power plants. This most unusual, most litigated, most controversial of rivers is so much more than that. It has so much personality, so much history.

Way back in the history of the Colorado this outlaw river regulated itself. It found its own path to strange places. The first attempt to divert large amounts of Colorado River water to California was made by Oliver Wozencraft, an ex-49er, a man of remarkable vision and imagination. He developed a plan to divert water from the Colorado to irrigate the bed of an ancient lake - the Imperial Valley in the Colorado Desert.

A California humorist observed, "I see no great obstacle to success except the porous nature of the sand. By removing the sand from the desert, success would be assured at once."

It wasn't just sand. It was fertile soil. All it needed was water.

Others laughed at Wozencraft's plan and he died before it was taken seriously. In 1891, John C. Beatty organized a land and irrigation company to irrigate land east of the Colorado. His engineer, Charles Rockwood, persuaded him to change his plans and irrigate land in the Imperial Valley.

Beatty was forced into bankruptcy by the 1893 panic. Rockwood sued for his unpaid salary and was awarded all of the company's surveying notes, maps and engineering data. Frank Waters continues the story:

Thus begins one of the most remarkable chapters in that long epic entitled, 'Winning the West.' Wholly, fabulously American, it runs the gamut of skullduggery, bamboozling, stock manipulation, personal vanity, lust for power; and with these courage, vision, high endeavor, sacrifice and unending work.

It wasn't easy. Rockwood couldn't obtain financing. Several others tried, without success. Then George M. Chaffey agreed to finance the project. He was a wealthy man and he also was a civil engineer and an irrigation expert. Chaffey and others incorporated the California Development Company to sell water to irrigators in the Imperial Valley.

Chaffey's canal diverted water from the Colorado at Pilot Knob, on the west bank opposite Yuma. It went south paralleling the river into Mexico, then north to the Imperial Valley. It was called the Imperial Canal - 400 miles long, large enough to irrigate 100,000 acres.

The Imperial Land Company was incorporated to plat the land and layout town sites. Stock in the California Development Company rose rapidly in value and many
stockholders decided to sell and take a quick profit. Rockwood, jealous of Chaffey, raised money and bought control.

It took courage to buy tracts and lots on a desert wasteland where the temperature reached 125 degrees or higher. Creosote bush, mesquite, barren sand and alkali flats. The U.S. Department of Agriculture sent an expert to analyze the soil. He reported that it was so saturated with alkali that nothing would grow except date palms, sorghum and sugar beets.

He was wrong.

The Imperial Valley had rich silt deposits that would produce six alfalfa cuttings a year. And banner yields of cotton. Grapes and melons would ripen sooner than ever before. It would become an agricultural bonanza. All it needed was water.

They came slowly at first. Then people began to pour in - 7,000 by 1903, 10,000 by 1904. Southern Pacific built tracks to the Imperial Valley. It soon was hauling supplies in and crops out. Before long, 120,000 acres were under cultivation. Some called the Imperial Valley the Palm of the Hand of God.

But - the Colorado had not yet had its say.

Two words will suffice: silt and flood. The Imperial Canal soon carried enough silt annually to build a levy 20-feet high, 20-feet wide and a mile long. Within two years, the first four miles of the Imperial Canal were silted up.

California Development Company did not have the money or machinery required for dredging the canal. Crops in the Imperial Valley failed for lack of water. Farmers threatened lawsuits. It was a desperate situation.

Rockwood lost control of the company to Anthony K. Heber, a slick and shrewd promoter. In October 1904, Heber ordered Rockwood to construct a new intake for the Imperial Canal four miles below the Mexico border.

It was a serious mistake.

Heber could not install the canal's control gate on the Colorado River until he obtained permission from the president of Mexico. That would take a year and the Colorado wouldn't wait. A rare winter flood rushed into the ungated canal and formed a new channel.

The flooding began early in 1905. In March, Rockwood tried to close the intake by constructing a 60-foot high embankment of piles, brush and sandbags. It failed. A second attempt also failed. By June, the canal intake was 160 feet wide. The Colorado raged into it at the rate of 90,000 second feet.

The new channel - New River some called it - carried most of the flow of the Colorado into the Imperial Valley and the Salton Sink. At the June peak, more than 250,000 acres of valley farmland were under water. The Salton Sink became the Salton Sea.

It was a terrible situation. Heber asked E.H. Harriman, president of the Southern Pacific Railroad, for a $200,000 loan. Harriman provided the money on the condition that he could name three directors of the California Development Company, one of whom would be its president. Heber resigned and left the area.

Harriman's choice for company president was Espes Randolph, a civil engineer. The company was reorganized with Rockwood continuing as chief engineer. Randolph
assigned H.T. Cory, a former professor of civil engineering, to assist Rockwood. Then he wired Harriman that it might require another $750,000 to control the Colorado.

Rockwood and Cory made a third attempt to control the Colorado. They constructed a 600-foot barrier dam across the Imperial Canal. On November 30, 1905, a flash flood roared down the tributary Gila River and washed away the barrier dam.

The Salton Sea now covered 150 square miles, but if water in the Imperial Canal was shut off, 200 square miles of irrigated farmland would dry up. Cory and Rockwood were squeezed between a rock and a hard place.

What could they do?

They ordered a powerful steam dredge, to be built in San Francisco. It would remove the sediment from the first four miles of the original canal. Then they would install a large, steel and concrete headgate - on American soil.

A great idea, but Nature had other plans. On April 18, 1906, San Francisco was shaken to its roots by a giant earthquake. Fires raked the city and cooked Rockwood's goose. He quickly resigned.

Rockwood gave it his best, but the Colorado had too much FUD for him to cope with. Fear. Uncertainty. Doubt. Could anyone steer that wild bronco Colorado into a controlled canal that would irrigate the Imperial Valley without enlarging the Salton Sea?

Cory thought he could. In August 1906, he started the fourth attempt to control the Colorado. He built a brush mattress 100 feet wide and attached it to 3/4-inch cables with galvanized iron rope. It was sunk to the riverbed, reaching from shore to shore.

Cory constructed a trestle on piles sunk to bedrock. It carried 300 side-dump railroad cars, each with 60 tons of rock, which were dumped onto the brush mattress. Rock and labor were difficult to obtain.

Rock came from quarries within a 400-mile radius. White laborers wanted no part of this adventure. So 2,000 Indian workers from six tribes were recruited. Navajo. Hopi. Apache and others.

The rock diversion dam was finally completed. A headgate costing $122,000 was installed in the Imperial Canal. Success at last!

But for how long?

The Colorado struck again on October 11, 1906. Two-thirds of the dam was lifted up and swept down the river, along with the expensive headgate. The Indians worked heroically, night and day, putting rock on the brush mat, a little faster than the river washed it away. After two weeks, on November 4, the rebuilt dam was completed.

Then the Gila had its say. Again. On December 7, a flood roared down the Gila. The dam held, but an earth levee 1/2-mile downstream broke and water moved through the new break, 1,000 feet wide, and rushed on into the Imperial Valley and the Salton Sea.

Harriman's Southern Pacific now controlled the California Development Company. After spending $2 million in unsuccessful attempts to control the Colorado, he continued his efforts. Give him credit for trying.

Harriman sought help from the federal government. He pointed out Reclamation's big stake in controlling the river so that its Laguna Dam Project could proceed. But Harriman was in President Theodore Roosevelt's political doghouse for various sins against humanity, including his covert efforts to stop David Moffat's railroad construction
near Kremmling.

Roosevelt called Harriman an "undesirable citizen." He told him the Reclamation Service couldn't undertake a joint project to control the river without congressional approval.

Finally, after much telegraphing back and forth, Harriman decided to proceed with the fifth attempt to control the Colorado. Roosevelt asked Congress to "make provisions for the equitable distribution of the burden."

The Colorado threatened the Imperial Valley again a few years later. Silt raised the bottom of the canal and another breech occurred in the river bank a few miles below the Imperial Canal's diversion dam.

Déjà vu. Here we go again.

The Imperial Valley now contained more than 60,000 people, having property values totaling $137 million. Irrigable land totaled nearly 750,000 acres. All of this continued to be at the mercy of the outlaw Colorado. Inundation in June, July and August if levees or river banks were breached. Drought in September and October.

Two trestles of 90-foot piling were placed across the levee break. Trains moved across the trestles, dumping rock into the river faster than it could wash it away. In order to do this, the Southern Pacific tied-up 12,000 miles of mainline track serving Los Angeles and Tucson.

On February 10, 1907, after 52 days' work, the breech was closed and the Colorado was turned back into its old channel. The cost: $1.6 million. That also was the day Anthony Heber burned to death in a hotel fire in Goldfield, Nevada.

The Imperial Canal, now operative after so many failed attempts, passed through Mexico on its way to the Imperial Valley. Mexico decided it wanted a piece of the action - up to half of the water diverted by the Imperial Canal.

Imperial Valley irrigators decided they wanted no part of Mexico's scheme. Build an All-American Canal that would not enter Mexico. They formed the Imperial Irrigation District to take over the valley's irrigation systems and lobby Congress for authorization of the All-American Canal. The project was too big for private enterprise to undertake. Federal money had to be obtained and that might open the door to federal control of the river.

With this background, it becomes apparent that California, although it contributes no water to the river, had reason to develop a proprietary interest in the water of the Colorado and a valid claim to being first in time and first in right to the use of the Colorado's water.

But there were six other states within the Colorado River Basin that had valid claims to the Colorado's water. Their needs had to be considered.

How should the Colorado's water be divided between the seven basin states?

That question would puzzle Western water interests until it was finally answered, in 1922, by the Colorado River Compact.

* * *

The compact is an important part of the Metro Denver Water Story and Colorado
Water history. It is intertwined with the story of Delph Carpenter.

Delphus Emory Carpenter was born on a farm near Greeley in 1877. In Union Colony, on the Cache la Poudre River. His parents came there from Iowa in 1871. In high school, Delph was known for his interest in history and for his oratorical skills. He had a baritone voice and he sang in the church choir.

Delph graduated from Denver University law school in 1899 and established a law practice in Greeley, specializing in water law. He was the first native Coloradan to become a state senator. He was the senate's youngest member. Delph was described by the press as "clean-shaven, slender, with determined lips and a purposeful nose." He was highly motivated to succeed.

Delph Carpenter became an irrigation authority early in his law career. He was politically conservative and opposed anything that would weaken agricultural communities. "The people in my portion of the state," he said, "have two don'ts - don't fool with our water rights and lay off the state constitution." He believed passionately that it was the right and duty of individual western states - not the federal government and its Reclamation Service - to control and administer their water.

Carpenter believed that all water originating within Colorado's boundaries belonged to the people of Colorado and that it should be administered in accordance with the Colorado Doctrine - first in time is first in right.

But what about water that originates in Colorado and flows into a downstream state? Like Arkansas River water that flows into Kansas, a state that uses the riparian water rights doctrine, which pre-dates the Colorado Doctrine and has nothing in common with it? Kansas thought its riparian system should prevail, because Colorado Territory had been carved out of Kansas Territory in 1861. So Kansas sued Colorado, claiming it was being deprived of Arkansas River water because of upstream illegal diversions in Colorado.

This legal hot potato finally landed in the U.S. Supreme Court. It announced in 1907 that each state can choose its own water law, whether riparian or prior appropriation, but no state can impose its choice of law on another state. It said basin-of-origin states are required to provide an equitable apportionment of water to their downstream neighbors.

This important decision did not then become a rule-of-law, because the Supreme Court decided not to take sides in Kansas v. Colorado. It would not determine Kansas' apportionment until Kansas showed it had been injured by Colorado.

The high court also rejected the claim of the United States that the Reclamation Act provided for federal reservation of western waters, to be developed as the national government saw fit. This, too, was a very significant decision.

Another interstate water controversy erupted in 1911, involving Colorado and Wyoming. The Greeley-Poudre Irrigation District in Colorado had contracted with the Laramie-Poudre Reservoir & Irrigation Company for construction of the Laramie-Poudre Tunnel to divert about 100,000 acre feet annually across the Continental Divide, from the Laramie River to the Cache la Poudre.

The Laramie originated in Colorado, then joined the North Platte river downstream in Wyoming. Both states used prior appropriation to administer their water rights. Pathfinder Reservoir, downstream on the North Platte in Wyoming, had the most senior
water right (1905).

Construction of the Laramie-Poudre Tunnel proceeded on schedule until it holed through in spring 1911. Then Wyoming sued Colorado.

Delph Carpenter was appointed Colorado's lead attorney in *Wyoming v. Colorado*. He worked nine years on this case under difficult conditions. In December 1918, he presented an enormous brief to the U.S. Supreme Court.

The strain was almost unbearable. Carpenter's diary mentioned it: "This brief has made a nervous wreck out of me. I have given it my very life, realizing how desperately vital it is. But I have done my best. My stenographer took ill with the Spanish influenza and I typed the last of the brief myself. I worked it all out alone, no help from anyone."

Delph was overworked. He had represented Colorado in *Nebraska v. Colorado*, which involved issues similar to the Wyoming lawsuit. He also represented Colorado in other interstate negotiations and litigation. Delph became ill with influenza and exhaustion. His bones ached, his speech was restricted. He developed a palsy.

The U.S. Supreme Court took its time with *Wyoming v. Colorado*. It finally announced its decision on June 5, 1922. It ruled that Colorado did not have the right to divert water from the Laramie River without regard to senior priorities in Wyoming.

At first glance it was a nerve-shattering decision for Delph Carpenter. "Wyoming has succeeded," he said, "and incidentally half-murdered all other states of origin." He was thinking of the Colorado River, where California was first in time.

When Delph calmed down, he noted that the high court did not abandon the rule of equity. Wyoming could not claim *absolute* priority across the state line. It could only claim what the courts considered to be *equitable apportionment*.

"The decision stands," Carpenter said later, "as a precedent for the principle of fixing the future rights of states by allocation of the water supply of a stream between them. I feel greatly relieved and my work much lightened."

* * *

In 1919, southern California interests formed the *League of the Southwest* - seven months after the United States entered World War I. Its objectives were to promote economic growth and establish a unified power base capable of dealing with the federal government and Congress in developing the lower Colorado River.

Four hundred delegates appeared at the League's first meeting in San Diego. Its second meeting, in Tucson in January 1918, drew only 50 delegates. They proposed an interstate conference to address the lack of consensus on interstate water law.

Then the federal government made its entry into the growing controversy over Colorado River water. At a meeting in Salt Lake City in January 1919, Interior Secretary Franklin Lane proposed legislation to reclaim 4 million acres in the lower Colorado River basin for discharged veterans and others. It would be called the National Soldier and Settlement Act.

Colorado River basin states sent representatives to Salt Lake City to hear Secretary Lane's legislative proposal and Arthur Powell Davis' plan to build a large storage reservoir on the lower Colorado and an All-American Canal to deliver Colorado River water to
California's Imperial Valley.

Davis was a nephew of the famous John Wesley Powell and head of the Reclamation Service. He was obsessed with development of the lower Colorado River. He assured the Salt Lake City audience that there was ample water in the Colorado for the needs of all seven basin states.

The League's engineering committee met in August 1920 to discuss the proposals of Lane and Davis. It soon became obvious that the problems went far beyond engineering and that the League should have an official meeting as soon as possible.

The meeting was held in the senate chamber of the state capitol building in Denver. Most of the basin states were represented by their governors. Colorado's Governor Oliver Shoup asked Delph Carpenter to act as legal advisor to the League's Resolutions Committee.

It was an assignment that would shape Colorado River water history.

Carpenter drafted a resolution based on the states' treaty-making powers incorporated in the U.S. Constitution. He said states could negotiate treaties among themselves, subject to congressional approval. With the encouragement of Gov. Shoup, Delph submitted this draft resolution to the Resolutions Committee:

Resolved, that it is the sense of this conference that the present and future rights of the several States whose territory is in whole or in part included within the drainage area of the Colorado River, and the rights of the United States, to the use and benefit of the waters of said stream and its tributaries, should be settled and determined by compact or agreement between said States and the United States, with consent of Congress, and that the legislatures of said States be requested to authorize the appointment of a commissioner for each of said states for the purpose of entering into such compact or agreement for subsequent ratification and approval by the legislature of each of said States and the Congress of the United States.

It was obvious to all committee members that Delph Carpenter was much more knowledgeable than they were. He was also very convincing. Delph's draft resolution was quickly approved.

It was a historic moment, but most League members did not immediately realize it. Davis was puzzled. "What does this mean?" he asked, and Carpenter explained it to him.

A Colorado River Compact Commission was appointed. It included a representative from the federal government and one from each of the seven basin states. Delph Carpenter was Colorado's representative. He urged President Harding to appoint a man with international experience and national stature as federal representative. "Compact negotiations would fail," he said, "if the man representing the United States was a bureaucrat and not a statesman."

It was one of the few things President Harding did right. He appointed Herbert Hoover, his secretary of commerce. Hoover was Harding's most capable cabinet member.

The Colorado River Compact Commissioners - the CRCC - met in Washington in
a harmonious mood. It evaporated quickly when they started to divide the Colorado's water. The CRCC's first effort was based on each state's estimate of its irrigable acreage. The estimates were so inflated they had to be discarded.

Carpenter asked the commissioners to consider a compact in which the upper basin states had no limitations placed on them and the lower basin states could claim no preferred right to use of Colorado River water. California's Congressman Phil Swing challenged the commissioners to move forward with construction of dams on the lower river, "as if this was another Panama Canal Project."

It soon became apparent that the commissioners had divided into two fixed groups - the four upper basin states: Wyoming, Colorado, Utah and New Mexico, against the three lower basin states: Arizona, California and Nevada. Stalemate reared its ugly head and Hoover was inclined to suspend further discussions. He was the CRCC's chairman.

Hoover became discouraged. At the 7th CRCC meeting, in January 1922, he said:

> We have not been able to get any agreement on a general single idea for a contract. Therefore, this session has no result except to define differences. The question arises, 'Is it worthwhile to have another session? Or shall we make the declaration now that we are so hopelessly far apart that there is no use in proceeding?' Do the commissioners think there is any basis of arriving at an agreement?

Delph Carpenter refused to give up. "I feel frankly," he said, "that this is a matter requiring very prudent and thoughtful treatment. Hasty judgment would be unwarranted. We are here with a pretty sacred trust and it should not be treated lightly.

"I believe that in the months and weeks to come many small matters of difference can be argued out. This, to me, has been a very profitable conference and there is more nearly an approach to a common accord than I expected when I arrived in Washington. It would be the height of crime to the people who sent us here to adjourn permanently now."

Hoover agreed, reluctantly. He scheduled CRCC meetings in Phoenix, California, Utah, Grand Junction, Denver and Cheyenne from March 15 to April 2, 1922. The secretary of commerce hoped to see a leader emerge in these meetings - one who could mold a compromise acceptable to all.

Hoover found his leader when the U.S. Supreme Court announced its decision in *Wyoming v. Colorado* - Delph Carpenter! He asked Delph to draft a compact for the Colorado River based on equitable apportionment. Half to the upper basin states - Colorado, Utah, Wyoming, New Mexico. Half to the lower basin states - Arizona, California, Nevada.

Delph began work promptly, but he was slowed by other demands on his time, mostly as interstate streams commissioner for Colorado. He also was troubled, in summer 1922, by the Swing-Johnson bill, which had been introduced in Congress the preceding April.

California's Congressman Phil Swing and its Senator Hiram Johnson had introduced a bill to construct a large dam on the lower Colorado at, or near, Boulder Canyon for flood control and hydroelectric power. And the All-American Canal.
The Swing-Johnson bill ignored the CRCC's primary objective, which was to establish rights to Colorado River water before any dams are built. It angered Delph Carpenter and spurred him to work harder on his compact draft.

On August 25, 1922, Carpenter sent his preliminary draft of a Colorado River Compact to Herbert Hoover. His 5-page transmittal letter praised Hoover's "underlying spirit of broad-minded fair play." He said he hoped his friend would give the draft "your most rigid scrutiny, mature thought, and unstinted criticism."

Carpenter mailed copies of his compact draft to the other commissioners and interested parties, while waiting two months for busy Herbert Hoover to respond.

Delph's first draft was based on a 50/50 division of the Colorado's flow at Lee's Ferry - a name now deeply ingrained in the language of the Colorado River Compact.

Lee's Ferry is located in northern Arizona, near the Utah border, on the mainstem Colorado, about a mile below the Paria River, which flows out of Bryce Canyon.

The only crossing of the Colorado in 1922, south of Moab and north of Grand Canyon, was near the mouth of the Paria. This spot had, for centuries, been the rendezvous for all kinds of travelers - Spanish, Mormon, Indian, trapper, outlaw.

In September 1857 a party of 136 emigrants passed through Utah on their way to California from Arkansas. Their wagontrain stopped at a long valley called Mountain Meadows. They were fired upon by Mormons dressed as Indians.

After a four-day siege, the Mormon leader - John D. Lee - offered the party safe passage to the Cedar City settlement, if they would surrender their arms. So the unarmed emigrants marched off between two files of Mormon guards. Suddenly the guards opened fire and killed all but 17 young children. Brigham Young made Lee shoulder the blame for the massacre. Then he hid Lee in a very remote area - at Jacob Hamblin's ferry on the Colorado River near the mouth of the Paria.

Lee arrived at Hamblin's ferry in December 1871 with one of his sons and his seventeenth wife, whom Waters described as "the loved and admirable Sister Emma." Emma called the spot Lonely Dell, but it became known as Lee's Ferry, even though "he carried travelers across the river, off and on, for only a little less than two years."

It really should have retained the name Hamblin's Ferry.

John D. Lee was the great-grandfather of Stewart Udall, who became Secretary of the Interior.

The selection of Lee's Ferry as the compact's division point for dividing the Colorado's upper and lower basins was mainly due to E.C. LaRue, chief hydrologist of the U.S. Geological Survey. He advocated construction of a high dam in Glen Canyon. To promote his plan, he took a boatload of dignitaries, including compact commissioners, down the Colorado from Hall's Crossing to Lee's Ferry.

About the only thing the compact commissioners remembered from that trip was Lee's Ferry. It seemed to them a good place to divide the upper and lower basins.

* * *

The only discharge record available for the lower Colorado River in 1922 was the U.S. Geological Survey record for a station at Yuma, Arizona. It indicated an average
annual discharge of 17.5 maf (million acre feet) for years 1902-22. It was used by CRCC engineers and Delph Carpenter as the starting point for estimating the discharge at Lee's Ferry.

The engineering specialty of hydrology was in its infancy in 1922. Competent civil engineers at that time did not understand the longterm variability of streamflow. Carpenter relied mainly on his longtime engineering friend, Robert I. Meeker, deputy state engineer of Colorado.

If the average annual discharge of the Colorado at Yuma is 17.4 maf, what is it at the compact division point, Lee's Ferry?

Delph Carpenter evidently believed it was about 18.4 maf. Arthur Powell Davis estimated it to be 18.1 maf. Most engineers in the upper basin states estimated 18-19 maf. Meeker thought it was closer to 20 maf. Other data from the Reclamation Bureau indicated the flow at Lee’s Ferry was 16.4 maf.

*They were all wrong!* Very wrong. It would be the compact's first serious error. Some would say it was the compact's first *fatal flaw*.

The 18-year period of record of the Colorado at Yuma included the wettest period of the longtime precipitation record for the Colorado.

Delph Carpenter and the other compact commissioners thought they were conservative when they used an average annual flow of 15.0 maf (million acre feet) at Lee's Ferry for compact purposes. Recent tree ring studies indicate that the average annual virgin (undepleted) flow at Lee's Ferry is about 13.5 maf.

It is not clear where we should point the finger of blame for the compact's second major mistake - the lower basin *guarantee* - the guarantee of a specified flow at Lee's Ferry. Lower basin states insisted on it. Upper basin states thought there was enough water in the river to justify the guarantee.

Delph Carpenter insisted that the guarantee be based on 10-year running averages, rather than each year. This resulted in the lower basin accepting a 10-year running average guaranteed flow of 75 maf.

Surpluses would be shared equally by both basins, as would the required delivery to Mexico.

That's the way it turned out, but getting there was very difficult. Lower basin opposition was led by Arizona's compact commissioner W.S. Norviel. He wanted the upper basin to guarantee a 10-year running average delivery of 82 maf.

Denver attorney L. Ward Bannister was a major pain and distraction for Carpenter. Bannister began his career as water attorney about the same time as Carpenter and he was attorney for the Denver Chamber of Commerce, but his career path did not cross Delph's in any significant way until 1922.

Daniel Tyler, emeritus professor of history at Colorado State University, described Bannister in his book, *Silver Fox of the Rockies*, published in 2003:

*Bannister was a decent person and a respected attorney, but he tended to think a bit too much of himself. Carpenter viewed him as an impractical academic. He had matriculated with Hoover at Stanford and received a law degree from Harvard. Compared to Carpenter's pioneer rural upbringing*
and hands-on water experience, Bannister’s background was urban and privileged. He was a bookish intellectual who liked to boast of his association with the writer, Hamlin Garland.

Bannister, oddly, supported the Swing-Johnson bill. He told the House Committee, "passage of the Swing-Johnson bill was essential to the upper basin and we will derive practically as much benefit from it as California." Bannister also espoused a radical plan "to bring Arizona to its knees" in compact negotiations.

It was a little strange when the Colorado Bar Association asked Governor Shoup to appoint a 10-man committee, headed by Bannister, to assist the CRCC "in effecting an equitable and fair distribution of waters originating in Colorado and flowing into neighboring states." Bannister went to Santa Fe in this capacity, as an observer of compact discussions.

The long train ride to Santa Fe and the drive by auto to nearby Bishop's Lodge, with Bannister on board, probably did little to calm Delph Carpenter's anxiety.

When the compact commissioners and their advisors were settled in Santa Fe, Carpenter made it clear to Norviel and Arizona Senator Carl Hayden that he was still in charge as Colorado's commissioner and that Bannister was not his legal advisor, nor was he Colorado Gov. Sweet's representative.

Daniel Tyler: "Governor Sweet was in Carpenter's corner. He chastised Bannister for proceeding along a 'radically different line from ... Carpenter.' And when Bannister revisited a plan to bring Arizona to its knees, Sweet made clear the importance of first seeking Carpenter's opinion.

"But Bannister marched to his own drummer, and he was immune to Carpenter's view of him as a 'medler' and 'rank outsider', with no apparent sensitivity to local state affairs. He was constantly 'butting-in' where he was not wanted."

It was a historic meeting of the CRCC at Bishop's Lodge.

Carpenter suffered body pains during the last weeks of compact negotiations. He became so weak sometimes that an assistant had to receive his whispered suggestions and translate them to the other compact commissioners. But Delph found strength, during the final hour of CRCC deliberations, to address the group with much passion.

Delph said each commissioner had contributed to the final compact plan. Most of all, "Our chairman is due the greatest measure of credit for making possible this successful conclusion."

Then the commissioners unanimously adopted the Colorado River Compact. They scheduled a formal signing that evening - November 24, 1922 - in the historical Palace of the Governors in Santa Fe.

* * *

The compact would not become law until it was ratified by the basin states and approved by Congress.

Delph Carpenter was only 45 years old, but compact negotiations had exhausted him. His illnesses had become more severe. Fatigue. Speech problems. Frequent pain in
Delph had every reason to retire, recover his health, enjoy his status as a revered negotiator of interstate water compacts. As the Father of the Colorado River Compact. He couldn't stop. Not until the compact was ratified. He brushed aside his health problems and led the long struggle for compact ratification that lasted nearly six years. Ratification was not the formality many had expected. Unanticipated battles surfaced. The strangest opposition to ratification in the upper basin - ironically - was in Colorado. Influential Congressman Edward Taylor expressed doubts about the compact. Carpenter was vulnerable to attacks on his water supply estimates. He insisted there was plenty of water in the Colorado River. He said Western Slopers had nothing to fear, because "Colorado cannot divert 5 percent of its portion of the river flow to regions outside the river basin."

Wrong again! Delph Carpenter was a great negotiator of interstate water compacts, but he had no understanding of Colorado River water supply. But - who did, in 1922?

Colorado's ratification became doubtful when controversy raged over certain key provisions of the compact. Delph didn't need that - big trouble in his own backyard.

Carpenter had to call in most of his Washington chits to obtain ratification by his own state. Herbert Hoover sent Delph a letter in February 1923, confirming his (Carpenter's) interpretation of the compact and supporting his objection to adding a preamble or interpretive clause to the compact, which Taylor wanted.

Hoover also sent Clarence Stetson, executive secretary of the CRCC, to Denver to lobby the state legislature. Interior Secretary Hubert Work strongly supported Carpenter and urged "prompt ratification ... without preamble or reservation." Taylor and his Western Slope friends finally relented and agreed to support ratification.

Colorado was the last of the upper basin states to ratify the compact. Nevada became the first lower basin state to ratify, in January 1923.

Arizona would not ratify the compact. California was confident and arrogant. It wanted quick passage of its Swing-Johnson bill, so that construction could start on the big dam and the All-American Canal, both to be built with federal funds.

In spring 1928, with congressional action on the Swing-Johnson bill likely, Carpenter acted quickly. He sent three proposed amendments to Colorado Senator Lawrence Phipps and asked him to get them added to the Swing-Johnson bill.

The first amendment provided that no dams could be built on the Colorado River until the compact was ratified by the seven basin states.

The second amendment provided that if the seven basin states failed to ratify the compact during the year following enactment of Swing-Johnson, a six-state compact could be proclaimed to be in force by the president of the United States, providing one of these states was California.

The third amendment mandated that California limit its annual diversion of Colorado River water to 4.4 maf.

These proposed amendments, with minor changes, were incorporated into the Swing-Johnson bill, which became the Boulder Canyon Project Act.
the power contracts.

The permit for the proposed power plant at the big dam on the lower Colorado would be awarded by the FPC - the Federal Power Commission. The power contracts would be awarded by the secretary of interior.

The FPC, created in 1920, had functioned mainly as a clearinghouse for issuing routine power plant permits. But in 1924, seeing an opportunity to become a player in the big stakes Colorado River hydroelectric power game, the FPC indicated an intent to issue a permit for the big dam's power plant on the lower Colorado, over objections by upper basin states.

It was the FPC's threat, along with California's Swing-Johnson bill, that inspired Delph Carpenter to develop the three amendments to Swing-Johnson. It seemed to be the only way to deter the FPC from complicating the ratification process.

Carpenter then became deeply involved in the wording of the power contracts, which Secretary Wilbur would issue to qualified applicants. Delph insisted on equity, with one-third of the hydroelectric power going to each of the three lower basin states. He drafted an article to be included in future FPC licenses on the Colorado River and its tributaries. Permittees would agree that their use of water for hydroelectric power production would at all times be "subject to, and controlled by, the Colorado River Compact."

Carpenter then received help from an unexpected source - Ward Bannister! Bannister went to Washington to persuade Secretary Wilbur that Carpenter's draft article was, as Daniel Tyler later reported, "a logical and equitable method of assuring the upper basin that a federal power permit remained subject to the states' right to utilize water for agricultural and domestic purposes.

"Secretary Wilbur accepted the article and assured Carpenter that it would be inserted in all future permits."

It was a remarkable about-face for Bannister. He had been very angry with Delph because he had refused to support the Swing-Johnson bill prior to compact ratification. Ward had undermined upper basin water policy in testimony before congressional committees in Washington. Bannister's interference had been destructive. Some called it sabotage.

But Bannister finally changed, as Daniel Tyler reported in Silver Fox:

Overcoming jealousies and recognizing common interests, the two men began to show intermittent signs of cordiality. Progressing to formal expressions of adulation, they succeeded in developing a genuine friendship.

In order to obtain passage of the Boulder Canyon Act in December 1928, California had to make three important concessions:

First, it had to agree to make the Colorado River Compact, by amendment, part of the Boulder Canyon Project Act.

Second, California had to agree to make the compact operative with ratifications by six of the seven basin states, without ratification by Arizona.
Third, California had to agree to this lower basin apportionment of compact water supply at Lee's Ferry: 4.4 maf and half of the Colorado's surplus to California; 2.8 maf and half of the surplus to Arizona; all of the Gila water to Arizona; and 0.3 maf of the Colorado to Nevada.

By agreeing to these concessions, California obtained passage of the Boulder Canyon Project Act. Two months later, the California legislature ratified the six-state Colorado River Compact. Congress approved it and President Herbert Hoover declared the Boulder Canyon Project Act to be in effect.

Delph Carpenter's work was completed.

Herbert Hoover, during his first year as president, took time to write to Delph Carpenter: "The compact was your conception and your creation. And it was due to your tenacity and intelligence that it succeeded. I want to be able to say this, and say it emphatically, to the people of the West."

Hoover was not able to pay tribute to Carpenter at the most appropriate time - the dedication of Hoover Dam in 1935. The Roosevelt administration was in charge and Interior Secretary Harold Ickes did not even invite Hoover to the dedication celebration. Later, Ickes launched a campaign to change the name back to Boulder Dam. The Truman administration formally reestablished Hoover Dam as the official name.

The Great Depression sank President Herbert Hoover's reputation in a sea of joblessness, hopelessness and political angst. Delph Carpenter's contributions also dropped out of sight, as Daniel Tyler explained:

*Carpenter's contribution to the compact and the ratification process, about which Herbert Hoover felt very deeply, suffered by association. Except for his name on a commissioner's plaque at the dam, nothing educates the public about the Coloradan's part in making the dam possible."

*Fewer people understand the synergy created by Carpenter's close working relationship with Hoover that carried the compact through nearly ten years of ratification struggles to legislative recognition of the Boulder Canyon Project Act.*

In 1943, when Carpenter was lying in his bed in Greeley, former Colorado Governor Ralph Carr offered a tribute to him in an address at the National Reclamation Association's convention in Denver. His opening words:

*Wherever water users have settled their differences over river flows without expensive and prolonged litigation, they owe a debt of gratitude to the man whose efforts, more than those of any other individual, have pointed the way.*

Governor Carr closed his address by predicting "the name of Delph Carpenter will live as long as our civilization persists and the snows which make the rivers of the West fall upon the silver topped Rocky Mountains."
Delphus Emory Carpenter died in Greeley in 1951. He was seventy-four. Do any of Colorado's historians, other than Daniel Tyler, remember him?

* * *

The Colorado River Compact was the foundation of a legal structure now known as the *Law of the River*. These legal building blocks would be added later:

- The Boulder Canyon Project Act
- The Mexican Treaty
- *Arizona v. California*
- The California Guarantee
- The Upper Colorado River Basin Compact
- The Colorado Rim Storage Project Act
- Federal environmental legislation

Construction on the Boulder Canyon Project couldn't start until power contracts were signed that guaranteed project repayment. The newly appointed secretary of the interior, Ray Lyman Wilbur, was slowed by controversy over interpretation of the Boulder Canyon Project Act and by controversy over use of the All-American Canal.

Finally - in 1929 - Wilbur decided he couldn't continue to delay construction of Boulder Dam. He called for applications for federal power contracts, which would repay much of the dam's cost. Applicants, he said, could not contract for power unless they also contracted for water from Lake Mead, behind Boulder Dam.

Was that legal?

Not really. Not at that time.

The Metropolitan Water District of Southern California - the MWD - contracted with Secretary Wilbur for water and power contracts. Wilbur stated publicly that the contracts had no bearing on Colorado River Compact water allocations.

MWD's water contracts eventually led to California's diversions of Colorado River water totalling more than 5.3 maf annually - more than 960,000 acre feet above the 4.4 maf limitation in the Boulder Canyon Project Act.

Arizonans reacted bitterly. They complained that the secretary, a Californian, favored California. Wilbur tried to cover his exposed backside. He included a provision in the water delivery contracts stating that they were subject to all terms and conditions of the Colorado River Compact and the Boulder Canyon Project Act.

Wilbur was in deep, murky legal water. How could he assign ownership to contract water released from storage in Lake Mead, behind Boulder Dam?

Construction of Boulder Dam by USBR started in July 1930 and was completed ahead of schedule in May 1935. It was an unequalled engineering achievement. The dam cost $70.6 million, the power plant $38.2 million. Interest during construction cost $17.7 million. Total project cost - about $165 million.

Euphoria reigned in California. Western writers rhapsodized about the big dam. Frank Waters called it "a visual symphony written in steel and concrete ... inexpressibly
beautiful of line, magnificently original, strong, simple, and majestic as the greatest works of art of all times and all people."

* * *

In 1935 a U.S. Supreme Court decision and an act of Congress allowed construction to begin on Parker Dam, which would regulate diversions of Colorado River water into the Colorado River Aqueduct. Arizonans were furious. Governor Benjamin Moeur called out the Arizona National Guard to prevent construction of Parker Dam.

Parker Dam site was located about 150 miles below Hoover Dam and 18 miles from Parker, Arizona, where the guardsmen commandeered a ferry boat. It was facetiously called Arizona's Navy.

Moeur issued a proclamation "To Repel an Invasion." The press treated the whole thing as a joke. Nevertheless, a state taking up arms to halt a construction project undertaken by another state (MWD contributed to the cost of Parker Dam) and the federal government was unprecedented. Potentially serious. But the stunt delayed construction of Parker Dam for a year. It also pressured Congress to approve Arizona's Gila Irrigation Project east of Yuma.

Finally, Arizona withdrew its machine gunners and infantrymen. Mission accomplished.

Never before had so much money been poured into such a small area. Boulder Dam and power plant; Parker Dam and power plant; Colorado River Aqueduct; All-American Canal. Total cost $425 million. A bonanza for California. With federal help, it was securing a foothold in Colorado River water supply.

Would California use its foothold on the Colorado to exploit the unwritten law of the river - Take all you can get and never let it go?

* * *

Mexican irrigators looked at their depleted source of water in the Colorado River. In April 1943 they appealed to Mexico's president and told him about their pending agricultural ruin. They asked him to do something to save their irrigated lands.

The president responded. He demanded 3.6 million acre feet annually from the Colorado River. The United States offered 750,000 acre feet, the maximum Mexico had used up to that time. There was deadlock. Eight years passed. Negotiations broke down. The International Boundary Commission gave up and the U.S. State Department tried its hand. A consensus was finally reached and the Mexican Treaty was signed on February 3, 1944. It guaranteed Mexico 1.5 maf annually from the Colorado, plus 200,000 acre feet in years of water surplus.

Most analysts believe that the lower basin must provide half of the treaty water to Mexico, with the upper basin providing the other 0.75 maf. Arizona thinks the lower basin's 0.75 maf should come from California's use of water above its allotted 4.4 maf. In recent years California has been diverting 5.2 maf.

The 1944 Mexican Treaty did not mention water quality.
Arizona refused to ratify the Colorado River Compact until 1944. Then it was ready to pursue congressional authorization of its long-proposed Central Arizona Project.

Opposition developed quickly. Arthur Carhart, an early enviro who later became well known in Colorado, said the Central Arizona Project, if authorized, would be a "big, fat handout to those boomers who gambled and mined water and, when they had squandered their wealth, turned to Uncle Sugar to perpetuate them in their exploitation."

Congress, influenced by California, did nothing, claiming it could not act until the U.S. Supreme Court resolved the quarrel between Arizona and California over Colorado River water allocations.

Arizona had tried to bring the controversy over allocation of lower basin water supply to the U.S. Supreme Court on three different occasions during the 1930s. The high court dismissed the suits because Arizona had not ratified the Colorado River Compact.

In 1953, the Supreme Court agreed to hear Arizona's complaint. The case was so complex a special master had to be appointed. The first special master died. Some said he died of frustration. Others said he was removed by some other higher authority. Whatever. Arizona v. California finally began on June 14, 1956 before Special Master Simon Rifkind.

It was one of the longest lawsuits in the history of the U.S. Supreme Court - 132 trial days. Rifkind heard 22,593 pages of testimony from 105 experts who offered 4,000 exhibits. Nearly 50 attorneys examined and cross-examined the witnesses.

California had sixty people working on the case outside of the courtroom. Northcott Ely, California's lead attorney, perfected the art of dilatory obfuscation. His delaying tactics are still studied by law students.

The case was very hard on Rifkind. Ely's delaying tactics, the long commute from New York to San Francisco, endless boring testimony, endless legal arguments. Midway through the trial Rifkind had a heart attack. He returned later and the trial ended on August 28, 1958.

Rifkind issued a draft report two years later. The U.S. Supreme Court accepted Rifkind's ruling and issued its opinion on June 3, 1963 - ten years after it accepted the case.

It was a stunning victory for Arizona. California did not expect to lose the case. It had the West's most famous water attorney - Northcutt Ely. It had all those other attorneys, engineers and specialists. How could it lose?

It could, and it did!

Interior Secretary Wilbur's shaky legal ground, on which he stood in 1929 when awarding the Lake Mead water and power contracts, had suddenly become rock solid, thanks to the U.S. Supreme Court.

The Arizona v. California decision was another important building block in constructing the Colorado's Law of the River. It upheld the Secretary of the Interior's actions in selling contracts for water and power to California, Arizona and Nevada, under authority of the Boulder Canyon Project Act. Those contracts apportioned the water in the lower basin - 4.4 maf for California, 2.8 maf for Arizona and 300,000 acre feet for Nevada.
- all mainstream water stored in Lake Mead.

Gila water belongs to Arizona. It is not included in Arizona's 2.8 maf allocation.

The U.S. Supreme Court held, for the first time, that Congress has authority to apportion rights to interstate rivers and that Congress could delegate that power to the Secretary of the Interior. This was an extraordinary thing for the Supreme Court to do - to essentially delegate to one person the power to apportion a river.

* * *

With Arizona v. California settled, Arizona could now proceed to get Congress to authorize its Central Arizona Project. Could it - really?

Thomas E. Sheridan, in his book, Arizona, explained the political problem:

During the next five years, the fight over CAP authorization degenerated into blatant pork barrel politics. On one side were Secretary of the Interior Stewart Udall; Arizona's five-member congressional delegation led by Carl Hayden, chairman of the Senate Appropriations Committee; and Hayden's close friend, Floyd Dominy, the cigar-chomping, woman-chasing head of the Bureau of Reclamation.

On the other side were the forty-two-member California delegation, congressman Wayne Aspinall (D-Colorado), Senator Henry Jackson (D-Washington), and a growing army of environmentalists marshaled by David Brower and the Sierra Club.

It was the only time Wayne Aspinall would agree with California, David Brower and the Sierra Club on anything.

California lost the Arizona v. California war, but it now had Arizona over the CAP authorization barrel.

In Arizona v. California, Special Master Rifkind decided that if there were not enough water at Lee's Ferry to provide the 7.5 maf to the lower basin, the flow would be apportioned according to these percentages: 44/75 to California, 28/75 to Arizona and 3/75 to Nevada. The Supreme Court agreed that this method seemed "equitable on its face" but added that the choice among recognized methods was up to the Secretary of the Interior.

The method was determined - to the detriment of Arizona - in 1968. In order to get California's vote for authorization of its CAP, Arizona had to agree to ignore Rifkind's plan for prorata sharing of compact water shortages and guarantee California the first 4.4 maf passing Lee's Ferry. Marc Reisner in Cadillac Desert:

As far as California was concerned, there would be no equitable sharing of shortages, no across-the-board cuts in times of drought. In fact, what it was really asking was a legislative reversal of the lawsuit it had lost in the Supreme Court.
It was an outrageous demand from Arizona's point of view, and few believed that its congressional delegation would swallow it. But, in the end, they did.

Legislative reversal of the lawsuit California lost before the U.S. Supreme Court? A guaranteed water supply of 4.4 maf annually for California? Impossible! Absolutely impossible!

But Arizona's junior representatives on the House Interior Committee were no match for California's five committee members and John Saylor. And that is where the battle was decided. Arizona's House Interior Committee members were shamefully bullied and forced to yield, reluctantly.

Another building block had been added by California to the Law of the River. It became known as the California Guarantee.

There was blood on it - Arizona blood. Careful inspection might reveal traces of blood from the tired, righteous body of Simon Rifkind.

* * *

The Upper Colorado River Commission consists of one representative from each of the four upper basin states and one from the federal bureaucracy. In 1948 they met at the Palace of Governors in Santa Fe and signed the Upper Colorado River Basin Compact.

After giving the northeastern corner of Arizona 50,000 acre feet annually, it allocated the upper basin's allotment of 7.5 maf annually at Lee's Ferry: 51.75 percent to Colorado, 23 percent to Utah, 14 percent to Wyoming and 11.25 percent to New Mexico. Congress approved the compact in 1949.

The Colorado River Storage Project bill was introduced in Congress in 1953. It was conceived by USBR during its aggressive period in the late 1940s. Its authorizing legislation was introduced a few days before President Eisenhower's inauguration.

It was big, big, BIG! There would be five cash register (power) dams on the Upper Colorado and its tributaries. Flaming Gorge on the Green River in Wyoming. Echo Park on the Green in the northeastern corner of Colorado, below the mouth of the Yampa. Two in Curecanti on the Gunnison in Western Colorado. Glen Canyon in Arizona, just above Lee's Ferry, about 400 miles above Hoover Dam. Plus two dams - Bridge Canyon and Marble Canyon - at the upper and lower ends of the Grand Canyon - for the Central Arizona Project.

Plus five irrigation projects in Western Colorado that Colorado Congressman Wayne Aspinall insisted on including.

Before we go any further, let's talk about Wayne Aspinall - the man and the politician. He was Colorado's most influential water politician during the 1950s and 1960s.

Wayne Aspinall - Mr. Chairman - the man from Palisade. He is a Colorado legend. He would have an honored place in Colorado's Water Hall of Fame - if we had one.

Wayne Aspinall served 16 years in the Colorado Legislature and 24 years in Congress - the last fourteen as Mr. Chairman - chairman of the very powerful House
Wayne Noviel Aspinall was born in Ohio in 1897. When he was eight his family moved to a 10-acre farm in peach orchard country near Palisade on Colorado's Western Slope. It was a small town on the Colorado River southeast of Grand Junction.

Wayne had an inherent ability to control people and events. It first surfaced in seventh grade, when he was elected to a class office. He would later say, "I knew how to handle a meeting from the time I was in seventh grade when they taught Robert's Rules of Order and I learned how to handle a gavel."

As a teenager, Aspinall worked in his family's peach orchards. In 1912, when he was 16, he supervised eight or nine girls who worked in his father's packing shed. As boss of the packing shed he taught the girls how to pack peaches for shipping in boxes that Wayne made. This motto was posted in the Aspinall packing shed: Work Like Helen B. Joyful.

Aspinall attended Denver University briefly, until he left for service in World War I. He returned to DU in 1922, was elected student body president and earned a law degree.

In the late 1920s, Aspinall taught high school classes in Palisade - history, civics and English. He also drove the school bus. He later said, "I enjoyed teaching more than anything I have done."

Wayne was elected to the Colorado House of Representatives in 1930 and was House Speaker in 1937-38. He was elected to the Colorado Senate in 1938, 1942 and 1946. His legislature service was interrupted by service in World War II as a captain in the U.S. Army.

Aspinall, after the war, became a water lawyer in Palisade. His legal work was interrupted each year by service in the legislature. He thought it would give him a good shot at becoming governor of Colorado.

He never got the opportunity.

When his friend and mentor, U.S. Congressman Ed Taylor, died in 1941, Aspinall decided to run for that office at some future time. His opportunity to represent Colorado's Fourth Congressional District - its biggest - came in 1948, mid-way through his third state senate term. He challenged and defeated incumbent Robert Rockwell of Paonia, who had succeeded Ed Taylor.

It was the beginning of a congressional career that would span two decades. But - after his election to Congress, Aspinall would cast backward glances at Colorado's governor's mansion.

Many years later, Wayne recalled, "I was fifty-two years old when I went to Congress. That's a time when most American's today are thinking of retirement years. I had wanted to be governor, and maybe I continued to want that for a few years into my congressional career. But by my mid-50s, I had concluded that my responsibility in life, my destiny's own demand, was to be a congressman. I would be as good a congressman as I could be."

Aspinall was much more than a good congressman. He was outstanding! His 14-year reign as chairman of the House Interior and Insular Affairs Committee made him the most powerful Coloradan ever to serve in Congress. His gavel presided over debates about
public land policy that resulted in important laws adopted in the 1960s, including the Wilderness Bill, passed in 1964. And the Colorado River Storage Act passed in 1956.

Wayne Aspinall was much more influential than any Colorado governor, before or since his time. He is remembered mostly for his work in passing the Colorado River Storage Project Act that included Glen Canyon Dam and Lake Powell. He is also remembered for preaching multiple use of public lands.

Blue Mesa Reservoir on Colorado's Western Slope, and two others are collectively called the Wayne N. Aspinall Unit of the Colorado River Storage Project.

Aspinall was defeated in the 1972 primary election by Allan Merson, who was defeated in the general election by Jim Johnson, a Republican from Fort Collins. Johnson sponsored legislation that resulted in creation of the Eagles Nest Wilderness in Eagle County. It has caused major rights-of-way problems for Denver, Aurora and Colorado Springs water projects. Merson later became EPA's regional administrator in Denver.


* * *

Back now to 1953, when the Colorado River Storage Project Bill was introduced in Congress. The next step would be congressional authorization and appropriations.

Congressional opposition developed quickly. The most effective opposition initially came from Senator Paul Douglas of Illinois. He was a former economics professor at the University of Chicago. In a series of memorable debates on the Senate floor, Douglas attacked CRSP's hydroelectric power costs.

Douglas said the power features of the Colorado River Storage Project were not its worst aspect, but its best. The worst, by far, was its irrigation projects. Particularly Wayne Aspinall's five pet projects.

Aspinall insisted that five irrigation projects in Western Colorado be included in the Colorado River Storage Project bill, along with six other reclamation projects in other upper basin states. Aspinall's Colorado five were Animas-La Plata, Dolores, San Miguel, Dallas Creek and West Divide.

Pure pork many said, including Marc Reisner in Cadillac Desert:

*The five Colorado projects - which could easily add a cool $1 billion to the cost of everything else - were an object lesson in the workings of the congressional pork barrel. They were put into the bill at the insistence of Wayne Aspinall, the black-eyed former school teacher with a testy principal's disposition, who had climbed from a little western Colorado town to become the chairman of the House Interior and Insular Affairs Committee.

Aspinall distrusted urban, expansionist California with all the recondite loathing of a small-town mind, and he didn't trust Arizona much more. The
over-allocated river ran right under the window of his expensive home on Aspinall Drive in Palisade, Colorado, and he figured that Colorado had better extract every drop of its rightful share or California and Arizona would take it and never give it back. If the CAP was to get past the chairman of the House Interior Committee, Colorado was going to be satisfied first.

By Colorado, Aspinall meant Western Colorado - Colorado II as Glenn Saunders saw it. As much as he hated urban expansionist California and Arizona, he hated the urban expansionist Denver Water Board even more.

Reisner recalled an interview with Felix L. (Larry) Sparks in 1979. He was director of the Colorado Water Conservation Board and came from the Western Slope. This is what he told Reisner:

*This business of federal reclamation subsidizing irrigation water is absolute, unmitigated crap. Twenty years ago we already saw urbanization as inevitable. So I looked around for a place where we could keep a viable agricultural industry going.*

*We didn't want to let cities and industry have the water. We picked those projects on the basis that it would be impossible, physically impossible, for Denver to get its hands on that water.*

Let's pause again briefly to tell the Felix Sparks story. Felix Larry Sparks is one of the old water buffalos who fought courageously and well in Colorado's water battles in the 1960s to 1980s. He was - and still is - a remarkable man.

Sparks - his friends call him Larry - was born in Texas in 1917. After high school he enlisted in the U.S. Army. After his army tour he attended college and completed a year at the University of Texas law school.

Sparks was called back to active duty in the army as a 2nd Lieutenant. He quickly advanced to Lt. Colonel and commanded troops that helped liberate the German concentration camp at Dachau. In the battle for Anzio, Italy, Sparks was the only man in E Company to walk off the field.

Sparks won the Medal of Honor for storming a machine gun nest single handed, armed with only a sidearm and hand grenades.

Larry attended C.U. law school after his army discharge. He helped organize the Colorado National Guard while attending the University of Colorado. He later formed a law partnership in Delta and was elected district attorney. In 1956, Governor Ed Johnson appointed Sparks to fill an unexpired vacancy on the Colorado Supreme Court.

Life of a Supreme Court justice probably was a little too tame for a man like Larry Sparks. He did not seek reappointment after completing his term on the bench. He was appointed attorney for, and later director of, the Colorado Water Conservation Board.

Sparks was recalled into the army again in 1961 with a rank of Colonel. He served
as an artillery group commander during the Berlin and Cuba crises. When he returned to Denver he was appointed to fill the unexpired term of the first director of the Colorado Department of Natural Resources, Dr. Clark. Then he returned to his former position as CWCB director. He also served as commander of the Colorado National Guard with the rank of Brigadier General.

In *Cadillac Desert*, Marc Reisner called Sparks choleric and intertemperate. For those of us who have to ask Webster the meaning of choleric, it means "irascible, characterized by anger." Reisner also wrote, "According to those who knew him, he was not afraid of God, man, or the devil. He was also stubborn, vindictive, and a bully. But in Colorado, where water was concerned, he was king."

Larry Sparks was not afraid of Glenn Saunders, who once told Sparks in a meeting, "You are the bravest man I know, but you are also the dumbest." Sparks was not dumb. He was, and still is, quite a man!

*        *        *

In order for Aspinall to obtain congressional approval for his five sacred pork projects in the authorizing bill for the Colorado River Storage Project, he had to support Senator Carl Hayden's proposed Bridge Canyon and Marble Canyon dams. They had only one purpose - to provide hydroelectric power to pump water up into the proposed big canal for the Central Arizona Project and to provide power revenue to help build the project.

Bridge Canyon Dam, at the lower end of Grand Canyon National Monument, would back water up 93 miles in the monument. Just above its high water line would be Marble Canyon Dam. It would back water up another 40 miles.

The enviros were angry. Flood the Grand Canyon? *Would you also flood the Sistine Chapel so tourists can get nearer the ceiling?* USBR's spokesmen had said tourists would better appreciate beauties of the Grand Canyon from a motorboat.

The proposed Grand Canyon dams became the coming-out party for enviros in the West. David Brower and the Sierra Club led the fight to protect the Grand Canyon - Sistine Chapel of the West. USBR's Dan Dryfus, in charge of planning water projects like the central Arizona, told Marc Reisner, "I never saw anything like it. Letters were arriving in dump trucks. Ninety-five percent of them said we'd better keep our mitts off the Grand Canyon."

Chairman Aspinall and his House Interior Committee had to remove Bridge Canyon and Marble Canyon Dams from the Colorado River Storage Project authorization bill.

Then the enviros turned their big guns on the CRSP's proposed Echo Park Dam. It would be built in Dinosaur National Monument on the Green River, three miles east of the Utah-Colorado border.

The monument was described as "a rugged wilderness of deep canyons, dissected erosional benches and bold promontories." USBR engineers saw it as a wonderful dam and reservoir site.

The monument's roots date back to 1909, when dinosaur skeletons were discovered in the area. They became protected in 1915 when President Woodrow Wilson set aside 80
acres where the skeletons had been found. He designated the area as a national monument. President Franklin Roosevelt enlarged the monument to 209,144 acres in 1938.

The Sierra Club initially had little interest in the remote Dinosaur National Monument and the proposed Echo Park Dam - until David Brower became interested in it.

Brower became executive director of the Sierra Club in 1952, when it had a membership of 6,000 and an annual budget of $75,000. He was its only paid employee.

Brower had limited people skills, but he was hard-driving, courageous and tenacious. He and a handful of preservationists brought about the biggest defeat the western water lobby had ever suffered - the defeat of proposed Echo Park Dam - CRSP's Achilles' heel.

It wasn't easy. It was done by a series of carefully planned steps. First, Brower prepared a Sierra Club booklet titled, *This Is Dinosaur - The Echo Park Country and Its Magic Rivers*. Wallace Stegner edited the text and wrote the introduction. Alfred Knopf published the book in January 1955.

Knopf was a New York publisher with an environmental conscience. He was chairman of the Interior Department's advisory board on national parks. The National Park Service and USBR were both Interior Department agencies - siblings who did not like each other.

Knopf had clout and he knew how to use it. He made sure that Brower's large book on Dinosaur and Echo Park Dam rested comfortably on coffee tables of the nation's rich and powerful.

*This Is Dinosaur* was a big success. Copies were sent to every member of the House and Senate, to every newspaper editor in the West and to high level people at Interior. Bernard DeVoto wrote an angry article for the *Saturday Evening Post* titled, "Shall We Let Them Ruin Our National Parks?" *Readers Digest* condensed and reprinted DeVoto's article.

Millions of Americans suddenly became aware of a little national monument out there in the West - *Dinosaur* - that a big federal dam builder - something called the Bureau of Reclamation - was trying to destroy. Some were beginning to call USBR the *Bureau of Wreck the Nation*.

Publications of the Wilderness Society, Audubon Society, Izaak Walton League, Wildlife Federation, and the Sierra Club encouraged their members to write letters to their congressmen. By January 1954, when the House Subcommittee began its hearings on the Colorado River Storage Project, it was receiving hundreds of angry letters daily. They were aimed at Echo Park Dam, rather than at the much more important CRSP and its proposed Glen Canyon Dam.

Brower led the fight against Echo Park Dam using USBR's favorite weapon - *statistics*. "Lies, lies and damned lies," Brower shouted, using Disraeli's famous quote.

USBR reacted to Brower's charges with contempt, after he admitted he had only made it through ninth grade. But Dave had an amazing ability to marshall facts. He had been secretly coached by Walter Huber, president of the American Society of Civil Engineers. His facts were supported by General Grant, head of the Army Corps of Engineers.

USBR's facts stretched the truth to the breaking point. Sometime later a group of
engineers presented USBR's regional director in Salt Lake City with a symbolic award - a rubber slide rule - for his work in stretching the truth about Echo Park Dam.

Aspinall had a problem. The CRSP bill was secure in the Senate, but it was vulnerable in the House, where the West's influence was weak.

David Brower and other leading enviros formed a confederation called the Council of Conservationists to focus on Echo Park. They were in the midst of negotiations with Aspinall in late October 1955 when they heard about the scheduling, by their adversaries, of a secret meeting in Denver.

The meeting would try to develop a strategy to pass the CRSP bill. Governors, congressmen and water board members from upper basin states would attend. The strategy that evolved was to try to pass a House bill without Echo Park, pass a Senate bill with Echo Park, then make sure that the Senate bill prevailed in conference. Sound strategy, except they did not anticipate Howard Zahniser.

Howard Zahniser was a key member of the recently formed Council of Conservationists. He had deep pockets and a passion to exclude Echo Park Dam from the CRSP bill. Zahniser flew to Denver and placed a full-page open letter in the October 31, 1955 edition of the Denver Post.

Zahniser's open letter stated that if Echo Park Dam was not irrevocably deleted from the CRSP bill, conservationists would launch an all-out attack against the Colorado River Storage Project.

The Echo Park Dam controversy threatened to doom the entire Colorado River Storage Project. Chairman Aspinall was forced to remove it from the CRSP authorization bill. And - a bitter pill - he had to insert this language into it: *No dam or reservoir constructed under the authorization of this act shall be within any national park or monument.*

David Brower won the Echo Park battle and it launched his career as leader of the nation's environmental movement. USBR acknowledged it. "He licked us," its leaders said. "He had all the emotions on his side. He did it singlehanded."

Not singlehanded, but - close enough.

The battle over Bridge Canyon, Marble Canyon and Echo Park dams was a battle for the soul of the West. It was a high point in the modern preservation and conservation movement. It essentially ended the *Big Dam Era* and it led to the defeat of Two Forks Dam.

President Eisenhower signed the CRSP Act into law on April 11, 1956. Victory for David Brower and the Sierra Club! But it wasn't a complete victory for Brower. He had been so focused in defeating Echo Park Dam and the Grand Canyon dams that he had overlooked *Glen Canyon Dam*, still a major part of the CRSP. It was an oversight that would torment him for the rest of his life.

* * *

The Colorado River Storage Project Act authorized Glen Canyon Dam and the other big power dams: Flaming Gorge on the Green, Navajo on the San Juan and the Two Curecantis on the Gunnison. Plus eleven irrigation projects including Wayne Aspinall's
coveted five: Animas-La Plata, Dolores, San Miguel, Dallas Creek and West Divide.

Only two of Aspinall's five Colorado pork barrel projects have been constructed - Dolores and Dallas Creek. Construction of Animas-La Plata began in 2002, under a dark cloud of ridicule.

A-LP was planned as a big project when Congress authorized it in 1956. The Animas and La Plata rivers are tributary to the San Juan, which flows into the Colorado in southwestern Colorado. The original plan would pump about a fourth of the flow of the Las Animas over the watershed divide into the La Plata drainage, to irrigate 50,000 acres and provide supplemental irrigation water to another 20,000 acres. Estimated cost more than $750 million. Pumping costs would be horrendous.

Prolonged negotiations, lawsuits and congressional actions have completely changed the original plan. The final compromise, pushed successfully in Congress by Colorado Senator Ben Nighthorse Campbell, will take about a third as much water from the Animas as originally planned and nothing from the La Plata. None of the water will go to irrigation.

A-LP's estimated cost is now $500 million. Some think it could reach $1 billion with customary 300 percent overruns. About half of the water supply will be used to settle water claims of the Southern Ute and Ute Mountain tribes. The other half will go to towns in Colorado and New Mexico, including Durango and Farmington.

Why?

Why should Congress spend more than $500 million of our money to build a water project known locally as Jurassic Pork? To benefit less than 3,000 Ute Indians in Southwestern Colorado, who are fabulously wealthy. Whose investment portfolio is worth more than a billion dollars, derived from gas and gaming revenues. Who already control more than 150,000 acre feet of water in the Colorado River Basin. Why give them 70,000 more acre feet?

Why?

Wayne Aspinall should have heeded that old maxim, Be careful what you wish for. You might get it!

* * *

I have a special feeling about Glen Canyon Reservoir. The anxiety of a few water men about operating criteria for this reservoir in the late 1950s is what started the Colorado Water Congress and my involvement in it.

You can't travel far along the historical path leading to Glen Canyon without encountering two strong men who shaped Colorado River water history - David Brower and Floyd Dominy.

David Brower defined the nation's environmental movement for three-quarters of a century. His passionate opposition to dams sparked the "No-More-Dams" movement in the West that led to the defeat of Two Forks. Largely due to his efforts three important dams had to be removed from the Colorado River Storage Project. Controversial throughout most of his career, he died a great man in 2000.

Brower was born in Berkeley, California in 1912. His father was a small, stern man
who taught mechanical drawing at the University of California. His mother was a tall, attractive woman who had an advanced degree in American literature. She became blind when Dave was eight, due to an inoperable brain tumor.

Dave fell out of a baby carriage when he was a year old. The hard fall to the pavement smashed his front teeth and damaged his gums. His permanent teeth did not appear until he was twelve. They were crooked and misshapen. His schoolmates cruelly called him the Toothless Boob.

Brower was shy and unsure of himself at age sixteen when he entered the university in Berkeley. He majored in entomology, mainly because he liked butterflies. He was a collector of butterflies and he discovered a new species at age fifteen. Dave found it in the Berkeley Hills, where he went for long walks after school, often leading his blind mother by the hand.

Dave was not happy at the university and dropped out in his sophomore year. He went to the high mountain wilderness known as the Sierra Nevada, where he found peace, quiet and inspiration. It was a place where he could be left alone, where he could find better companions than people - animals, birds, butterflies.

Brower became a backpacker, long before backpacking was fashionable. He cached food and supplies all over the High Sierra and never was unable to locate them later. He returned to Berkeley from time to time, working at odd jobs, until he could replenish his food and supplies and return to the mountains.

After ten years or so of this life Brower served in the famed 10th Mountain Division in World War II.

Brower's idol was John Muir, the largely self-taught naturalist and writer who became the spiritual father of the wilderness movement.

David Brower was greatly influenced by John Muir. He remembered camping with his parents below Hetch Hetchy Dam on his sixth birthday, when it was being constructed. He listened to stories about the Hetch Hetchy battle and John Muir's role in it. Muir became Brower's role model. Dave embraced Muir's mystical feeling about the High Sierra and the need to protect national parks from development.

After Muir's death, the Sierra Club was essentially a hiking club with a membership of 6,000 and an annual budget of $75,000. David Brower was its only employee when he became executive director in 1952. He was virtually unknown.

Brower didn't appear to be particularly well equipped for leadership. He was basically a loner and his people skills were quite limited. He was arrogant at times. T.H. Watkins, in Audubon, described Brower as "dedicated, fearless and self-assured - traits read as autocratic and inflexible by many who have crossed swords with him."

John McPhee, in his book, Encounters With The Archdruid, described David Brower this way:

Brower was a prepossessing figure. He was a tall man. He had heavy bones, thick wrists, strong ankles. And he had a delicate, handsome, ruddy face, its features all finely proportioned but slightly too small, too refined, for the size of his figure, suggesting delicacy. His voice was quiet and persuasively multifluous. He had an engaging smile and flaming white
teeth. He was in his late fifties and he had a windy shock of white hair...
He had some arrogance and he was feisty. He was a battler. He listened to
his own drum.

The battle with USBR over Bridge Canyon and Marble Canyon Dams in the Grand
Canyon started David Brower up the preservation ladder. The battle over Echo Park Dam
propelled him further into public consciousness. Interior Secretary Udall called Brower
"the most effective single person on the cutting edge of conservation in the country."
Brower had been so completely involved in fighting Echo Park Dam and the Grand
Canyon dams that he overlooked Glen Canyon Dam. It's not surprising, because Glen
Canyon, at that time, was one of the most remote, most inaccessible places in the United
States. A dam in Glen Canyon would not endanger any national parks or monuments.
Brower later floated down the Colorado through Glen Canyon and it was then that
he realized that he had made a terrible mistake in overlooking the importance of Glen
Canyon Dam. It devastated him. Brower's friends were afraid he might kill himself. He
later wrote:

_Glen Canyon died in 1963, and I was partly responsible for its needless
dead. So were you. Neither you, nor I, nor anyone else, knew it well
enough to insist that, at all costs, it should endure._

The Sierra Club's enemies were able to use its publicity in killing the three CRSP
dams as an excuse for persuading the Internal Revenue Service to revoke the club's tax
deductible status, which it has never regained. It was a below-the-belt political hit, because
other tax deductible groups, equally effective in influencing legislation, were left
untouched.

The Sierra Club's fund raising slowed so much that bankruptcy threatened. Deeps-
seated antagonism towards Brower developed within the club's membership.

David Brower had transformed the Sierra Club from a small, clubby group of
outdoor enthusiasts into a more than 77,000-member "model of what a national
environmental organization could be and do." The Sierra Club now had assets of $3
million. It probably had blocked, or delayed, at least $7 billion in proposed USBR dam
construction.

But, as all coaches in sports understand, _what have you done lately?_ Dave had
stepped on some important Sierra Club toes. These criticisms were frequently heard: "He
was financially reckless. He had disobeyed the Board's directives. He couldn't take
time. He was unapproachable. He tried to claim all the rights of an individual while
representing an organization."

In 1969, David Brower was removed from his position as executive director of the
Sierra Club. He was subsequently elected, and re-elected, to the club's 15-member board.
He resigned in spring 2000, citing differences between his agenda and the Sierra Club's.
"The world is burning and all I hear from them is the music of violins," David
Brower said. "May the Sierra Club become what John Muir wanted it to be and what I
have alleged it was."
It was David's last shot at the enviro establishment. He died of cancer at his home in Berkeley in November 2000.

The *Denver Post* said farewell to David Brower in an editorial titled, *Farewell to an Archdruid*:

David Brower defined the environmental movement in America for three-quarters of a century. His death at 88 leaves a void where once the conscience of the green philosophy had resided. The man alternately described as visionary and passionate, irascible and impossible propelled the idea of protecting nature into the mainstream of U.S. politics and thought ...

Brower howled against politicians who sold the public's land and resources on the alter of greed and destruction. He criticized fellow conservationists for being too willing to compromise their ideals. He berated the public for being too in love with comfort to make even minor sacrifices on behalf of the planet Y

But, thank heavens, Brower was around to tell us what we needed to hear, that our endless quest to pour more concrete and emit more toxins could, in the end, destroy us.

Brower had grieved because he did not save Glen Canyon from being dammed, flooded and lost under what today is Lake Powell.

But he bequeathed to America passage of the Wilderness Act, which over the years has preserved from development Colorado's Maroon Bells and Indian Peaks, Wyoming's Wind River Mountains, New Mexico's Pecos area and numerous other irreplaceable areas.

Indeed, there are many monuments to Brower, created by nature and left undisturbed by humans. Among them are several national parks: North Cascades in Washington state, King's Canyon in California, and, of course, the Redwoods, also in California.

So it is with both sorrow for the death of a great man and hope for what he represented, that America must say farewell to its archdruid.

* * *

It's a law of physics. For every force there is an equal and opposite force. For every David Brower there is a Floyd Dominy - the best commissioner the Bureau of Reclamation ever had. He served under three presidents and he was the most influential agency head in the post-war era.
Floyd Elgin Dominy was born in Hastings, Nebraska in 1910. His childhood was a bad memory, featuring parents who were constantly fighting each other. As a boy he was very moral, president of his Sunday School class. He was headstrong and impulsive. Most of all, he was self-reliant.

After two years at Hastings Junior College - at age 19 - Floyd secretly married his childhood sweetheart. He worked at various jobs until 1930, when he enrolled at the University of Wyoming, majoring in economics. He became captain of the hockey team and he received a master's degree in 1933 - the worst of times. Depression. Drought.

Jobs were scarce. Dominy got a job as county agent for Campbell County, Wyoming. He built 300 soil conservation dams in the county, ignoring bureaucratic protocol. He said later, in an interview with Marc Reisner (Cadillac Desert) in 1980:

*I was a one-man Bureau of Reclamation. We were moving. I was 24 years old and I was king. Campbell County was my DEMESNE. They still talk about me out there. I saved a lot of cattle from dying and a lot of farmers from going broke.*

Floyd Dominy - always self-confident - had started his climb up the steep bureaucratic hill.

After several federal jobs, Dominy became a land development specialist for USBR - in 1946. It was his start up the USBR ladder. He would climb high, because he had something most USBR engineers lacked - *people skills.* That, along with his experience and energy, would take him far.

Marc Reisner described Dominy's astonishingly fast rise to power in USBR: "From dirt sampler to water lord of the American West took just thirteen years, and he might as well have been commissioner during the last three."

"Like a chess master, Dominy leaped and checked his way to the top, going from Land Development to an entirely different branch, Allocation and Repayment, then sidelong to Operations and Maintenance, to the Irrigation Division and finally to assistant, associate, and full commissioner.

"His strategy was simple. He would settle in a branch with a weak man as chief and learn as fast as he could. Then he would flap up to the ledge occupied by the chief and knock him off...

"Dominy had the instincts of a first-rate miler. He could pace himself beautifully, moving on the margin of recklessness but always with power in reserve. He knew when to cut-off a runner, when to throw an elbow, when to sprint. He knew there was nothing like a grudge to make him run harder.

"If Dominy harbored a longtime grudge, it was against engineers. Away from their drafting tables, he thought, engineers could be inexcusably stupid... They had labored through the trigonometry, the calculus, the chemistry, the topology, and the geology that he had backed away from - the only time in his life he had given up on anything.

"The problem was they couldn't explain their own work or its importance, couldn't understand human relations or couldn't see political problems about to smack them in the face. He could do all of that - brilliantly. Dominy needed them and he knew it, and they
needed him - and didn't know it. It made him furious."

Floyd Dominy, during his 12 years as USBR Commissioner, presided over its most important water and power projects since Hoover Dam - Glen Canyon on the Colorado; Flaming Gorge on the Green; Navajo on the San Juan; Blue Mesa, Morrow Point and Crystal on the Gunnison - all parts of the Colorado River Storage Project.

Dominy's success was largely due to his close relationship with aging Arizona Senator Carl Hayden and Colorado's Representative Wayne Aspinall. Hayden was chairman of the Senate Appropriations Committee - the most powerful man in legislative government. Aspinall was chairman of the House Interior Committee. Reisner said these close relationships "gave Dominy an authority, an insolence, an invulnerability scarcely anyone else enjoyed...

"Dominy despised Stewart Udall, and Udall regarded him like a rogue elephant. Dominy used to come storming out of Udall's office and say, 'Who does he think he is? The Commissioner of Reclamation?'

Reisner described in some detail Dominy's sexual exploits. "It wasn't his blindness, his stubbornness, his manipulation of Congress, his talent for insubordination, his contempt for wild nature," wrote Reisner. "In the end, it wasn't any of this that did Dominy in. It was his innate self-destructiveness, which manifested itself most blatantly in an undisguised preoccupation with lust. His sexual exploits were legendary. They were also true. Whenever and wherever he traveled, he wanted a woman for the night."

Marc Reisner trashed Floyd Dominy in *Cadillac Desert*, calling him, "a zealot, blind to injustice, locked in a mad-dog campaign against the environmental movement and the whole country over a pair of Grand Canyon dams ... Dominy's problems stemmed from a fatal sin - pride - and a fatal misjudgment: that his despised adversary, David Brower, was the corporeity of the conservation movement - its unanimous voice, its unified soul. To Dominy, anyone who objected to any single thing the Bureau wanted to do was a 'Dave Brower type.'"

Reisner seemed to sum up his chapter on Dominy this way: "The legacy of Floyd Dominy is not so much bricks and mortar as a reputation - a reputation and an attitude. The attitude is his - one of arrogant indifference to sweeping changes in the public mood - and it is probably the foremost obstacle in the Bureau of Reclamation's way as it tries to play a meaningful role in the future of the American West."

Marc Reisner died of cancer in July 2000 at his home in Marin County, California. He was 51. It seems too bad, in retrospect, that his widely-read book, *Cadillac Desert*, was so hard on Floyd Dominy. Floyd had consented to a long, taped interview by Reisner at his cattle ranch in the Shenandoah Valley in Virginia. He gave Reisner access to his files. Then, in Dominy's words, "In return, he savaged me."

Dominy had limited public forums that he could use to defend himself, other than a few trips to water conferences in the West. In 1998, when Dominy was 88, he gave the keynote address at the Colorado Water Workshop in Gunnison. This is part of what he said:

*During my 12 years of managing the Bureau of Reclamation, there was one thing that probably gave me more personal anguish than any other. The*
Colorado (River) Storage Project Act of 1956 contained one little sentence that said, 'None of the waters impounded behind Glen Canyon Dam will be allowed to enter Rainbow Bridge National Monument.'

That doesn't sound like very much, but actually it is pretty horrendous. Here is a 160-acre monument in the canyon at the foot of Navajo Mountain, and almost impossible to get to. How are we going to prevent the waters of Lake Powell from moving back into that 160-acre monument? The people who got that statement into the act had never been to Rainbow Bridge and none of the congressmen had been there.

Dominy went to see Rainbow Bridge on the back of a mule. It was so difficult Floyd and the mule almost didn't make it. He was later able to convince Wayne Aspinall and Carl Hayden that Lake Powell, at high water, would not harm Rainbow Bridge.

Add ingenious to the description of Floyd Dominy's character. Each year, while Lake Powell was filling, he went to the Senate Appropriations Committee chaired by Hayden and said in effect, "Don't give me the money needed to prevent Lake Powell from getting to the Rainbow Bridge National Monument. Then I can't do the work that shouldn't be done..."

Dominy: "So every year... the Appropriations Bill carried a little language that said, 'None of the money appropriated in this bill for the construction of Glen Canyon Dam's power plant and transmission lines shall be used to construct any facility designed solely to prevent the waters of Lake Powell from entering Rainbow Bridge National Monument.'"

After explaining Dominy's Rainbow Bridge victory, in Cadillac Desert, Reisner said, "Today Rainbow Bridge is visited mainly by overweight vacationers clambering out of houseboats and trudging up to stare briefly at the arch."

Well - I resent that and so should many other visitors to Rainbow Bridge. I had a personal interest in Rainbow Bridge dating back to when I was in high school in northern Wisconsin. I tried - unsuccessfully - to obtain a summer job as rodman on an expedition that was being organized in Arizona to explore Rainbow Bridge.

In 1976, my wife Micki and I went by boat to Rainbow Bridge. We hiked a short distance up, sat down and enjoyed the beauty of Rainbow Bridge. We could not have done that without Lake Powell. And - we were not overweight!

John McPhee, in Encounters With The Archdruid, had a gentler, kinder appraisal of Floyd Dominy. He interviewed Dominy in his Washington, D.C. office, when he was commissioner. Dominy said, "I like people. I like taxi drivers and pimps. They have their purpose. I like Dave Brower, but I don't think he's the sanctified conservationist that so many people think he is. I think he's a selfish preservationist, for the few. Dave Brower hates my guts. I've fought with Dave Brower for many years..."

"Who are the best conservationists - doers or preservationists? I can't talk to Brower, because he's so God-damned ridiculous. I once debated with him in Chicago and he was shaking with fear. Once, after a hearing on the Hill, I accused him of garbling facts and he said, 'Anything is fair in love and war.'"
Finally, McPhee said, "Commissioner, if Dave Brower gets into a rubber raft going down the Colorado River, will you get in it, too?"
"Hell yes," he said. "Hell yes."

When Lake Powell was dedicated, McPhee wrote, speakers "addressed much of what they said to an unseen enemy, assuming that he was a thousand miles away." Speaker after speaker opened his remarks with, "The Sierra Club to the contrary."

"Then Dominy spoke. 'Dave Brower is here today,' he said, and the entire ceremony almost fell into the reservoir. 'Brower is not here in an official capacity, but as my guest.' Dominy went on, 'We're going to spend several days on Lake Powell, so I can convert him a little. Then we're going down the river, so he can convert me.'"

The raft trip down the Colorado - "wildest of rivers, foaming, raging, rushing southward," as McPhee described it - was an organized trip with several rafts, about a dozen people per raft. McPhee described how his raft, with Dominy and Brower in it, ran the *Deubendorff*, officially designated a "heavy rapid," one of the 13 roughest in the canyon:

> Everything is lashed down. People even take their hats and handkerchiefs off their heads and tie them to the raft. Everyone has both hands on safety ropes - everyone but Dominy. He giggles. He gives a rodeo yell. With ten smooth yards remaining, he lights a cigar ...

> Dominy emerged from Deubendorff the hero of the expedition to date. Deubendorff, with two creeks spouting boulders into it, is a long rapid for a Grand Canyon rapid - about three hundred yards. From top to bottom through it all, Dominy kept his cigar aglow ...

> Dominy's shirt was soaked. His trousers were soaked. But all the way down the rapid the red glow of that cigar picked its way through the flying water from pocket to pocket of air ... The whole raftload of people gave him an organized cheer. And he veiled his face in fresh smoke.

> It was vintage Dominy - tough, courageous, gutsy, risktaker, lucky. When the raft moved into quiet water below the Deubendorff, Dominy smiled and said, 'That's why they call me Lucky Dominy.'

> Dominy and Brower argued the whole trip down the river. Brower ate from nothing but his Sierra Club cup - even a steak, balanced precariously on it. Strange! Even stranger, perhaps, was his fear of the Colorado. He portaged around Upset Rapid. McPhee remembered Dominy's scorn:

> 'The great outdoorsman!', Dominy said in a low voice. 'The great outdoorsman!' He shook water out of his Lake Powell hat. 'The great outdoorsman standing safely on dry land wearing a God-damned life jacket!'...
The raft nudged the riverbank. Dominy said, 'Dave, why didn't you ride through the rapid?'

Brower said, 'Because I'm chicken.'

Brower had a few quirks, but he wasn't "chicken." He was the first to climb 33 peaks in the Sierra Nevada. He overcame his fear of public speaking. He served in the 10th Mountain Division in World War II.

Complete opposites - Dominy and Brower. Endless arguments on that raft trip. But - in spite of all of that - they bonded.

Over drinks, McPhee reported, Brower tells Dominy, "I will come out of this trip a different man than when I came in. I am not in favor of dams, but I am in favor of Dominy. I can see what you mean to the Bureau, and I am worried about what's going to happen there some day without you."

The Colorado - mostly harnessed now by big dams - rolls on. The 19th and 20th centuries, just a wink of geology's eye, have produced so many exciting, interesting stories and people. There will undoubtedly be many more.

* * *

All the major players in the Western water supply game have known, for a long time, that California has seriously overdrawn its water allocation bank account. California has been diverting more than 5.2 maf annually when its legal entitlement is 4.4 maf.

The excess Colorado River water that California is diverting is not yet needed by Colorado and the other upper basin states. But it will be needed some day. All of them, along with Arizona and Nevada, fear that California, with its political clout, will continue to divert more Colorado River water than its entitlement and will never let it go.

No one did anything about it until Bruce Babbitt came on board. Babbitt, former governor of Arizona, was appointed Secretary of the Interior in 1992 by President Clinton. Babbitt was determined to rein in California's insatiable thirst for Colorado River water. He understood the power given to the Secretary by the Boulder Canyon Project Act and the Supreme Court's decision in Arizona v. California. He was also aware that California's political clout was somewhat balanced by the fact that Clinton was very likely to win California's vote in the next election, It was a good time to attack the California overdraft problem.

For the first time, the Secretary of the Interior would try to put California on a Colorado River water diet. After much study, Interior's new policy was unveiled in December 1997 at the annual meeting of the Colorado River Water Users Association in Las Vegas.

It was, essentially, that California must develop a defined and enforceable plan to reduce its annual diversion of Colorado River water about 20 percent - to its legal apportionment of 4.4 maf - in 15 years.

Secretary Babbitt gave California two years - until December 31, 2002 - to agree upon a plan to reduce its use of Colorado River water from 5.25 to 4.4 maf.
California's water cutback plan had to involve the Imperial Irrigation District, which diverts water from the Colorado River to irrigate the Imperial Valley. It's the nation's largest irrigation district. It uses more than three-fourths of California's 4.4 maf annual allotment of Colorado River water.

The Imperial Irrigation District uses almost all of its Colorado River water to irrigate land that produces $1 billion in food each year from desert farms, in a region with the lowest median income in California. The farms are owned by large agri-corporations.

The other major player in California's Colorado River cutback game is the Salton Sea, a large man-made lake fed by return flow from Imperial Valley irrigation. It is home to many migratory waterfowl, including endangered species. But it is gradually drying up. If Imperial Valley irrigation is reduced, the Salton Sea might dry up completely. That would be a major ecological disaster.

The Salton Sea Restoration Act required Interior to investigate alternatives to restoring the sea. It found that restoration costs would range from one to more than thirty billion dollars.

Secretary Babbitt's department worked closely with the Imperial Irrigation District, the San Diego Water Authority, and others, to develop a defined and enforceable plan to reduce California's annual diversionary amount of Colorado River water to its allocated amount. This plan was to be incorporated into an agreement signed by all parties in two years - by December 31, 2002.

This hot potato was tossed into Interior Secretary Gale Norton's bureaucratic lap after President George W. Bush replaced President Clinton in 2002. Norton is a Colorado native and formerly was Colorado's attorney general. She appointed Bennett Raley, formerly a Denver water attorney, assistant interior secretary, in charge of the California cutback.

California couldn't get its act together and it missed the cutback deadline of December 31, 2002.

At 8 a.m. on New Year's Day 2003, three of the eight pumps at Lake Havasu below Hoover Dam were shut down, thereby substantially reducing the flow of Colorado River water to the Imperial Valley.

Then some pumps of the Los Angeles based Metropolitan Water District of Southern California at Lake Havasu were shut down. These two cutbacks would reduce the diversion of Colorado River water to cities and farms in Southern California by 650,000 acre feet in 2003. That's enough water to supply about 3.8 million people, or a city roughly the size of Los Angeles.

The California water cutback was a gutsy, historic thing for Gale Norton - the first woman Interior Secretary - to do. "The secretary has bit the bullet," said Joseph L. Sax, professor of law at the University of California, Berkeley, "something everybody has said was coming for 40 years but nobody believed would really happen. This is a historic moment. California must live within its allotment. In particular, cutting back agricultural uses by this administration will be remembered as quite extraordinary."

Historic! Extraordinary! A turning point in the history of the Colorado River! And remember this - It was a native Coloradan, a woman, who did it!
So here we are now, after all of this Colorado River history, still trying to use all of our compact water entitlement.  

*What is our entitlement?*  
We don't know for sure.  
It's a percentage - 51.75 percent of the upper basin's water entitlement at Lee's Ferry, whatever that is.  

We can crunch some numbers, but it all depends on the assumptions used to develop them. In computer-speak it's garbage in, garbage out.  

With that disclaimer, let's start with the estimated average annual virgin (undepleted) flow at Lee's Ferry. Recent tree ring studies suggest it's about 13.5 maf.  

Let's assume the upper basin delivers 7.5 maf plus half the required delivery to Mexico (0.75 maf). That leaves 5.25 maf for the upper basin, of which Colorado gets 51.75 percent, or 2.7 maf.  

Colorado now diverts an average of about 2.3 maf annually from the Colorado River. This leaves a potential surplus of about 0.4 maf, or 400,000 acre feet.  

About 240,000 acre feet of this surplus is already committed to proposed projects, or existing reservoirs with senior water rights. That leaves about 160,000 acre feet of surplus Colorado River water yet to be developed.  

That's one analysis. The Colorado Department of Natural Resources appears to favor this one:

- Total flow from upper basin 6 maf  
- Colorado's share 3.1 maf  
- Colorado's current potential usage 2.6 maf  
- Potential surplus 500,000 acre feet

There are as many answers as there are assumptions. In any year, the additional flow of the Colorado River available to Colorado could range from zero to more than 800,000 acre feet.  

*Zero?*  
Yes, it's possible. Because of drought and low storage in Lake Powell.  
Lake Powell, behind Glen Canyon Dam, is located a short distance upstream from Lee's Ferry. Its storage is the upper basin's bank account, which it uses to pay its perpetual water debt to lower basin states.  

Drought reduced the upper basin's delivery of compact water from Lake Powell to 7.4 maf in 2000, 7.0 maf in 2001, 3 maf in 2002. These deficiencies will have to be made up later, in order to meet the 75 maf 10-year running average compact requirement.  

Storage in Lake Powell - in mid-October 2004 - was less than 38 percent of 24 million acre foot capacity and continues to fall. If the drought continues, Powell's drawdown could reach dead storage. If that happens, Colorado could not divert, or store, any water from the Colorado. It might have to release water stored in some of its Western Slope reservoirs. More on this in the *Drought* chapter.
Mighty, majestic Colorado River, what will you do for us - or to us - in this 21st century? The answer to this question is known only to Mother Nature. Or by a smiling, or frowning, Almighty.
SOUTH PARK AND THE ARKANSAS

SOUTH PARK! So vast, so beautiful, with its see-forever view from the top of Kenosha Pass. A stunning view looking across a broad high mountain plateau 8,500 to 11,000 feet above sea level. Covering 1,500 square miles, an area larger than Rhode Island. With high peaks to the north and west rising to 14,000 feet.

It's a geographic, geologic and scenic wonder.

It can be beautiful - clear streams, sparkling springs, broad meadows. But not always. South Park can also be a land of blowing snow, blizzards, demoralizing winds and summer mosquitos.

It's where the South Platte begins its long journey to the Gulf of Mexico.

* * *

Colorado has three high elevation parks. Early French-speaking trappers called them parcs. It was their name for game preserves. They called North Park the Bull Pen. Middle Park was Old Park. South Park was Hunter's Paradise. They also called it Bayou Salade, the Creole name for salt marshes. Anglos later changed it to Bayou Salada.

South Park covers most of Park County, which was one of the nine counties established by Colorado Territory's first assembly, or legislature. Park County's boundaries had previously been established, in 1860, by the legislature of Jefferson Territory.

The second Frémont expedition passed through South Park in 1843. Ute and Arapaho Indians were fighting near the present site of Hartsel, so it didn't stay very long. Its cartographer, Charles Preuss, wrote in his diary, "A few howling women and fugitive horses were all we could see."

In fall 1851, Kit Carson and two trappers built a cabin in South Park and spent the winter trapping beaver. The next spring they observed a battle between Utes and Comanches.

Ute Indians, said to be Aztec descendants, occupied South Park for hundreds,
perhaps thousands, of years. Other Indian tribes also lived in, or traveled through, this area - Arapaho, Cheyenne, Shoshone, Comanche, Apache. South Park was a convergence point for some of them. By 1870, Indians were mostly gone from South Park.

The Indians came first, then the trappers, then the gold seekers. Collapse of the beaver market in the mid-1840s was followed by gold strikes. Silver ruled briefly. The irrigators came in the 1860s. They stayed for a century or more, until the cities pushed them aside for their water.

When gold was found in South Park in the late 1850s, towns suddenly sprouted: Fairplay, Alma, Tarryall, Hamilton, Buckskin Joe, Montgomery. By 1860, South Park had a population, mostly transient, of 11,506 men and 104 women.

In 1859, gold seekers from Wisconsin traveled over the pass they called Kenosha, to honor the Wisconsin town. They went up Tarryall Creek and established a mining camp called Graball. They refused to tolerate claim-jumping and when they established their next camp, they called it Fair Play Camp, where all would receive fair treatment.

Tom Jenkins, in a recent Fairplay Flume article, provided this information: "The name of the camp arose partly from Jim Reynolds - a prospector who later became the leader of a notorious and deadly band of outlaws - who made himself boss of the camp and demanded `fair play' for everyone, and the town grew steadily."

Fairplay, at its peak, had a population of 8,000. It has a wild and colorful history. Part of it was restored in 1959, when the South Park Historical Society moved 30 buildings from nearby mining camps to a site in Fairplay called South Park City. The buildings were restored and filled with genuine artifacts and furnishings representative of an 1880s mining camp.

Fairplay had many subsequent name changes since 1859. It was called Platte City in 1861. In 1869, the name was changed to South Park City. Since 1874, the town's official name has been Fairplay. It is the county seat of Park County.

The sandstone courthouse in Fairplay was built in 1874. It was the home of many courtroom water battles. I climbed the narrow, winding stairs up to the courtroom on the third floor in the 1960s for some of them. It appeared then to be unchanged from the old days - a rare sight.

The old courthouse building in Fairplay is now the County Library, but it clings to its heritage as the oldest courthouse building in Colorado.

Montgomery, in its gold mining heyday, was bigger than Fairplay. It was platted in 1861 in a little valley below Hoosier Pass, where the Middle Fork of the South Platte begins its life. By 1862, there were 150 cabins occupied, along with five sawmills, three hotels and the largest theater and dance hall in the region.

Montgomery residents thanked President Lincoln for granting territorial status to Colorado by naming the 14,286-foot mountain towering above them Mt. Lincoln. They also sent him a bar of solid gold made out of ore taken out of their mine.

Lincoln acknowledged Montgomery's honors by sending Schuyler Colfax to Montgomery as his official representative. Colfax became enamored with Montgomery's scenery and spent many vacations there. He brought his girlfriend and they climbed to the summit of Mt. Lincoln where he proposed marriage. Schuyler Colfax, for whom Denver's Colfax Avenue is named, will be discussed in the Aurora chapter.
Like most of the other boom towns in South Park, Montgomery declined when its gold played out. It was reborn, after ten years, when silver became king. Then it collapsed again in 1893, after the repeal of the Sherman Silver Purchase Act.

Montgomery was a ghost town when the City of Colorado Springs purchased the site in the early 1960s. Cabins and debris were removed, old graves were disinterred and moved elsewhere and Montgomery Reservoir was constructed. It stores about 6,500 acre feet imported from the Blue River drainage through the Boreas Pass Tunnel. Montgomery Reservoir water is transported by pipeline across South Park to the Arkansas River Basin.

By 1870, the gold rush was over in South Park. Its population had decreased to 317 men and 130 women. Most of them were ranchers.

* * *

South Park is about 50 miles long and 30 miles wide. It is a high, flat plateau with a short growing season. Its hay is very rich in mineral content - so rich that in the 1890s it was shipped to the Russian Czars, where it had the reputation of being the best hay in the world.

South Park's summer temperatures seldom rise above 80 degrees. Winter temps may drop to 25 degrees below zero. During the spring, water flowed across the hay fields from melting snow in the adjacent mountains, which caused irrigation ditches to overflow. South Park's annual precipitation averages 13.5 inches, about the same as Denver's.

Ranching in South Park was basically cattle raising. Cattle loved the lush hay on irrigated meadows and pastures. Ranchers loved the vast open space and the abundance of water.

South Park's ranches provide much of its recorded history - time's witness. The Hartsel Ranch was one of the early ones.

Sam Hartsel was born in Pennsylvania in 1836. He came to the park's Tarryall district in 1860, looking for gold. He found little, so he bought worn-out, footsore oxen from disgruntled gold seekers. He fattened them on the natural hay in South Park and sold the meat to local butchers for a nice profit.

Hartsel started ranching at his Pennsylvania Ranch, three miles below Tarryall. In 1861 he bought 20 top quality Shorthorn cows that had been brought to South Park from Iowa. The next year he relocated his ranch by homesteading 160 acres at the junction of the South Platte's South and Middle Forks. It became known as the Hartsel Ranch.

Hartsel went to Missouri in 1864 to purchase a herd of purebred Shorthorns. It took him two years to drive the cattle to South Park, where they thrived on the tall grass. Soon he was selling both beef and breeding animals.

Then he built a sawmill, trading post, wagon shop and blacksmith shop at a site that became the town of Hartsel. He developed the nearby hot springs and laid a wooden pipe from the springs two miles east to his house. Water was pumped through the pipe by a water wheel. Quite a man, Sam Hartsel.

In the late 1870s, Hartsel built a hotel across the river from his hot springs. It was described as "well-kept, largely patronized." He was a bachelor until 1877, when he married a widow with two children. By 1879, Hartsel had expanded his ranch to 4,000
acres. It was 8,000 acres when he sold it in 1907 and moved to Denver.

The Hartsel Ranch, minus 240 acres around the hot springs, was expanded and sold several times before 1946, when it was purchased by A.T. "Cap" McDannald, head of McDannald Oil Company. He expanded the ranch from 10,000 to 20,000 acres during the next 15 years by land purchases and by leasing federal and private land.

In 1959, McDannald sold about half of Hartsel Ranch to a group of Minneapolis investors who attempted to subdivide their property into five acre ranchettes, without much success. McDannald moved to a ranch in Jefferson County, near Denver. He named that ranch Ken Caryl, after his two sons. It is now a large suburban residential development west of Denver.

The remainder of the Hartsel Ranch was sold to two local grazing associations (Eleven Mile and Badger). Aurora purchased Eleven Mile's water rights and transferred them.

Another page of the jumbled history of the Hartsel Ranch was turned recently. Out West Resorts purchased its Badger Basin and Hartsel Springs parts, with intent to restore what remains of the Hartsel Ranch under one owner. "What we envision," said Greg Latimer, OWR's attorney, "is to create a living history ranch." The Hartsel Springs Ranch proposal includes various guest residential units close to fishing and a new pond. The Badger Basin portion includes an equestrian center and trail ride headquarters.

Joseph Rogers was another of South Park's early ranchers. He was a French Canadian, who came to South Park from Denver in 1873. He was a rugged man of the West. He carried guns at all times and used them occasionally. Rogers died in 1924. His ranch is now covered by DBW's Eleven Mile Reservoir.

The Wahl Ranch story is both interesting and inspiring. Albert Wahl was one of the directors of the Upper South Platte Water Conservancy District when it was formed in 1955. I became the district's consulting engineer in 1963. Albert has a special place in my memories. His legacy should have a special place in South Park's ranching history.

The Wahl Ranch covered 2,250 acres. It stretched from the foot of Kenosha Pass up to the Continental Divide. Located at an elevation of 8,700 feet, it was surrounded by national forest and other South Park ranches. Its 20 second feet of early water rights were divided among five ditches. It also had rights to all the flow in Guernsey Creek and the Baker Ditch. And it had 1,314 acre feet of storage capacity in Baker Lake.

Albert and Ada Wahl were childless. Before they died a few years ago they left their ranch to their longtime hired hands, Hylan "Dutch" and Mary Coleman, with the understanding that the Colemans would preserve the ranch and not sell it to developers.

The Colemans have kept their promise to Albert and Ada Wahl. Now in their 70's, they have deeded the ranch to Park County and Colorado Open Lands, a Lakewood-based non-profit organization, for $5.75 million - an amount far below market value. The deed includes a provision that the property will remain a working ranch and will not be sold to developers.

The Colemans held developers at bay for two years, until voters approved the Park County Land and Water Trust in 1997, to preserve the County's land and water resources. Park County Trust paid the initial $100,000. Open Lands paid another $1.5 million in 1999 and will pay $850,000 a year until the total amount is paid.
When the sale is completed, Park County Trust and Colorado Open Lands will have an ecological treasure. The ranch is home to two globally-rare plant species, seven state-rare plant species and one state-rare snail. It has an exceptional elk habitat. The Wahls and the Colemans should be remembered in Colorado water history as ranchers who valued ranch preservation more than developer's money.

The Colemans will move to a ranch they purchased in Montana. Leaving South Park, where they have lived since the 1940s, will not be easy. Looking back, Dutch reminisced:

_If you saw South Park 50 years ago, the whole thing, from here to Antero Junction, was meadows. That was all working ranches. There aren't a half dozen working ranches in South Park anymore._

The _Salt Works Ranch_ has a unique place in South Park history. It was homesteaded by Charles Hall in 1862. He was born in New York state and came to Colorado in 1858. He did some prospecting, became lost and nearly starved to death.

When Mary Nye found Charles he weighed only 48 pounds. She nursed him back to health and fattened him up. They were married in 1862, just before they found the salt springs near present Antero Reservoir.

Charles and Mary Hall started the Colorado Salt Works with a man named Rollins. (Rollins Pass and Rollinsville were later named for John Quincy Adams Rollins.) They built a salt works that included a large building with a brick chimney three stories high.

It was a big operation, with 18 iron evaporating kettles each 40-inches in diameter, three inches thick, 18-inches deep. They were brought to South Park by oxen at a cost of $1,500 each. The Colorado Salt Works operated from 1866 to 1870. It extracted mineral salt used for mining process and for animals. Remnants of the old salt works are still visible.

The Halls became prosperous before salt production stopped. One of their two daughters, Mildred, was educated at Wolfe Hall in Denver and at Wellesley College in Massachusetts. After an unsuccessful first marriage, she married a neighbor, South Park rancher Tom McQuaid.

It appeared to be a mismatch - a Seven Sisters graduate and a tough rancher - but it wasn't. The McQuaids expanded their holdings to seven ranches and owned at least 20,000 acres of South Park range land. They ran 10,000 head of cattle. Mildred died in 1945. Tom became a South Park legend.

Tom McQuaid was recently remembered in a story about the Salt Works Ranch by Guy Kelly of the _Rocky Mountain News_:

_There's a cast of colorful characters associated with the ranch, including Tom McQuaid, who married Hall's daughter._

_He served as president of the Colorado Cattlemen's Association and helped found the National Western Stock Show._
At one time, McQuaid's ranch grew such outstanding hay the British imported it as feed for their top racing horses.

So when the highway department condemned a stretch of his hay meadows for U.S. 285, McQuaid held up the project by shooting and burning their camp.

He finally relented when the state threatened to bring in the National guard. He died in 1965, at 105, without ever having cashed the check for the land.

The Salt Works Ranch is now owned and operated by Karl and Tag Fanning, great-great-grandsons of Charles and Mary Hall. They are the last of six generations on the ranch. Karl came back to the ranch after 30 years in the Merchant Marine. He has a master's degree in history. He is often called Captain Karl because he had been a sea captain.

The ranch and the Colorado Salt Works were recently named to the National Register of Historic Places.

The Salt Works Ranch is not far from Antero Reservoir, which was discussed in the Irrigation chapter and in the Water for Denver chapter. When the Denver Water Board bought Antero Reservoir in 1926, after lengthy litigation, many wondered if it had acquired a liability.

Antero Reservoir has always seemed to be a disaster waiting to happen. Its original construction was faulty, as was its financing. Its priority was too junior, like the High Line Canal it was supposed to supply.

Structural problems at the earth-fill dam were evident as early as 1914. A Park County grand jury found the dam unsafe and the reservoir "a nuisance and a hazard to the people living downstream."

Antero Reservoir's decreed storage capacity was about 85,000 acre feet, but the state engineer has limited storage to 20,000 acre feet. There were sighs of relief when Eleven Mile Reservoir was constructed. If Antero failed and sent a wall of water down the South Fork, Eleven Mile could catch at least some of it.

Antero Reservoir has always been the Denver Water Board's awkward stepchild. But, like the High Line Canal, its future may lie in an entirely different direction than its founders envisioned.

Antero Reservoir could be enlarged to include storage capacity for a water provider other than the Denver Water Board. Such enlargement would require cooperation with the DWB, BLM and the owners of the Salt Works Ranch.

Aurora has considered negotiating an agreement with the DWB for enlarging Antero Reservoir, but enlargement would step on the toes of South Park history - on a hundred acres of the historic Salt Works Ranch.

*    *    *

South Park's old ranches had so much interesting history. It's a shame they had to
go - pushed out by Metro Denver cities for their water.

Let's take a long look back at South Park irrigation, even further back than Dutch Coleman's 50-year vision.

Denver Union Water Company sent J.B. Ulrich to South Park in 1903, to investigate ditches along Tarryall Creek. He found them to be, "for the most part, very small and insignificant affairs - mere trenches in some cases." He recommended that Union not purchase any of these water rights because "they would not provide enough water to justify the costs."

Union then asked Ulrich to investigate irrigation ditches in other South Park watersheds. He found similar conditions. More water was diverted than the ditches could carry. There was much co-mingling of water between ditches. Evaporation losses, enhanced by wind, were very high. It was a hydrologist's nightmare.

"Headgates were closed," he said, "only to be found open and ditches running to their full capacity on the following morning. The experiment of locking headgates was tried, but with no better results. In many instances on the following morning the locks were found broken off, gates raised and ditches running full."

Ulrich didn't like the situation but he understood Union's motivation and recommended that if it wanted to purchase irrigation water rights in South Park it should measure irrigated acreages and ditch capacities. Denver Union Water Company, burdened with serious political problems, did nothing.

Citizens Water Company, which supplied domestic water to Denver City, cast covetous eyes at South Park water supply in 1892. Engineer J.B. Schuler advised Citizens to acquire South Park water rights and convert them to municipal use at Citizen's intake near Denver. Nothing was done about it.

In 1914, the recently formed Denver Public Utilities Commission hired a California consulting engineer, J.B. Lippincott, to estimate the cost of an independent water system for Denver. He recommended that it obtain water "from areas where the use is extravagant and returns are inadequate." It was but a short step from that statement to the hayfields of South Park.

Lippincott then made a remarkable statement when viewed against his previous experiences in California. "It is not feasible," he wrote in his report, "from a humane standpoint, to take waters away from where they are beneficially used to a marked degree." The word humane was not in Lippincott's mind when he assisted Los Angeles in its rape of the Owens Valley.

The Owens Valley story, starring Lippincott, is told by Norris Hundley, Jr., in his book, The Great Thirst. His description of Lippincott included these words: "conspiracy, collusion, a man with many sharply divided loyalties, a man so blind to the public interest and so biased by private and selfish considerations that it would be impossible to secure loyal service from him."

That was the man the Denver Public Utilities Commission hired to find a water supply "where use is extravagant and returns are inadequate." Lippincott located a reservoir site on Michigan Creek in South Park, four miles south of Jefferson.

"Proceed immediately," Lippincott said in his report, "with the obtaining of title to old ditches by the purchase of meadow lands both above and below the Michigan and
Antero sites ... The city should ultimately control all of the South Platte and operate it for
the harmonious maximum development of its available water and power."

South Park was saved from being Lippincotted by the demise of the Denver Public
Utilities Commission in 1918. Its successor, the Denver Water Board, was too involved
with organizational problems to think about South Park.

Denver considered South Park briefly in 1922, when Mayor Bailey sent George
Bull up there to take a look. He found that South Park irrigation consumed relatively little
water and that little consumptive use could be transferred to municipal use.

If Denver wanted to acquire water rights in South Park, consulting engineer Bull
reported, it should start purchasing rights in lower reaches and proceed upstream. "Under
no circumstances," Bull said, "should scattered ranches be purchased."

Early downstream complaints about inadequate water rights administration in
South Park resulted in lawsuits and injunctions. They had little effect. If the water
commissioner tried to shut down a junior ditch during a water shortage, he was likely to be
greeted by the business end of a 30-30 deer rifle. The angry rancher would shout, "Get off
my property." As an afterthought he would mumble, "You can mess with my wife, but
don't mess with my water."

That's the way it was with water rights administration in South Park in the first half
of the 20th century. It isn't that way now, but water is still sacred in Colorado. Bob
Ewegen talked about it recently in a Denver Post article:

In this state, water isn't something to drink - that function is mainly
reserved for Coors ...

No, in Colorado we'd rather argue about water than drink it. And sue each
other about it. And use it as a political battering ram.

Ewegen is an editor of the Denver Post's editorial page. He was born and raised on
a ranch in eastern Colorado and he has a broad understanding of water - and the lack of it.
It starts in his size 15 Nikes and reaches up his six-five frame to a great sense of humor.

South Park's irrigation ditches were usually small, about a half-foot to three feet in
width, seldom exceeding a mile in length. Water was wasted. Diversions started in April or
May and continued until haying season in August. After haying, diversions continued until
freeze-up to soak the ground. There often was standing water in the irrigated hayfields and
pastures. At times, it looked like flood irrigation. Evaporation losses were high.

For many years, it was virtually impossible for the water commissioner to
administer priorities in South Park. Downstream senior appropriators complained and in
1912 a court injunction was issued to compel the state engineer to enforce priorities in
Water District 23.

The state engineer ordered his division engineer to enforce priorities. He tried, then
sadly reported, "In the excited condition of the people, it would require the state militia to
enforce his orders."

When irrigators under the Farmers Highline Canal, which diverts out of Clear
Creek in Metro Denver, sued to obtain proper water rights administration in South Park in
the 1930s, the division engineer said he couldn't do it.

The Denver Water Board has always taken a cautious approach to acquisition of South Park water rights. It purchased a few during the Great Depression at bargain prices. In 1935, it hired a consulting engineer to go to South Park to investigate its water rights.

Consulting engineer Fred Carstarphen recommended that DWB should buy all the irrigated ranches, transfer their water rights and sell the dry land to the federal government for use as a game preserve. "It is the opportunity so long desired of controlling a large part of Denver's watershed."

Carstarphen then said in his report, "From the standpoint of sanitation, it will be a splendid start in protecting the public health by removing the individual homes, outhouses, cesspools, barnyard drainage, manure, wastage, and other sources of water contamination and pollution that has been endured for so long in South Park because it could not be cured."

Carstarphen did not make a good impression on the Denver Water Board. It filed his report and ignored it.

There were 394 ranches in Park County - most of them in South Park - in 1930. The DWB transferred water rights totaling 453 second feet during the 1930s, but this was less than 10 percent of the total amount decreed in South Park's 1889 water rights adjudication. The transfers dried up about 7,700 acres of formerly irrigated hay meadows in South Park.

The severe drought of the 1930s, the Great Depression and DWB's transfers reduced the number of South Park ranches to 306 in 1940. By 1950, there were only 120 ranches in South Park.

By 1941, South Park ranchers were beginning to realize that deer rifles, misinformation and tough talk were no longer getting them water. Fourteen of them filed a class action suit on behalf of all appropriators in Water District 23, most of whom were in South Park. They accused the Denver Water Board of unlawful practices and illegal manipulations. They accused the state engineer and the local water commissioner of connivance in depriving South Park irrigators of an estimated 35,000 acre feet of water each year.

Illegal manipulations? Connivance? Not exactly words a South Park rancher would use. But when you're dealing with Big Brother downstream, it's best to use words he can understand.

The ranchers' lawsuit sought compensation for tons of hay lost due to the DWB's "illegal actions." They wanted water level measuring gauges installed at Eleven Mile and Antero reservoirs and close monitoring of daily storage by the water commissioner. Furthermore, the state engineer should make the DWB release storage water to make up reservoir evaporation losses.

The ranchers had an imaginative lawyer, but the DWB had one better versed in the law. The ranchers lost.

Harry Potts, the DWB's water rights engineer for several decades until he retired in 1956 (my predecessor), didn't buy the irrigators' complaints. "The priority of opportunity," he said, "seems to govern more nearly the amount of water diverted (in South Park) than does the priority of date."
Potts fitted the old curmudgeon mold perfectly. Salty Harry was a stubborn man who usually had an angry look. A small, 3-sided, engraved motto placed at the front of his small desk said it all: *My mind is made up. Do not confuse me with the facts.*

Pipe-smoking Harry Potts refused to cooperate with Glenn Saunders, the DWB's chief counsel. Saunders ignored him and used outside engineering consultants for water rights litigation.

Soon after I left the Denver Water Board and started consulting in 1961, I tried to help South Park irrigators obtain better water rights administration. It was not a level playing field. South Park irrigators had little money and little clout. It would get worse. A man gifted with foresight should have rode his horse from ranch to ranch in South Park shouting, *The cities are coming! The cities are coming!*

*   *   *

Aurora came to South Park in 1968. It purchased the Augustine Ranch - 1,700 irrigated acres and water rights totaling 240 second feet.

Aurora was granted a transfer of decree conditional upon drying-up 500 acres of formerly irrigated pasture. It could transfer some other water rights if it dried-up an additional, designated, 500 acres within five years.

In order to dry-up the formerly irrigated land. Aurora crisscrossed the Augustine Ranch with large drainage ditches. This created storms of protest by South Park residents, who claimed Aurora was turning the park into a dust bowl.

The *Aurora Sentinel* expressed concern, under the headline, "Aurora's Rape of a Distant Land:"

*South Park is a vast and quiet meadowland stuck surprisingly behind Kenosha Pass.*

*Unfortunately, it appears that if Aurora continues on its present path, that green flatland will be changed into an ugly dust bowl...*

*Trenching the water table is, as one resident said, a rape of the land. Given Aurora's legal rights, it is admittedly a statutory rape, but a rape just the same.*

It was a no-win situation for Aurora. Build the drainage ditches and incur the wrath of South Parkers. Don't build them and the city is in contempt of court. Some officials in Aurora must have scratched their heads and mumbled, "How did we get into this mess?"

Aurora was finally allowed to transfer about six percent of Augustine's total decreed amount, of which about 15 second feet had senior priorities. Aurora paid Augustine $500 per acre foot of historical consumptive use transferred to Aurora's South Platte intake.

It was not a pretty water picture.
It would get worse.
Aurora purchased the Eleven Mile Grazing Association's interests in the old Hartsel Ranch in 1975. It was a very complex, controversial acquisition, because Aurora wanted only the water rights and the land required for construction of Spinney Mountain Reservoir. The Association wanted to sell the whole package, which included 77,500 acres.

Enter Herb Williams, a wheeler-dealer realtor and developer from Littleton. His attorney was Ray Moses, one of Colorado's elite water attorneys.

Williams formed the Huron Investment Company and named himself president. He bought the Grazing Association's property for $5 million, plus $500,000 for loan interest.

Where did Williams get the loan and the $500,000? He got it all from Aurora, which sold bonds to the Bank of America in San Francisco. Williams contracted to pay Aurora interest on its loan beginning January 1, 1975.

With the Williams deal, Aurora got water rights totaling 680 second feet in 35 ditches, plus the 5,680 acres it needed for construction of Spinney Mountain Reservoir. It agreed to pay Williams (Huron) $800 per acre foot of transferred historical consumptive use. Plus $7,000 for the reservoir land.

Williams got 48,000 acres of non-irrigated land, which he planned to develop. He incorporated High Chaparral Ranches in 1973 to sell tracts, using virtually no money of his own.

High Chaparral Ranches? A more realistic name would have been High Risk Ranches. They weren't ranches in the usual sense. High Chaparral's 40-acre tracts were ranchettes. They were offered for $300 an acre, of which $100 would be paid to Aurora as partial payments on Huron's loan.

Williams needed more money. He obtained a $1 million cash loan from Commerce Capital Corporation of Delaware. He offered 9,200 acres of High Chaparral as partial collateral. If he defaulted, CCC would have an option to purchase the 9,200 acres for $100 an acre. That same 9,200 acres was also held by Aurora as collateral for its loan to Williams.

These deals involving Aurora, Williams and Commerce Capital had many shadows. Aurora officials indicated that if Williams defaulted, the city would get title to the 48,000 High Chaparral acreage.

But wasn't that 48,000 acres the land that Aurora didn't want - the unwanted land that caused Aurora to turn down a direct purchase from the Grazing Association - the turndown that produced Herb Williams?

What was going on here? Was Aurora stupid? Smart? What? Isn't anybody in Aurora minding the store? Watching over those questionable transactions in South Park?

Might Williams default? When asked by a reporter how land sales were going, Williams said, "They are going so great there isn't any chance the city would get the rest of High Chaparral." Then he added, "No way, baby."

Aurora's South Park problems became more complicated when Eleven Mile Grazing Association's secretary-treasurer reported that Aurora did not try to buy the Association's ranches and water rights directly. The Arapaho County Grand Jury began an
investigation of Aurora's Huron water rights deal in 1975.

Aurora was vulnerable to severe criticism, if its dealings with Herb Williams had been more publicized. The city did not take much editorial flack from either Aurora or Denver newspapers. Aurora was fortunate that it did not have a Gene Cervi sniffing its financial trail in South Park. Cervi, in the 1950s, carefully scrutinized everything the Denver Water Board did. His editorials were often vicious.

Let's pause a moment and remember Gene Cervi - the stormy petrol of Democratic politics before he published his own business weekly called *Cervi's Rocky Mountain Journal*.

Lee Olson wrote an article about Cervi for the spring 2000 issue of *Colorado Heritage*. It was appropriately titled, *The Annoying Gene Cervi - A Terror of Colorado Journalism*. Here is a small sample:

*He was a Colorado presence, a Denver journalist whose biting editorials had terrorized businessmen and politicians for twenty years ...*

*He was a man of horrendous faults but his courageous attacks on powerful people and institutions won him a wide following. He spoke for the underdog and he was often right.*

Cervi died in 1970. If he had been sniffing the financial trail of Aurora and Herb Williams in South Park in the mid-1970s, it would have been very interesting reading in *Cervi's Journal*.

Williams' land sales did not go well and he did not make the $395,000 interest payment due January 1, 1975. "Everyone is looking for a sensational story for their newspaper," he said, "saying I can't perform. But I can perform."

Huron Investment Company filed for bankruptcy in June 1976. Aurora's losses are buried in bureaucratic mud.

Aurora initiated proceedings to transfer the Huron water rights in 1974. A decree entered nine years later allowed Aurora to transfer 94 second feet, or about 14% of the total decreed amount. Only a third of the transferred Huron water rights had senior priorities.

*        *        *

Aurora's next water rights adventure in South Park was known as the Janitell purchase and transfer. The story begins in the late 1960s, when the property Aurora wanted to acquire was known as the South Park Cattle Company Ranch. It covered 16,000 acres, of which 4,700 were irrigated, using 20 water rights. It was owned by Fred Anschutz. Fred hired me to investigate his SPCC's water rights and recommend ways to improve their sale value. About this time Fred's health failed and his son, Philip, took control of the Anschutz business interests, including the Anschutz cattle ranch in South Park and the Crystal River Ranch near Carbondale. I worked for Philip Anschutz as consulting engineer for these ranches, intermittently, for more than 15 years.
In 1969, as consultant for Fred Anschutz, I advised him on steps he should take to maximize the value of his water rights. Clean the ditches, install Parshall measuring flumes, keep diversion records. The objective was to maximize consumptive use, thereby increasing the water rights' sale value. I was able to fatten Anschutz's SPCC water rights so that they could be sold at prime beef prices to developers Ralph and Richard Janitell. For $5 million!

I occasionally met with Phil Anschutz at Anschutz Corporation headquarters in downtown Denver. I had an opportunity during those visits to admire Phil's large and valuable collection of Western Art displayed on various walls. I often wondered how he had become interested in collecting Western Art. I found the answer recently in a book by Martin S. Fridson titled, *How To Become A Billionaire:*

> Like most successful deal makers, Anschutz showed a keen eye for value from his earliest days. He was only 27 when he learned of a collection of western art in the basement of the Atchison, Topeka & Santa Fe Railway's Chicago headquarters. The railroad had originally commissioned the paintings as models for travel posters. Managing to gain an interview with the company's chairman, Anschutz offered to catalog the largely forgotten works in exchange for the right to purchase a few. The 85 paintings that he bought for a song a few days later were eventually valued at several million dollars.

The Phil Anschutz story is truly remarkable. Now in his mid-sixties, Phil rose from humble beginnings to become one of the world's wealthiest men. *Forbes* magazine estimated his fortune at $5.1 billion in 2000. His business interests are diversified and far-reaching. Telecom. Trains. Agriculture. Sports. Venues. Movies. His personal interests, in addition to art, included running - in marathons. When training for his next marathon he would rise at 4:30 a.m. and run ten miles before breakfast.

Phil Anschutz formed the Anschutz Foundation to make philanthropic donations to worthy causes. Its $30 million gift to the University of Colorado in 2001 was used to build the Anschutz Center for Advanced Medicine - the first new building at the University of Colorado Health Sciences Center campus at Fitzsimons, the former army hospital in Aurora. It was the largest gift in C.U. history.

*  *  *

Back now to the Janitell Ranch in South Park. Why didn't Aurora buy it directly from Fred Anschutz and save a half-million dollars?

The Janitells planned to use the non-irrigated land for development, but they soon became bankrupt. Aurora took over their mortgage in 1976 to prevent default.

Aurora's Janitell water rights transfer went to trial in December 1976. In 1978, the water judge in Greeley issued a temporary transfer decree, pending further investigations and negotiations. Because of this case's complexity, the parties asked the Colorado Supreme Court to appoint Donald A. Carpenter to hear the case. The high court obliged.
Carpenter had been the presiding judge in Colorado's 19th Judicial District, headquartered in Greeley, from 1964 until he retired in 1979. He had tried many water cases and was highly respected. His father, Delph Carpenter, represented Colorado in negotiations that led to the Colorado River Compact in 1922.

Some of the complexity in the Janitell transfer was due to a brief Aurora's attorney filed in October 1977. Instead of using traditional volumetric measures of historic consumptive use, why not limit Aurora's diversions to the amount that would have been available at the irrigation headgates?

Return flow would be estimated, then returned to the river by releases of water stored in Jefferson Lake. (Aurora acquired a half-interest in Jefferson Lake in the Janitell purchase.)

It was a controversial legal concept offered by a controversial Boulder attorney - John Musick. John was a tall, handsome, articulate, aggressive young man with a bright legal career looming on the horizon.

Too aggressive, perhaps. During his law school years in Boulder, Musick played rugby, a very rough game. In 1998, the Colorado Supreme Court suspended Musick's license to practice law in Colorado for one year. He assaulted a woman he lived with in Aspen and Los Angeles.

So the Janitell transfer involved two legal pitbulls - John Musick against Glenn Saunders. In a brief offered to counter DWB objections, Musick said, "Like the neophyte woodsman, unable to see the forest for the trees, the objector's closing statement loses sight of the purpose of this proceeding, and the applicant's innovative proposal achieving that purpose, in a forest of unrelated bits of information and snatches of conflicting evidence."

Glenn Saunders - "a neophyte unable to see the forest for the trees?" Well - sparks would fly and Judge Carpenter was just the man to put them out.

Aurora's Janitell transfer case dragged on and on. In 1983, Water Judge Behrman wanted to know why it had not been resolved. Michael Walker, who had replaced Saunders for the DWB, expressed optimism, saying that differences were being resolved. They weren't resolved until 1991 - fifteen years after the case went to trial!

Aurora netted 31 second feet (27% of the decreed amount), but only 11 second feet of the senior priorities. Nominal cost: $1,350 per transferred acre foot of average annual yield.

Aurora purchased nine more South Park ranches for their water rights. Nominal cost increased steadily to $2,500 per acre foot in 1988 and to $3,000 in 1993 - six times the cost of its Augustine water in 1968!

Nominal cost is only part of it. Add all the other costs: lawyers, engineers, soil scientists, financial experts, and who knows what else.

Aurora estimates its total average annual yield from South Park transfers is about 20,000 acre feet. But averages are deceiving, as the man discovered when he drowned crossing a river with an average depth of only two feet.

Aurora's estimated yield in a dry year is less than 500 acre feet! What would it be with a really serious drought - sustained over a long period of time?

All of that effort and expense over so many years! The result? A firm annual yield of less than 500 acre feet!
Thornton entered the South Park water rights acquisition game rather late, after Aurora had picked most of the low hanging fruit. I was Thornton's consulting water engineer from 1971 to 1977 and I recommended that it stay out of South Park. Thornton's City Council disagreed. In 1977, they fired all of us - city manager, consulting water attorney, consulting water engineer. Our replacements were more compatible with city council's opinion about South Park. Especially the new consulting water attorney, Kenneth Broadhurst, who had recently left the legal staff of the Denver Water Board.

Thornton purchased eleven irrigated ranches in South Park for their water rights. It transferred what it could and contracted with Aurora/Colorado Springs for 4,000 acre feet of storage capacity in Spinney Mountain Reservoir. Then Thornton leased its transferred South Park water rights to Aurora - until 1999.

In October 2001, Thornton offered to sell or trade all of its South Park water rights to the highest bidder. It was the first time in Colorado history a city had offered to sell such a large package of water rights. Aurora's acting utilities director, Doug Kemper, said, "It is highly unusual. I've never heard of a city selling water like this."

It was a tacit admission, it seems to me, that Thornton made a serious strategic mistake when it decided to buy those eleven South Park ranches for their water rights.

Aurora purchased Thornton's South Park water rights and also 4,000 acre feet of storage capacity in Spinney Mountain Reservoir on the South Platte below Denver's Eleven Mile Reservoir.

* * *

South Park's irrigation water is gone - purchased and transferred by thirsty Metro Denver cities. But not its groundwater.

Aurora went after it in 1996.

Water in South Park's Laramie-Fox Hills aquifer. And its South Park aquifer.

Aquitifer?

Aqua is the Latin word for water. Fer, from Latin, means bearing. Aquifer is a formation, a group of formations, or part of a formation containing sufficient saturated permeable material to yield enough water to apply to a beneficial use. A formation, geologically speaking, is a body of rocks classed as a unit for geologic mapping.

Laramie-Fox Hills Aquifer?

Peter John Stone, writing for the Fairplay Flume, described how the Laramie-Fox Hills Aquifer was formed, probably 60 to 80 million years ago:

Then there was no Front Range. There were not even any Rocky Mountains. The land where Denver now sits was much less than a mile high. In fact, when the rock strata involved in the Conjunctive Use Project began to form, the area where Denver is now was probably underwater.
A huge ocean covered much of the continent. Part of its receding shoreline left sandy beaches behind. As the ocean retreated toward the Gulf of Mexico the shoreline followed. Each new shoreline overlapped the one it followed. Together they later became what geologists call the Fox Hills formation. The layers of other sediment that covered it became the Laramie formation.

Millions of years passed. Pressure deep in the earth forced the Rocky Mountains skyward. The Laramie and Fox Hills formations buckled and fractured. Though parts of them lay deep in the ground, others bent upward and stretched into the air. There, exposed to weather, many sections eroded away.

Of the remaining sections that break the surface, one can be seen clearly at the cut for Rooney Road near I-70. This is part of a huge formation underlying the greater Denver area. Another section of the two formations underlies the Park County Sportsmen's Ranch off Elkhorn Road between Como and Indian Mountain.

Between two segments of the ancient formations, in Park County and in the Denver area, there is no connecting strata. They were molded at about the same time from the same forces. Now, like twins separated during a tumultuous life, they are isolated from each other by miles and thousands of feet of altitude.

This would matter little to anyone if the formations were made of different material, or if they were shaped differently.

However, the upper part of the Fox Hills Formation allows water to pass through it, and the lower part of the Laramie formation prevents the water from passing to adjacent layers. With sides bending upward like bowls, they hold water. Together they form the Laramie-Fox Hills Aquifers.

The Laramie-Fox Hills Aquifer extends over about 11,000 square miles with depths down to 6,000 feet. It might contain up to 16 million acre feet of water! Part of it probably underlies South Park. It might, or might not, connect with the Front Range's Denver Basin, which will be discussed in a later chapter.

The South Park Aquifer lies above the Laramie-Fox Hills Aquifer. This relatively shallow aquifer underlies the surface of about a hundred square miles in South Park. It is bounded by Renecker Ridge, Indian Mountain, Jefferson and Como.

Aurora, as was its custom in South Park, did not get to these aquifers first. James Jehn did.

Geologist James Jehn became convinced that there is a large amount of
groundwater in South Park that Aurora might want. He formed a partnership with Kenneth Burke, a Denver water attorney. They formed Trident to propose and sell a conjunctive use project to Aurora.

Conjunctive use? What's that? Something we should have learned in high school English class?

Conjunctive use is the coordinated use of surface water and ground water to produce a larger, more reliable supply than could be produced by either source alone. It's using groundwater in conjunction with surface water. It is a way to replenish aquifers after water is pumped out of them.

Conjunctive use have become household words in South Park, along with aquifer. Conjunctive use is not a new concept. It has been tried in California. USBR has established more than a dozen small conjunctive use demonstration projects in western states. The concept is deceptively simple. The devil is in the details.

Trident needed land overlying the aquifers in South Park. They found it at Sportsmen's Ranch, about 12 miles northwest of Fairplay. It was formerly known as Indian Mountain Ranch.

Sportsmen's Ranch was owned by the Medina family of Denver, who built homes. Trident entered into an agreement with the Medinas. Then they approached Aurora.

Aurora bought the concept and entered into an agreement with owners of Sportsmen's Ranch. Aurora committed to paying $1.25 million for legal expenses and the cost of outside professional services - consultants, specialists, etc. Details of the agreement have not been disclosed.

How much would Aurora's proposed South Park Conjunctive Use Project - SPCUP - cost? No one knew for sure. Early guesses suggested a project cost of about $100 million and a water supply of about 20,000 acre feet per year. Wild guesses, but it looked like Big Money.

Aurora's proposed SPCUP raised a storm of protest. It was an entirely different situation than Aurora encountered when it purchased and transferred South Park irrigation water rights. The ranchers were willing sellers. The people who replaced them - the New Breed - didn't want Aurora to take its groundwater.

The New Breed?

It's a name used to describe those who became residents of South Park during the past 10 to 15 years. They are different than the old ranchers - 180 degrees different if you like geometry. They arrived on the wings of growth - tremendous growth.

Park County grew 102 percent from 1990 to 2000 - from 7,174 to 14,523 - making it Colorado's third-fastest growing county, percentage-wise. State demographers estimate that Park County will grow to 45,000 people by 2010 and to nearly 125,000 by 2025.

"It's a near certainty," said Jim Westkott, Colorado's state demographer. "As baby boomers retire, or enter semi-retirement, they're expected to flock to Park County which offers both proximity to friends and family in the city and the feeling of a mountain retreat. It's perfectly situated between the metro area and the mountains and provides that mountain lifestyle while at the same time has fairly good access to the Front Range. Park County is definitely in for more Front Range-type people."

Some live on ranchettes, perhaps retired. Many are Lone Eagles - professionals
who operate high tech businesses out of their homes, attached to fax machines, computers and the Internet. Some like to fish in South Park's gold medal streams, or hunt in the old Hunter's Paradise, or ski in Summit County.

When Aurora purchased its South Park irrigation water rights it was led down some dark financial alleys by speculators and entrepreneurs who got there first. Were others of the same ilk going to do it again to Aurora when it went after South Park's groundwater?

The Fairplay Flume's Harold Warren commented: "If successful, what a boom this (conjunctive use) project will be to the people of the world. On the other hand, is this just another scam being promoted by a group of people who have been educated beyond their intelligence and who would now like to take the gullible taxpayer (in Aurora) to the well-watered Promised Land on the tail of a comet?"

A nonprofit citizens group formed Park County Water Preservation Coalition in early 1996. It quickly developed a core membership of over 600 and started a newsletter to promote its cause. The newsletter facetiously expressed concern for Aurora's taxpayers:

We are concerned for the people of Park County, but also for the citizenry of Aurora, for surely their tax bills and water rates will increase substantially to pay for the 'conjunctive use project.'

However, they will receive NO benefits unless more population with attendant crime, overcrowding, bad air, choked streets, traffic jams, loss of open space, longer commutes, decreased quality of life, etc., is considered.

WHO WILL benefit? Probably Aurora City Council, CERTAINLY the developers, and the mayor's ego, since he might achieve his stated goal of being mayor of the largest city in Colorado.

Not a very fair deal for the average Auroran! Trident water developers, the Aurora City Council, and their water utility are our adversaries, not Aurora's citizens.

Were Aurora's citizens listening?
No. No one was telling them what their city was doing in South Park.

The New Breed didn't like being pushed around by Aurora. They were willing to claw and scratch in water court, in order to protect their groundwater. But it looked like a David and Goliath contest pitting a big money city against an underpopulated, underfunded county.

Where and how would South Park residents get the money needed to fight Aurora in water court?

It didn't take long for the New Breed to develop a battle plan. They turned first for help to the Upper South Platte Water Conservancy District in Fairplay. Formed in 1955, it had reorganized in 1984 to include all of Park County, part of Jefferson County and parts of Teller and Clear Creek counties. But its mill levy didn't bring in enough money to fight
Aurora. USPWCD had tried, but failed, to get voter approval for a one mill levy increase. Park County Water Preservation Coalition decided to create another water conservancy district and limit it to Park County, where it would have a better chance of obtaining a favorable mill levy vote. They called it Center of Colorado Water Conservancy District. Well named - geographically - but a mouthful to say.

The proposed CCWCD, with authority to make a one mill tax levy, was placed on the November 4, 1997 ballot in Park County. Its primary objective would be to fight Aurora's conjunctive use project. Also any other attempts to take more water from South Park.

Some South Park citizens questioned the need for two overlapping water districts with similar objectives. The 1-mill tax on real property looked onerous to them. So they formed another group and called it Citizens To Save Our Water. CTSOW proposed a one percent sales tax with a 10-year time limit. It would exempt food, gasoline and heating fuels. It was aimed at Front Range people who used South Park as a playground - tourists, fishermen, cross country skiers, aspen viewers.

The Citizens group estimated that their proposal would produce $350,000 annually for ten years, with 85% of the tax revenue coming from non-residents.

Put it on the ballot!

It sounded good, but there was a potential problem - the BOCC (Board of County Commissioners). Revenues from the sales tax would go to the county commissioners, who were in South Park's political doghouse.

So - throw the rascals out! Use that pernicious instrument of radicalism called recall. Schedule a recall vote for January 1998 - after the election.

BOCC tried to smooth ruffled feathers by passing a resolution which provided that all sales tax revenues would be deposited in a special fund, called the Park County Water Preservation, Protection, Acquisition, Improvement and Maintenance Fund. Another big mouthful. Noble sounding, but BOCC would control its disbursements.

Things were getting complicated. Water wars tend to do that.

There was much spinning on behalf of both ballot issues during the summer and autumn of 1997. PCWPC staged water fairs to arouse interest and raise money.

What to do? Two ballot proposals with the same Fight Aurora objective.

They did what Colorado voters did in the November 1974 election, when the battle cry was Stop Denver's Annexations. They passed both proposals!

Kathleen Thomas, a writer for the Fairplay Flume, wrote a column titled, "The Little County That Could Sends a Message to Aurora":

This big-little county, which geographically encompasses 2,166 square miles but which has a population base of less than 15,000 persons, voted in the November election to tax itself not once but twice to fight the proposed conjunctive use project and other water related plans that Aurora and Trident have cooked up.
We who dwell here will double-tax ourselves in an effort to raise funding, to fight in water court, these schemes. You have to wonder if Aurora and Trident are listening, or if the galvanized determination of Park County, and specifically South Park, falls on deaf ears.

Trident was listening, but Aurora's citizens weren't.

South Park's voters recalled BOCC members in January 1998 and installed new ones more in step with the New Breed.

Aurora and Sportsmen's Ranch filed three cases for its SPCUP in Greeley water court in 1996. In case 96CWO13, they asked for the right to pump 851 acre feet a year from the Laramie-Fox Hills Aquifer under Sportsmen's Ranch. The key question was: Is this aquifer tributary, or nontributary, or not-nontributary, the classification approved for the Denver Basin by the Colorado Supreme Court in 1985?

The applicants said that the deep aquifer in South Park is not-nontributary because it is part of the same Laramie-Fox Hills Aquifer. Was the law developed for the Denver Basin's Fox Hills Aquifer applicable to the Fox Hills Aquifer in South Park?

Raw meat for the legal tigers to chew on!

Judge Jonathan Hays ruled out the not-nontributary classification. He left unanswered the question of whether the Laramie-Fox Hills Aquifer in South Park is tributary or nontributary.

The state engineer first declared it nontributary - not connected to a surface stream. Then he changed his mind and decided it is tributary.

Judge Hays ruled, on April 16, 1998, that there is no nontributary water in the Laramie-Fox Hills Aquifer in South Park. Then he denied Aurora-Sportsmen's Ranch's application in Case 013. The Colorado Supreme Court upheld Judge Hays' ruling.

SPCUP took a significant hit with the loss of Case 013. The applicants wanted to use the deep Laramie-Fox Hills Aquifer to compensate for possible loss of surface recharge over the South Park Aquifer.

Case 014 was the heart and soul of Aurora's SPCUP. In it, Aurora and Sportsmen's Ranch sought permission to drill 26 wells, each with 1,000 gpm capacity, into the South Park Aquifer and to use it as an underground storage reservoir. The applicants wanted to pump water from the aquifer in dry years and recharge it in wet years using junior surface water priorities. They sought a conditional storage right for 140,000 acre feet in the underground reservoir and the right to store 70,000 acre feet annually in this reservoir.

This was uncharted territory in Colorado water law.

The trial date for Case 014 was moved from May to July 2000. Pretrial spin by objectors raised SPCUP temperatures to the boiling point. Objectors included Park County water organizations, the state engineer, BLM, DWB, several Metro Denver suburban cities and many individuals.

The Fairplay Flume said in an editorial, "Given available spring runoff rights and dry year cycles it is analogous to a kid caught in the cookie jar who has really taken six cookies and when caught, only puts two back."

The trial for Case 014 began in Fairplay on July 10, 2000 - in a high school cafeteria converted to a courtroom - four years after the application was filed. Attorneys
for objectors occupied five tables in three rows. Water Court Judge Jonathan Hays sat
down behind a folding table covered with a gold tablecloth that served as the court bench.
More than 50 Park County residents crowded into the cafeteria.

The legal battles would be fought by men in business suits with legal pads and
briefcases. They would fire volleys of motions, objections, briefs and testimony at each
other as the water judge hovered over them, armed with the trappings of Colorado water
law.

It would be one of the largest and most controversial cases in Colorado water
history. David and Goliath.

The objectors came equipped with the most words. Steve Simms, attorney for the
state engineer said, "There's plenty of imagination and creativity employed in this case, but
not very solid engineering." He said that SPCUP is too simplistic, its administration plan is
unworkable and its case is based on "odd legal arguments."

Simms questioned SPCUP's underground storage plan and called the aquifer a
leaky bucket. He challenged the augmentation plan and slammed the applicant's high tech
computer model. He called it the "equivalent to junking cell phones in favor of two
cans and a string."

Attorney Mike Shimmin, representing Park County Water Preservation Coalition,
attacked the credibility of applicants Ken Burke and James Jehn, whose firm designed the
computer model. "Each one has a personal financial stake in the outcome of this case," he
said. "The evidence will show that they have gone into debt to finance this litigation."

Facts would be difficult for the claimants to establish. The underground reservoir
in the South Park Aquifer is not like a surface reservoir. It is not visible and it is not easily
defined. Inflow and outflow are difficult to measure. It may, or may not, be connected with
another aquifer, or with a surface stream. It is a big pot of hydrologic worms.

The stage was set for a long trial that would reach into unexplored legal territory.
Some personal stakes were huge. Burke and Jehn were poised to make millions of dollars
if the applicants were successful. Each had a 20 percent profit and loss interest in the
project. They entered the trial with a corporate debt of $2.8 million. If they lost ...?

The first week of the trial was largely devoted to testimony by the applicants' surface water expert. He was raw meat for the DWB's legal tiger, Henry Tiegen. Ross
Bethel developed estimates for 50 years of flows at the headwaters of Michigan Creek and
French Creek based upon transposition of data available for the North Fork of South Platte.
Tiegen compared Bethel's method to gargling with liquor, followed by a breath and blood
test. The breath test would be high, but the blood test would show nothing. He said that
applying Bethel's method would be like changing the blood test results.

It was quickly becoming apparent that imagination was not confined to the applicant's computer model.

Then Harvey Eastman took the stand for the applicants. His specialty was
geochemistry and geomorphology. He'd worked about 6,000 hours on SPCUP - the
equivalent of three years of 40-hour weeks. All of this effort produced a complex
mathematical computer model for SPCUP's South Park Aquifer. It was supposed to
demonstrate that no other water rights would be adversely affected by Aurora's pumping
out of the aquifer.
Eastman spent almost five weeks on the witness stand as the case seemed to move at glacial speed, encumbered by tedious technical testimony presented by the soft-spoken geologist. Tables for the objectors' attorneys expanded to fill half of one side of the high school cafeteria. The applicants moved their tables into the audience viewing area.

The objectors' attorneys hammered away at Eastman's testimony in cross examination. They questioned the basic data he used. Garbage in, garbage out.

As the SPCUP trial entered its second month, teachers at South Park High School were impatient. Several classrooms had been taken over for attorneys' offices and the teachers couldn't prepare for the early September school opening. Finally Judge Hays said he would be out of there by August 30, regardless of whether Eastman finished his testimony.

Eastman didn't finish and the trial was continued to the period February 20 through March 2, 2001 in Greeley. That time slot should provide enough time for the applicants to finish their testimony.

Objectors needed about eight weeks to present their case. Unlike the applicants, they would not have any 23-day witnesses. The trial was expected to resume in mid-June 2001 and continue to mid-August.

Was Aurora - Goddess of the Dawn - riding the crest of a new era with its SPCUP? Would it turn South Park into a Hydraulic Park - home of Colorado's first large-scale conjunctive use project?

Or would Aurora's conjunctive use project crash and burn in the legal and engineering swampland of the South Park Aquifer?

The 5-1/2 year legal battle ended on June 1, 2001 when Judge Hays ruled against Aurora and Sportsmen's Ranch. He said the application was based upon a faulty computer model and had no merit.

South Park residents rejoiced. They staged a victory party that attracted 400 residents, many of whom were crucial in fighting Aurora by raising funds with thousands of dollars in donations, two self-imposed taxes, and the help of four angry citizens groups.

"It's been a wonderful grassroots movement," said Joy Minke. "The people were outraged that their water could be taken away for use on the Front Range. They didn't think we could raise enough money to muster a defense, and they were dead wrong."

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Aurora has been more successful obtaining water supply in the Arkansas River Valley than in South Park, but it has been a long, difficult struggle. It started with a back door entry to the valley which had its roots in the federal Fryingpan-Arkansas project.

The Fry-Ark project was first proposed in the early 1940s. It languished in the background of federal and state water politics until after the Blue River Water War ended in 1955.

Congress approved the Fry-Ark authorization bill in 1962 and the project was constructed in the 1960s. Colorado Springs would get some Fry-Ark water, but it needed more for its anticipated growth. So did Aurora, which would get no Fry-Ark water.

In 1955, an investigation by C.H. Hoper, a utilities consultant and former Colorado
Springs city manager, indicated that Aurora could obtain substantial additional water supply by constructing a reservoir on Homestake Creek in Eagle County on the Western Slope and by building the transmission facilities required to carry this water through the upper Arkansas River Valley, then over Trout Creek Pass into the South Platte. It was called the Homestake Project.

The project was too big for Aurora to finance and build alone, so it approached Colorado Springs with an offer to share equally in the cost and water supply of the Homestake Project. An agreement was negotiated.

Was the agreement legal? Colorado's municipality law was silent on this question. The issue went to the Colorado Supreme Court in 1960 and again in 1961. On October 2, 1961, the Supreme Court ruled that the contract was legal.

Aurora and Colorado Springs negotiated a contract with USBR to use up to 30,000 acre feet of storage capacity in Turquoise Lake, part of the Fry-Ark Project west of Leadville. The two cities will pay USBR $7.7 million over 50 years. They also negotiated a contract with Twin Lakes Reservoir Company for use of storage capacity in Twin Lakes.

Aurora and Colorado Springs obtained conditional water rights for their Homestake Project in 1962. Construction began in July 1963. It was a bold and courageous gamble. Would the project's Phase I yield the estimated 14,300 acre feet per year? Would project cost exceed the estimated $38 million? Would projected growth be sufficient to pay principal and interest on the water bonds?

No one knew for sure.

If things didn't work out as planned, Aurora could not remain solvent. It would be Fletcher's Folly all over again, The stakes were gigantic.

There was a Grand Jury investigation to determine if funds raised by Aurora's bond sales were properly accounted for. It found, in December 1968, that Homestake Project Phase I had a clear bill of financial health.

In 1967, Aurora contracted with Pueblo for exchange of 2,500 acre feet per year of Homestake Project water for 2,500 acre feet to Aurora in South Park. Pueblo would give Aurora $1.875 million, which would be used to purchase and transfer the Augustine Ranch water rights.

It didn't work out as planned. The Augustine purchase yielded an average of only 625 acre feet, not the anticipated 2,500. Pueblo demanded its full 2,500 acre feet of Homestake water. The Aurora-Pueblo contract was amended in 1969. Pueblo got its full 2,500 acre feet of Homestake water. Aurora used its $1.875 million to obtain 625 acre feet.

Homestake Project Phase I construction proceeded on schedule and costs were within budget. Homestake Reservoir - cornerstone of Phase I - has a storage capacity of 43,000 acre feet. It collects water from Homestake Creek and several adjacent tributaries of the Eagle River.

Aurora's Homestake water travels about 180 miles through a complex transmission system before it reaches its destination. From Homestake Reservoir it passes through an 11 by 11-foot tunnel 5-miles long under the Continental Divide. The water empties into Turquoise Lake, where Aurora has 20,000 acre feet of storage capacity.

Turquoise, with a total storage capacity of 127,339 acre feet, is owned and operated by USBR, as part of the Fry-Ark project. From Turquoise, Aurora's (and
Colorado Springs') Homestake water flows about 16 miles through the Mount Elbert Conduit to Twin Lakes Reservoir. Aurora has about 2,700 acre feet of storage capacity in Twin Lakes.

Then it travels by pipeline to the Otero Pumping Station, north of Buena Vista. Pumps lift the water 700 feet over the Mosquito Range and Trout Creek Pass into Spinney Mountain Reservoir in South Park. From Spinney it flows down the South Platte, then through a series of diversion works and pipelines to Aurora and Quincy Reservoirs, then into the city's two water treatment plants.

It's a long, expensive, complex raw water supply system, with many of its facilities in the Arkansas River Valley.

Construction of Homestake Phase I was completed in 1966. It was a great day in Auroraland when Homestake water first reached the city. Headlines were full of it and Aurorans were very proud.

Aurora was now ready for its next big mountain water supply project - *Homestake II*. Like its predecessor, Homestake I, it would be a cooperative project with Colorado Springs in Eagle County. Right smack-dab in the middle of the Holy Cross Wilderness area.

In 1979 and 1980, Congress considered establishment of several new wilderness areas in Colorado. One of them, the Holy Cross Wilderness Area, was strongly supported by various environmental groups. Aurora and Colorado Springs lobbied Colorado's congressional delegation to include language that would protect its proposed Homestake II project in the proposed Holy Cross Wilderness Area.

There were negotiations, concessions and compromises. Aurora and Colorado Springs agreed to change their plan for Homestake II to a completely underground system and accept certain other restrictions. The enviros agreed to accept this language in the Wilderness Act which Congress passed in 1980:

> Nothing in this Act shall be construed to expand, impair, impede, or interfere with the constriction, maintenance, or repair of said (Homestake II) project, nor with the operation thereof.

Smooth sailing ahead for Homestake II which, at considerable cost, had dodged the enviro's bullet. Right?

Wrong!

Aurora's Homestake II project would be stopped by Eagle County and the federal permitting process.

Harold Miskel of Colorado Springs' utilities department explained the problem in a *Colorado Water Congress* article:

> Immediately after passage of the Act, in 1981, we initiated the permitting for Phase II of the project. Since that time, we've encountered continuous opposition to the project from various environmental organizations. No closure!
They've used the federal permitting process to stop us; they've used the State and County processes; and now they've initiated litigation against the project in both the state water court and in the federal district court. The litigation is still pending. These actions are consistent with their philosophies.

Eagle County denied permits to Aurora and Colorado Springs for their proposed Homestake II Project. The U.S. Supreme Court sided with the county. The two cities reached an agreement with Eagle County in 1997. It limited Homestake II to a diversion of 20,000 acre feet a year.

Quite a comedown from the 60,000 acre feet Homestead II's conditional water rights were expected to yield!

Then there was that other nemesis, the U.S. Forest Service. It required an Environmental Impact Statement to determine if it should issue rights-of-way permits for project facilities on federal land.

USFS analyzed six different ways for Aurora and Colorado Springs to obtain water from Homestake II. Its preferred alternative would further increase project costs.

Aurora's take from the two Homestake Projects has been estimated to average about 24,000 acre feet per year - 14,000 from Phase I and 10,000 from Phase II when completed. In dry years the yield would be much less. Aurora needs additional storage capacity in the Arkansas River Basin to store Homestake II transmountain diversions before they are pumped up to South Park for the long ride down to Aurora.

Aurora's Homestake II project is still in limbo. Negotiations with Eagle County are continuing. Colorado Springs appears to be backing-off Homestake II and concentrating on building the Arkansas Valley Conduit - a $900 million project to deliver its Fry-Ark water to the city by 2007.

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There is capacity in Homestake project storage, transmission and pumping facilities in the Arkansas River Basin that Aurora can use to deliver water it obtains in the Arkansas Valley by purchasing and transferring irrigation water rights.

Irrigators in the Valley had been hurting for a long time. Mortgages. Foreclosures. High operating costs. Low sale prices. The young people were leaving. It appeared to Aurora that there might be lots of low-hanging fruit there for the picking.

The picking turned out to be a long, difficult undertaking.

Aurora's water harvest in the Arkansas River Valley began in Crowley County in the late 1960s. Speculators, as usual, got there first.

Nebraska cattle baron William Foxley bought the formerly irrigated land in the 1970s, after the Sugar City sugar beet mill closed. He sold much of it to Colorado Springs for a nice profit.

Then Aurora bought nearly a one-third interest in the Colorado Canal, which irrigated 50,000 acres with water diverted from the Arkansas. About a hundred farmers sold their canal shares to Aurora.
Then Aurora aimed its big water acquisition cannon at the Rocky Ford Ditch. It's a long story.

Before Aurora arrived, farming was thriving in the Rocky Ford area. The major cash crop was sugar beets and the famous Rocky Ford melons and cantaloupe. Many farmers worked at the American Crystal Sugar factory to process sugar during the annual harvest. But by 1960 the sugar industry in Colorado was declining and the American Crystal Sugar factory was struggling.

In 1974, farmers in the Arkansas Valley formed a cooperative to purchase the sugar factory. The effort failed. In the mid-1980s, a Canadian investment group run by brothers of Pat Bowlen (owner of the Denver Broncos) purchased American Crystal and sold its water rights to Aurora. They amounted to 58 percent of the shares in the Rocky Ford Ditch Company.

Aurora transferred its Rocky Ford Ditch shares to municipal use in 1986. The transfer dried-up 4,100 acres of farmland and Aurora obtained an average annual yield of about 5,000 acre feet. The water court made sure that the cropland taken out of production was revegetated. Since then Aurora has financed the Arkansas Range Project which, under court supervision, has maintained the formerly irrigated acres as grassland.

Aurora's agricultural staff of five at Rocky Ford also maintains grass on the 11,000 acres formerly under the Colorado Canal that Aurora purchased in the late 1960s. By 1997, all of the formerly irrigated fields under the Colorado Canal and Rocky Ford Ditch had been reclassified as grassland on county tax rolls. Assessments plummeted. County services and schools suffered. Young people moved away. Efforts were made to have the Colorado Legislature pass a law requiring applicants for water transfers to pay the adversely affected counties mitigation costs. They weren't successful.

In 1999, owners of 200 more shares in the Rocky Ford Ditch Company signed contracts to sell their shares to Aurora. So Aurora now owns virtually all - 758 of 800 shares - of the Rocky Ford Ditch. When the transfer is completed, Aurora expects to obtain an additional 5,000 acre feet of average annual yield and ultimately dry-up about 3,000 acres of formerly irrigated farmland.

Aurora is in water court in Pueblo with two applications. One - filed jointly with the sellers - seeks to change the type of use, place of use and point of diversion. The other seeks an exchange that would allow the transferred water to be taken from reservoirs in the Arkansas River Basin.

One agreement is with the Southeastern Colorado Water Conservancy District, which owns the Fryingpan-Arkansas Project's Pueblo Reservoir. Aurora temporarily stores water from its Arkansas River transfers in Pueblo Reservoir. Aurora will pay the district $2.25 million for use of storage space in Pueblo Reservoir. The district will use $1 million of that amount to help fund its long-dormant plan to build a conduit to provide Fry-Ark domestic water to northeastern communities from Pueblo to Holly.

Aurora's second agreement is with Otero County. The city has agreed to pay the county an annual mitigation of about $34,000 to offset tax revenue the county loses due to Aurora's Colorado Canal transfers. Aurora agreed to fully offset this loss of tax revenue for 90 years.

Aurora's agreement with SEWCD had to be completed before its final transfer trial
began. Aurora thought it had the district's approval, but it shocked the city in October 2002, when it suddenly cut-off negotiations.

What happened?

During the past several years, Bob Rawlings, 78-year-old publisher of the *Pueblo Chieftain*, had made himself the self-proclaimed guardian of the Arkansas Valley's irrigation water. He published anti-Aurora editorials in his daily newspaper and he sent personal letters to judges asking them to consider appointing new members to the SEWCD's board of directors.

The judges made new appointments suggested by Rawlings. The new board changed its policy regarding Aurora, saying the city had no right to use Fry-Ark reservoirs to store its transferred Rocky Ford Ditch water.

Help arrived in April 2003, when Interior Secretary Gale Norton, at the request of Gov. Owens, announced a ruling which allows Aurora to use these reservoirs, for a price, when capacity is available.

Since then, both parties have been meeting behind closed doors to finalize an agreement. More than 50 drafts have been considered. Water politics in full bloom in the Arkansas River Valley.

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All of this, and 20 years of effort and expense, for the shares of a relatively small irrigation ditch - Rocky Ford. Small in broad perspective, because Aurora's transfers will dry-up less than 7,000 of the valley's 425,000 irrigated acres.

The valley's largest ditch - actually Colorado's largest ditch system - the *Fort Lyon Canal* - irrigates about 93,000 acres. It extends 115 miles, from LaJunta through Otero, Bent and Prowers counties to Lamar. What a prize for whoever can purchase all, or part, of it!

A purchase attempt was made in the early 1990s by speculators known as Colorado Water Supply Company, an offspring of Colorado Interstate Gas Company. It offered 452 shareholders $2,000 a share, or about $2,200 per acre foot of average annual consumptive use.

CWSC appeared ready to invest $30 to $40 million to get control of the Fort Lyon Canal Company. It had gas pipeline expertise. Thirsty cities in Metro Denver suburbs, we can *pipe* the water to you!

CWSC's water sale contracts came wrapped in a 132-page document, big enough and heavy enough to raise quite a few eyebrows in the Arkansas Valley. Kevin Pratt looked at it and said, "Normally when I see a document that thick, written by a lawyer, I figure somebody's trying to hide something from me - and I'm a lawyer!"

Colorado's governor dipped his political oar in the murky legal water. "Romer opposed the water transfer," reported Mark Obnascik of the *Denver Post*, "because it would dry-up thousands of acres of irrigated cropland. He feared the transfer would hurt farmers who didn't want to sell - and make life tougher for the small town economies that remained."

Ken Salazar, then director of the Colorado Department of Natural Resources, said,
"I think the water users on the lower Arkansas River started reviewing the proposed contract, which was very complex, and they were afraid to sign something when they didn't know what they were getting into." CWSC couldn't get enough irrigators to sign their contracts and it finally abandoned the project.

In the late 1990s another water speculator - High Plains A&M, LLC - went after Fort Lyon Canal water. Its officials included Mark Campbell, Terry White and Kenneth Broadhurst. Campbell was a Denver real estate investor. White was a New Orleans entrepreneur. Broadhurst has been mentioned previously.

High Plains has spent about $35 million to acquire 25,000 acres of land irrigated by the Fort Lyon Canal. It now has about 40 percent of the Canal's shares - enough to control 100,000 acre feet of the Canal's average annual diversion of 265,000 acre feet. It has filed an application in Pueblo water court to change its Fort Lyon Canal water rights from agricultural to "other" uses.

High Plains officials say potential users of its transferred water extend "from Fort Collins all along the Front Range to Pueblo." Aurora is a logical buyer, since it has the facilities in place in the Arkansas Valley to move the transferred water to its distribution system.

But Aurora is no longer a patsy for water speculators. Its new utilities director - Peter Binney said, "No longer will third parties represent the city in a water buy." In the future, Aurora will deal directly with sellers.

Steps have been taken recently to protect the valley's irrigation ditches from further raids by outsiders. Last November, valley voters approved formation of a special water conservancy district empowered to levy property taxes for the purpose of buying irrigated farms and their water rights, to prevent them from being sold to outsiders.

The price of Fort Lyon Canal shares is escalating rapidly. High Plains' offering price was $1,750 an irrigated acre in 2002. By summer of 2003, it had soared to $4,000. The new water conservancy district is offering slightly more. A district spokesman said, "We are buying time."

A total of 50 litigants, including the Fort Lyon Canal Company, have filed objections to High Plains' water rights transfer. It will be a battle royal for the heart and soul of the Arkansas River Valley - the Fort Lyon Canal.

* * *

When Aurora transfers its irrigation water rights in Pueblo water court, it changes them to storage rights at Twin Lakes Reservoir, upstream on the Arkansas. The amount transferred generally is equal to the historical consumptive use by the transferred water rights. If any intervening water rights are injured, Aurora makes up the deficiency by importations of water stored in Homestake Reservoir.

Aurora needs more storage capacity in the upper Arkansas River Basin. In 2002, it purchased the Hollenbeck Ranch on Box Creek, north of Twin Lakes. Aurora is considering constructing a reservoir on it with a storage capacity of about 23,000 acre feet. Estimated cost $80 million. Completion date 2012.

Aurora has learned a lot from its water litigation experiences in South Park and in the Eagle and Arkansas river basins. One of its most important lessons is that it must
cooperate with basin-of-origin water interests, whenever it can, and provide adequate mitigation to offset their financial losses when water is transferred.

Aurora is cooperating with the Denver Water Board in negotiations with a group of Eagle County water interests. They are discussing a proposed new reservoir at a site just north of I-70 near Wolcott. The site is owned by the Denver Water Board.

DWB bought the former 4-Eagle Ranch for the site of a 350,000 acre foot reservoir. Current multi-party negotiations involve a proposed 100,000 acre foot reservoir.

A $100,000 feasibility study of the proposed Wolcott Reservoir is underway. If the study indicates the reservoir is financially and physically feasible, serious negotiations will begin between the interested parties. Denver and Aurora probably would have to agree to drastically reduce their claims for additional water from the Eagle River Basin, in exchange for the rights to build and operate Wolcott Reservoir.

It's a very complex water world out there now for Metro Denver water providers. The Colorado, Arkansas and South Platte river basins are becoming increasingly interconnected in water project planning, financing and operation. It's a wiser world, where cooperation is replacing litigation, for the benefit of all parties.
THE SAN LUIS VALLEY

A most unusual place.

Land of the Six Armed Cross.

Birthplace of Colorado's oldest towns.

Where irrigation started in Colorado.

Home of the aquifer of last resort.

*It's the San Luis Valley*

AFTER METRO DENVER'S SUBURBS have milked all the sacred cows in the South Platte, Colorado and Arkansas River Basins, where will they go for more water?

To the San Luis Valley?

Possibly.

There is a large amount of water in the Valley's deep aquifer. Some estimates say it's a billion acre feet or more. Getting it will be very difficult, but not impossible. In the semi-arid West, if thirst is severe enough, water is worth whatever it costs, whatever effort is required to get it, if it is the haven of last resort.

Everybody - politicians, lawyers, enviros, governors, mayors - they all get thirsty, and desperate, if they don't have enough water. The Big Persuader - a severe, sustained drought - can push aside legal, political and cost problems. Even problems big enough to live in the San Luis Valley, where there are twice as many cows as people.

Entrepreneurs have tried to tap the Valley's deep aquifer and export the water to Metro Denver suburbs. They failed. Perhaps they didn't use the sharpest tools in the shed, but others will try. It's a long, continuing story. Let's start at the beginning.

* * *

* * *
Ute Indians roamed the San Luis Valley for a thousand years or more before the Spaniards arrived in 1598 and took possession of all territory drained by the Rio Grande. They called the valley terra incognita, because they knew almost nothing about it.

Spanish missionaries probably named the San Luis Valley and the Sangre de Cristo Mountains. Francisco Torres, a missionary to the Pueblo Indians, is said to have climbed a hill near where the Rio Grande leaves the mountains. Moved by the beauty of the valley below him, he named it in honor of the patron saint of his native Spanish city, San Luis, in Seville.

Torres was wounded in a skirmish with Indians. He was dying when he looked up at the snow-capped mountains aglow in sunset colors. "Sangre de Cristo," he exclaimed - "Blood of Christ!"

Peg-leg Smith and Aaron B. Lewis crossed the San Luis Valley in the early 1830s on a trapping expedition. When Ute Indians tried to take their furs, Peg-leg "discouraged them with an outburst of colorful language." Perhaps he waved his wooden leg at them.

Uncle Dick Wooton passed through the San Luis Valley in 1842. He hauled a valuable cargo of beaver pelts and Spanish silver across Sangre de Cristo Pass to Bent's Fort on the Arkansas.

Lt. Frémont visited the San Luis Valley in 1848-9, during his Fourth Expedition. He was trying to discover a year-around route along the 38th parallel over the Rockies to the West Coast. Frémont's Fourth, unlike Beethoven's, was a disaster.

Early Spanish-American settlers saw promise in the San Luis Valley - if water could be brought to the land. They founded San Luis, the oldest town in Colorado, in 1851. That same year they dug the People's Ditch, which was later given the first adjudicated water right in Colorado.

By 1859, irrigation near San Luis was flourishing and Albert Richardson was able to write this in his journal about his journey through the valley:

Soon after sunrise I rode among the scattered ranches with fields of corn and wheat. Irrigation makes the parched, sandy soil wonderfully productive. In most wheat-growing states a yield of fifteen fold from the seed is an excellent crop. But this seeming desert often produces fifty fold, and sometimes a hundred fold.

Nowhere else in Colorado do family roots and family values grow as deep as in the San Luis Valley. The Salazar family is a prime example. Its family tree dates back to 1598, when Captain Juan de Salazar co-founded Santa Fe.

After the end of the war with Mexico, Juan Salazar and his son, Antonio, were among the first settlers in the San Luis area. They were driven out by Indians, but returned later to stay.

The ancestors of Henry Salazar, who died recently at age 85, settled on a ranch at Los Ricones, about 30 miles southeast of Alamosa. Generation after generation of Salazars lived there on the ranch, now 1,300-acres. Henry and Emma Salazar had eight children. They didn't have much money, but they were rich in history and family values. All of their
children graduated from college.

Henry and Emma's fourth son - Ken - is one of the fifth generation raised on the Salazar Ranch. After graduating from the University of Michigan law school he practiced law for 14 years, specializing in water and natural resources. He served four years as chief legal counsel to Colorado's governor, then another four years as director of Colorado's department of natural resources. He recently became the first Hispanic in Colorado elected to a statewide office - attorney general.

Manassa, near the Salazar Ranch, was the birthplace of Jack Dempsey, who became known worldwide as the Manassa Mauler. Born in 1895 to a large Mormon pioneer family in Manassa, Richard Harrison Dempsey later adopted the name Jack. The modest cabin where he was born is now the Jack Dempsey Museum.

The Dempsey family left Manassa when Jack was ten. The famous heavyweight boxing champion returned briefly to Manassa in 1966, when the museum was dedicated.

Colorado's old water buffaloes remember Ray Moses from Alamosa in the San Luis Valley. Ray was established as a premier water attorney when he moved his law practice to Boulder in the late 1950s.

*        *        *

The San Luis Valley is elliptically shaped, extending a hundred miles north to south and 65 miles east to west. Mountains surround it on its east, west and north borders. It has no definite southern border. It's an inverted horseshoe, with the open end facing the lower Rio Grande Valley.

Valley elevations are in the 7,000 to 8,000 foot range. The three-sided rim of mountains above the valley has several summits of 13-14,000 feet. The highest - Blanca Peak - rises to 14,343 feet above sea level. High snowfields feed the upper Rio Grande and its tributaries.

The San Luis Valley has two basins - the Closed Basin in the north and the Rio Grande Basin in the south. In the southern basin the Rio Grande traverses a big curve from west to south. It passes through an open southern gateway into New Mexico, then into old Mexico, finally reaching the Gulf of Mexico. Mexicans sometimes call it Rio Bravo del Norte - Valiant River of the North.

The Rio Grande in Colorado produces about 975,000 acre feet of water in an average year. This supply is depleted to about 328,000 acre feet by the time it reaches the New Mexico border.

Colorado, New Mexico and Texas fought over Rio Grande water in court for many years. The controversy was finally settled - or so it seemed - in 1938, when the three states signed the Rio Grande Compact.

The compact apportioned the Rio Grande water supply. Colorado agreed to deliver 300,000 acre feet annually into New Mexico. It was allowed to accumulate a delivery deficit of 100,000 acre feet.

Colorado failed to deliver the required amount of water during 21 of the first 28 years of compact operation. By the 1960s, its accumulated water delivery debit exceeded a million acre feet. New Mexico and Texas brought suit against Colorado. The suit
progressed to the U.S. Supreme Court. That litigation led to authorization in 1967 of the $100 million USBR Closed Basin Project.

The Closed Basin is northeast of Alamosa. Streams - mainly Saguache Creek - flow into it from north to south, then disappear. No surface water escapes from the Closed Basin.

*Saguache* comes from the Ute word, Saguquachipa, too big a mouthful for early white travelers to swallow. The word means "blue water," for a spring that arose from the blue-stained earth. Saguache is a revered word in the San Luis Valley. It's the name of a creek, a town and a county.

The Closed Basin Project involved condemnation of 38,000 acres. USBR constructed 150 shallow wells, from which about 60,000 acre feet were pumped annually into the Rio Grande to help Colorado meet its compact delivery obligation. The project has salvaged water that otherwise would have been lost to evaporation and transpiration - non-beneficial transpiration by salt grass, greasewood and other uneconomic plants.

The San Luis Valley has an unusual assortment of natural wonders: Closed Basin, Great Sand Dunes, warm springs, wildlife.

The Great Sand Dunes lie northeast of the Closed Basin. Southwesterly winds carry sandy soil over the lower San Juan Mountains and deposit it at the base of the higher Sangre de Cristos. Constantly changing sand dunes pile up hundreds of feet high. It's the highest elevation sand accumulation in the United States. Some say it rivals the Arabian Desert in its allure and mystery.

Warm springs are another of the San Luis Valley's natural wonders. They keep streams and lakes open in the winter. Mineral hot springs near Villa Grove have temperatures of 103 to 108 degrees. Rimmed by the Sangre de Cristos, these hot springs are a delight to experience, especially when snowflakes are falling.

Roughly the size of Connecticut, the San Luis Valley is one of Colorado's most biologically significant regions. It provides habitat for more than 70 species of rare plants and animals. Wildlife are attracted to the San Luis Valley because of its wetlands, which are supported by a high water table. Sandhill cranes follow the Rio Grande north in late February and March. They enter the San Luis Valley where they nest and build up reserves for a few months before completing their northward journey.

The Monte Vista Crane Festival celebrates the annual return of more than 20,000 sandhill cranes from winter grounds in New Mexico's middle Rio Grande Valley, home of the largest population of sandhill cranes in existence.

Sandhill cranes were called “preacher birds” by early settlers. Mark H. Hunter described their antics in a recent article in the *Denver Post*:

*The birds' dancing reminded them of fervent preachers exhorting their congregations. The tall cranes bow to each other, hop about, flap their giant wings, throw back their red-crowned heads and pirouette with unexpected grace. The dancing is a combination of mating ritual and springtime enthusiasm.*

Monte Vista National Wildlife Refuge, west of Alamosa, has 14,189 acres which
provide rare opportunities to see and photograph cranes, bald eagles, hawks, pheasants, flocks of ducks and geese, herds of deer and elk. The refuge has 8,000 acres of landscaped wetlands that have one of the highest duck nesting densities in North America.

* * *

The Closed Basin has two aquifers - the Unconfined and the Confined. The Unconfined Aquifer extends about 100-feet from the surface. It is used extensively, for USBR's Closed Basin Project and for irrigation.

Farmers and ranchers in the San Luis Valley begin irrigating with shallow groundwater early in the growing season. When snowmelt starts they switch to ditch water, if it is available. When ditch water decreases in late summer, they go back to groundwater from the Unconfined Aquifer. Excess water diversions, rainfall and snowmelt recharge this shallow aquifer.

The world's largest concentrations of center-point irrigation sprinklers are located in the southern half of the San Luis Valley. These big aluminum devices are fed by shallow groundwater. They irrigate more than 2,000 quarter-mile circles of potatoes and malt barley during a hundred frost-free days. Farmers and ranchers grow hay and alfalfa worth $42 million annually on 250,000 acres. They raise 90,000 head of livestock worth $75 million.

San Luis Valley agriculture is most famous for its 75,000 acre, $110-million potato crop. About 100 truckloads of fresh potatoes are shipped daily from October to June to distributors all over the United States.

Organic gardening also flourishes in the San Luis Valley because of its high, cool climate with much sunshine and few predatory insects. The sunshine nourishes many solar energy systems that provide hot water and household heating.

Ranching dominates the north half of the San Luis Valley. There is antagonism between upper valley ranchers and lower valley sprinkler irrigators. The uppers believe the lowers are stealing their water by creating a hole in the shallow aquifer that sucks water from streams and wells and dries them up.

Small farmers are caught in the middle. They have no linkage with the large corporate farms, whose over-pumping has prevented small farmers from obtaining well permits since 1982. Although no new well permits have been issued, irrigated crop acreage has increased by 21,000 acres.

Farmers in the San Luis Valley want to prohibit further expansion of irrigated acreage. They want to maintain the water table at an elevation high enough to support wetlands, which provide valuable wildlife habitat. A high water table also minimizes groundwater pumping costs.

The upper San Luis Valley, home of the Closed Basin, the Great Sand Dunes and dancing sandhill cranes, is a flat desert floor, 8,000 feet above sea level. It sits atop the valley's most closely guarded treasure - the Confined Aquifer.

There is a layer of relatively impervious clay about a hundred feet beneath the Unconfined Aquifer. Below this layer of clay is at least a mile and a half depth of gravel that eroded from the San Juan and Sangre de Cristo mountain ranges. At the bottom of this
gravel layer - below sea level - is bedrock, which is part of the ancient Rio Grande Rift that extended from Leadville to El Paso.

The sediment's lower accumulation, below the layer of impermeable clay and extending down to bedrock, is mostly a confined aquifer that is not, at least in theory, connected with surface streams and lakes. It's technically known as the San Luis Aquifer, but it's generally called the **Confined Aquifer**. There's enough water in it to stimulate the imagination and financial appetites of entrepreneurs, venture capitalists and Metro Denver suburbs.

The Confined Aquifer lies under the large **Baca Ranch**, located adjacent to the northeast corner of Great Sand Dunes National Monument. This ranch's history goes bacaways. (Please excuse the pun, but it was irresistible.)

The history of the Baca Ranch starts with Alvar Nunez Cabeza de Vaca (1490-1557), a Spanish noble who came to North America in 1527 on a royal expedition intended to occupy Florida. He was one of four men who survived a shipwreck off Galveston. They wandered six years before finding their way back to Mexico.

During his wandering, de Vaca heard stories about a city of gold up north. When he reported this in Mexico, it helped launch the famous Coronado expedition.

In 1863, the U.S. government granted 118,000 acres of public land to heirs of Don Luis Maria Cabeza de Baca, as partial settlement of a disputed land grant. It became known as the Luis Maria Baca Grant No. 4, or simply the Baca Ranch, or the Baca.

From its beginning, the Baca has been traded like a poker chip. The heirs let it go in a tax sale to Alexander Hunt, railroad promoter and former territorial governor. He sold it to David Moffat, the legendary one whose legacy includes a San Luis Valley town, west of Crestone, named for him.

Moffat sold the Baca to a real estate promoter named Waddingham, who sold it to ex-governor Gilpin, who sold it to a cattleman named Adams. Alfred Collins acquired it and sold it in 1950 to Newhall Land and Farming Company. Newhall was a big California development company. It sold the Baca to Arizona Land and Cattle Company, based in Phoenix, known as AZL.

In 1978, Canadian millionaire Maurice Strong purchased a controlling interest in AZL, whose assets included two million acres in the Southwest and various other interests including the Baca.

Maurice Strong visited the Baca Ranch and it was love at first sight. It appealed to his environmental instincts. He had been a United Nations undersecretary. He had chaired the U.N. conference on environment and development. In a November 1989 interview with **High County News**, Strong said:

*With my environmental interest I felt that, you know, it's a very unique valley. It's not a ski area. It was economically depressed. And here was a big piece of land where I had kind of a stewardship role. I began to think that rather than sell it we should have the company keep it and see whether we could find a better future for the area that would be good for the company and good for the area as well.*
AZL had split off 12,000 acres from the Baca Ranch before Strong took control of the company. It tried to turn it into a retirement resort. The effort was unsuccessful. Strong and his Danish wife saw possibilities at the Baca "for activities of a contemplative, spiritual, cultural and environmental nature."

In 1980, AZL merged with TOSCO, an oil company. When TOSCO sold its non-oil assets, Strong assembled a group of venture capitalists that bought the Baca Ranch. Strong's group included Sam Belzberg, a Vancouver based financier and developer, and William Ruckelshaus, former head of the EPA. Also Robert B. Anderson, son of former ARCO president, Robert O. Anderson. And Dick Lamm, former governor of Colorado. They were joined by a Pennsylvania investment banking firm.

Big Guys - Indeed!

Strong told his associates, "We can get these assets at a good price and there is also a plus factor on the water. We don't quite know what it is, but it looks interesting."

Strong's group bought the Baca Ranch from AZL in 1984 for about $8 million. They formed First Colorado Corporation, which investigated the economic potential of the deep confined aquifer under the ranch. The potential looked promising, so in 1985 they formed a subsidiary to go after this groundwater. It was called American Water Development, Inc., or AWDI.

AWDI's engineering report estimated that 120 million acre feet of water lay beneath the Baca which could "potentially" be developed as nontributary groundwater. AWDI officials were quoted as saying, "The aquifer may be as large as the Ogallala Aquifer, which nourishes farmland in seven midwestern states."

In 1986, AWDI filed an application in water court in Alamosa for 132 wells, each 2,500 feet deep, that would pump 200,000 acre feet annually from groundwater under the Baca Ranch. Virtually total opposition to AWDI's applications erupted in the San Luis Valley. Farmers, cities, counties, various state and federal agencies - they all opposed it.

AWDI poured gasoline on the opposition's fire when it filed a second application in water court. It sought rights to construct five dams on creeks flowing out of the Sangre de Cristos through the Baca Ranch. The dams would be on federal land. AWDI would use the dams to generate power which would be used to operate its big pumps. This outrage stirred-up people the Strongs had attracted to the area "for activities of a contemplative, spiritual, cultural and environmental nature."

AWDI withdrew its second application after Colorado's Senator Tim Wirth threatened to initiate a bill in Congress to designate a new wilderness area that would include a large part of the Sangre de Cristos that lie within the Baca Ranch.

Strong decided to follow a different path. He told valley residents that AWDI would irrigate 38,000 acres on the Baca to grow barley. He would attract a brewery to the area. He would use the Baca's water for local economic projects. No one believed him. You don't pump water from wells 2,500-feet deep to grow barley.

Frustrated, Strong tried another tactic. He announced that he had given his 23 percent stake in First Colorado Corporation - AWDI's parent company - to a private, nonprofit foundation based in Kalamazoo, Michigan.

Again, no one in the valley believed that he had taken himself out of the water export game. Strong seemed incredulous that people doubted his motives. But he was still
on the foundation's board and he was chairman of its investment committee. He remained
chairman of both First Colorado Corporation and AWDI.

The corporate structure of AWDI was so complex and secretive that its opposition
could not unravel it. Strong was reported to have sold most of his interest in AWDI to Sam
Belzberg and Alexander Crutchfield. Belzberg was a fellow Canadian and Crutchfield had
incorporated as Alexander Crutchfield and Company, based in Denver.

Objectors to AWDI's applications in the water court included 150 names. Their
lead agency was the Rio Grande Water Conservation District.

Citizens for San Luis Valley was formed. It established a war chest to fight AWDI
and it published the names of its contributors. A special tax district was formed with
authority to levy a property tax. It was approved - 20 to 1 - by voters in the six valley
counties, the six poorest counties in Colorado.

More voters turned out for this special election than had ever voted in the valley's
general elections. By the time trial began in Alamosa in October 1991, virtually every
registered vehicle in the San Luis Valley wore a STOP AWDI bumper sticker.

On the day the trial was about to start, 200 objectors to AWDI rallied on the steps
of Alamosa's town hall. Sam Bingham described the scene in his book, The Last Ranch:

*The American Legion color guard brought banners, and a troop of Boy
Scouts, the Stars and Stripes stitched crookedly on their shoulders, cavorted
around to keep warm while waiting to lead the parade past the courthouse.
Two enormous Belgian geldings arrived pulling a wagon full of hay and
sacks of Valley Fresh Carrots. A leather-faced gent with drooping
moustache and battered straw hat waved a sign that said in crayon, 'Sin
aqua es disastro para el valle.' Everybody wore jeans and pounded
newcomers on the back.*

*To the right of the microphones a 10-by-20 foot mural by a group of local
painters depicted the composite wealth of the valley being sold out to men
in fedoras wielding telephones and fistfuls of cash. The previous spring, a
delegation including George Whitten had unveiled this work of art under
the dome of the capital in Denver, and it had spent the summer touring
county fairs as a fund-raiser. 'We the people of the San Luis Valley pledge
to nurture and protect our resources and promote justice and human
dignity,' it said.*

There were several speeches, punctuated by loud cheering. As the clear morning
air warmed up, the Boy Scouts began to get restless, but they had to wait for the
benediction by Father Pat Valdez.

Bingham: "If Father Pat didn't like AWDI, neither did God. He prayed for family
and community and asked for blessings on 'our farmers, our ranchers, and the
environmentalists,' and that the 'bonds and relationships be strengthened that have been
initiated by realization of the value of our water.'

"Then the crowd marched off past the courthouse led by Legionnaires, Dale
Wiescamp and the Scouts singing about the purple mountains' majesty above the fruited plain, while small children waved to passersbys from the hay wagon."

The valley's pep rally did not extend into the crowded courtroom in the county courthouse. The opposing sides were seated on folding chairs around masonite tables - the well-dressed AWDI team on the right and the more casual, more bearded, more flamboyant opposition team on the left. Most flamboyant of all was RGWCD's attorney - Dave Robbins - who sported a red mustache described as "big as double dish mops."

In charge of it all was the water judge - Robert Ogburn - who anticipated that the trial "would have all the drama of watching paint dry."

The trial lasted six weeks. It involved two dozen lawyers and eighteen expert witnesses who produced 475 exhibits. It may have had the drama of watching paint dry for the judge, but it was a memorable experience for the relatively poor people in the San Luis Valley who watched it and talked about it. The lawyers were charging aggregate fees of more than $100 a minute.

Jack Ross presented AWDI's opening statement. Sam Bingham described the scene: "A senior partner of Saunders, Snyder, Ross and Dickson, he might have come out of central casting instead of Colorado's premier water law firm.

"The backlight from the east-facing windows flared off the polished pate of his bullet head and his coke-bottle glasses as he looked out at his audience and said in a dry and lugubrious voice, 'May it please the court.'"

Ross' speech, under hostile circumstances, was courageous: "This is an inquiry to determine whether water, as a unique and enormous resource, can be developed for the betterment of man or whether it must be forever locked up to serve the selfish whim of a few who refuse to accept inevitable change...

"In our search for reasons to understand why there has been no desire to settle or willingness to come to the conference table, we have come across again and again the fear of change. The fear of change occurring in relation to the way in which people live in this valley.

"We find that this fear of change is also reflected in the complaint that this applicant is not a homegrown company. That fear of change has been added to a very serious xenophobia in the valley that has been institutionalized all the way to the statehouse.

"Why has that devotion, that fear of change, that fear of outsiders, had the impact it has? We find that it really has to be an almost religious devotion to the status quo."

It was a speech Jack's senior partner and mentor, the late Glenn Saunders, would have applauded. Except for xenophobia - not a word used by people in the San Luis Valley.

Sam Bingham was astounded: "To tee off like this in front of a hometown judge on such an emotionally charged case bespoke an arrogance as towering as the Sangre de Cristos, but of course Ross was right."

After making his controversial opening statement, Ross turned the case over to other attorneys and to engineers who provided seemingly endless detailed testimony. Ross did not appear again until the end of the trial.

AWDI's engineering team was led by Robert Brogden and Isobel McGowan of the
Denver firm Bishop, Brogden and Associates. They constructed a complex computer model to find out what would happen in the Confined Aquifer if AWDI pumped 200,000 acre feet a year for 100 years.

Their model was built on a widely used program that treated the valley as a stack of square six-sided cells, two miles on a side. They developed equations incorporating variables such as hydrostatic pressure, permeability, porosity, water table levels, etc. These equations purported to show how water flowed through the six faces of each cube. The model's six layers extended down 18,000 feet.

The top layer was only 100 feet thick, because of a nearly impermeable layer of blue clay. Groundwater in the unconfined aquifer above the clay behaved like a sand-filled lake. Water in the confined aquifer below the clay was under artesian pressure. Or so it seemed to Isobel McGowan.

When Isobel ran her model for the first time, some of the cells in the top layer went dry. The computer program didn't know how to handle this, so she made the top layer 500 feet deep. This wiped out the distinction between the confined and unconfined aquifers.

McGowan's computer model parameters were based on hydrologic and geologic conditions in the San Luis Valley for year 1970, which she considered normal. She adjusted her equations until the model tracked conditions for the decade of the 1970s, for which USGS had developed extensive basic data. Then she ran the model, using AWDI's pumping of 132 wells to withdraw 200,000 acre feet annually from the aquifer for a hundred years.

Voila! Aquifer drawdown and Rio Grande depletion were within acceptable limits.

The whole thing was very complex - well beyond the understanding of most engineers and lawyers. Or so it seemed when the AWDI presented its case. After all, who could dispute this complex computer model - this objective, impartial source of technical truth?

Two people could - Dave Robbins and Devraj Sharma.

Dave Robbins - he of the big, red moustache - launched a brutal cross-examination. Gross oversimplification! Garbage in - garbage out! Why did they wipe out the distinction between the shallow, unconfined aquifer and the deep, confined aquifer? Why did they assume this and why did they assume that?

The walls of Jerico began to crumble, even before Devraj Sharma took the stand for the opposition.

Sharma was born in India in 1943. As the son of an Indian army officer on his way to becoming a general, he attended eleven different schools and learned eight languages before he graduated from high school.

Sharma was a brilliant student. He attended engineering school in India, majoring in fluid dynamics. He obtained a scholarship to the prestigious Imperial College of Science and Technology in London where Bingham reported, "Sharma's stipend allowed him barely one hot meal a day, but what matter? He ate in a cafeteria crawling with Nobel laureates, where casual conversation engaged the *Principia Mathematica* at the deepest level."

Sharma's doctoral thesis, accepted in 1969, presented "a three-dimensional mathematical model of rectangular sectioned diffusers." He probed deeply into the new
fields of computational fluid dynamics and chaos theory. Sharma turned down opportunities at the Imperial College that would have led to a prestigious tenured position. He accepted a job with a German multinational engineering firm. Later he went to Denver and into business for himself. He named his firm *Principia Mathematica*, after the famous book by Alfred North Whitehead and Bertrand Russell.

Sharma's testimony, presented in understandable language, attacked the whole premise of AWDI's computer model. He testified for five days. AWDI's cross-examination lasted three hours. It did not shake Sharma on a single point.

"I discovered," Sharma testified, "that the AWDI model was concocted. It was concocted hoping that nobody else would be able to take it apart and say, 'this doesn't make sense.' It was concocted to avoid raising certain issues at all, for instance, wetlands."

When court reconvened after the recess that followed closing arguments, Judge Ogburn astounded everyone by announcing his decision.

"This case," he said, "was conceived as a twinkle in the eye of a multimillionaire." He found water in the confined aquifer to be tributary. AWDI's proposed pumping would injure existing water rights.

"To claim otherwise," said Judge Ogburn, "was a smokescreen." AWDI's case "was an ill-conceived, misshapen, and stillborn child. I pronounce it dead."

Judge Ogburn's written opinion, which came later, closely followed the objector's briefs. Among his several quotations was this from Mark Twain: "There is something fascinating about science. One gets such wholesale returns out of such a trifling investment of fact."

In a paper presented at an American Bar Association conference, Judge Ogburn elaborated on his Mark Twain quote:

> Computer modeling is not an exact science, even though it comes packaged with a lot of bells and whistles and other technological trappings. If the underlying assumptions are inaccurate, incomplete, or just plain wrong, the computer model and the expert are not going to fare very well.

> Some lawyers think they can dazzle a jury with expert testimony and sometimes they can. A judge who has been around for a while, though, usually takes a more jaundiced, skeptical point of view. But that's the lawyer's problem, not mine.

This gem also appeared in Judge Ogburn's post-mortem paper: "A lawyer's first duty is not to bore the judge." Judge Ogburn was quoted as saying this privately, "Academic experts have become a plague on the judicial system. There's one for everything ... So many scientific experts have prostituted themselves. The scientific method means nothing. It's so obvious that most start out with the pitch, 'Where do you want to go? Tell us the bottom line, and we'll justify it.'

"Sharma, however, was the real thing. He did run that model through a shredding machine. He utterly decimated it, and he did it in such clear language that everyone in the room understood."
"On the other hand, AWDI's opening statement in the case was right. The community that fought them is xenophobic, but what's wrong with a little xenophobia? We all do it in our day-to-day living. We do it in the context of family, school, and even the organization of our courts. Is it wrong that an outsider must come to terms with the community in which he does business? I would so much rather see these things mediated. The adversarial process does not do them justice."

AWDI appealed Judge Ogburn's decision to the Colorado Supreme Court in 1992. The high court upheld Ogburn in May 1994. Later, the U.S. Supreme Court declined further review.

Colorado Senator Tim Wirth drove another nail into AWDI's coffin. He tacked a killer clause onto an omnibus water bill at the end of the 1992 congressional session. It barred groundwater development in the San Luis Valley that would damage either wildlife, or the Great Sand Dunes National Monument, or any federal projects (read Closed Basin). President Bush signed the bill as one of his last official acts.

AWDI had heavy debts to pay, including more than $3 million in legal fees, plus payment of its opponent's court costs. Its 7-year water export dream turned into a financial nightmare. In July 1995, AWDI sold the Baca Ranch to Cabeza de Vaca, LLC, for a reported $15 million. AWDI retained a 10 percent interest in any future sales of water exported from the Confined Aquifer under the Baca Ranch.

Vaca Partners owns a 50 percent stake in Cabeza de Vaca. Yale University owns 50 percent of Vaca Partners, a for-profit, limited partnership in which Farallon Capital Management, a San Francisco venture capital firm, evidently owns most of the other 50 percent, along with Stockman's Water Company, headed by local rancher Gary Boyce. Farallon has the major interest, Stockman's the minor.

Let's pause here, in the midst of this complex corporate structure that represented ownership of the Baca Ranch in the late 1990s, and tell the Gary Boyce story. It's a welcome diversion, as well as an important part of this San Luis Valley story.

Gary Boyce was born in Del Norte, in the San Luis Valley. His grandfather leased Rancho Rosado, a 1,000-acre cattle ranch just north of the Baca, which was managed by his father's friend. Gary spent summers at his grandfather's ranch and by the time he was eight he had ridden his horse over every trail on the Baca Ranch.

Then Gary switched to wheels. He drove muscle cars and raced motorcycles. He was 3-time Colorado dirt bike champion. He called himself the Cisco Kid. "It amazed us," said a valley rancher who knew young Gary, "that his parents were that generous when most of us were on foot." Understanding arrived when the police came and took young Gary and his cars and motorcycles into custody.

Gary's parents divorced and he went to Aspen to live with his mother. Then he left Colorado and didn't return for twenty years. He went to England and he made enough money on oil mergers and real estate to make him a wealthy man.

Boyce returned to the East Coast - North Carolina and Virginia - and set-up stables to import thoroughbred horses for sale to the hunting and racing sets. It was there that he met, and married, Joanne Schenck.

Gary called Joanne the best judge of horse flesh he had ever met. She was also very rich - the daughter of Nick "The General" Schenck, a big man in Hollywood during
its golden era. After their marriage, Gary and Joanne Boyce returned to the San Luis Valley in 1982. They purchased part of the ranch his grandfather managed when Gary was a little boy.

It took Gary nine years and eight separate land transactions to put that ranch back together. It took five years to build their house. Then Gary and Joanne withdrew from local society behind a high fence on Rancho Rosado and didn't resurface until Gary started a weekly newspaper in Crestone called The Needles.

The name was appropriate. At first glance it reflected the grandeur of the Crestone needles that rose behind the town. A closer look suggested Boyce's intent to "needle" his readers as a local muckraker.

Gary Boyce, editor and publisher of The Needles, drew cartoons of himself for his paper as El Gato - The Tomcat. He and his staff, recruited from among unemployed intellectuals in Crestone, published seven issues in 1990. They included a series of scathing investigative articles about AWDI and its backers. Then, with issue No. 8 halfway through production, he called the staff together and pulled the plug without any explanation whatever. It was just over. He said there would be no discussion, and for two years, no mention of The Needles passed his lips.

Some time later, Gary Boyce offered a public explanation of his strange behavior.

Well, the staff got out there and began probing for the soft spots, testing the waters, as it were. And a few people got nervous about that. By this time they were very much aware of how I ran the paper. They were very much aware of the great blade that El Gato had, that he had clipped a few people to make sure the blood ran red. They began to speculate on where we were headed next.

At this time I had some people approach me. They were people whom I highly respected, people who had known me since my boyhood. And they said we think we have an idea of what you're thinking about next, which is okay, because some issues need to be discussed. But at this time nobody really knew if I was Zorro or, as they said, a loose cannon rolling around the deck waiting to crash into the mast, and they said there was some issues around that we agree need to be talked about, but now is not an opportune time to do this. Now we need to stand shoulder to shoulder to show strong opposition against the water plan. And I agreed.

Who leaned on Gary Boyce - Zorro, the Cisco Kid, El Gato? Was it some power players in Vaca Partners?

Gary Boyce stopped needling AWDI and its backers and changed tactics. He distributed notices of a public meeting to be held in the Moffat High School gymnasium. Its purpose was to unveil his new enterprise - Stockman's Water Company.

It was a skeptical audience. "Old Gary's always up to something," mumbled a rancher. "You just never know what to expect."

The remarkable Gary Boyce spoke for nearly an hour and a half, without notes, in
a convincing manner. He began thus: "Okay, friends, neighbors and concerned citizens. First off, I've a few introductions to make here this evening. Stockman's Water Company. I don't have any billionaires or any senators or governors or ex-governors, but that doesn't bother me a whole lot. I can do a lot better than that.

"Right here in the front row is the best friend I have in this world, my wife Joanne. I think most of you know me. I've had the privilege of being born and raised in the San Luis Valley. It's a great place to grow up. Especially a great place if you can be a little boy, especially if you are a little boy and you are also the Cisco Kid ...

"It was great being the Cisco Kid, but that was then. Now I'm a man. I'm a mature person. I'm now Zorro. But I'm Gary Boyce, of course. I'm a Saguache County rancher and recently the founder of Stockman's Water Company."

Boyce wanted to talk about surface water, not groundwater. "Some people," he said, "want to go into the confined aquifer and develop that water. However, last year down at the courthouse, we learned one thing about the confined aquifer. From all the experts, all the witnesses, all the engineers from both sides we learned one thing, and that one thing is, we don't know anything about the confined aquifer, so we don't want to mess with it."

Boyce tried to explain his unique plan to market Saguache County surface water. "This is what I'm talking about - Stockman's Water Company. It's not your conventional style of water company. See, generally a company goes out to an owner, and they buy options on that water right, then they go out and find a market for it. And when they find a market, they come back and exercise the option.

"This is a different deal. Stockman's Water company goes out and sells (to people who have water rights) an option (to market some of their water through the company). For a token fee, you buy an option. You hold title to the water. The company finds a market for the water. It comes back and gets together with the people who hold options and they discuss what's on the table. If you don't want in, you have that option, too. The choice is yours."

Boyce was basically trying to sell the idea of contracting to deliver surface water to cities while retaining ownership of the water. He believed that it would take only one water rental to make all of the upstream water worth defending. His plan would pit upper valley ranchers in Saguache County against lower valley, Rio Grande County, center-pivot irrigators who, Boyce and other Saguacheans believed, had been stealing their water for years under the protection of the RGWCD.

Boyce's unspoken motivation was to wage war against the Rio Grande Water Conservation District. But the reality was that there wasn't much up-valley surface water left to defend or lease. The whole concept was rather strange, as was its author.

The ranchers did not buy into Boyce's grand plan. Undeterred, he brought a controversial, high profile engineer into Stockman's Water Company as a partner. Jerris Danielson - the Colorado state engineer Governor Romer had recently fired for suggesting the sale of Colorado River water to California.

Boyce obtained an option to buy the Baca Ranch in 1993, but was unable to swing it financially. In 1995, he joined with Farallon Capital Management in some kind of an arrangement which gave him a minority interest in the Baca Ranch.
In addition to his minority interest in the Baca, Gary Boyce owned the 5,500 acre Rancho Rosada. Stockman's Water Company would front for Farallon, Boyce and Danielson and it would take the lead role in future political action and water litigation.

Political action and water litigation?
Gary Boyce - the Cisco Kid, El Gato, Zorro - was finally unmasked. Stockman's Water Company planned to pump up to 150,000 acre feet a year from the Confined Aquifer under the Baca and export it to Front Range cities and water districts! Not announced, but suspected, was Boyce's plan to also export water from the Confined Aquifer downstream to New Mexico cities and to make-up Colorado's Rio Grande compact water delivery deficiencies.

But first, Boyce had to de-horn that old water-hogging steer - the Rio Grande Water Conservancy District - his longtime enemy who had successfully defeated AWDI's water export plan.


Entz and Dennis tried again and were finally able to shepherd the Replacement of Groundwater Depletions bill through legislative committees to final passage. It mandated a comprehensive study of the Confined Aquifer before any further groundwater development could be considered. Engineers and geologists would try to determine, in a $5 million study, how the aquifer functions and how much water it holds. Boyce decided to delay his applications to water court until after the study is completed.

Boyce then shifted tactics again. He would use the ballot initiative process to financially weaken, or destroy, the San Luis Valley interests who opposed his water export plan. Particularly the Rio Grande Water Conservation District.

Boyce hired Jim Brandon to be his primary lobbyist and political strategist for two proposed ballot initiatives. Brandon had been his chief lobbyist for fighting the Entz-Dennis bill. Boyce and Brandon formed a front organization called Colorado Water for Colorado. It proposed two constitutional amendments to Colorado's statutes.

Amendment 15 would require installation of flow meters on all non-exempt wells in the unconfined aquifer in the San Luis Valley by April 1, 1999. The division engineer's office in Alamosa would be required to read the meters monthly and shut down wells that did not have a functioning flow meter.

Amendment 16 would require the Rio Grande Water Conservation District to pay fees for water that has been pumped, and will be pumped, from aquifers under state trust lands in the San Luis Valley. The fees would be $30 per acre foot payable to the state public school fund and $10 per acre foot payable to school districts in the San Luis Valley. It was a brazen attempt to bankrupt the RGWCD.

Colorado voters - struggling under the combined weight of a bewildering number of ballot initiatives - generally had no idea of the hidden motivation behind Boyce's two ballot initiatives. Would they inadvertently destroy the fragile economy of the San Luis Valley?
Why was the San Luis Valley targeted and why was the entire state being asked to vote on it? The late George Creamer - the fragile advocate - would have had a ball attacking the constitutionality of Boyce's proposed constitutional amendments.

Colorado's newspapers generally were against Amendments 15 and 16. The Rocky Mountain News editorialized, "If the amendments pass, San Luis Valley agriculture would become prohibitively expensive - which is, we suspect, the whole purpose of the amendments though they masquerade as a school-improvement measure. Voters should deliver an emphatic 'No' to this unprincipled scheme."

Colorado voters delivered an emphatic No to Boyce's proposed amendments. It was a crushing defeat for Gary Boyce.

* * *

The San Luis Valley's sand dunes - 39,000 acres - were made a national monument by President Hoover in 1932. Visitors came and, in 1946, the Walsenburg Independent found rare eloquence in writing, "The Dunes are as mystical and enigmatical as the Sphinx. They hold their own treasurers, keep their own counsel, only whispering out their secret of a mighty past to the winds that, tossing and whirling the sands, have made them the 'Singing Sand Dunes.'"

Others also called the dunes a unique national treasure, but there were some who called it just a pile of sand.

In early 1999, the Nature Conservancy of Colorado agreed to purchase two ranches south of the Great Sand Dunes National Monument for $6.4 million. These ranches - the Medano and the Zapata - now combined into one property, comprise 30,000 acres, plus 70,000 acres of state and federal lease land.

In late 2000, Vaca Partners began negotiations to sell the Baca Ranch to either the federal government or the Nature Conservancy. In January 2002, Yale University revealed its involvement in the Baca and Colorado Senator Wayne Allard demanded that Yale lower the purchase price of the ranch.

Yale was getting bad publicity about the speculative nature of its investments, so it agreed to donate to the Nature Conservancy its share of the sale profits - about $4 million. A few days later, the Nature Conservancy purchased the Baca Ranch, using its own funds and funds contributed by congressional appropriations.

The purchase price was $31.3 million! More than twice the purchase price reported by Cabeza. Big profit!

Legislation authorizing conversion and expansion of the monument to become the Great Sand Dunes National Park was introduced in Congress in late 2000. It was supported by every member of Colorado's congressional delegation except Rep. Joe Heffley of Colorado Springs.

Rep. Heffley said there was nothing special about the sand dunes, even if the park were expanded to include the Baca's "fourteeners" Kit Carson Mountain and Challenger Point. His real reason was to keep the Baca's Confined Aquifer water available for export to Front Range cities - especially Colorado Springs and Aurora, whose water facilities were best suited for receiving water pumped over Poncha Pass.
Aurora’s Mayor Paul Tauer lobbied against the national park bill stating, "What we're concerned about is that the federal government doesn't seize it (the Baca) and preclude the use of it as a water source for Front Range areas. Sooner or later we're going to have a water problem in the state and the Front Range. I think it's premature to preclude any potential source without thorough investigation."

Scott McGinnis, who represents the Western Slope in Congress, disagreed with Tauer. "Cities like Aurora," he said, "are going to have to face up to the fact that they can't dry up the San Luis Valley to quench their thirst."

The Baca is in Saguache County, where county commissioners were unanimously opposed to the national park bill. Selling the Baca to the federal government would eliminate its $68,000 annual tax payment.

President Clinton signed the bill into law in late November 2000, but put only $8.5 million into the 2001 budget for an initial payment to purchase the Baca. The final $11 million funding was appropriated in 2003.

One obstacle remained - AWDI.

AWDI had retained a 10 percent interest in gross revenues from any sale of water assets. It challenged Cabeza's valuation and the controversy went to arbitration. Arbitrators determined the value of AWDI's interest to be $694,000, as requested by Cabeza. AWDI had valued it at $34.6 million.

Complex transactions are expected to be completed by 2005. Then the 97,000 acre Baca Ranch will officially become part of the new Great Sand Dunes National Park and Baca Wildlife Refuge. And the long, costly San Luis Valley Water Export War will finally be over.

Over? Forever?

Probably not forever. Will this tiny national park and wildlife refuge be able to withstand the political pressures and financial power exerted by Metro Denver suburbs during a future severe sustained drought? If it could be shown that exporting deep groundwater under the park and refuge would not injure them if the water transmission facilities are placed underground?

*Man plans and Mother Nature laughs.*
DOUGLAS COUNTY AND THE DENVER BASIN

IT WAS THE SECOND FASTEST growing county in the United States during the 1990s. Its population *tripled* during the past 20 years. It has been the nation's *richest* county since 1995, with a median household income of $80,923. No other county came close.

Welcome to Colorado's *Douglas County*.

Why do the Deep Pockets flock to Douglas County?

There are many reasons. Beautiful mountain vistas. Horse country. Acreage. Denver's culture and sports easily accessible. Denver Tech Center nearby. Easy commute to DIA. Planners say it's part of a movement toward *rurbanism*. Live rural, work urban. It's the *leapfrog phenomenon*.

Douglas County has had two lives. They can be roughly defined as pre-1980 and post-1980. We can't understand the latter without knowledge of the former, which was described in a recently published book, *Fading Past: The Story of Douglas County, Colorado*, by Susan Consola Appleby.

Douglas County originally covered 5,160 square miles, bordered on the west by Jefferson County and the South Platte, on the north by Arapahoe County, on the south by El Paso and Teller Counties and on the east by Kansas Territory. In 1874 Douglas County was reduced to 843 square miles by carving Elbert County out of its eastern flank.

Douglas County was named for Stephen A. Douglas, the *Little Giant*. Democratic senator from Illinois, presidential candidate and chairman of the Senate Committee on Territories. It was appropriate that when the Territorial Legislature of Colorado established seventeen counties in 1861 it would name one of them *Douglas*.

Douglas County - pre-1980 - was mostly rolling prairie, with a scattering of cattle ranches and a few small settlements. Some of these settlements faded away into oblivion. A few took root and became towns, eventually cities.
Russellville

The Russell brothers, who found gold in Little Dry Creek and helped give Auraria and Denver City their starts, should have had something important named for them. History has only given them a transient settlement called Russellville.

After the Russell party left Little Dry Creek, they went up Cherry Creek to an area north of present Castlewood Canyon, where they found a little gold. They stayed there long enough to build several log buildings and a sawmill before most of the party left. Others came and the settlement added more sawmills, a barn, corral and stockade. Union soldiers probably bivouacked at Russellville while preparing for battle in the Civil War.

A post office was established at Russellville in May 1862. A hotel was built and it was used as a stage stop on the Cherokee Trail, a north-south branch of the Santa Fe Trail, which it intersected.

Then Russellville began to lose its battle for survival. Charles F. Parkhurst arrived and built a larger hotel and stage station northwest of Russellville. He called it California Ranche. Parkhurst sold tanglewood whiskey to thirsty travelers at his stage coach stop.

Railroads put stagecoaches out of business and residents of Russellville moved away. Its hotel burned down. By 1880, most traces of Russellville were gone. The stone spring house and the two-story wooden ice house still remain.

Archeological investigations that started in 1994 have uncovered many interesting artifacts at the Russellville site - unfired bullets, military uniform buttons, cartridge cases, boot tacks and square-cut nails and much more. Confederate bullets were found, which indicate that Confederate soldiers had been there. The Douglas County Historic Preservation Board conducted preliminary investigations, which were completed in 1998. It has applied for designation of the Russellville site as a National Historic District.

Franktown

Located north of the Russellville site, Franktown was started by James Frank Gardner from Attica, New York. He arrived in Denver City in May 1859. He hoped to find gold, but found none and became ill with scarlet fever. After recovery he found work at a sawmill near Parkhurst's California Ranche.

J. Frank Gardner purchased an ox team and wagon and in 1860 he filed a squatter's claim on land about two miles north of California Ranche. On today's map it would be at the south-east corner of Colorado Highways 83 and 86. Gardner built a cabin, barn and a few other buildings on his claim and called his little settlement Frank's Town.

Frank had an influential friend - Territorial Senator George Chilcott. He had been Frank's traveling companion and business partner. The senator arranged to have Frank's Town named the temporary county seat of newly created Douglas County. County transactions took place in Frank's small cabin. The post office was moved there from Russellville in 1862. Before long Frank was postmaster, county clerk and recorder and county treasurer. He sold his property in 1863 and the county records were moved to California Ranche.
Fire destroyed California Ranche and the county records in December 1863. It was rebuilt and Gardner purchased it in 1865, along with Parkhurst's 160 acres.

In 1864, Territorial Governor John Evans created the Third Colorado Volunteers to protect settlers from Indian attacks. A regiment commanded by Gardner included many settlers from Frank's Town and vicinity. It trained initially at Camp Wheeler (now Lincoln Park) in Denver City and later at California Ranche.

The soldiers built a fort at California Ranche by placing a log stockade around the building and down to Cherry Creek. They stayed there four months, until the Indian threat subsided.

In 1874, the possessive letter 's' was dropped and Frank's Town became Franktown. It had a population of about 250 and there were many small commercial businesses and even a few professionals - two lawyers and a physician.

Franktown was not well located for a county seat. There were demands for a more centrally located, permanent county seat. In a March 1874 election at Franktown, Castle Rock was named county seat. Even Franktown residents voted for it, 31 to 6.

In January 1875, California Ranche was once again destroyed by fire. It wasn't rebuilt.

By 1890, Franktown's population had decreased drastically. The only remaining businesses were a saloon, blacksmith shop, general store and a shoemaker. Those remaining were mostly farmers and ranchers, who struggled to make a living. A Rocky Mountain News reporter described the poor soil:

Sandy and sterile, save in spots, disrupted by dry creeks, and demoralized by grasshoppers, horned frogs, weeds and what not, there are portions of the plains that can never be cultivated, civilized or changed, put all the new processes in play that are possible to invent.

All it needed was water.

Ozro Brackett built an irrigation ditch that diverted water from Cherry Creek onto land that became known as "the best hay ranch between Denver and Colorado Springs." Others did likewise and soon there were many irrigated farms in the Cherry Creek valley which produced good crops of alfalfa, corn, fruit and vegetables.

In dry years there was not enough water in Cherry Creek in late summer for irrigation and in the late 1880s there was talk of building a dam. A bill to construct a dam on upper Cherry Creek was introduced in the Colorado Legislature in 1889, but it was defeated.

The Denver Water Storage Company built the dam, about 3 miles south of Franktown. It was called the Castlewood Dam. Rockfill, rising 92 feet above the foundation, which was hard blue clay and sandstone - a recipe for disaster.

Castlewood Dam had a storage capacity of about 3,434 acre feet. Soon after construction was completed in November 1890, the dam developed leaks as the foundation settled. A committee was formed in Denver City to investigate the dam's safety. The Castle Rock Journal reported the dam inspection in April 1891 and stated, "We have often
expressed the belief that there is no possible danger to the people of Denver from the reservoir and we still believe the same." A representative of the Denver Water Storage Company said, "The idea of a flood in Denver as a result of the breaking of the dam is ridiculous."

A 100-foot section of the dam washed out in 1897. There was great concern in 1900, when heavy rains filled the reservoir to capacity. The dam's engineer, A.M. Welles, tried to calm the fears of downstream residents in a bold letter published in the Denver Times:

The Castlewood Dam will never, in the life of any person now living, or in any generations to come, break to an extent that it will do any great damage to either itself or others from the volume of water impounded and never in all time to the city of Denver.

He was wrong. Absolutely wrong!

On August 3, 1933, heavy rains filled Castlewood Reservoir to capacity and early the next morning, at 1:20 a.m., the dam failed. A 15-foot wall of water rushed down Cherry Creek Canyon, headed for Denver. The flood killed two people and many stock animals. It inundated hundreds of acres of farmland and damaged streets, bridges and homes in Denver. Franktown suffered severe damage.

Castlewood Dam was not rebuilt. Its ruins were named in the State Register of Historic Properties in 1995 and they became part of Castlewood Canyon State Park.

Franktown became a leading center for agricultural and dairy industries. Its residents have not forgotten their historical roots.

Franktown's history was remembered on May 12, 1946 when locals joined county and state officials to dedicate a 10-foot high monument that marks the site of the old California Ranche. It was erected by the Colorado Historical Society and the American Pioneer Trails Association just south of the intersection of State Highways 83 and 86. The monument was made of petrified wood collected locally by residents and school children. The son of Franktown's founder, James Frank Gardner, unveiled the monument.

Franktown remained a rural hamlet until the late 1970s. The town was small and unincorporated, but the Franktown Fire Protection District, created in 1962, covered 155 square miles - most of the southeast quarter of Douglas County.

Half of the Fire District's area is zoned A-1, which allows only one house per 35 acres. This low density zoning has attracted the affluent from faraway cities, as well as from adjoining Arapahoe County. Horses! Ranchettes! Mountain view! The West! All of that and Denver only a half-hour drive away.

They came by the thousands, all with deep pockets. Franktown's population has more than doubled in the past ten years - to more than 8,000. The price of land in the Franktown area has outpaced Douglas County's 11 percent annual increase.

Franktown's newcomers couldn't understand why the town had not incorporated. In late 1980, the Franktown Chamber of Commerce started a drive for incorporation. Many residents opposed it, fearing it would cause higher taxes and would eventually lead to
annexations of high density subdivisions. Finally, in January 1981, the Franktown Chamber of Commerce voted unanimously to end its efforts to incorporate.

Newcomers were creating big water, sewer and traffic problems. If Franktown won't incorporate, why not form a Franktown Metropolitan District?

Frank Erskine, president of Franktown's business district, and George Nez, a former planning director for the City and County of Denver, have been working toward creation of a metropolitan district that could enter into binding agreements with other entities for water, sewage, transportation and other services. It is the closest Franktown has ever come to having a governing body.

Parker

It was an important stagecoach stop on the Smoky Hill Southern Trail, a place where weary travelers could rest, wash, change clothes, eat and prepare for a grand arrival in Denver City, the end of their long journey, 20 miles away.

Alfred Butters built a cabin on the George Lord Ranch in 1863, to serve as an unofficial regional post office which he called Pine Grove, because it was located in or near a grove of pine trees. George Long purchased the cabin in 1864 and moved it and the post office to the intersection of the Smoky Hill Southern and Cherokee Trails. It became known as 20-Mile House. The settlement around 20-Mile House retained the Pine Grove name until James Sample Parker arrived.

Parker was born in Illinois in 1841. He became a bullwhacker and a stagecoach driver on the Smoky Hill Trail. He managed the Kiowa Creek Stage Station before purchasing the 20-Mile House at Pine Grove, where his brother George had already settled. George squatted on land on the east side of what would become Colorado 83. He built a cabin and saloon on the north side of the road that later became Parker's Main Street.

As traffic increased along the Smoky Hill Southern Trail and 20-Mile House prospered, James Parker added a blacksmith shop, a general merchandise store, an ox-shoeing hoist and the area's first official post office. He served as postmaster for 27 years. James became a leading citizen and a leader in local politics.

There was another town in Colorado named Pine Grove and this became a problem for the post offices. James Parker suggested Pine Grove be renamed Edithville in honor of his daughter. Postal authorities didn't like that name and used the name Parker's, instead of Pine Grove.

In the early 1880s the Colorado government ordered that all applicable Colorado towns drop the letter "s" from their name and Parker's became Parker.

James Parker's wife, Mattie, died in 1897 and in 1898 he married Eva "Mugger" Brand. She was appointed to a clerkship in the Colorado House of Representatives in 1903 and she and James moved to Denver in 1910.

The Denver & New Orleans Railroad came to Parker in 1882, after James Parker gave the railroad a 100-foot right-of-way. By 1900, Parker had a population of 253. There were two hotels, three general merchandise stores and two blacksmith shops. But only one saloon. The Castle Rock Journal moaned, "Parker is long on thirst and short on saloons."
James Parker died in Denver in December 1910. A special train transported his remains from Denver to Parker. He was buried at the highest point in Parker Cemetery, in its far southwest corner.

George Parker, who did not marry, didn't become as prominent as James, but he had an important role in the early development of Parker. He died in 1910 and was buried in Parker Cemetery, along with James, Eva and other Parkers.

Parker's population increased to 414 in the 1920s. It had three grocery stores, a hardware store, an auto garage, a blacksmith shop and a newspaper. Hard times arrived in the 1930s - the Great Depression, the Cherry Creek flood in 1935, abandonment of the railroad. By the late 1950s there were only 20 houses in Parker. In 1968, its population was only 287 and its area was only one square mile.

Then Parker City Land Company bought the unincorporated town of Parker. In 1970 Lewis and Thomas Scifio, the company's owners, decided to remake Parker into a town of "Western Victorian DJcor," anchored by the Ruby Palace Restaurant. The Scifios destroyed more than a dozen pre-1920s buildings in Parker that didn't fit their image of a "rip-roaring Western town."

In 1974 the Parker City Land Company went belly-up, leaving many half-finished buildings, unpaved streets, and no municipal water supply. The bankrupt company left more than 1,600 acres, including Parker's main business district and several housing developments, in the control of its primary lender, Bankers Trust of New York.

How could Parker recover from such a catastrophe?

Recovery began in 1976, when Nicholson Enterprises purchased the property from Bankers Trust. Its owner, Jim Nicholson, paid $1.5 million to construct a 3-million gallon water tank, well and pump for the town.

In 1980, Parker's population was 290 and its area still was one square mile. In 1981, Parker's residents decided to incorporate. They took control of Parker's future by taking it out of the hands of Douglas County Commissioners and placing it in the hands of the Parker Town Board.

Then the annexation parade began.

In 1984, Parker annexed more than 2,000 acres, which increased its population from 500 to 1,200. Fifty-six annexations later, Parker's area swelled from one square mile to thirteen. Twice, the number of people in Parker doubled in a single year. It grew from 5,450 in 1990 to 23,558 in 2000, an increase of 332 percent! In 1999, Parker's growth rate was 20 percent. It grew at a 16 percent annual rate throughout most of the 1990s.

Planners say there are two primary reasons for Parker's phenomenal growth - the Denver skyline 20 miles away and the closer skyline of the Denver Tech Center. Parkerites commute to both. People flock to Parker and other cities in Douglas County looking for the best of both worlds - urban and rural life.

In 1984, a pre-boom Parker City Council approved zoning for the Stroh Ranch project, which would add almost 8,400 homes on 2,000 acres in the southwest corner of town. So far, about 900 homes have been built. Since then, Parker's City Council has tried to reduce the project's density and provide more open space.

The recently approved plan for the revised Stroh Ranch project provides for 8,383 homes on 3,500 acres. The additional 1,500 acres are outside Parker, in Douglas County.
About 45 percent of the 3,500 acres will be set aside for parks, open space, a golf course and school land. There will be more than 20 miles of trails.

The revised project is called *New Prairie Urbanism* because of its focus on preserving local prairie land. It will eventually add about 30,000 new residents to Parker, after it annexes the 1,500 acres. Parker had about 33,000 residents at the beginning of 2003. Stroh Ranch project's cost at buildout, in today's dollars, is estimated to exceed $2.9 billion!

There's more development on deck in Parker. In December 2002, City Council and DougCo approved the *Reata* project, in an undeveloped part of Parker's southeastern flank along Colorado 83. It will add more than 1,000 homes and preserve 1,700 acres of open space.

Reata is a Western term for *lariat*. It's an appropriate name because the project's 2,500 acres formerly were an Arabian horse ranch for more than 40 years.

The revised Stroh Ranch project and the Reata project are examples of cooperative efforts by planners in Parker and Douglas County. A development plan, agreed upon in 2002, shapes how both will develop during the next 20 years. It establishes buffer zones, with restrictions on what can be developed within the buffer zones.

This joint development plan is a momentous step forward for Parker - the fastest growing city in Douglas County - the second fastest growing county in the nation.

Parker wants to limit its population to 80,000 to 100,000 residents in 20 years. This little, old stage stop on the Smoky Hill Southern Trail has come a long way since its beginning in 1864. It has further to go until it reaches its destiny, perhaps in about 2024.

*Castle Rock*

It sort of looks like an old, ravaged medieval castle, if you have a little imagination. That large, flattop rock formation that towers above its namesake city.

Historians don't agree on the name's origin. It was, for many years, attributed to the Stephen H. Long expedition of 1819-20, but recent investigations indicate that the rock formation it named *Castle Rock* was probably another formation between Palmer Lake and Monument, now known as *Elephant Rock*.

Another explorer, John C. Frémont, is credited with looking at the butte in 1843 and calling it *Poundstone Rock*, "because our hungry people seemed to think it a very agreeable comparison."

The town of Poundstone Rock? That name could never survive the ravages of history.

The flat land below the big rock was a natural location for early settlement. The Denver & Rio Grande Railroad arrived in 1870. A land company recruited colonists and several families from Tennessee formed a small settlement called *New Memphis*, about two miles northwest of the rock. It developed a reputation as a "hot lively town," where the "principal activity of the inhabitants was horse racing, gambling and drinking forty-rod whiskey."

In about 1870 Silas W. Madge discovered a hard, pinkish-gray volcanic rock on his ranch four miles south of New Memphis. He sent samples to Denver City to be assayed.
The assayer reported the rock - *rhyolite* - had no value, except that it might be used as a building material.

Building material? Opportunity!

Madge started quarrying the rock by hand and hauling it by wagon to nearby Douglas, a small settlement on the D&RG where the railroad company had installed a switch and a water tank in 1872. It quickly became a trading post and a distribution point for mail to nearby post offices.

Madge persuaded D&RG officials to construct a 2.6-mile spur to his quarry, located 500 feet above Douglas. By the early 1880s, Silas employed many workers and owned a boarding house in Douglas. Rhyolite from Madge's quarry was used to construct many Colorado buildings, including the Union Depot in Denver and the Antler's Hotel in Colorado Springs.

In 1869, Jeremiah Gould, a Civil War veteran from Rhode Island, homesteaded 160 acres between New Memphis and Douglas. He bought an adjacent 40 acres and built a cabin that locals called *Uncle Jerry's Claim Cabin*.

Uncle Jerry decided that his claim would be a good location for a town. He would call it *Castle Rock* for the big rock that dominated the area. The county surveyor staked-out the town site and filed it with the Douglas County clerk and recorder on April 25, 1874. About that same time Castle Rock was selected, in a county-wide vote, to be the county seat.

In June 1874, Douglas County officials auctioned 200 lots in Castle Rock. It sold 77 lots for a total of $3,400. The money was used to construct several county buildings, including a courthouse.

As county seat Castle Rock should have a railroad depot. D&RG officials resisted, because it already had depots at New Memphis and Douglas. General Palmer, D&RG's founder and president, finally relented and a beautiful structure was constructed from locally-quarried rhyolite stone. It was placed on the National Register of Historic Places in 1974 and is now the home of Castle Rock Museum.

Castle Rock incorporated in 1881. During the next several years the town built a ditch to carry water from East Plum Creek to its recently constructed reservoir. With ample water, it became a well-landscaped town with trees, shrubs and flower gardens.

In the late 1890s, Castle Rock built two proud rhyolite structures - a six room, two-story schoolhouse and a grand courthouse. It became Castle Rock's most treasured building. Fire destroyed the old Douglas County Courthouse in 1978.

Castle Rock's business district had many improvements during the early 1900s. Gaslights in 1902. Concrete sidewalks in 1909. Electric lights in 1929. Where, in all of Douglas County, was there a more progressive town than its county seat - Castle Rock?


During the early 1980s, annexations more than tripled Castle Rock's area - from 2,300 to 7,260 acres. Zoning regulations were relaxed in order to spur growth. Annexations increased Castle Rock's population from 3,921 in 1980 to 6,000 at the end of
1984.

When the plan for The Meadows development was approved in 1986, it included 14,127 dwelling units. The amended plan, approved by Castle Rock in 2003, capped the dwellings at 10,700 units on the 4,000 acre property. A town center will occupy 300 acres and there will be 1,300 acres of open space. At full buildout, the Meadows subdivision is expected to double the town's present population by adding another 30,000 residents.

Castle Rock citizens have been divided over the growth issue. With only a quarter of its land area built-out, the growth problem is likely to fester for a long time.

In 1998, Castle Rock voters rejected a proposal to ban new development for 180 days while city council reviewed its approach to growth control. A year later, a citizens group filed petitions to recall the mayor and five of the six council members.

In 2001, the town was divided again over a proposal to relocate the Union Pacific railroad tracks that have passed through Castle Rock's historic downtown area for 130 years.

Growing pains. But progress is being made. It now has some very aggressive growth control regulations. Developers must set aside 20 percent of their property for open space. Upfront, before beginning to earmark land for roads, residences, schools and small parks.

In 1991, Castle Rock adopted a master plan that said developers "shall preserve the visual character of all natural features." Building homes on ridge lines was supposed to have been limited by town ordinance, but it wasn't. Trophy homes continued to be built on the ridgeline above Castle Rock. Since then, however, Castle Rock has cooperated with Douglas County in joint efforts to protect open space.

Castle Rock's population now exceeds 30,000. It is one of the few cities in Metro Denver where housing construction has continued to increase during the recent economic recession.

Highlands Ranch

The history of Highlands Ranch stretches from Indian hunting grounds to playground for Denver's social elite, to murder at the Brown Palace, to planned residential community. It's a long, very interesting story.

David Gregory arrived in the late 1860s and became the first white man to live on land that would eventually become Highlands Ranch. Then part of the land was homesteaded by Lewis Wales Cleveland, sixth cousin of President Cleveland. Another part was purchased in 1879 by Johanne Welte and his brother-in-law Plaziduo Gassner.

Welte, an Austrian immigrant, and Gassner established a dairy farm, which they called Big Dry Creek Cheese Ranch. On today's map it would be north of University Boulevard, west of Quebec Street, south of C-470 and east of Highlands Ranch High School.

The Cheese Ranch produced excellent butter and limburger cheese. Gassner died in 1883. Welte then expanded his business and constructed a hog house, slaughterhouse, stone cistern, ice house, granaries, blacksmith shop and carpenter shop. He planted fields of alfalfa, corn and barley, using dry farming methods. He also planted a 10-acre orchard
of fruit trees.

Welte deeded the Cheese Ranch to his son-in-law, Philip Renner, from Germany. Johanne continued to live on the ranch and died there in 1927. The cheese making business continued until 1938, when its closure marked the end of 60 years of continuous operation. Renner sold the property in 1943 to Glester Richardson, who immediately sold it to Lawrence C. Phipps, Jr.

John W. Springer settled on land south of the Cheese Ranch in 1898. He was described by Ms. Appleby as a "wealthy, ambitious and strong-willed man of distinguished German ancestry." Denver Post columnist and amateur historian Dick Kreck described him as "a banker, would-be politician and accomplished horseman." Springer was a better judge of horses than women.

Springer purchased additional land nearby and expanded his holdings to 12,000 acres. He called it his Cross Country Horse and Cattle Ranch. It became one of Colorado's best horse ranches, with prize-winning stallions and mares. Springer became a Denver mayoral candidate. He used his reputation in politics, banking and law to establish a prestigious identity in Denver.

Springer married a Denver socialite, Eliza Hughes, who died in 1904. In 1909, he married Isabel Patterson, a recently divorced, beautiful lady he met on a trip to St. Louis. He called her Sassy, a name given to her by an extramarital lover in St. Louis.

John Springer named the large mansion on his Cross Country Ranch Castle Isabel. Sassy, like Richthofen's Louise, preferred her quarters in Denver's Brown Palace Hotel, which Springer provided. It was a convenient place for Sassy to entertain her lovers.

Springer tried to elevate Sassy into the social position formerly held by Eliza, but Denver's social bluebloods, repelled by her affairs and drug addiction, rejected her.

Sassy had, after her marriage to Springer, continued her longtime affair with Tony Von Puhl of St. Louis. She was also having an affair with John Springer's close friend, Harold Heywood.

This volatile mixture finally exploded in a widely publicized shooting and murder in the Brown Palace barroom. Heywood shot and killed Von Puhl and two bystanders. He said he was trying to save the marriage of his friend, John Springer. Five days after the murders, John Springer divorced Sassy.

Dick Kreck wrote a feature article about the murder in Colorado Heritage magazine in early 2003. Then his book, Murder At The Brown Palace, was published.

John Springer sold his Cross Country Ranch to his father-in-law, Colonel Hughes, who renamed it Sunland Ranch. When Col. Hughes died in 1918, it passed to his granddaughter Annie who had married Lafayette Hughes (no relation).

In 1926, Annie and Lafayette Hughes sold the ranch to Waite Phillips, a member of the family that founded Phillips Petroleum Company. Six years later Phillips sold the ranch to Frank Kistler for $425,000. Kistler was president of Wolhurst Stock Farms and he renamed the property Diamond K Ranch.

In 1929, Kistler invited the Arapahoe Hunt Club to move its activities from the Denver Country Club to his Diamond K Ranch. The club met frequently, October through April, to hunt coyotes on horseback, with the assistance of bloodhounds. It sought to emulate, for affluent locals, the traditional fox hunts enjoyed by British royalty.
Lawrence Cowles Phipps, Jr., was president of this elite hunting club. When Phillips had financial problems in 1937, Phipps bought the ranch for $250,000. He also purchased the Cheese Ranch and some other nearby properties and enlarged the ranch to 22,000 acres. He called it Highlands Ranch.

Lawrence Phipps, Jr., was the eldest son of Colorado Senator Phipps, who was born in Pennsylvania in 1862. Lawrence Sr. became a close associate of Andrew Carnegie in the 1890s. When Carnegie sold his steel empire in 1901, Phipps Sr. moved to Colorado for his wife's health. He would shape a Colorado dynasty.

Phipps Sr. was 39 when he and his wife arrived in Denver with pockets deep enough to hold $15 million. Lyle W. Dorsett, in *The Queen City*, described his arrival:

*Well endowed with steel industry fortune, he arrived in Colorado with short, neat, trimmed hair, a well groomed moustache, and a slightly discernible double chin which betrayed a life of well-fed opulence. His money and his reputation as a power in the Republican party gave him immediate access to the Denver Club and the city's inner power circle.*

Phipps endowed the Agnes Phipps Memorial Sanatorium in 1904. Named for his mother, located at Sixth and Quebec, it became an outstanding medical facility. It helped treat thousands of coughing consumptives who came to Colorado for the tuberculosis climate cure. Some of them, like Lawrence Phipps, brought money and influence. Others, like Robert Speer, brought talent and political know-how. Temple Buell and Edwin Johnson - both TB graduates - gave much to Denver and Colorado.

Temple (Sandy) Buell - architect, developer and benefactor of the arts - is mostly remembered for his development of the Cherry Creek Mall and as the primary benefactor of the Denver Center for the Performing Arts.

Edwin C. (Big Ed) Johnson was stricken with TB in 1907. He lived in a tent in Fountain for a year. After he recovered, he served Colorado continuously for 42 years. State representative. Two consecutive terms as governor. Three terms as U.S. Senator and a third term as governor. He was a strong force in Colorado water politics.

In 1937, the Agnes Phipps Memorial Sanatorium became the administration building at Lowry Air Force Base.

Lawrence Phipps, Sr., represented Colorado in the U.S. Senate from 1919 to 1931. As senator he helped plug Denver into the national airmail system. "On the crest of a zipping tailwind," a Denver newspaper reported, "a black and silver skyship swung into Denver." With the mail, we presume.

Phipps built a palatial, 54-room mansion on his six-acre estate at 3400 Belcaro Drive. He called it Belcaro - Italian for beautiful dear one. Completed in 1933, it featured a marble central hall, wood-paneled rooms, Flemish tapestries and a giant console organ.

Senator Phipps died in 1958. His third wife bequeathed Belcaro to the University of Denver, to be known as the Lawrence C. Phipps Memorial Conference Center.

She also donated a hall in the Denver Museum of Natural History which became Phipps Auditorium - home for lectures, nature films, plays and musical performances. It was so used from 1940 to 1952, when it became the museum's IMAX theater.
Senator Phipps had a flamboyant side which Leonard and Noel revealed in Denver - Mining Camp to Metropolis. "Lawrence C. Phipps imported a $17,500 Mercedes tonneau along with a Belgian chauffeur to drive it. With a 60-horsepower engine capable of 90 miles per hour Phipps was king of the road...

"Ex-senator Phipps smoked a cigar and drank highballs on his ninety-fifth birthday, telling friends he wanted to live to be 100. He died a few months later."

Phipps' first marriage produced Lawrence C. Phipps, Jr., who provided the Highlands Ranch connection. His second marriage produced two daughters, whose husbands (Van Holt Garret and Donald Bromfield) became big-time real estate developers in Metro Denver. His third marriage gave Denver the Phipps brothers, Gerald and Allan.

Gerald Hughes Phipps ran a large construction firm. Allan was a partner in the politically powerful Denver law firm, Hughes and Dorsey. He married into the rich, prominent Van Schaak family. Working together, Gerald and Allan saved the Denver Broncos franchise, at a time when it was poised to move to another city. They sold the Broncos in 1981.

Allan Phipps is credited with saving the Winter Park ski area for Denver, when it ran into financial trouble in the early 1950s.

It is remarkable that Gerald and Allan Phipps achieved so much for Denver when they must have been raised in an atmosphere of power and influence. Both were very astute, highly motivated businessmen.

Their older half-brother, Lawrence Phipps, Jr., was different. He lived the life of a country gentleman on Highlands Ranch, home of the Arapahoe Hunt Club. Although he served on numerous corporate boards, probably because of his name, he never achieved the stature of his father and his two half-brothers, except, of course, within the prestigious digs of the Arapahoe Hunt Club.

Lawrence C. Phipps, Jr., died in 1976, at age 89. His family sold the 22,010-acre Highlands Ranch in 1978 to a consortium led by Denver oil man Marvin Davis - for $13.5 million.

Marvin Davis and his friends owned Highlands Ranch for about 10 minutes. Or so it seemed to outside observers. Long enough to sell the ranch to Mission Viejo for $25 million!

Phipps' heirs were surprised and shocked by the quick sale and the consortium's obscene profit. They angrily sued, without success.

Mission Viejo, a California development firm, was a subsidiary of giant Phillip Morris, Inc., a conglomerate of consumer goods ranging from Marlboro cigarettes to Miller beer. Mission Viejo had previously, in the late 1960s, built a planned residential development on 10,000 acres in southern California. It is now the thriving and beautiful city of Mission Viejo, home to almost 90,000 residents.

Mission Viejo in Colorado would attempt to do the same thing on Highlands Ranch's 22,000 acres in Douglas County. It would transform Highlands Ranch into a planned residential community. It would use residential, commercial and industrial development to create a planned community on "an area larger than the city of Boulder."

The public announcement of Mission Viejo's ambitious plans rattled city council boardrooms in Littleton, Englewood and Denver. And the commissioners of Douglas and
Arapahoe Counties. All feared that such a large development could spiral out of control, with widespread adverse effects.

There were many disbelievers. *National Geographic* magazine called Highlands Ranch "a suburban wasteland."

Mission Viejo knew how to develop wasteland. After its successful project in southern California, it built a smaller project in Aurora, where it developed a one square mile tract in the 1970s into an almost completely independent community. Aurora later annexed it.

Mission Viejo set out to develop a residential community at Highlands Ranch that would be self-contained and self-sufficient. It would have all the amenities and necessities required for good living. It guaranteed buyers, through various covenants, that it would maintain high standards and build parks and schools.

Mission Viejo did not fit comfortably into Phillip Morris' big portfolio. It was sold in 1997 to J.F. Shea Company for $28 million.

Shea's 120-year history included participation as partner in the big construction combines that built Hoover Dam and the Golden Gate Bridge. It was no stranger to construction in Metro Denver. It built 80 homes at Grant Ranch in Arapahoe County.

Shea proceeded cautiously, obtaining approval from the Douglas County Planning Commission and the DougCo commissioners before exercising its option to purchase Highlands Ranch. It probably did not anticipate the Colorado State Engineer's denial of its application for 15 additional well permits.

No problem. Shea won its suit against the state engineer and started residential construction in 1980.

Highlands Ranch grew rapidly - from 3,017 in 1984 to 14,983 in 1990 and to more than 60,000 residents in 2000. Population at buildout is projected to be about 90,000.

Shea Homes has provided the amenities originally promised for Highlands Ranch, especially parks and schools. It donated the land and paid part of the construction cost of Shea Stadium in southwest Highlands Ranch. Don't confuse it with the famous Shea Stadium next to New York's La Guardia Airport.

Highlands Ranch's historical preservation efforts are a mixed bag. The old Cheese Ranch buildings were still there when Mission Viejo acquired the Phipps property in 1979, including the two-story farmhouse and barn built in 1879. In the opinion of historian Alan Culpin, it was "probably one of the oldest surviving homes in Douglas County ... worthy of preservation as an example of the heritage of that area."

Mission Viejo decided that preservation of the Cheese Ranch buildings would be too costly. It destroyed all of them in 1986. But in 1996 it announced plans to turn the site into Cheese Ranch Historic Park, which Ms. Appleby described as "a 50-acre park with bike and walking trails, picnic areas, wildlife observation deck, interpretive signage to note the former locations of the historic buildings, and a miniature windmill. A grand dedication ceremony for the historic park took place July 8, 1995."

Future plans include a 200-acre Highlands Heritage Regional Park south of University Boulevard and the Historic Cheese House Ranch Park. Designs for this park, by the Highlands Park Historic Park Advisory Committee, include trails with signs describing the history of ranching along the Front Range. The park's centerpiece will be the Highlands
Ranch mansion, built by John Springer in 1898. Lawrence Phipps, Jr., lived in it for nearly forty years.

The final stage of the three-decade-long Highlands Ranch project is nearing fruition. Construction of a town center, with a park, retail shops, homes and businesses is about to begin. The 5-acre park will be called, appropriately, *Civic Green*. A lot of the green will be required to pay the high cost of $3.7 million.

Highlands Ranch residents have access to medical centers, day-care centers, neighborhood and regional parks, business parks, places to shop and dine, picnic tables and playing fields, 18-hole golf course, full-service post office, religious services, two private schools, 14 public schools. All of this and 13,000 of its 22,000 acres are reserved for open space, parks, trails and community facilities.

No wonder Highland Ranch's population increased more than 600 percent during the 1990s - from 10,181 to 70,931. Its present population is about 73,000. Highlands Ranch is expected to reach 100,000 at buildout.

Shouldn't it be a city?

An Incorporation Feasibility Committee was formed in 1993. The committee studied the possibility for six years. Five times it reported that the time was not right, but in February 1999, it said the community had finally reached the right mix of commercial and residential tax bases to support creation of the City of Highlands Ranch.

The real reason for incorporation was the 1,000 businesses operating in Highlands Ranch with their blossoming tax base. It's time to incorporate, many said. Put it on the November 1999 ballot.

Many disagreed. Incorporation would result in increased taxes. An anti-incorporation group called *Citizens Against Raising Taxes* was formed to fight the proposed ballot initiative. Cityhood for Highlands Ranch probably will occur eventually, but it may take a while.

Highlands Ranch has come a long way since its hunt club days. "It's big. On that, at least, everyone can agree," said a Denver newspaper's feature article in October 1999. "The thoroughfares are as wide as interstates, the grassy shoulders as spacious as golf course fairways. Drive across the width of Highlands Ranch and as the odometer clicks along a thought comes to mind: *When is this going to end?*

Boomtown USA! Yes, but it's a good boomtown. Too bad there aren't more like it in Colorado.
Lone Tree

It's Douglas County's newest city. Incorporated in 1996, Lone Tree now has about 6,000 residents living on 1.25 square miles east of Highlands Ranch, south of C-470, west of Yosemite Street and mostly north of Lincoln Avenue.

In 2000, Lone Tree approved a massive annexation that will eventually quadruple its size. It was originally called the Rampart Range project. It had simmered on the back burners of DougCo planners for more than 30 years.

Colony Investments, Inc., of New York purchased the 5.5-square mile parcel in 1974, soon after DougCo zoned the property for urban development. Since then it has had a sour history with county leaders who had many concerns about it, including protection of undeveloped bluffs on the west side of I-25.

Colony Investments created Colony Development Corp. of Colorado to build the project, now called RidgeGate at LoneTree. Lone Tree's annexation of the project area bypassed DougCo planners.

RidgeGate will be the biggest mixed-use suburban development ever undertaken in Colorado. In the top ten for acreage in the U.S. It will cover 3,500 acres and it will include 12,000 home units and 23 million square feet of office and retail space, if built as now planned.

RidgeGate will straddle I-25 south of Lincoln Avenue. It may ultimately have 65,000 workers and become a sprawling clone of the Denver Tech Center.

Homes will be built in clusters, planned for views of the bluffs through several corridors. A third of the development is planned for open space, including parks, bluffs, a 77-acre central community park and wildlife area. Land will be donated by the developer for a centrally located town hall east of I-25, schools, parks, library, fire station, police station and a cultural center.

Lone Tree planners call RidgeGate a good example of smart growth, because it will allow people to live close to a major job center (Park Meadows Mall) and reduce commuting time. Others disagree. Douglas County has sued to overturn Lone Tree's annexation. So has the Lone Tree Citizens For Better Informed Voters.

Colorado Public Interest Research Group originally praised the high density aspects of Colony's plan. Later, it placed it on its Sprawl of Shame list because it would include 219 homes atop the bluffs.

Lone Tree officials shrug-off these negatives. They want to annex nearby 115-acre Park Meadows Mall, which would provide an estimated $10 million in annual sales tax revenues to Lone Tree. The owners of Park Meadows see an advantage from annexation - belonging to an identifiable city. It currently uses a Littleton mailing address - five miles to the west.

Lone Tree has joined the Regional Transportation District. Its FasTracks plan includes a Southeast Corridor, which will provide an extension of the T-REX light rail on I-25 from Lincoln Avenue south to Lone Tree. This probably will shape the future of the southeast metro area for a century or more.

Little Lone Tree, less than ten years old, has big plans. It's stirred up quite a controversy.
Developers say RidgeGate promotes the kind of smart growth communities now seek. New urbanists love it. Bill Vidal, executive director of the Denver Regional Council of Governments, says the project "calls for high density development that uses less land and (encourages) public transit. It's exactly the kind of development we encourage our members to consider."

Will Coyne, land use advocate for Environment Colorado, isn't sure RidgeGate is a good idea. His opinion was expressed in a December 2003 column by the Post's J. Sebastian Sinsi:

We're talking about a massive proposal of regional magnitude with 20 million square feet of commercial space that equals what's in downtown Denver now.

The compact density, pedestrian and transit orientation and mixed-use components are all commendable. But RidgeGate presents the Denver region with the question of 'Do we really want to build another downtown area beyond the southern boundary of the city?'

The Canyons

Starting in 1983, about a dozen developers and builders combined ownership of their properties on 5,576 acres between Castle Rock and Highlands Ranch. North of Castle Rock at I-25 and Happy Canyon Road. Lee Alpert took control of the land.

Alpert developed a project called Happy Canyon Ranch - 16,000 homes, 9 million square feet of office space.

Douglas County planners rejected Alpert's project plan. In 1996, he eliminated the office space and reduced the number of homes to 12,000. Rejected again.

In 1999, Alpert presented another project plan - 2,676 high-end homes, three golf courses and 3,300 acres - more than 60 percent of the project - would be set aside as undeveloped open space. There would be two regional parks, four local parks and 135 miles of public trails for horses, bicycles and walkers. The project's name was changed to The Canyons.

The Canyons would include land donated for school sites, a community center, money for a new fire station, improved roads. Alpert would even give Douglas County water rights he and his development partners owned, but did not need, in the Denver Basin aquifers. How could The Canyons project not be rezoned and approved by county planners?

The Rocky Mountain News, in an editorial, said, "This is a desirable plan and it ought to be approved." But the Douglas County Planning Commission, in a surprising vote, rejected the plan for The Canyons. One of the reasons was its potential impact on Denver Basin groundwater. Growth-weary Douglas County residents and adjacent homeowners applauded the Commission's decision.

Lee Alpert probably wished he had never heard of Douglas County, but he persevered. He zapped 175 more residential lots and one of the three golf courses. He
added 90 affordable housing units, 10 more miles of horse trails and increased lots sizes in
the project's northern sector by a half-acre.

The Canyons was the most scrutinized project in the history of Douglas County.
After a decade of effort, The Canyons project finally was approved in June 2000
by a unanimous vote of the Douglas County commissioners. Construction probably will
continue for more than 15 years. It will have a profound effect on Castle Rock.

**Open Space**

Douglas County, after a slow start, has become a leader in Front Range open space
protection. Its biggest accomplishment - shared with others - is the 33,000-acre I-25
Corridor between Castle Rock and Colorado Springs. The centerpiece of this corridor,
stretching 12 miles along Interstate 25 on both sides, is the Greenland Ranch.

The recent purchase of historic Greenland Ranch for open space was an
outstanding accomplishment. A triumph of cooperation, dedication and persistence by
dedicated people. Its importance cannot be exaggerated.

The 21,000 acre Greenland Ranch, south of Larkspur, is the oldest operating cattle
ranch on the Front Range. Its $70 million purchase price was the largest amount ever paid
for an open space acquisition along the Front Range.

The purchase was made by an unusual coalition of government agencies,
conservationists and anonymous donors. The sale was brokered by the Conservation Fund,
a Virginia-based private conservation organization with an office in Boulder, and DougCo
open space officials.

A private donor gave $30 million to the Conservation Fund, to be applied to the
Greenland Ranch purchase. The Conservation Fund contributed an additional $1.2 million
from its own funds. DougCo paid $10 million to purchase the ranch's 3,600 acres on the
west side of I-25 for public recreation use.

An unidentified private buyer will purchase the remaining 17,400 acres east of I-25
for $20 million. The buyer agreed to a conservation easement that will keep the land in
ranching and off-limits to development. Great Outdoors Colorado gave $8.8 million. It all
adds up to $70 million.

The euphoria surrounding purchase of Greenland Ranch should not diminish its
interesting history. It dates back to the 1870s, when the town of Greenland sprung up along
the Santa Fe, and D&RG railroad tracks.

Families settled on 20-acre town sites laid-out in 1875. They built mercantile stores
and saloons. Ranchers, lumber companies and dairies from a wide area around Greenland
came to town to put their products on trains bound for city markets.

In the 1880s, several nearby plots of land were combined to form the Greenland
Ranch. The Greenland Land & Cattle Co. was incorporated in 1909. It acquired the
Greenland Ranch which eventually was expanded to 21,000 acres.

Greenland dwindled after the 1930s, when highways replaced railroads as the
preferred shipping route between Denver and Colorado Springs. The train depots closed in
the 1930s. The schoolhouse and the post office closed in the 1950s. The pioneer families
either died or moved away. In the 1980s, Greenland Ranch was purchased by the
Oklahoma Publishing Co.

The Gaylord family owned the Oklahoma Publishing Co., which published *The Oklahoman* newspaper. It also owned the Broadmoor Hotel in Colorado Springs and the Pikes Peak Railway. The Gaylords, during Greenland Ranch sale negotiations, stayed in the background and avoided publicity.

Urban sprawl, pushing north from Colorado Springs, had almost reached the south boundary of Greenland Ranch. Developers salivated over purchasing parts of the Greenland Ranch, but none were able to purchase all of it. The Gaylords wanted to sell the entire ranch in one deal. This gave the open space coalition an advantage.

The Greenland Ranch purchase was a joint effort by Douglas County, Great Outdoors Colorado and the Conservation Fund. The *Rocky* praised it in a recent editorial.

*The importance of this purchase to ongoing efforts to prevent the creation of a creeping megalopolis running nonstop from Fort Collins to Colorado Springs can hardly be exaggerated. Coloradans driving between Castle Rock and Colorado Springs will continue to see at least some views of uncluttered rolling hills they have long enjoyed - and not just this year but 20 and 50 years in the future too. And while this purchase is providing motorists with a visual feast, it will also help maintain the identity of different communities.*

* * *

Following the Greenland Ranch purchase, there remained a few tracts that needed to be purchased to complete the 10-year, 33,000-acre I-25 open space corridor - mainly Hidden Mesa and True Mountain.

Castle Rock City Council, in 2003, preserved 716 acres previously zoned for 1,840 homes in a proposed development called *Hidden Mesa*. It includes a ridgeline between Castle Rock and Franktown with a 360-degree view of mountains and plains - a dream site for developers. Now it will be preserved.

Castle Rock will pay part of the $7.75 million cost. The remainder will come from DougCo's open space sales tax. This purchase will prevent the towns of Castle Rock and Franktown from merging into one continuous city.

The Hidden Mesa purchase adjoins, on the south and northwest, other open space to preserve a 1,570 acre swath of rock, meadow and canyon.

The last piece of land required for the I-15 Corridor project - *True Mountain* - abuts Greenland Ranch east of Larkspur. Douglas County recently obtained a conservation easement on the 577-acre property. DougCo contributed $1 million from its Parks, Trails and Open Space sales tax. Great Outdoors Colorado contributed $600,000 from its lottery funds.

Now - with the *I-25 Corridor* project completed - nearly $100 million worth of land has been purchased for open space in Douglas County. The cost to the public was only about $35 million, due to donations, gifts and conservation easements.

We've now heard Douglas County's development story, a little of its history, and
we've admired its leadership in open space acquisitions. But we've purposely avoided talking about DougCo's biggest current problem - water. It comes mostly from groundwater in the Denver Basin.

**The Denver Basin**

The Denver Basin is a sediment-filled depression, or bowl, east of the Front Range. It reaches from Boulder to Colorado Springs and from the Foothills east to Limon. Its history is the story of Eastern Colorado's geologic evolution.

Very little was known about the Denver Basin's geology until 1999, when scientists under the leadership of the Denver Museum of Natural History launched a drilling project at the Elbert County fairgrounds near Kiowa. It was the beginning of a journey three-quarter mile down into the earth and 50 million years into the past.

The drill went down 2,256 feet - only a fraction of the 12,000 foot distance down to the bedrock bottom of the Denver Basin. But far enough to include the basin's four aquifers and much more.

The 22-inch diameter core sample was brought up in 5-foot lengths - 93 percent intact. They were cataloged and sent in PVC pipe to the U.S. Geological Service core storage facility in Lakewood, where scientists can obtain small samples for analysis.

The $450,000 research project is supported by a $200,000 grant from the National Science Foundation and grants from various agencies and universities. As the research and analysis progresses, scientists will develop a much better understanding of the Denver Basin's paleontology, geology and hydrology.

The project's primary emphasis will be on studying Colorado's geologic history, from the bottom of a sea to the formation of the Rocky Mountains, to a rain forest that received 120 inches of rain a year. Scientists hope to find the truth about Colorado's geologic evolution, after a century of speculation.

Using new high tech procedures, researchers will examine core samples to determine how much water the Denver Basin's aquifers hold. They will take 2-inch core pieces, surround them with wax, pump water through them and time how long it takes for the water to go through the core.

It's an update I might add, with tongue-in-cheek, of the experiment Sol Resnick and I performed at the University of Wisconsin's hydraulics laboratory in 1942. For our civil engineering thesis - *The Movement of Water Through Soils*.

The Denver Basin is bowl-shaped. Its bottom is impervious Pierre shale, two and a half-miles below ground surface. This shale was once the muddy bottom of an ancient sea, 50 million years ago. From bottom up, different layers of water-bearing sediment indicate the beach-like Fox Hills formation, the coal beds of the Laramie formation and the Arapahoe, Denver and Dawson formations.

The deepest areas of the Denver Basin are under Douglas County, 3,500 feet below ground level. DougCo sits atop a 540-square mile segment of the Denver Basin, which covers nearly 6,700 square miles. The basin is made up of four unconnected, or confined, aquifers arranged like stacked bowls. An aquifer is a water saturated underground layer of unconsolidated material that can transmit an economic quantity of water.
The Denver Basin's uppermost aquifer is the Dawson. It is the shallowest of the basin's four aquifers. It underlies an area of about 1,200 square miles between Denver and Colorado Springs. Its thickness varies from a few inches to 400 feet. Typical well yields are 50 to 150 gpm (gallons per minute). This aquifer is used mostly by homeowners who drill a well for watering their lawns and gardens.

The Denver aquifer, under the Dawson, underlies an area of about 3,000 square miles, including Metro Denver. Its thickness ranges from 50 feet near Larkspur to 200 feet in the northern-most part of Douglas County. It narrows to a thickness of less than 50 feet from west of Louviers to Chatfield. Wells typically yield 50 to 200 gpm.

The Arapahoe aquifer, under the Denver, underlies an area of about 4,300 square miles. Its thickness varies 400 feet near Castle Rock to 200 feet at its northern, southern and eastern boundaries. A typical Arapahoe well in northern Douglas County extends down 1,800 feet. Wells typically yield 250 to 600 gpm, but some have yielded more than 1,000 gpm.

The Arapahoe is the aquifer most used by municipalities and water districts in Douglas County and, to a lesser extent, in Arapahoe County. Its water quality is excellent.

The Laramie-Foxhill is the lowest aquifer in the Denver Basin. It underlies an area of about 6,700 square miles. Its thickness varies from zero at its outcropping borders to about 300 feet. A typical well in northern Douglas County is 2,350 feet deep. This aquifer has heavy concentrations of minerals and it is the least utilized of the Denver Basin's aquifers.

More than 6,500 wells in the Denver Basin draw water from the Dawson, Denver and Arapahoe aquifers. About 700 wells tap the Laramie-Fox Hills. Many wells are used for rural domestic purposes. In recent years an increasing number have been drilled for municipal and industrial purposes.

Pumping from the Denver Basin totaled about 57,000 acre feet in 1996. Municipalities pumped about 24,500 acre feet - mostly from the Arapahoe aquifer. They used about 50 deep wells with a combined total capacity of about 50,000 gpm. If those wells were pumped continuously with unlimited supply they would produce about 80,000 acre feet per year. They are not pumped continuously and the supply is not unlimited.

* * *

The Metropolitan Water Supply Investigation report, dated January 1999, included this statement:

*There is an enormous amount of water in storage in the Denver Basin aquifers, approximately 467 million acre-feet, 300 million acre-feet of which is recoverable (Robson, 1987). The total amount of recoverable water in the five county metro Denver area is estimated to be approximately 150 million acre-feet, with approximately 40 million acre-feet beneath Douglas County alone (Van Slyke, 1993).*

150 million acre feet!
That's equivalent to the volume of water in Lake Erie!

The enviros latched on to this information early enough to use it successfully in their campaign to defeat Two Forks Reservoir. It also caused many users of Denver Basin groundwater to believe their water supply was virtually unlimited. And it led to creation of the 100-year rule in Colorado groundwater law.

*    *    *

Are there laws governing the use of groundwater in Colorado?

Yes, there are. They arrived relatively late on the Colorado water scene and they are not entirely adequate. They are being refined, from time to time, by legislation and case law. And by the Colorado Supreme Court.

The Groundwater Management Act, passed in 1965, applied to aquifers tributary to surface streams. It gave the state engineer authority to shut down wells when he finds they interfere with senior surface water rights in a river basin.

The 1965 Act established the means for designating groundwater basins to be managed by local groundwater districts, subject to the authority of the Colorado Groundwater Commission. The commission has thus far designated eight groundwater basins.

The 1965 Act was quickly tested in the landmark Fellhauer case. Roger Fellhauer, a Fowler rancher, ignored the division engineer's order to shut down his well near the Arkansas River. Pueblo District Court ordered an injunction against Fellhauer and ordered him to cease pumping.

Fellhauer appealed to the Colorado Supreme Court. His attorney said the 1965 law was unconstitutional. He said the division engineer discriminated against him and 38 other well owners in the basin, when more than 1,600 wells were allowed to continue pumping.

The Supreme Court found that the 1965 law was constitutional. It upheld the right of the state legislature to delegate authority to water officials to protect the stream against unreasonable injury by junior wells when downstream senior surface water appropriators were asking for, but not receiving, their decreed entitlements. Since passage of the Water Right Determination and Administration Act in 1969, tributary groundwater in Colorado has been administrated by decree and priority date, integrated with surface water.

Nontributary groundwater appeared on the radar of public consciousness in the early 1980s, when Denver lawyer-geologist John Huston and his financial backers filed applications in water court for 1.5 million acre feet of deep groundwater under Metro Denver.

In 1983, the Colorado Supreme Court ruled that nontributary groundwater was under the control of the Colorado Legislature and was not subject to appropriation like surface water. This quieted John Huston.

In 1985, a small group of water lawyers, water engineers and geologists, led by Boulder water attorney David Harrison, attempted to draft a new law governing groundwater, particularly water in the Denver Basin's deep, confined aquifers.

After many meetings this group, with the help of a few legislators, prepared
legislation which the Colorado Legislature passed and which became law after the governor signed it.

The 1985 legislature created new groundwater classification for Denver Basin aquifers - not-nontributary. Water tagged with this ambiguous classification has sources of supply that are not known.

The 1985 law provided that landowners located over a confined aquifer can withdraw no more than one percent of the aquifer's 100-year water supply. It was intended to help the state engineer's office administer such groundwater pumping. Instead, it has encouraged more pumping from Denver Basin aquifers.

Developers embraced the 100-year rule, smiled, and said to themselves, In a hundred years, I'm outta here!

The Rocky Mountain News recently asked David Harrison about the 100-year rule.

Looking back, Harrison says, the earnest group of law makers, water engineers and attorneys may have created a defacto ticket for runaway growth.

'Why 100 years? I don't know why we chose that number,' Harrison says.

'Now I look at places like Douglas County and say, Boy, that sure opened the gates, didn't it?'

We shouldn't blame Harrison and his covey of experts too much, because the prevailing conventional wisdom at that time regarding the Denver Basin was much more optimistic than it is today.

* * *

The language of groundwater is much different than the language of surface water. Groundwaterspeak is about aquifers, static water level, porosity, permeability, drawdown and, in the Denver Basin at this time, especially about artesian pressure.

Artesian originated in Arteis, France, where water gushed up into the air above ground surface. Denver has had artesian wells since the mid-1880s. The Brown Palace Hotel used artesian pressure for decades to power its elevators.

Hydrogeologists liken confined aquifers to champagne bottles. Once a cork is popped, or a well is drilled, the fizz (artesian pressure) pushes the champagne out of the bottle and the water out of a pipe above ground surface. When too many wells tap a confined aquifer, the water level is drawn-down below the confining upper level and artesian pressure - the fizz - is gone.

Then what will happen in the Denver Basin?

Nobody knows for sure.

Some experts believe water levels will stabilize with continued pumping. Others believe the rate of water level declines will slow down. Many believe water levels will continue to decline at about the same rate they did before they lost artesian pressure.

What happens if water levels decline at a faster rate?
This unanswered question troubles many Denver Basin experts. How long will it be before water levels in wells in the Arapahoe drop to the top of the aquifer and lose artesian pressure? Most experts seem to believe it will happen in the next 10 to 15 years.

There is so much we don't know about the hydraulics of the Denver Basin's aquifers. The Rocky Mountain News recently published a 4-part series titled Running Dry, aimed at educating the general public about the Denver Basin and its water supply problems.

The Rocky quoted Parker's consultant, John Halenpaska, who said the Denver Basin's aquifers do not lie in four distinct layers of sandstone, clearly separated by impermeable barriers. They are actually laced with largely impermeable layers of shale, making production below the fizz level even less predictable. A cross-section of the aquifer could have 30 - not 4 - layers.

Halenpaska's view of the Denver Basin's future, as revealed by the Rocky, is disturbing.

He expects the water level declines of 30 feet a year to continue at the same rate after reaching the top of the aquifer. If nothing is done, water rates will skyrocket, forcing people to stop using water, he says. He does not see the wells running dry, but more and more wells will be drilled, to stay even as production declines.

Rates will go up, and production will decline `until there is enough political pressure to buy surface water.'

Water level declines of 30 feet per year? Yes! In Castle Pines North, daily water level readings in three wells during the past eight years show an average annual drop of 34 feet. They have not yet dropped to the depressurized level at the top of the aquifer.

When water level drops too far in a well, the well either has to be deepened, or replaced by one or more new, deeper wells, or both. A new municipal well in the Arapahoe may cost $500,000 to $1 million.

Parker has experienced serious declines in its well yields. One well was pumping 780 gpm in 2001, but only 450 in 2002. Another well's production dropped from 780 to 450 gpm.

It's a serious problem.

* * *

Douglas County water interests, Denver Water, Colorado River Water Conservation District and others, recently teamed up to undertake a $1.2 million South Metropolitan Water Supply Study. Its objective was to investigate how the south metro area can meet its water supply needs through 2050.

The full report for the SMWSS hasn't yet been released, but a 20-page executive summary was released, reluctantly, in mid-December 2003. It stated that continuing to
depend mostly on well water from nonrenewable underground supplies "will result in a
dramatic loss in well production."

The summary report said the cost of continuing to rely on wells - the most
expensive alternative examined - would be at least $4 billion in today's dollars.

The study's manager is Pat Mulhern, manager of the Cottonwood Water and
Sanitation District. The study group proposes to form a south metro water district, or
authority, which would build a 39,000 acre foot reservoir. It would be filled with water
from the South Platte and Blue rivers, using junior water rights that would have to be
obtained in water court. Or with DWB surplus water.

After several revisions, the new plan calls for collecting an average of 19,000 acre
feet of excess runoff annually, storing it in the proposed authority's new reservoir, treating
it, and injecting some of it in the Denver Basin's confined aquifers as part of a cooperative
co-conjunctive use project.

*Conjunctive use*, the practice of injecting surface water underground to replenish
aquifers, is not adversarial in the Denver Basin, like it is in South Park.

In the 1990s, the Centennial Water District, which serves Highlands Ranch,
injected treated water into the Arapahoe and Denver aquifers through existing wells.
Willows Water District, in western Arapahoe County near Englewood, did likewise. These
two providers injected 2,500 acre feet of treated water into the two aquifers during a 7-year
period. Denver Water donated the treated water and provided technical assistance, along
with USGS and the consulting firm, CH2M Hill.

These two research projects indicated that injection, storage and recovery of treated
surface water in the two Denver Basin aquifers is technically feasible on a small-scale. It is
important to use high quality *treated* water which is chemically compatible with the native
groundwater.

Success with small-scale well injection does not mean it will be successful with
longterm, large-scale, regional conjunctive use projects. But the SMWSS recommends a
plan involving conjunctive use. It was described in the *Rocky's Running Dry*, Part 4, in
November 2003:

*The study recommends a plan that would allow the south metro area to
borrow water from Denver in winter months, store some of it in reservoirs
and inject some of it underground to recharge the aquifers. Douglas
County, in turn, would send water pumped from wells to Denver in dry
years.*

The *Rocky's* headline called it a *$3 billion water fix*. I'd call it unrealistic. Why
would the Denver Water Board want to bail-out Douglas County?

The *Rocky's* story quoted the DWB's manager, Chips Barry: "If the choice is
between p-ing-off Douglas County, or p-ing-off the Western Slope, I'll p-off Douglas
County."

Barry doesn't make Water Board policy. That's the Board's job. It's conceivable,
but not likely, that political pressures, backed by Big Money, could force Barry to do what
he doesn't want to do. But - bottom line - the Denver Water Board is supposed to be
nonpolitical. Its credibility depends on it.

*        *        *

Highlands Ranch participated in the SMWSS, but it has been developing a surface water supply to supplement its Denver Basin wells since its beginning in the 1970s. It can now get as much as 70 percent of its water from renewable surface water sources.

Parker Water and Sanitation District was dissatisfied with the SMWSS and withdrew from the project. It has been planning to build the Rueter-Hess Reservoir since 1985. It finally obtained approval from the Army Corps of Engineers in March 2004.

Rueter-Hess is the first major water project in Metro Denver to get federal approval since the demise of Two Forks Reservoir in 1990. It has had little environmental opposition. No federal or state funding is required. No one objected to it, except Rosie.

Rosie Rueter-Hess wasn't pleased when the PW&SD condemned 800 acres of her land for the reservoir. The district later purchased another 440 acres. She was 88 when the reservoir was named for her.

Rueter-Hess Reservoir will be located three miles south of Parker. It will have a storage capacity of 16,000 acre feet. Second-phase enlargement could increase its capacity to 55,000 acre feet. It will be offstream, in a gulch near Cherry Creek. It will be filled with water from several sources. From shallow wells along Cherry Creek that Parker owns. From water diverted from Cherry Creek during wet years. And from water PW&SD is able to purchase from Cherry Creek irrigators and transfer to Rueter-Hess Reservoir.

The $105 million cost of this reservoir will be paid for by tap fees and user fees. And, if necessary, by a bond guarantee that Parker voters are expected to approve in the coming May election. The bond guarantee would be used to impose a mill levy.

The primary force behind Rueter-Hess Reservoir's success story is the district's manager, Frank Jaeger - the water hunter.

*        *        *

Douglas County is not equipped organizationally to cope with the Denver Basin water supply problem. Douglas County Resource Authority consists of representatives of the county's 18 largest water districts and many smaller ones. As the Rocky's Jerd Smith reported, "Each rules supreme over its individual fiefdom and the districts often butt heads. Experts say unless the districts find a way to work together, it's unlikely Douglas County will ever solve its water woes. Individually, they don't have enough money or political clout needed to plan, build, or finance a countywide water system ... Unless they can find a way to speak - and pay - with one voice, Colorado's richest, fastest-growing county could be left high and dry."

Colorado's Attorney General Ken Salazar recently proposed a way: Form a South Metropolitan Water Authority.

It would represent Douglas and Arapahoe counties, whose combined population more than doubled from 1980 (319,000) to 2000 (664,000). Both counties need surface water supply. Salazar believes a centralized authority could unify the local fiefdoms so
they can speak with one voice and provide the political clout and financing required to plan and build big water projects.

Aurora, Arapahoe County's largest city, would have little to gain from a South Metro Water Authority. The county has been Aurora's legal adversary in recent annexation battles. Aurora is not likely to forget its failed attempts to cooperate with Arapahoe County in efforts to import water from the Gunnison River Basin.

* * *

It's a constantly changing water scene in Douglas County, as municipal water suppliers look at their dwindling groundwater supply in the Denver Basin's Arapahoe aquifer - which only a few years ago seemed so abundant, so reliable - shudder - and try desperately to play catch-up.

The danger in writing a book such as this is that the water scene - especially in Douglas County - continues to change rapidly, while the book's text has to be finalized, printed, and distributed - a long process.

This leaves the writer - me in this case - wishing he didn't have to stop in the middle of his exciting, ongoing story. But we must stop and move on. Aurora is waiting in the wings, anxious to move out onto center stage.
AURORA

AURORA - GODDESS OF THE DAWN - rises in the eastern sky, dressed in Colorado sky blue, pink, orange, red and gold as the morning advances. As she rises, she looks down on her namesake city and looks into its soul.

Goddess Aurora sees the soul of the West. Ambition. Growth. Burning desire to become bigger than Denver. Compulsion to become the real Queen City of the Plains. Where aridity lived, until Aurora pushed it aside.

Will Aurora continue to push aridity aside as it marches aggressively into the future?

That is one of Metro Denver's most profound questions.

Before we attempt to answer this question, let's go back to Aurora's beginning. Actually, before its beginning, when land that became Aurora was home to stage stops on trails leading to Denver City.

The primary routes to Denver City in the 1860s were the South Platte Trail, Republican River Road, the Old Cherokee Trail and the Smoky Hill Trail. It turned northwest along the Smoky Hill River, where isolated buttes, viewed from a distance, were usually hazy, giving the appearance of smoke.

The Smoky Hill Trail, beyond its namesake river's great bend, led to present-day Limon, Colorado, where it divided into three branches, each going to Denver City.

The northern route went northwest to Buick, where it split into two trails, North and Middle. Smoky Hill North Trail continued northwest to Toll Gate Creek in present Aurora. An enterprising early settler built a bridge across the creek and collected a toll for crossing it.

Smoky Hill Middle Trail went west from Buick to Greyhound Ranch near Kiowa Creek. Then it went northwest to join the Smoky Hill South Trail at present Quincy Avenue in Arapahoe County. It was the most direct route and a faster trail, and many early Pioneers, in a hurry to get to Denver City, seemed to favor it. But some were not equipped to handle Colorado's rough early spring weather and died of starvation and exposure. In 1859 it was condemned as “Starvation Trail”.

The Starvation Trail coincides closely with today's Smoky Hill Road in Aurora. As
Carl and Leona McFadden noted in *Early Aurora*, "It is quite likely that a pioneer's wagon traveled down the land which is directly beneath the long center hallway of Smoky Hill High School."

The Smoky Hill Trail became a primary artery for travel across the plains to Denver City during the 1860s. Way stations were established along its three routes. These stopovers provided shelter, food, drink and sometimes a change of teams. They usually were named for their functions, or their distance from Denver City. Hungate House. Toll Gate House. Seventeen-Mile House. Twelve-Mile House. Nine-Mile House.

Hungate House, on the Starvation Trail, has a terrible legacy. Four Arapahos brutally murdered Nathan and Ellen Hungate and their daughters. That tragic story was told in Chapter 1.

Toll Gate House on the Smoky Hill North Trail was special. It was on the north side of the creek, about one-quarter mile south of present 6th Avenue. It was the home of the famous DeLaney Bakery, which served "huge plates of roast beef, mashed potatoes with gravy, and all kinds of breads, pies and pastries."

John and Bridget DeLaney operated the Central City Bakery until 1870, when they moved to Toll Gate Creek. In addition to their bakery duties, they collected tolls, handled mail and served meals for weary travelers. Their legacy includes the famous DeLaney Round Barn, built about 1900.

The City of Aurora purchased the DeLaney Farm in 1982. The Round Barn received a National Register listing in 1982. The farm hosts an annual October Pumpkin Fest with crafts, entertainment, music and vendors. It usually attracts more than 10,000 people.

The stage stop at Toll Gate Creek seemed to be a gateway, a name that has persevered through time to this day. Aurora, early in life, acquired the name, *Gateway to the Rockies*. That name became part of the title of a book about Aurora history by Steven F. Mehls, Carol J. Drake and James E. Fells.

Aurora has embraced *Gateway* with a passion. It's attached to a high school, a post office, a park, two churches and at least ten businesses in Aurora.

Remains of 17-Mile House are located off Parker Road in Arapahoe County, adjacent to the historic Norton Farm, along the west bank of Cherry Creek. The site is described as "peaceful, with historic buildings that retain the original historic landscape." The Trust For Public Lands is working with various agencies to purchase the site and preserve it.

The picnic pavilion at Cherry Creek State Park now marks the site of 12-Mile House. Nine Mile House was also located in present Cherry Creek State Park, in close proximity to RTD's Nine Mile Park and Ride facility, which is about a mile from our home in Heather Gardens.

* * *

Brown grass and watering places on the prairie that is now Aurora appealed to early cattlemen who drove cattle up from Texas. More than five million head of cattle were fattened in the area from the Arkansas River north to Wyoming. One of the best
know early cattle kings was John Iliff.

Iliff was born in 1831 and came west with $500 in his pocket, a gift from his father, a prosperous Ohio farmer. He was 26 when he arrived in Denver City and started a business buying weary and footsore oxen and mules that had pulled wagon trains from the East. He rested them, fattened them and sold them at a big profit - much like South Park's Sam Hartsel.

Iliff was different. He was a Man of Destiny who would occupy a revered place in Aurora history. Tom Jenkins, a Denver area freelance writer, described Iliff in an article titled, A Brand of History:

*He was a quiet man of 'nerve and steel,' who declined to carry a gun most of the time... and always refused intoxicating liquor, although he loved cigars. He didn't allow any drinking or cursing by his men and his name was synonymous with integrity and high moral standards. Charles Goodnight said, 'John lived for his work and in it. He was the squarest man on the plains.'*


*He was Scotch, monosyllabic, shrewd, pious enough to live up to the name of the founder of Methodism, and so reserved as to be the least known of Colorado's innovators. He had no revealing idiosyncrasies, though he had a passion for eating chestnuts and he smoked cigars incessantly. He did commit one surprisingly unreserved act. While riding in his buggy from his ranch to Denver, he picked up a hitchhiker from Pueblo named Lizzie Frazier, who was handling a line of Singer sewing machines. Against his Scotch instincts he bought a Singer, which he didn't need, from this fascinating salesperson and consummated the purchase later by marrying Lizzie.*

By the time Iliff was 39 years old he owned nine ranches extending over 15,000 acres and 35,000 head of cattle. He also controlled 650,000 acres of open range, because he owned the watersheds on them. Tom Jenkins: "Aware that water was crucial to his cattle's survival, he bought more than 100 separate parcels of land, each with strategic access to water or its own water supply. In effect, he set-up a gigantic feedlot operation unheard of in those days of open range grazing."

Iliff was a millionaire when he died in his prime at age 46, in 1878. Although he was not a church-goer, he had a strong faith. Shortly before his death he requested that part of his estate be used to establish a college to prepare young men for the ministry.

About six years after John's death his widow, Lizzie, married Bishop Henry Warren and provided the money to start the school. Lizzie honored John's desire by founding and endowing the *Iliff School of Theology* at the University of Denver. It still is a major Methodist theology school.

Aurorans should remember John and Lizzie Iliff when they drive down Iliff
Avenue, one of their city's most heavily traveled thoroughfares.

* * *

A thriving community of ranchers and farmers emerged on the prairie land that later became Aurora. Their income came mainly from sales of hay, cattle, horses and sheep and from the delivery of vegetables and dairy products to the growing market in Denver City.

Thomas Fahey probably was the first. He homesteaded in 1867 near the Sable community in the northern part of present Aurora. Limon Mihley filed on land east of present Chambers Road about the same time. In 1869, John Copeland's widow, Celia, homesteaded on 1/8-section bordered on the west by present Yosemite Street and on the south by present East Colfax Avenue.

Union Pacific Railroad Company became the largest landowner in this area, after Congress granted UP a section of land for every mile of track it built. The grant was made in alternate sections and UP sold what it didn't need, to provide funds for railroad construction.

UP's land sales brought the realtors and the land developers. Donald Fletcher was one of them.

Fletcher was born in Canada in 1849. He moved with his family to Chicago in 1866. He attended New York University, Knox College and Union Seminary. He was called a brilliant student. He spoke seven different languages and became a Presbyterian minister.

Donald Fletcher came to Colorado in 1879 to restore his impaired health. He worked for the Denver & Rio Grande Railroad for two years, then launched his first real estate venture.

The Denver Times, in an 1883 article reported: "Donald Fletcher, the well known real estate agent, has taken as his partner O.R. Bouchard ... Fletcher and Bouchard, both experienced in their line of work in Denver, will make a specialty of handling property on Capitol Hill, where they have some 3,000 lots."

Fletcher put aside a choice site at 1575 Grant Street where he would build his mansion. It was in the Fletcher Subdivision, one of Denver City's most desirable residential areas.

Fletcher invested heavily in Pueblo's steel industry and its real estate. His Fletcher's Heights was one of the largest mid-1880s additions in Pueblo.

Fletcher was making a great deal of money and he was becoming a solid citizen in Denver City. By 1888 he was a stockholder in seven manufacturing firms and several real estate businesses. He was president of the Denver Chamber of Commerce, president of the State Board of Immigration, president of Fairmount Cemetery Association, president of the Colfax Avenue Electric Railroad Company. He donated funds to endow the Donald Fletcher Prize at Denver's West High School - a gold medal awarded each year to the winner of the school's oratorical contest.

Donald Fletcher was an important man. Wealthy, handsome, dapper, affable, civic minded - a solid citizen, praised by the Denver Times for his honesty and moral fiber.
History's choice to build the prairie town of Fletcher, the town that later became Aurora.

He should have stayed in Denver!

In the late 1880s, Fletcher joined Thomas S. Hayden and Samuel Marston Perry in buying land south of Baron Richthofen’s Montclair. Fletcher and Hayden bought land mostly on the north side of Colfax Avenue. They formed the Colfax Trust Company.

Perry bought land mostly south of Colfax and formed the Aurora Subdivision. Large newspaper advertisements were headlined, "Aurora - The Most Popular Subdivision Ever Placed on the Market." By 1891 the Colfax Trust Company had bought-out Perry and controlled four square miles that included the Aurora Subdivision with its 25 houses.

The property was bisected by East Colfax Avenue, formerly an Indian trail. It was named for Schuyler Colfax. He was mentioned briefly in the South Park chapter and will be discussed more extensively later in this chapter.

Baron Richthofen’s Montclair development, north of the Colfax Trust Company's 4-square miles, needed a water supply. Donald Fletcher, seeing an opportunity for profit, formed the East Denver Water Company to sell water to Montclair. When Montclair decided to purchase water from Denver Union Water Company, Fletcher was left with a partially completed water system and no customers.

Problems? Not for a man like Donald Fletcher. He created his own town - Fletcher - and offered it the opportunity to purchase water from the East Denver Water Company.

The new Town of Fletcher included the Aurora Subdivision and the Colfax Trust Company's other scattered properties in its 4-square mile tract. It ran from Yosemite on the west to Peoria on the east, from 6th Avenue on the south to 26th Avenue on the north.

Fletcher placed men loyal to him on the town's first "elected" board of trustees. They considered a letter addressed to them from the East Denver Water Company. It suggested that the town purchase the company. The letter was accompanied by a petition signed by owners or representatives of three-fourths of the land in Fletcher. Most of them were realtors.

The petition suggested that the town of Fletcher purchase the East Denver Water Company "at a reasonable price and for 20-year bonds of the town bearing a low rate of interest." It is a matter of first importance, the petition stated, that the town should control its own water supply and be entirely independent of private interests.

Donald Fletcher assured the town's trustees that he had "a first class and very acceptable gravity system of water works which can run at a small cost and can be readily extended in future years ... The projectors of the enterprise had never expected to make money out of it, but only to provide a reliable water supply for a sector in which they are largely interested ... and believe it will become an ultimate source of large profit."

Never expected to make a profit? Donald Fletcher, the Great Land Developer, never expected to make a profit?

The newly elected trustees of the town of Fletcher voted to purchase the East Denver Water Company for $150,000, to be paid by issuing 150 bonds, each worth $1,000, dated July 1, 1891, eight percent interest payable any time after five years and before 15 years. The water bonds would be repaid by taxing property in Fletcher.

It was the best of times for Donald Fletcher. Real estate was booming in his new town. One block in his Aurora Subdivision was valued at $400,000. This town would be a
promoter's dream. It was time for Fletcher to build his mansion in downtown Denver.

It would be a mansion suited to his stature, a tribute to his exalted position in the society of Denver City. It would have an art gallery with original European art treasures, a gymnasium, a ballroom, a theater, a swimming pool, bowling alley and the latest in mechanical heating and cooling.

But clouds were forming on the eastern horizon, over the town of Fletcher. The town's water system could not meet its modest water requirements. Property taxes did not produce enough revenue to pay interest on the town's water bonds. Then the silver market in Colorado collapsed and property values plummeted. A parcel of lots of Fletcher that had sold for $100,000 was sold at auction for less than $100.

Donald Fletcher disappeared and was not heard from again. He left behind a tangled thicket of real estate debts and his unfinished mansion. It served as a USO center during World War II and was torn down in 1961 to make way for an office building.

Year 1893 was very dry. So was 1894. The town of Fletcher's trustees called a special meeting in November 1894 "to consider the water supply." A committee was appointed to obtain water from the Denver Union Water Company. Union couldn't help Fletcher until after it installed a pump at Fairmount Cemetery, which also needed water.

Fletcher's water system remained uncompleted, because the town defaulted on its bond interest payments and the bondholders refused to provide more money.

Year 1895 was one of the two driest years of record, drier than all previous years except 1872. The drought continued into 1896. In 1897 the town's attorney said, "For the past six years (the waterworks) has been shown to be utterly useless to the town as a source of water supply."

The town of Fletcher tried to wiggle out of its water and debt problems by annexing to Denver City during the time that Denver was annexing many suburban communities. But Denver City wanted no part of Fletcher. Its lobbyists descended on Capitol Hill and persuaded state legislators to enact a law which required approval by the city to which annexation was sought before annexation could occur. It was upheld by the Colorado Supreme Court.

The Colorado Legislature (General Assembly) then took another step to protect Denver City from unwanted annexations. It approved an amendment to Colorado's annexation law that provided that if a municipality were subsequently annexed, it would be responsible for payment of its own debt.

How different the Metro Denver water story would be if Denver City had annexed Fletcher in 1897!

In March 1902, Fletcher's trustees resolved that, "Due to failure of water in Coal Creek at the said source of supply and to the impossibility to remedy difficulty now existing, water should be obtained immediately for domestic purposes and fire protection."

Denver Union had the only water available to Fletcher. It agreed to supply the new town with water, which arrived with pressure so low it could not put out a fire. Union answered complaints by saying, "Buy a chemical fire engine."

S.G. Hickman, owner of 69 of the 150 water bonds and 160 acres in Fletcher, brought suit to restrain the town's trustees from increasing property taxes to pay interest on its water bonds. The town's defense against Hickman's suit included the assertion that "The
town was incorporated to perpetuate a fraud."

U.S. District Court upheld Hickman. Subsequent appeals did not change the decision. Fletcher's growth had been stopped and its image was badly damaged by its water problems. In early 1907, the town's trustees decided to make a change. Forget Fletcher. Let's make a new start.

Let's call our town Aurora!

* * *

Aurora's trustees sent one of its own - H.S. Class - to Pennsylvania to meet with Hickman. No, it wasn't the High School Class of 1907, it was Henry S. Class. His mission: negotiate a settlement.

Hickman offered a glimmer of hope. Perhaps he might buy the remaining bonds, "because he had faith in the future of Aurora." He said he was sorry that innocent home builders had to suffer, "but I bought these bonds in good faith." He told Class to settle with the other bondholders first.

The Aurora town board called a special meeting to hear Class' report. His bitterness was apparent. "It is not a question of what the people of Aurora want to pay in the settlement of these bonds. It is a question of what they can and are able to pay. They also believe that the whole transaction was a job, it was a steal, and it was done by men who knew it was a steal ... It is a fact that Aurora would be many times its present size were it not for these bonds. They are a black eye to the town. Real estate is unsaleable."

Class said the Coal Creek Water Company, as it was now called, could not have been worth more than $50,000 when it was sold for $150,000. He said the town board was packed with water company officials and was controlled by them for many years. Then he suggested three bond refunding procedure possibilities. The Town of Aurora's board wasn't interested. They hired an attorney to fight the bondholders' lawsuits.

After Aurora defaulted on bond interest payments in February 1909, Fidelity Securities and Investment Company obtained a judgment for $17,300 against it in federal court. The judge said Aurora was liable for the entire bond indebtedness of $150,000. Aurora's mayor said the only way the judgment can be paid would be for the bondholders to confiscate the town's property.

Aurora's new attorney said, "Aurora will sooner or later be dashed to pieces on the rocks of that $150,000 bond issue authorized in 1891 to defray the cost of a water plant that was never built. The bonds were sold, however, and there is now about $115,000 interest and court costs added to the original amount."

In October 1909, Fidelity Securities was back in court because Aurora hadn't made any interest payments. The judge ordered the town to immediately levy a tax of ten mills on the assessed value of property in the Town of Aurora and on any lands disconnected from it since the bonds were issued in 1891. Do it, or be in contempt of court.

What a mess! It would get worse. A newspaper reported, "Other companies are expected to press their claims against Aurora."

In April 1912, the U.S. Circuit Court of Appeals ruled that Hickman was due $180,000 from Aurora, being the original $150,000 plus accrued interest. Aurora appealed
to the U.S. Supreme Court. It ruled, in 1914, that Aurora must pay its 1891 water bonds.

In 1916, Aurora was ordered to pay $25,000 of its bonded indebtedness that year - or its governing officers would go to jail for contempt of court. The town's indebtedness had increased to $450,000 - three times the original amount!

Finally, in 1917, after a quarter-century of litigation, Aurora found a way out of the dismal swamp called Fletcher's Folly. Town Attorney Luke J. Kavanaugh had a plan, which was approved without a dissenting vote by Aurora's board of trustees. It was quite simple: substitute 4% refunding bonds to replace the outstanding 8% original water bonds.

Hope replaced despair. One of the town's trustees said, "It might take a tax levy of 50 mills and it might take 50 years, but Aurora will eventually be debt free."

What city in Colorado, other than Aurora, ever started life with a debt burden such as Aurora struggled with during its first 25 years?

None!

Kavanaugh's bond refunding plan was approved by Aurora voters - 116 to 1 - two days before Christmas 1916. In January 1917, District Judge Harry S. Class denied the application of an Aurora realty company to prevent Aurora from issuing the refunding bonds.

Yes, it was that same H.S. Class, envoy to Hickman, former town trustee, former mayor of Aurora, now a district judge. He had grown in stature, as would Aurora.

Aurora - Goddess of the Dawn, Queen City of the Plains in waiting - had been born again. Reborn, after suffering through that long dismal night later called Fletcher's Folly.

Does Donald Fletcher deserve a revered place in Aurora history? No! Of course not.

Then why does Aurora have Fletcher Park, Fletcher Plaza, Fletcher Arts Center and Fletcher Elementary School?

* * *

The home rule legislation that created the City and County of Denver in 1904 also divided what remained of Arapahoe County into two counties. The area north of East Colfax would be Adams County. South of Colfax it would remain Arapahoe County. It split Aurora right down its East Colfax Avenue middle.

Adams County - self-styled Crossroads of the West - was named for Governor Alva B. Adams, best known in the Colorado water community for the Colorado-Big Thompson Project's tunnel that bears his name.

That split into two counties was not a very nice thing to do to young Aurora, which had enough problems without that. Subsequent attempts to create the City and County of Aurora failed. Aurora now extends into a third county - Douglas.

Growth! Aurora has a hunger for growth that may have become embedded in its psyche way back when its bond refunding opened the door to expansion. Its population tripled between 1900 and 1910 - from 202 to 679. Nearly two-thirds lived in Adams County. By 1917, Aurora's population approached 1,000. That was when the Army located a hospital in Aurora and started a trend that would shape its destiny as a military town.

After the United States entered World War I, the Army Medical Corps began
looking for a hospital site. The Denver Chamber of Commerce wanted the site to be located near Denver. It formed the Denver Civic and Commercial Association (DCCA) to find a site and lead a fund-raising campaign to purchase the site.

The DCCA located an excellent site at the Gutheil Nursery, northeast of East Colfax Avenue and Peoria Street. The nursery was owned by Adams County Judge Alfred H. Gutheil. It had ample water from the High Line Canal.

By early 1918, the DCCA had raised enough money to buy the land and Gutheil was willing to sell. The property was purchased and placed in the coffers of the City and County of Denver, which offered to lease the 577-acre site to the army for 99 years, one dollar a year.

It was an offer the army could not refuse. It established an Army Recuperation Camp at the Gutheil Nursery site for pulmonary-respiratory illnesses. The army constructed 48 temporary buildings and the first army patients arrived - World War I casualties returning from France. On October 13, 1918, Army Hospital No. 21 was dedicated, with appropriate speeches and military fanfare.

In 1920 Hospital No. 21 was renamed Fitzsimons Army Hospital, for William Fitzsimons, the first medical officer killed by enemy fire in World War I. Its friends would call it Fitz.

The main hospital building at Fitz, built in 1941, contained 600 beds. It was dedicated four days before Pearl Harbor. It would pump many millions of dollars into Aurora's and Denver's economies.

In 1933, President Roosevelt asked the army to identify unneeded, or underutilized, posts that could be closed. Fitz was one of the first to be identified as surplus.

Colorado's congressional delegation fought the closing and were able to postpone it. The army finally agreed to keep Fitz open, if the City and County of Denver would relinquish title to the land and cancel the 99-year lease. Denver agreed and Fitz remained open.

There was another effort to close Fitz in the early 1990s, which caused claims of dire economic consequences by Aurora and Denver businessmen. Fitz was finally shut-down in 1996. Its official death occurred on June 30, 1999, when the garrison flag was lowered while a single canon shot was fired. It was the end of an important part of Aurora's history. And the beginning of a new era for Fitz and Aurora.

I feel a closeness to Fitz because of our relationship to one of its former commandants, Major General (Ret.) Jim Weir (an M.D.), and his wife, Alice. Both were our close friends after we moved to the Fraser Valley in the late 1970s. So were Brigadier General, Ret., Paul Phillips and his wife, Rita. She became a patient at Fitz and we visited her there many times prior to her death.

* * *

When the Defense Department finally decided to close Fitzsimons, Colorado's congressional delegation - especially Senator Ben Nighthorse Campbell - got behind a plan to turn Fitz into a civilian medical center. Campbell was a member of the powerful Senate Appropriations Committee.
Gentle persuasion by Sen. Campbell and others convinced the Defense Department and the Army that they should give the main hospital building at Fitz and the 217 surrounding acres to the University of Colorado Health Sciences Center (UCHSC). Congress pledged $10 million a year for ten years to assist in the transformation of Fitz.

Aurora Mayor Paul Tauer lined up local support and sat on committees that forged a private/public partnership to plan and develop the remaining 360 acres at Fitz as a biotechnology park. And the area around the perimeter of Fitz - especially the run-down area along East Colfax Avenue in Aurora - as an urban renewal project.

This partnership became the Fitzsimons Redevelopment Authority (FRA). Its board consists of four Aurora council members, the Aurora mayor and three representatives from Colorado University. Robert Olson is FRA's executive director.

UCHSC and its affiliates have, for more than 80 years, occupied a 33-acre campus in Denver, at East Ninth Avenue and Colorado Boulevard. This has become a cramped, bustling center for five schools (medicine, nursing, pharmacy, dentistry, graduate) and two hospitals (University of Colorado and Colorado Psychiatric Health).

It has also been the home of 42 research centers and affiliates that include Children's Hospital, National Jewish Hospital and Veteran's Hospital.

Virtually all of this medical complex in Denver is expected to move to a new 217-acre campus at Fitz. This move will more than triple UCHCS's square footage and double its research capacity.

The redevelopment of Fitz will be the largest medical-related redevelopment project in the nation. And the first university-related research park focused on life sciences technologies to be launched west of the Mississippi. By the end of 2004, FRA will have 5,000 construction workers at the Fitz site. By the end of this decade, it will have 15,000 people working on half of the total Fitzsimons redevelopment project.

UCHSC hired Tim Romani to oversee the redevelopment of Fitz and manage the sale of the Denver campus. Romani, a civil engineer, was in charge of constructing Denver's Pepsi Center arena and its INVESCO Field at Mile High football stadium.

It's mindboggling! Unprecedented! UCHSC and its public and private partners will build a cutting-edge medical campus from the ground up. A medical complex unequalled elsewhere in the nation in space, design and ease of access. As Dennis Brimhall, president of CU's University Hospital, remarked, "The opportunity to do this with no preconceived restrictions is unheard of."

The Denver Post's Marsha Austin discussed the transformation of Fitz in a December 2000 column:

"Turning Fitzsimons Army Medical Center into an international hub of biomedical research, education and enterprise is a vision that's been called everything from a financial train wreck to a stroke of genius.

It's been called a move that could bankrupt the University of Colorado's medical school and its hospital, or put Colorado on the map as a world leader in scientific research and medical education."
Fiscal nightmare or project of the century, critics and proponents can't deny that Fitzsimons is well on its way... As a public works project, the $4.3 billion, 20-year relocation of CU's Health Sciences Center from its cramped central Denver campus is second only to the $4.9 billion Denver International Airport.

As a medical and research campus, it will be nothing short of world-class.

'This is going to be much bigger than the Mayo Clinic or Sloan-Kettering,' said Dr. Howard Landsman, dean of the University of Colorado School of Medicine. 'It's one of the best-kept secrets in town.'...

'Students from all academic disciplines will be working together in a high-tech environment and have private industry right next door. Patients will get total, integrated care,' he said...

At the new campus, all educational departments and research programs will share common space and interact at the hospital and outpatient clinics.

Remarkable! Unique! A new Life Sciences City within the City of Aurora, propelling it into a new image - a university town!

Big Money will be required to achieve the transformation of Fitz. Start with $1.5 billion to build UCHSC's new hospitals, clinics, research towers and medical schools.

The bioresearch campus could cost $1.5 billion. Economic development in an urban renewal project outside of Fitz's boundaries might cost $2 billion. All of this totals $5.0 billion in today's dollars. That's more than the cost of Denver International Airport!

First priority was the $1.5 billion required to transform Fitz's 217-acre medical campus. CU raised $500,000. The Feds contributed $30 million. Colorado state funds added $38 million. Private philanthropy gave $42 million. The remainder will come from CU's research grants and reserves.

In December 2000, the Anschutz Centers for Advanced Medicine were the first medical buildings to open on the transformed Fitz campus. They include the Anschutz Cancer Pavilion and the Anschutz Outpatient Pavilion. They will anchor the Health Sciences City at Fitz.

The main benefactor was Philip Anschutz who contributed $25 million for the Anschutz Centers for Advanced Medicine. He also contributed $30 million for the first phase of the new, outpatient University Hospital which will open in 2004.

Political benefactor, Sen. Campbell, is honored by the Nighthorse Campbell Native Health building and by the Telehealth Education Facilities building on the Fitz campus. They opened in 2002.

When the redevelopment of Fitzsimons is completed, there will probably be more than 30,000 people working there - patients, students, scientists, doctors, nurses, staffers, private medical businesspersons. And countless visitors.
About a quarter of Fitz's original 478 acres will remain open space, with crisscrossing sidewalks, grass and beautiful old trees.

The redevelopment of Fitzsimons will be an economic bonanza for Aurora. So will redevelopment of the former Lowry Air Force Base.

* * *

In 1936, the Army Air Corps began looking for another technical school site. Their training facilities at Chanute Field in Illinois had become overcrowded and there was no space for expansion.

When the Air Corps expressed interest in the Denver area as a potential site for a training facility, the Denver Chamber of Commerce launched a fundraising campaign and a search for a suitable site. It was an effort similar to the one that resulted in Fitzsimons Army Hospital.

An ideal site was found on the open prairie east of Denver and north of Fairmount Cemetery. Plenty of space for an airfield. The site included the deactivated Agnes Phipps Sanatorium.

The City of Denver sponsored a bond issue to purchase the site. It was approved by Denver voters. Denver's offer of an excellent free site convinced the Army Air Corps to select Denver for its new training facility over proposals from five competing cities.

A congressional bill authorizing the Air Corps to use the Phipps site passed the Senate, but stalled in the House, after the Illinois congressional delegation signed a paper opposing it. It included this statement: "We are thoroughly convinced the real motive for the proposal is the desire by certain officers for increased social and recreational opportunities."

They called it Lowry Field, to honor Lt. Francis Brown Lowry, the only Denver aviator killed in World War I.

The 1,866-acre Lowry Field site is on the northeastern edge of Denver. A small pocket is in Aurora, which surrounds the site on three sides.

WPA workers converted the sanatorium to use as base headquarters. They built an airstrip and barracks for 850 men. Brick barracks were built later to house 3,000 men.

Lowry Field boomed after the attack on Pearl Harbor. Various technical schools operated three shifts a day, seven days a week, graduating 55,000 a year. This training factory pumped $15 million annually, in payrolls and local purchases, into the fragile economies of Aurora and Denver. Especially Aurora's.

Lowry became one of the most sought-after assignments in the Army Air Corps. Its appeal extended far beyond the officer elite. The Air Corps had to issue an order discouraging men from using subterfuge to obtain a transfer to Lowry.

The former Agnes Phipps Sanatorium was demolished in 1961. Lowry's runways were closed in 1966. The base closed in 1994.

The Lowry Redevelopment Authority was formed to plan Lowry's redevelopment. It will be part of a redevelopment golden triangle featuring the Fitzsimons campus, the former Stapleton International Airport and the former Lowry Air Force Base.

Lowry will be converted into residences, businesses, shops, parks and a golf
course. Hangars will be preserved. Wings Over The Rockies Museum, with Lowry's trademark B-52 bomber, will remain.

First stage development, in the 233-acre northeast quadrant, will eventually have 950 homes with a total value of at least $275 million. The second stage is a $28 million transformation of what once was the world's largest barracks into 261 apartments called the Grand Lowry Lofts. Townhomes nearby will be called Officers' Row.

Construction of the third residential neighborhood began in 2000. It will provide a full range of housing options - custom homes with a starting price of $500,000 and 400 homes priced at $125,000 to $150,000.

About 4,000 homes will be built at Lowry. By spring 2004, Lowry's redevelopment had been underway for a decade and was nearly 70 percent completed. Construction should be completed by 2009, when it will add another building block to Aurora's economy.

The Lowry Redevelopment Project has been touted as a national model for converting old military bases into showcases for urban living. But some asbestos clouds threatened to tarnish that image in early 2004. Traces of asbestos, actually.

Enough, however, to cause the hauling away of hundreds of truckloads of soil under Lowry's old buildings. There is a controversy about how much of the estimated $15 million cleanup cost the Air Force should pay.

*        *        *

In early 1942, the Army Air Corps needed more fighter pilots. So it built a second airfield and flight training school at a site east of Aurora. This new base wasn't given an official name. Since it operated in close conjunction with Lowry Field, it became known as Lowry II.

After World War II ended, Lowry II was officially named Buckley Field, to honor Longmont native Lt. John Buckley. He volunteered for a strafing mission behind German lines and was killed in action.

In 1948, the Army Air Corps turned Buckley Field over to the Colorado Air National Guard. A year later, the Navy took control of it. Until 1959, when it was returned to the Air Force and licensed to the state of Colorado. From 1959 to 2000 it was known as the Buckley Air National Guard Base.

All of this changed on October 1, 2000, when the 3,250-acre Buckley site was transferred to the Air Force Space Command.

Buckley recently became a full-fledged Air Force base, the first in the country to be created in the past 15 years. It's a longterm commitment to Colorado and Aurora.

Buckley is now the home of 24 military organizations from every branch of the service, including active and reserve units of Colorado's National Guard and Air National Guard. More than 88,000 people in Aurora and nearby areas are now affiliated with Buckley.

Buckley is by far Aurora's largest single employer. It contributes about $500 million annually to the local economy, mainly Aurora's.
In the 1930s, when the Army Air Corps needed a separate bombing range, in addition to Lowry Field, Denver voters passed another bond issue to purchase the land. About $240,000 was needed to purchase a 100-square mile area, about 20 miles southeast of Denver in Arapahoe County.

Denver gave the land to the Army Air Corps Training Command in 1937. The Lowry Bombing and Gunnery Range opened in 1942. Most military branches used it for bombing training from 1942 to 1963 and during the Korean and Vietnam wars. The land was sold during the period 1960-1980.

The former Lowry Bombing and Gunnery Range is about the size of Lakewood. It's as large as Boulder and Littleton combined. A large part of it - 25,854-acres or 40 square miles - is owned by the Colorado State Board of Land Commissioners.

The Land Board is the oldest public agency in Colorado. Its primary function is to use its land holdings for the benefit of K-12 schools in the state. Its 5-member volunteer board may have to sell land to developers but it prefers to be the landlord for commercial properties which it leases to provide a steady source of income.

The Land Board acquired the Lowry Range property from the Defense Department which had declared the land to be surplus property. It traded land it owned near Colorado military bases for the Lowry Range property. It's not the Land Board's largest holding, area-wise, but it is by far its most valuable.

The Lowry Range property abuts fast-growing southeast Aurora. It is about 15 miles south of DIA and it is poised to become the nation's single largest development opportunity near a major metropolitan area. The Rocky recognized its importance in a March 2004 editorial:

The buzz about Stapleton as its redevelopment got underway was that it was the largest urban infill site in the country. The Lowry Range is the size of five Stapletons, with a potential value in the tens of billions of dollars when development is complete, which would probably take half a century or longer.

The advantage of having a single owner with a long-term outlook is that the infrastructure can be planned as a whole. For instance, the water system can be designed to make the best use of non-potable water.

Meanwhile, whatever development model is chosen - and with that much space to play with, it wouldn't have to be all one kind - can be aligned with jobs, utilities, community centers, generous open space and all the other things that make for a vibrant, livable community.

It could become a city the size of Lakewood!

It's not all apple pie and motherhood. More than 3,000 live munitions have been
discovered on the former Lowry Bombing and Gunnery Range, with 75 percent of the search-and-destroy work still to come. The Defense Department has given it the highest explosive hazard element rating possible. Cleanup is likely to take at least ten years.

But eventually, redeveloped Lowry Bombing Range will add many thousands of residences, businesses and jobs to the booming southeast area. And billions of dollars to the local economy. Don't be surprised if the total package eventually will be spelled A-U-R-O-R-A.

*        *        *

Aurora is making a big U-turn on East Colfax Avenue. Its story is exciting. Chomping at its bit to be told. But let's pause and go back to its beginning.

Colfax Avenue. Main Street Colorado. The longest continuous commercial highway in America. It runs straight through the heart of Metro Denver - 26 miles of asphalt. Straight as an arrow. It was named for Shuyler Colfax.

Shuyler was born in New York City in 1823. He moved to Indiana with his parents in 1836. He was elected to the U.S. House of Representatives in 1855, where he remained for 14 years. He was House Speaker for three terms. Ulysses S. Grant chose him as his running mate, mainly because of his oratorical skills. In 1869, Schuyler Colfax became vice president of the United States.

Four years later, Colfax quit politics, just before he was accused of receiving stock from the Union Pacific Railroad in exchange for a sweetheart deal on government construction subsidies.

Undaunted, Colfax embarked upon lecture tours, giving popular speeches about Abraham Lincoln and the transcontinental railroad. Colfax died in a railroad station in Mankato, Minnesota, while trying to catch a train in 30-below zero weather. He was 62.

An interesting biography. But what does it have to do with Metro Denver?

Colfax's half-sister lived in Denver. He visited Clara in 1865, 1868 and 1873. During his second visit Clara paid the outrageous price of $2.50 for a dozen eggs, "so that brother Schuyler could have his boiled egg for breakfast."

Colfax's Denver visit in 1865 happened to occur at the time residents of Colorado Territory were divided about whether to become a state. Supporters of statehood seized upon Colfax's visit as a way to gain favor for their cause. They fell all over him, calling him a friend, a public man with a pure record.

When John Evans asked Colfax to endorse Colorado's bid for statehood, Colfax agreed, providing - "Providing a street entering from the east and marking the southern boundary of the congressional grant" be named for him.

The street was named Colfax, in anticipation of a favor that did not happen. It took Colorado eleven more years to obtain statehood and Schuyler Colfax was not a factor. Like James Denver and Donald Fletcher, Schuyler Colfax did not deserve to have a major thoroughfare named for him. Or so it seems to this non-historian.

*        *        *
Colfax Avenue, from its beginning, has been a principal axis for growth and development in the area through which it passes. That role was strengthened when U.S. 40 entered Denver from the east along Colfax Avenue. It was one of the first federal roads in Colorado.

East Colfax Avenue separates Adams and Arapahoe counties. In the 1920s, it was part of the main road from Limon to Denver. It spawned construction of many garages, motor courts and eating places along its route through Aurora.

Through the 1930s, Aurora's commercial center was a narrow strip on both sides of East Colfax Avenue. The city was becoming a bedroom community. Most of its workers either worked at Fitzsimons or took the trolley to downtown Denver.

In 1940, Aurora City Council was asked by a private Denver developer to approve a plat for the Havana subdivision, south of Colfax Avenue along Havana Street. It would provide housing for civilian employees at Lowry Field.

The application seemed innocuous and it was, on its face. But its approval turned out to be one of the important decisions in Aurora's history. Approval of the Bonfils subdivision, south of East Colfax Avenue and west of Havana Street, blocked Denver's ambitious attempts to annex eastward. It enabled Aurora to take a major step south, away from its East Colfax Avenue roots.

Aurora's old downtown along East Colfax Avenue suffered increasingly from the city's growth south and east. By the 1960s and 1970s, its urban blight was recognized as a major problem. Sleazy bars, porno shops, cheap motels became the home of crime and squalor. Retailing sunk into an economic abyss, pushed by nearby malls and the opening of Interstate 70.

Aurora City Council considered plans to revitalize East Colfax Avenue, but nothing significant happened. It was much more interested in developing a new Aurora downtown called The City Center. It reached from Sixth Avenue south to Mississippi Avenue and from I-225 east to Chambers Road.

East Colfax Avenue was left behind, but not forgotten. In 1998, Aurora ventured into uncertain legal territory and passed an ordinance that applied only to an area a block wide on both sides of East Colfax Avenue, from Yosemite to Peoria streets. The ordinance prohibited sitting, kneeling, sleeping on city streets and sidewalks, as well as loitering and begging.

The ordinance was narrowly drafted, because courts had been upholding individuals' rights to self-expression, no matter how bizarre, inconvenient, or unpleasant someone's public behavior might be, unless an actual crime was committed.

It was the start of Aurora's U-Turn on East Colfax Avenue.

Aurora officials began transforming the blighted area along East Colfax Avenue into a vibrant arts center. They created the Original Downtown Aurora Arts District, in a 12-square-block area from Clinton to Geneva streets and from East 14th to 16th avenues. It is part of Original Aurora, the 4-square mile area that once was the Town of Fletcher.

Aurora officials created a loan program for artists and spurred a private $32.9 million residential and retail project that broke ground in March 2004.

A displaced artist found a comfortable home in Florence. Not in Florence, Italy, but on Florence Street in Old Aurora, near East Colfax Avenue. In the middle of the
Original Downtown Aurora Arts District.

Walt Weinberg, a potter, had been priced out of his studio on Denver's Santa Fe Drive. On Florence Street, he found the building he wanted. High ceilings, windows, space and the ambiance artists crave. Plus a low interest loan for converting the old building into art studios for himself and others.

A ceramics store and school opened in this area in 2000. The revitalized Aurora Fox Arts Center is nearby. It hosts movies, plays and a small gallery. All of this is a success story for the arts and for culture in Aurora. It's Aurora's alternative to Denver's LoDo.

Probably the biggest opportunity for revitalizing East Colfax Avenue appears in the area adjacent to Fitzsimons. Present buildings in this area are rundown, completely incompatible with the new, ultra-modern Fitzsimons Medical Center.

Aurora would like to use its eminent domain powers to condemn objectionable property and have the Urban Renewal Authority select competent developers to convert the condemned property to upscale facilities compatible with Fitzsimons. As Aurora has done in other parts of the city.

But Aurora has run into serious opposition in the Fitzsimons sector of East Colfax Avenue. Legislation is currently being debated that would stop it, if property owners object to condemnation. Redevelopment of this important part of East Colfax Avenue may be delayed. It will happen, eventually.

* * *

The E-470 Corridor! It's probably going to be the biggest development in Aurora's history. A sleeping giant, about to awaken.

This 15-mile state highway could add 200,000 new residents during the next 25 years, mostly in Aurora. It is projected to be the fastest-growing area in Colorado.

The E-470 Corridor stretches roughly 57 square miles, from the border of Douglas County to an area near Denver International Airport. About a mile on each side of E-470. Nearly two-thirds of it is in Aurora. About 22 square miles are in unincorporated areas in Adams and Arapahoe counties. Most of the undeveloped area is open prairie, waiting to be annexed by Aurora.

It's another very exciting story, but let's go back to its beginning. All the way back to 1938, when the Colorado Highway Department first proposed construction of a beltway around Denver's perimeter.

In 1958, a planning agency proposed a longer perimeter route for the beltway. In 1968, the Federal Highway Commission designated Interstate 470 - a 26-mile freeway - as part of the national highway network. I-470 would reach from I-25 south of the Denver Tech Center to I-70 near Golden.

Colorado appeared to have the inside track for the 1976 Winter Olympic Games. Proponents wanted to expedite construction of I-70 and the Eisenhower Tunnel to provide easy access from the host city to mountain sites for some of the events. Their efforts resulted in large federal appropriations for interstate construction in Colorado. The proposed I-470 freeway was included in federal appropriations.
After Colorado voters defeated the Olympics proposal, antigrowth Governor Dick Lamm diverted federal I-470 funds to other Colorado projects. He said I-470 would encourage cancerous growth, sprawl and pollution.

In 1976, a Lamm-appointed panel endorsed a 4-lane parkway, roughly along the scrapped I-470 route. Later the project became six lanes and it was called C-470 ("C" for Colorado). The first leg of C-470 - I-25 to Santa Fe Drive - was completed in 1985. The last section of C-470 opened in 1990.

C-470 didn't step on the toes of any towns or cities. It spawned 13 interchange developments, including Highlands Ranch and Park Meadows Mall. It created explosive growth in Douglas and Arapahoe counties.

Neither state nor federal funds were available for extending C-470 to I-70, so officials from Adams, Arapahoe and Douglas counties formed the E-470 Public Highway Authority in 1985. Two years later, the Colorado Legislature granted it power to build, finance, operate and maintain the proposed E-470 segment of the beltway. Also the power to condemn, the ability to issue bonds and the power to collect tolls.


E-470 - an extension of C-470 to I-25N - was started after voters in Adams, Arapahoe and Douglas counties agreed to fund it as a toll road. It would be a 48-mile loop that would skirt the eastern edge of Aurora. It would be near the proposed western boundary of Denver International Airport.

Construction of E-470 was vigorously promoted in the 1980s by big land developers. Fullenwidner and Van Schaak, the two biggest landowners between DIA and the E-470 route, donated land for rights-of-way.

E-470 would be built with private funds, but "private" was stretched to include sale of tax-free municipal bonds in 1986 and a $10 license registration fee for autos in Adams, Douglas and Arapahoe counties.

In 1991, the first segment of the tollway, between I-25 and Parker Road, opened for business. The last segment of E-470, connecting the northern stretch of the tollroad to I-25 in Thornton, opened in April 2003. By the end of 2003, Aurora's planners had mapped-out nearly every square mile in the E-470 Corridor. They predicted that ambitious plans to annex and develop land along the corridor would increase Aurora's size by at least 25 percent.

These plans - called smart growth - are expected to add 100,000 additional residents to Aurora in the next 50 years. That might be enough for Aurora to overtake Colorado Springs as Colorado's second-largest city.

Aurora officials say they are focused on developing three major business parks along the E-470 Corridor that will create between 70,000 and 90,000 jobs at employment centers similar in size to the Denver Tech Center and Downtown Denver. If this happens, Aurora will no longer be known as a bedroom community, where two-thirds of its residents had to leave the city to go to work.

*   *   *
Aurora's growth in recent years has been pushed to extremes by its city council and its mayor. Especially by its mayor - Paul Tauer.


Paul Tauer's domination of city politics and his role as the primary promoter of growth were generally accepted and applauded by Aurorans. Until terms limits forced his retirement in 2003.

If Mayor Paul Tauer had a weakness, it was his lack of attention to Aurora's water supply. When he gave his last State of the City speech, he read from 62 typed pages. Single spaced! He devoted two paragraphs to Aurora's water supply.

Mayor Paul Tauer was succeeded in office by his son, Ed, who had been a city councilman since 1997. Ed Tauer seems likely to be much more involved in increasing Aurora's water supply than his father was.

* * *

Let's briefly review the history of Aurora's water supply development. All the way back to 1950.

Returning veterans poured into Denver and Aurora after World War II. By 1950, Aurora's population reached 10,000. Many had been stationed at Fitz and Lowry. Post-war Aurora became a developer's dream. It was an ideal place to live, especially when low cost housing was provided by developers such as Samuel Hoffman.

Hoffman, a rare bird among the nation's low cost builders, will be discussed in the Thornton chapter. He built Hoffman Heights on land later annexed to Aurora. It made Sam Hoffman a celebrity. He was quoted in Business Week: "Frank Lloyd Wright builds houses around the personalities of the people who live in the house. I build houses around people's pocketbooks."

Hoffman bought the Cottonwood Ranch, one square mile, outside Aurora city limits. It extended from present Peoria to Potomac Streets, from 6th to 13th Avenues. It would become a 1,705-home subdivision built around Del Mar Circle.

Hoffman Heights was annexed to Aurora by petition, without a vote by its residents. Some objected and formed a Taxpayer League which challenged the annexation in District Court. In 1956 the Colorado Supreme Court refused to consider the case and the annexation of Hoffman Heights was finalized.

Aurora, now comfortable with its growth mantra, was ready for big development. Vast tracts were available for annexation, if Aurora could free itself from the Denver Water Board, which supplied its water and thereby controlled its growth.

In 1949, Aurora became dissatisfied with the DWB's control of its destiny. It created the Aurora Water Department, which took over operation of its water system. Aurora continued to purchase water from the DWB until 1956, when its Cherry Creek well field began supplying water to homes in Aurora beyond the DWB's restrictive Blue Line.
In 1955, Paul Beck became the driving force behind construction of Aurora's Homestake Project. He should be remembered in Aurora's water history.

Paul C. Beck was born in Aurora in 1919. He graduated from William Smith High School in 1937. He served in the Army Air Corps in World War II. Then he returned to Aurora. Beck served on Aurora City Council from 1955 until his death in 1977. He was Aurora's mayor for three terms.

Beck worked hard to convince Aurora's City Council that it should develop its own mountain storage and delivery system by constructing the Homestake Project. The city proceeded on three fronts. It filed for water rights on Homestake Creek and its five tributaries and it began the long water rights adjudication process. It initiated talks with Colorado Springs and Pueblo. It hired giant Bechtel Corporation to do project design and construction.

Beck and Bechtel. It figures.

We've discussed Aurora's water supply development adventures in South Park and in the Arkansas and Eagle river basins in previous chapters. Aurora has also been to the Gunnison River in western Colorado.

Mills Bunger (Chapter 5) probably was among the first Colorado engineers to cast covetous eyes on the Gunnison. In 1972, Bunger joined with John T. Oxley, an oil millionaire with headquarters in Tulsa, Oklahoma. They filed applications in Montrose water court for a giant water project in the Upper Gunnison River Basin.

The proposed project would impound two million acre feet in seven reservoirs. It would include 150 miles of collection ditches and many tunnels and pumping stations. Water would be collected, stored and diverted into a large tunnel under the Continental Divide. It would pass through the San Luis Valley on its way to thirsty suburbs in Metro Denver.

Bunger's ambitious plan didn't go anywhere, but it caused some Metro Denver water interests - particularly Aurora and Arapahoe County - to recognize that the Gunnison is the last major Western Slope river basin not yet touched by the greedy hands of Front Range water developers.

A juicy prize! Let's go after it.

Aurora and Arapahoe County both filed on upper Gunnison water. Aurora's proposed Collegiate Range Project would dam two Gunnison River tributaries and pipe an average of 73,000 acre feet annually to the Front Range. It would inundate a gold medal trout stream and a fish hatchery. It would disturb critical winter range for bighorn sheep and it would take water now used by ranchers, fishermen and boaters.

Natural Energy Resources Company (essentially Dave Miller) of Palmer Lake conceived a Gunnison River Basin Project and sold the concept to Arapahoe County water officials. Union Park Reservoir, with a storage capacity of about 900,000 acre feet, would be constructed on the Taylor River, a Gunnison River tributary, about 25 miles east of Crested Butte. Several collection systems would feed water into the big reservoir. Union Park Reservoir water would be conveyed under the Continental Divide to an enlarged Antero Reservoir in South Park. Then it would flow down the South Platte to thirsty residents in Arapahoe County.

It would be a big, big project. Various cost estimates ranged from $0.5 to $1.5
billion! Estimated water supply: perhaps 100,000 acre feet per year.

Aurora and Arapahoe County each applied to the water court in 1986 for approval of their projects. In 1989 they agreed to drop opposition to each other and share equally in whichever project has the better chance of succeeding in the water court. In early 1992, Aurora abandoned its Collegiate Range Project and pulled out of the Gunnison water supply game.

Aurora spent five years and $2 million on its Collegiate Range Project. It decided it was time to cut its losses and to stop throwing money down the Gunnison legal fees drain. Arapahoe County officials lacked that wisdom. They decided to continue to fight in the Two County Water War.

Opposition to Union Park developed rapidly. An environmental group called High Country Citizens Alliance, based in Crested Butte, led initial grassroots opposition. Another group formed POWER - People Opposed to Water Export Raids. Forty opponents filed objections in water court.

In September 1990, water court Judge Robert Brown made an important ruling in the Two County Water War. He ruled that the Upper Gunnison Water Conservancy District is entitled to 100,000 acre feet per year from the Gunnison. This amounts to about the total of all of the unappropriated water.

Judge Brown's ruling entered new territory in Colorado water law. It gave the district a water right for maintaining reservoir levels and instream flows for recreation. Previously, only the state - specifically the Colorado Water Conservation Board - could own water rights for instream flows and they could only be used to protect the environment to a reasonable degree.

Judge Brown, in a second ruling, referred to a Colorado law passed in the late 1970s to curb speculation in water rights. The law says that water diverters must show they can and will develop their water project within a reasonable time.

The can and will law, in the Gunnison case, means that developers must show that they can obtain permission and contracts from USBR, federal permits and water purchase agreements. All very difficult to obtain.

In October 1991, in a 79-page ruling, Judge Brown rejected Arapahoe County's application for a water right. He ruled that only 20,000 acre feet are available for appropriation. Arapahoe County appealed and the case was sent back to Brown for retrial.

In a 1997 ruling, Judge Brown identified only 15,000 acre feet of unappropriated water available, due to senior water rights for USBR's existing and proposed downstream reservoirs. Arapahoe County appealed the ruling to the Colorado Supreme Court.

Arapahoe was finally tiring of the Two County Water War. It had hired a flock of attorneys to plead its case in water court. It had spent $3.5 million in legal and engineering fees. In a move that was colored by desperation, the county commissioners sent a letter to its Gunnison County opponents and the involved federal agencies. It requested cooperative discussions that might lead to an out-of-court settlement. Nothing came of it.

In July 1998, Arapahoe County commissioners confronted the problem of how to pay for its Union Park Project. Aurora and other municipalities in Arapahoe County that have their own water systems did not want to tax their citizens a second time to provide water for residents of the county's unincorporated area.
What to do?  
Let somebody else do it.

Arapahoe County commissioners handed the reins of the water horse named Mission Impossible to a coalition of six in-county water districts who formed the Union Park Water Authority. It would carry the legal burden of Arapahoe's appeal to the Colorado Supreme Court.

Ken Salazar, Colorado attorney general, met with Arapahoe County water interests and urged them to abandon Union Park and work on a cooperative conjunctive use project that would involve the Denver Water Board, Western Slope water interests and Arapahoe and Douglas Counties.

In November 2000, the Colorado Supreme Court ruled against Arapahoe County commissioners, agreeing with the water court that denied their applications for conditional water rights for the Union Park Reservoir Project. The high court ruled that 60,000 acre feet were reserved for the Upper Gunnison Basin and 240,000 acre feet are available for use anywhere in Colorado.

Attorney General Salazar said he was happy with the decision, which should put an end to the 14-year fight that cost more than $6 million.

Arapahoe County Commissioner Marie McKenzie's reaction bordered on desperation:

No matter what they say, we need water. By the year 2020, the Front Range will need 300,000 acre feet of water that we don't presently know where to get...

We have anywhere from one-half million to one million acre feet of water leaving the state to move to California, Nevada and other downstream states.

We are looking for a way for Colorado to store water we are entitled to and use it in dry years.

Arapahoe County's initial negative reaction to the Supreme Court's killing of Union Park Reservoir overlooked the significance of its ruling that 240,000 acre feet in USBR's Blue Mesa Reservoir on the Gunnison is available for use anywhere in Colorado. The Denver Post's Bob Ewegen understood its significance:

Most Coloradans think that water comes from a faucet. But for many citizens, especially in the south metropolitan area, water really comes from mines. Sure, we call those mines 'aquifers,' but like mines, aquifers host valuable but unrenewable resources. That's why planners like Frank Jaeger are scrambling for renewable water supplies.

Jaeger runs the Parker Water District. His name means 'hunter' in German, and that fits, because he spends most of his time hunting for the precious
wet stuff in this arid state...

Like many other Front Range planners, Jaeger's eyes have turned to the Blue Mesa Reservoir on the Gunnison River - where the Colorado Supreme Court has ruled that 240,000 acre feet of water is available for sale by the U.S. Bureau of Reclamation for the benefit of all the citizens of Colorado.

The Bureau is now in the process of writing rules to regulate the distribution and sale of that water for the next 50 years as part of its overall Upper Colorado River Recovery Program...

Environmentalists are aghast at the notion of any more people moving to the metropolitan area. Thus, anti-growth greenies joined forces with Western Slope water buffaloes to pressure the Bureau of Reclamation to not let 'one more drop' of water travel to the Eastern Slope.

But U.S. Reps. Joel Hefley, Bob Schaffer and Tom Tancredo responded on July 18 with a letter to interior Secretary Gale Norton urging her to ensure that the BuRec follows the Supreme Court decision and lets all Coloradans bid for that water.

Former Gov. John Love famously said: 'In Colorado, water flows toward money.' But in today's Colorado, our water flows toward political power - a subject that, while closely related to money, has its own peculiar dynamic.

Importations of water from the Gunnison by Aurora is a future possibility. But such a project would require cooperation with and participation by, the Denver Water Board and the Colorado River Water Conservation District. And the Colorado governor. Its present governor - Bill Owens - is opposed to importing water from the Gunnison.

* * *

Aurora has avoided pumping water from Denver Basin aquifers. Until recently. The recent drought has caused Aurora to explore all water supply options, including deep groundwater.

In 2001, Aurora applied for permits to drill wells in the Arapahoe Aquifer, under land it had annexed. Fliers circulated around Arapahoe County about Aurora's "water grab." A homeowner circulated news releases warning that Aurora intends to "pump all aquifers to extinction."

That wasn't Aurora's intention. It simply wanted to see if it was feasible to drill these deep wells for use in emergencies and during a severe sustained drought, not as a steady diet. It would be expensive. Each well could cost at least $500,000. Pumping would be expensive. If feasible, get them on line for use when needed.
Results were disappointing. Utilities director Peter Binney said, "I was severely disappointed to spend $5 million of our water revenues for about 85 gallons per minute in each of ten wells' production capability."

* * *

Aurora entered the 21st century with an average annual water supply capability of about 60,000 acre feet. It had about 137,000 acre feet of storage capacity in 12 reservoirs. Probably adequate for Aurora's 260,000 water customers if averages prevail. Average reservoir storage. Average weather conditions. Average mountain snowpack.

Relying on averages is risky. Very risky. Not acceptable for municipal water supply systems. Especially those facing big growth in population. Especially when a severe sustained drought can occur. Anytime.

The recent drought was formidable. It will be discussed in a subsequent chapter. Storage in Aurora's reservoirs dropped to about 26 percent of capacity - the lowest level in Aurora's history. Then came the big blizzard of March '03. It partially refilled most Colorado reservoirs and pushed drought aside in the public's consciousness.

Now - a year later - storage in Aurora's reservoirs is about 45 percent of capacity. It is expected to drop to 40 percent by the end of April, when the mountain snowpack starts to melt.

Aurora receives about 95 percent of its annual water supply from mountain snowpack. This year's pack won't be known, for sure, until the middle of April, or later, but present indications are not optimistic. Snowpack in the basins that feed Aurora's water system are currently about two-thirds of average.

Aurora now has a capable, aggressive utilities director to lead its quest for more water supply. Peter Binney, a native of New Zealand, had just reached age 50 when Aurora found him in March 2002. For the past 20 years, he had been a high profile, globe-trotting water consultant.

Binney was immediately thrust into a Pandora's Box containing Aurora's water problems - a box held in the firm grasp of a severe drought. Binney was able to step out of that box and help Aurora City Council launch a 10-year, $761 million water supply program in October 2002. It included:

- A 15 percent water rate increase.
- Completion of the $150 million Eagle River Project, formerly known as Homestake II.
- Construction of new reservoirs costing $30 million.
- Constructing a third water treatment plant and a second non-potable water reuse plant.
- Reorganizing and strengthening the utilities department.

Aurora added about 13,000 acre feet annually to its permanent water supply in 2003, at a cost of about $76 million. Its largest acquisition was the purchase of Thornton's South Park water rights, along with 4,000 acre feet of Thornton's storage capacity in
Spinney Mountain Reservoir. The city also purchased a large gravel pit that it will use, starting in about 2009, to store up to 12,000 acre feet of South Platte water.

Aurora took advantage of a bill passed by the Colorado Legislature in 2003 that allows the state engineer to approve temporary changes of water rights when they are leased. Prior to that legislation, only a permanent change of water rights could be obtained, after a lengthy and costly court procedure.

In 2003, Aurora leased:

- 3,200 acre feet from the Climax Mine in the Arkansas River Basin.
- 3,000 acre feet from the Colorado Protective and Development Association in the lower Arkansas Valley.
- 500 acre feet from Leadville-area ranches.

In 2004, Aurora leased about 37 percent of the shares in the High Line Canal from about 160 shareholders who will keep about 8,400 irrigable acres out of production this year. This High Line Canal - unlike the highly publicized canal of the same name that diverts from the South Platte - diverts from the Arkansas near Rocky Ford.

This precedent-setting deal is the result of an agreement Aurora negotiated with the Southeast Colorado Water Conservancy District and the Upper Arkansas Water Conservancy District. Before this temporary lease could be finalized, Aurora had to obtain permission from the Bureau of Reclamation to use storage space in the Fry-Ark project's Pueblo Reservoir. Environmentalists love it and USBR approved it in early March 2004. It's a 1-year March to March deal, which Aurora can extend for another year.

The leased High Line water will be exchanged from the canal's headgate to Pueblo Reservoir. Then it will be transferred upstream to Aurora's storage space in Twin Lakes Reservoir, where it can begin its long journey to Aurora through the city's existing transmission facilities.

Water exchanges are complex. Negotiations were even more complex. The total package establishes Aurora as the leader in current Front Range water supply development.

USBR's approval of Aurora's temporary leasing storage space in Pueblo Reservoir is very significant. It now seems likely that USBR and Arkansas Valley water interests will approve Aurora's proposed longterm contract for leasing storage space in Pueblo Reservoir.

The proposed precedent-setting longterm contract would be the first to use Fry-Ark project storage space for transferring municipal water supply from one river basin to another river basin. It would open the door to similar use of storage space in other USBR reservoirs.

*   *   *

Aurora has many irons in the current water supply development fire, including an application to the state engineer to capture shallow groundwater tributary to the South
Platte near Brighton and pump it up to Aurora. Douglas County water interests have similar plans.

It's a constantly changing water acquisition game, in which Aurora, by necessity, has taken the leadership role from the Denver Water Board. Aurora's water customers - now approaching 300,000 - are sitting on the sidelines, watching, but not really understanding, the water game - and the consequences of failure.

In December 2003, utilities director Peter Binney, told Denver Post reporter Sheba B. Wheeler that Aurora will need to obtain 60,000 acre feet of additional water supply during the next 30 years, to serve the 2,500 to 5,000 people each year expected to move into the E-470 Corridor. More water will have to be acquired to serve all the other developments Aurora's leaders are planning. But Binney is optimistic, according to Ms. Wheeler:

*The city plans to build 150,000 acre feet of new storage and to work with state and federal agencies to get permits for developing the remainder of the city's Arkansas Valley and Eagle Valley water rights. Aurora will also increase its use of water rights in the Lower South Platte River...*

*The city has enough water reserves to see it through 2015. We've got ten years to get that problem solved and water moving, but we are already well along into that process now.*

Aurora's Utilities Department is desperately trying to be a few steps ahead of the growth curve imposed by Aurora City Council, which now projects an Aurora population of more than 500,000 by 2025 and more than 700,000 by 2060.

It's a very difficult thing to do. Development of additional permanent water supply in today's hostile political and environmental climate is incredibly complex, difficult and time consuming. And expensive.

Tap fees will have to be drastically increased. So will water rates. Surcharges will have to be imposed. Severe water use restrictions. Water bond issues will have to be approved by Aurora voters. It will not be a pleasant scene.

Here's a prediction. Aurora's long-cherished growth mantra is going to be replaced by a new one - Water!

* * *

Aurorans - and I am one of them - can now visit impressive new city art works on the massive westside lawn near the city's new municipal building. They will see two large, beautiful sculptures.

One is a 12-foot-high, 20-foot-wide sundial, the largest in the nation. The other is a 20-foot-tall sculpture. At its base is a fountain designed to reflect the sculpture of Aurora's namesake goddess.

I visited the goddess recently and asked it a simple question: Goddess of the Dawn, will Aurora have enough water?
The Goddess of the Dawn smiled. It was a Mona Lisa smile. I don't know what it meant.
THORNTON'S HISTORICAL ROOTS are quite shallow. They only reach back to the early 1950s when Sam Hoffman came to Colorado.

Hoffman was born in Polish Russia. He came to America when we was 22 and worked on construction projects in Detroit and Chicago. He started a construction company in Phoenix - F&S Construction - F for Father - S, for Sons. F&S Construction grew rapidly. By 1954 it was the third largest home builder in the nation, with 2,858 homes under construction in various western cities. When F&S came to Colorado, it built the Hoffman Heights development with thousands of homes on the outskirts of Aurora.

When Sam Hoffman was shown the Eppinger Ranch land in Adams County, he fell in love with it. He bought a section (640 acres) from Art Eppinger for $250 an acre. Sam decided to build a town this time, instead of just another development. He would call it Thornton, to honor Colorado's governor.

Hoffman told reporters, "Dan deserves the honor in view of his part in building the state of Colorado and his interest in adequate housing for its citizens."

Honor? Governor Thornton wondered if it would be an honor to have the biggest low-cost housing project in the state named for him. Sam Hoffman hadn't officially asked him. So Thornton hedged. "I wouldn't like to see a town start off with a stigma like that," he said.

Frank Ciancio, the respected member of the notorious North Denver Ciancio family, convinced the governor that having a town named after him - even if it was only an ambitious housing project - might indeed be an honor. So Governor Dan finally agreed to have Hoffman's new town named Thornton.

Dan Thornton, a Gunnison rancher, was Colorado's governor from 1951 through 1955. He lost a U.S. Senate race the following year. He died of a heart attack in 1976, shortly before his 65th birthday, and was buried in Gunnison under a granite marker topped by cowboy boots and hat.

Laid-back, pipe-smoking Gov. Thornton declined to have his portrait hung in the state capitol building. In 2002, Dan's widow, Geraldine, arranged to have a 2-by-3 foot portrait of Gov. Thornton hung by the building's west entrance - with appropriate
ceremony.

Three Russell brothers helped Auraria (later Denver) get its start. A century later, three Russell brothers helped Thornton get its start. They were the brothers of film actress Jane Russell and they worked for F&S Construction in Colorado.

Jane had just finished filming *The Outlaw* when Sam Hoffman called. She was doing some interior decorating, as well as acting, and Sam asked if she would decorate his model homes in Thornton and allow her name to be used in his advertising. She agreed to both requests.

Jane Russell also agreed to attend the grand opening of Sam's model homes in Thornton in April 1953. They were in a wheat field surrounded by desolate, open prairie. Governor Thornton also attended. Thousands lined up to shake hands with Jane and Dan. They obtained autographs and, of course, they inspected the beautifully decorated model homes - decorated by Jane Russell.

Sam Hoffman's homes in Thornton sold for $8,000 to $11,000. With $650 down and a monthly payment of $57, a family could move into a 2-bedroom brick house. For $1,250 down and $67 a month, they could move into a 3-bedroom house. This was just what young, post-war couples were looking for. They gave Thornton a *bourgeois* image that has never quite left it.

Thornton soon developed an ambitious, aggressive character that has also persisted to this day. Its first attempt at incorporation, in 1955, failed. It tried again in 1956 and succeeded. Its population increased to 8,640 in three years.

Thornton called itself *The City of Planned Progress*, but homebuyers continued to regard Thornton as the city of affordable housing - friendly to starter homes, mobile homes and low-income neighborhoods.

In 1980, Thornton City Council, apprehensive about its bourgeois image, tried to change it by requiring city design review and a 1,000 square foot minimum size for all new single-family homes.

It didn't work.

Developers objected. Noel and Leonard describe their reaction in *Denver: Mining Camp to Metropolis*:

> Developers wanting to build smaller and multifamily units to accommodate first-time home owners blasted Thornton's belated efforts to become exclusive. In 1983, the city dropped its restrictions, to the relief of developers, including an official of Bill Wall Homes, who said, 'Thornton was literally trying to legislate quality home building. They were difficult to work with. Now, everyone is working together to make Thornton grow.'

The City of Thornton celebrated its silver anniversary in 1981. Its population had increased to 43,000 and it occupied 19 square miles - 19 times more land than Hoffman's original purchase.

By 1990, Thornton had 60,000 residents. Aggressive annexations during the 1990s added another 20 square miles and stretched the city's leading edges northward to Weld County, westward almost to Federal Boulevard, and eastward to Yosemite Street. The
city's southern boundary remained at 84th Avenue, except for a dip southward to include its gravel lakes on both sides of the South Platte.

Thornton's present population is about 92,000. It projects a population of at least 119,000 by 2020. Then it wants to expand northward into Weld County and occupy an area of at least 50 square miles. Thornton's population at buildout is expected to be about 378,000.

Wow! What would Sam Hoffman think, if he could return and see what the city he started has become and will become? And Gov. Dan Thornton - what would he think?

Thornton's planners foresee its transition from a bedroom community to a complete community, where residents can live, work and play without having to travel elsewhere.

Adams County officials expect to see their county's population grow by 67 percent during the next 25 years - from 600,000 to 840,000. Mainly because of DIA and recent completion of E-470's extension to I-25.

Adams County Commissioner Mark Flavin expressed the opinion of many in September 2000 when he said, "The property along E-470 is the hottest thing going right now. Look what it did for Douglas County and what it's planned to do for Aurora. Now it's Adams County's turn to boom."

And Thornton's!

Hottest of the hot growth areas in Thornton is its northwestern extremity, near the intersection of East 168th Avenue and Interstate 25. It has the three most important things developers look for - location, location and location.

It has proximity to three major roads - East 168th Avenue, I-25 and E-470. All of that and DIA only a dozen miles away.

Veteran developer Jordan Perlmutter has contracted to buy 240 acres at this choice location where he plans to build a super-sized regional mall. "This is the Park Meadows of the north side," said Jay Perlmutter, Jordan's son and vice president of Jordan Perlmutter & Company. "The potential for growth in the Denver metro area is due north," said Jordan, one of the deans of mall building in Metro Denver.

Jordan Perlmutter & Co. built Northglenn Mall in 1968, sold it in 1988, bought it back, tore it down, then built a new shopping center anchored by well-known stores such as Lowes. Perlmutter also built Southglenn and Southwest Plaza regional shopping malls. And Bowles Crossing and the outdoor Marketplace at Northglenn.

The race is on to land the big fish - a super-sized regional shopping mall. Developers in three northern cities are competing - Thornton, Westminster and Brighton. Each city is offering lucrative proposals for sharing retail sales tax revenues. Each is striving to lure big-box, elite, retail megastores to their mall site.

"The developers can do all the posturing they want," said Jeff Englestad, a University of Denver real estate professor in a June 2003 column by the Denver Post's Chris Frate, "but until somebody shows up with Nordstrom in their pocket, you can't declare a winner."

Perlmutter's proposed Lark Ridge Mall is still in the planning stage, but Thornton's planners estimate that population within a 10-mile radius of Lark Ridge will grow from 340,000 to 390,000 by 2007.
The stakes in this race for a regional shopping mall are huge. The region can support only one new regional shopping mall.

Perlmutter's proposed Lark Ridge development has strong competition from a Brighton developer, Craig Carlson. He and business partners led by Stan Kroenke, owner of the Colorado Avalanche, Denver Nuggets and the Pepsi Center, own a 2,000-acre tract in Brighton, along I-76 and the E-470 toll road. Their proposed project, called Prairie Center, will include housing, offices and a major mall.

An April 2004 column by the Post's Mark P. Couch quotes Brighton's economic director, Shawn Ahlenius: "We really believe we have the better location." It may take a while to declare a winner in this regional shopping mall race. Thornton probably needs the retail tax revenues more than Brighton, but that will have nothing to do with who wins the race.

* * *

Thornton may be a little short on traditional history, but its water history has made big waves on the Colorado water scene. It's a fascinating story that starts in the mid-1950s, when Thornton granted Northwest Utilities Company a franchise to provide it with water.

The franchise included a purchase option, which Thornton implemented in 1963. Northwest was also serving other water customers, including 500 in North Glenn. So Thornton assumed responsibility for serving them.

The North Glenn story starts in 1959, when Perl-Mac Enterprises purchased 2,200 acres of farm land near Thornton, with intent to build a large subdivision on it. The Perl in Perl-Mac was Jordan Perlmutter. He said his company liked the word Glenn, so he and his partner named the development North Glenn.

It would be a planned community centered around a shopping complex. It would include commercial and industrial areas, as well as residences. The first show house was built in 1959 on the north side of 104th Avenue, west of Washington Street. Houses like it would cost $17,750 - considerably more up-scale than Thornton's starter houses. Buyers liked them and by 1960 about 500 people were living in North Glenn.

Thornton's purchase of Northwest revealed that there was no entity in North Glenn that could contract for outside-city water service. Individual contracts had to be obtained. The task was so large that Thornton had to hire temporary help to solicit individual water service contracts in North Glenn.

Unskilled and over-zealous, the hired help spread through the North Glenn subdivision like an invading army. They demanded contract signatures, under threats of either a substantial rate increase or discontinuance of water service.

It was a huge mistake. Realizing this, Thornton officials tried to control the damage by issuing a statement saying their contracts would provide 20 years of water service to North Glenn residents at the same rates paid by Thornton's citizens.

North Glenners didn't believe Thornton's damage control statements. They petitioned the Colorado Public Utilities Commission, asking it to regulate Thornton's outside-city water rates, because they had no voice in either Thornton's rate-setting or its water service.
PUC, chafing under failures to control the Denver Water Board's rates, was eager to demonstrate its authority by helping North Glenn. Thornton appealed PUC's actions to the Colorado Supreme Court. The high court allowed PUC to proceed with a public hearing. In 1964, PUC declared the purchase of Northwest Utilities invalid, because Thornton's outside-city customers had no voice in the management of Thornton's water utility. Thornton appealed through the courts and, in May 1965, the Colorado Supreme Court reversed PUC's ruling. It verbally lashed the three PUC members for exceeding their jurisdictional powers. They had no power to interfere, the justices declared unanimously.

The North Glenn subdivision grew rapidly during the 1960s. By 1969, its population was almost 28,000. It received national acclaim as "The most perfectly planned community in America." And this - "The best homes for the money in the southwest United States."

Thornton looked at this ripe, juicy subdivision plum called North Glenn and decided to annex it. Thornton was, after all, providing water service to it. But North Glenn residents did not want to be annexed by Thornton. Citizen groups and local service clubs opposed such annexation and took the issue through the courts.

In 1969, the Colorado Supreme Court ruled that North Glenn could not be annexed by Thornton. The subdivision of North Glenn, later in 1969, voted to incorporate and become a city. It established its own water department, to avoid dependence on Thornton. Home Rule status was approved in 1973, along with a city manager/city council form of government. In the early 1970s, the city changed its name to Northglenn.

During the 1970s, Northglenn annexed enough land to nearly double its area - to about seven square miles. But Northglenn is boxed in. It appears destined to remain a relatively small city, with a population of about 30,000.

Northglenn spent about $84 million to develop its water system. It has put virtually all of its water supply eggs in one basket - Standley Lake - where it leases 1,914 acre feet of storage capacity from Farmers Reservoir and Irrigation Company.

There is some concern in Northglenn about whether the city's water supply is adequate. Bruce Shipley, Northglenn's Director of Public Works and Utilities, told a newspaper reporter in July 2000, "There's not enough storage in Standley Lake to carry the city through multiple years of not getting enough water."

Some Northglenn residents have begun questioning whether the city made the correct decision decades ago when it refused to annex to Thornton.

"It's nice to have your own town, but with all the costs associated with water, it may have been better if we incorporated," said George Dunwoody, a Northglenn resident.

Northglenn's long-serving mayor, Don Parsons, remarked before he died in 2002 at age 67, "The city may be better protected against a water shortage if it had made the merger." But then he said, "It's now too late."

* * *

After the Supreme Court reversed the PUC ruling, Thornton issued $2 million in bonds to purchase FHL water rights and hire a full-time utilities director. In 1967,
Thornton voters approved a new city charter that provided home rule government. It broadened the powers of its city council and city manager and it increased the city's financial powers. Voters further improved Thornton's charter in 1981.

Thornton's growth rate more than doubled between 1963 and 1975 and the city needed more water. It asked the Denver Water Board if it could buy treated water supplied by a DWB water main to Broomfield that ran down North Washington Street and had excess carrying capacity.

The DWB refused to sell water to Thornton.

Thornton was getting desperate. In 1971 it hired a new city manager, Jim Castrodale, and he retained John Sayre (of the Denver law firm Davis Graham and Stubbs) as consulting water attorney and me as consulting water engineer.

Thornton offered Farmers Reservoir and Irrigation Company $9.3 million for the right to store 30,000 acre feet in Standley Lake. FRICO refused to sell. In October 1973, Thornton filed condemnation proceedings against FRICO in Jefferson County District Court.

Thornton claimed that Colorado's constitution gave municipal water use priority over irrigation. Westminster joined the legal battle a few weeks later by filing a parallel condemnation suit against FRICO. Westminster's suit differed from Thornton's in that it filed against FRICO stockholders, rather than against the company.

In September 1974, Thornton went after more Farmers Highline Canal water. Jim Castrodale and John Sayre appeared at a FHL board meeting and dropped a legal bombshell on the boardroom table.

It was a hand-delivered letter in which Thornton offered to pay $8 million for 639 shares of FHL stock. Castrodale read the letter to FHL's board of directors. It closed with this threat:

> The city requests that you respond to this offer promptly. In the event you do not promptly negotiate with the city a mutually acceptable sale of said properties, the city intends to and will commence eminent domain proceedings in order to acquire said properties.

When Castrodale finished reading the letter he asked board members for their reaction.

They sat there, around the table, looking at each other in stunned silence. Finally, their attorney, Lysle Dirrim, spoke. "You hand-delivered a 12-page letter and you expect an answer - Now? We have no answer at the present time."

There were subsequent meetings, but FHL had no intention of selling its stock to Thornton. It hired an engineering firm and additional legal counsel and prepared for battle.

On September 24, 1974, Thornton filed condemnation proceedings against the Farmers Highline Canal and Reservoir Company.

The FHL condemnation suit was placed on the court's back burner, because the legal issues would be resolved in the FRICO condemnation suit, which proceeded slowly. FRICO's attorneys argued that Thornton had sued the wrong party. It should have sued all 271 FRICO stockholders, not just the company.
The Colorado Supreme Court agreed with FRICO in a September 1975 ruling. It remanded the case back to Jefferson County District Court for retrial. In March 1976, all FRICO stockholders were made parties to the suit.

Meanwhile, in June 1975, the Colorado Legislature acted. It passed the Water Rights Condemnation Act, aimed directly at Thornton. Sponsored by irrigators, it placed severe restrictions on any municipality that attempts to condemn irrigation water rights.

Jefferson County District Court, acting in 1976, dismissed Thornton's FRICO condemnation suit because it failed to comply with provisions of the 1975 Act. Thornton appealed to the Colorado Court of Appeals. The Colorado Supreme Court intervened and took jurisdiction.

The Supreme Court sidestepped the 1975 Act's constitutionality issue. It focused on the narrow legal question of the Act's applicability to a home rule city. Then it ruled that a number of the Act's provisions do not apply to a home rule city (Thornton). It reversed its earlier ruling against Thornton and, once again, remanded the case back to Jefferson County District Court.

Thornton's legal expenses had mounted to unacceptable amounts. It decided to change horses and go in another direction. In 1977 it fired its city manager and its legal and engineering water consultants. In the spring of 1978 it abruptly dropped its FRICO condemnation suit.

Thornton turned to negotiation. FRICO was receptive. Its representatives met many times with Thornton, Westminster and Northglenn officials and finally an agreement was worked out. They called it the Four Party Agreement.

It benefited all parties. Thornton paid FRICO $10 million for 10,000 acre feet of storage space in Standley Lake. FRICO would help Northglenn stabilize its water supply. Westminster got an additional 1,875 acre feet of storage space in Standley Lake at no extra cost. This increased its total storage space to 21,000 acre feet - half of Standley's total storage capacity. The cities agreed to terminate all condemnation suits, including Thornton's FHL suit.

Thornton and Northglenn now share a pipeline from Standley Lake to their respective water treatment plants. This cooperation has helped ease longstanding hostility between these side-by-side cities.

*        *        *

When Thornton purchased Northwest Utilities, it acquired shallow wells in the South Platte alluvium formed by commercial gravel extraction. Thornton subsequently expanded its well field to 32 wells. These wells are located east and west of the South Platte River, to which they are tributary. Pumping from these wells under junior priorities has to be augmented, either by complex water exchanges or by release of water stored in upstream reservoirs.

Thornton leases water in McLellan Reservoir from Englewood for well augmentation. When water in the South Platte is available to Thornton, it stores about 1,700 acre feet in its west gravel lake, near its Columbine Treatment Plant, and about 8,000 acre feet in its east gravel lake.
In 2003, Thornton sold to Aurora all of its transferred South Park irrigation water rights and all of its 4,000 acre feet of storage capacity in Spinney Mountain Reservoir.

Thornton's average annual water supply capability probably is about 20,000 acre feet. If an acre foot supplies 4.5 people, Thornton's present water supply probably can serve about 90,000 persons, under average conditions. But average water supply must be supported by adequate water in storage, for lower than average and drought conditions.

Thornton's projected population of 378,000 at buildout would require an average annual water supply of about 84,000 acre feet, along with adequate storage water. That's about 64,000 acre feet more average annual yield than Thornton now has.

Most Thornton watchers expected it to go after irrigation rights along the South Platte below Denver. Cherrypick the low-hanging fruit before other North Metro cities get it. Maybe enlarge Standley Lake.

Prodded by longstanding, innate civic aggressiveness, Thornton City Council, led by Mayor Margaret Carpenter, decided it was time to make a bold, strategic move. They realized - Margaret Carpenter understood sooner than most others - that Two Forks Reservoir was a lost cause. Thornton had agreed to take 13 percent of Two Forks' water supply - more than any other metro suburb. They also realized that the new highway (E-470) and the new airport (DIA) would create very rapid growth in Thornton.

Let's pause here a moment and pay homage to Margaret Carpenter. She was a member of Thornton City Council for six years, before beginning her 20-year tenure as mayor in 1979. In addition to her service to Thornton, she was president of the Colorado Municipal League and chairwoman of DRCOG's executive committee and board of directors. She received an award from DRCOG in 2000 for her beneficial effect on regional cooperation and collaboration. In 2001, Thornton City Council created the Margaret W. Carpenter Recreation Center, an act that required modification of the city charter.

In the mid-1980s, Margaret Carpenter and Thornton City Council recognized that there were only two realistic possibilities for obtaining the water supply necessary for Thornton's planned northward expansion. Either petition NCWCD for inclusion within its boundaries, then arrange with other North Metro cities (mainly Broomfield) and NCWCD for water supply through a pipeline extending south from Carter Lake. Or - Go to the Poudre.

Thornton decided to go to the Poudre.

The Cache la Poudre? Hide the Poudre?

Yes! Thornton's bold, cryptic move in 1986 to go after Poudre water caught everyone by surprise.

With stealth worthy of a CIA covert operation, Thornton paid $4 million to rural real estate agents to purchase - undercover - targeted farms in Larimer and Weld Counties that owned shares in the Poudre's oldest and best irrigation company - Water Supply and Storage.

What a coup if Thornton could purchase a large number of WSSC shares, possibly a majority interest! WSSC's water rights include several large transmountain diversions with reusable return flow. It was enough to make Thornton's City Council salivate. Quietly, of course.
The deals all closed about the same time. An unknown buyer purchased 447 shares (47 percent) of WSSC stock for a total cost of about $60 million. They were willing sellers. Some were ecstatic. Like in the Arkansas Valley, they could pay off old debts, retire, or start over somewhere else. "I never heard of anything like this before," remarked Art Anderson, who had farmed near Ault for 41 years. "You sat down and they let you write your own contract. But when you sold, you sold to a real estate agent. You didn't know who was behind the deal."

Speculation ran rampant. Some sellers suspected the Mormon Church. Others thought it was San Diego. Possibly Aurora. No one suspected Thornton. Then Thornton went public! There were gasps of astonishment and horror. Especially in the Loveland headquarters of Northern Colorado Water Conservancy District. Then the news spread quickly through Colorado's water community. All of a sudden, Thornton was the Big Bad Boy on the Front Range water block.

NCWCD was outraged. Furious! Thornton had invaded its inner sanctum with impunity. Daniel Tyler described the scene in his book, The Last Water Hole in the West:

Thornton's cryptic methods, its questionable calculation of the quantity of water to which it was entitled, and the example the city was setting for other thirsty and powerful Denver metropolitan water entities required that the District fight back in a court battle that badly drained the financial resources of both sides.

Did Thornton's taxpayers and water customers understand what their City Council and Utilities Department were doing in the Poudre River Basin? Not really.

City officials painted a rosy picture. Thornton's Northern (or Weld County) Project would provide water cheaper than NCWCD's Windy Gap Project, they said. The Northglenn-Thornton Sentinel's Michael Whitman-Jones caught the spin and reported:

If Thornton's plan is successful, however, it could provide water to the suburbs at a lower cost and jeopardize the district's marketing efforts, City Manager Jack Ethredge said.

A leading metropolitan water official, who has studied the Windy Gap project and asked not to be identified, agreed.

'They thought they had an asset in the Windy Gap water. They thought they were going to get rich. But Thornton outfoxed them,' he said.

The expert said the district has been hawking its water to Denver-area cities without much success because it is expensive and an unreliable source.

During dry years, he said, the yield from the Windy Gap project will drop
significantly...

Although Thornton's project probably will prove more expensive than city officials expect, and might not be accomplished without financial cooperation from other cities, the expert said he thinks its a better project than Windy Gap.

Windy Gap critics, including Thornton, overlooked the possibility that the undependable Windy Gap water supply could be firmed-up and made dependable.

In about 1991, nine entities, including Broomfield, decided to increase the reliability of Windy Gap water supply. The group of nine are currently considering reservoirs on both the East and West slopes that could store up to 110,000 acre feet and produce an average annual firm yield of 30,000 acre feet.

Two reservoir sites are currently being considered - Chimney Hollow on the East Slope and Jasper on the West Slope. After the reservoir site is selected, and the permitting process is completed, the Windy Gap Firming Project probably could be completed. Perhaps by 2010.

Vi June, former Westminster mayor who became a reporter for Sentinel weekly newspapers, congratulated Thornton for its city officials' "foresight in looking way down the road for water." She thought Thornton should ask other North Metro suburbs to participate and share some of the project's cost:

It is in Thornton's best interests to divide it up, as $140 million is a lot of money for a city to come up with. And with that kind of invitation and the opportunity to do a lot of trading of water shares, since the pipeline would make such diversions possible, I can see Brighton, Louisville, Lafayette, Westminster and Northglenn all looking closely at landing their own pieces of the action.

Thornton officials said its Northern Project water will cost about $4,000 an acre foot, about a third of the estimated cost of Two Forks water, and substantially less than Windy Gap Project water.

NCWCD's manager, Larry Simpson, disagreed. He said Windy Gap water would sell for less than $3,000 an acre foot and Thornton's Poudre water would cost three times that much. "You've got some lawyers and realtors that are taking Thornton for a ride," he said.

Ed Marston, editor and publisher of Paonia-based High Country News, who knows his way around the complex world of western water, said in 1994, "It will be expensive water. Two Fork's would have been costly, but Thornton's water is expected to cost perhaps four times as much."

*   *   *

NCWCD prepared for battle. It said it would refuse to deliver water to Thornton
for the 1,000 C-BT units the city acquired with its WSSC stock purchases. WSSC quickly issued 300 additional shares of company stock, to dilute Thornton's stock. Thornton responded by filing a lawsuit against WSSC.

After four months of negotiations, Thornton reached agreement with WSSC. Michael Whitman-Jones of the Northglenn-Thornton Sentinel reported highlights of the agreement:

**WSSC would:**

*Give Thornton the right to divert water from farms in Larimer and Weld counties and transfer it to the city using a 50-mile pipeline and the company's system of ditches and lakes.*

*Allow Thornton the exclusive option to purchase first-use rights to up to 60,000 acre feet of water, 20,000 more than it now owns and nearly double what it needs to meet in-city growth.*

*Drop its legal challenges to Thornton's Weld County water project, which includes the purchase of 13,000 acres of farmland and about 20,000 acre-feet of water.*

**In exchange, Thornton has agreed to:**

*Leave the company's Board of Directors in local control by not claiming more than four of the nine directors' positions.*

*Pay about $8 million to the company, $5 million of which is expected to be used to build a reservoir in which Thornton could store some of its new water.*

*Give the company 1,049 acre-feet of Big Thompson River water worth nearly $787,000.*

*Pay $30,000 a share to all shareholders for first-use water rights and a fee of $550 a share to the company.*

*Meet the company's water-quality standards.*

First-use rights would allow Thornton to use Poudre water for municipal purposes, then return it to the Poudre for irrigation use.

After the WSSC litigation was settled, Thornton filed suit in Greeley water court on December 31, 1986. It sought to change its WSSC irrigation water rights to municipal use. It wanted to obtain large junior, conditional water rights for Poudre River water. It wanted confirmation of its right to reuse the imported water it purchased from WSSC. And - Thornton wanted the right to use its 1,000 C-BT units.

There were 39 objectors. After 57 days in court, Judge Robert C. Behrman ended the trial on August 15, 1992. He issued a memorandum of decision on August 16, 1993 and a decree on February 18, 1994 - eight years after Thornton filed its claims in water court.

Judge Behrman granted Thornton conditional junior decrees for diversions from
the Poudre, but he imposed conditions on their use. Thornton must fully utilize its non-
Poudre water rights before using its Poudre water. It must periodically show the water
court that its projected growth is actually occurring.

Behrman's decree decreased Thornton's estimated average annual yield from its
WSSC water rights by 25 percent - from 67,000 to 50,000 acre feet. Thornton appealed to
the Colorado Supreme Court.

The Supreme Court issued its ruling on October 15, 1996. In a 4-2 decision it
limited Thornton's annual yield to 58,800 acre feet. It affirmed Thornton's dominion over
return flow from its imported WSSC water - about 5,000 to 6,000 acre feet annually.

Thornton cannot use its C-BT units outside NCWCD's boundary. It must
revegetate 18,000 acres of formerly irrigated land that it will dry up. It must abide by the
conditions imposed by Judge Behrman regarding use of Poudre water.

The Supreme Court remanded the case back to water court for revisions. Judge
Behrman signed the final decree on March 9, 1998 - more than 11 years after Thornton
filed its water claims.

Thornton obtained a $95.6 million loan in 1986 to fund the first phase of its
Northern Project. Pay-back in 30 years at 7.5 percent interest, with the initial payment
delayed until 2007. This money was used to buy WSSC stock and first-use agreements.

Under phase two, $80 million would be spent to build a 50-mile pipeline that
would carry Thornton's Poudre water from Black Hollow Reservoir near Fort Collins to
the city.

So - start with $176 million. Will there be more costs?
Yes!

Inflation. Bond interest. Revegetate 18,000 acres of formerly irrigated farmland.
Compensate Weld County for loss of tax revenue. Storage reservoir. Filter plant.
Distribution mains. Retainers and hourly fees for outside attorneys, engineers, various
specialists. And all kinds of unknowns.

*        *        *

One thing we do know. Thornton's future depends on the water it will eventually
obtain from the Poudre River. Let's look at the Poudre's history.

Let's go all the way back to 1825, when William Ashley crossed the lower river
with some fur traders, en route to a rendezvous in Green River, Wyoming Territory. Then,
in 1835, Col. Henry Dodge crossed the river with a company of calvarymen.

Henry and Mary Evans continue the story in their 1991 book, *Cache la Poudre:*

*Ashley did not name the river in the journals of his 1825 expedition, but
one of the men who accompanied him, Albert Gallatin Boone, a grandson
of Daniel, reported that some of Ashley's supplies (including gunpowder)
were hidden in a cache along the river while the party made short trading*
excursions in the area.

The group included several French-Canadian guides and trappers, who eventually supplied the name for the river. Ashley's journals suggest that his camp lay further south, perhaps on the Little or Big Thompson River. So he either cached his supplies on a different river than that on which he camped, or the Cache la Poudre was misnamed by later arrivals.

The Dodge Expedition's report to Congress states that on July 18, 1835, they 'passed the mouth of the Cache-de-la-Poudre.' It is probable that Frémont had read this report, and possibly Boone's, before he planned his own expeditions.

In July 1842, Lt. Frémont and a party of twenty-five including Kit Carson as guide, reached the Cache de la Poudre, which Frémont's journal described as "a very beautiful stream ... flowing with a full, swift current on a rocky bed ... In the upper part of its course, it runs amid the wildest mountain scenery."

In 1843, Frémont's second expedition explored the lower part of the Cache de la Poudre. Frémont's journal stated,

It was a mountain valley of the narrowest kind - almost a chasm, and the scenery was very wild and beautiful. Towering mountains rose about; their sides sometimes dark with forests of pine, and sometimes with lofty precipices, washed by the river; while below, as if they indemnified themselves in luxuriance for the scanty space, the green river bottom was covered with a wilderness of flowers, their tall spikes sometimes rising above our heads as we rode among them.

The Poudre's watershed covers about 1,900 square miles. Like many Colorado rivers, the Poudre has a split personality - wild, clear, turbulent in its high country youth. It has two main forks - North and South.

The South Fork rises in the tundra of the Mummy Range, so-named because it looks like a reclining Egyptian mummy. Hague's Peak (13,800 feet) towers above it. The South Fork, like a reckless youth, is wild and fast. It descends rapidly from 12,000 to 6,700 feet over 20 miles, at an average 265 feet per mile. It passes through national forest land that includes two wilderness areas.

The North Fork's watershed - 566 square miles, including 100 in Wyoming - is more than five times larger than the South Fork's. But its average annual discharge is 15 percent less. It's bigger, longer, but less productive of water. It begins life in rolling, forested country at about 10,000 feet. Then it follows a leisurely downward course averaging 100 feet of fall per mile.

There are seven transmountain water diversions into the Poudre. The Colorado-Big Thompson Project's diversion through the Adams Tunnel, which eventually reaches the Poudre watershed, is the largest. But there are others.
The Grand River Ditch is the granddaddy of Colorado's transmountain diversions from the Colorado River Basin. Its history has placed it on the National Register of Historic Places. It's still very much alive - a major source of water supply for WSSC.

Construction of the Grand River Ditch began in 1894 and continued intermittently until its completion in 1936. The construction work was very difficult. Hard to visualize now. Men - mostly Japanese, some Mexicans - used picks, shovels and wheelbarrows. They were occasionally assisted by mules pulling slips. Blizzards, snowslides, wind, bitter cold, mosquitos. The pay - 222 cents an hour, from which 25 cents was deducted for each meal. None of the construction workers believed this ditch was Grand.

The Grand River Ditch begins at Baker Gulch, in the northwest corner of Rocky Mountain National Park. It intercepts 16 tributaries as it winds around the eastern slope of the Never Summer Range. After a 17-mile transmountain journey, this grand old ditch empties into Long Draw Reservoir, on a tributary of the Poudre's North Fork. Its mountainside scars are visible from Trail Ridge Road.

The Grand River Ditch is more than 10,000 feet above sea level. It's now up to 20 feet wide and 6 feet deep. When full, it can carry up to 350 second feet. Its average annual diversion is 20,000 to 25,000 acre feet. But operation and maintenance of this high elevation ditch is difficult and expensive.

Why is it still being used?

The Grand River Ditch's very senior water right could be transferred to a point on the C-BT system where it could be diverted through the Adams Tunnel and on through C-BT facilities to the Poudre River Valley. C-BT project water has been following this route for nearly 50 years.

It could be done physically, if NCWCD and USBR would allow it. In fact, it has been done recently, when the Grand River Ditch was breeched, two miles inside Rocky Mountain National Park. But this was an emergency arrangement, negotiated quickly by a few telephone calls between bureaucratic friends. If Thornton tried to do it, contractually, it would be very difficult.

Water Supply and Storage Company wanted to construct a reservoir on Long Draw Creek, a Poudre tributary, to store importations from the Grand River Ditch. Problems developed when it appeared that water stored in the proposed Long Draw Reservoir would backup into Rocky Mountain National Park, created in 1915. The problem was solved in 1924, when Congress approved a land transfer from RMNP to USFS, which granted a permit to WSSC. Government agencies were much easier to deal with in those days.

Long Draw Reservoir construction was completed in 1930. It was enlarged to 11,000 acre feet in 1974 by WSSC.

The Skyline Ditch dates back to 1858, when Robert Chambers and son set-up a trappers' camp near a small lake. It covered a depression that originally formed the
headwaters of the Laramie River. A long-ago landslide had closed off the Laramie outlet and the lake so formed drained into Joe Wright Creek, high on the Poudre's North Fork. Joe Wright was a trapper who collected beaver pelts.

One day while Robert Chambers, Jr. was away, Indians killed and mutilated his father. Nine years later a tie contractor established a camp by the lake. The tiecutters heard the tragic murder story and named the beautiful little lake Chambers.

Chambers Lake is intertwined with the history of William Rist, who came to Colorado from Pennsylvania in 1869 at age sixteen. He got a job working for the state engineer in northern Colorado. As a side venture he decided to build a high elevation ditch from the Laramie's West Fork into Chambers Lake, then into a North Fork Poudre tributary. He called it The Skyline Ditch.

Rist gave the Skyline Ditch more slope than usual to make it self-cleaning. It cleaned itself well enough, but the fast water washed-out ditch banks on curves. After Rist built the first three-quarter mile of ditch, he sold it and Chambers Lake to the Laramie County Ditch Company. It raised the dam and deepened the lake. Chambers Lake was full on June 8, 1891, when William Rist inspected it for the state engineer. The dam appeared safe and Rist climbed on his horse and started for Fort Collins to file his report.

A cloudburst darkened the sky and Rist heard a deep, faraway, rumbling sound. He recognized what it was and quickly climbed to higher ground. The dam at Chambers Lake had failed!

Norman Fry, who lived many years on the Poudre, described the scene: "Huge spruce trees 70 feet high just keeled over as the flood hit them. The Laramie County Ditch Company had all kinds of damage suits on their hands after the flood."

The company failed and it was taken over by Water Supply and Storage Company, which rebuilt the dam at Chambers Lake. It washed out again in 1904. WSSC raised the dam again and reinforced it. It still operates Chambers Lake and the Skyline Ditch.

William Rist joined entrepreneur John McNabb in another high elevation ditch construction venture. They called it the Michigan Ditch.

McNabb was described by a friend as a man to match the mountains. He came to the Poudre from Minnesota. He excelled at hewing logs and became known as the fastest axeman on the Poudre.

McNabb and Rist started to construct the Michigan Ditch in 1902. It would extend from Lake Agnes across the Michigan River and Cameron Pass to Joe Wright Creek on a tributary of the North Fork Poudre. Michigan River originates in Colorado's North Park and flows into the North Platte near Coudrey.

Cameron Pass was named for Brigadier General Robert A. Cameron, of Civil War and Union Colony fame. Cameron explored the upper Poudre in the early 1870s. Later, he helped General Palmer establish Fountain Colony (Colorado Springs). Then he became Canyon City Penitentiary's first warden.

McNabb and Rist sold their interest in the Michigan Ditch to Mountain Supply Ditch Company, which sold it to North Poudre Irrigation Company 1908. North Poudre sold it to Fort Collins in 1971. The city rebuilt the ditch, added new structures and increased its carrying capacity.

McNabb and Rist built Joe Wright Reservoir on Joe Wright Creek in the early
1900s. It stores water imported by the Michigan Ditch. Fort Collins purchased it in 1971 and enlarged its storage capacity from 800 to 7,200 acre feet.

Dan A. Camfield has a place in early Poudre water history. He was a close friend of Charles Hansen, longtime editor of the *Greeley Tribune* and grandfather of the Colorado-Big Thompson Project. Camfield not only financed Hansen's newspaper, he planted the seeds of transmountain water diversions in Hansen's fertile mind. They blossomed later into the Colorado-Big Thompson Project.

The *Laramie* traces its roots to Jacques LaRamie, a French-Canadian fur trapper who roamed over the upper North Platte in 1820. The name of this obscure trapper attached itself not only to the river but also to the nearby mountains and to Fort Laramie, a major army post on the Oregon Trail. The City of Laramie became the home of the University of Wyoming.

The Laramie River provides water for three transmountain diversions into Colorado: Skyline Ditch, Michigan Ditch, Laramie-Poudre Canal. And for several reservoirs that store imported water, including Chambers Lake and Joe Wright Reservoir.

Camfield's Larimer-Poudre Irrigation Company began constructing the *Laramie-Poudre Canal* in 1909. Construction was very difficult. Since there was no road up Poudre Canyon, equipment and supplies had to be hauled in by a circuitous route requiring at least two days' travel from Fort Collins. A tunnel was required.

Formidable problems had to be overcome. Power for air compressors that propelled the hard rock drills. Power for fans to blow dust from the tunnel after each dynamite blast. Power for lighting, winching loaded mine cars up the tunnel incline and power for pumping water out of the tunnel.

A 10-foot high, rock-filled dam was constructed across the Poudre at the head of the Poudre Falls. A 22-inch woodstave pipeline built on-site carried water 1-1/2 miles down to Pelton water wheels in a powerhouse at the foot of the falls. One water wheel operated the blower fan. Another ran a generator for lighting, winching and pumping.

We can only imagine how difficult all of this was. Construction of the Laramie-Poudre Tunnel was a tremendous accomplishment for its time. But the state of Wyoming was not impressed. It sued to halt construction, claiming the tunnel jeopardized senior water rights downstream on the Laramie River in Wyoming. A court-imposed injunction stopped operations until the U.S. Supreme Court decided the case in 1922. We discussed this case, and Delph Carpenter's involvement in it, in *The Colorado* chapter.

The Laramie-Poudre Irrigation Company could not survive the Great Depression. WSSC purchased it in 1937. After improvements, the Laramie-Poudre Tunnel system provides WSSC with an average annual supply of about 16,500 acre feet.

The *Columbine Ditch* was built in 1891 to divert water from Deadman Creek across the Continental Divide into a tributary of North Fork Poudre. The north slope of Deadman Hill drains into the Laramie watershed. The south slope drains into the Poudre.

*Deadman Creek*. Deadman means different things to different people. In the Upper Midwest it is a log extending up vertically from a river bottom's mud. In the early West, it was a horizontal anchor, or brake, used to slow the descent of a big wagon down a steep slope. In a mortuary…

The Columbine Ditch had caved in, in places, when Roy Portner bought it in 1920.
He hired men to rebuild it and also Barnes Meadow Reservoir on a small tributary of Joe Wright Creek below Chambers Lake. Roy Portner is remembered in Poudre history for Portner's Leap. Howard and Mary Evans tell the story in their book:

It was an early morning in 1926 when Roy Portner drove up the canyon with Roy Burns and civil engineer Emmet McAnelly. The three were headed for the Peterson Lake Dam construction project, but the steering apparatus of Portner's brand new Chevrolet broke, and the car landed bottom side up in the Poudre, balanced on a huge rock, teetering in late spring high water.

Portner later said the canvas top punched in around his head. Because of a medical condition, he had never learned to swim, and his left foot was now caught, probably between the brake and clutch pedals.

Feeling around, he took hold of McAnelly's leg as that man extracted himself from the car. At that moment, Portner's leg came free, and McAnelly, a good swimmer, got the two of them to the river bank. They then noticed Burns swimming downstream as fast as his wooden leg would permit, trying to catch up with his floating wallet. Having been paid the night before, he wanted to recover his wages.

The men caught a ride to Fort Collins and returned the next day to dive for lost surveying instruments. Ralph Bonnam, a Peterson Dam worker, winched the car out of the river. Word of the incident spread and for several years this spot, at mile post 100, just above the dips, was known as Portner's Leap.

* * *

Ditch companies now divert Poudre River water at the mouth of Poudre Canyon for delivery to agricultural customers further east. They divert only a fraction of the water available during high flows. The unused Poudre water flows into the South Platte and on down into Nebraska.

Plans to construct upstream water storage to catch Poudre River water date back to the early 1900s, when USBR made the first study to locate a reservoir site on the Poudre River. NCWCD's longtime director, Bill Farr, began to push for a Poudre Project in 1959. Farr formed a steering committee to investigate storage requirements. It announced in 1961 that a 250,000 acre foot reservoir would be necessary to take care of future municipal and agricultural water requirements in the Poudre Valley. USBR agreed to make a 3-year feasibility study.

USBR's study lost momentum when it became preoccupied with its big Fry-Ark Project on the Arkansas. But, by mid-1963, it was suggesting a two-stage Poudre Project. The first stage would involve construction of Idylwilde Reservoir. The second would
construct Grey Mountain Reservoir near the mouth of Poudre Canyon. There would be a hydroelectric power plant between the two reservoirs to help repay project costs, estimated at $111 million.

USBR became less enthusiastic about the Poudre Project after it downgraded the Poudre's hydroelectric power potential and the enviros began to chant *No More Dams*. Cost estimates for Idylwilde Dam increased significantly when it was discovered that the north end of the dam site was undercut by a glacial moraine. USBR shelved the Poudre Project in 1964.

In 1982, CWCB developed six alternatives for water storage and hydroelectric power development on the Poudre, based upon studies by Tudor Engineering Company. There were meetings to discuss these projects. Standing room only. Local response was negative. Enviros formed a group called *Save Our Poudre*. The Fort Collins *Coloradoan* headlined its February 24, 1983 issue, "Dam meets wall of criticism." CWCB rejected the Poudre Project proposed, citing economic infeasibility.

After the 1977 drought, the Larimer-Weld Regional Council of Governments Drought Council asked CWCB to request a USBR investigation of the Grey Mountain Reservoir site. The water boards of Fort Collins and Greeley joined in the request. So did NCWCD and Cache la Poudre Water Users Association. But USBR said it could take no action until the Poudre Project received a higher priority.

In the late 1980s, NCWCD began finalizing a plan for a new Poudre Project. Off-channel Glade Reservoir would store water diverted through a tunnel from Grey Mountain Reservoir on the mainstem Poudre, below the junction of the North and South Forks. Water would be pumped up to a small forebay during off-peak hours. It would be released to generate power during peak demand periods. Power revenues would help repay project construction costs.

NWCD also made a Regional Water Demand study in the late 1980s. It examined present and future water demands for 36 cities and towns within the District's boundaries, in Boulder, Weld and Larimer counties. Nothing much resulted from all of this.

**Stalemate?**

No! Let's try to solve the Poudre storage problem by creating a new state agency - a *quasi-state agency*. An agency empowered to plan, finance and *build* water projects in Colorado.

CWCB is Colorado's water policy agency. But it can't *build* large water projects. So Fred Anderson, state senate leader from Loveland, sponsored a bill to create the *Colorado Water Resources and Power Development Authority*. It was approved by the Colorado Legislature.

CWR&PDA was created to do the project development work that USBR was unwilling, and CWCB was unable, to do. It would be independent of state government, except for its funding. It would issue revenue bonds payable from water project revenues. It would be *autonomous*.

Critics argued that the bill that created CWR&PDA is unconstitutional - morally, if not legally. They said Colorado is constitutionally prohibited from pledging the credit of the state to build a water and power project, or anything else. If it issues revenue bonds and defaults, who will bail it out? Attach some qualifiers to those adjectives, *independent* and
CWR&PDA has other baggage. Irrigation. It has to include irrigation in its project planning but, unlike water conservancy districts, it cannot levy and collect property taxes to pay for them. Its projects must be multi-purpose, with sales of municipal water and hydroelectric power subsidizing irrigation. Its powers could be legally challenged, if the stakes are high enough. But, in spite of its problems, this new agency initiated studies for four proposed projects, one of them the Poudre Project.

Harza Engineering Company investigated the Poudre's water and power resources. Opponents said the study would be like asking the fox if he wants more chicken coops in the Poudre Canyon.

Harza completed its report in 1987. NCWCD reviewed it and suggested it be scaled down to "a manageable process." There were more studies. Nothing much resulted from all of this.

Thornton's unexpected, aggressive entry into the Poudre water game lit a fire under NCWCD's directors. The flames illuminated the need for NCWCD to stop talking about, and studying, the Poudre storage reservoir problem and act.

NCWCD operates and maintains C-BT project facilities which supply water to Horsetooth Reservoir, for use in the Poudre River Valley. C-BT is changing rapidly from a supplier of irrigation water to a supplier of water to municipal and industrial interests, which now own 61 percent of the total C-BT units - four times the 15 percent owned in 1957, the first full year of the project's water deliveries.

The time is rapidly approaching when virtually all of the C-BT units will be owned by M&I interests - mainly cities.

NCWCD dusted off its late 1980s Regional Water Demand Study, upgraded and refined it, and called it Phase I of its Northern Integrated Supply Project. NISP's objective is to explore ways to meet the region's future M&I water demands without damaging its agricultural economy.

The Phase I study indicated that present regional water demands total about 165,000 acre feet annually. Regional means the 1,040,000 acres, or 1,630 square miles, within NCWCD's boundaries.

Future water demands at regional buildout, as indicated in NISP's Phase I study, total about 430,000 acre feet annually, of which nearly three-fourths (317,000 acre feet) will be for residential water use.

The additional annual water requirements for M&I use at buildout are estimated to total about 264,000 acre feet. This is roughly the annual dry year discharge of the region's four major streams - the Poudre and Big Thompson rivers, and St. Vrain and Boulder creeks.

Starting in 2000, NCWCD representatives met with representatives of Fort Collins, Greeley and the Tri Districts to discuss future regional water requirements. The Tri Districts (North Weld County, Fort Collins-Loveland, East Larimer County) are served by Horsetooth Reservoir's Soldier Canyon Filter Plant. This treated water is delivered to customers outside the Fort Collins service area.

These meetings evolved into a bonding together of 13 rural towns and rural
domestic water suppliers and several cities in a collaborative effort to pursue Phases II and III of the Northern Integrated Supply Project. The group of thirteen included:

- Northern Colorado Water Association
- East Larimer County Water District
- Fort Collins-Loveland Water District
- Windsor
- Little Thompson Water District
- Berthoud
- Left Hand Water District
- Erie
- North Weld County Water District
- Evans
- Central Weld County Water District
- Fort Lupton
- Fort Morgan

In February 2004 this group completed NISP's Phase II, aimed at providing 30,400 acre feet of annual firm, reliable water supply and an additional 12,000 acre feet of firming storage capacity. Without the development, or acquisition, of such new supplies in the next two decades, the group would experience an annual water shortage of about 62,000 acre feet.

The Phase II report examined 200 project alternatives - both structural and non-structural. They were narrowed down to one preferred proposal - a combination of the Glade complex and the South Platte Water Conservation Project. Water source - the Poudre.

The Glade complex includes the proposed off-channel Glade Reservoir, with a storage capacity of 170,000 acre feet. And a pump station, forebay, canal relocation, canal enlargement and the 5-mile pipeline to Horsetooth Reservoir. Cost $260 million. Completion 2012.

The South Platte Water Conservation Project includes off-channel Galeton Reservoir (20,000 acre feet), pump station, and 30 miles of pipeline to deliver water to New Cache and the Larimer and Weld ditch systems. Cost $106 million. Completion 2017.

Ditch companies now divert water at the mouth of Poudre Canyon for delivery to agricultural interests. Under the NISP plan, a portion of that water would be stored in Glade Reservoir for municipal use.

In exchange, an equal amount of water from Galeton Reservoir would be delivered to the ditch companies. NISP's plan would increase the cities' supply of high quality Poudre water without injuring irrigators.

NISP's Phase III will include a more detailed review of environmental and engineering studies as it moves toward the formal permitting process, which could take up to three years.

It looks like northern Colorado water interests are finally getting their act together,
after many false starts and a push by Thornton's threat.

*   *   *

The Poudre's upper basin is still pristine, or close to it - a prime candidate for *Wild and Scenic designation* under the 1968 National Wild & Scenic River Systems Act.

It was also a classic political landscape for confrontation between enviros and water project developers - Colorado's first involving the wild and scenic issue.

NCWCD became involved in the Poudre's wild and scenic controversy. Colorado Congressman Hank Brown, from Greeley, forged a compromise.

Seventy-five percent of the 83 river miles above the mouth of Poudre Canyon would be designated wild and scenic, where no dams or reservoirs could be built. This would include all of the South Fork except an area near the Little Beaver confluence, where Fort Collins and Greeley may want to build a reservoir.

The Poudre's North Fork was not designated wild and scenic. More than half of its length is in private ownership and there are major federal grazing allotments along the river.

The wild and scenic compromise, like all good compromises, wasn't a victory for either side. Both preserved their bottom line essentials. The Poudre was the first Colorado River to be designated, in part, Wild and Scenic.

There were other battles with the enviros on the Poudre. Endangered species. Wilderness water rights and more. NCWCD was involved in all of them in its role of protector of water interests within its boundaries, which include the Poudre.

The Poudre's environmental problems won't go away. Colorado Environmental Coalition and American Rivers, Inc. have recently urged USFS to designate the upper 23 miles of the North Fork *Wild and Scenic*. It is not likely to happen.

*   *   *

Thornton is trying to comply with provisions in its Poudre decree which require it to fully utilize its existing water supply before diverting any Poudre water. It is also trying to keep up with demands imposed by accelerating growth.

Thornton is spending $20 million to purchase 13 more gravel pits along the South Platte. Water stored in these gravel pits will be exchanged to downstream senior irrigation water rights for increased pumping from Thornton's gravel lakes near its water treatment plant. Later, they might be used for Poudre exchanges.

Some of these gravel pits are being actively mined for gravel and some are undeveloped pits. Most of the pits are outside city limits. Some are in the growth areas of Brighton and Commerce City. At least two of the gravel pits will have to be condemned - the Cooley Gravel Company pit and the Sprat-Platte Ranch Company pit.

Thornton offered $1.9 million for the Cooley quarry, which is large enough to hold 3,500 acre feet of water. It offered $795,000 for the Sprat-Platte gravel quarry, which can hold 1,500 acre feet.

That's way below market value, both parties said. So Thornton started
condemnation proceedings.

"They say it's a friendly condemnation," Cooley's manager complained, "but they're not being very friendly." Sprat-Platte's attorney complained about Thornton's "heavy-handed tactics."

Not very friendly. Heavy-handed tactics. Thornton's Poudre efforts produced stronger language: Bold, pernicious water grab; cryptic methods; questionable calculations, and much more.

Such language used to be reserved for the Denver Water Board, before it mended its ways after Two Forks. Then AWWI and Gary Boyce attracted plenty of verbal abuse in the San Luis Valley. Aurora is taking verbal flack from detractors in South Park and the Arkansas Valley.

Now Thornton. When you become a Big Player in the metro water game, you become a legitimate target. Get used to it!

*        *        *

The quality of South Platte River water reaching Thornton's gravel lakes and its Columbine Treatment Plant has been decreasing for some time, due namely to Denver's diversion of river water at Strontia Springs Reservoir. Solids drop to the river bottom and are flushed downstream, causing increased treatment costs for Thornton. In 1996, Thornton sued the Denver Water Board, seeking compensation for its increased water treatment costs. The dispute dragged on in Greeley water court for 77 trial days, over a six-year period. Finally, just before closing arguments, after six-months of negotiations, an agreement was reached.

Denver Water will supply Thornton with replacement water for five years, while its Columbine Water Treatment Plant is upgraded, using latest technology. In addition, Denver Water will give Thornton first crack at certain new DW water supply developments when they become available.

This litigation cost each city about $3 million, but the beneficial results of the agreement are far-reaching. It's another building block in DW's New Era, underway since shortly after Two Forks. But - more importantly - it signals a New Era for Thornton, with cooperation replacing litigation.

The agreement is a sea change shift in relations between the two utilities. It could lead to cost-sharing on future projects, such as pipelines and treatment plants. Chips Barry, Denver Water's manager, said, "It really signals the beginning of an entirely new relationship between Denver and Thornton, and it opens the door for a complete rethinking of how water is treated and delivered in the northeast metro area."

In a July 2000 column by the Rocky's Todd Hartman, Denver Water's general counsel, Patricia Wells, said "The big news is we've never had any kind of cooperative agreement with Thornton. We have not, up to now, even spoken with one another ... Both their customers and our customers will be much better served."

Big news, indeed!

It's an indication that a more mature Thornton, now Metro Denver's third largest water supplier behind Denver Water and Aurora, is ready to play a major role in the future
development of northern Metro Denver and its anticipated firestorm of population growth.
WESTMINSTER


An attitude?

Explain.

I will, but not yet. Let's find out first how that revered name - *Westminster* found its way to a northern suburb of Metro Denver.

It's an interesting story that starts with Pleasant DeSpain. He came to Denver City in the early 1860s, looking for land. He worked at various jobs. During the 1864 Cherry Creek flood, he operated a ferry between Auraria and Denver City.

In 1870, Pleasant DeSpain homesteaded 160 acres north of present 76th Avenue, between Lowell and Federal. His five sons helped clear the land. Then DeSpain purchased an additional 80 acres and built a sod house. It was later replaced by a conventional house at present 76th and Lowell, where the Methodist Church now stands.

The pleasant and enterprising DeSpain purchased ditch rights to irrigate part of his land. He built a water tower to store his water and launched the DeSpain Ditch and Water Company. Enterprising? Yes, but how about 17-year-old Edward Bowles?

Ed came to Denver City in 1863, driving a herd of cattle across the plains from his home in Springfield, Missouri. He subsequently made 11 more trips from Springfield, hauling freight to Denver City, Santa Fe and Salt Lake City. And to the gold country near Central City.

In 1871, Ed married and homesteaded land south of DeSpain. He built a two-story, red brick house on the corner of present 72nd Avenue and Newton Street. The Bowles House has a place in Westminster's history. It eventually went through a vacant and dilapidated period and the owner offered it to the fire department for burning. Preservationists persuaded the city to buy the house for $80,000 and spend $65,000 more
to renovate it. The yard was landscaped, the herb garden replanted and the small pool was restored. It is now the home of the Westminster Historical Society.

When the railroad was built through his land in 1881, Bowles donated land for the DeSpain Junction Depot. It later became Harris Park, which evolved into the community of Harris.

In 1891, the year of Pleasant DeSpain's death, the Denver Presbytery purchased a section of land on Crown Point, overlooking the village of Harris. It was the highest point in Arapahoe County and the view was outstanding.

The church wanted to build a Presbyterian university on the site. They would call it Westminster, a popular Presbyterian name. Plans called for a 3-story building with classrooms, offices, parlors and a large tower. It would be built with an exterior of red limestone quarried in the Colorado Red Rocks region.

The university building was estimated to cost about $400,000, a large amount of money in the early 1890s. Solicitation of building funds was slowed by the 1893 financial panic. Then the estate of H.A.W. and Augusta Tabor donated $106,000. An anonymous eastern woman made a $100,000 endowment, encumbered by a stipulation. It stated that the money must be used only for a Presbyterian school patterned after Princeton University.

Some called it the Princeton of the West. Princeton officials probably gave some thought to issuing a disclaimer.

Classes began in September 1908. It was a memorable event that was recalled 43 years later in the Denver Post's Empire Magazine:

Newspaper reports of the period told of five carloads of excursionists met by carriages and wagons and taken to Crown Point, where food was served and visitors viewed the building, the 15,000 trees set out to beautify the 40-acre campus, the 80-acre college farm and the 300 additional acres in which the Presbyterian Synod of Colorado is said to have an equity and Westminster University opened yesterday in its own building, four miles from Denver.

Westminster University opened with about 60 students. It struggled financially from its start. Some of the school land was subdivided to sell as home sites.

The need for an adequate water system for the community of Harris caused 60 residents to petition county court in 1911 for a special election to incorporate the community as the town of Westminster, named for the university. Only 36 residents voted. Six were opposed.

Westminster University expanded in 1912, by establishing a law school in Denver. It became the university's only real success. Westminster law school educated many prominent Colorado attorneys, judges and politicians until it merged with the University of Denver in 1957. Glenn Saunders taught water law there in night classes.

In 1915, the school was changed to an all-male college. The timing was terrible. World War I emptied the school of its men and Westminster University was forced to close in 1917. The buildings were rented to a farmer who lived in the main building and
used the basement as a chicken coop.

The Pillar of Fire Church purchased the Westminster University property in 1920. It established a junior college and a bible seminary there. After 1925, it was called Belleview College.

After the 1911 incorporation, Westminster officials levied a 10-mill tax to operate the town. In 1912, residents approved a $28,000 bond issue to build a water system. Then town officials increased the levy to 35 mills. They were unable to pay more than bond interest for many years. The bonds were finally paid off in 1946.

Westminster residents helped establish the water system by deeding part of their land to the town for laying pipes. Some even laid their own pipes.

Westminster's water system first consisted of a well and tank on top of Gregory Hill. During repair of the well a pipe was dropped which could not be recovered. The well had to be closed.

In about 1915, Westminster dug a new well at the base of Gregory Hill and pumped water up to the hilltop water tank. Excellent quality water from this well became a bonus for people moving into Westminster.

In 1937, with a P.W.A. grant, Westminster drilled a third well near Well No. 2 and a larger pump was installed. It drained the other well, so the town's population of 500 still had only one operating well.

Some Westminster residents obtained rights in irrigation ditches passing through their property and used the water to irrigate their gardens and lawns. It created problems between some of the neighbors. One early resident recalled, "I have seen good Christian people come out to take their neighbor's water for their gardens during the night."

Until 1940, Westminster was the only incorporated town in Adams County, west of the South Platte River. Construction of the Denver-Boulder Turnpike in the 1950s cut Westminster in half. For some, the Turnpike was an asset. For others it was a liability. It all depended upon whose ox was being gored.

Westminster's population passed 2,500 in 1953, giving it second class city status. The first city council was elected and installed in 1954. Home rule was approved by the voters in 1958. The new charter called for a council-manager government - a 7-member council with the mayor elected by council after each election.

Water problems continued. More wells were dug in 1948, but watering restrictions were imposed in 1950, 1952 and 1953. In 1954, a large, steel, clear water reservoir capable of holding two million gallons was built on top of Gregory Hill and more wells were drilled.

In 1957, Westminster signed a contract with Northwest Water Corporation to receive water service for the next 25 years. It was similar to the contract signed by Thornton.

In 1959, Westminster purchased water rights in the Farmers Highline Canal and doubled the capacity of its water treatment plant. But more water was needed to meet Westminster's rapidly growing population. How about Denver water?

The Denver Water Board's Blue Line policy prevented immediate water service to Westminster. City Council thought Denver had plenty of water and was actually wasting it. It issued this statement:
In 1958 the water engineer of the City and County of Denver, in order to show the adequacy of Denver water at that time, announced to the Denver newspapers that the city was wasting millions of gallons of water from Gross Reservoir, as they were unable to use their total water supply.

Being alert, the City of Westminster approached the Denver Board of Water Commissioners and, like a Biblical beggar, begged permission to buy the 'crumbs' which fell from the rich man's table, but were scorned, even as the beggar was scorned in the parable.

I was the Denver Water Board's water supply engineer at that time - the water engineer in the above quotation. I probably told reporters, in response to their questions, that recently constructed Gross Reservoir had filled and spilled for the first time. I would not have said the DWB was wasting water.

In 1959, Westminster attempted to obtain storage capacity in nearby Standley Lake. This large lake, or reservoir, is so important to the cities of Westminster, Thornton and Northglenn that its story needs to be told.

*   *   *

The Standley Lake story starts at Blue Bird Jones Lake owned by Joseph Standley, situated just below Kinnear Lake on Big Dry Creek. It was the largest natural body of water in Jefferson County.

In 1889, the Farmers Highline Canal Company offered to buy Standley's Jones Lake. It made several subsequent attempts to purchase the lake, without success.

In 1917, the Denver Reservoir Irrigation Company was incorporated by Joseph Standley, T.B. Croke and Milton Smith for the purpose of building a large dam on Standley's land. The reservoir, or lake, behind the dam would cover 2,000 acres, including Jones Lake and the land of several other ranchers. It would be called Standley Lake, to honor the principal land owner and the company's first president.

The dam would be earthfill, a mile long, and a thousand feet wide at the base. It was an exciting project awaiting a quick start, if three reluctant property owners would agree to sell their land.

They wouldn't sell. They decided to frustrate the company and increase the sales value of their land by delaying tactics. They would dig for coal on their land.

They found coal and much more - a vein of gold! Suddenly the price of their land increased 20 times. Or so it seemed to the happy ranchers.

The three landowners attempted to raise their selling price substantially, but in June 1907 a Jefferson County District Court jury decided that the original price of $62.50 per acre was all the property was worth, regardless of the reported coal and gold discoveries.

The District Court judge ordered the three landowners to give immediate possession of their lands to the company. They refused, saying they had planted crops which they had a right to harvest. The Colorado Supreme Court ruled that the landowners
had to give immediate possession of the land to the Denver Reservoir Irrigation Company. Standley Lake was born in controversy. During the next 60 years it would become the native home of water litigation.

* * *

In 1922, the board of directors of the Farmers Highline Canal Company attempted to negotiate again for storage rights in Standley Lake. The reservoir was then co-owned by Joseph Standley and the Farmers Reservoir and Irrigation Company (FRICO). They agreed, providing FHL would purchase 250 shares of Standley Lake Company stock and give FRICO two-thirds of the water FHL planned to store in the lake. No deal.

Fast-forward now to 1959 when Westminster attempted to purchase storage capacity in Standley Lake. There were intense negotiations with FRICO and, in 1961, a contract was signed. FRICO stockholders rejected the agreement.

So Westminster looked elsewhere for storage capacity and decided to purchase the Rodgers Ranch in Jefferson County. It would give the city a reservoir site at Upper Twin Lake and irrigation water rights on Coal Creek.

In 1962, by a three-to-one margin, Westminster voters approved issuing $2.5 million in water bonds to finance the Rodgers Ranch purchase, construction of a small reservoir at Upper Twin Lake, a pipeline and a treatment plant enlargement. Reservoir construction would be completed in 1963.

The summer of 1962 was hot and dry and Westminster had to divert water from Clear Creek through the Kershaw Ditch. That water required heavy treatment and complaints flooded city hall.

Marion Smith mentioned it in her 1976 book, Westminster Then and Now:

> Finally, on a hot afternoon in late summer, a group of housewives gathered for what is still known as the 'Mother's March on City Hall.'

> Armed with signs and posters, pushing baby strollers, holding the hands of toddlers and herding older children before them, the women paraded around the building for television cameras and photographers from the metropolitan daily newspapers. They wanted safe water for their children, they said.

> Other residents joined in the protest and in September they organized the Citizens Committee on Water. They called a meeting at the United Nations Building at 80th Avenue and Sheridan Boulevard to draw plans for a campaign to force the city to go to the Denver Water Board for water for the city...

> The battle that grew out of that meeting proved to be one of the bitterest in the city's history, dividing families, neighbors and long-time friends. Many people are still identified as being 'Denver Water' or 'Westminster Water'
people.

Westminster tried to negotiate with the Denver Water Board for a supply of treated water. The DWB vacillated from one option to another and finally informed Westminster that it could purchase DWB treated water if the city abandoned its own water supply.

Either that or Westminster would have to block-off a portion of its distribution system for receiving Denver water, with the remainder of its system supplied by Westminster water.

Bottom line - you can't mix DWB water with Westminster water.

Marion Smith continued the story:

*Every council meeting was the occasion for requests and demands for information and a decision from the Denver Water group. The overflow crowds became a standard for audiences at all meetings.*

*The metropolitan and local newspapers devoted much space to the controversy in the news columns, editorially and in the 'Letters to the Editors,' with each side stating their facts and opinions at some length and with varying degrees of emotionalism.*

*The argument attracted so much notice that a national television crew filming a documentary on the Colorado River on the West Slope brought its equipment to Westminster and filmed a meeting, embellishing the footage with pictures of rats scurrying near the Kershaw Ditch intake valve on Clear Creek, and interviews with both sides.*

All of this occurred in fall 1962. The number of building permits issued by Westminster plummeted from 35 in September to 20 in October and two during the first half of November.

Negotiations with FRICO for storage space in Standley Lake were reopened in November 1962. They were strongly opposed by the Citizens Water Committee, which presented petitions calling for an election to determine whether Westminster should purchase Denver water or continue to develop its own water system.

Agreement with FRICO was reached in January 1963. It called for raising the dam at Standley Lake to hold an additional 12,000 acre feet of water, half of which would be available for use by Westminster. The money would come from the $2.5 million water bond issue approved by Westminster voters in July 1962.

The referendum for purchase of Denver treated water went to Westminster voters in March 1963. It was the most important election in Westminster's history. The election drew the largest number of voters (3,824) and the largest percentage of registered voters (57%) in the city's history.

The vote: 1,997 for an independent Westminster water system and 1,827 for purchasing Denver water. It was a difficult political situation and Westminster's city
manager, Michael Lenrow, resigned.

Hello, Ned Phye!

Ned Phye, from Fremont Nebraska, was a skilled, forceful city manager. During the next ten years he changed the image of Westminster and he led the way to development of an independent water supply for the city.

One of Ned Phye's first actions was to retain John Barnard, Jr., of Boulder as consulting water attorney and me as consulting water supply engineer. (I left the DWB in June 1961.) Marion Smith:

A study done by Fisk Engineering Company in 1964 for the city reported that it would have to serve a population of 24,000 by 1970 and 40,000 by 1980, and recommended that a bond issue be passed to purchase more water rights, construct a filter plant near Standley Lake, build more treated water facilities and lay more trunk lines for distribution of the water.

The report stated that 'Westminster is past the point of no return on development of an independent water supply. But, integration with Denver, or another metro water entity, may be feasible by 1980.'

The report also urged Westminster, Thornton and Broomfield to form a tricity trust to prevent inflation of the price of water rights.

'The water requirements of the city are expected to increase from 2,800 acre feet a year in 1964 to 4,600 acre feet in 1970, and 8,000 acre feet in 1980,' it said.

In March 1964, the city had a capability of supplying only 2,140 acre feet of water a year, according to the Fisk report.

So on June 5, 1964, the voters again went to the polls and approved a $13.5 million bond issue for improvements to the water system by a 1,316 to 1,082 vote.

The Citizens Water Committee wouldn't give up its efforts to obtain Denver water for Westminster. Petitions were once again presented to City Council asking for another referendum on purchase of Denver water.

Ned Phye, a shrewd politician, directed the campaign that led to successful passage on the June 1964 bond issue and the defeat of the second referendum calling for purchase of Denver water three weeks later. On June 30, 1964, 1,690 Westminster residents voted in favor of Westminster developing its own water system and 1,196 voted to purchase DWB water.

That water fight had the unusual result of uniting Westminster citizens and arousing citizen interest in civic affairs. It brought newcomers to Westminster City Council who had not previously been active. Particularly Vi June.
Mrs. Vi June would be Westminster's mayor for many years and a force in Metropolitan Denver water politics. She was originally an active member of the pro-Denver water group. Then she switched horses, declaring that an independent water system would allow Westminster to control its own destiny.

"Without it (an independent water supply)," she said in 1975, "we never would have become the 25-square mile city we are today ... however, anyone under the Denver water system right now is probably in a more secure position, water supply wise. There is just so much water to go around and we're constantly fighting to get our share of the market."

Westminster spent $1.6 million in 500 separate water rights purchases between 1964 and 1976 to acquire 6,500 acre feet of additional annual water supply. Few large blocks were available, so most of the purchases of shares in irrigation ditches yielded only five to 50 acre feet. Intermediaries were used, so most of the sellers did not know that Westminster had embarked on a large-scale water rights acquisition program.

This program stretched the city's budget dangerously. For several years during the late 1960s, Westminster's contingency fund was less than $20,000. A dangerous game was played for high water stakes.

In 1965, Westminster voters approved a charter amendment that allowed the city to sell water outside city limits. This enabled Westminster to sell water to Shaw Heights Water & Sanitation District, to the Town of Federal Heights and to Thornton on an emergency basis.

City Manager Ned Phye steered Westminster toward growth. "Without growth, a city stagnates," he said. City Council agreed with him. Annexations were the white horses they all rode.

In 1970 and 1971, Westminster annexed 5,000 acres north and east of its former city limits, including two new developments. It increased Westminster's area from 5 to 13 square miles. It was the largest single annexation in Colorado's history.

This large annexation covered the unincorporated area north of the Denver-Boulder Turnpike to 120th Avenue, between Sheridan Boulevard and the city limits of Federal Heights and Northglenn. Plus a smaller area north to 128th Avenue between Zuni Street and the Valley Highway.

Northglenn and Broomfield annexed portions of the same area, but Northglenn lost the crucial annexation election in 1970, when owners of a disputed 80-acre tract, including the General Electric site, voted to annex to Westminster.

Broomfield acted in 1971 to prevent Westminster extending east of her by annexing land east to the West Lake area. That annexation changed Broomfield from a town to a city.

Thornton also acted in 1971 to annex four tracts of land, which extended its boundaries to the north and eventually encircled both Northglenn and the older community of East Lake.

In a 1971 newspaper article, Ned Phye said, "The city now has water treatment facilities for a population of about 45,000, raw water storage facilities for about 70,000 people, and water rights to supply 50,000 people, and it will continue to buy more. With competent administration, I can't foresee any water problems in the future."
After annexing the large area to the north, Westminster looked west. Phye and City Council thought Standley Lake should be in Westminster. Arvada thought it should be within its boundaries.

Westminster won the Standley Lake annexation battle. After many annexations, including one of several small strips, it established boundaries necessary for unilateral annexation of an area that included Standley Lake.

There was a battle over carry over storage in Standley Lake. FRICO refused to allow Westminster to carryover its stored water from year to year. Westminster filed suit against FRICO. It was called the Flip Flop Suit. Relationships became so strained neither party would agree on how to pay for required repairs at Standley Lake Dam.

Early in 1977, Westminster's water attorney, John Carlson, arranged a meeting with FRICO's directors. He was able to change attitudes. Westminster agreed to start repairing the dam. FRICO agreed to negotiate the cost. "Finally," reported the Westminster Journal-Sentinel, "the two sides were able to sit down at the same table and talk."

They sat down again in 1978 and settled the Flip Flop Suit. Westminster could carry over from year-to-year unused water in its storage space in Standley Lake.

Competition between northern municipalities for purchase of water rights on Clear Creek and the lower South Platte was intense during the 1963 to 1977 period. Intense and complex. Complicated as a chess game. It required 16 separate transactions, for example, for Westminster to purchase South Platte irrigation rights yielding 1,620 acre feet per year. This competition increased the purchase price of irrigation water rights.

Westminster and Arvada competed for the right of providing full utility service to the Standley Lake Water and Sanitation District, which had serious financial problems. Westminster won. It refinanced the district's bond debt so that financing could be obtained for new homes within the district.

Westminster's aggressive annexations extended the city's boundaries beyond two Jefferson County recreation districts (Hyland Hills and North Jeffco Park). Westminster City Council didn't want the expenses generated by these recreation districts. So it filed suit to exclude Hyland Hills Park and Recreation District from the city.

Westminster's exclusion suit was rejected in District Court and by the Colorado Supreme Court. The proposal was protested by many Westminster citizens, who petitioned City Council for an election on the issue.

Ned Phye and Westminster's city attorney persuaded City Council to vote instead another question: Should Westminster provide parks and recreation programs for its citizens?

Voters said yes and Westminster's parks and recreation department was born. But the exclusion issue caused bitter feelings between Ned Phye and some council members and many citizens. Phye resigned in January 1973 to enter private business.

City Council members who had backed Phye were swept out of office in November 1973. The Denver Post headlined its story with Westminster is DePhyed.

Hyland Hills Park & Recreation District, after all that fuss about it, is now in Federal Heights.

Ned Phye was a hard act to follow. Robert Boos succeeded him, but lasted only a short time. Steve Garman was named Westminster city manager in March 1974. He came
from Oklahoma City.

The competition for water rights was driving up prices. Garman and Thornton's Castrodale decided to do something about it. They negotiated a 7-year agreement that gave each city the right to purchase half of the water rights purchased by the other city.

The Standley Lake condemnation suits in the mid-1970s were discussed in the Thornton chapter. Both Westminster and Thornton finally realized it was time to stop spending money on unproductive attorney's fees and use their money to obtain more water. This realization led to the historic Four Parties Agreement.

It wasn't easy. Meeting after meeting. Tempers flared. Vi June, Westminster's mayor, later said, "At times this one would walk out, and that one, and it looked as if the whole thing would fall apart. But finally we realized that nobody wins the whole ballgame."

Cooperation between Westminster and Thornton continued. In 1981, Westminster purchased shares in two irrigation ditches that diverts water from the South Platte below Denver. It traded them to Thornton for shares it owned in the Farmers Highline Canal.

Two years later, Westminster purchased a ranch in South Park and traded it and its water rights to Thornton for more FHL shares. By 1986, Westminster owned 40 percent of the total shares in the Farmers Highline Canal.

Westminster and the FHL company have cooperated in a unique water exchange operation. City officials outlined the plan to FHL's board of directors in October 1976. Westminster would divert more water at the canal's headgate on Clear Creek. The additional water would be used by the city for municipal purposes and an equal amount of treated water would be returned to the FHL canal below Westminster.

The exchange concept appealed to both parties. Westminster's wastewater effluent would be reclaimed - treated, filtered and disinfected to a level suited for irrigation, but not for drinking. It would, however, be safe for body contact, swimming, and accidental consumption. It would be rich in nutrients such as nitrogen and phosphate, which are beneficial to most irrigated crops.

In February 1977, Westminster and FHL agreed to implement the wastewater exchange plan. Westminster constructed a 2-mile pipeline from its Big Dry Creek treatment plant to the canal and began pumping 5 acre feet per day of reclaimed water into the canal. During the early 1980s, Westminster enlarged its treatment capacity and expanded the exchange program to more than 3,000 acre feet per year.

The FHL exchange program was good while it lasted, but it was doomed by increasing municipal use of FHL water. Soon there would be no FHL irrigators left to exchange reclaimed water to.

The Big Dry Creek plant treats sewage from the north two-thirds of Westminster. Without the FHL exchange, the treated water effluent from the Big Dry Creek plant would all be discharged into the South Platte, without reuse.

Can't some of that effluent be reused for non-potable municipal purposes?

Yes. It can.

Westminster launched its Reclaimed Water Project and completed it in 2000. Treated sewage effluent from the Big Dry Creek plant is piped under Big Dry Creek to a new water reclamation plant capable of treating six million gallons per day initially,
expandable later to 10 mgd. It's the biggest reclaimed water plant currently operating in Colorado.

Westminster's $19 million Reclaimed Water Project includes 95 miles of pipe, to carry the reclaimed water to various users to replace potable water. Local parks, golf courses, landscaping for the city and some industries. This reclaimed water is visually clean. Each acre foot reclaimed adds an equal amount to Westminster's raw water supply, by replacement.

Westminster has been a leader in using sewage sludge to increase agricultural crop production. Beginning in 1973, liquid sludge from the city's Big Dry Creek plant was placed in stainless steel trailer tanks and hauled to nearby farms, where it was injected into cultivated soil using a liquid sludge applicator tractor. Crop yields increased substantially.

Sludge injection is more efficient than spreading it on the ground like manure, because injection eliminates about 70 percent of sludge ammonia's evaporation loss.

Westminster now disposes of all of its sludge by injecting it into farmland. This produces revenue for the city and eliminates the expense of paying for landfill. Westminster purchased 2,600 acres north of Strasburg in 1996 for injecting biosolids. It started growing crops on this land in 1999.

*        *        *

Let's pause, here, in this on-going Westminster story, and remember the Church family, which has a special place in Westminster's water history.

It starts with George Henry Church, who was born in New York in 1830. Called "Henry," he married Sarah Miller in Iowa in 1861. Henry and Sarah homesteaded 160 acres in 1864, on the prairie north of Denver City. They built a ranch house at what is now 104th Avenue and Old Wadsworth Boulevard. The site is now Sensory Park in Jefferson County, adjacent to Westminster, northeast of Standley Lake.

The Church's added acreage and opened a stage stop in the northern part of their spread. They welcomed travelers with home-grown, home-cooked meals. Others settled nearby and the community became known as Church's Station, the first stop on the stagecoach route over Rollins Pass. We will continue this part of the Church family history in the Broomfield chapter.

Henry Church built the Church Ditch to irrigate his land. It diverted from Clear Creek above Golden and filled Church's Upper and Lower Lakes - the first irrigation storage reservoirs in Colorado. First, but very small.

Henry Church was one of the early supporters of the Standley Lake Project. Part of its water supply would come from the Church Ditch and from the Western Slope. He introduced cattle to Middle Park for summer grazing. Church Park, west of Fraser, was named for him.

Henry built a ditch above Church Park that diverted water across the Continental Divide into West Fork Clear Creek. It became known as the Berthoud Pass Ditch - Colorado's second transmountain water diversion. The water was diverted from Clear Creek through the Church Ditch to Church's lakes and, later, to Standley Lake. This system is still operating, with a pipeline under Berthoud Pass. The upper ditch is visible...
from Highway 40.

The Church's son, Frank, married Katherine Jones in 1892. They lived on the Church Ranch and had three children. Their eldest - Marcus - became a familiar figure to Metro Denver water buffaloes in the 1960s and 70s. He attended water meetings and representatives of Westminster, Thornton and Northglenn competed for purchases of Marcus' Church Ditch water rights. He died in 1979.

Marcus Church's nephew, Charlie McKay, took control of the Church family's interests after Marcus died. He had spent summers on the Church Ranch as a boy. Later he became a friend and confidant of Uncle Marcus.

Charlie McKay evolved, on the Church Ranch, from a dirt-poor farmer to a development baron - all over a 22-year period. His company's business card states, "Since 1869."

The old Church Ranch is now home to a 145-acre corporate center. Church Ranch Boulevard runs northeast from Wadsworth Parkway at 100th Avenue, under the Denver-Boulder Turnpike, to become 104th Avenue.

The Church Ranch's barn and silo still stand. A herd of two dozen cattle graze within 15 feet of new apartment buildings. The corporate sales office displays old saddles and old portraits of the Church family.

* * *

The 1934 Moffat Tunnel Improvement District agreement gave Westminster the right to purchase Western Slope water diverted through the Moffat Tunnel. Residents in older sections of Westminster paid taxes over many years to retire the district's bonds.

The Denver Water Board, during its Saunders Era, refused to sell raw water to Westminster as provided in the 1934 agreement.

After a decade of nonproductive negotiations, Westminster filed suit against the DWB in Jefferson County District Court. The suit dragged on until 1984, when the parties finally settled out of court.

The DWB agreed to sell Moffat Tunnel water to Westminster in annual incremental steps eventually totaling 4,500 acre feet per year. This water will be diverted from the DWB's Ralston Reservoir into the Kinnear Ditch Pipeline, then into Westminster's storage space in Standley Lake.

In a separate 1993 deal, as part of the Two Forks EIS cost settlement, Westminster receives another 500 acre feet of Clear Creek water that formerly belonged to the Crestview Water and Sanitation District which now receives DWB water. This water will be stored in Westminster's Jim Baker Reservoir and used to irrigate Willis Case Golf Course.

Westminster joined with Arvada and Northglenn in 1995 to purchase Broomfield's Church Ditch water rights. Westminster obtained water rights yielding 1,200 acre feet per year. Arvada's share was 600, Northglenn's 468. Broomfield no longer needs Church Ditch water.

* * *
Standley Lake Dam, built at the turn of the century, needed repairs and renovation in 1999 - additional berm, spillway enlargement, new outlet tunnel. Westminster, Thornton, Northglenn and FRICO entered into an agreement to fund the $25 million project. Each city will pay a third of the cost. Completion in late 2002.

Westminster gets nearly all of its water from Standley Lake. It owns some gravel lakes storage and has its effluent reuse program operating.

FRICO still owns Standley Lake and Dam, but Westminster manages the lake's 1,491-acre water surface area for recreation. It recently purchased FRICO's 1,734 acres around the lake for $3 million. It will be known as Standley Lake Park, managed by Westminster - a prime addition to the 35,000 acres of preserved land in Jefferson County.

*        *        *

The quality of water diverted from Clear Creek into Standley Lake has been a nagging problem for Westminster, Thornton and Northglenn since the Kershaw Ditch controversy in 1962. It intensified in 1977-78, when Westminster's water users complained about "woody odor and taste."

Coors Brewing Company was the prime suspect. It discharged waste water into Clear Creek above the headgate of the Croke Canal, which feeds Standley Lake. Westminster and Thornton tried to negotiate an agreement with Coors to keep its effluent out of Standley Lake. Temporary agreements were reached, but it took a landmark water court decision in 1985 to solve the problem permanently.

The water court ruled, for the first time, that water quality concerns must be considered in water rights cases. With this leverage, Westminster and Thornton were able to negotiate an agreement with Coors that protected the quality of water diverted from Clear Creek into Standley Lake.

Coors isn't the only source of pollutants. The Clear Creek watershed covers about 600 square miles, including more than 13 communities above Golden. Nine sewage treatment plants dump effluent into Clear Creek, before water is diverted into Standley Lake.

The three cities, FRICO and Coors recently signed an agreement to install an advanced wastewater treatment process at the Blackhawk-Central City Sanitation District Wastewater Treatment Plant on North Fork Clear Creek. An advanced process will reduce pollutants in Clear Creek and Standley Lake. Costs: Thornton $140,000; Westminster $140,000; Northglenn $70,000; Coors $50,000. It's an unusual cooperative effort to keep Standley Lake water clean.

The Rocky Flats pollution problem continued after the multi-billion dollar federal cleanup of radioactive materials began. The problem mostly concerned Broomfield, but there also was potential exposure to water stored in Standley Lake. A 100-year flood might sweep poisonous materials into municipal water stored there.

The federally funded $80 million Standley Lake Protection Plan is aimed at protecting Standley Lake from nuclear wastes. A 1,000 acre foot reservoir was constructed on Woman Creek which runs through the former plant site into Standley Lake. Water
stored there will be pumped into Great Western Reservoir, located on a stream not tributary to Standley Lake.

* * *

Westminster has overcome many complex water problems, largely due to the efforts and skills of several key people. Hard-driving Ned Phye, Westminster's capable city manager for a decade, may have accomplished the most. But many Westminster citizens would point to Bill Christopher.

Christopher came to Westminster in 1968 as assistant city manager. The city was then a small bedroom community with 18,000 residents. He served ten years as assistant to three different Westminster city managers. After he became city manager in 1978 he served under nearly two dozen city council members and four mayors.

Bill Christopher retired in spring 2001 after serving as Westminster's city manager for 23 years. His tenure was one of the longest in Colorado civic history. At a time when the average length of service for city managers is three to four years, Christopher's tenure is remarkable. To occupy a political and administrative hot seat for that long requires a high degree of competence and integrity.

Westminster also owes a lot to Ron Hellbush. He came to Westminster with his family in 1947. He got his first job with the city in 1952 while still in high school. He mowed lawns and did other small jobs. Phil Roan, Westminster's first city manager, encouraged Ron to go to night school.

Hellbush went to night school and earned a degree in business administration. He served as assistant city manager under Michael Lenrow in the early 1960s, then as acting city manager during the Lenrow to Phye transition. He served under Phye as Westminster's utilities director.

Ron left Westminster for a few years to become Brighton's city manager. He returned to Westminster in 1984 as its director of public works and utilities.

Good, capable, dedicated men - Phye, Christopher, Hellbush. And don't forget a capable, memorable woman, Vi June, Westminster's mayor for many years.

* * *

Westminster nearly doubled in population from 1980 to 2000, reaching almost 101,000. But that high growth rate won't continue, because it is locked-in on the north and east by Broomfield, Northglenn and Thornton. To the west is Rocky Flats. Areas to the south are not suited to development. Westminster projects a population of 107,000 at buildout.

Westminster has had a master plan since the 1980s. It adopted a comprehensive land use and zoning plan in 1997. City Councilman Ed Moss told Bob Ewegen of the Denver Post in December 2001, "When the 1997 plan was adopted, there was a goal of increasing high-end housing. That has been achieved with developments like Legacy Ridge and The Ranch Reserve, where there are some homes in the $1 million-plus range.

"Today the city is so attractive to live in and with such great facilities that we've managed to attract luxury housing. Most of us on the council now want to insure a
sufficient supply of middle-class housing. And we want to revitalize the older parts of town."

Westminster adopted a new growth boundary map in 1999 that limits it to 28.3 square miles of urban areas within its total area of 32 square miles. Residential development in the North Metro area has shifted away from Westminster toward Thornton, Commerce City and Brighton.

Broomfield's new Flatirons Crossing Mall has hurt Westminster's tax revenue from its Westminster Mall, which is being rejuvenated. City-sponsored assistance packages allow new businesses in Westminster to retain some city sales tax revenues.

Westminster recently signed a revenue sharing agreement with Thornton that will prevent them from being played against each other by developers who seek city tax favors in return for their location decision. This is especially a problem along the Interstate 25 corridor between the two cities, which is now being developed.

Under this agreement, if a big new store or industry locates on the Westminster side of I-25, Thornton will get a third of its sales tax revenue. Likewise, Westminster gets a third of the sales taxes from developments on the Thornton side. The two-thirds share to the host city compensates for the direct costs of serving a new development.

Yes - Westminster is a city with an attitude, as Bob Ewegen said at the beginning of this chapter. A real good attitude. Most of the time.

What about Westminster's water supply? Is it adequate?

Westminster's water supply, like Thornton's and Northglenn's, is designed to withstand a three-year drought. But this mantra is less threatening to Westminster than to Thornton, which plans to expand exponentially. Westy does not.

Westminster could provide an adequate water supply at build out by enlarging Standley Lake and purchasing and transferring the additional water rights required to fill the enlargement. But that comfort, if it occurs, will be some time in the future. What about now?

Westminster's water resource analyst, Stu Feingold, told a newspaper reporter in April 2002, "We feel very confident. We don't anticipate any restrictions."

Feingold may be confident, but some of Westminster's citizens aren't. On July 12, 2002, the Denver Post printed a short letter to the editor from Unni M. Conley, which said:

Water restrictions are not mandatory in Westminster. I expressed my concern to the city, and this was its reply:

`...years ago the City of Westminster took a proactive approach to future drought situations. Therefore, the staff of our Water Resources and Treatment Division began purchasing water rights and finding available water sources for a three-year drought situation.'

A little short-sighted, I would say. What if the drought lasts four years, or five years, or more? Would a proactive approach for TODAY'S circumstances be more appropriate? Or at least a reactive response.
A proactive approach? What's that? Maybe it has something to do with attitude. If so, perhaps a little attitude adjustment wouldn't hurt. It shouldn't require a letter to the editor to bend it back into realistic shape.
BROOMFIELD - Where the brown corn grows - or used to. The golden fields of broom corn are gone. So are the early settlers who grew it for its stiff branches, which they used to make brooms.

Henry and Sarah Church were the first settlers. They built a stage stop that became Church's Station. It became a depot after the railroad arrived in 1881. A community sprung up around the depot. It became known as Broomfield. The depot, located at 2201 West 11th Avenue, is now the home of the Broomfield Museum.

Church's Station caught the eye of Adolph Zang, a Denver City beer baron who owned and operated the largest brewery in the Rockies. In 1879, Zang bought 4,000 acres in the area and raised Percheron horses on his Elmwood Stock Farm. He also planted fruit trees and harvested fruits and berries. Zang's farm extended from Jefferson County into Boulder County and included the present site of Jefferson County Airport.

In 1916, Zang built a grain elevator next to the interurban railroad. It's still a landmark in old downtown Broomfield. Zang's farmhouse still stands at present 680 Poppy Way. The old Zang brewery building is a landmark in Lower Downtown Denver.

By 1923, the farming community of Broomfield had another grain elevator (Adolph Coors), feed mill, general store, pool hall, blacksmith, hotel and barber shop. The Crescent Grange Hall, built in 1916 on land donated by Zang, served as a community center. The building is still there, at 7901 West 120th Avenue.

Zang Investment Company started selling parcels for residential lots in the 1920s, but Broomfield remained a small rural community as late as 1950, when it had only 176 residents. Things changed in 1952, when the Denver-Boulder Turnpike was completed and its tollgate plaza was located in Broomfield.

Four Denver financial heavyweights formed the Turnpike Land Company in 1955. K.C. Ensor, Roger Knight, John Sullivan and Aksel Neilsen bought most of the Zang Ranch and planned to develop a model bedroom community. Neilsen was the best known of these venture capitalists, because of his close relationship with President Eisenhower.
Turnpike Land Company built the Broomfield Heights residential subdivision, which included a shopping center. Houses, stores, schools and churches sprouted quickly to serve Broomfield Heights, which was incorporated in 1961 as the City of Broomfield. It then had a population of 4,700.

Broomfield grew rapidly after Turnpike Land Company turned the builders loose. By 1974, when Broomfield became a home rule city, the building boom had gained momentum. In 1980, Broomfield's population was almost 21,000. In 1990, nearly 25,000.

Broomfield's growth rate of 55 percent during the 1990s exceeded that of all other larger northern suburbs in Metro Denver. With a population of more than 38,000 in 2000, little remains of the little broom corn settlement where Broomfield originated. The old railroad depot has been relocated and rehabilitated as the home of the Broomfield Historical Society.

Broomfield is very well located for major development. It is close to the Denver-Boulder Turnpike, Jefferson County Airport and the University of Colorado in Boulder. Broomfield's 1988 master plan projected a buildout population of 100,000. Realism returned in 1995 when nationally known urban planner Peter Calthorpe helped Broomfield City Council reduce its buildout population to 60,000. And increase open space from 17 to 40 percent. All of this caused Governor Roy Romer to award Broomfield his Smart Growth Award for 1996.

Growth - smart or not - pushed Broomfield into four counties by the mid-1990s. It began in Jefferson County, where it still has about 4,000 residents. Then it grew to include more than 20,000 residents in Boulder County, nearly 10,000 in Adams County and a handful in Weld County. All of this spread over an area of 30 square miles.

The issue of becoming the City and County of Broomfield was discussed in a series of public meetings in 1994-95. In 1996, Broomfield voters said in a non-binding election that the city should become a county. It was put to a statewide vote in the November 1998 election.

Pro-county forces had big bucks, mostly provided by corporations who would save even bigger bucks in property taxes if Broomfield became a county. There was little organized opposition and voters statewide approved the creation of the City and County of Broomfield in 1998.

Broomfield became the first new county in Colorado since Alamosa County was created in 1913 and only the second combined city and county. Broomfield became the second-smallest sized county in Colorado - a bit larger in size than Gilpin. But its 38,000 residents made it the 15th most populous county.

A controversial measure to control Broomfield's growth didn't get on the November 1999 ballot because there weren't enough petitioners. But City Council acted voluntarily to limit Broomfield's residential growth to 300 homes a year.

Residential growth is not Broomfield's primary objective. High tech and commercial growth is where the action has been recently. That kind of growth translates into big tax revenues.

Interlocken Business Park came first to Broomfield's development party. It's location could hardly be better. Next to the northern boundary of Jefferson County Airport. Near the Denver-Boulder Turnpike (U.S. 36). Not far from a major university - the
University of Colorado in Boulder. It had the potential to equal the Denver Tech Center in number of jobs.

Interlocken was started in 1982, but didn't take off until after the mid-1990s, when high-profile technology giants, Level 3 and Sun Microsystems, announced they would build huge campuses at Interlocken, then considered one of the hottest, most desired locations in Metro Denver.

Level 3 Communications opened its world headquarters at Broomfield's Interlocken in 1997. Capitalized at $23 billion, it was building an international fiber-optic communications network. Level 3 employed about 2,000 people in Colorado, mostly high-paid engineers, designers and technicians. Level 3's Interlocken development was one of the largest projects in the Metro Denver area.

The northwest corridor along U.S. 36 to Boulder became Metro Denver's hottest growth corridor - Colorado's Silicon Valley.

Level 3's mantra - *Take risks, learn quickly from mistakes and, above all, do not stand still* - took it to the high regions of Wall Street favor. It planned a master campus that would stretch from its Interlocken headquarters in Broomfield to Superior. This big fiber-optic network operator had three low-rise buildings in Interlocken. It planned to add nearly 2 million square feet in ten more buildings.

Level 3 was rising rapidly to a lofty new level. So was the northwest corridor along U.S. 36. Then the great Internet bubble burst.

No one anticipated it!

The high tech telecom meltdown hit Level 3 and the northwest corridor hard. Level 3 dropped into the depths of financial stress as a debt-laden survivor of the telcom's shakeout. It cut its Colorado workforce almost in half. It's selling its Interlocken buildings and trying to make a come back.

The U.S. 36 corridor now has a vacancy rate of around 60 percent - one of the highest vacancy rates of any submarket in the nation.

Isn't there a potential analogy lurking out there - the great Metro Denver growth bubble waiting to burst, after being pricked by a Severe Sustained Drought?

* * *

*Flatiron Crossing Mall* arrived next at Broomfield's development party, dressed very uniquely as one of the first of a new generation of regional malls called *hybrids*.

Broomfield's $400 million Flatiron Crossing Mall is located on 160 acres northwest of Interlocken. It opened in August 2000 with much publicity. It is both a 2-story indoor shopping center and an outdoor pedestrian shopping center. It's called the *Village Concept*.

If you want more than a village, Flatiron Crossing also has some big name anchor stores, such as Lord & Taylor, Dillard's and Nordstrom. Flatiron Crossing Mall will generate huge tax revenues for Broomfield.

*Pebble Creek* is a proposed large residential/commercial project on 2,800 acres, located north of 152nd Avenue, west of I-25 and south of Colorado 7. It is part of Broomfield's Interstate 25 Sub-Area Plan, approved in 1999.
The Prebble Creek project is huge - three times the size of Interlocken. It is the last large area in Broomfield that can be developed. It will be low density, with one-third the homes and one-half the commercial space permitted under existing zoning regulations. The project calls for more than 600 acres of parks, schools and open space, including 18 miles of trails.

* * *

Tax revenues have rolled into Broomfield's coffers at an accelerating rate. They help fund roads, recreational facilities and the purchase of land for open space and parks.

Broomfield will benefit greatly from construction of the Northwest Parkway which opened in November 2003. It runs from the junction of I-25 and 157th Avenue to 96th Street in Broomfield, just north of U.S. 36. Broomfield, Lafayette and Weld County collaborated to build the road. Bonds were sold to private investors. Tolls will pay off bondholders.

It puts Broomfield in the catbird seat, with a direct route to DIA.

* * *

Broomfield's water supply originally came from purchase and transfer of irrigation water rights in ditches diverting from Clear Creek, Ralston Creek and Coal Creek. The city purchased Great Western Reservoir and used it as its primary storage facility. The Department of Energy determined that Rocky Flats nuclear wastes had contaminated ground water and that this might contaminate water in Great Western Reservoir. It gave Broomfield a $56 million grant to develop another source of water supply.

Broomfield added another $19 million by selling its water rights. It used the $75 million to build a new water treatment plant and a small regulating reservoir behind it. It was called Glaser Reservoir, to honor its former city attorney.

Broomfield was in the hunt for water from John Elliot's proposed Yampa River diversion project in the early 1960s. That project's demise coincided with John Elliot's death. Elliot's son later became the mayor of Broomfield.

Broomfield contracted with Boulder to purchase 4,300 acre feet a year of its Windy Gap water. Then it petitioned NCWCD for membership, which was granted. Broomfield signed the water delivery contract in 1991, after being assured by NCWCD officials that this contract water would be delivered in a drought at least as severe as one expected once every 50 years.

This water supply was much better than Broomfield could have obtained by enlarging Great Western Reservoir and purchasing more irrigation water rights. Broomfield's cooperative approach with NCWCD contrasts sharply with Thornton's covert purchase of water rights and land in NCWCD's sacred Poudre territory.

Broomfield is also purchasing C-BT units, to supplement its less dependable Windy Gap water. It plans to construct a reservoir along the 10-mile pipeline route extending south from Carter Lake. Broomfield officials have asked Erie's representatives to consider splitting the cost of the pipeline.
NCWCD will operate the pipeline from Carter Lake to Broomfield. It could extend it eastward from Broomfield to Fort Morgan and other cities as part of NCWCD's Southern Water Supply Project.

Broomfield's cooperation with NCWCD has placed it in an enviable water supply position. Since 1999, Broomfield has purchased 7,776 units of C-BT water. (Each unit provides an average of about 0.7 acre feet per year.) Broomfield can purchase more C-BT units when they come on the market, regardless of the price.

Broomfield also has a special water delivery contract with the Denver Water Board. It provides 6,500 acre feet of treated water per year, delivered through a pipeline constructed, amid much controversy, in the early 1970s.

Broomfield's water supply, when fully developed, should be adequate for its buildout population.

George DiCiero has been Broomfield's City Manager since 1968, when he was 25 years old. Under DiCiero, Broomfield has grown from a hamlet of 4,500 people to a City and County with over 39,000 residents. DiCiero has seen it all - the ups, the downs, and the in-betweens. Most of all he has seen the future and has guided Broomfield wisely towards its destiny.


Henry Church would be proud of Broomfield today. So would Adolph Zang.

*        *        *

COMMERCE CITY occupies land rich in history. It starts at Nine Mile House, also known as the Sand Creek Station, on the Overland Stage Route. It was located near the present intersection of I-76 and 88th Avenue.

Riverside Cemetery, the old pioneer cemetery, is now in Commerce City. It is located at East 52nd Avenue and Brighton Boulevard. Started in 1876, it originally was a fashionable cemetery park that featured large statues of men and horses. It is filled with unusual monuments, as well as a Potter's Field with unmarked graves.

The well-watered bottomland near the confluence of Sand Creek with the South Platte was settled by German and Dutch hog farmers. They fed Denver City's garbage to their hogs and recycled butchered hogs back to the city.

Italian and Japanese truck gardeners arrived. So did several dairies. They all had a common market - Denver City. Gradually, this commercial settlement became known as the Town of Commerce.

By the 1920s, the Denver Union Stock Yards occupied 120 acres north of present I-70, bounded on the west by the South Platte, on the east by Brighton Blvd., and on the north by present Commerce City. It had become the West's most active livestock market. Railroad cars packed with cattle, sheep and hogs rolled in day and night, seven days a week, and unloaded at the yards. All of this gave Denver the well-deserved name of Cow Town.

The stockyards were big business. How big? Chris Frasier, a Limon rancher, quantified it in a January 2002 Denver Post article: "Between 1880 and 1960, Colorado's
beef cattle yielded three times more income than all the gold and silver ever mined in the state's mountains. Denver - despite attempts to cultivate a more refined image - really is a cow town after all."

Big business. Big, bad odors, recognizable in varying degrees, depending on wind direction. Oil refineries arrived in Commerce Town in the 1930s, along with their distinctive odors. Large grain elevators were built in 1938.

The industrial, blue collar area in and around Commerce Town was not a good place to live, but it was an excellent source of tax revenues which attracted revenue hungry vultures such as Adams County and Denver.

* * *

Adams County. Let's pause here, midstream in Commerce City history, and talk about Adams County. It was created in 1902, when the Colorado Legislature carved it and the City and County of Denver out of Arapahoe County.

Adams County was named for Alva A. Adams, who served three terms as Colorado's governor, between 1887 and 1905. During one of Colorado's stormiest and most controversial periods.

The county should have been named for the Adams family. Alva A's son, Alva B. Adams, served with distinction in the U.S. Senate. The Colorado-Big Thompson Project's big water tunnel under the Continental Divide was named for him. Alva A's brother, William H. (Billie) Adams of Alamosa, served two terms as Colorado's governor.

Adams County, since its beginning, has been Metro Denver's most private county. Property owners have shaped its development, with little guidance from county government. This probably was due to its large unincorporated area - almost equal to its incorporated area when Commerce City incorporated.

Adams County has been a dumping ground for what Denverites didn't want - feedlots, hog farms, dog track, junk yards and sewage disposal plants. It has had the highest crime, poverty and unemployment rates in Metro Denver.

In a January 1999 column, the Rocky's Mike Patty commented on Adams County's negative image:

Adams County seemingly bears an unshakable reputation for political cronyism, scandal and corruption ...

Critics say the latest allegations are part of a nearly continuous string of corruption and scandal that goes back nearly a century.

'It must be something in the air,' Stroyer (Hal) said. 'Someday I'm going to write a book and call it, Adams County, The Cook County of Colorado.'

Adams County - Metro Denver's ugly child. It was, for nearly a century, but it's now changing rapidly into a beautiful princess, at least in the eyes of developers and homebuyers. Why? Mainly because of DIA, E-470 and the Northwest Parkway. And
plenty of undeveloped land available in this 1,200 square mile county.

Adams County wasn't a very nice place for young Commerce Town to grow up in.

* * *

In 1951, Denver sniffed tax revenues in the foul air of southern Adams County and decided that tax revenues would outweigh the area's obnoxious odors. Word spread that Denver was considering a plan to annex the business and industrial area of its northern edge.

This alarmed residents of Commerce Town. A meeting was called to talk about Denver's annexation threat and how to prevent it. A young schoolboy, Herb Herbst, Jr., jumped on his pony and rode about the area delivering notices of the meeting arranged by his father, Herb Herbst, Sr. Herb Jr. became known as the Paul Revere of Adams County.

About 300 area residents attended the meeting in December 1952. They voted overwhelmingly in favor of incorporating Commerce Town.

Annexations in 1960 increased the population of Commerce Town from 4,000 to 16,500. City numbers. Commerce Town changed its name to Commerce City. This change did little to improve its poor image.

Commerce City became an industrial hub. Obnoxious refinery odors battled for dominance with even more obnoxious odors from feedlots, stockyards and slaughterhouses. The winner, or loser, was determined by the direction of the wind.

After pollution problems were revealed at Rocky Mountain Arsenal, economic development and housing growth virtually stopped in Commerce City. Some suburban mayors joked about it. Aurora's Mayor Dennis Champine challenged Denver officials to a softball game. "The loser," Champine said, "will have to annex Commerce City." He was joking, of course, but the message was clear. Commerce City did not deserve respect.

* * *

Commerce City virtually abuts three sides of the Rocky Mountain Arsenal, once called the most polluted acreage on earth. Let's review its history. A history that has troubled Commerce City for many decades.

During the early stages of World War II, the War Department thought the U.S. military might have to use chemical and biological agents, even though they were prohibited by the Geneva Convention on rules of war. In 1942, the Army found a site for an arsenal plant near the blue collar, thinly populated settlement of Commerce Town. The Army Chemical Corps began producing chemical and incendiary weapons there in 1942. They called it the Rocky Mountain Arsenal.

The Arsenal cooked a witch's brew of mustard gas, a blistering agent that burns human lungs - Lewisite, related to mustard gas but more deadly - Sarin, a deadly nerve gas. Napalm bombs brought death to 83,000 Japanese. The Denver Post bragged, "69 cities (in Japan) were reduced to smoldering ash heaps, compliments of the Rocky Mountain Arsenal."

After World War II ended, the Army placed Rocky Mountain Arsenal on standby.
In 1947, some private companies - mainly Shell Oil - leased part of the Arsenal for manufacturing pesticides and related toxic materials. Shell dumped its wastes into open trenches.

After the Korean War started, the Army reactivated the Arsenal. It was made a permanent base in 1954.

Then the Army began to manufacture increasingly deadly weapons at the Arsenal - more than 21,000 M-34 bombs, consisting of nerve gas, which it began producing in 1953. Highly volatile, colorless, odorless liquid. Capable of causing convulsions and paralysis of respiratory muscles which causes death by asphyxiation. In addition to these bombs, the Army produced hundreds of rockets at the Arsenal containing nerve gas packets.

The Army continued to manufacture these agents of death at the Arsenal until 1957. It often stored these deadly weapons in steel canisters and left them in open fields exposed to the elements, which cracked them, causing leakage into the soil and air.

The Arsenal's managers tried placing some of the hazardous waste into sealed ponds. Waterfowl landed on these ponds, drank the water and died. In 1962, they started pumping the wastes down 12,000 feet into the ground. Into the Derby Fault! This resulted in a continuous series of small earthquakes. In February 1966, these deep liquid waste injections stopped. So did the earthquakes.

Environmental laws were lax from the 1950s to the 1980s and the Army and Shell Oil took advantage of it at the Arsenal. Byproducts and remnants of chemical weapons and pesticides were buried in unlined pits. Seepage polluted the underlying groundwater.

The Army stopped dumping toxic materials at the Arsenal in 1981. Shell Oil closed its pesticide plant there in 1982. In about 1983, the Army realized that there would have to be a huge, expensive cleanup at the Arsenal. The job was contracted by the Army to Foster-Wheeler, which used an old asphalt-covered parking lot at the Arsenal for dumping toxic surface debris. It became known as the Boneyard.

In 1996, after much discussion, Army, EPA, Shell, state and federal officials developed a cleanup plan for the Arsenal. It included trenches at the Arsenal to hold very hazardous materials placed in sealed, covered canisters surrounded by a slurry wall. It was projected as a $2 billion Superfund cleanup with a completion date of 2010.

In October 2002, Foster-Wheeler's crews found 10 sarin bomblets in a pile of scrap metal in the Boneyard. Disputes developed between the Army and the Colorado Health Department over how to dispose of the deadly bomblets and the toxic sludge left from manufacture of the deadly sarin nerve agent.

The bomblet disposal problem eventually was resolved by Colorado Sen. Allard and high-ranking Pentagon officials. The Army destroyed the bomblets chemically in a high-tech chamber.

The festering dispute between state health officials and the Army reached a new high in April 2001, when the Army was caught staging a coverup.

Foster-Wheeler workers were digging and searching in the Boneyard, without giving state health officials the required 72-hour notice. They found an unexploded M-74 phosphorus shell - a bullet-like device designed to create a battlefield smokescreen upon exploding. It was found in the same area where the ten sarin bomblets had been found in October 2000.
The workers didn't know what to do with the unexploded M-74 shell, so they asked the Army. It told them to put the shell back where they found it. Then the Army issued the proper notice and staged a phony "discovery" a month later.

The coverup surfaced a few days later when a health department employee received an anonymous tip disclosing the coverup. It ignited the short fuse of the health department's turf war with the Army. Health officials called the state attorney general, who turned the matter over to a grand jury.

An unusual 10-month investigation was launched by the grand jury. It found serious coverup by the Army and Foster-Wheeler. The M-74 shell was destroyed months before the grand jury issued its report, but the incident strained relationships to a new level. The Army shrugged-off the criticism and reported that the Arsenal was not only getting cleaned up, but that the project is on budget and ahead of schedule.

Any sarin remaining at the Arsenal is serious business. It was used in 1992 by a religious cult in a deadly attack in a Tokyo subway. It's a target for theft by terrorist and rogue nations.

The Rocky Mountain Arsenal's cleanup, in spite of all its problems, has progressed faster than expected. The EPA probably will recommend, in April 2004, that 5,000 of the 17,000 acres in the former arsenal is clean enough to be taken off its superfund national priority list - a first step towards completing its transition to a wildlife refuge.

The former arsenal site was designated the Rocky Mountain Arsenal Wildlife Reserve in 1992. It is projected to be one of the largest urban wildlife refuges in the country. It will be a tremendous asset for Commerce City.

*        *        *

Commerce City is entering a New Era. Growth is poised to breathe new life into this old community as it expands northward. The Rocky's Benny Morson picked up the story and ran with it.

Since voters in 1999 trounced a measure to limit growth, the city has annexed a wide swath of land along the west and north boundaries of the defunct Rocky Mountain Arsenal. More than 2,500 building permits have been issued in 16 subdivisions and thousands more are planned.

By 2010, the city will have a population of 65,000 people living on 62 square miles,' says City Manager Perry VanDeventer. 'That's up from 21,000 people on 19 square miles in the 2000 census. By 2020, we could very easily be 100,000 people,' VanDeventer says...

The new developments contrast sharply with the old part of Commerce City, where people who labored in the refineries or at the arsenal lived in bungalows. Conversations there are still punctured by railroad whistles from two lines that cut through the city.
Commerce City's longrange plan includes its Northern Range - more than 25 square miles of open land it has annexed, which is now awaiting development. It lies north and east of the former arsenal and extends north almost to Barr Lake. It reaches east of I-76, on both sides of E-470, to a point east of Tower Road. Prime land. Near DIA.

Commerce City has an ambitious longrange plan for 7,000 homes on its Northern Range during the next 25 years. Its goal is to create enough new housing units to attract big-box retail stores and boost its sales tax revenue. It has already annexed thousands of acres on the Northern Range.

Prime Sites unveiled plans in 1999 for a huge mall and theme park on 1,500 acres between East 88th and 104th Avenues, Tower Road and DIA - on the Northern Range.

Buffalo Hills Ranch will provide status for Commerce City's new image. This is a proposed huge development between 96th and 120th Avenues and I-76 and E-470. Shea Homes, the Highlands Ranch builder, and Cal Fulenwilder, are planning for a variety of 10,000 single-family and multifamily homes, large commercial components, an office and hotel/conference complex along E-470, and a city center - all on more than 3,000 acres. The Buffalo Hills project will include trails and open space, a series of large and small parks, trail connections and open space corridors.

Commerce City officials say it will be Smart Growth. Some oldtime residents of Commerce City think it is Too Fast Growth. They don't want the city to increase its very low property tax of 3.2 mills. They fear that building thousands of new homes on the Northern Range could outstrip the city's ability to provide services, including water.

Commerce City gets its water from wells and mostly from South Adams County Water & Sanitation District. The district now serves a population of about 22,000. At buildout (2040) it expects to serve about 50,000 residents. Commerce City's future development appears to be dependent upon SACWSD's ability to supply it with adequate water.

Commerce City's dependency on SACWSD is a dark cloud of future uncertainty. Perhaps the more understanding of Commerce City's citizens should appoint a 21st century Paul Revere to drive through the city's vast undeveloped, Northern Area and proclaim, to all who will listen, Growth is coming! Growth is coming! Will we have enough water?

*   *   *

BRIGHTON started life in 1870 as a railroad junction. Denver Pacific started construction at its connection with the Union Pacific in Cheyenne and proceeded south towards Denver City. On June 4, 1870, it reached the 40th Parallel, where a spur line - the Denver & Boulder Valley Railroad - would go west to the Erie coal fields. DP built a railroad station at this junction and called it Hughes. The name honored General Bela Metcalf Hughes. Or was supposed to.

Gen. Hughes was born in Kentucky in 1877. After serving in the Army in the Black Hawk War he practiced law in Missouri and became a member of the Missouri Legislature. Then he moved to Kansas, where he joined the Overland Stage firm of Russell, Majors and Wadell (Chapter 2). Hughes came to Colorado in 1861, on business for the stage line.
When Ben Holladay purchased the bankrupt stage line in 1862 he named his cousin, Bela M. Hughes, the company's attorney and general manager. Hughes moved his family to Denver City in 1865. After Holladay sold his stage line to Wells Fargo, Hughes became its attorney. Denver City's emerging young power elite later named Hughes the first president of the Denver Pacific Railroad.

The federal government's Wheeler Survey established a survey marker at Hughes in 1873, one of the five markers set in Colorado. The survey's records indicate that Hughes then had a population of seven. Besides the depot there was a railway office, two frame houses, a water tank, a windmill and a stable.

The tiny settlement of Hughes wasn't much to see when Bela Hughes stopped there on an inspection trip. He was reported to have turned to an aide and grumbled, "Can't they find a better place than this to name for me?"

It required a man of vision to recognize that Hughes had a bright future. Daniel F. Carmichael was such a man. The local newspaper reported, many years later, that Carmichael "took a fancy to the place and determined that there should be a town here that would be a credit to the splendid valley of the South Platte."

Carmichael was a Denver railroad man and real estate agent. He bought land near Hughes for development. It probably was his influence (or his wife's) that caused the name of the small community and post office to be changed from Hughes to Brighton in 1879. The name is attributed to the birthplace of Carmichael's wife - Brighton Beach, New York.

Carmichael filed the first plat for the town of Brighton in 1881. It was a triangular area south of present Bridge Street. About a year later, Dewey W. Strong, a Fort Lupton dairy farmer, platted the rest of downtown Brighton, north of Bridge Street. Strong built and operated a general store.

In 1884, Carmichael built a house in Brighton and moved his family there from Denver City. He built the 2-story Carmichael Building that year. By 1886 Brighton was a thriving village with a school, a church, a general store, a creamery, a meat market, a shoe shop, a blacksmith shop, three saloons, a boarding house, a railroad and telegraph station. All that and a newspaper, the Brighton Register. Carmichael headed the subscription drive to establish the newspaper.

The town of Brighton, with about 175 residents, was incorporated in 1887. The vote was 40 for, 17 against.

In 1888, Carmichael built a 3-story opera house. It became a Brighton showplace and it dominated the town's business section. The opera house included a large hall for meetings and dances. Carmichael's opera house probably was the reason John Brisbane Walker's showboat traveled down the South Platte from his River Front Park to Brighton during Denver City's beginning (Chapter 1).

In 1890, Carmichael built a magnificent two-story residence and drilled a well behind his house. In 1891, he formed the Brighton Water & Electric Company and provided water and electricity for the town from his well and a steam generator. Carmichael installed the first telephone line in Brighton in 1901. It ran from his house to the opera house.

The 1893 panic found Carmichael spread too thin financially and he had to sell much of his property, including his home. But he gradually rebuilt his fortune before he
died in 1911. He was buried in Denver's Fairmount Cemetery.

* * *

After Adams County was created in 1902, there was great competition for designation as county seat. Brighton and Fletcher (later Aurora) were the only incorporated towns in the new county. The unincorporated communities of Hazeltine and Harris (later Westminster) wanted to be considered. The City of Adams was platted in 1903 in an effort to obtain the county seat designation. It's plat included a block labeled "Proposed Site of the County Courthouse and Other Buildings."

Fletcher was disadvantaged by being split between Adams and Arapahoe Counties. When the election was held in November 1904, Brighton won the county seat designation by 1,103 votes to 719 for the City of Adams. The western portion of the City of Adams townsite was vacated in 1922 and the town was resubdivided in 1947 as Adams City.

Brighton soon became one of Colorado's first agribusiness centers, created mainly by the sugar beet industry. Germans from Russia initially did much of the stoop labor, until cheap Japanese labor became available. During World War I and the 1920s, hundreds of Hispanics moved into the Brighton area. Migrant labor camps sprang up, with primitive living conditions.

Gradually conditions improved after 1960. Hispanics became politically active and elected a mayor, city council-persons and school board members.

Brighton was still a small rural town of 4,336 in 1950. By 1980 it had become a small city of 12,773. During the 1980s it increased slightly, to 14,203. But during the 1990s, Brighton boomed. Its population increased 47 percent to 20,905. Developers suddenly realized that construction of Denver International Airport and Highway E-470 made Brighton's future appear very bright.

Brighton became known as a good place to live. Cheap housing, close proximity to good jobs, un-congested highways. I-76, on Brighton's eastern flank, was seen as one of the least congested highways in the area. Ten minutes to DIA, 20 minutes to downtown Denver.

Brighton is experiencing an unprecedented annexation boom. It started in 1985 with an annexation of 2,348 acres for a development known as Bromley Park. It is located east of Brighton between I-76, Bromley Lane, Baseline and Tower Roads. The developer decided to annex to Brighton in order to obtain water service. It was a flagrant flagpole annexation. And much more.

The Bromley Park development was approved by Brighton City Council in 1986, but it was delayed by financial and legal problems. The original developer, Bill Walters, defaulted on more than $100 million in loans and investors bought the property from the federal government in 1994.

Bromley Park became involved in a 15-year legal battle with the water and sanitation district that had previously served the area. Settlement of the lawsuit in 1999 finally cleared the way for the Bromley Park development to proceed.

Should it?

A Denver Post editorial in May 2000 disclosed that there was much more to the
Bromley Park development than generally known. The editorial was titled, *The danger of wishing*.

There was a time, not so long ago, when smaller cities to the north of Denver wanted nothing more than to grow.

Brighton was one of those cities. In fact, the announcement by the building of Denver International Airport was reason for excitement because the new employment base was likely to strengthen the housing market in both Brighton and Fort Lupton.

Although the future looked bright for Brighton, it still couldn't finance a much-needed sewer connection system, so officials made a deal with a developer. The rest is a classic case of 'be careful what you wish for because you just might get it.'

And getting it they are. The city leaders of Brighton - once in dire need of economic growth to prosper - decided to enter an agreement with developer Bromley Companies. In exchange for a $2.3 million sewer connection, city officials agreed in 1997 to let Bromley Companies develop 12,000 homes in the city's 2,300-acre Bromley Park.

Unbridled growth! Wanted in 1985. Not wanted in 2002. Big mistake. Legal, but stupid. The cost of the sewer line was minuscule compared to what Bromley Companies will make by building thousands of homes in Brighton.

*   *   *

Near the end of the twentieth century Brighton was the largest of Colorado's 176 cities that did not have home rule. It was still ruled by state statutes rather than by its own charter. That was changed in 2000 when Brighton voters approved home rule. Home rule, or lack of it, was not high on the agenda of developers. Brighton was fast becoming a developers' bonanza. "The next logical place for development in the Denver metro area," as developer Craig Carlson sees it. "It's a somewhat overlooked and under-developed area," he adds.

In September 2000, Carlson unveiled plans for a $1.7 billion mixed-use development in Brighton. His proposed *Prairie Center* would be as large as present Brighton. It would include 3,000 homes and some commercial development on 1,400 acres, west of Barr Lake and Interstate 76. The southern tip of the site is bordered by E-470. It would be accessible by existing interchanges at 136th and 144th.

The proposed Prairie Center is planned for the 840-acre Third Creek development annexed by Brighton in 1986, then put on the back burner. Carlson hopes to add 500-plus acres to the Third Creek site to create a state-of-the-art master planned community, with golf course, school, regional mall and a major campus-style employer. Carlson's plans for
Prairie Center include a 240-acre plat for shopping - bigger than Broomfield's 170-acre Flatiron Crossing.

It won't take long for the young multitudes moving to Metro Denver to realize that Brighton will soon be the place to live.

Brighton city officials are struggling to cope with the sudden change from small town to boom city. City Council passed a growth-limiting ordinance in 2000. It set an annual cap based on how much growth the city's utilities, schools and agencies can handle.

It made sense, sort of, unless you are a Brighton old timer like Jim Nelms.

Brighton's growth cap for 2001 was 485 houses. That's too high, said 77-year-old Nelms, who moved to Brighton 45 years ago. The former city councilman and Adams County commissioner authored a ballot initiative that would limit Brighton's growth to 250 houses a year for the next six years.

In a special election in March 2001, Brighton voters rejected Nelms' housing cap by a margin exceeding two to one. Nelms wasn't surprised. "Money wins every time," he said. "If you throw enough money out there, you get the votes." Nelms spent about $3,500. His opponents spent $100,000.

Rapid growth appears to be Brighton's destiny. Its growth rate from 1990 to 2000 was 47 percent - almost as high as Thornton's 50 percent. Its 2000 census population was 20,905. Its projected future service area population is 64,000 in 2040 (MWSI report). That would require an average annual water supply capability of about 14,000 acre feet, plus adequate storage water.

Brighton's present average annual water supply capability is about 4,000 acre feet. It comes from alluvial wells along the South Platte River. They have junior priorities that have to be augmented by purchasing and transferring senior irrigation water rights - shares in ditch companies such as the Burlington, FRICO (Barr Lake) and Fulton. This process probably can continue, but it takes times and it is not the long range answer for a growing city like Brighton.

Where can Brighton get an additional 10,000 acre feet of average annual water supply, plus adequate water storage?

Brighton's future water supply development probably should include participation in a cooperative project with other Northeast Metro water providers such as Thornton and SACWSD (South Adams County Water & Sanitation District) and several large irrigation companies. Such a cooperative project could include effluent management, systems integration and conjunctive use. It probably would involve diversions from the South Platte at or below the Burlington Ditch headgate and perhaps the Beebe Draw Aquifer.

Several irrigation companies have recently joined together to develop the Barr Lake Plan. It incorporates water rights, storage and conveyance facilities of FRICO (Barr Lake Division), Burlington Ditch Reservoir & Land Company and the Henrylyn Irrigation District. This plan envisions a large conjunctive use project at the Beebe Draw Aquifer.

The Beebe Draw Aquifer is located east of Brighton and mostly north of Barr Lake. It occupies an extinct channel of the South Platte, between Barr Lake and Milton Reservoir. It is relatively shallow - up to 100-feet deep - and it underlies an area of about 300 square miles. It has been estimated to have a storage capacity of between 1 and 2 million acre feet. It is the second largest groundwater resource available to Metro Denver.
The Denver Basin's deep aquifer is much larger and much closer, but it is not as well suited for a conjunctive use project as the Beebe Draw Aquifer.

The Beebe Draw Aquifer could be recharged by infiltration from surface ponds, which is much easier, and much less expensive, than the well injection process required for replenishing the Denver Basin Aquifer.

Plans, plans and more plans. The problem is that so much time is required to make the transition from plans to water.

*        *        *

Barr Lake looms large in Brighton's future - one way or another. Let's take a look at it. First, a little historical background music.

Barr Lake is east of Brighton, separated from it by I-76. It is bounded on the south and southeast by the service area of South Adams County Water and Sanitation District. Brighton is to the west and northwest.

The natural depression which hold Barr Lake once was a buffalo wallow. It became a good place for cattle roundups because it provided protection from northwest winds.

Construction of the Chicago, Burlington & Quincy Railroad started in 1881. It was built across the eastern plains from the Kansas-Nebraska state line. The track was completed to a connection with the Denver Pacific at Brighton in 1883.

After the last spike was driven, a ceremony was held at a high point overlooking the buffalo wallow called Platte Summit. During the ceremony the area was renamed Barr, for a civil engineer who worked for the railroad. It wasn't long before developers began making plans for Barr City.

Farmers in the area finally realized that the old buffalo wallow below Barr City would be a good place to store water for irrigation. They formed the Burlington Ditch & Reservoir Company in 1884 and two years later they started to construct the Burlington Ditch. It extended northeast from a headgate on the South Platte at Riverside Cemetery to the buffalo wallow.

The company built a dam across the north end of the depression to store water diverted by the Burlington Ditch. The lake formed behind the dam was called Oasis Reservoir.

Venture capitalists in Denver City, including W.H. Tammen of Denver Post fame, formed the Barr City Land Company in 1887. One of them (W.E. Alexander) laid-out the townsite of Barr City and began to sell lots. The land company sponsored railroad excursions to the Barr City townsite to promote lot sales. A hotel was built to serve as a summer resort and a railroad depot was constructed.

Barr City grew rapidly. A creamery was built next to the depot. A brickyard was constructed. Then came a Presbyterian Church, a Grange Hall and a school. The Barr City Gazette began publication in 1889. Many substantial residences were built in Barr City, including the Stone House, built in 1889, northwest of the reservoir. Stones used to build this house were brought from the Deckers area along the upper South Platte. The Stone House is still standing.
The Financial Panic of 1893 doomed the Barr City Land Company. Lot sales stopped and the railroad depot was closed due to lack of business.

The Oasis Outing Club was formed in 1896. The club leased the hotel at Barr City and the reservoir and built two cottages for clubhouses. In 1900, the population of Barr City was 100. Plans were made for converting 325 acres into a park.

The Colorado Carlsbad Mineral Spring was only four miles from Barr City and Oasis Reservoir. Plans were made for improving the lake for boating, fishing and bathing. There were plans for a boulevard from the lake to the mineral hot spring, with many 10-acre plots for sale on each side of the boulevard. There would be a theater, hotel, race track, casinos, music halls and picnic grounds. Some 25,000 trees would be planted along the boulevard.

Barr City - a recreational oasis on the plains of northern Colorado? No. It would not happen. Recreation was not yet ready to replace irrigation.

In 1903, the Burlington Ditch Company filed an application to enlarge Oasis Reservoir. Then the Denver Reservoir Irrigation Company, formed by Joseph Standley and Thomas Croke, purchased the Burlington Ditch and Oasis Reservoir. The company built a new ditch and a new dam.

The new dam was built over the old dam. It raised the embankment 20 feet and increased the storage capacity more than fourfold. The name of the new reservoir was changed to Barr Lake. The new ditch was called the O'Brien Canal, named for company official Peter O'Brien.

The O'Brien Canal heads jointly with the Burlington Ditch on the South Platte, but it has a higher grade in order to fill Barr Lake at a higher elevation.

The Denver Republican stated, in April 1909, that the Denver Reservoir Irrigation Company's project was capable of irrigating 25,000 acres. It predicted that 25,000 persons would come to the area in five years.

The Denver Irrigated Land Company was formed to colonize land around Barr Lake, Standley Lake and other units of the Denver Reservoir Irrigation Company's system. The colonists didn't come and the company went into receivership.

In late 1909, the Denver Reservoir Irrigation Company was reorganized as the Farmers Reservoir & Irrigation Company (FRICO). It still owns Barr Lake, Standley Lake and several other reservoirs.

The grandiose plans for Barr City failed. The creamery was shut down in 1913 and the Barr Grange was dissolved. The final blow came in 1931 when the railroad depot was closed. But there was more - Barr Lake was slowly becoming a sewage cesspool.

The O'Brien Canal's headgate was located immediately downstream from the Denver Union Stockyard and the Denver Sewage Plant. The smell of sewage filled the air around Barr Lake, extending at times to Brighton. Birds, wildlife and people avoided Barr Lake like the plague.

Barr Lake was saved from a life of ridicule by construction of the Metropolitan Sewage Treatment Plant in 1965. It stopped the pollution. The 1965 flood helped to flush the sewage out of Barr Lake.

Barr Lake State Park was created in 1972 and it opened in 1977. It includes Emil Bruderlin's Stone House, built in 1889. It will become part of a living history farm.
State, local and private interests are attempting to create a buffer zone around Barr Lake to keep out development. The park is part of it. Adams County, Commerce City and Brighton have all included this buffer zone concept for Barr Lake in their land use plans.

Money has been raised to buy the 130-acre Bergman farm near the northeast corner of the Barr Lake dam. The 130 acres will be added to Barr Lake State Park.

Barr Lake - once a sewage cesspool, now a crown jewel in Colorado's park system. What a transformation!
IT'S IS AN UNUSUAL, pleasant sounding name for a city - Arvada - a name worthy of an ancient Roman goddess. Like Aurora. But Arvada's origin is biblical, rather than Roman. It goes all the way back to Arva, one of the biblical sons of Canaan.

Arva founded a religious sect that lived near present Lebanon. It occupied a small, off-shore island called Arvad (Arpad in the scriptures). This island became the chief town and port of the Phoenicians.

For some obscure reason, the name Arvad impressed an eminent scriptural scholar, Dean Caleb Smith, and his daughter, Lucetta, who married Samuel Haskin. Samuel and Lucetta Haskin lived in several eastern and midwestern U.S. towns and had ten children. They named their sixth child Hiram Arvada Haskin. Hiram's unusual middle name is attributed by family historians to his mother's biblical study.

Hiram Arvada Haskin worked as a surveyor and arrived in Clear Creek County, Colorado Territory, in 1859. He married Eliza Grove, who had mining interests there. Eliza Grove Haskin's sister, Mary, married Benjamin Franklin Wadsworth in Ohio in 1850. They had two children. The Wadsworth family traveled across the plains by covered wagon in 1859. They arrived in Empire, a small mining settlement in Clear Creek County, where the Haskins had settled.

Ben Wadsworth preempted 100 acres in Empire in 1861. He became very active buying and selling mining claims in Empire during the next eight years. The husbands of the two Grove sisters became close friends and business associates. Two of Wadsworth's mining claims were called the Arvada Lode and the Eliza Lode.

The great fire on Silver Mountain in 1861 devastated Empire. People left the little settlement and it became a virtual ghost town. The Wadsworths left Empire and settled on a point overlooking a sandy area where Vasquez Fork (Clear Creek) was joined by a small tributary called Ralston's Creek. We will pursue the Vasquez Creek and Louis Vasquez stories later in this chapter.

The point overlooking the mouth of Vasquez Fork was where the Wadsworth family settled in about 1861. It became known as Ralston's Point, or simply Ralston. A settlement began to grow near it. After the Colorado Central Railroad reached Ralston's
Point in 1870, Ben Wadsworth platted a 9-block townsite.

Wadsworth's small townsite was the first Arvada. It was bounded by streets named Ralston (now Ralston Road) on the north, Emma (east), Railroad (now Grandview Avenue) on the south, and Olivet (west). North-south streets between Olivet and Emma were Centre (now Wadsworth Blvd.) and Park. East-west streets between Ralston and Railroad were called Grant and Avon. All of this is near Arvada's present Memorial Park and City Hall.

Colorado Central Railroad Company refused to drop-off mail at Ralston's Point until it obtained an official name, registered in Washington, D.C. Wadsworth wanted to have a postoffice in his home. What should he call it? Ralston's Point? Ralston? Wadsworth? What?

Ben Wadsworth probably looked at his wife, sitting nearby in their home, and said, "Mary, what shall we call our post office?"

Mary Wadsworth's reply made history. She selected the middle name of her sister's husband - ARVADA!

Ben Wadsworth served as Arvada's postmaster from 1870 to 1882. He tried to incorporate the small settlement in 1887, but voters rejected it. He devoted the rest of his life to farming, mining and real estate. He was fatally injured in a runaway horse accident in Denver City on April 12, 1893. Ben was buried in Arvada Cemetery, next to Mary and their son John, next to their dear friends, Eliza and Hiram Arvada Haskin.

There is another Arvada, on another Clear Creek, in another state. Arvada, Wyoming is located at the confluence of Clear Creek with the Powder River. This small community pronounces its name differently - Arvåda.

Chacun à son goût.

* * *

There was a farmer in Lumpkin County, Georgia named Lewis Ralston. He was born in South Carolina in 1804 and grew up on his father's farm. Lewis left home at age 20 and went to the Cherokee Nation in Georgia. In 1825, Lewis married Elizabeth Kells, the granddaughter of a Cherokee chief.

Lewis and Elizabeth established a farm on Cherokee land along the banks of the Chestatee River. They built a 2-story log house and other farm buildings. Lewis built a boat landing and operated a ferry boat. Life was relatively good for the Ralstons. They settled into a rural life and had many children.

Everything changed when Benjamin Parks kicked a rock and discovered gold.

Ben Parks and Lewis Ralston were neighbors and good friends. Ben married Lewis' sister, Clarissa, in 1836. He pastured his colts on Lewis' Cherokee land. Lois Cunniff Lindstrom continues the story in First Gold, her booklet about Ralston and Arvada, published in 1992:

One day in 1828 Parks was deer hunting near Ralston's farm, walking along the ridge on the two-mile strip of land that fell between the Chestatee and Etowah rivers. Parks kicked at a large rock in his path, and the marks
of his boot revealed shining streaks of gold! He told his friends, and the news spread throughout the Nation. Within days gold seekers swarmed like bees on the river banks, panning the streams, gashing the earth, and felling giant trees in the primal forest. This first United States gold strike intensified Federal plans to move the Cherokees west....

Federal troops were called to Georgia to try to keep order as the Cherokee Nation resisted efforts of miners to take over ancestral tribal lands. The State of Georgia, seizing the chance to establish white citizens on Indian lands, sliced up the land of the Cherokee Nation, dividing it among five existing counties. The area of the gold mines was named Cherokee county. A new law decreed that, after June 1, 1830, anyone living in the State of Georgia was subject to the laws of the state. The Cherokee lottery, giving citizens the right to draw lots for the lands of the Nation, was conducted in 1832.

Lewis Ralston was able to prove his claim to his farm land but, during the lottery, Henry Slaughter drew a lot containing a gold mine worked by Ralston. Lewis sued Slaughter, acting as his own attorney. The local judge awarded the gold mine to Slaughter. Ralston was furious! He assembled a party of relatives and friends and they went to the mine and dug out a large amount of gold. Slaughter sued Ralston and the judge fined Lewis $6,000.

Lewis Ralston's name appeared on the list of Cherokee landowners that would have to move. Lewis was able to successfully defend his right to remain.

In those days before Murphy's Law was discovered (whatever can go wrong will go wrong), Lewis Ralston did not expect more bad things to happen to him. But Fate lifted its hooded eyes and pointed its twisted finger at Lewis and his Auraria friends. Lois Lindstrom explains:

During these tumultuous years the towns of Auraria (meaning gold mine) and Dahlonega (old Indian village) were born. A trail, Gold Digger's Road, only six miles long, connected the two villages. Lumpkin County was carved from Cherokee County in 1832...

The Ralston farm was near Auraria and Lewis watched in bitter amazement as Dahlonega first secured designation as county seat and built a brick courthouse, next persuaded Auraria's bank and newspaper to move close to the courthouse, and finally convinced authorities to build a branch of the United States mint, the last completed in 1838.

Landowners in and near Dahlonega prospered. Those in and near Auraria, including the Ralstons, did not. The Ralston farm barely produced enough corn and potatoes to feed the family and pay taxes.

When news of the gold strike at Sutters Mill in California reached Georgia in early
1849, many of Lumpkin County's men were in the first wave of gold seekers known as the Forty-Niners. Lewis Ralston was unable to join the party from Auraria that Green Russell organized to go to California.

Ralston joined a second party that left the next year, in April 1850. It was led by Clement Vann McNair, a lawyer. It included 105 (white) men, 15 Negroes and 12 females. Elizabeth Ralston stayed home with her 12 children.

John Lowery Brown, a descendant of two great Cherokee chiefs, joined McNair's wagon train at Stillwell, Oklahoma. He began keeping a daily journal in a small book, using pen and ink.

The McNair party reached the mouth of Cherry Creek in mid-June 1850, after 43 days of travel. The South Platte, swollen with snowmelt, looked intimidating. The wagons moved slowly along the river's south bank while the men searched for a crossing. They finally found one at the mouth of Vasquez Fork. John Brown recorded the crossing in his journal.

In the margin of his journal for June 22, Brown wrote, "We called this Ralston's Creek because a man of that name found gold here." Those words, probably added as an afterthought, became an important part of Arvada history. Brown's journal entry was the first recorded documentation of finding gold in the area that later became Colorado.

They stayed only a day at Ralston's Creek, but it was long enough for Lewis Ralston to make a crude map of the area. Then the party traveled on to California. Traveling was very difficult. Clem McNair, the wagonmaster, resigned and T.F. Taylor took his place. On July 4, Indians stole their herd of 25 horses and mules. On July 11 Brown wrote, "No water or grass or timber. The road dry and dusty ... we got water by digging holes. The water tasted of Salaratas and salt."

By August, men started to die of cholera. On August 20, Clem McNair with two friends and the wagon train's only doctor left and went on by themselves. McNair died on September 6. Brown reported more deaths from cholera. His poor handwriting reflected his poor health. On September 3, all he could write in his journal was "No bread."

The surviving members of the wagon train, including Ralston, reached the area of the California gold fields in late September 1850. They broke up and small groups went their separate ways. Ralston's activities were not reported, but he evidently found a little gold in California. When he returned to Lumpkin County he used it to improve his farm.

Lewis Ralston would have dropped out of Arvada history if the Panic of 1857 hadn't intervened. Paper money was devalued. The purchasing power of gold was elevated to new heights. Once again, Lewis Ralston was barely able to eke out a living for his large family. It was the kind of environment in which the Auraria gold bug flourished. Lois Lindstrom continues the story:

*Lewis Ralston visited the home of Greenberry Russell. The Russells lived near the Etowah River, just west of Auroria. The Russell brothers had successfully prospected in California and were interested in Ralston's stories. The gold find of June 22, 1850, on 'Ralston's Creek,' that gold in the foothills of the Rocky Mountains, was often discussed. Gradually a party of men determined to return to the find, and the party left Lumpkin*
County on February 17, 1858. Greenberry Russell, 'Green,' was the Captain. Dr. Levi Russell, and Joseph Oliver Russell, were 'Green's able supporters ... Lewis Ralston was a valued guide, the man who could lead them to the site of his discovery.

Luke Tierney, who kept a journal on the trip, joined the group when they camped at Rock Creek, Kansas territory. Reverend John Beck organized a group of Cherokees from Oklahoma. The combined train numbered 104 men, 19 of them from Georgia.

On June 25, 1858, the train reached 'Ralston's Creek,' according to Luke Tierney's dairy, their original destination. Lewis Ralston was back on his creek. He was fifty-four years old and had participated in two major gold strikes. He hoped this return to his find would make number three, and that this time he would make his fortune.

He didn't.

Lewis Ralston returned, without gold, to his Lumpkin County farm. In July 1863 he enlisted as a private in the Confederate Army. On December 1, 1869, Lewis Ralston died at his home. He was 65.

Lewis Ralston probably did not know that John Brown's mention of Ralston's Creek in his journal would make history. It has been listed on Colorado maps as Ralston Creek since 1858.

The survival of Brown's daily journal is a story in itself. John brought the journal home to Oklahoma. After he died, one of his grandsons put it in a secret drawer in an old rolltop desk. He moved away in 1909 and forgot about his grandfather's journal in the old desk.

Years later, John Brown's granddaughter, Clover Barrowman, overheard two strangers talk about an old diary they had found in an old rolltop desk. Clover identified it and claimed it as a family treasure. Her daughter, Catherine B. Gist, gave it to the Gilcrease Institute in Tulsa, Oklahoma.

Thus, by a slender thread, clung Lewis Ralston's claim to Arvada history. Lois Lindstrom regrets that Brown's journal was not published until 1934, in the Chronicles of Oklahoma:

Early Denver historians did not know of Brown's journal, and their accounts of the Ralston discovery on June 22, 1850, were often inaccurate. Denver's beginnings were linked to the Russell discovery of gold on little Dry Creek on July 6, 1858. Little attention was paid to the FIRST gold discovery, the Ralston find that brought the Russell party and other prospectors to the area, the documented gold strike that opened the door to Colorado's history.

The Arvada Historical Society, since its formation in 1972, worked diligently for
creation of the Lewis Ralston Gold Site Park. Lois Lindstrom made numerous appearances before Arvada City Councils and community groups, educating listeners and inspiring efforts to establish this park, on extended Ralston Road near Sheridan Boulevard. In happened in 1994.

Ralston's name appears almost everywhere in Arvada - Ralston Creek, Ralston Road, Ralston Hills, Ralston Street, Ralston Valley Park, Ralston Parkway, Ralston Valley High School, Ralston Recreation Area, Ralston Core Park, Ralston Square, Ralston Valley Water & Sanitation District. Don't forget Ralston Reservoir.

Does Lewis Ralston deserve all that? Well - Lois Lindstrom evidently thinks so and she is an authority on Ralston.

Lois Cunniff grew up in Trinidad. Her father died in 1939, after losing his hardware store in the Great Depression. Lois worked hard and obtained education degrees at Northern Colorado and Colorado universities. She was an elementary school teacher in Pueblo and later, beginning in 1960, at Secrest School in Arvada.

Lois Cunniff Lindstrom became very interested in Arvada history. She founded the Arvada Historical Society and published The Old Mill in 1980 and First Gold in 1992. She spearheaded the bond issue drive that led to voter approval, in 1973, of $7 million to create more parks and open space and build the Arvada Center for the Arts and Humanities.

The Arvada Center opened in 1976 - a spacious brick complex with a 2,000-seat amphitheater, a 500-seat theater, large gallery space, studios, meeting halls. It became Metro Denver's premier suburban showplace for the arts and humanities.

Lois, for many years, has staged a pageant featuring historical skits and songs. Three generations of Arvada elementary school children have participated in her Look Back With Pride pageant. "Some people care about the place where they live," Lois said recently, "and some people don't. But we want everyone to know that Arvada isn't just some place a developer put up overnight."

Lois' latest project is saving the old Leyden Church and turning it into a museum. The Old Mill is rich in Arvada history. Its restoration was a major historical achievement. Lois Lindstrom was a project coordinator. She dedicated her 1980 book on the old mill to her husband, Wallace Alvin Lindstrom, Mill Restoration Builder, "and to everyone who shoveled, carried wood, washed walls, swept, restored windows, sanded, painted, hammered, sawed, threaded rod, and in so many other ways gave so much of themselves to make the restored mill possible."

After Wallace died, Lois (now 80) remarried. Her present name is Lois Lindstrom Kennedy.

* * *

The story about Arvada's Old Mill starts with Eugene Emory Benjamin, born in Golden in 1833. Machinery fascinated him as a young boy. He took toys apart and reassembled them many times. He made a wooden spool machine powered by the foot pedal on his mother's sewing machine.

Young Gene was fascinated by the milling machinery at the Rock Flour Mill in
Golden. He and his best friend, Fred Thompson, stopped there frequently after school to watch the humming machinery and visit with the mill operator. Gene read books about milling.

After Eugene finished high school he apprenticed at the Hungarian Flour Mill in Denver. In 1905 he married Maggie May Wales of Denver. In 1913, they moved to Golden and Gene leased the vacant Rock Flour Mill, where he and Fred Thompson had spent so many happy hours. He had the mill operating smoothly when World War I caused the demand for U.S. wheat to triple.

By 1918, the Benjamins were ready to purchase a mill of their own. They found one in Idalia, a small settlement in northern Colorado, 30 miles north of Burlington. They sold their Idalia mill in 1923 and leased a site in Arvada in 1928 from the Colorado & Southern Railroad Company.

Eugene Benjamin erected a building for his Arvada flour mill. He covered the outside with an alloy of steel and tin with a pressed brick pattern. He installed new and used machinery powered by a one-cylinder, 25 horsepower diesel engine. Gene invited his boyhood friend, Fred Thompson, to work in the mill. He did, for 30 years.

Benjamin wanted his flour mill to have a special name, so he offered a prize of $25 in a contest to select the best name. There were 1,100 entries which were judged by members of the Arvada Chamber of Commerce. A rural lady's name of Arva-Pride won the prize.

Arva-Pride flour was a big success until the 1930s, when a combination of adverse circumstances greatly reduced Benjamin's profits. The Great Depression, drought, competition by big milling coops, the wartime drop in home baking. They all conspired to hurt the old flour mill. The final blow was "miller's lung " a disease caused by Gene's many years of breathing grain dust infected with wheat weevil.

Benjamin sold the Arvada Flour Mill to Frank Tiller and Louis Schaafer on May 1, 1944. He died ten days later.

Tiller had other interests and the old mill deteriorated. In 1961 it was used for grain storage, Accumulations of 55 years were stacked around the old machinery. The roof leaked, windows were broken. By 1970 it had become the home of rats, mice, skunks and pigeons.

After Frank Tiller died in 1970, his son, Fred, and his widow, Opal Malcolm Tiller, became interested in the mill's old machinery and the history of the old building. In October 1972 they offered to donate the building and its machinery to the Arvada Historical Society, which had been formed just two months earlier.

More than 2,500 volunteer hours were given to the mill restoration by Historical Society members, Arvada citizens, youth groups and students. Funds were raised, a lease was negotiated with the railroad company. The flour mill's history was researched and, in 1975, it was placed on the National Register of Historic Places. Rooms are being built in the old flour mill building to provide a home for the Arvada Historical Society.

* * *

After the gold seekers left, wiser men realized that the real gold lay in the rich,
virgin soil in the Ralston and Clear Creek valleys. It only needed water to make it very productive.

The first ditch diverting from Clear Creek was completed in February 1860 as the Ralston Point Mining Ditch. It was later used for irrigation on land that became Mount Olivet Cemetery. It eventually became the Wadsworth Ditch. When Clear Creek water rights were adjudicated, many years later, the Wadsworth Ditch was given the earliest priority.

In 1859, two Boulder County men built a ditch from Clear Creek near Golden to the Arapahoe bar. Water started flowing in the ditch on July 1, 1860, giving it (later) the second priority on Clear Creek. Walter S. Cheesman purchased an interest in the ditch, which was lengthened to irrigate land on a number of ranches, including the ranch owned by Walter Cheesman's brother, William. In July 1872, the ditch was incorporated as the Golden City and Arapahoe Ditch. After several ownership changes it became the Farmers Highline Canal.

Many early irrigators in the Arvada area had ditches named for them: Kinnear, Oulette, Kershaw, Croke, Juchem, Church and, of course, Wadsworth. There is a story attached to each of them. John Juchem's story is particularly interesting.

John was born in Alsace-Lorraine in 1831. He became the Royal Gardener for His Majesty, King Frederick Wilhelm IV of Prussia. In 1858, the King became worried about his crops. He summoned young John Juchem from his vine-covered home to talk about the parched fields. There was a quarrel and John was fired. He was told he would be conscripted into the Prussian Army.

That night John sent word to his brother, a mathematics professor at Heidelberg University, that he was leaving. He packed a few belongings and left Prussia in a load of hay. When he reached the coast he found passage on a boat headed for the United States. He went west and settled at the confluence of Cherry Creek and the South Platte. He was a gardener and he finally found the land he wanted in 1859, near present Clear Creek.

Using a fork and a spade, John Juchem prepared the soil and raised vegetables. He built a log cabin north of the present Wadsworth Ditch, between present Garrison and Kipling Streets. He bought more land and built irrigation ditches. His Juchem Ditch later became part of the holdings of the Consolidated Juchem Ditch and Reservoir Company. The Juchem Ditch was given priority dates of 1861, 1862 and 1863.

By 1863, Juchem had accumulated enough money to marry. He left for Alsace-Lorraine to find a wife. He got as far as St. Joseph, Missouri, where he met and married Anna Woebber. They returned to Colorado Territory by covered wagon, a journey that took six weeks. Over subsequent years, John and Anna had five children.

John continued gardening and acquiring land. His ranch expanded to 400 acres, bounded by streets and avenues now known as Grandview (north), Garrison (east), West 44th (south) and Kipling (west). He donated land for the Arvada Cemetery in 1862. And rights-of-way for the Colorado and Southern Railroad and the Tramway to Golden. Juchem Station, located where Juchem Lane (now Garrison Street) crossed the tramway tracks at Cottage Lane (now West 51st Avenue), was an important stop on the tramway line. Juchem Gardens became famous for its produce.

So much Arvada history is intertwined with the early irrigation ditches and
reservoirs. So many interesting pioneers, including John Juchem. Anna Juchem died in 1906. John died in 1911. Both are buried in the Arvada Cemetery.

* * *

After incorporation in 1904, Arvada settled into life as an agricultural center. It built an elevated steel water tank with ARVADA electrically lighted on its side. It built a town hall, a public school, a public library and it formed a municipal band.

Arvadans staged a Harvest Festival in 1925 to celebrate completion of the area's first paved road. It was upstaged by Mother Nature. The big inaugural festival was planned for October 17. The governor would cut the ribbon. High school football teams would play. Airplanes would drop coupons for free pies. On October 16, a blizzard buried Arvada in two feet of snow.

Arvadans shrugged it off and moved on. The paved road provided easy access to Arvada's agricultural products. The Harvest Festival became an annual event, improved and expanded in subsequent years.

Arvada hired landscape architect Saco Rienk DeBoer in 1919. He designed Arvada's McIlrey Park and later became Colorado's premier landscape architect. He continued to help Arvada plan its future until shortly before his death in 1974.

Arvada established one of Metro Denver's first planning commissions in 1929. It enacted zoning codes in the 1930s. It installed the first traffic light in Jefferson County in 1941. Arvada was becoming known as a good place to live, but by 1940 its population was only 1,482.

Arvada formed Jefferson County's first recreation district in 1955. The North Jeffco Metropolitan Recreation and Park District has provided playgrounds, three recreation centers, five swimming pools, an ice arena, 40 tennis courts, bowling lanes and a golf course.

Arvada de-emphasized commercial and industrial development, but it gave its veterans' businesses along Main Street a helping hand in 1959. It formed an urban renewal board to revive the city's struggling businesses.

The renewal project provided landscaping, facade uplifts and publicity aimed at injecting vitality into struggling businesses. The sign on the city's old water tower was changed to Olde Town Arvada and was spotlighted at night to publicize the rebirth of Arvada's original downtown.

Olde Town is now on the National Register of Historical Places. That designation can secure grant money and help market the area. The city had more than $1.4 million available for its Olde Town urban renewal effort. Infill they call it - the mod way to have growth without sprawl. High density housing, rather than sprawling further and further out.

Arvada plans upscale homes within walking distance of its Olde Town shops and clubs. LoDo in Arvada - the city's version of New Urbanism.

Critics believe that Lo-Do'ing Olde Town may bring temporary economic health, but in the long run it will hurt the city's historic nature. The city should be helping current store owners thrive, they say.

Arvada's mayor during the 1960s, Dr. Gail Gilbert, worked with University of
Denver professionals to plan "a city of homes." Gilbert, a veterinarian, became a controversial public figure because of his stand against injecting fluorides into Arvada's water to protect against tooth decay.

Arvada received national notoriety in 1993, when one of its city councilwomen had a sex change operation. It made national headlines again in 1995, when a fundamentalist Arvada church presented a *Hell House* for Halloween trick-or-treaters. The children saw staged representations of a satanic human sacrifice, an abortion and a funeral for a teenager who died of AIDS.

Arvada has had its share of colorful characters and events, but they do not portray the real Arvada, which has been a pacesetter for culture, history, family and a sense of place. The Arvada Center for the Arts and Humanities is one of the best in Metro Denver's suburbs.

Arvada has a sense of place. Its home ownership rate of 76 percent is among the highest in the state for cities its size, as is the percentage of married couples at 58 percent. It has a high percentage of native Coloradans, a high percentage of citizen involvement and a low crime rate. Arvada and pride go together like bacon and eggs.

*Will it stay that way?*

* * *

It will be difficult, because Arvada has growth problems common to most of Metro Denver's suburbs. Between 1940 and 1990 the little farm town of Arvada spread out to cover nearly 14,000 acres. Is population zoomed to nearly 90,000 residents.

During the 1990s, Arvada grew 14.5 percent, to about 101,000. Its suburban neighbors grew much faster - Broomfield 55%, Thornton 50%, Westminster 35%, Golden 31%.

In 1995, more than a hundred Arvada citizens from diverse backgrounds developed a comprehensive growth plan. It envisioned annexation of another 21,000 acres, most of which would be in a proposed 18,000 acre industrial, office, commercial and residential community called the *Jefferson Center*.

The Jefferson Center would surround the intersection of Highways 72 and 73, southwest of the former Rocky Flats nuclear weapons plant. It would extend west to the foothills and Coal Creek Canyon, south to West 58th Avenue, east to Highway 93 and north to the Boulder County line.

Developer Howard W. Lacy proposed the project in 1989. Agreements were reached with Arvada, but the project languished on the city's back burner and is unlikely to be approved, but some of his land could be used for parks, trails and a proposed reservoir. Along with 4,000 acres near the reservoir site which Arvada has annexed.

It's the site of the proposed *Fortune Reservoir*, planned by Consolidated Mutual Water Company.

Con Mutual? What in the world are you doing in northwest Arvada?

Consolidated Mutual is a non-profit corporation that supplies customers in Wheat Ridge, Lakewood and unincorporated central Jefferson County. It serves 83,000 people in a 26-square mile area. It obtains 70 percent of its water from Denver Water. The other 30
percent comes from Clear Creek.

Con Mutual's proposed reservoir (named for William Fortune, president of the Golden Bank that is co-owner of the property) would be located at an off-channel site near the intersection of Colorado 72 and Indiana Street. The $10 million raw water storage facility would hold 9,000 acre feet of water behind a 100-foot high earthen dam.

Water to fill Fortune Reservoir would be piped in from Clear Creek, using Consolidated's junior water rights. Its stored water would be held in reserve for use during emergencies or during droughts.

It's not a hostile invasion by Consolidated Mutual into sacred Arvada territory. The 160 acres will include a park. There will be recreational activities similar to those offered at nearby Arvada-Blunn Reservoir, including fishing and hiking. It's a win-win situation, one of the good things that happen when cities and corporations cooperate.

Another larger reservoir is being planned for a site northwest of the proposed Fortune Reservoir, south of the intersection of Highway 72 and 93, in an area known as Leyden Gulch. This is part of the area previously planned for the Jefferson Center. It is the latest example of the benefits of cooperation.

The proposed plan, if approved, would involve Jefferson County, Arvada and Denver Water. The county would acquire 1,987 acres including two conservation easements totaling 135 acres, for 13.5 million. Arvada would purchase the additional 838-acre Leyden Gulch property and then resell it to Denver Water.

At some future time Denver Water would build the reservoir, with a storage capacity of 30,000 to 60,000 acre feet. It would give Arvada an option to purchase Denver Water raw water stored in the reservoir. It would be transmountain water diverted from the Western Slope and it would have reuse potential.

* * *

In June 2000, developers unveiled a 1,121-acre, $1 billion plus project called Vauxmont - named for the English architect Calvert Vaux, who worked with Frederick Law Olmsted between 1858-1878 on the design and construction of New York City's Central Park.

It would be much larger than the jettisoned Jefferson Center. The land is owned by Perry McKay, younger brother of Church Ranch's Charlie McKay. It is located south of Rocky Flats.

Vauxmont is zoned for 8.5 million square feet of office and industrial space that may ultimately employ more than 15,000 workers. It will have 750 single family homes priced from $400,00 to more than $1 million and 815 townhomes and condos at lower prices. Advocates say Vauxmont will do for Arvada what Interlocken Business Park did for Broomfield and the corridor surrounding U.S. 36, the Denver-Boulder Turnpike.

"Vauxmont is probably the largest piece of land that has been zoned as a planned-unit development left in Jefferson County," said Holy Baumunk, vice president of the Jefferson Economic Council. "It's going to be a high-quality mixed-use project. It is really important to the county."
Arvada's growth rate, although relatively small compared to its neighbors', still troubled many residents. They petitioned to cap Arvada's growth rate at 1.6 percent annually, which the city did in 1996.

In 1999, the Committee for Sensible Growth petitioned to place a new, more restrictive growth cap on Arvada's November ballot. It would limit the number of new homes built in Arvada to 350 per year and it would impose a 2 percent road impact tax on the sale price of new homes.

The moment of truth for Arvada's future had arrived at the doorstep of Arvada City Council. Which way would it turn? Toward Arvada Pride, with severe growth restrictions? Or toward Big Development, backed by homebuilders?

Arvada City Council decided to support the homebuilders. It put two initiatives of its own on the ballot. One asked voters if they wanted to pay $1 million annually in legal fees to defend against lawsuits if the growth cap initiative is approved. The other initiative would require circulators of future petitions to be Arvada residents. (Backers of the growth cap initiative used paid petition circulators recruited from outside the city.)

Arvadans for Common Sense, a homebuilder-backed group, raised $135,000 to fight the growth cap and road impact tax initiative. Those funds overwhelmed the meager amount raised by the Committee for Sensible Growth.

Money talks, loud and clear, and Arvada voters listened and voted with their pocketbooks tightly closed. They rejected the growth cap/tax initiative 75 to 25 percent. They said No to litigation expenses and Yes to require resident ballot petitioners.

It was a sad day for Arvada Pride and a happy day for developers.

Arvada is in an enviable position of receiving almost all its water from Denver Water, without having to relinquish control of its growth decisions in order to get it.

How did that happen?

It's an interesting story.

The bill creating the Moffat Tunnel Improvement District was passed by the Colorado Legislature and signed into law in May 1922. The Arvada Enterprise stated, "The proposed Moffat Tunnel will put Arvada on a transcontinental railroad line. In this way it will be a great step in advancing the commercial development of the town and community.

"It will benefit us all directly and indirectly. The decreased cost of Routt County coal made possible by the cheaper freight haul will enable the people of Arvada to pay their portion of the cost of the tunnel with the money saved in buying coal."

It didn't turn out that way, of course. The reduced cost of coal wouldn't help Arvada, Westminster and others pay the taxes the district levied to pay off the $6.72 million bond issue for construction of the Moffat Tunnel.

The Moffat Tunnel Improvement District included within its boundaries all of Denver, Grand, Routt and Moffat Counties and parts of Jefferson, Adams, Boulder, Eagle
and Gilpin Counties. The district's commissioner were given the power to assess real estate and collect taxes within the district's boundaries. Denver's share was fixed at about 89% of the total valuation.

Problems surfaced quickly. In August 1922, more than a hundred farmers from the Arvada area appeared in Golden District Court as plaintiffs in a lawsuit opposing the District's taxation plan. "Taxation without representation," their suit claimed.

That's how one Arvada historian recalled it. Another, more likely version, is that a friendly lawsuit was filed in Golden District Court to determine the legality of using public funds to support a private enterprise. This had to be done before the district could issue bonds to pay for the Moffat Tunnel.

The district carried its test case from inception through three courts to a successful conclusion in 11 months, receiving unanimous favorable decisions from the supreme courts of Colorado and the United States. Such speed was almost unprecedented for a case of this importance.

The Moffat Tunnel Improvement District Bill was drafted by Norton Montgomery, an attorney in the Denver city attorney's office who handled litigation for the recently formed Denver Water Board.

Montgomery evidently researched the district authorization bill for a long time before it was crafted. Something must have been overlooked, because the DWB was subsequently involved in litigation regarding it that finally resulted in an agreement in 1934. It gave Arvada and Westminster the right to purchase DWB raw water diverted through the Moffat Tunnel.

The Denver Water Board (Saunders) refused to comply with the agreement. After a decade of nonproductive negotiations, Arvada sued the DWB. The suit dragged on until 1984 (post-Saunders), when it was finally settled out of court. Arvada won the right to purchase 19,660 acre feet of raw water annually from the DWB.

*        *        *

Arvada's water rights on Clear, Ralston and Coal Creeks yield about 3,000 acre feet in an average year. This, plus the nearly 20,000 acre feet from Denver Water, is about enough to supply Arvada's present population of about 105,000 in an average year. It is not enough to supply Arvada's projected buildout population of 130,000.

Where will Arvada get the additional 6,000 acre feet, plus storage, it will need to supply its projected buildout population?

*        *        *

The Arvada story will not be finished until we look at its complex neighbor north of it - the former Rocky Flats Nuclear Weapons Plant.

Rocky Flats, as it is usually called, was built by the Atomic Energy Commission on a rocky, windswept, barren mesa in Jefferson County, just south of the Boulder County line. This $45 million top secret project, completed in 1953, was located about 16 miles upwind from Denver. The closet community was Arvada, then a town of 2,359 residents.
Dow Chemical Company operated the plant, which made plutonium triggers for nuclear weapons. Plutonium was appropriately named for Pluto, a Roman mythological name for god of death and the underworld.

Pluto visited Rocky Flats on September 11, 1957, when a fire and explosion raised fears that plutonium had been released into the atmosphere. Plutonium oxide is an extremely toxic radioactive material. The fire burned 13 hours and destroyed 48 pounds of plutonium.

Pluto visited Rocky Flats again on May 11, 1969. Some plutonium scraps ignited spontaneously and caused $50 million in damages, including destruction of plutonium worth $20 million.

The new Department of Energy replaced the Atomic Energy Commission in 1973. Rockwell International replaced Dow Chemical in 1975. Both companies received lavish government performance bonuses until the secrecy bubble burst on June 6, 1989, when 75 FBI and EPA agents made a surprise sunrise raid on the Rocky Flats plant. They found that the plant had been illegally storing and incinerating radioactive plutonium waste.

It was disclosed that more than 60 pounds of deadly plutonium contaminated the airducts of Rocky Flats buildings. It was later disclosed that there were nearly seven miles of underground pipes that had carried toxic solvents and plutonium-laced liquids. Occasional leaks had tainted some areas. Pulling out all the pipes and testing all the dirt would be prohibitively expensive.

What a mess!

Something had to be done to clean up Rocky Flats. Plutonium is a prime target for terrorists and rogue nations to steal to make nuclear bombs, or to use for contaminating cities. A plan was developed in 1996 to have the site cleared of nuclear wastes and more than 800 buildings by 2006.

In August 2003, officials announced that removal of weapons-grade plutonium from the plant had been completed. They said Building 771 - once called the most dangerous place in America - would be demolished in June 2004. It appears that Rocky Flats will be converted to a national wildlife refuge in 2006.

*   *   *

After an unusual bipartisan effort by Colorado's Democratic Rep. Mark Udall and Republican Sen. Wayne Allard, Congress passed legislation in December 2001 creating the Rocky Flats National Wildlife Refuge. It will cover 6,500 acres, less the 350 acres contaminated and remaining under DOE control.

Planners view this wildlife refuge as the crown jewel of open space in the northwest metro area. It would complement open space already purchased by Jefferson and Boulder counties and the cities of Arvada and Boulder, creating an open space oasis of more than 11,000 acres.

The Rocky Flats Wildlife Refuge bill wasn't easy to pass. It pitted developers, who saw the Flats as a potential bonanza, against open space advocates who saw it as a potential crown jewel in a beautiful necklace of open space. Strangely, Arvada City Council initially sided with the developers. It hired a lobbying firm to promote its anti-
preservation position, locally and in Congress.

Then Arvada surprised everybody by doing an about-face on Rocky Flats. It decided, rather suddenly, to support congressional efforts to turn Rocky Flats into a national wildlife refuge.

How do you explain it?
Was Arvada Pride asserting itself?
Perhaps, but it seems more likely that Arvada received assurance that DOE won't use the refuge as an excuse for delaying closure of the industrial core in 2006.

* * *

The Rocky Flats National Wildlife Refuge may not be able to achieve its full potential until some time after 2006, because of serious problems that still exist.

More than 300 of the 6,500 acre Rocky Flats site are still so contaminated with plutonium they will be left out of the refuge. An August 2003 editorial in the Rocky commented on this problem:

*DOE hasn't said what it will do with about 5,000 cubic meters of waste too radioactive to be sent to dumps licensed to handle low-level radioactive materials. But the wastes aren't radioactive enough to go to an elaborate facility made for higher-level wastes.*

*If DOE doesn't offer a plan soon for these 'orphan wastes,' it may have to build a storage facility at Rocky Flats. If that happens, Uncle Sam will have broken a key promise that no major nuclear materials would be left at Rocky Flats.*

There's another big problem. A private firm has the rights to a gravel pit on about 1,500 acres on the site. Mining this gravel would make it difficult to convert the rest of the property into a wildlife refuge.

These problems probably will be resolved, eventually, and the wildlife refuge will reach its destiny. When that happens, it will become a major reason for a rejuvenated sense of Arvada Pride.
GOLDEN has deep historical roots. About as deep as Denver's and Auraria's. The first white settlement in the area that became Golden was along Vasquez Fork, which is now Clear Creek. It was named for Pierre Louis Vasquez.

The name Vasquez appears in many places in Colorado. On a peak, a pass, a lake, a boulevard, a water tunnel. The Vasquez Mountains were named for him. So was a major fort - Fort Vasquez.

Who was this important man?
The Vasquez story - for Coloradans - starts in 1834 at the annual rendezvous of mountain men, trappers and Indians along the Green River. After it ended, Vasquez decided to winter in Colorado's mountains and trap beaver, rather than return to his home base in St. Louis.

Vasquez was a respected mountain man, a partner of Jim Bridger, the famous scout. Although he was only 35, he was a grizzled veteran widely known as Old Vasquez. In 1834, he wintered near Empire Junction in what historians call Hunters Cabin. At the base of Douglas Mountain, beside a creek that became known as Vasquez Fork.

Vasquez and other trappers probably built a "fort" and trading post along the South Platte, opposite the mouth of Vasquez Fork. It may have been just a log cabin, or an adobe building, but Vasquez called it Fort Convenience.

Louis Vasquez is best known by Colorado historians for Fort Vasquez, where he was co-proprietor with Andrew Sublette from about 1835 to 1840. It was near present Platteville. One of four prominent trading posts along the South Platte south of the St. Vrain confluence.

*        *        *

The first white settlement along Vasquez Fork was Arapahoe City (Arapahoe Bar), about three miles east of what later became the Golden settlement. It was established in 1858, after gold was found in the creek.

Arapahoe City vies historically with Auraria for being Colorado's first settlement.
And with Little Dry Creek and Ralston Creek as the site of the first gold panned in Colorado. It reached a maximum population of 250 in 1859, then it declined rapidly to nothing more than a memory.

During the 1858-59 winter, Thomas L. Golden, George Jackson and a man known only as Saunders camped along Vasquez Fork, at a site that later became Golden City. Saunders was later replaced by Black Hawk. In January 1859, Jackson went up Clear Creek to Chicago Creek, where he found gold. Golden and Black Hawk stayed in their camp. Later in 1859, Golden set up a store in Golden City and ran for public office. He was soundly defeated. Then he faded out of history's misty view and was replaced by George West.

George West was born on a farm in New Hampshire in 1826. He worked in a newspaper office near his home at age fourteen. He later apprenticed in the office of the *Boston Transcript*. He joined the Massachusetts militia and became a Brigadier General.

West and 14 Bostonians formed the Boston Company. When Pikes Peak gold fever reached Boston in 1859, West and his associates decided to go to the Pikes Peak country. They went as far west as they could by rail, then bought supplies and merchandise and loaded it all on covered wagons. Then they resumed their journey west with George West the wagonmaster.

Only six reached Golden. The others turned back after talking with disillusioned gold seekers returning home - the go-backers of 1859.

The remaining six arrived at the settlement that became Golden on June 12, 1859. They camped at a site that later became the athletic field of the Colorado School of Mines. They saw other tents pitched along both banks of Vasquez Fork. They had intended to go up into the mountains closer to the gold mines, but realized that they already had found a proper site for a town, where they could start a business. An ideal site, well situated on the route up to the gold country. On today's map it would be on the southeast corner of 10th Street and Washington Avenue, on the north side of Clear Creek.

They built a store there - a simple two-story log structure they called the *Boston Building*. It was built so well it lasted 66 years. A granite stone and plaque now mark this historic site.

A town was organized by the Boston Company. Why was it called Golden City? Historians don't agree on how the name was selected. Some attribute it to Tom Golden, but there is no factual evidence to support it. Others say it was intended to represent a golden opportunity.

Wasn't George West deserving of having the town named for him?

Yes, but fortunately it wasn't. It wouldn't fit Golden's later persona. *The City of West? West, Gateway To The West? Howdy Folks, Welcome To West, Where The West Lives?*

In 1859, West started a short-lived newspaper, which he used to promote Golden as the best location for the capitol of Colorado Territory. West and W.A.H. Loveland were primarily responsible for persuading territorial legislators to make Golden the capitol in 1862. It lost the territorial government to Denver in 1867.

George West died in Golden in 1906 at age 80. Camp George West on South Golden Road at I-70 was named for him. It has housed various Colorado National Guard
units and a minimum security facility.

* * *

Loveland and Edward Berthoud were very important participants in Golden's early history, mainly because of their efforts to make Golden the territory's rail capitol. That story was told in Chapter 2.

The Boston Building might not have been Golden's first building. Ambitious William Loveland might have finished his building across the creek first, some historians say, using shingles he took from West's stockpile.

Loveland opened a well-equipped store stocked with groceries, provisions, building supplies and household hardware. For 20 years he dominated Golden's local politics. He became one of the territory's most prominent men in business and politics. Many regarded him as the most able railroad man in the West. He owned, at different times, the Rocky Mountain News and the Denver Post.

Although not elected, Loveland was a candidate for governor and twice a candidate for U.S. senator. He owned what was believed to be Colorado's richest and largest mineral deposit - the renowned Fannie Barrett Mine. Loveland Pass and the City of Loveland were named for him.

What a man - William Austin Hamilton Loveland! The Prince of the Pioneers, many called him.

But this great man - so important to Golden and Colorado history - died impoverished and forsaken in 1894. He was buried in Riverside Cemetery. His remains were later removed to Fairmount Cemetery.

* * *

Golden had 700 residents in 1860. It glittered, briefly (1862-67), as the capitol of Colorado Territory, due largely to the promotional and political activities of West and Loveland. These men and others, including Edward Berthoud, became known as the Golden Crowd.

After Golden lost the territorial capitol designation to Denver City in 1867, the Golden Crowd tried to make their city the region's rail hub. When this effort failed, they focused on establishing the Colorado School of Mines in Golden. The mining school was established in 1874. Loveland became president of the school's board of directors. West and Berthoud became volunteer "professors" - West for military science and Berthoud for botany.

When Golden was incorporated in 1871 it dropped "City" from its name. In 1879, Golden had five smelters, three brickyards, six coal mines, three flour mills and two breweries. After reaching a population of about 3,000 in the late 1870s, the town stagnated. Golden's early role as a railroad, mining and smelter town receded after World War I. It then evolved into the home of Coors Brewing Company.

Adolph Herman Joseph Kohrs immigrated to New York City in 1868, to avoid
service in the Prussian army. He worked in an Illinois brewery and at a Denver City bottling works before coming to Golden in 1873. Adolph and a partner opened a brewery in a former Golden tannery. In 1880, Adolph bought out his partner and with his brother William started a bottling works. By this time the name Kohrs had become Coors.

Coors survived Prohibition by switching to malted milk, near-beer, pottery and porcelain. The company made laboratory porcelain during and after World War II. Coors became the world's major producer of chemical porcelain. It also became one of the nation's top five breweries.

Golden lost population until World War II boosted Coors' employees to record numbers. A post-war resurgence quadrupled Golden's population between 1940 and 1980, when it reached 12,237. The city grew slightly (to 13,116) during the 1980s and about 30 percent (to 17,159) in the 1990s.

Golden's unique location has contributed to its slow growth. It is boxed in by Lookout Mountain and Mount Zion to the west and by the Table Mountains (north and south) to the east. The massive Coors plant also blocks development to the east. High lands to the north have recently been clapboarded with cookie-cuttered, expensive condos. Land to the south has been occupied by small businesses and by Jefferson County's office complex - its version of the Taj Mahal.

Thus far Golden has been able to retain its image of a small western town. In 1949 it erected a welcome arch on Main Street, which said:

_Howdy Folks_
_Welcome to Golden_
_Where the West Lives_

Golden's welcome arch was renovated in 1992 as part of a $2 million project to restore historic facades and landscape city streets. City Council has designated the arch an historic structure.

Golden may not be able to maintain, for long, its image as "a clumsy, awkward old dear of a town, out of step with the practical requirements of modern business society." John R. McGrath, in a 1998 guest commentary in the _Denver Post_, wrote that he watches the robber barons of commerce and can guess what's next:

_Part of the beauty of Golden is that in that small space, these widely different people live and prosper together. Clunky, clumsy and awkward as the town itself._

_It's a good place._

_Too bad that such a good place is so economically attractive._

_The power elite of the old beauty are wooing the money boys. I'm worldly enough to see the inevitable - Aurora on the Hogback._
I'm not against Aurora; I'm for Golden.

It's selfish and small of me, but there it is. I wouldn't want to stop Golden from growing. But I will miss the winsome old tart that it was and is.

It's a continual battle to save the two Table Mountains from development. In 1998, big athletic apparel manufacturer Nike revealed it was considering purchasing part of the mesa on top of South Table Mountain for an office and research and development facility. This ignited a wildfire of criticism and caused residents opposed to development of the mesa top to form an organization called Save The Mesas.

Nike withdrew and later in 1998 a complex series of land swaps, leases, purchases, conservation easements and land transfers enabled Jefferson County, the state and other interests to preserve about 470 acres comprising the eastern part of South Table Mountain. The county paid $958,000 for the land and easements. It is negotiating with owners of the remaining land on top of the mesa.

Golden's place in the sun, or more specifically in the sun's utilization, was assured in the late 1970s when the Department of Energy's Solar Energy Research Institute located in Golden, on the east side of South Table Mountain. It peaked with a staff of 960 and a $120 million budget before severe cuts reduced employees and budgets during the Reagan presidency. It has since rebounded and recently announced a breakthrough in its research for improved photovoltaic efficiency. That's a technical process that converts sunlight into electricity.

Golden, like other northwest suburbs, has pushed commercial and industrial, rather than residential, growth. This is mainly due to a citizen initiative approved in 1997 that limits growth of residential homes to one percent per year. It virtually eliminated the growth of multi-family housing in Golden. Growth limitations and the limited amount of land available for houses have caused Golden's population to remain under 20,000.

Golden's recent $100 million building boom has created plenty of retail and office space, which was not limited by the city's growth control initiative. But little housing. Sales tax rebates have spurred commercial development such as the Golden Town Center, Canyon Point Commercial Center, and Coors Technology Center. Clear Creek Square, a LoDo-like retail, office and housing project is taking shape in downtown Golden.

* * *

Golden is the end game - the final step - in the quest to complete the 100-mile beltway around Metro Denver. The first step - C-470, the southwest part - was built more than 20 years ago with federal funds. The second step - E-470 - the eastern part - was completed recently as the toll road that extends to U.S. 36, formerly known as the Denver-Boulder Turnpike.

The beltway's third step is the proposed 22-mile parkway through Golden to the area where I-70, U.S. 6 and C-470 converge. It's the beltway's Achilles' heel - its version of I-70's Glenwood Canyon.

Route selection for this final leg of the beltway will have very important impacts
on Arvada and Golden. Especially Golden. It feels threatened. Left out in the cold. Golden residents don't want the noise and pollution a 70 mph freeway would bring to their narrow valley. They don't want their small city - where the West lives - to be sliced in half by the beltway.

Golden officials advocate putting the last segment of the beltway further east, toward Arvada, if it is built at all. Arvada appears to be interested in steering traffic toward the Vauxmont area, to encourage development there. They have proposed forming a new parkway authority to build a 13-mile toll road from Colorado 128 near West 96th Avenue in Broomfield to C-93, just outside Golden. But it takes at least two parties to dance that tango. State law requires at least two entities to join to form a highway authority. No entity has thus far asked to join Arvada in this effort.

It's a political, as well as an engineering, hot potato. It's been studied for several years by the Colorado Department of Transportation. It studied 72 alternatives and narrowed them down to four or five primary alignments. The study is expected to be completed in 2005.

There will be strong opposition to whatever route is selected. It won't be the first. In 1989, a ballot measure to build a tollway, in part with auto registration surcharges, was defeated. In 2000, a transportation study of this northwest metro area resulted in a recommendation for improvements to the main highways, such as Wadsworth and Kipling, rather than a tollway. It was shelved.

This route selection problem is a messy can of political worms. Golden officials fear that CDOT has eliminated all options except those that would go through the heart of Golden as a toll road.

While Golden, Arvada and Jeffco cities wait for a final decision, their citizens endure clogged highways, increased pollution and intolerable commutes.

*    *    *

The 12-mile, $508 million light rail line from Denver to Golden might be in operation by 2013. It's been approved by the Federal Transit Administration, an important step. It could be the first rapid transit line to be built, among the proposed six new lines and additions to three existing ones, if voters approve RTD's $4.7 billion FasTracks program in the November 2004 election.

It would start at Union Station and go west along an old railroad right-of-way next to West 13th Avenue to the Federal Center in Lakewood. From there it would parallel the 6th Avenue Freeway to the Jefferson County Government Center in Golden. Its effect on Golden could be profound.

*    *    *

Golden's water supply comes from Clear Creek and is conveyed directly to its water treatment plant, which it shares with Coors. Its water rights were obtained by purchasing and transferring rights in irrigation ditches that divert from Clear Creek above Golden. Those transfers were made in the 1960s.
Golden's strategic position on Clear Creek, which gives it a priority of sorts, eventually irritated downstream municipalities who concluded that Golden was diverting more water than it was entitled to divert under its transfer decrees. In 1995 Arvada, Westminster, Northglenn, Thornton and some other downstream water interests filed suit against Golden in the water court in Greeley.

"It was an all-out attack against (Golden's) water rights," said Glen Porzak, Golden's attorney. "It was a big water war." Porzak is a well-known technical mountain climber. His conquests include Mount Everest. And, more recently, the cities of Arvada, Westminster, Northglenn and Thornton.

In August 1997, after a two-year court battle, the judge ruled that Golden can divert water from Clear Creek every day, all day, during the irrigation season. It was a big victory for Golden, because the water rights in question supply 60 percent of its needs during the summer months. But the $600,000 legal and engineering costs strained Golden's budget.

* * *

Golden purchased 5,500 acres of mountain land in 1924 and 1928, and later added 1,650 acres obtained from the federal government. This property is known as Beaver Brook. It's located along the Squaw Pass Road, between Bergen Park and Mount Evans. It is heavily forested and is a migration route for deer, elk, sheep and turkeys.

Golden built two small reservoirs on its Beaver Brook property to supply undeveloped land on Lookout Mountain. Then Golden sold the entire Beaver Brook water system to the Lookout Mountain Water District in 1987 for a token payment. Plus assurance that Golden was relieved of all further obligations to supply water to the district, which serves 550 homes.

Golden was left with 6,650 acres of prime Beaver Brook land that it could sell to private interests and use the money to construct a reservoir and improve its water system.

Could it?

Maybe. Maybe not. There were problems.

When Golden purchased the 1,650 acres from the Bureau of Land Management in the 1920s, the contract included a clause stating that the land would revert to the federal government if used for anything but a municipal watershed. Furthermore, Golden's plan to sell the land to developers stirred up a hornet's nest of opposition.

Clear Creek County responded by zoning the property as open space - to be used for "natural resource preservation and conservation" in county legalspeak.

Litigation followed, along with several years of intense negotiations. All of this resulted in the U.S. Forest Service's purchase of 2,700 acres of the Beaver Brook property in 2002 for $8.6 million. It was the last piece of a 20-mile forest corridor, from the Mount Evans Wilderness Area to the Bergen Park-Evergreen area.

Golden used money from the sale to fund construction of a $7.6 million reservoir - Guanella Reservoir - west of Empire. Also to buy more water rights and help upgrade the city's water system.

Golden plans to fill its new reservoir with water from Clear Creek. A bill to
exchange 10 acres of U.S. Forest Service land near Empire - which Golden needs for its pipeline - for a 60-acre parcel the city owns near the Continental Divide National Scenic Trail in Clear Creek and Summit counties - is currently pending in Congress.

Negotiations, cooperation, politics - the new roads to water project construction in Colorado in the 21st century.

* * *

In 2002, Demon Drought cast its dry, litigious eyes on Golden and its illegal diversions from Clear Creek. The problem had been festering for a long time. The drought pushed it into water court.

The problem was born in 1966, when Golden wanted to transfer Clear Creek priority No. 5 from the Oulette Ditch, which diverted below Golden, to the Church Ditch above Golden - 6.7 miles upstream from Oulette.

Downstream water interests, mainly those with shares in the Farmers High Line Canal, objected to this transfer. The litigation was settled by a consent decree between Golden and the protestors - Westminster, Thornton, Arvada, Coors and the remaining FHL irrigators.

The consent decree included this paragraph:

As to the Farmers High Line Canal, the above mentioned priority No. 5 shall be exercised by the City of Golden only at times such that its use will not result in a call at the headgate of the Farmers High Line Canal on the No. 5 and 9 direct rights divertible at said headgate.

Golden subsequently used its priority No. 5 during the 20-year wet period to divert 3.4 second feet, without regard to the seniority given FHL's priority No. 9 by the consent decree. No one objected, even though the cities had taken control of FHL during this period.

Not until the severe drought in summer 2002.

In September 2002, the FHL's diversion was down to a third of its entitlement. It's No. 9 priority was shut-down, while Golden continued to divert 3.4 second feet, in violation of the consent decree. It didn't help that Golden was watering its golf courses. And didn't impose mandatory watering restrictions on its residents.

The FHL Company complained to the state engineer, who ordered Golden to stop its illegal diversions.

Golden officials expressed shock and complained bitterly about being blindsided by the state engineer's unexpected order, which would shutdown half of its water supply.

"This is very serious," said Golden's city manager. "We have enough water for indoors. But just barely."

So off to water court they went.

It didn't take Judge Hayes long to rule that Golden must comply with the 1966 consent decree and stop diverting under its No. 5 priority when it interferes with FHL's No. 9 priority.
Golden had to immediately ban all outdoor watering and reduce inside water use 25 percent. Business water use was severely restricted. All of this until November 1, when Golden's winter water rights became available.

Golden appealed to the Colorado Supreme Court. The high court upheld Judge Hayes' ruling in a 31-page decision issued in January 2004.

Did Golden's FHL water gambit make it the black sheep of the Farmers High Line Canal family?

No. It's all part of the water game, the way it's now played in Colorado.

Ron Franscell, a Denver Post columnist, explained: "Friends one minute, cutthroat litigants the next, lunch partners an hour later. That's the kind of clubby, controlled chaos inherent to Colorado water wars, where the only thing anybody can agree on is that rain is good."

Coors Brewing sells the aura of Golden millions of times a day in every television ad, on every can of beer flying off the shelf.

Then it helps choke off Golden's water supply in court.

Sudden enemies? Not exactly. Golden will replace some of the water it lost after a day-long hearing ... by buying other water from - Coors Brewing.

And where did that extra Coors Water come from? Thornton, which helped take Golden to court.

Westminster actually led the court fight against Golden and criticizes the foothills city for going its own way on Clear Creek water issues.

But who is the first to say Golden can actually keep the water it lost, as long as it admits it doesn't own it forever?

Westminster!

This may be the way it is now, in the New Age for Colorado water. It wasn't that way when the water buffaloes fought each other in the 1950s, 60s and 70s.

* * *

The Kayak War pitted a state agency Goliath - the Colorado Water Conservation Board - against a small city - Golden. The stakes were not water for irrigation or municipal use, but water for - kayaks!

Is that a beneficial use under Colorado water law?

We'll see.

Golden developed a world-class, state-of-the-art kayak course on Clear Creek, where it flows past the city's core. It was designed by a renowned kayak competitor. It was
built around 4,000 tons of boulders, strategically placed to create holes, waves and eddies. The course ranks among the top ten in the nation for kayakers.

During its first three years of existence, Golden's world-class Clear Creek White Water Park attracted 45,000 users and contributed $23 million to Golden's struggling economy.

Golden's high profile, environmentally friendly kayak course needs a steady, dependable flow of water to sustain it.

How much?
A thousand second feet, said Golden officials!

There were cries of outrage, especially by Colorado Water Conservation Board officials and towns upstream along Clear Creek. Empire, Georgetown, Silver Creek grumbled publicly that water they had used for more than a hundred years for washing dishes and taking showers would soon be subordinated to Golden's kayaking.

The Colorado Attorney General, acting on behalf of the Colorado Water Conservation Board, filed suit against Golden in Greeley Water Court. Similar suits were filed in another water court on behalf of Vail and Breckenridge, who also operate whitewater kayaking courses which funnel millions of dollars into their economies during the slow tourist season between winter and summer.

It's a classic Colorado water war for big stakes. This time it's not East Slope v. West Slope, but traditional irrigation, municipal and industrial uses against recreational water uses.

Colorado grew up, economically, using water for mining and agriculture and, later, water for municipalities and industry. Comes now this new, brash kid on the water block - recreation - which insists on equal status with traditional water uses in Colorado's water courts.

This would violate Colorado's longstanding, sacred water laws, state officials said. Would it?

Judge Jonathan Hayes, in Greeley water court, ruled for Golden in 2001. He gave the city a junior water right on Clear Creek for 1,000 second feet. It was the first time such a large water claim for recreational use had been approved in Colorado. Judge Hayes rejected every argument by CWCB witnesses. Breckenridge and Vail won a similar suit in another water court.

The state appealed to the Colorado Supreme Court, which consolidated the three kayak cases.

The issue drew more than 40 friend-of-the-court briefs. Twenty-four supported kayak water rights and 19 sided with the state in opposing them.

Downstream water rights are not adversely affected by water for kayaking, because such use is not consumptive. But it could have an adverse impact on cities such as Aurora. For example, if Pueblo would establish a recreational right to have water flow past it, this might prevent Aurora (and Colorado Springs) from making new upstream diversions and water exchanges from the Arkansas River.

After the water court rulings, the Colorado Legislature passed a law, later in 2001, governing future applications for recreational water rights. It gave a strong advisory role to the CWCB and it limits what other governments will be able to do with recreational water
The Colorado Supreme Court, in May 2003, let stand the two separate water court rulings that granted Golden, Vail and Breckenridge junior water rights for streamflows needed to operate whitewater kayaking courses. It deadlocked 3-3 and issued no opinion. It left unresolved the problem that the water courts' rulings conflict with the later law passed by the legislature.

The Supreme Court's nondecision doesn't reverse the water courts' rulings. And it doesn't establish a clear policy precedent. It's reminiscent of how the Supreme Court handled the Denver Basin groundwater problem. Chips Barry expressed his disgust in a Denver Post editorial:

Where but in water law, muses Denver Water Manager Chips Barry, can you find such categories as 'tributary ground water, nontributary groundwater and not nontributary groundwater?' Anybody who can figure that out is a better man than I am.

And I know of no place other than a Colorado water court where you can file a 'statement of opposition in support.'

Finally, water lawyers will fight like lions over an acre foot of water, but we pretend that 40,000 exempt wells have no impact on streamflow.

It was a 3-3 Supreme Court decision because Justice Gregg Hobbs - the high court's water expert - did not participate. He had represented one of the parties in the case in another legal matter.

Glenn Porzak, who represented Golden, Vail and Breckenridge in this case, told reporters the Supreme Court's nondecision was a major victory for his clients.

It's a victory because it treats water for recreation just like any other water right. The fact of the matter is that the state was trying to get the Supreme Court to utter a pronouncement that treated recreation as a second-class use, and they didn't get that. So it's a major victory in that regard.

Is it?

Not yet. The battle isn't over. The high court will have to take up the issue again - with Justice Hobbs participating. Denver's two daily newspapers quickly expressed their views in editorials.

Denver Post: "On balance, it seems clear that recreational uses of streams and rivers deserve legal recognition as the cash-generating 'beneficial uses' they clearly are. But the newly recognized uses will have to be carefully balanced with competing needs by agricultural, industrial and municipal users. We hope the court issues a definitive ruling soon."

Rocky Mountain News: "We might be more sympathetic to the state's concerns if lawmakers hadn't passed Senate Bill 216 two years ago. The law guaranteed the water
conservation board a major role in granting recreational water rights - including the power to impose strict limitations on the rights.

"We live in a state where the value of tourism and recreation is fast approaching that of agriculture. Two water courts have recognized that reality. Let's hope that when the time comes for the high court to weigh in on the matter, that it's able to do so too."

New Age water litigation, initiated by Golden, where the West - and water litigation - lives.

* * *

Golden's population was 17,189 in 2000. Its average annual water supply capability was about 11,000 acre feet, but about 7,000 acre feet is for Coors' industrial use. The remaining 4,000 acre feet was about enough for Golden's use with average water supply conditions. Not enough for severe, sustained droughts.

Golden's projected population at buildout is 40,000 - more than twice its present population. It will need at least 5,000 acre feet of additional water supply capability, plus adequate water storage for dry years.

Will it get it?

It's trying and succeeding. Guanella Reservoir is on line. With innovative, competent Glenn Porzak on board, Golden is very likely to achieve its water supply goals.
ENGLEWOOD has deep historical roots. They reach down to Green Russell and his small party from Georgia. They found gold at the mouth of a little creek that became known as Little Dry Creek. On today's map it would be near where the Dartmouth Avenue bridge crosses the South Platte in Englewood.

They didn't stay long, but long enough to trigger the Pikes Peak gold rush in 1859. And long enough to give the place a name - Placer Camp. After extracting about $800 worth of gold from their diggings - forty ounces at $20 an ounce - the Russell party moved on.

The '59ers rushed to Placer Camp, found no gold, became discouraged and left. Their sad story and the Russells' activities were described in Chapter 1.

Placer Camp faded away and Tom Skerritt took possession of another root in the historical tree that became Englewood. Tom was born in Ireland in 1828. He came to the United States with his parents in 1848. He farmed in Michigan with his father. They called him Irish Tom.

In 1859 Skerritt went west with his 16-year-old bride. They joined the gold-seeking 59ers, but found no gold. In 1864, Tom and Mary homesteaded 640 acres near Little Dry Creek and built a house that still stands. On today's map it would be at 3560 South Bannock Street. They called it Shadyside.

Skerritt supposedly hitched a team of horses to a plow and cut furrows along markers from Little Dry Creek north to Cherry Creek. Then he hitched his team to a wagon, locked the brakes, and made his horses drag the wagon back and forth along the furrows to mark the outer boundaries of the first legally established road south of Denver City. Skerritt then made a 100-foot-wide road between the boundaries. He called it Broadway.

All of this, plus the large apple orchard he planted, inspired most historians to name Irish Tom Skerritt the Father of Englewood. Other historians called Jacob Calvin Jones the Founder of Englewood.

Jones came from Pennsylvania, as did three of his brothers who joined him before his marriage in 1871. The fourth brother joined them later. The five Jones brothers were a
tough lot. The youngest was killed when caught cheating in a card game. The three oldest brothers tracked and killed the slayer, after a two-year search. Judge Lynch handled the matter quickly, using the nearest cottonwood tree.

In 1870, Skerritt sold 80 acres north of Little Dry Creek to Calvin Jones. It was part of Skerritt's large apple orchard that stretched from present Dartmouth Avenue south to Girard Avenue and from Bannock Street west to Santa Fe Drive. In about 1883 Jones sold the south half of his 80 acres to Archie C. Fisk.

Fisk's Broadway Gardens became a popular picnic area, along with a nearby beer garden. After operating a few years it closed and the land reverted back to Jones. By 1890 this beautiful apple orchard had become known as Orchard Place, a popular destination for Sunday picnics, a pleasant buggy ride from Denver City. But it gradually lost its innocence when saloons and roadhouses were built in the area.

Thomas P. Dunn settled on land north of Jones. He built a general store at present Quincy Avenue and South Broadway. It did a good business for many years. The area around Dunn's store was settled and the community was called Cherrelyn. The name was suggested by James L. Cherry, a Denver City land developer. He obtained a post office for Cherrelyn and Anna Dunn became the first postmistress.

Cherry bought 160 acres on the east side of Broadway, between present Quincy and Oxford Avenues. He called it Cherry's Broadway Gardens. He started the Cherrelyn Horse Car Line in 1884 to provide transportation along Broadway to his new development.

Cherrelyn was written on the side of the rickety wooden streetcar. A horse hauled the Cherrelyn up the hill, stopping automatically for waiting passengers. At the top of the hill the horse was unhitched and it walked onto a platform at the rear of the streetcar for the ride back down the hill.

The Cherrelyn was one of the most popular tourists attractions of its day. Six horses served the Cherrelyn Horse Car Line during its 17-year life. Quickstep, Old Dick and Old Dobbin lingered longest in the memories of Englewood's oldtimers. It all ended in 1901 when Denver Tramway Company extended its South Broadway route. The Cherrelyn was rescued from a junkyard in 1951 and placed on a pedestal next to Englewood's town hall.

In 1896, Skerritt platted his land and sold it for development. Orchard Place and Cherrelyn were consolidated in 1903 and incorporated as Englewood. It was named for the Chicago suburb where Tom and Mary Skerritt joined the wagon train going to Colorado Territory. Englewood is an old English name for a forested nook.

Boundaries of the new city were (on today's map) Yale to Quincy and Clarkson west to the railroad tracks. Its population was about 1,260.

Englewood's first election was held in 1903. The issue was whether or not to license saloons. The pro-saloon group nominated Skerritt for mayor. The anti-saloon faction, known as Good Government, nominated Jacob Jones.

Jones, a former tough sheriff with equally tough brothers, now wore a cloak of respectability. He defeated Skerritt by a margin of four votes. He said he would see that "Englewood is made habitable for self-respecting people." He placed his six-shooter on the table in front of him and said, "Anyone who wants to speak can speak. But all speeches will be limited to five minutes."
Jones closed the saloons on Sundays and increased their license fees. He attempted to make Englewood the county seat. Littleton won that honor in the 1904 election.

Tom Skerritt held dog races and dogfights at his Shadyside Ranch - shady activities in the opinion of some observers. They also frowned upon Skerritt's ownership of land occupied by saloons and dance halls.

The old Skerritt Horse, built in 1864, was recently purchased by the City of Englewood. The two-story house was in poor condition, dilapidated and forlorn, with flaking paint and worn exterior. It was restored in time to celebrate Englewood's centennial in 2003.

The Skerritts lived at Shadyside until their deaths - Mary in 1901 and Tom in 1913. The last of their seven children born at Shadyside, Mary Skerritt, died in 1942.

* * *

In 1907, a glittering amusement park opened on the site of the former Fisk Gardens - on the west side of Broadway between Floyd and Hampden. It was called the Tuileries, after beautiful gardens in Paris.

The Tuileries had it all. Dance pavilion, roller rink, motorcycle racing track, baseball diamond, miniature train, lake and an oriental tea garden. But it closed in 1912. It was purchased by Alexander Industries, which used it for movie sets and also as a place to build airplanes. In the 1920s, Alexander Industries built several planes a day and claimed to be the world's largest builder of commercial airplanes. It moved to Colorado Springs in 1928.

Englewood purchased the site in 1931. It used the Alexander Building as its City Hall until 1950, when it moved to 3300 South Bannock. In 1965, it moved to the remodeled C.A. Norgren plant at 3400 South Elati.

Carl A. Norgren, a Swedish engineer from South Dakota, built a large manufacturing plant in Englewood in the late 1930s. Carl had invented, in his basement, an oil fog lubricant for air operated equipment. Norgren's large plant became known for its advanced employee benefit practices. It moved to Littleton in 1959.

Swedish National Sanitarium opened in 1907 at 3451 South Clarkson Street. It evolved from a sanitarium for the cure of tuberculosis into today's large Swedish Medical Center.

Let's not forget Petersburg. Some historians say it was Englewood's other nucleus. Petersburg was started by Peter Magness, a Swede who settled on the east bank of the South Platte in 1859. He built and operated the Harvest Queen Flour Mill.

In 1879, Pop Wyman built a two-story log tavern near Peter's mill. On today's map it would be located at Hampden Avenue and Santa Fe Drive. Pop's tavern evolved into a roadhouse that thrived for 60 years. It attracted soldiers from nearby Fort Logan, as well as Denverites looking for a good time in Sin City. This tavern and roadhouse was known by various names, but mostly as the Petersburg Inn.

The community along Santa Fe, anchored by the Petersburg Inn, became a sleazy collection of saloons, blacksmith shops and livery stables. In 1898 there was a movement to incorporate the wicked town of Petersburg.
Petersburg self-destructed and ceased to exist. But its sleaze persisted along South Santa Fe Drive for many years.

* * *

Englewood more than doubled in population from 1930 to 1950 (from 7,980 to 16,896). In 1958, Englewood voters approved a home rule charter and a Council-City Manager form of government. The charter included a statement that the city could be annexed to Littleton, the county seat. It was intended to avoid the possibility of ever being annexed by Denver.

Englewood's population reached 33,398 in 1960. One of the most important events in Englewood's history occurred in 1968 - the opening of Cinderella City!

It was a Cinderella story from the beginning. It started in 1963, when Gerri Von Frellick, a well-known shopping center developer from Texas, came to Englewood. He attempted to purchase the KLZ tower property on East Hampden Avenue, east of Lafayette Street. It was in an upper class residential area and nearby residents successfully opposed Von Frellick's development plan.

Von Frellick then offered to purchase Englewood's City Park for $1 million. It extended from Bannock to Santa Fe and from Hampden to Floyd - 55 acres. Two obstacles were removed by Englewood voters in 1964. The first vote changed the zoning to commercial. The second authorized sale of the park land.

An association called Save-The-Park attacked the park sale contract in District Court and Von Frellick countersued. Judge Marvin Foote ruled for Von Frellick. Englewood used the $1 million to purchase seven smaller parks.

It took three years to build Cinderella City Shopping Center. The grand opening on March 7, 1968 attracted state-wide publicity. It was, according to Von Frellick, "the largest shopping center under one roof in the world."

It was Big - 250 stores, shops and restaurants on three levels and a 600-seat theater. Liquor could not be sold or served on the premises. A spectacular fountain with a 35-foot high spray dominated the center of the blue mall building. The large area surrounding the fountain was furnished with blue overstuffed sofas and chairs - an ideal place for community events, sales promotions and displays.

Englewood, with Von Frellick's help, had come a long way. At the opening ceremony Governor John Love said, "Colorado has people with courage to do things, people such as Gerri Von Frellick."

Gov. Love overlooked the fact that Von Frellick really was a Texan.

Cinderella City, like most of Metro Denver's first generation malls, eventually became a victim of suburban growth. Replaced by second generation malls placed strategically at major highway intersections. It closed in 1997, amid dire predictions of economic problems ahead for Englewood.

Instead, Englewood transformed Cinderella City - in a real life Cinderella story - into a model for municipal redevelopment. City Council formed a foundation to make day-to-day decisions for demolition and reconstruction. It spearheaded the rehabilitation of the Cinderella City site. The results were remarkable.
City Center Englewood!

The $150 million, 55-acre project will be anchored by the new southwest light rail station. It will have upscale apartments, restaurants, stores and shops. City Center Englewood will include a new City Hall, a new public library and new courtrooms. The design features an outdoor amphitheater seating 350 and an outdoor piazza with sculptures and fountains.

There's more. A drive is underway to bring culture to City Center Englewood - a combined performing arts theater and multi-discipline arts center. Perhaps located in the old City Hall building on South Elati Street.

It's a bold plan, still in preliminary planning, aimed at remaking Englewood's former blue collar image into a focal point for the arts in southwest Metro Denver - Englewood's version of the Arvada Center.

*        *        *

What about Englewood's water supply - is it adequate?

Yes, it is.

Englewood traveled a long, difficult road to get its water supply where it is today. Let's start at the beginning.

When Englewood was incorporated in 1903, its residents relied on shallow wells. Some obtained water from the City Ditch. In 1909 the city tried to buy the Brown Ditch, but it couldn't obtain the money to do it. So Englewood contracted with the Denver Union Water Company for water service. Residents had to lay their own water mains.

Union's water pressure became inadequate. In 1917, Englewood City Council asked voters to approve a bond issue for constructing an independent water system. It was defeated.

Talk of annexing Englewood to Denver surfaced in the early 1920s, spurred by water service problems with the Denver Water Board. Englewood's mayor and City Council were for annexation. The Englewood Chamber of Commerce opposed it. Arguments for and against annexation continued until April 1927, when the issue was placed on the city ballot. Pro-annexation forces won the election by a 967 to 951 vote.

Arapahoe County District Court dismissed the election results, after irregularities were found in balloting and polling procedures. Another election was held. This time the annexation proposal was defeated, 538 to 531.

Englewood's future was decided by seven votes!

After Union was acquired by the Denver Water Board in 1918, Englewood's mayor, Alfred Bell, requested more water taps. He was given two options: Either construct a parallel water line and pay a metered rate or pay a much higher rate for new water taps.
Proposals to build an independent water system were put to a vote - and defeated - in 1921 and 1923. Englewood tried again in 1932 and this time voters approved bonds for building a water system and a municipal power plant. The election results were disputed by Colorado Central Power Company and the matter was tied-up in the courts until 1938, when Englewood gave the power company a long term contract for supplying electricity to the city.

During all of this hassle over municipal or private power, Englewood continued to obtain water from the Denver Water Board.

In 1948, the Denver Water Board issued new conditions for selling water to Englewood. Union's 1909 water service contract was annulled. Water rates were increased 50 percent. Water meters had to be installed at customer expense. Water rates would be renegotiated annually. Englewood would have to sign an agreement stating that the DWB was not a public utility subject to regulation by the Colorado Public Utilities Commission.

Englewood officials were furious! They sued the DWB in District Court, claiming the rate increases were not justified and that the DWB should be placed under the jurisdiction of the Colorado PUC.

This probably was just what the confident DWB wanted - a court test of its claimed legal right to regulate its water rates.

The stakes were very high. If Englewood won, Colorado PUC would likely be able to regulate water rates for all municipalities in Colorado.

Arapahoe County District Court ruled for the Denver Water Board. So did the Colorado Supreme Court, in 1951.

In October 1948, Englewood voters authorized the sale of $2 million in bonds to purchase water rights and build a water treatment plant. The city purchased a ranch in Platte Canyon for its water rights. It purchased water rights in the Brown, McBroom and Petersburg Ditches. It bought the Boreas Pass Ditch in South Park, which diverts water across the Continental Divide from the Blue River watershed into Tarryall Creek, a tributary of the South Platte.

Denver made another attempt to annex Englewood. Mayor Allen rejected Denver's overtures and continued to develop Englewood's independent water system. The city's irrigation water rights were changed to municipal use. The Allen Water Treatment Plant was completed in 1952.

Englewood, in 1952, became the first suburban city to stop receiving water from the Denver Water Board. Henceforth it would rely upon its own independent water system.

In 1954, Englewood purchased the Moffat Tunnel Water & Development Company which had water rights on Fraser River tributaries. Then it entered the Blue River Water War, described in Chapter 5.

Englewood's success in the Blue River litigation, and in subsequent negotiations for a water carriage right, was largely due to its water attorney, Marcus (Mark) Shivers.

Englewood had to find a way to utilize its Western Slope water rights, using available space in transmountain water diversion facilities owned by others. There were only two possibilities - through the DWB's Moffat Tunnel or through the Colorado-Big Thompson Project's Adams Tunnel.

The Moffat Tunnel route was better, because of its lower operating losses and no
federal involvement. But Glenn Saunders, DWB's chief counsel, was not cooperative. He threatened Englewood with astronomical carriage charges.

Englewood applied to the Bureau of Reclamation and the Northern Colorado Water Conservancy District for a contractual right to carry about 6,000 acre feet annually through C-BT facilities - especially the Adams Tunnel - to the Eastern Slope. The carriage contract was approved by all parties in August 1961.

Shivers now had leverage - an alternative water carriage contract. He approached the DWB again and this time it approved the Englewood Moffat Tunnel carriage contract. It was, of course, conditional upon available space in the Moffat Tunnel and availability of DWB water in the South Platte at Englewood's intake for the water exchange.

Englewood built McLellan Reservoir to store its Western Slope exchange water and whatever other South Platte water it could divert in wet years with a 1982 decree. This reservoir is located in Littleton, a little east of Santa Fe Drive. It is filled by diversions through the Highline Canal. Ironically, Englewood does not now need all of the water stored in McLellan Reservoir. It leases 1,000 acre feet per year to Thornton, which uses it to support its pumping from wells along the South Platte with junior priorities. Englewood also leases water to Highlands Ranch.

Perhaps even more ironically, Englewood may reap an unexpected real estate bonanza from McLellan Reservoir. The lake's southern boundary extends across the Arapahoe County line into Highlands Ranch. Englewood owns about 160 acres there, adjacent to the reservoir. Prime land, sought by developers.

Englewood is evaluating its options. It could sell the land to developers for a quick, one-time profit. This is what most cities would do. Or it could develop the land itself, like it did with the rehabilitation of the Cinderella City site. This would give the city a long term return from its real estate bonanza. Perhaps it could develop such high-end ventures as a hotel and a five-star restaurant.

The view is fantastic!

Englewood - Metro Denver's municipal oasis - has never imposed mandatory water use restrictions. Englewood residents enjoy water rates 25 percent less than Denver Water charges its outside-city customers.

*   *   *

Englewood's population increased only slightly to 33,695 in the 1960s. It slipped to 32,021 in 1980, then slipped again to 29,387 in 1990, and increased slightly to 31,727 in 2000. Englewood is boxed in - locked into 3,834 acres by Cherry Hills Village to the east, Littleton to the south, Sheridan west and Denver north. It projects a population of 35,000 at buildout. It's water supply capability is considered adequate for its buildout population.


Englewood - a forested nook?
Sure! Why not?

* * *

**LITTLETON.** They called it *Little's Town* at first, for its founder - Richard Sullivan Little.

Little was born in New Hampshire in 1829. He studied civil engineering in Vermont. During the 1850s he surveyed railroad routes in New Hampshire and Wisconsin. When an economic recession curtailed his work in the late 1850s he went to booming Denver City and surveyed land claims for farmers along the South Platte.

Then he was hired to survey and build the long ditch that would become the City Ditch. In February 1861 - the month that Colorado obtained territorial status - William Byers visited the ditch construction site. He was editor of the *Rocky Mountain News* and part-owner of the ditch company. He later reported, "We found Mr. Little, the engineer and superintendent, who showed us the work. Here was the beginning of a grand irrigation project."

Byers' persona included exaggeration. This was not a grand irrigation project. But he also had a practical side. The first two miles of the ditch terminated at a wasteway where ditch water spilled down into the South Platte, "where (Byers said) water pours over the rock ledge some 20 feet into the river below, making a capital water power."

Little acquired a 120-acre site on the east bank of the South Platte, seven miles south of Denver City. He homesteaded on another 160 acres, built a log house and, in 1862, he went back to Chicago to bring his wife, Angela Harwood, to their new home. They had been married in 1854. It was a difficult, 2-month journey. They arrived at Richard's cabin in time to join their neighbors in fighting grasshoppers.

The *Denver Republican* described the grasshopper war: "The grasshoppers are now making their appearance in record numbers. Last year they were a source of great annoyance to our farmers, but this season they are grounds for serious apprehension."

The hoppers returned in 1862 and 1864 - both difficult years. The year 1862 was very dry. Then came the 1864 flood. But a handful of pioneering families, including the Littles, persevered and did not leave.

By 1867 Little's farm was producing good crops of wheat, barley, oats, fruits and vegetables. Richard saw the need for a flour mill and he recalled Byers' comment:

_I commenced improvement of my land claim and had good success in raising garden stuff and some small grain. The water still flowed through the ditch where it wasted over the rocks that Byers raved over when he first visited me in '61. One day it occurred to me that here was a site for a water power (wheel) and just the place for a flour mill._

Little and his neighbors built a flour mill below the wasteway's waterfall on Little's property. They called it the *Rough & Ready Mill*. On today's map it would be located near the intersection of Santa Fe Drive and West Bowles Avenue, east of the river.
The Rough & Ready Mill was a big success. By the 1880s it was producing 100 barrels of excellent quality flour a day. In the 1890s it became a 4-story brick and stone landmark. R.G. Dun Company called it "the best mill in Colorado." Dun's credit appraisal said Little had an "excellent reputation" and an estimated worth of $75,000 to $100,000.

Little laid out a town site next to the Rough & Ready Mill. He modeled it after the town in New Hampshire where he was born. Soon there was a log cabin school, a church, a cemetery and many shade trees. A general store opened in 1868, east of the mill. A hotel appeared in 1869. Angela Little's parents later bought it and it became known as the Harwood Inn.

The U.S. government made Littleton an official post office in 1869 and Richard Little became the first postmaster. He officially platted the town of Littleton in 1872, after the D&RG the railroad arrived. The Santa Fe Railroad later provided another rail link to Denver City. So did the Denver and South Platte Railroad Company's streetcars.

By 1880 Littleton was called "Denver's finest suburb." William B. Vickers said, in his History of Denver, "Although Denver stands in no particular need of a suburb to live in, the time will come, no doubt, when Littleton's wealth and population will be swelled by the overflow of Denver, and no more charming country village can be found in Colorado than cozy Littleton, nestled in its grove of trees like any New England village."

Littleton's population in 1890 was only 1,039. It incorporated as a town, in order to finance public services. Richard Little and many of his neighbor farmers refused to sign the incorporation papers. They didn't want their little village to become like Denver City with its taxation, corruption and debts.

Little was elected the area's first representative to the Territorial Legislature. He promoted Littleton as the comfortable alternative to big, bad Denver City. He built a nice, unpretentious house at present 5777 South Rapp Street that is still standing.

Richard Little, late in life, was proud of his accomplishments. This was noted in an 1889 newspaper article:

Mr. Little is very proud of the pretty suburban town he founded and gave a name to. Mr. Little is a progressive old-timer and points with pride to the fact that his town has two churches, a number of good schoolhouses, six lines of railway with fifty trains a day, suburban trains on the Denver and Rio Grande and the Denver and South Park, an abundance of good water, plenty of beautiful trees and as charming a county town as can be found anywhere.

Richard Little died in 1899 at age 70. The Rough & Ready Mill was destroyed by fire in the mid-1950s. Both contributed greatly to Littleton's history.

*   *   *


McBroom was born in Kentucky. He farmed in Missouri and was a bullwacker
(driver of a team of oxen) in the Mexican War. He was still in the army in 1858, on an
expedition from Santa Fe to Utah, when he crossed Montana (now Bear) Creek near
present Littleton. The land near this crossing impressed him so much that he returned to it
after his army service.

John McBroom and his brother Isaak homesteaded land south of Bear Creek west
on the South Platte. They built the McBroom Ditch to irrigate their crops of corn,
watermelons and vegetables, most of which they sold. The one-room McBroom cabin is
now a cherished treasure of the Littleton Historical Museum.

John G. Lilley was born in England. He came to Colorado and developed the
Columbine Ranch, west of the South Platte and south of West Bowles Avenue. It is now
the Columbine Country Club.

Frank Arnold Bemis brought Jersey cattle from his native Massachusetts. He raised
cattle, horses and alfalfa on his Brookridge Farm. Frank and his son Edwin transplanted
cottonwood trees from the banks of the South Platte to each side of their farm road that
later became Belleview Avenue.

Edwin A. Bemis became editor and publisher of the Littleton Independent. It
became one of Colorado's longest-lived weekly newspapers. Ed used his newspaper to
promote Littleton, especially its cultural amenities. His efforts led to formation of the
Littleton Historical Museum. Bemis Public Library was named for him.

Joseph Bowles came from North Carolina. He worked in the Nevada Mining
District for three years and served two terms there as sheriff. In 1862 he came to Colorado
Territory and homesteaded 160 acres west of the South Platte, across the river from
Richard Little. He built the Nevada Ditch and the Bowles Ditch and became, in the
opinion of the Littleton Independent, the "most successful of Colorado farmers."

Bowles was much more than a successful farmer. He made a fortune in real estate.
In 1881 he was elected to the Colorado Legislature to represent Arapahoe County.

Joseph Bowles expanded his land holdings to 2,000 acres. In 1889 he led a drive to
incorporate the town of Wynetka, near present West Bowles Avenue and South Lowell
Boulevard. It was a beautiful site, high above the South Platte. Wynetka is an old Indian
name meaning beautiful view.

* * *

Early Littleton was an agricultural town. Cowtown, some called it after the
creamery opened in 1889. Pickle Town, after the Canning & Pickling Company became
the town's main industry in 1891. Bee Capital of Colorado was a favorite of Littleton's
promoters.

Littleton landed a big industrial fish in 1902. George Leyner's Engineering Works
moved from Denver to Littleton, lured by a promise of free land. This big mining and
engineering firm reorganized in 1923 as Ingersoll-Rand Corporation and it made Littleton
its world headquarters.

Some people couldn't restrain a wry smile in 1946 when the Red Comet Fire
Extinguisher Company was destroyed by the worst fire in Littleton's history. It rebuilt,
after urging the city to have a professional fire department. The city finally did - in 1960.
Santa Fe Drive became Colorado's first paved highway in 1917. In the 1920s, Littleton's Coleman Motor Company were pioneers in the development of four-wheel drive trucks and racing cars. Easy access to Denver caused Littleton to become one of Denver's biggest automobile suburbs.

Littleton's streetcar service was stopped in 1926, because commuters had switched to cars. D&RG's and the Santa Fe's rail service stopped. Both depots have been preserved and restored by Littleton historians - recycled as an art gallery and a meeting hall. Littleton's old town hall is now an arts center. Its old library is a restaurant.

During the Great Depression Houston Waring, who had replaced Bemis as editor of the Littleton Independent, gave down-and-outers meal tickets usable at a cafe on Main Street. It cost the newspaper 15 cents a meal.

Littleton didn't grow much during the '30s and '40s. Then it quickly doubled in population from 1950 to 1955.


The aerospace giant based in Baltimore bought the C.K. Verdos Ranch, southwest of Littleton in Jefferson County. It built a $27 million plant and obtained multi-billion dollar federal contracts to build Titan rockets, missiles and (with others) a space shuttle. By 1960 more than a third of Littleton's breadwinners worked at Martin Marietta.

It's now Lockheed Martin Corp., based in Bethesda, Maryland, but it still has the Jeffco plant near Littleton. Lockheed Martin recently was awarded the richest defense contract in Pentagon history - $200 billion plus over 40 years! Most of the 9,000 new jobs will be in Forth Worth, but an estimated 200 engineers will be added to the company's Jeffco Space System Division. Many will want to live in Littleton.

Littleton is the home of Echo Star Communications, the nation's No. 1 satellite television firm. It recently purchased Hughes Electronics, owner of Direct TV, for about $26 billion in cash and stock. The sale is conditional upon approval by the Federal Communications Commission and either the Justice Department or the Federal Trade Commission.

Billions and billions of dollars. In Littleton! What would Richard Little think of all of this if he could return to life?

Not my kind of town, he probably would say. What happened to my cozy Littleton, nestled in a grove of trees, like a New England village?

* * *

Littleton was hit hard by the June 16, 1965 South Platte River flood. A wall of water, later calculated to be about 40,000 cubic feet per second, roared through Littleton and Englewood and headed towards Denver, its crest carrying buildings, boxcars, transport trucks and dead animals. There was nothing to stop it.

The flood destroyed Centennial Race Track on the west bank of the South Platte at West Bowles Avenue. Many race horses perished.

It should have been anticipated and prevented. The South Platte flooded briefly in 1933. There was talk of building a dam and reservoir - Chatfield - named for Isaac W.
Chatfield, whose farm was in the reservoir site. But public hearings created little enthusiasm, other than the negative comments by hostile landowners whose properties would have to be condemned if the Chatfield project was built.

Cherry Creek received the most attention. Memories of its 1864 flood lingered in the public consciousness. Cherry Creek flooded again in 1875, 1878, 1912, 1922 and 1933. Cherry Creek Dam and Reservoir were completed in 1950, amid public outcry calling it a pork-barrel boondoggle, extravagant and unnecessary.

After the 1965 flood, the Colorado Water Conservation Board held a public hearing on the proposed Chatfield project. CWCB had to rent a hotel ballroom to accommodate the crowd. Everybody wanted the dam. Bumper stickers expressed the public demand - *Action Now - Dam the Platte*.

Chatfield sailed through Congress, with little opposition. The project was completed in 1975. The conservation pool for recreation and wildlife covered 1,450 acres. Adjoining it is a 5,600 acre park with trails, picnic tables, water sports, camping and wildlife viewing. All of this is only a mile or two from Littleton.

Other good things happened to Littleton after the 1965 flood. Centennial Race Track has been replaced by the Centennial Golf Course & Tennis Club. Littleton converted the South Platte flood plain through the city into a 200-acre biking and walking path.

Cooley Gravel Company donated to Littleton 450 acres along the South Platte that it had used for gravel extraction since the 1950s. It reclaimed the unsightly area around Cooley Lake with appropriate landscaping.

Progressive Littleton created one of Metro Denver's first urban renewal programs. When part of its old downtown seriously deteriorated, the old buildings were demolished and replaced by Arapahoe Community College, enclosed under one roof. It opened in 1974 and catered to older and part-time students.

Downtown Littleton's business district was hurt by the opening of two big nearby malls - Southglen in 1974 and Southwest Plaza in 1983. Both occupy envied, unincorporated tax islands. No sales tax!

Littleton is coping. The new Hilltop Business Center broke ground in late 1999 for a $100 million office park at South Santa Fe Drive and C-470 - across the highway from Highlands Ranch. It covers 45 acres and is one of a new wave of business parks - the *boutique* business center.

Recent killings at Columbine High School have received national television coverage, generally with a Littleton byline. But this school is in Jefferson County. Littleton is the nearest city, but it is in Arapahoe County.

Littleton will never again be the charming, comfortable, tree-lined village its founder loved. But it will be a good place to live and work, with nice cultural and historical amenities.

Light rail's southwest corridor line will rejuvenate downtown Littleton, especially its historic Main Street. It's only a two-minute walk to the light rail depot.

Like Big Brother to the north, and Englewood, Littleton's future will point inward. Towards density, with quality.

Littleton takes its history seriously. Its History Museum is the center of a 100-acre recreational and cultural complex that also includes the Edwin A. Bemis Public Library,
two parks, playgrounds and athletic fields. The museum has living history presentations, using the restored Bemis farmhouse and a pioneer schoolhouse. Also a blacksmith shop and an ice house. At the museum entrance there is a 65-foot-high cottonwood tree with roots deep enough to probe Littleton's early history.

Much of the credit for all of this is due Robert J. McQuarie, director of the Littleton Historical Museum since its founding in 1969.

* * *

Will Littleton have enough water?
Yes.

Littleton receives a full supply of treated water from Denver Water under a total service contract. It went through a period of uncertainty in the early 1960s, when it had to decide whether it should develop its own water system or contract with Denver for water. I was a water engineering consultant for Littleton during the early part of that period. It was my first municipal client after leaving the Denver Water Board.

Little's Town. How it has changed!
OUR TOWN HAS CHANGED dramatically since 1974, when the Poundstone Amendment kicked its butt and told it to stay in its own backyard and not annex more land. It may have been the best thing that ever happened to Denver. It turned the city inward towards quality, rather than outward towards quantity.

It's a fascinating story. Let's pick it up after World War II, when Denver began its long struggle to become the Queen City of the Plains. The time of Denver's post-war awakening.

It was such a beautiful city when we arrived in Denver in 1946. Clear views of snowcapped mountains. No smog. No traffic problems. So promising a future. It was a good place for World War II veterans like me to settle and start a new life.

Thousands of incoming veterans were mesmerized by the beauty of the Denver scene and most of them had little interest in its political structure. A personal fiefdom ruled by Denver's power elite. Especially by Ben Stapleton, who had served faithfully as Denver's mayor during four terms spread over a 24-year span. Mayor Ben ran a quid-pro-quo patronage that filled all city jobs, except fire and police, with Stapleton loyalists.

The Denver Post's Peter G. Chronis recalled how it was then, in a 1998 column.

The young veterans - children of the Great Depression who had won the greatest war in history - were in a hurry to rebuild their lives and had little patience with the status quo. They recognized the city needed wide-ranging reforms to accommodate future growth and meet their needs for housing, employment, transportation and services.

They didn't know, or care, about the many good things Mayor Ben Stapleton had done, including major help in developing Denver's water supply system. They replaced him in the 1947 mayoral election with a charismatic young upstart named Quigg Newton. The 35-year old Denver native won, by more than a 4 to 1 margin.

Quigg Newton was the youngest mayor in Denver's history. Navy veteran. Yale Law. Well connected family. A Denver blueblood.
Young Quigg Newton wanted to overhaul every aspect of Denver City government - particularly Stapleton's patronage system. He accomplished most of his civic objectives during his two terms as Denver's mayor.

Newton wasn't involved in Denver's quest for water and he didn't try to overhaul the Denver Water Board. He was a key player in developing Denver's transportation system, including the Valley Highway. He hired the innovative Henry Barnes as traffic engineer. Hank installed the Barnes Dance, which allowed pedestrians on downtown streets to cross intersections in any direction at stoplights. He converted many downtown city streets to one-ways, to better handle traffic flow.

After leaving the mayor's office, Quigg made an unsuccessful run at the nomination for U.S. Senate. Then he served as president of the University of Colorado from 1956 to 1963.

Quigg Newton died in Denver in April 2003. He was 91. Historian Tom Noel's column in the Rocky quoted Mark Foster, who was working on a book about the life of Newton: "He was a giver, not a taker. He was ever curious, ever expanding his mind, his horizons and his public service to the end of his life."

* * *

The seeds of Denver's remaking were sown in the 1950s, when urban renewal was sweeping across America. Senator Robert Taft of Ohio pushed a housing act through Congress. It authorized payment of $2 in federal funds for every dollar a city put into an authorized federal renewal project.

Denver's business leaders formed the Downtown Denver Improvement Association to play in the federal urban renewal game - a game that did not fit comfortably in Denver's independent psyche. When DDIA was unable to obtain enough federal urban renewal funds, Denver City Council created an urban renewal advisory commission in 1955. It conducted studies that showed the need for urban renewal in Denver, but it lacked the power to implement its recommendations.

In 1958, the Colorado Legislature passed legislation authorizing cities to establish urban renewal authorities which would have important powers including the right to condemn private land and buildings. Later that year, Denver established the independent Denver Urban Renewal Authority - DURA.

DURA is not an abbreviation for durable, but perhaps it should be. It's been in Denver for more than four decades, in spite of its early slash and burn policy and its controversial Skyline Project.

DURA sharpened its demolition claws in 1958 on Avondale, a small community of about 22 blocks between 13th and 16th Avenues, from Federal Boulevard to Knox Court. It was named for William Shakespeare's home town, Stratford-on-Avon. It was platted as a little English village, but never achieved that status. DURA saw it as a traffic problem and demolished all structures in Avondale near Colfax and Federal for a new traffic interchange.

DURA's real interest was in its next project - the Skyline Urban Renewal Project. It covered 29 blocks between Cherry Creek and 20th Street, from the Market-Larimer alley
to parts of Curtis and Champa Streets. Total cost about $31.5 million, to be financed 40 percent federal funds, 20 from Denver and 20 from land sales and increased tax revenues. Denver's 20 percent funding required voter approval.

Downtown business leaders endorsed the Skyline Project and formed a Citizens Bond Committee to promote it. The bond election was held in June 1964, a time most likely to provide minimal voter turnout.

DURA and its backers were shocked when Denver voters rejected their project. But help arrived through politics' back door. In 1965, Congress passed the Housing and Urban Development Act – HUD. Denver congressman Byron Rogers got an amendment attached to it aimed at benefiting Denver. It paved the way for construction of Currigan Hall, named for Denver's mayor.

Urban renewal was the issue in the May 1967 mayoral election. Mayor Tom Currigan was easily re-elected and DURA's Skyline Project received voter approval.

The Rogers Amendment dished out $26 million to Denver for urban redevelopment - more than twice the amount needed for Currigan Hall. DURA grabbed the extra $13 million for its born-again Skyline Project.

The historic Tabor Block office building was one of the first to go. Built in 1879 at the east corner of 16th and Larimer with Silver King Horace Tabor's money, it still retained most of its original architectural integrity.

The old central post office at the south corner of 16th and Arapahoe was torn down in the 1960s. It became the headquarters of the Federal Reserve Bank. The historic Mining Exchange Building at 15th and Arapahoe was torn down and replaced by Brooks Towers.

DURA zapped the Cooper Building at 17th and Curtis, widely acclaimed for its beautiful brickwork. And the nearby Iron Building, one of the nation's first all-cast iron buildings.

Phil Goodstein described the scene in *Denver In Our Time*: "The whole DURA scenario was based on having massive vacant lots. Only if empty lots were available could Denver sell its heart and soul to national developers."

* * *

During Denver's beginning, Larimer Street was a prestigious address. By the late 1940s, it had become Denver's borderline slum area. Winos were lying prostrate on Larimer's narrow sidewalk, when they weren't panhandling pedestrians and motorists. The old brick business buildings on Market Street had been converted into warehouses - mostly empty by the late 1940s.

General Larimer would be horrified if he could see how Larimer and Market streets had deteriorated. But he would have welcomed the arrival of Dana Crawford.

Dana who?

*Crawford!*

She would show Denver skeptics, including DURA, how redevelopment of
Larimer Street and Lower Downtown could be done successfully with private money while saving historic architectural gems.

Dana Crawford was born in Salina, Kansas. She graduated from Kansas University and later from a business program at Harvard-Radcliffe. She arrived in Denver in 1954. She worked as an advertising executive and became active in Denver's civic and social clubs. She achieved socialite status when she married John W.R. Crawford III, a consulting geologic engineer.

Dana's interest in antiques led her to the thrift stores on Larimer Street. She looked beyond the antiques at the interior walls of the old brick buildings and saw still sound remnants of Victorian architecture. She realized that these old buildings, and this old historic area, should not be demolished. If they were saved, they could be restored. She would do it. It would be her Larimer Square Project.

Crawford formed Larimer Square Associates to acquire properties in Larimer's 1400 block and redevelop the area as a Mile High Harvard Square. It succeeded admirably and Larimer Street soon became the place - one of the must-see places - in Denver.

Old edifices were gutted, cleaned and virtually rebuilt. Traffic was rerouted and sidewalks were widened. Bars and restaurants reached out onto the widened sidewalks where there were fenced-off areas for outdoor dining in good weather. A little bit of Paris on Larimer Street, former hangout of drunks and beggars.

It wasn't easy. Critics called Dana the Dragon Lady of Denver. But she persisted. She succeeded because of her "steely tenacity and hard-nosed approach to getting things done," a Denver Post column noted.

Crawford's Larimer Square Project was just the beginning of the redevelopment of Denver's Lower Downtown - its LoDo - an area generally considered to extend from the alley of Larimer-Market streets to Union Station, between Cherry Creek and 20th Street. Adjacent to, and northwest of, DURA's Skyline Project.

Largely because of Dana Crawford, LoDo is now the epitome of what urbanologists and city planners in major metropolitan areas long to see happen.

Dana Crawford now is a highly respected emeritus director of the Colorado Historical Society.

* * *

Central Bank, at the west corner of 15th and Arapahoe streets, was a special DURA demolition project. It was Elwood Brooks' bank - a beautiful, neoclassical, 9-story building built in 1911. It should have been preserved.

Central was a banking maverick. Isolated from 17th Street's Big Three banks. Elwood Brooks made direct loans. He introduced low-cost checking accounts. As Denver's 4th largest bank, Central anchored Lower Downtown when other businesses deserted it.

Ironically, Central Bank was DURA's foremost champion. It became a center around which DURA's Skyline Project developed. It was in the middle of DURA's proposed Skyline District and it had to be demolished, DURA said.

The Denver Landmark Preservation Commission, created in 1967 by Denver City Council, tried to preserve Central Bank. It officially designated it a landmark. City Council
ratified this action, agreeing that the Central Bank Building, with its Corinthian columns, high rotunda entrance and important history, should remain standing, but DURA demolished it in 1990.

Central Bank's 40-ton vault door - 16-inches thick - one of the largest ever built - remains, in a different location. At a bank at East 6th Avenue and Colorado Boulevard. It was rescued from oblivion by Mariner Kemper. His grandfather, R. Crosby Kemper, was a majority owner of Central Bank from the 1940s to late 1960s.

DLPC's failure to save the Central Bank Building, described recently by a local architect as "without doubt one of the most beautiful buildings in Denver," led to strengthening the city's landmark ordinance by Denver City Council. In the future, plans for a replacement structure will have to be approved by DLPC before a landmark is destroyed.

DLPC was able to save some historic buildings from demolition. The Cheesman Block Building at 1222 17th Street, built in 1881 by Walter Cheesman. The Curtis-Clark Building at 1642 Larimer. And the Groff and Collins Building at 1644-50 Larimer.

James Sudler, a Denver architect with strong social and historic (DLPC, 1967-72) connections, won the contract to save and renovate Denver City Cable Railway Company's old powerhouse at the north corner of 16th and Lawrence. He leased the main floor to the Old Spaghetti Factory, a restaurant whose decor featured a cable car.

DLPC couldn't save the historic old Daniels and Fisher Department Store Building at the north corner of 16th and Arapahoe streets. The D&F Building, completed in 1911, featured a 372-foot-high tower, modeled after the one on St. Mark's Square in Venice. It was DURA's most difficult demolition project, because of the opposition.

This historic, old landmark dominated Downtown Denver for 60 years, but it stood in the way of DURA's Skyline Park Project. DURA tore down the D&F Building in 1971, but it had to leave the D&F Tower standing. Too much opposition.

Other historical losses include I.M. Pei's hyperbolic paraboloid, built in 1959. It was demolished in 1996 to make space for expansion of the Adams Mark Hotel on the 16th Street Mall. Western Federal Savings Tower on 17th Street was greatly altered in 2001. The expressionist Daley Insurance Building on Sherman Street near the state capitol, where Glenn Saunders' law firm once prospered, was stripped of its unique facade.

* * *

Skyline Park should have been called Controversy Park. It was controversial from its beginning, when it opened in 1973. It was the creation of San Francisco landscape architect Lawrence Halprin, after he achieved fame as designer of the FDR Memorial in Washington, D.C. It was, some said, "a stunning addition to Downtown Denver." Others said it was "a failed attempt at revisionist modernism in colored concrete."

Halprin designed Skyline Park to isolate buildings of DURA's Skyline Project from street life by building pink and brown concrete terraces and sunken valleys intended to represent a river canyon. On a three-block-long, 100-foot-wide linear park on the north side of Arapahoe Street, between 15th and 16th streets. It cuts across the busy 16th Street Mall.
This urban canyon design wasn't the traditional green space most Denverites liked for parks. A recent *Rocky Mountain News* editorial called it "a hard-surfaced, sunken canyon separated by berms from the traffic and providing nooks and crannies that appeal more to drug dealers, thugs and layabouts than to ordinary citizens."

Denver City Council understood that Skyline Park needed changes and spent more than $500,000 studying the problem. Then it hired New York landscape architect Tom Balsley to develop rehab alternatives. A quick look convinced him that Skyline Park was "dysfunctional and introverted," based on 1960's thinking, when downtowns were viewed as dangerous, "not great, wonderful, vibrant places they are today."

After extensive meetings marked by serious controversy, a citizens group finally decided on a Balsley design featuring a tree-shaded, sloping, green space with fountain jets and shaded stone terraces.

* * *

Retail sales in Denver's Downtown started to decline in the 60s, with the rise of suburban shopping malls like Cinderella City, University Hills and others. Promises by high-fashion outlets Nordstrom and Macy's to locate in Downtown Denver were broken. They set their sights on the Cherry Creek shopping district, only three miles from Downtown.

Cherry Creek, Denver's first mall, was sired by Temple Buell, architect and TB victim. He later became a major benefactor of Denver's performing arts. In 1925, Buell paid $25,000 for property between Cherry Creek and East First Avenue, west of Steele Street. In 1933, the entire area flooded as far north as First Avenue and Clayton Street.

Dikes were built along the banks of Cherry Creek to prevent future flooding and the city used Buell's property as a landfill. After Cherry Creek Dam was completed in 1946, Buell began planning the development of his site. He fought several zoning battles before construction of the original Cherry Creek Mall began in 1950. The first shops were located on nine acres and included the Denver Dry Goods Co., relocated from Denver's declining 16th Street.

Buell expanded his shopping center in the early 1960s. It survived the demise of most first generation shopping malls in Metro Denver and, in 1984, Buell started negotiating with Taubman Co. for a major expansion of the Cherry Creek Mall. The expansion was completed in 1990 with 120 stores and restaurants. It expanded again in 1997 to 160 stores, moving into an area west of the original mall.

Cherry Creek is now Denver's only high-end shopping center. It has Saks Fifth Avenue, Neiman Marcus, Tiffany jewelry store, a rebuilt Lord & Taylor department store and many other prestigious stores. All of this helped solidify Cherry Creek Shopping Center as the No. 1 tourist attraction in Denver. It was stiff competition for Denver's declining 16th Street businesses.

* * *

Sixteenth Street was, for many years, the throbbing business heart of old
Downtown Denver. The home of Gano Downs, Neustetters, American Furniture Company, Denver Dry Goods, May D&F, Joslins, Woolworth, the ornate Denver Theater. But these businesses all declined during the 1960s and '70s and some Denver business leaders - particularly Phil Milstein - saw the need for a downtown mall. Maybe something like the highly successful Nicollet Mall in Minneapolis, a model for Denver after it opened in 1967.

Milstein was a force in the Denver planning community, a mainstay in Downtown Denver Inc. He pushed hard for a downtown mall during the late 60s and early 70s. He became known as the father of the 16th Street Mall.

Bruce Rockwell, DDI's president, also played an important part in developing the 16th Street Mall. In 1973 DDI, consisting of business interests, and the Denver planning office established the 16th Street Mall Corporation. It hired consultants who visualized a mall with trees, flowers and places to sit, closed to all traffic except buses and emergency vehicles.

The objective was to reverse the departure of 16th Street's department stores to Cherry Creek Shopping Center and suburban shopping centers by melding memories of 1950s-style shopping in Neustetters and Denver Dry Goods with new boutiques and European-style cafes.

This objective wasn't fully achieved because retailing changed. The big department stores didn't return to 16th Street. Office buildings had 30 percent vacancy rates. Department stores continued to leave. A big economic injection was needed to restore vitality to Denver's Downtown.

RTD - Metro Denver's Regional Transportation District - played a major role in revitalizing 16th Street. It proposed bus stations at each end of it - at Civic Center and Market Street - with shuttle buses running between them. This concept ensured construction of the 16th Street Mall.

Ideas then began to mesh and became mutually supportive. RTD and DDI commissioned architect I.M. Pei in 1977 to design the 16th Street Mall. Federal funds would cover 80 percent of the cost, with the city covering the rest. The project, originally estimated to cost $42 million, would cost $76 million when it was completed.

The 16th Street Mall opened in 1982, after 18 months of construction, with 19 buses operating along the mile-long route from Broadway to the Market Street station in LoDo. No other traffic, except emergency vehicles. Sixteenth Street had been returned to the public for shopping, entertainment and human interaction.

Denver Pavilions opened in 1998 after nearly two years of construction. On two blocks along 16th Street, between Welton and Tremont streets. Restaurants, retail stores, a 15-screen movie complex, underground parking and much more. This 350,000-square foot development was aided by $24 million from taxpayer subsidies.

In 1999, the 16th Street Mall was extended several blocks into the Lower Platte Valley. The extension included a massive pedestrian bridge spanning the railroad tracks. The terraced, stone-and-concrete bridge is flanked by elevators in 40-foot-high structures. Another $26 million was spent on road construction and landscaping.

The 16th Street Mall celebrated its 20th anniversary in 2002. It has emerged as a restaurant and entertainment district, anchored on the north by the Tabor Center and on the
south by Denver Pavilions. RTD's free shuttle buses on 16th Street - now the vertical spine of Downtown Denver - have been a critical factor in the Mall's ongoing success.

* * *

Let's step back in time and see what Dana Crawford accomplished in Denver's Lower Downtown - LoDo. A recent Denver Post article by J. Sebastian Sinsi helps us remember.

Crawford pioneered the development of Larimer Square more than 30 years ago, when urban renewal meant bulldozing entire blocks, including historic buildings. She later redeveloped the historic Oxford Hotel, was a key player in Lower Downtown's revival and has worked on other residential and commercial projects that have changed the face of downtown.

She is a key investor in Lower Downtown's $30 million Millennium retail office project, rising opposite the historic Oxford Hotel at 17th and Wazee streets and set to open in September.

Her two Flour Mill Loft ventures, in a 93-year-old grain-processing building and adjacent silos in the Central Platte Valley not far from Coors Field, are a $4.5 million project that will have 47 condominium units. Crawford's Urban Neighborhoods Inc. also plans a 375-unit condo complex near the flour Mill Lofts, scheduled to start construction this spring.

LoDo is now the home of expensive, ultra-modern residential lofts. Its love affair with lofts started in 1992 when Crawford converted an old warehouse at 14th and Wazee streets into the Acme Lofts. Since then, lofts worth more than $100 million have been built in old, reconverted warehouses along Wazee and Wyncoop streets.

One of LoDo's loft buildings is the St. Charles Town Company, resurrected 135 years after its death by new pioneers committed to restoring old buildings, as well as making a little money.

St. Charles has completed more than $50 million in historic building renovations since its reformation in 1993. Its goals are preserving historic structures while developing new uses that create dynamic urban environments. Its efforts include renovation of the Equitable Building at Seventeenth and Stout, erected in 1891-92.

The St. Charles Town Company is currently co-developing the Hardware Block at 15th and Wazee Streets in LoDo. The $20 million project includes 20,000-square feet of historic retail space, 50,000-square feet of technically advanced office space and 22 high-end residential lofts.

What would old Charlie Nichols think of all this?

He would probably say, Stop. You can't jump this claim. It was staked-out by the St. Charles Town Company.
But Charlie, this is the St. Charles Town Company! Reborn. Part of the remaking of Denver.

* * *

Denver's Riverfront Parks Project is now virtually completed. Its parks near LoDo have created a bonanza for developers.

East-West Partners has launched the first phase of its Riverfront Park Project - *Creekside* - so-called because of its location along the north bank of Cherry Creek between the railroad line and Little Raven Street. Across Speer Boulevard from the Pepsi Center. Near where Denver was born.

Denver paid Trillium Corporation $14 million for 14 acres formerly occupied by three warehouses near the South Platte. This land along the right bank of the river was added to other Denver land acquisitions to form the 30-acre *Commons Park*, between 15th and 19th streets - in the shadow of Downtown Denver's skyline. Joe Shoemaker helped establish it.

It has an amphitheater, old-fashioned cottonwood trees, benches and walkways. And a Sky Garden where visitors can relax in a sunken area and gaze up at the stars. It's an anchor for the extension of the 16th Street Mall beyond Market Street. Another catalyst for riverfront development.

The Commons is a large development on three sides of Commons Park. It's pricey. Home to 30s-something professionals, singles, empty-nesters. Second homes for mountain residents seeking the best of both worlds.

A trilogy of new pedestrian bridges will soon span the South Platte, stretching west from 16th Street - from where the 100-year-old 16th Street Viaduct used to be, before it was demolished in 1994.

The Commons Park Bridge is nearing completion. It will enable pedestrians to walk from Commons Park over the South Platte to Commons Park West. The Millennium Bridge will span LoDo's railroad track area. It has a towering vertical shaft festooned with suspension cables.

The third bridge planned for the trilogy is the *Highland* - a 325-foot suspension bridge that will provide the Highland neighborhood west of I-15 with its first direct link to Commons Park and LoDo. The bridge will have a pedestrian walkway suspended from cables attached to three massive white arches ascending 75 feet above I-25.

Amazing! Three pedestrian bridges across the South Platte. Just a few blocks south of Alcott Street, where my consulting office was located for 16 years.

* * *

If it's amazing to me, what would General Larimer think, if he could return to life now? Nearly 150 years after he walked across the partially frozen river, waded the last 30 feet in icy water, then staked-out the townsite for Highland?

We will never know, but somehow these three pedestrian bridges across the South Platte seem - at least to me - to grind the lens through which we now view Denver's past.
Highland did not become a town like Larimer anticipated. It became a neighborhood. A decade ago, it was one of Denver's most depressed neighborhoods. Now, about $150 million worth of projects are either under construction or planned in the area bordered by Speer Boulevard, I-25, West 28th Avenue and Federal Boulevard. It seems likely that the Highland neighborhood will soon become nearly as trendy as LoDo.

Highland Crossing - appropriately named - is a large condominium development. Shoshone Lofts, at 32nd Avenue and Shoshone Street - near where the notorious Smaldone family once operated at 32nd and Tejon - is being developed by Gene Smaldone and his wife, Linda Amato.

REI - Seattle-based Recreation Equipment Inc. has completed a more than $20 million project to restore the old, crumbling powerhouse building that recently had been the Forney Transportation Museum. Dina Berta, a News staff writer, described the restored brick building in a recent article:

*The store design maximizes the open floor plan of the main level. Light streams in from more than a dozen windows on the north wall. Store fixtures and merchandise are placed where steam turbines, and later antique cars, once stood.*

*Customers will enter the store from the south, under the porte-cochere where trains used to pull in to deliver coal. Once inside, the first thing customers see is the 45-foot climbing pinnacle, towering in the center of the store.*

Climbing? In the century-old Denver Tramway Power Plant Building? Across the river from Confluence Park? Yes!

* * *

The remaking of Denver did not overlook education.

Denver Urban Renewal Authority leveled most of what remained of the old Auraria neighborhood, between 1969 and 1974. Factories, shops, residences. In their place, authorized by the Colorado Legislature, rose Denver's experiment in shared educational facilities. It's called the *Auraria Higher Education Center*.

It is occupied by Metropolitan State College of Denver, University of Colorado at Denver and Community College of Denver. Low cost education at its best. No stadium. No housing. Students live at home.

Metro State opened in 1965 as a junior college, with 1,187 students and 35 faculty members. It expanded into a four-year college in 1967. A commuter college with an open-door admissions policy. For many years the average student age was twenty-seven. Metro State College struggled, but eventually flourished. It now has more than 19,000 students. University of Colorado-Denver, which shares Colorado's largest campus, has 28,000 students.

Remaking Denver at its best!
Most of the space remaining in the old Denver floodplain is now occupied by Six Flags Elitch Gardens. Its arrival is an interesting story that starts with John and Mary Elitch. In 1880, they settled on the former Chilcott Fruit Orchard at present West 38th Avenue and Tennyson Street.

The Elitches started an amusement park and, over the years, expanded it to 36 acres. It was much more than the usual amusement park, with roller coaster, carousel, miniature train, speedboat and many rides. Beautiful flower plantings gave it a garden atmosphere worthy of the name *Elitch Gardens*. Most people called it *Elitch's*.

Elitch's also had the famous Trocadero Ballroom, where many generations of Denverites danced to the music of big-name bands. And it had a summer theater that featured nationally acclaimed actors and actresses. This theater became the go-to summer place for Denver's high society, as well as lesser lights when they could get tickets.

The Elitch Theater prospered under the sponsorship of Helen Bonfils, owner of the *Denver Post*, also an aspiring actress. Bonfils died in 1977 and there was no one to take her place in subsidizing summer stock theater. Elitch Theater closed in 1987.

Elitch's wanted to relocate to a better location. It considered several potential sites before the Peña's administration persuaded it to relocate on the old South Platte floodplain, at the former site of railroad maintenance facilities. It could operate year-around at this location, rather than Memorial Day to Labor Day at the old location.

The cost of floodplain improvements and moving Elitch's grew to more than $90 million. Various public and private organizations helped with loans and gifts. Financing was completed in 1994 and the 67.7-acre tract was purchased from Trillium Corporation for $6.1 million.


Attendance lagged at the new facility and, in 1996, Premier Parks of Oklahoma purchased it for $62 million - less than the cost of moving Elitch's. In 1998, Premier Parks bought the Six Flags chain and renamed the new amusement park *Six Flags Elitch Gardens*.

Across the South Platte is *Children's Museum*. Denver's Junior League established the first such museum in 1945 at Chappell House, 1330 Logan Street. The Denver Art Museum took it over in 1952. It moved to 931 Bannock Street in 1978. It became overcrowded and had to be relocated.

Where? Across the river from Six Flags Elitch Gardens, on two acres at 7th Street and the Valley Highway. In a $3.2 million structure featuring a pyramid-shaped entrance. Also across the river from Six Flags is the new *Colorado Ocean Journey* - a large aquarium building.
Denver's bluebloods tried valiantly, after World War II to bring culture to the city. Particularly patrons of the arts with Old Money. People like Anne Evans, Helen Bonfils and Elli Weckbaugh.

Helen Bonfils was especially effective. Denver Post Opera at Cheesman Park - free music each summer until her death. Elitch's Theater. The Bonfils Theater at Colfax and Elizabeth. The Helen Bonfils Foundation.

Donald Sewell, ex-publisher of the Post, executor of the Helen Bonfils estate, and head of the Bonfils Foundation, reincorporated the Bonfils Theater in 1972 as the Denver Center for the Performing Arts - DCPA.

This multiblock complex was funded by Bonfils, Boettcher and Denver Post foundations. Bonfils Foundation provided a perpetual endowment for DCPA, as well as for construction and maintenance of the Helen Bonfils Theater Complex at DCPA.

In September 1972, voters authorized construction of a concert hall for the Denver Symphony Orchestra. Cost was estimated to be about $11 million, of which a bond issue would pay for $6 million. DSO's friends were expected to raise the remaining $5 million. Funds trickling down from Colorado's Winter Olympics would erase the deficit.

Would they? No. Colorado voters defeated the Olympics proposal and DSO's supporters were left holding an empty cultural bag.

Denver's Old Money saved Denver's cultural neck. The Bonfils Foundation kept theater alive. The Boettcher Foundation helped the DSO and built the $13 million Boettcher Concert Hall, which opened in 1978.

The DCPA's Boettcher Concert Hall seemed wonderful to me, but I was unaware of its acoustical and spatial problems. I could only hear sounds in one ear and our dress circle seats seemed comfortable. Now, 26 years later, Boettcher's flaws will be corrected by a $25 to $40 million renovation.

Boettcher's inferior acoustics probably are due to the hall's circular shape, which will be modified by placing a wall behind the stage. Its seating capacity will be reduced by one-fourth, to 2,000. Work could begin in 2006.

* * *

The Colorado Legislature eliminated state appropriations for cultural facilities in 1981. Culture suffered during Colorado's recession in the 1980s. Until the Scientific and Cultural Facilities District was formed in 1988. With power to assess additional taxes - one cent for every $10 spent in the district, which now includes seven Metro Denver counties. The culture tax expires in 2006, unless renewed by voters prior to that time.

Beneficiaries of the SCFD are mostly divvied into two tiers. Tier I includes the Big Four - Art Museum, Zoo, Botanical Gardens and the Museum of Nature and Science. They receive 65 percent of SCFD's funds.

Tier II organizations - DCPA, Colorado Symphony Orchestra, Opera Colorado, Colorado Ballet and a few others - get 25 percent. The remaining 10 percent goes to lesser cultural organizations. About 300 organizations feed at SCFD's cultural trough.

DCPA was given a major renovation in 1989-91. The glass roof was extended to Boettcher Concert Hall and the Helen Bonfils Theater Complex. Restaurants were opened
or improved. The centerpiece of the renovated DCPA was the Temple Buell Theater, which opened in 1991. It hosts most of the Broadway extravaganzas that come to Denver.

Let's do a little sidebar here about Temple Buell. We've mentioned him in other contexts. He made important contributions to Denver's culture, as well as to architecture and mall developments.

Temple Buell designed more than 300 buildings in Colorado, including the Denver Theater in downtown Denver. Many in Denver's high society hated him, but liked the large contribution the Temple Buell Foundation made to the DCPA's theater. They didn't object to naming it for him.

Six-foot-four, aristocratic, wealthy, Temple Buell loved parties, women, good food, the good life. His greatest passion probably was his 14,400 square foot mansion on East Hampden Avenue and South University Boulevard and the 160 acres around it. Buell died in 1990 when he was ninety-four.

*        *        *

DCPA includes the old Auditorium Theater, built in 1908 to host the Democratic National Convention. It subsequently served Denver as an all-purpose facility - home for many functions including the Denver Symphony Orchestra and touring road shows. This is where I began my love affair with classical music, which later expanded into enthusiastic attendance with Micki at most of the Colorado Symphony Orchestra's concerts in Boettcher Concert Hall. Until 1997, when I lost most of my remaining hearing.

Remodeling of the old Auditorium Theater did not improve its uncomfortable seating and poor acoustics. It became known as Denver's Old Barn, a title later assigned to McNichols Arena.

The old auditorium is now being completely remodeled. Gutted inside, leaving only the original four walls. The new building, scheduled to open in 2005, will be called the Quigg Newton Municipal Auditorium.

*        *        *

In 1859, when Auraria was barely a year old, Arthur E. Pierce set-up a pine bench under a cottonwood tree at 11th Avenue and Larimer Street. On it he placed two cases of books, magazines and newspapers. He had purchased these reading materials with gold dust he found prospecting near Central City in 1858-59.

Pierce was unable to pay the stagecoach shipping charge. So he opened one case, quickly sold its contents, and paid the shipping charge with his receipts. When he sold his second case he had enough money to replenish his supply.

In February 1860, Pierce started the Denver and Auraria Library and Reading Room Association. Membership cost 50 cents. It enabled disillusioned gold seekers to borrow any of its books. Pierce's outdoor bookshop and library was the birthplace of the Denver Public Library.

A new Denver Public Library was built in 1910 at West Colfax Avenue and Bannock Street. It resembled a Greek Temple. The front, facing West Colfax, had 14
massive columns. In 1958, the Denver Water Board moved from City Hall to this building, which had been completely renovated inside. Its beautiful exterior was retained. My office was on the third floor.

Denver built a new library building in the mid-1950s, near Civic Center, at Broadway and 14th Avenue. In subsequent years, DPL expanded its services to serve the entire state through special collections and an inter-library loan program. But when the legislature stopped its supplemental funding in the late 1970s, DPL was forced to close Thursdays and Sundays and start charging non-Denver residents a user fee.

Relief arrived in 1990, when Denver voters approved a bond issue to expand the main library building and restore, expand, or build 19 branches. The new Denver Central Library Building opened in 1995.

Its design was difficult and controversial. Difficult because it made the old library building an integral part of the new one. Controversial because internationally acclaimed designer Michael Graves had his own unique concept of what the new building should look like. It didn't fit within the narrow confines of some of Denver's more conservative library users and benefactors.

Michael Graves hopes Denver's new Central Library, which he designed with the local firm Klipp Colussy Jenks, will be remembered as an illustration of how to build a good large building.

It will be. It just requires a little getting used to. Like Michael Graves.

DPL's 3.8-million item collection makes it the 8th largest library in the nation, second only to Boston in per capita circulation. In November 2000, DPL was named first in the nation for libraries in cities with a population of a half-million or more.

Wouldn't Arthur Pierce be proud of Denver's new Central Library? Aren't we all?

But the DPL is currently struggling because of inadequate funding. Budget cuts have forced it to have once-a-week closures and curtailed spending. A Task Force on Future Library Funding favors keeping the library system under city government and perhaps bolstering the library's low budget with a property-tax increase. Library leaders want to free it from reliance on city funds. Form a special library authority to levy its own taxes and govern its own affairs. Stalemate for the present. Financial clouds threaten DPL's future stature.

* * *

The Denver Art Museum's history starts in 1893, when the Denver Artists' Club was founded by a group interested in painting, drawing and sculpting. Members gathered in Capitol Hill mansions to practice their crafts. Denver's nouveau riche - mining kings, cattle barons - began collecting paintings to demonstrate the sophistication expected to accompany their high social status.

Original plans for Denver's Civic Center included an art museum, to be located opposite the Denver Public Library. It wasn't built. In 1922, George and Jean Cranmer gave the Denver Artists Club a permanent residence - the Horace Bennett Mansion, later known as Chappell House. The DAC used this 22-room mansion and its carriage house from 1922 to the late 1960s for various art-related purposes - display of Indian arts,
children's museum, art school, artists-in-residence.

The Denver Artists Club acquired many art objects, including important paintings, as gifts. Since it didn't have space for all of them, it placed the overflow in various public buildings - 4th floor of the City and County Building, Denver Museum of Natural History, DPL.

In 1932, Denver officials signed an agreement with the Denver Artists Club that made it the Denver Art Museum. The city agreed to make annual appropriations for the museum and also find a permanent home for it in or near the Civic Center.

The Stapleton administration sponsored a bond election in 1947 to build an art museum, a cultural complex and a new library near Civic Center. Voters rejected it.

The Newton administration wanted to get the DAM out of the City and County Building, where it now occupied the fourth and fifth floors. It agreed to help the museum get land near Civic Center, which it did during the 1950s. DAM acquired most of the land on the block bordered by Acoma and Bannock streets, between West 13th and 14th avenues.

DAM was a quasi-public institution. Both public and private. Although it received city funds, it was run by a private board. The private sector - especially members of Denver's high society - were expected to provide most of the money for the new museum building, which opened in 1971.

It was designed by Italian architect Gio Ponti and Denver-based James Sudler. It's the only Ponti building in North America - a rare example of a vertical museum. Windows were positioned to provide not only light, but also to be picture frames which allowed viewers to look out and see the city's beauty as pictures. The building's exterior was ceramic tile.

Beauty, as seen by Gio Ponti of Milan, was not appreciated by many Denverites, including some of the Old Money patrons. Others thought it looked like a medieval fortress. It didn't seem to fit in with the existing neoclassical architecture of the nearby Greek Theater and the City and County Building. Denver historian Phil Goodstein said, in Denver In Our Time, "It was out-of-scale with the adjacent Civic Center, standing as a sterile tower isolated and separate from the rest of the city."

I liked it. So did my wife, Micki, who worked there part-time during the 1970s as a volunteer docent in the Native American Art department. Her involvement enabled us to attend many museum social functions at the time Otto Karl Bach was the museum's director. At the time I was lobbying Micki to wear white, acrylic turtlenecks, instead of shirts and ties, to museum events. Like Otto Bach always did.

If Otto Bach does it, why can't I?

Over time, the Ponti Building was gradually accepted by the public. Museum officials focused on how to provide more viewing and storage space for the museum's extensive holdings. Only 6 percent of the DAM's collection was on view.

A decade ago, the art world was paying little attention to the Denver Art Museum. But its stature rose steadily in the 1990s. It received a big boost in 1989 when it hired Lewis Sharp as the museum's director. He was the former curator and administrator of the American Wing of the Metropolitan Museum of Art in New York City.

Lewis Sharp arrived on the wings of the just-established Scientific & Cultural
Facilities District. He addressed all of the museum's problems, boosted its collections, and helped improve its nationally recognized educational activities. Then he focused on bringing major touring exhibits to the DAM, including several blockbusters. Attendance grew rapidly, which led to USA Today touting the DAM in a January 2004 article headlined, 10 Great Places to Introduce Children to Art.

But none of Lewis Sharp's accomplishments would eclipse his very important role in securing voter approval, in November 1999, for a $62 million bond issue to pay for the main components of a new addition to the Denver Art Museum. And his subsequent oversight of this addition.

It will be called the Frederick C. Hamilton Building, for the current chairman of the museum's board of trustees. Many call it the Libeskind Addition for its architect, Daniel Libeskind. He has a worldwide reputation for many unique, ultra-modern designs. He is currently enmeshed in the design to rebuild the World Trade Center in New York City.

Construction of the 140,000 square foot expansion of the Denver Art Museum is underway. It's scheduled to be completed in 2006. It is a big, bold step forward in the new world of computer architecture. An $18,000 computer program has made a 3-dimensional model of the building. It details everything, down to the size of each of the thousands of bolts used to secure each beam. It even has a fourth dimension - time.

Working with traditional 2-dimensional blueprints would have added years and millions of dollars to the project and it probably could not have been adequately visualized and understood. Some 2,700 tons of steel will be transformed into a complex skeleton that will support and create the oblique angles that will define the building. Each beam plays a role in holding up the rest of the building.

Some say it's an architectural sculpture. There will be shard-like exterior petals clad in titanium, topped by large expanses of glass. Visually jarring. Defined by oblique angles.

The total package, currently estimated to cost $90.5 million, will provide an additional 51,900 square feet in the Hamilton Building. When the addition is completed, the existing Gio Ponti building will be reconfigured to move and expand departments. The first floor will have an expanded Native American Art Department.

The total DAM project includes a $14.5 million parking garage with about 1,000 spaces. It opened in March 2003. A $75 million, 270,000 square foot retail, residential and office project is being developed privately to wrap around the garage.

All of this will put Denver on the nation's art museum map. The Hamilton will be a landmark building, said site sponsor Jody Willis in a recent Denver Post article. "The acoustics are amazing," he said. "You can hear everything, from the biggest and loudest instrument to the smallest ... Like the (Sydney) Opera House in Australia, it will be on postcards and people around the world will notice it."

Denver suddenly is poised to become one of the most exciting regional art centers in the country. The DAM is its crown jewel, but there's more.

Denver's Museum of Contemporary Art has decided to build a permanent home on the northwest corner of 15th and Delgany streets in the Central Platte Valley. It has selected a top-notch London architect to oversee the design. MCA hopes to move into its
new 15,000-to-20,000 square foot building in 2006.

Then there's The Lab, a 15,000 square foot art center expected to open in late 2005 as part of Lakewood's $750 million makeover of Belmar. The Lab will serve as an artistic research center with world-class exhibitions, scholarly publications and regular symposiums. The Denver Post's Kyle MacMillan praised it in a May 2004 article.

* * *

The Lab finally gives the Denver art scene what it has desperately needed - a flexible, high-level art space to complement the Denver Art Museum and Museum of Contemporary Art/Denver ...

Denver's art galleries are also booming, with much of the new activity happening along a seven-block section of Santa Fe Drive.

Art and culture are flourishing during the current remaking of Denver. The Denver Art Museum addition, along with its satellite MCA and The Lab, provide the biggest splash, but don't forget the MNS, the Zoo and the Botanic Gardens.

* * *

The MNS - the 104-year-old Museum of Nature & Science - formerly known as the Museum of Natural history - has had a long, distinguished presence in Denver's culture. It draws more visitors than any other Denver cultural institution, except its City Park neighbor, the Denver Zoo. It is steeped in tradition, slow to change, but it's changed dramatically in this new millennium.

The MNS has turned its redesigned Gates Planetarium into a state-of-the-art facility. It has built the Leprino Family Atrium and an underground parking garage. It has opened a permanent exhibit called Space Odyssey. Its Denver Basin drilling project has provided information for the popular Ancient Denver exhibit - how our area looked over a 300 million year period.

In the late 1980s, MNS started featuring money-making traveling exhibits. For example, in 1987 Ramses II: The Great Pharaoh and His Time came to town and was a big blockbuster.

The Denver Zoo has changed its name. Now the Denver Zoological Gardens, it's improving rapidly, propelled by the $62.5 million bond issue Denver voters approved in 1999. The Zoo's bond money has to be spent in ten years. Additional funds, other than those provided by scientific and cultural tax, will have to be matched by private donations.

The Denver Botanic Gardens has big plans. Its officials want to create a megapark by stitching together Congress Park, the Botanic Gardens and Cheesman Park. Move two streets underground. New parking area. Major bond vote.

* * *

Probably nobody realizes it, other than a few historians, but another religion once flourished close to the present site of Denver's INVESCO Field at Mile High. In another
town, called *Petertown*.

On today's map, Petertown would extend roughly from West 16th to 19th Avenues, between Clay and Bryant streets. The little settlement was started by Peter Therkelsen, an eccentric 20-year-old Danish immigrant. He arrived in Denver City in 1872 with strong religious convictions.

Phil Goodstein told the Therkelsen story in *Denver In Our Time*:

*Therkelsen, rumors went, had struck it rich in the Colorado goldfields and was using his fortune to find salvation. Known as Peter the Profit, he insisted on no smoking, drinking, or cursing in his settlement, a place promptly dubbed Petertown. Laid-out with a Paradise Avenue and Heaven Boulevard, the voluntary community attracted men from all walks of life ...*

*After completion of the Colfax Viaduct in 1915, the community was generally forgotten, sealed off from the rest of Denver. Homes were often made of cardboard, wood shipping boxes, or even potato crates. Some had wood burning stores. Others simply had a pit in the floor for fires.*

*Therkelsen oversaw Petertown until his death on January 9, 1916. He was buried in Riverside Cemetery ... The last of Petertown was razed in May 1954. The land was eventually occupied by the city sports complex.*

It's a complete historical full circle - Therkelsenmania to Broncomania.

In the late 1880s, John Brisbane Walker's baseball team played at River Front Park near the South Platte. Now - in another historical full circle - the Colorado Rockies play at nearby Coors Field. In a different way, Coors Field has also played an important role in the remaking of Downtown Denver.

In 1922, a baseball field was hastily constructed for a minor league baseball team known as the Denver Bears. Merchants Park, on the west side of the 700 block on South Broadway, wasn't much of a baseball field. Clay outfield, poor lighting, poor attendance. Baseball languished in Denver until 1947, when the Denver Bears became a Class A baseball team.

The Bears needed a large stadium in order for Class A baseball to succeed in Denver. They found a site at a former city garbage dump east of Federal Boulevard, between 17th and 19th Avenues - the former home of Petertown. Denver owned the land and the city offered it to the Bears' owner, Empire Sports, if it would clean up the property and build a baseball stadium on it. The offer was accepted and Bears Stadium opened there in 1948.

The Denver Broncos shared Bears Stadium with Denver's baseball team after they started playing in the National Football League in 1960. The city took over Bears Stadium in 1967, enlarged it, and changed its name to *Mile High Stadium*.

It took the Broncos 17 years to get to the Super Bowl. Seventeen frustrating years. They were the laughingstock of the National Football League, with their disgusting
uniforms and vertically striped sox. Their brown and mustard uniforms were purchased from a bankrupt semipro team. Their strange sox finally disappeared in a ceremonial bonfire.

The Bad News Broncos - the Donkeys - began changing in the 1970s. They changed their uniforms to predominantly orange. Changed coaches. Drafted excellent players. Obtained quarterback Craig Morton, and finally made it to the Super Bowl in 1977. Their Orange Crush defense was applauded on the front pages of the nation's sports publications.

It was just what Denver desperately needed. The city had, for many years, felt isolated, left out in the cold. A nobody, out there somewhere in the West's flyover country between Chicago and Los Angeles.

All of this may have prodded Denver into its aggressive annexations prior to 1974. When Poundstone stopped that, the city was down, until the Orange Crush lifted it up to respectability.

The Broncos didn't win the 1977 Super Bowl game, but thousands of fans drove out to Stapleton Airport to cheer the team when it returned home. In 16-degree weather.

The Bronco's Orange Crush captured the spirits and emotions of Coloradans and launched Broncomania - a new kind of mania that could only happen in a reborn dusty old cow town that had, for so many years, harbored an inferiority complex.

Broncomania had a profound, beneficial effect on Denver's psyche and its economy. It transformed Denver. The city grew in stature along with the Bronco's increasing popularity.

Micki and I attended most of the Bronco's home games during the 1960s and 1970s. We sat in the South Stands and were part of its culture. It was a very unique culture, which the Rocky described in a feature story in the late 1990s.

The secular world does not understand the South Stands at Mile High Stadium; it is, in fact, afraid of them. The prevailing image seems to be of women with 5 o'clock shadow and men with the dental equivalent of the 7-10 split. The standard warning is that to step into the Broncos' Zoo is to risk being violated in some vague, disturbing way ...

For the most part, though, the South Stands have been living off the fumes of a reputation created in the 1960s (motto: make war, not love). It is a reputation for fighting, spilling beer, throwing things at opposing players, abusing opposing fans and not brushing.

It is not that way in the South Stands anymore, although there are three exceptions to the rule:

Whenever the Raiders and their fans show up.

Whenever the Kansas City Chiefs and their fans show up.
Whenever the Broncos are .500 or below ...

In a 76,273-seat stadium, the South Stands are only 9,084 people strong, but they are the seismic center of Broncomania. They lead, and the rest of the stadium follows. The conductor and his orchestra.

'The South Stands are the whole stadium,' said Jackie Smith, who showed up at the November 10 Chicago game with her face painted blue and orange. 'It gets everybody riled. It sets the tone for the rest of the stadium. I can physically feel it.'...

How loud does it get? So loud that, a few years back, the noise level spooked mascot horse Sunstar, who was standing in a storage area under the stands. The horse bolted, knocking over a marketing person (what are the odds?). The horse had no concept of the importance of a defensive stop on third-and-one ...

The isolation is everything, understand that first.

The South Stands are physically set apart from the rest of the stadium, an outcropping of cement rising from the earth. This has produced a Galapagos Islands-like effect, with evolution taking a few funky turns and creating unique life forms.

We're not talking about the Barrelman, the human photo opportunity whom network television has identified as the soul of the South Stands.

We're talking about the fans willing to pay $20 a game to sit on long, hard benches. About the fans willing to watch a whole game with someone else's knees digging into their backs. About the fans exposed to the elements in ways the rest of the stadium isn't. About the fans who scoff when opportunities arise to move to better seats. About the fans who like to watch the game from the perspective of the end zone.

'We're totally detached from the rest of the stadium,' said Chuck Cole, a South Stander from Littleton. 'We physically have no connection so we've bred our own little culture. A lot of college stadiums will give very reduced seating prices and prizes to sit in their end zones. Here, it's the pride of being a South Stander.'

By the late 1990s, Mile High Stadium was considered obsolete by NFL standards. Old. Rundown. Not good enough for a championship football team that had won two Super Bowls. Pat Bowlen, the Bronco's owner, led the push for a new stadium.

Bowlen took a lot of flack, but he wasn't a bad guy. He never skimped on salaries.
His coach-player ratio was nearly 1 to 3. The nation's best private special education schools do not have such a ratio.

Does that make any sense?

No. It doesn't. Except in Denver where, some say, its religion is Broncomania.

The big bond issue for a new football stadium was approved by voters in the Metro Stadium District. Mile High Stadium was removed and the new $360 million stadium opened in 2001. The horseshoe shaped INVESCO Field at Mile High "will be unmistakable as an icon and recognized to television audiences as a Denver landmark," its architect told a Post reporter.

Perhaps. But it lacks the mystique of old Mile High Stadium - its South Stands, its Barrelman, its home field advantage. Instead of trying to impress television audiences, the INVESCO architect should have included a new, separate South Stands behind the goal posts.

*   *   *

Major League's baseball commissioner considered locating a team in Denver in 1985, but decided that Denver was not suitable for an expansion team because it lacked a large, baseball-only stadium.

Denver's leaders started serious discussions about a new baseball stadium. Funding? Site? Public funding was desirable, but Denver was strapped with many projects requiring public funding. Timing for a stadium bond issue could not have been worse.

A bill to form a metropolitan tax district that would build a baseball-only stadium was passed by the Colorado Legislature in May 1989. It was confirmed by a public vote in August 1990.

Coors Brewing Company helped by committing $38 million for naming rights. League officials, including the new commissioner, met in Denver with the ownership group and inspected the proposed new site for the all-baseball stadium.

Debate over selection of the site had been hot and heavy. It was finally decided that the $215 million Coors Field would be built near the north corner of 20th and Blake Streets, in an area formerly occupied by a grain elevator and an old railroad yard.

On July 5, 1991, National League President Bill White announced that Denver and Miami had been selected and approved for the new franchises. After more than 30 years of futility, Denver finally had a major league baseball team - the Colorado Rockies.

Coors Field opened in 1995. Its bonds were paid-off ahead of schedule in 2000. It became a major catalyst in the remaking of Denver's LoDo - the final piece in LoDo's resurgence.

An unusual community called Ballpark has sprung up around Coors Field. It is generally bordered by 30th Street, 18th Street, Glenarm Place and the South Platte River. Until recently it had less than 700 residents, living near boarded-up storefronts and abandoned warehouses. But the ambitious Ballpark Neighborhood Association, with help from Denver city planner Dave Becker, was able to obtain Historic District designation for this area. Some of the commercial buildings and warehouses date to the 19th century.

Historic, but changing rapidly. It's no longer the quirky community it used to be.
It's now on the verge of major change, with an increasing influx of new people, upscale lots, art galleries, microbrewers, friendly dance clubs.

Ballpark now has more than 3,300 housing units under construction. It will soon have more residents than LoDo, which has 115 units under construction. Ballpark is becoming Denver's new cutting-edge community.

Sports, in Denver, are more than competitive games. They open up all kinds of economic opportunities in Denver's downtown.

* * *

Professional minor league hockey came to Denver in 1950, when an investment group led by wealthy socialite Charles Boettcher III brought the Falcons from Minnesota to Denver. Six thousand hockey fans saw the Falcons play their inaugural game at the University of Denver arena on October 15, 1950.

Fan support declined after that and in less than a year the U.S. Hockey League folded and Denver's first professional hockey experience ended abruptly.

Eight years later, a group of local businessmen and politicians was granted a franchise for placing a team in the International Hockey League. The Denver Viscouls lasted two weeks before succumbing to economic problems. Time enough for sports columnist Chet Nelson to lament, "It really comes as no surprise that Denver's professional hockey ... was defrosted before the ice was made."

In 1959, the IHL awarded a franchise to the Denver Mavericks. It managed to play its first game at the Denver Coliseum on October 31. Within a month the owners were forced by poor management and lack of capital to sell their franchise to Minneapolis investors who moved it to the Twin Cities.

In 1963, the Toronto Maple Leafs of the National Hockey League purchased the minor league Spokane Comets, moved it to Denver and renamed it the Denver Invaders. The Invaders surprised everybody by drawing 3,000 hockey fans per game and finishing the season with the best record in the league.

The Maple Leaf owners thought such success belonged in Canada, not Denver. They moved the team to Victoria.

In 1967, the Western Hockey League expanded and placed another minor league team in Denver. A contest was held to select a suitable name. After considering 14,000 entries, the team became the Denver Spurs, a farm club of the NHL's St. Louis Blues.

The Spurs enjoyed athletic success, winning the WHL's Patrick Cup in 1972. But it was troubled by continuing financial and affiliation problems. It bounced around from the WHL to the Central Hockey League to the World Hockey Association and finally in January 1976, to Ottawa, Canada.

Denver hockey fans had endured more than a quarter-century of dashed dreams and frustration when Denver oil man Jack Vickers made his move. He bought the NHL's least-able franchise, the Kansas City Scouts, and moved it to Denver. Not much of a team, but it was Major League! Denver hockey fans rejoiced.

The team was renamed the Colorado Rockies. It didn't draw crowds. Ownership changed several times and in 1982 the team was moved to New Jersey. In 1993, Denver
was awarded a minor league hockey franchise. The *Denver Grizzlies* surprised everyone by developing a large following and winning the Turner Cup.

In 1995, Ascent Entertainment Group bought the Quebec Nordiques, a major league hockey team, and moved it to Denver. What should they call it? After naming Denver's hockey teams Falcons, Viscounts, Mavericks, Invaders, Rockies and Grizzlies, what was left? Suggestions were solicited. Speculation flourished. After nearly two months a logo, color scheme and name were selected.

Our major league hockey team would be known as the *Denver Avalanche*. In less than a year the Avalanche won the coveted Stanley Cup, proclaiming it the best team in major league hockey. Denver's long-suffering hockey fans had their first national championship!

Stanley Cup champions deserve a much better home than old McNichols Arena - Denver's Old Barn. It was a dark legacy from Colorado's unsuccessful push for the 1974 Winter Olympics. *McTurkey Arena*, so named by a Denver sports columnist, won't hack it anymore. The old turkey had landed on the broad political back of Mayor Bill McNichols.

Ascent was a spinoff of Comsat, a satellite/cable television company which had purchased the Denver Nuggets, a National Basketball Association team. The Nuggets desperately wanted to get out of McNichols' Old Barn and build a new arena. In 1993, Ascent and Comsat talked with Philip Anschutz about building a $60 million arena on land he controlled in the Central Platte Valley, near where Anschutz had proposed placing Coors Field. After Anschutz failed to get the Denver hockey franchise, he sold his 49 acres on the South Platte floodplain at Tenth and Wewatta streets to Ascent.

In July 1996, Ascent offered to pay $150 million to build a new arena on the land it had purchased from Anschutz. In exchange, Ascent would receive tax breaks and concessions from the city. After the ante was raised to $162 million, a deal was made and construction started in January 1998.

The new sports arena was called the *Pepsi Center*, because Pepsi Cola Company paid $38 million for the naming rights. Denver sportswriters quickly dubbed it *The Can*.

The city's agreement with Ascent was unusually tax friendly. The Pepsi Center was built with $162 million of *private* money. This contrasts sharply with taxpayers' payments of 75 percent of costs for both Coors Field and the new football stadium. Ascent received various tax breaks and city concessions and it gained the freedom to design and operate a state-of-the-art facility without city interference. Nobody seemed to care that the final cost topped out at $180 million.

The Pepsi Center is the crown jewel of Denver's Platte Valley redevelopment. It balances coziness with 21st century bells and whistles. To enter the Pepsi Center is to step inside the future. It's the new breed of sports facility. Bright, open, loaded with amenities. Yet, it is intended to relate uniquely to Denver's historic past. For example, the arena's exterior red is meant to resemble the red brick in LoDo's warehouse district.

The Pepsi Center seats 19,309 for basketball, 18,129 for hockey, and 20,100 (with center stage) for concerts. Ascent sold this economic jewel in 2000 to Kroenke Sports, owned by Missouri businessman Stan Kroenke, who also is part-owner of the St. Louis Rams football team.
Stan Kroenke - now the king of Colorado sports - is married to the niece of WalMart's founder, Sam Walton. He has served on WalMart's board of directors and now has a net worth estimated at $1.5 billion, according to *Forbes* magazine.

In just three years, Kroenke built a Denver-based sports and entertainment empire. He now owns the Avalanche hockey team, the Nuggets basketball team, the Mammoth lacrosse team, a third of the Colorado Crush arena football team, the Universal Lending Pavilion, the Paramount Theater and a piece of the city's Grand Prix CART series.

He's planning for more!

Kroenke is negotiating with Phil Anshutz to buy the Colorado Rapids soccer team. He's expressed interest in building the nation's third soccer-specific stadium, patterned after Anshutz's popular Home Depot Center outside of Los Angeles. And he is in the final stages of starting a sports broadcast network to broadcast games, scores and sports talk for his Denver sports empire.

Denver now is home to six major league sports teams and is courting a seventh. It has NFL football, arena football, hockey, basketball, soccer, lacrosse. It is a leading candidate for a WNBA franchise - a Woman's National Basketball Association team.

No doubt about it! Denver now is Sportstown USA. In March 2004, *Sports Business Journal*, the leading sports industry publication, named Denver the top sports city in the nation.

It's a very good balance - culture and sports. A solid foundation for Denver's new Convention Center and Convention Hotel.

*        *        *

Currigan Exhibition Hall opened in 1969 on three blocks bounded by Champa and Stout streets and 14th Street to Speer Boulevard. It was named for the former mayor, who resigned to become a vice-president of Continental Airlines. Critics immediately said it was too small. They were right.

In late 1987, after 13 years of studies and political battles, Denver City Council decided to build a new convention center next to Currigan Hall. The 300,000 square foot Colorado Convention Center opened in 1990. It was the 10th-largest in the nation.

Nine years later, it had slipped to No. 37. It wasn't big enough to stay competitive in the $52 billion convention center and trade show game. So Denver voters approved a $265 million expansion in November 1999, which would nearly double the convention center's size. Planners thought that if the new facility could open in 2003, it would be the 16th largest in the country.

Construction of the Colorado Convention Center expansion didn't start until April 2002, for reasons explained later. Estimated completion date now is December 2004.

Demolition of the 30-year-old Currigan Hall didn't start until fall 2001. It stirred up discussions of why anything important had ever been named for Mayor Tom Currigan.

The new Colorado Convention Center will dramatically change Denver's skyline, its architect, Curt Fentress, told the *Rocky's* John Rebchook. "It will do for Denver what the Opera House did for Sidney, Australia," Fentress said. "This will be the classic, sweeping view of downtown Denver that will be shown on Monday night football."
But Curt - the Sydney comparison has already been assigned to the Denver Art Museum's new addition. Perhaps you should call your creation *Sydney III*.

The new Colorado Convention Center will be spectacular. And big. The 9-block project covers 30 acres, the largest single building site downtown - larger than Botanic Gardens. Doubling the meeting space to 600,000 square feet creates the largest contiguous room between Chicago and San Francisco. It's an engineering marvel, because there are no supporting columns in it.

There will be a 5,000 square foot auditorium, located where the 14-story Terracenter building stood before it was demolished. It will be used for various purposes. Lectures. Unveiling a new car model. Concerts. Whatever. As you walk into the auditorium you may be reminded of Red Rocks.

The light rail station along 14th Street will be moved under the convention center. A light, perforated stainless steel skin will surround much of the building, including a 1,000-foot-long wall along Welton Street. The old and new convention center buildings will seamlessly meld into each other.

Spectacular! Yes, but so is the Colorado Convention Center Hotel, now under construction on 14th Street, right across the street from the convention center.

Voters who approved expansion of the Colorado Convention Center in 1999 weren't told that construction of a 1,100 room convention hotel had to be underway before bonds could be sold for the convention center project. Land had to be purchased for the hotel. There had to be an agreement with local labor unions. A hotel chain had to be selected to run the hotel. And the design of the Convention Center Expansion had to be finalized.

Developer Bruce Berger owned the best site for the hotel. He wanted to build the hotel, after receiving a $55 million subsidy from Denver City Council. But Berger couldn't attract sufficient private capital and he couldn't obtain an agreement with the hotel union. Finally, the city took over the role of developer. Temporarily.

City Council created the non-profit Denver Convention Hotel Authority. The Authority will own, develop and finance the hotel project with tax-exempt bonds which will have an interest rate much lower than Berger could obtain. Bonds will be repaid with the hotel's earnings.

The long political, legal and financial struggle over the convention hotel finally ended and construction started in April 2002. Probable completion date December 2004. The Hyatt hotel chain will operate it.

It's a massive project. Thirty-eight stories, 415 feet high, estimated cost $347 million, including about $250 million for the hotel and the rest mainly for financing. It's Denver largest downtown construction project, accounting for 25 percent of the $1.2 billion in downtown development now underway. It will be the first tall building constructed in Denver in the last 25 years.

The hotel's 4-story base will cover an entire block and will rise 80 feet, to about the same height as the convention center across the street. The height of the hotel's roof at Speer is taller than a 10-story building. The roof covers 13.7 acres. There will be a 600-space parking garage under the building. The hotel's facade will be glass and neutral-colored precast concrete made to look like limestone.
A 35-foot-high spire will rise from the top of the hotel's tower. It will be a beacon to conventioneers wandering around downtown Denver. It will create a new profile for Denver's northern skyline.

Come to Denver, conventioneers. Help our economy. Pay off our hotel bonds. Help us obtain a respectable ranking among the nation's convention cities.

But don't forget Denver's other hotels.

The Adams Mark Hotel was built, in part, on the site of the old May D&F store in Downtown Denver. It is currently Denver's largest hotel, with 1,225 rooms. The Executive Tower Inn, across the street from DCPA, is undergoing a $100 million plus renovation, including upgrading to 321 luxury hotel rooms and 130 condo units.

History has not been entirely forgotten in the remaking of Downtown Denver. The Hotel Monaco (1911), the LoDo Inn (1890) and the Hotel Teatro (1917) have been painstakingly restored to create an European ambiance that would have been unthinkable a decade ago.

*        *        *

Then there's Uptown Denver.

What's that?

Let's say Denver's Uptown is roughly defined by 23rd Avenue to the north, 10th Avenue to the south and Bannock and Columbine streets west to east. It includes the Botanic Gardens, Cheesman Park, the hospital district, Civic Center and the Golden Triangle. This area is experiencing the biggest building boom in its history.

The Golden Triangle is bordered by Colfax Avenue, Lincoln Street and Speer Boulevard. It includes Civic Center, Denver Public Library, Art Museum and Denver's new Wellington E. Webb Municipal Office Building.

The Triangle takes its name from developers who saw golden opportunities there in the mid-1980s. The gold was tarnished somewhat when the site for the new Colorado Convention Center was moved downtown, but it's now recovering rapidly.

The new Webb building connects with the existing office building at 1445 Cleveland Place, which preservationists have called, "The finest example of classic modern, or institutional, architecture worthy of preserving." Quite a design challenge to connect old, revered Annex I to a new ultra-modern structure.

It will terminate the city's logistic nightmare. Forty city agencies, located in seven leased buildings downtown moved to the city's new 12-story office building in 2002.

It has a narrow, football-shaped exterior with curved walls and lots of glass, intended to capture sunlight and reduce lighting and heating costs. "There are no corner offices in this building," says architect David Trybe. "There's a democratic quality to the design that gives every employee access to light and views that most often get allocated to chief executive offices."

Sounds good, but city employees don't like it. Cubbyholes for offices. Windows unable to be opened or closed. Blinds unable to block-out Colorado's intense sunshine.
Costly design errors that will have to be fixed.

The city will do some remodeling of the historic City and County Building across the street, which will become a political and justice center. It is a historical treasure. The building was completed in 1932 with 14,000 tons of stone and marble, 1,140 windows, 3,500 tons of steel and 21,000 cubic yards of concrete. This building shows incredible workmanship. Terrazzo and marble floors that have never had to be replaced.

When I first wandered through this building in 1956, after acquiring an office on the first floor where the Denver Water Board was located, I was deeply impressed. Coming from a very small town in northwestern Wisconsin, I had never seen, or imagined, anything like it.

*        *        *

Transportation has had a tremendous effect on the remaking of Denver after Poundstone. Denver couldn't have grown like it has without major improvements in its ground and air transportation. Let's take a quick look back at the evolution of its ground transportation.

The Territorial Legislature granted a franchise to the Denver City Horse Railway Company. It was sold in 1871 to L.C. Ellsworth of Chicago. Horses and mules provided the pulling power, but detracted somewhat from Ellsworth's corporate image. In 1872, by special act, the legislature approved renaming the franchised company the Denver City Railway Company.

DCRC built several rail lines and by 1884, its horses and mules were pulling 45 streetcars over 15.5 miles of track. Big business for its time. A hundred employees, 200 horses and mules, a new car barn at the northern end of 17th Street. Departing railroad passengers at Union Station could walk across the street to DCRC's car barn and board streetcars that would take them to outlying areas.

In 1886 the Denver Tramway Company was formed by John Evans, Gray Evans, William Byers and other locals. It obtained a franchise to build cable or electric lines, thereby not stepping on Ellsworth's horse/mule franchise toes.

By 1889, New York investors controlled Ellsworth's company and added cable to its corporate name. Denver City Cable Railway Company installed underground cables similar to San Francisco's famous system. It built a large brick power plant building and a corporate office at 18th and Lawrence. It built the city's first viaduct (Larimer Street) and it worked with the city to build the 16th Street Viaduct.

DCCRC and Denver Tramway Company competed for additional franchises. Both lobbied and bribed Denver City Council members. DTC, headed by Gray Evans, was more skilled at that game and it devoured DCCRC in the 1890s.

DCCRC's powerhouse at 18th and Lawrence was used as a barn by DTC. It later became an auto garage. In the early 1970s, it was renovated and preserved. The lower floor was leased by the Old Spaghetti Factory. Its decor featured an old cable car.

By 1900, most of Denver City's streetcar network was either cable or electric, but there were a few pockets of 4-legged transit, including the Cherrelyn, discussed in the Littleton chapter.
Denver was a typical streetcar city before World War II. Tramway's trolleys dominated the city's transportation since the 1890s. DTC exploited its streetcar monopoly and it became a political force. It guarded its lucrative franchise monopoly with political skill and power. First under Gray Evans, then under the Boettchers. The unspoken message was clear: Ride Tramway or walk.

Early Denver was held together by steel rails. The Tram was a way of life. People rode trams, or trolley cars, that ran down the middle of streets on rails. Almost everywhere - to work, to school, to the park, to movies, to visit relatives and friends.

In 1909, the Denver City Tramway Company was running trolleys on two dozen routes within the city, with extensions to Arvada, Golden, Englewood and Morrison. Another company ran 16 trains daily to Boulder. Denver had 222 miles of rail transit. A thousand people were employed by Denver's tramway system. It played a major role in Denver's economy.

Tramway's ride or walk message was remembered when automobiles arrived on Denver's streets in the 1920s. Many drivers resolved to never ride Tramway again. By the early 1930s, Denver was on its way to becoming a city of automobiles. Automobile passengers outnumbered streetcar passengers in 1932.

Tramway inadvertently aided the birth of the automobile age in Denver. DTC's policy was to encourage people to live away from downtown. This increased its passengers, but it also aided outlying real estate developments.

World War II limited production and availability of autos. Streetcars and trolleys were still a way of life for newly arrived post-war Denverites. They were the only means of transportation available for many residents, including our family.

Streetcars and trolleys required unsightly overhead power lines and traffic-blocking safety islands in the middle of the street. They were dangerous. Accidents were frequent. Quigg Newton wanted them off the streets. He put pressure on DTC and, in 1950, it replaced its streetcars with buses. In 1955, DTC eliminated its trolley coaches.

The entire tramway system was gone by the late 1950s and replaced by diesel-powered buses. The rails were dug up, or paved over, but rights-of-way were retained.

* * * *

Denver's Platte River Road was planned by President Franklin Roosevelt's Public Works Administration during the Great Depression. In 1940, the WPA built a 4-lane highway along the east bank of the South Platte between West Colfax and West 39th Avenue. The next year the Colorado Legislature passed a freeway law. It was the first legal step toward giving the city a nonstop, north-south thoroughfare.

Freeway plans were shelved during World War II, but the Colorado Highway Department's chief engineer - Charley Vail - kept the plan alive. He was the man for whom Vail Pass and the town of Vail were named. Charley didn't see his dream of a freeway over the mountains come true. He died in 1944.

The Colorado Highway Advisory Board recommended abandonment of the proposed freeway through Denver because of lack of money. The estimated cost was $14.5 million. When Mark Ulysses Watrous was appointed chief highway engineer in 1946, his
first act was to revive the Denver freeway plan.

It was called the Valley Highway, because it followed the valley of the South Platte. Construction began in 1948 and continued into the 1950s. More than 500 separate land acquisitions for rights-of-way. Sixty-two overpasses and underpasses that filled with water during heavy rains. Lake Watrous!

Another freeway-like highway was built during WWII from the Valley Highway west to the federal ordnance plant at 6th and Kipling. After the war, this plant became part of the Denver Federal Center, where I worked for the Bureau of Reclamation, 1946-50. Sixth Avenue Freeway became a favorite route Denverites used to go to the mountains.

Interstate 25 developed from a route earlier called the Great North and South Highway. It was pieced together, using sections of freeway in Colorado Springs, Pueblo and Denver's Valley Highway. It is now the north-south corridor along the Front Range, extending almost 300 miles from Wyoming to New Mexico.

The first segment of the Valley Highway - from 52nd Avenue to 38th Avenue opened in 1951. Its full 11.2 mile length to Evans Avenue opened in 1958, a year after the federal government agreed to extend the route of I-70 to Utah. It would go along 46th Avenue, across the Valley Highway, then head for the foothills. The I-70 section from Colorado Boulevard through the I-25 crossing to Pecos Street opened in 1964.

It was the birthdate of the infamous intersection of I-25 and I-70, which soon became known as the Mousetrap.

In 1971, the Denver Police Department erected a 60-foot observation tower in the middle of the Mousetrap to watch for accidents and monitor traffic conditions. It replaced a primitive watchtower just north of the Mousetrap.

In 1987, Colorado's road planners set out to build a better Mousetrap. It was expensive - $269 million, of which $60 million was for I-70 flyover bridges. It was completed in December 2003. Now the Mousetrap is gone and travelers going through Denver could relax. Temporarily. Until the dinosaur, T-Rex, appeared on I-25's widening project.

* * *

T-Rex is Denver's Transportation Expansion Project - a $1.67 billion monster that includes I-25 widening and light rail. It's the modern descendent of Tyrannosaurus Rex, a prehistoric 7-ton, predator - one of the largest that ever lived. It's a fitting moniker for the gigantic project that will transform Metro Denver's southwest corridor.

This $737 million project, now underway, will widen I-25 from Broadway in Denver to Lincoln Avenue in Douglas County. It was authorized in the November 1999 election. Construction is expected to be completed in 2008.

I-25 through Denver has had several widenings in the past to handle increasing traffic, but nothing to compare with its present widening. It will provide an additional lane in each direction, making four lanes each way. Two more lanes will be added in congested area, making five lanes each way.

Is this Los Angeles?
I-25's transformation is ugly for motorists and nearby property owners. Cones, fumes, dust, noise, detours, delays. Orange barrel fever. HIGHWAY HELL!

* * *

Denver International Airport - DIA - was born in controversy. Its birth stirred up enough trouble for Phil Goodstein to write a book about it - DIA And Other Scams. Longtime Denver native and revered Rocky Mountain News columnist, the late Gene Amole, wrote many critical columns about DIA. When it finally opened in February 1995 - 18-months late, after four announced openings had come and gone due to bag-system snafus - it was greeted with withering criticism.

It was called Peña's Folly, or worse, by some. And Dumbbell International. A Wall Street analyst said airlines "are not anxious to finance mausoleums that the politicians want to put up." Phil Goodstein wrote, "As was typical of Peña's years as mayor, Denver International Airport (DIA) was a cynical real estate plan disguised by demagogic rhetoric." And much more.

DIA was one of the biggest and costliest construction projects in Colorado's history. BIG - 53 square miles, compared with Denver's total land mass (before DIA) of 111 square miles. Nearly half as big as Denver. COSTLY - $4.9 billion was the ostensible cost.

The road to DIA was paved with controversy. Mayor Federico Peña had emphasized, during his election campaign in the early 1980s, that his administration would Imagine a Great City. Peña's concept of a great city included a state-of-the-art airport located where it could meet Denver's needs during the next 50 years or more. Stapleton International Airport clearly could not do that.

Stapleton appeared adequate to many Denverites. Close to downtown, convenient, familiar. It had become the 6th busiest airport in the nation. But - as David N. Wetzel pointed out in an article in Colorado Heritage - it was rootbound. No room to expand, unless it went across I-70 into the 17,000-acre Rocky Mountain Arsenal.

Should it do that?

No. The Arsenal was too polluted. Cleanup would cost $2 billion or more and would extend into the next century. Adams County strongly opposed any substantial airport expansion on Arsenal land.

Where then?

The debate over that question was jump-started by the 1982 Christmas blizzard, which shut-down Denver and Stapleton Airport for two days. Peña rode the political crest of public resentment over the consequences of that snowstorm and trumpeted the inadequacies of 50-year-old Stapleton International Airport before increasingly receptive audiences.

Within a year after his election as Denver's mayor, Peña started talking to Adams County officials about a new airport location east of the Arsenal in Adams County. Peña insisted that the new airport be located inside Denver City limits. Denver would have to annex land in Adams County in order to build the airport and provide access to it.
Gaining approval by Adams County voters would be difficult. There was a natural distrust of politicians from the Big City that called itself the Queen City of the Plains. Peña gained major support when charismatic Gov. Roy Romer joined him on the "oatmeal circuit" - breakfast meetings with citizens and officials of Adams County, Thornton, Northglenn and Brighton. Then important players in the new airport game came aboard and supported Peña and Romer - big business, the Greater Denver Chamber of Commerce, Denver City Council, state legislators, the real estate lobby and Denver's two big daily newspapers.

It was a powerful coalition, but could it obtain approval from Adams County's commissioners and voters?

Like Nature's intervention with its Christmas 1982 snowstorm, the economy intervened in later negotiations. When Colorado's economy stumbled during the 1980s, the land speculation potential of the new airport, and the prospect of jobs and revenue, all lined up on Denver's side of the bargaining table. Nevertheless, the Adams County Commissioners were able to extract several important concessions from Denver.

They would not allow Denver to annex the land it needed for the new airport unless they would receive an acceptable percentage of the airport's construction contracts, concessions and revenues. Adams County residents would not have to comply with Denver's residency rules in order to work at the new airport. It was a deal Denver could not refuse.

In May 1989, Adams County voters approved Denver's annexation of the land it needed for its new airport, by a two-to-one majority. Denver immediately started purchasing land in the designated 53-square mile area from the fortunate owners of farms, ranches and trailer courts out on the dry prairie.

Speculators, of course, got there first in many instances. Accusations of fraud in the land sales added fuel to the airport's opponents' fire. Long distance from central Denver. High construction cost. Negative effect on hotels and businesses near old Stapleton Airport.

Mayor Peña wisely decided to submit the new airport project to Denver voters. They voted two-to-one in favor of it in the May 1989 election.

Peña wanted to put the airport's construction on a fast track so that it would open in 1992, a year after he left office, but there were many problems and the new mayor - Wellington Webb - took over the airport construction's end game. He played it very well.

Denver International Airport officially opened on February 28, 1995, under a blanket of snow and ice and dark clouds of criticism. Critics said DIA would never be a financial success and would have to be bailed out by the federal government.

The critics were wrong. During its first five years of operation, nearly $145 million was given back to the airlines by Denver in lower rates and charges - after DIA paid all of its expenses including interest on its revenue bonds. By 2002, DIA had become the 5th busiest in the U.S. and the 10th busiest in the world.

DIA was the first major airport built from scratch in the United States during the past 20 years. It has something other major U.S. airports do not have - lots of room for expansion.

DIA is the catalyst for big-time development in the northeast metro area. Much like
Coors Field was the catalyst for LoDo development, only much bigger. DIA is remaking Denver into a world class metropolis.

* * *

Stapleton's transformation embraces a social movement called New Urbanism. That's a trendy new way of thinking about urban planning.

New Urbanists believe that for more than 50 years our cities and suburbs have been designed primarily for automobiles. They want to take back the streets for pedestrians. Stop the automobile craze!

New Urbanists' ideal: A town center of restaurants, shops and condos around a village green. On the outer perimeter duplexes and single-family houses with porches and alleys. All within a short walk from bus and light rail.

They're big on front porches - and villages - like we had early in the last millennium. The True Believers have formed CNU - Congress of New Urbanism. Their credo: No more housing subdivisions! No more shopping centers! No more office parks! No more big highways! Build Neighborhoods! Houses with porches.

Skeptics have dubbed the New Urbanists Bohemian Bourgeoisie, or Bobo. But it might work, here and there. There are opportunities in Metro Denver. Old Elitch's in North Denver. The reincarnation of old Cinderella City Mall. The Hope VI mixed income housing project in Curtis Park. Redevelopment of the former Lowry Air Force Base. And - most of all - turning the former Stapleton Airport site into a new mega-village.

The $4 billion redevelopment project at former Stapleton International Airport is huge - 4,700 acres, one-third the size of the island of Manhattan. If overlapped over Denver, it would reach from Washington Park to City Park and from Downtown to Colorado Boulevard.

It has the potential to be the poster child for smart growth, where people can live within walking distance of their jobs - research and development, parks, environmental technology centers. Nearly 30 percent of Stapleton's redevelopment area will be in parks and open space, increasing the size of Denver's park system 25 percent.

But it's not all motherhood and apple pie. It has the potential to bog-down in controversy. Reality is stepping on the sensitive toes of New Urbanists.

Quebec Square, the 740,000 square foot shopping center at Quebec Street and East 35th Avenue, is the first of five retail centers planned for Stapleton redevelopment. It is upsetting to New Urbanists. It doesn't meet their standards. The stores are so far apart, customers must drive to get from one to the other. The so-called greenway is a drainage ditch. Sidewalks disappear in vast concrete parking lots.

Homeowners are attracted to Stapleton redevelopment by its pedestrian-oriented neighborhoods. With front porches close to the sidewalks and streets. Mass transit available, but not too close.

Homeowners along East 29th Avenue in redeveloped Stapleton were shocked when RTD's plans to put a busline along the parkway were announced. With a huge bus stop pad in front of their houses, only 72 feet from their front porches!

NIMBY! *Not in my backyard!* They weren't told about this when they bought their
houses. Move the east-west bus route three blocks north to Martin Luther King Boulevard, when it is extended through the Stapleton site as a 4-lane arterial.

Stapleton expects to have 30,000 residents within 15 years. It will have many more controversies to solve during the on-going battle between practicality and New Urbanism. One is currently brewing. Slowly and methodically, project officials are dropping the name Stapleton from the massive redevelopment. They don't believe a one-time friend of the Ku Klux Klan deserves such a naming honor.

They shouldn't do that. As the Rocky stated in a November 2002 editorial, "How many historical figures could pass the modern test for political and social values?"

There are other important redevelopment projects underway in Denver. The $14.2 million restoration of the 112-year-old Elitch Theater will transform it into a year-round, non-profit performing artists and community center in northwest Denver.

Another example is redevelopment of the site of the former Gates Rubber Company Plant, on Broadway south of I-25. It will take 3 years to remove the buildings, railroad spur tracks, and clean up the site. Then construction starts on 2,000 rental apartments, 2,000 condominiums, a 9-hole golf course.

* * *

Talk about making a full historical circle - a complete transformation - how about Denver's old Union Station? When it opened in 1881 it was the largest building in Denver City, occupying a proud position at the center of town. Hotels and restaurants sprouted nearby to serve it. Ornate, brick warehouses were built on the south side of Wynkoop Street to serve businesses moving goods through town or storing them.

During the 1920s, 30s and 40s as many as 80 trains a day chugged in and out of Union Station. Travelers were wall-to-wall in Union Station, the fortunate ones sitting, when they could, on high-back benches which once contained radiators. In the spacious lobby with 65-foot ceilings.

Rail traffic declined after World War II, as air traffic increased and trucks used the new interstate highways. Union Station and the surrounding area experienced a long period of decline. Today, as News staff writer April Washington said in a recent article, "The four-story Union Station is a concrete hulk staring vacantly over lower downtown, its waiting room witness to barely two Amtrack trains a day and the Ski Train to Winter Park."

Union Station has so much history, so much nostalgia. It has seen it all - good times, bad times, neglect, fire, flood. It's such an interesting story. Let's go back to its beginning.

When Union Station was completed in 1881, at the northwest corner of 17th Street, where it ended, a New York Times architectural critic called it Denver's Treasure. It was built with pink lavastone from Castle Rock, with limestone trim from Manitou Springs.

Fire destroyed Union Station's center section in 1884. It was enlarged in 1914 with a different style - an elegant Renaissance Revival design. The old wings were retained. The old and new sections were linked by the Mizpah Arch.

It was an eye-catching welcome arch - 65-feet high, 86-feet wide, illuminated by
2,000 small lights. On one side of the arch, in large letters, was WELCOME. On of the other side, MIZPAH. The arches were supposed to represent the biblical injunction, *The Lord watches between me and thee when we are absent one from another*. The arches were torn down in 1931.

Mizpah was almost reborn in 1998. A group of historians and architects proposed building a new arch outside the entrance to Union Station. This Son of Mizpah - aka Mizpah Millennium Marker - would use big squares of granite and limestone to make a metaphorical arch. Fortunately, this proposed monstrosity did not receive public support.

Mayor Robert Speer, in the early 1900s, loved lights. In addition to the Welcome Arch, the city built a 180-foot clock tower at Union Station. Its four faces were illuminated by 1,294 small electric lights. At 17th and Tremont, the Gas and Electric Company lit another electric arch.

Union Station was, for many years, the largest and busiest building in Denver. For many thousands of train passengers, it was their door to Denver. During World War II, military passengers jammed Union Station.

Railroad passengers declined after Stapleton Airport lured them away. But Union Station was still operating fairly well in 1965, when flood water was quite deep in the railroad yards near Union Station. Those yards did not survive the Peña administration whose mantra was - *No More Trains. Build DIA*.

In 1975, a group called Plan Metro Denver advocated that the city buy Union Station and transform it into an integrated transportation center. The plan was placed on a ballot initiative and it was defeated by a two-to-one margin.

During the 1980s, Mayor Peña's administration looked at the dusty old railroad yards around Union Station that were no longer used and decided that something should be done there - like Chicago and Boston were doing to redevelop their center city.

The key to opening up the Central Platte Valley for redevelopment was getting the cooperation of the railroads. It was difficult. And important. If the railroad companies had not been willing to negotiate with the city, there would be no Pepsi Center, Elitch Gardens, Coors Field and all the rest of it today.

Union Station was built to consolidate several small depots scattered around Denver. Six railroad companies owned it during the 1980s.

In 1992, Trillium Corp., a timber company and real estate developer in Washington State, bought the real estate holdings of Burlington Northern for more than $50 million. This made it the largest landowner in the Central Platte Valley, whose assets now included a major stake in Union Station. Union Pacific had become the other major owner, following railroad company ownership consolidation.

In 2001, a consortium of four independent public agencies purchased Union Station and 18.5 acres nearby for about $50 million. Buyers: Regional Transportation District, Denver Regional Council of Governments, Colorado Department of Transportation and the city of Denver. Sellers: Union Pacific, Trillium Corp., Pat Broe, a Denver real estate investor.

These interests, led by RTD, commissioned an 18-month, $5.3 million study, released in November 2003. The team of 22 consultants' recommended plan would transform Union Station into a regional transportation hub. The $560 million project would
have these major components: light rail, regional and express buses and passenger rail - all underground. Pedestrians, taxis, shuttles and autos would be at street level. Commercial buses would be on an elevated level.

*        *        *

FasTracks is a new, catchy name for light rail. And much more.

Is light rail Denver's *Destiny Child*? When it matures, will it carry Denver to a rendezvous with greatness?

Or will it be an expensive exercise in railroad nostalgia that will never pay its way?

We don't know the answer, but a little history may help us understand how these questions developed. Let's go back to post-war Denver again and take another look at the evolution of the city's ground transportation.

Streetcars and trolleys required unsightly overhead power lines. There were traffic-blocking safety islands in the middle of streets. They were dangerous. Accidents were frequent. Mayor Newton wanted all of that off the streets. He put pressure on Denver Tramway company and it replaced its streetcars with buses in 1950. In 1955, DTC eliminated its trolley coaches.

The cost of riding DTC's buses soared during the 1960s and service declined. Many people stopped riding them. The number of riders decreased from 112 million in 1945 to 16 million in 1971.

The Colorado Legislature created the Regional Transportation District of Colorado in 1969. Its 21-member board of directors were charged with coordinating transit for the numerous units of government in Metro Denver. Mayors and county commissioners would name board members. RTD would extend from Longmont on the north into Douglas County on the south; from Jefferson County on the west to Aurora on the east. It could become a powerful agency.

Douglas and Weld county residents and those in outlying parts of Adams and Arapahoe counties quickly removed themselves from RTD's tax district. In 1973, voters further reduced RTD's service boundaries and approved a 0.5 percent sales tax to finance RTD.

The Colorado Legislature authorized a ballot vote on light rail in the 1980 general election. The issue was whether RTD should be authorized to impose an additional one percent sales tax on residents within its territory to finance a 77-mile light rail system.

Voters rejected it. And they passed a constitutional amendment mandating replacement of RTD's appointed board with an elected one. Five, instead of ten, directors would represent Denver.

RTD's new board cleaned house. It fired its executive director and most of its senior staff. It hired consultants to tell it what to do. The consultants advised that improving bus service was a better alternative than light rail. A scheduled 1982 election authorizing rapid transit was cancelled. Light rail was talked about at board meetings during the next 15 years, but the promised election was never held.

Developers and politicians wanted light rail, but the elected RTD board did not cooperate with them. Nevertheless, the light rail idea wouldn't die. By 1989, a changed
board composition and attitude and a Colorado Supreme Court ruling had given a boost to light rail. The high court ruled that RTD could obtain revenue from use taxes, as well as sales taxes.

RTD - now pro-light rail - created MAC - Metro Area Connection. It was first planned to be an experimental line linking the Auraria campus and LoDo with Stapleton Airport. Bad idea. DIA would soon replace Stapleton. DIA planners weren't interested in light rail.

RTD then revised MAC to run from Auraria to Five Points. This 5.3-mile, $116.5 million Central Line began operation in October 1994. Today it averages 4.7 million boardings a year.

The name MAC never caught on. RTD formed Guide The Ride - son of MAC. It also wasn't a popular name. Some called it "Guide The Lies, a bloated, deceitful sprawl effort." RTD ignored the opposition and proposed a $177 million light rail extension from Broadway and I-25 to Littleton. It was placed on the November 1997 ballot, along with RTD's proposal to raise its sales tax from 0.6 cents to a penny. (It had been raised to 0.6 cents in the early 1980s, after it was removed from food items.) All of this was decisively defeated by voters.

RTD took another hit when the Colorado Legislature mandated that a two-thirds board majority, rather than 51 percent, will have to approve RTD's future light rail projects.

Then the Denver Metro Chamber of Commerce dipped its political oar in the troubled light rail waters. It formed a group called Metro Transit. Its first goal was to get pro-light rail candidates elected to RTD's board in the November 1998 election. It did that, and much more.

Metro Transit, RTD's pro-light rail board and others obtained 80 percent federal financing for the proposed Southwest Line, an 8.7-mile, $177 million extension of the Central Line from I-25 and Broadway along Santa Fe Drive to Mineral Avenue in Littleton.

The Southwest Line was authorized in the November 1999 election as part of T-Rex. It was the first federally funded light rail line in Metro Denver - a vital step toward improving the horrendous traffic problems along the Santa Fe corridor.

In the November 1999 election, voters living in the Regional Transportation District also approved a financial package to build RTD's Southeast Line. This 20-mile, 13-station light rail extension will cost $875 million and will open in 2008. It parallels I-25 from the Broadway light rail stop in Denver to Lincoln Avenue in Douglas County. A 4-mile spur in the median of I-225 will go to Parker Road in Aurora.

All aboard the C-Line!

This Central Platte Valley light rail line opened in April 2002. It is the result of an unusual public/private partnership, with contributions from RTD, DRCOG, Denver Broncos, Colorado Rockies, Six Flags Elitch Gardens, Lower Downtown Denver, Inc., Trillium Corp., Auraria Higher Education Center and the Pepsi Center.

The C-Line makes Denver the nation's first metropolitan area with all of its major
sports accessible by light rail.

The original light rail line, now extended and called the D-Line, runs from Mineral Avenue in Littleton north through Downtown Denver to 30th Avenue and Downing Street.

* * *

In the pre-dawn hours of Sunday, June 5, 1950, Denver Tramway's electric trolley completed its last run from Denver to Littleton.

On Friday, July 14, 2000, RTD's new Southwest Line made its first run from Denver to Littleton. After 50 years, the trolley was reinvented as fast rail, 

*What was old is new again!*  
The beginning of a new era - the era of light rail.
The FasTracks Project, which RTD will put before voters in November 2004, is a $4.7 billion, 12-year project that would build three new light rail lines, three new diesel-powered commuter train lines, expand three existing light rail lines and build a high frequency bus rapid transit line on the Boulder Turnpike. It would also expand suburb-to-suburb bus connections. It would transform Union Station into a regional transportation hub. It might include an air train from Union Station to DIA.

RTD will ask voters in the 7-county district to approve a 0.6 cent increase in the existing 0.4 cent sales tax - to a full penny on the dollar - to help pay for FasTracks.

* * *

There is the new light rail and there also is the old heavy rail. Descendants of some of the railroads that brought industry to Denver, soon after its beginning, are still operating in Denver. But now they are incongruous with cars, pedestrians, developers and civic planners.

In 1979 there were seven railroad companies serving Colorado. Now there are only two - Union Pacific and Burlington Northern Santa Fe. Their trains carry grain, automobiles, consumer and manufacturing goods, and coal. Especially coal. Some 120 to 140 coal trains thunder through downtown Denver, en route from the Powder River Basin in northeast Wyoming to Trinidad.

Many of the trains through Denver could be rerouted on new tracks through the unpopulated Eastern Plains, before heading towards Oklahoma and Texas. Some will have to continue through downtown Denver, to deliver coal to steam power plants in Denver and other cities and unload and pick up freight on their way to Trinidad.

CDOT has awarded a $500,000 contract to a large New York engineering firm "to identify, and in some cases quantify, the public benefits, drawbacks and costs" of rerouting many of the trains that now go through downtown Denver.

It could be the start of another big billion dollar transportation project, after FasTracks.

* * *
There are a dozen other Denvers on our nation's landscape. Copycats, with populations from 4,000 to fewer than twenty. Many of them chose the name because it symbolizes power, spirit and glamour. Denver, North Carolina proudly displays a welcoming sign proclaiming it *The Denver of the East*. It's nice to be admired by the little guys.

Denver used to be located out West somewhere in flyover country. Not anymore. In this New Age, its location seems to be a blessing - 340 miles west of our nation's center. One satellite bounce to Europe, South America and Asia. Its geographical location has helped it become a world class telecommunications center.

Denver has had to climb a difficult economic hill since Poundstone. The 1980s bust left it reeling. In a relatively short time, Denver went from an oil-based Boom Town USA to *El Busto*. But, with boosts from diversifying its economy and giant construction projects, it pulled itself up by its economic bootstraps and blossomed in the 1990s.

Denver added 87,000 residents during the 1990s - an 18.6 percent increase. Colorado's demographer called it *miraculous*. The Center for Metropolitan Policy at Brookings Institute placed Denver among the nation's *high flyers*.

Who would of thought that would happen, 30 years after Poundstone?

In March 2002, Denver City Council adopted an ambitious 20-year growth management plan known as *Blueprint Denver*. It envisions 25,000 new residents in Downtown Denver, 30,000 new faces at Stapleton and subway service at Union Station by 2020.

*A subway by 2020?*

WOW!

* * *

Denver's ambitious plans for the future will not happen if it does not have an adequate water supply. There has been little public discussion of it.

Should there be?

Yes. Denver Water's 1.2 million customers should be informed about the coming large expenditures that will be necessary to provide them with an adequate water supply.

After the defeat of Two Forks in 1990, the Denver Water Board announced its intention to follow a *New Path*. Its new policy included a public statement about its present and future water supply.

*Its present water supply capability of 345,000 acre feet per year probably will meet projected demand until 2013, but it cannot rely completely on this projection because of risks.*

*During the foreseeable future, it will try to maintain a safety factor of 30,000 acre feet, to protect against water supply risks, including a*
larger than anticipated drought.
Its near term strategy is designed to produce an additional 55,000 acre feet, in order to extend its water supply beyond 2013 to 2030.
Its longterm strategy is designed to produce the final 45,000 acre feet needed to extend its water supply target of 400,000 acre feet in 2030 to 445,000 acre feet at buildout.

What has the Denver Water Board done to develop additional water supply during the 14 years since the defeat of Two Forks?
It's easy, and to a limited extent correct, to say *not much.* Or so it seems to a casual observer not privy to insider information.
The DWB is surviving the current drought better than most of Denver's suburban cities. Its accomplishments include:

Participation in the financing and water allocations of Wolford Mountain Reservoir on the Western Slope.
Greatly improved its relationship with Western Slope water interests.
Built a new $75 million wastewater recycling plant near Commerce City.
Significantly reduced its water use with water restrictions and conservation.
Prevented a wild and scenic designation for the South Platte above Denver.

The South Platte Protection Plan, which has stopped the wild and scenic designation threat, is not yet official, but it is very likely to be approved and implemented. It provides that the Denver Water Board forfeits its right to build the 1.1 maf Two Forks Reservoir and agrees to a 20-year moratorium on seeking a permit for a 330,000 acre foot reservoir at the Two Forks site. Also: no new water projects in Eleven Mile and Cheesman Canyons.

A $1 million endowment, funded by the DWB and other municipal water providers, will be created to improve the South Platte River for recreational and park uses.

But what about Denver developing more reservoir storage capacity?
Nothing yet, but it will happen, when the DWB decides which project plays to develop from many possibilities. It should decide soon, because it takes so long now to build big water projects. So much lead time is required to get permits and negotiate inter-agency agreements once a decision to build is made. Before construction can begin.
The Denver Water Board now has a $23 million annual budget, 1,100 employees, a capable manager and staff. It can do whatever needs to be done to protect its customers during future droughts and develop the additional reservoir storage and water supply capability they will need at buildout.

But it should start doing it.
SPRAWL

SPRAWL IS A NEW AGE WORD with an importance Daniel Webster did not anticipate. His first definition reflected relaxation - the puppy's legs were sprawled in all directions. His eighth attempt to define sprawl called it a straggling array of something.

Close enough, Daniel.

Webster says sprawl is a verb. To stretch out, or spread out, in an ungraceful manner. Kee Warner of CU-Colorado Springs agrees: "It's a verb. Sprawl is a very efficient way of creating Los Angeles."

The Denver Post's Al Knight favors a noun. "Sprawl is the accumulation of individuals who want to live in affordable, low density, single-family homes."

The Sierra Club couldn't care less whether sprawl is a verb or a noun. It published a serious report about sprawl: The Dark Side of the American Dream. Randy O'Tool, a Denver Post writer, summarized it this way:

The environmental group says that low-density suburban development - pejoratively called 'sprawl' - leads to 'increased congestion, longer commutes, increased dependence on fossil fuels, crowded schools, worsening air and water pollution, lost open space and wetlands, increased flooding, destroyed wildlife habitat, higher taxes and dying city centers.'

The Rocky Mountain News defined sprawl as "A loaded term (that) connotes low-quality, unfettered growth on city fringes. It's characterized by homogeneity and lack of aesthetics, including rows of large lots and low-density office parks."

Whatever. We're all against suburban sprawl, aren't we? It's bad, isn't it? Pejorative, or something.

Yes and no. It all depends on which side your daily bread is buttered. Chacun à son goût!

One person's sprawl is another person's opportunity. Some rural communities, like Prowers County, wouldn't mind a little sprawl. Or whatever it takes to provide growth incentives and jobs. Prowers has fewer residents today than it had in 1930.
Real estate developers love sprawl. It's simple and it can be standardized. Cookie-cutter projects cut costs, are easy to finance, easy to build, easy to manage. An *Atlantic Monthly* article says, "Builders like the predictability of sprawl. They know how much a parking lot is worth, but they aren't sure how to value amenities in older communities such as density, walkability, and an interesting landscape."

Some builders and developers don't care if it is sometimes hard to tell, when driving down a highway, if you're in Minneapolis, Dallas or Metro Denver.

Sprawl is good if you're into construction and homebuilding. It's bad if you're trying to build new schools or are a member of Colorado Public Interest Research Group - best known for its annual Sprawl of Shame report.

"Everybody hates developers," said the president of a home building company, "because they think we bring in people. But that's like blaming your front door for letting the water in when it floods."

Let's identify the teams on both sides of the sprawl debate. On one side are the Good Guys - the enviros, the hard working middle class. On the other side are the Bad Guys - the developers, the homebuilders, the deep pockets and the Soccer Moms.

*Or is it the other way around?*

The results of sprawl in Metro Denver are obvious. The Front Range is becoming a nearly contiguous stretch of cities from Fort Collins to Pueblo, connected by congested highways, choking traffic, open space turned into malls, increased consumption of our scarce water supply, increased taxes.

Thomas J. Noel and Stephen J. Leonard, in *Denver - Mining Camp to Metropolis*, blame it all on *automobility* and quotes a 1916 article in the *Denver Post*:

*What a revolution the automobile has brought about in all our ways of life and in all our thoughts. (It) has completely altered the relation of town and country ... making the farming districts suburbs of our cities."

How prophetic!

Automobility has changed forever the Colorado we used to know and love. Our dusty old cow town - Denver - is now a booming metropolis. Traffic is thicker than hair on a dog. The Interstates, the Beltway, the 6th Avenue Freeway and the Boulder Turnpike are flowing full with traffic, like the South Platte in flood.

Picture this: A strip of land a mile wide reaching from Fort Collins to Colorado Springs. That's the amount of land lost to development in Colorado each year - 90,000 acres a year, 240 acres a day, 10 acres an hour.

Runaway growth made Colorado the third fastest-growing state in the nation in the 1990s. Only Nevada and Arizona grew faster.

Colorado's population is now about 4.6 million. Metro Denver's population is about 2.6 million. Boulder and Thornton have recently joined Denver, Aurora, Lakewood, Westminster, Arvada and Centennial in the 100,000 or more population club.
Colorado's good life is fast disappearing!


Why did it happen?

Colorado is a very attractive place to live and work. Two-thirds of its growth in the '90s came from people moving into Colorado. Four states - California, Texas, New York, Illinois - contributed more than half of Colorado's newcomers.

It happened so quickly. But dark growth clouds were forming back in the 1970s and a few far-sighted people saw them. Especially Gov. Lamm and the Colorado Legislature.

* * *

Governor Richard Lamm was anti-growth then. He teamed with the Sierra Club in 1976 to block the Winter Olympics from coming to Colorado. He tried to block construction of C-470, the first leg of the beltway around Metro Denver.

In 1974, the Colorado Legislature enacted several land use and growth-related statutes that still have significant influence. The Land Use Enabling Act granted towns, cities and counties broad authority to plan and regulate "the orderly use of land and protection of the environment." It gave local governments authority to:

- Protect wildlife habitat and species
- Preserve areas of historical and archeological importance
- Regulate land use based on impacts to the community
- Impose impact fees or other charges related to impacts from proposed development on facilities provided as a service of local government, such as water supply and wastewater treatment plants

This "authority" did not have the force of law.

House Bill 1041 encouraged local governments to select sites and regulate the development of "areas and activities of state interest," including:

- Major domestic water and sewage treatment plants
- Municipal and industrial water projects
- Municipal or county airports
- Rapid or mass transportation systems
- Highways and interchanges
- Major facilities for public utilities
- Areas containing or having a significant impact upon historical, natural, or
archeological resources of statewide importance
Areas around key facilities in which development may have a material effect upon the facility or surrounding community

HB 1041 became known as 1041 powers. It has had very important adverse effects on water project development in Colorado, starting with Denver v. Grand County in 1989. The Colorado Supreme Court upheld Grand County's 1041 powers to require a permit for new or modified water projects. Even though HB 1041 states, "nothing herein shall be construed as enhancing or diminishing a water right or modifying or amending water laws or water right decrees."

1041 powers allow a county to condition or deny a permit for a water project that will significantly degrade the environment. They were upheld again in 1994, when Aurora and Colorado Springs were denied permits for their proposed Homestake II Project. Eagle County denied the permit, because the project failed to comply with the county's 1041 regulations.

In the Eagle County case, the Colorado Court of Appeals ruled that "the cities' entitlement to take water from the Colorado River Basin, while a valid property right, should not be understood to carry with it absolute rights to build and operate any particular water diversion project."

Aurora and Colorado Springs are trying to redesign their Homestake II Project, to relocate it outside the Holy Cross Wilderness Area and reduce its adverse environmental impacts. But they haven't yet reapplied for a 1041 permit from Eagle County.

So the Colorado Legislature - in 1974 - enacted some important growth-related statutes. One of them - HB 1041 - added another qualifier to Colorado's sacred doctrine of prior appropriation.

*        *        *

Lamm tried to control growth in the 1980s with his Front Range Project. It wasn't a good name. Project, in Colorado, means development of some kind - aka growth. Lamm's project died by derision.

The 1980s handled growth in their own way - by recession, triggered by the oil shale bust in 1982. It was reminiscent of Denver's financial struggles in the 1860s, 1890s and 1930s. Growth came to a halt in Colorado.


Why haven't we been able to control it?

Sprawl has become the political equivalent of weather in Colorado. Everybody talks about it, but nobody does anything about it.
The planners try. Very hard. Colorado has more planners per capita than any other state in the nation. They talk the talk, but their audience often doesn't understand it. "I think the best phrase I ever heard," said Frank Grey, Lakewood's community planning director, is "I don't know what this planning stuff is all about. But I'm against sprawl and density."

Sprawl and density are polar opposites.

Sprawl or density. Pick your poison.

We see the population numbers, but we don't really understand them. They keep changing and they dull our senses. There's a professor in Boulder who understands population numbers and he is concerned about them.

Albert Bartlett is professor emeritus of physics at the University of Colorado. At age 79, he recently delivered his favorite lecture, Arithmetic, Population and Energy. For the 371st time! In Denver, in December 2002.

The Post's Dick Kreck caught some of Dr. Bartlett's remarks in his column:

The basic thing is, people don't understand the arithmetic of growth ... People have no idea of the big numbers. When you have a finite resource and an increasing rate of consumption, the stuff (water) disappears at an incredibly early date.

Understand that essentially all of the urban problems come from urban growth. Think of any problem on any scale whose long term solution is in any demonstrative way aided, assisted, or advanced by larger populations.

Anybody who's been here knows droughts are part of the history of the West. Anyone who would aspire to be a planner ought to know about these things, but they don't.

It is totally irrational that the only way to have a permanent solution is more reservoirs. That's nuttier than a fruitcake.

It's people causing the problem. In any realistic assessment, you can't achieve enough through conservation to balance a 2 to 3 percent growth rate.

Kreck noted that Bartlett has been on the CU physics faculty for 53 years and admits he gets tired of banging his head on the wall of public apathy. "The population explosion cannot continue unabated without serious consequences," Bartlett said. "Nature steps in. See Africa and drought and AIDS and civil war."

Water has always been the arbiter of growth in Metro Denver. Growth makes our money stream flow. Jobs, houses, parks, schools, everything we need for the good life. Is
Before growth evolved into suburban sprawl in Colorado there were attempts to control it by *Smart Growth* - words that still resonate off and on in Colorado's legislative chambers.

What's Smart Growth?

Bob Ewegen of the *Denver Post* has an answer: "To the Sierra Club, that means shut the state down and give it back to the coyotes. To developers that means get the new highways and water supplies on line by the time their new subdivision opens."

Whatever. Gov. Roy Romer coined the words in 1994. The governor and state agencies began working with communities and concerned citizens to promote Romer's Smart Growth and Development Program, aimed at helping Coloradans grow smart. Smart growth buttons and bumper stickers aided the cause.

Romer played the growth control game with a weak political hand. No one seemed to really understand the meaning of smart growth - if there was one. In January 2000, the *Denver Post* editorialized:

*We're not sure what most people who repeat the mantra 'smart growth' mean, except that they're convinced we don't have it here in Colorado. Our own definition of smart growth is this: locally controlled land-use planning that incorporates lots of open space in attractive communities that boost both housing and jobs.*

It's a battle being fought throughout the United States - *Smart Growth vs. Sprawl*. Wisconsin's Smart Growth law, enacted in 1999, mandates that cities, towns, villages and counties consider how to curb urban sprawl. They must have a comprehensive land use plan by January 2010.

Sounds good, but it's riddled with practical problems. Small towns don't have the money to do it. Plans being developed are criticized for not being comprehensive enough. There's a lack of statutory guidance on what constitutes a plan. It appears that a land use plan can be any measure intended to affect land use, regardless of the jurisdiction involved, the scope (comprehensive, metropolitan or neighborhood) or the issue addressed (such as development, transportation or water).

The leading edge of sprawl is the conversion of farmland to urban development. One million acres of U.S. farmland are lost to suburban sprawl each year. Agricultural zoning is the usual method used to stop it. But even with exclusive agricultural zoning regulations, found in only two states - Wisconsin and Hawaii - farmland is still being developed at an alarming rate. The tax-relief incentives offered to farmers are not good enough to keep the bulldozers at bay.

The only effective ways to protect farmland from development are to buy development rights from the farmers or buy the farms. The former is called the transferable development right or unit - TDR or TDU. It's a simple, but sophisticated concept. Larimer
County is using the TDR technique, along with Boulder, Mesa, Summit and Pitkin counties.

The other way to save farmland from development - buy it - is where GOCO lives. Great Outdoors Colorado - GOCO - was created in 1992 by constitutional amendment. It was mostly the result of vigorous efforts by Ken Salazar, now Colorado's attorney general and candidate for the U.S. Senate.

GOCO uses lottery proceeds to buy open space, preserve greenbelts, and develop local and state recreation areas. It receives half of Colorado's lottery revenues. The Conservation Trust Fund, established in 1980, gets 40 percent. Ten percent goes directly to Colorado's parks.

* * *

Can't anyone control suburban sprawl?

Portland, Oregon did it. So did Boulder, Colorado.

There has been a growth boundary around Portland since 1979. Some call it The Great Wall of Portland.

In Portland, development has been forbidden outside an urban boundary that includes 34 municipalities and three counties. Now - nearly a quarter-century later - it is receiving mixed reviews.

A writer for the Los Angeles Times, in that sprawlingest of American cities, said recently: "Portland has done more than any American city to check the poisonous sea of urban sprawl... (It) pledged to find room for new arrivals inside, on vacant lots, aging street corners and abandoned warehouses. The result has been what may be the most successful experiment in urban growth management in America."

Has it? Is Portland the Eden of the West, or is it something else?

The Denver Post's Al Knight thinks it's something else:

* * *

Portland is often cited as the best example of what major cities should be doing. The fact is, however, that its urban growth boundary was set years ago and it included great amounts of developable land. It is only now that push has made the acquaintance of shove. Road building has diminished and mass transit has been built, but congestion is expected to increase to a level as great, or greater, than Los Angeles.

Portland - the poster child for smart growth - has worse traffic problems than Metro Denver.

Closer to home, Boulder has a long-standing commitment to growth management. In 1978, Boulder and surrounding rural areas created an intergovernmental agreement called the Boulder Valley Comprehensive Plan. Subsequently, county
commissioners downzoned 25,340 acres to agricultural. A total of 155,488 of Boulder County's 750,000 acres were protected from development by agricultural zoning. Another 10,961 acres were zoned as open space.

Boulder erected a growth-limiting legal barrier that was every bit as effective as erecting a brick wall around the city. Unlike Portland, it left very little space for development within city limits. Boulder was able to act independently because it had controlled its water supply since creation of its water department in the 1870s.

Boulder's growth boundary increased density within the city and this pushed affordable housing outside its boundary. Unchecked growth flourished in nearby towns and triggered annexation battles.

Other Metro Denver suburban cities - Arvada, Brighton, Broomfield, Golden, Lafayette, Louisville, Thornton, Westminster - have limited residential growth and slowed construction of subdivisions. Some - particularly Broomfield - have aggressively pursued commercial development for its tax revenues.

Where could workers find affordable housing?
Answer: Outside the boundaries of these cities.
Whoa! NIMBY! Not In My Back Yard!

* * *

Smart Growth's evil twin - Dumb Growth - is still in the driver's seat of Metro Denver's politics.

How did it happen?

Lay most of the blame on HIGHWAYS. Highways and sprawl go together like bread and butter.
We've milked the Highways cow in previous chapters. RTD and Light Rail. So how about a quick look at Malls?


Southwest Plaza in Littleton became the mightiest mall of all, with nearly 1.5 million square feet of retail space. It still is an envied, unincorporated tax island, with no sales tax. So is Southglenn Mall.

Most of the first generation shopping malls are now gone. Westland was demolished in 1992. Cinderella City finally died in 1997. Northglenn passed on in 1998. Villa Italia is gone. Buckingham Square Mall in Aurora is struggling. So is Westminster Mall. Cherry Creek Mall, now a high-end shopping center, is thriving. Aurora Mall is spending $100 million to upgrade.

Metro Denver's second generation malls are different. Much bigger. Located at major highway intersections. Park Meadows in Arapahoe County. Flatiron Crossing in
Broomfield. Colorado Mills in Lakewood.

Southlands Mall in Southeast Aurora is scheduled to open in 2004 at the intersection of E-470 and Smoky Hill Road. It will be BIG. Bigger than all of the other second generation malls. Like the others, it will draw suburban sprawl to it like a huge magnet. It will put big tax revenues into Aurora's treasury.

There are, or soon will be, big malls at every major highway intersection in Metro Denver. They are fed by Big Money - so big you can hardly believe it.

The Seventeenth Street Crowd used to talk about millions of dollars. Now, in Sprawl Land, the talk is about billions of dollars, as if it is nothing special. Do any of us really know how much money a billion dollars actually is?

It's all happening right here in River City. Somebody should write a song about it. Music Man II, or something. Or perhaps a tragic play, if we run out of water.

*        *        *

GROWTH is the patron saint of the American dream. Towns, cities, states, corporations all embrace it. Without growth we stagnate and others pass us by. Is it any wonder the roads to SPRAWL LAND are paved with millions and billions of dollars?

The spiderweb of heavy rails came first. Then came the spiderweb of highways, with their malls. Now, the spiderweb of light rails is forming. In the center of all of this sits the Spider. Spinning and weaving, obscenely rich. Its name is SPRAWL.

Can't anybody control and manage it?

Why doesn't the Denver Regional Council of Governments do something about controlling and managing sprawl?

First of all - What is it?

It's a mouthful. Most observers use the simpler acronym - DRCOG - pronounced Doctor Cog.

DRCOG started life in 1955 as the Inter-County Regional Planning Association, created by former Mayor Quigg Newton. Its name was changed in 1968.

DRCOG is a nonprofit, voluntary organization of municipalities and counties in the 6-county Metro Denver area. It has responsibility for key metro area planning activities including transportation, air quality, growth and development. Some view it as an excuse for not having some kind of regional government.

There have been several attempts in the past by Denver and its neighbors to form some kind of regional service authority. Mayors Bill McNichols and Federico Peña both tried to do it. Neither succeeded. Denver voters approved it, but suburban voters did not. They feared a regional authority would open the door to school integration and mandatory busing - like Denver.

Some services have been regionalized. Transportation. Sewage. Flood control. Cultural facilities. Sports stadiums. But not water, or growth control. Regional planning has not flourished in Metro Denver.

Governor Lamm expressed the sentiments of many, when he said in 1979, "For all
the money we have put into DRCOG, the returns are marginal. When you try to think of
the dynamic things DRCOG has done, nobody can think of anything."

DRCOG has served essentially in an advisory capacity, with no real power. It has
had to rely on persuasion. Bob Farley, DRCOG's president from 1970 to 1999, became
known as the "Great Persuader." DRCOG's mission has been to seek consensus among its
49 disparate member governments.

Farley was replaced by Bill Vidal, who had been with the Colorado Department of
Transportation for 23 years, finally serving as its director. Some observers wondered if
Vidal's appointment would tip DRCOG's planning toward highways, rather than light rail.
Guillermo “Bill” Vidal left DRCOG in June 2004 to become director of Denver’s public
works department.

DRCOG has leverage as dispenser of federal funds to its member cities and
counties. It holds the purse strings to considerable chunks of federal grant money. Under
federal law, DRCOG could cut off federal funds to those that violate its regional plans, but
it never has.

After seven years in the making, DRCOG unveiled its *Metro Vision 2020* in 1995 -
a growth planning framework for Metro Denver. MV2020 proposed a growth boundary
around Metro Denver of about 730 square miles - 16 percent of the total six-county area.
Growth boundary? Like Portland's? Like Boulder's? No way!
Metro Denver now covers about 540 square miles. About 1,150 square miles have
already been zoned for development - much more than the area within DRCOG's proposed
boundaries.

Give us something else, DRCOG.
It gave us an ominous population projection - 900,000 new residents in Metro
Denver by 2020. That's equivalent to adding another Denver, Aurora and Arvada!
DRCOG then gave us its *Mile High Compact*. It was defined as "an
intergovernmental agreement that legally binds communities together to responsibly
develop their communities and the region." Through the agreement, signing communities
agree to use their local comprehensive, or master, plans as the primary tool for making
decisions about growth in their communities.

This compact took seven years to hammer-out. It is, essentially, an agreement
among 26 cities and five counties to limit growth to a dedicated area, with a voluntary,
flexible boundary that was reduced from 1,100 to 747 square miles, in and around Denver.
Good concept, except DRCOG has no way to enforce it. The compact says that
member governments who don't abide by the agreement can be sued by neighboring
jurisdictions, but they already had that authority. The compact hasn't stopped Aurora,
which signed it, from engaging in a bitter legal battle with Douglas County over annexing
the Gartell/Rocking Horse subdivision.

Since DRCOG's urban growth boundary was established in 2000, there has been
rapid development outside it, primarily in unincorporated areas.

* * *

Why hasn't the Colorado Legislature developed a legally enforceable master plan
to control and manage growth?

It hasn't wanted one. It abolished the state planning commission in the 1960s. In 1990, the Colorado Supreme Court said master plans could be made enforceable. The next year the legislature changed the law so that master plans would be only advisory. The Denver Post called this "an egregious act of kowtowing to development interests."

Colorado is known as a local government state - one that wants to deal with problems on a local level. This collective gut feeling has led to bickering about growth in the Colorado Legislature since 1974, when it gave cities and counties broad, exclusive authority to regulate development within their borders. This reliance on local governments has fueled current growth management problems.

In 1999, Senator Bryant Sullivant of Breckenridge introduced his proposed Responsible Growth Act. It would require governments in fast-growing areas to establish growth boundaries that have the force of law. It opened a hornets' nest of opposition and was soundly defeated.

Thomas Ragonetti, partner in a prominent Denver law firm, teaches a course on growth management at CU-Denver. He urged caution about meddling with growth boundaries:

_The classic pattern: A young couple buys a bungalow in Denver, have a couple a kids, they max out of space. When they want to buy the next house, they look at the cost of that house in Denver. They're horrified by how expensive it is. They find they can buy the same house in the suburbs for a fraction of the Denver price._

_If you artificially restrict the ability to go further for a house, you are eliminating a choice for a lower or middle income person to buy a better house._

_I'm not particularly happy with the things I see going on up and down the Front Range, but if you view these changes as the cumulative result of a lot of human decisions to get the best life they can for the buck, I become a lot more careful about meddling with it._

Sullivant's proposed Responsible Growth Act received no respect in the 1999 legislative session. But there was a growing feeling that if the legislature is not willing to deal with the growth issue in 2000, the people will.

How? By _Ballot Initiative_.

Colorado legislators assembled in January 2000 with the threat of a ballot initiative hanging over their collective heads. Sullivant reintroduced his Responsible Growth Act. Once again, it failed to pass Senate committees. Many other growth control bills were introduced. None passed, partly because of lobbyists who tried to shape the bills and their amendments to fit the wishes of their clients.

"It's no secret," said John Goldin-Dubois, executive director of Common Cause in Colorado, "that money talks in politics and that's why everybody with money hires a
lobbyist. It's also no secret that the most under-represented sector of society in Colorado are the people."

Are Colorado's lobbyists a bunch of vultures, or are they the research arm for many legislators?

They're probably a mixture of both.

Colorado legislators work part-time at the state capitol - usually about four months a year - and have little or no legislative staff. They often don't have time for detailed research before voting on bills. Fact sheets handed to them by lobbyists, although biased, usually are truthful and information in them usually is required reading for legislators.

One key amendment during the 2000 legislative session addressed flagpole annexations - when a municipality reaches out to annex a prime piece of annexable land along a street or other right-of-way. Denver, prior to 1974, was a flagpole devotee. This amendment and its parent bill were defeated.

One of the biggest concerns was that the state legislature would try to adopt a one-size-fits-all growth law. For example, Walsenberg, population 4,000, should not have to go through the same planning regimen as Westminster, population 96,000.

The Colorado Legislature worked hard in 2000 to create an acceptable growth control bill, but it failed. There were too many special interests, led by highly paid, effective lobbyists. Underlying all of this was an undercurrent that wanted the legislature to fail, so that others could proceed to get the job done with a ballot initiative.

_Ballot Initiative - The Silent Majority's remedy when the legislature fails to act on an important issue._

Colorado adopted the ballot initiative procedure about a hundred years ago, so that voters could bypass corrupt legislators controlled by railroads, utilities and other powerful interests. Recently the ballot initiative has been debased as a way to obtain voter approval for self-serving measures that don't belong in the legislative process. Certainly not as an amendment to Colorado's constitution.

The ballot initiative has its dangers. Skeptics wonder if the state constitution is the proper place to resolve the urban sprawl problem. Should it be cast in constitutional concrete, where ambiguities could bring the Law of Unintended Consequences into play?

Flaws in laws passed by the legislature can be corrected by subsequent majority votes. Flaws in constitutional amendments are difficult to correct. If the Colorado Legislature can't obtain a majority vote on the growth issue, how could it obtain the two-thirds vote required to change an amendment to the Colorado constitution?

In late March 2000, John Fiedler - nature photographer and enviro zealot - announced that he would lead the fight to place a Responsible Growth Initiative on the November ballot.

Was the timing right for a ballot initiative on growth control?

No! said the _Rocky Mountain News_: "The growth initiative is simply not ready for prime time, let alone the supreme governing document of the state of Colorado. Recasting it as an initiated law would at least give voters assurance that its most glaring flaws can be fixed before they harden into concrete."

Others, of course, thought the growth initiative's time had come. Support for growth controls is strong wherever sprawl is a problem, which means Metro Denver,
where most of Colorado’s voters live.

Initiative 256 was placed on the November 2000 ballot as Amendment 24 - Citizen Management of Growth. Most people called it the Responsible Growth Amendment. Some called it the Fiedler Amendment.

Whatever. With 2,200 words and limited financial backing, Amendment 24 would be a tough sell.

Amendment 24 would require cities and counties to prepare enforceable comprehensive plans with growth boundaries. Future development would only be allowed in committed, or designated, growth areas - defined as areas with central water and sewer services where development has already begun, or where the local government can provide the necessary facilities and services within ten years.

Development within a city or county's boundaries, but outside its designated growth area, could only occur if the local government prepares and distributes a new growth area map, along with impact disclosures, to each registered voter. Then voters must approve the new boundaries at the next regular election.

If Amendment 24 passed, Colorado communities with a population over 10,000 would be forced to create new growth plans. Most of Metro Denver's large suburban cities already have growth plans, but many smaller cities do not. They would have to spend, collectively, about $25 million to create them. It would be a bonanza for land use consultants.

Fears of growth control if A-24 passes unleashed a flood of development projects seeking approval before the November 2000 vote. Aurora City Council changed its rules so that a "valid development application" is little more than a general proposal by a developer. It defined all previous submittals as "valid development applications."

While Colorado voters awaited the November vote on Amendment 24, the rabid growth machine continued Balkanizing Metro Denver - gobbling up the Front Range's open space. Nobody had been able to control it. Charles Roos of the Rocky Mountain News commented:

> Governors can't control growth. They can only persuade. Legislatures have the power to get tough, but lack the guts. That leaves the nature and timing of growth to county commissioners, city zoners and developers, and we all know what that means.

Amendment 24 had an Achilles’ heel - the adverse effects it would have on housing prices.

Proponents tried to score points with Colorado voters by demonizing developers as bad guys who come in, rape the land, make a bundle and leave. But it's not so easy to demonize families who only want to find a place where they can afford to live.

The Denver Post and the Rocky Mountain News both editorialized against Amendment 24, but Big Bucks would decide its fate. The Post's Ed Quillen reminded his readers of that when he quoted Cicero in his column: "As the Roman orator and philosopher Cicero observed more than two millennia ago, 'There's no fortress so strong that money can't take it.'" Perhaps he should have added, Money is always the trump card.
Unless it's in the San Luis Valley. Money didn't help Gary Boyce in 1999, but it
definitely helped Amendment 24's opponents in November 2000. They poured over $6
million into advertising that longtime Denver Post columnist Joanne Ditmer said "distorted
facts, pandered to the most outlandish interpretations and made statements that had nothing
to do with the amendment."

Amendment 24's supporters could raise only about $1 million to explain how it
would work. "Not enough," said Ditmer, "to also correct the dozens of misleading ads that
popped up late in the campaign."

Colorado voters rejected Amendment 24 by more than a 2-to-1 margin!

Larry Kallenberger, executive director of Colorado Counties, Inc., looked at the
battlefield, now deserted, and said, "There's a million people coming to Colorado in a
number of years. The question is, 'Where do we put them?'"

*        *        *

Supporters of Amendment 24 licked their political wounds and vowed to try
harder, and more wisely, in 2001. Instead of trying to convince voters, they would try
(again) to sway the Colorado Legislature, which had pledged to make growth management
its top priority.

Could the four most influential lobbies on the growth issue - enviros,
homebuilders, cities and counties - work together long enough to produce meaningful
legislation?

Don't bet the family farm on it. Or, more realistically, the family cow. "It's going to
be a big mess," predicted Chris Castilian, legislative director for Colorado Counties, Inc.
"And I'm not sure we're going to get anything resolved until the last couple weeks of the
session."

New leadership in the Colorado Legislature emerged at the start of the 2001
Republican. They pledged to shepherd comprehensive growth legislation through their
respective chambers and, finally, work together with the governor to forge an acceptable
compromise bill.

Ed Perlmutter? Over-the-fence Eddie?

Ed's family, the Leonard Permutters, were our neighbors in Wheat Ridge for many
years, beginning in 1956. Our daughters remember Eddie's high leaps on the trampoline in
the Perlmutter's back yard.

Ed now has a black belt in Tae Kwon Do.

Now 48, Perlmutter appeared to his fellow Democrats to be the ideal legislator for
taking leadership in the 2001 sprawl control battle. Todd Hartman, a Rocky Mountain
News staff writer, described Ed as "A moderate, widely respected by Capitol colleagues
for his intelligence and congeniality."

Perlmutter accepted the Senate leadership role on sprawl control legislation when
his friend, Senate President Stan Matsunaka, decided to tackle the 2001 session's other
difficult job - education spending.

Rep. Joe Stengle's background was the polar opposite of Perlmutter's. Joe used to
own a junkyard and he loved the rough and tumble of a brawl, in the Colorado Legislature, or anywhere else.

Sen. Perlmutter introduced Senate Bill 148, drafted by the Colorado Forum, a prestigious but narrow-based group of business leaders, planners, academics and enviros less radical than the Green Army led by photographer Fielder.

Rep. Stengle introduced House Bill 1225, which was developed by a coalition of business groups and county governments who had opposed Amendment 24. After its defeat, they promised to offer their own responsible growth bill in the 2001 legislature.

The Great Growth Debate raged on during the 2001 legislative session. Could these two divergent sides in the continuing Sprawl War find common ground by lifting the best attributes from SB 148 and HB 1225 and molding them into an acceptable compromise?

The legislative battle developed strange alliances. A column by News staff writer Todd Hartman mentioned one:

The bills were creating strange alliances. One of the oddest matched Tom Ragonetti, a sports car driving development attorney in a well-tailored suit, with tractor-driving farmers in cowboy hats.

Both were lining up against environmentalists' proposals, but made for an uneasy coalition.

They're from different worlds, one lobbyist confided early in the debate.

In a last-gasp effort, Senate President Stan Matsunaka tried to shift the debate from contentious lawmakers to a private group of developers, activists and lawyers - rational people, none of whom were lobbyists. The effort collapsed when Republicans, including Gov. Bill Owens, criticized Matsunaka for taking the debate behind closed doors.

Finally, the stalemate was handed to a six-member conference committee chaired by Joe Stengle. It was the traditional final step for hammering out contentious legislation into an acceptable compromise.

Lobbyists hovered outside the closed door sessions of the conference committee, waiting to be consulted, like attorneys outside a closed door Grand Jury hearing. Waiting to add perks that would make it easier for builders to get permits - and virtually impossible for cities and counties to halt growth.

They had clout. Developers and companies that shared their interests earmarked $278,666 to spend on a team of influential lobbyists who focused on growth legislation in the 2001 session. That figure does not include money paid to attorneys (Ragonetti) to craft the House bill in January. It didn't include additional lobbyists hired late to assist in the legislative end game.

Critics thought Stengle's reliance on lobbyists was excessive. "I've never seen it that blatant," said House Minority Leader Dan Grossman. Stan Matsunaka, Senate president, also sat on the conference committee. He said, "This is the biggest sham I've seen since I've been down here. The special interests own the House Republicans."
The 2001 legislative session ended on May 12 with the growth debate in shambles. Governor Owens called a special session of the Colorado Legislature, declaring that there was a "pressing need to find a solution for managing the state's growth."

Vincent Carroll, editor of the Rocky's editorial page, found Owens' "pressing need" for a solution to be confusing. "But a solution to what, precisely? The awful secret about the legislative debate over growth is that the lawmakers aren't quite sure what they're trying to fix, let alone whether any specific proposal will work."

The Great Growth Debate of 2001 went into special session overtime. It lasted 12 days, but the tired legislators took two 3-day weekends, so the working session was only six days. Expenses did not take time off and they mounted to about $168,000.

Then came the finger pointing. The Republican controlled House and the Republican governor blamed the Democratic controlled Senate. And vice versa. Accusations flew back and forth on the wings of frustration. Dan Grossman said, "I think it's an institutional problem." When asked what voters should do, he said, "They should throw us all out."

On July 12, Gov. Owens announced that he was calling another special session - the second overtime in the Great Growth Debate game of 2001. The Colorado Legislature had already met for 132 days in 2001. But July 1 was the start of a new fiscal year, with a fresh 20-day special session budget at the governor's disposal. There were other issues to consider, such as redistricting, but growth management was the legislator's primary concern.

How could the legislature accomplish anything in this 15-day (September 20 through October 5) second overtime session when they hadn't been able to do it in the previous 132 days?

Would there be enough time to accomplish anything? The Rocky expressed doubts on its editorial page on the morning of September 11, saying Gov. Owens' second special session "has about as much chance of succeeding intact as a busload of missionaries in Afghanistan."

September 11 - Afghanistan. What a coincidence! Suddenly, Metro Denver's growth management problem didn't seem very important. Economic recession loomed on the horizon. Thousands of jobs were being lost in Metro Denver. Not a good time to push growth control legislation.

But the Colorado Legislature went to work anyway on September 20. Perhaps there was a reverse twist on the September 11th tragedy - why not stop the bickering and do something?

In a remarkable change of political character the legislature passed four growth control measures. Four small steps in the right direction.

The legislature passed HB 1001 that restricted flagpole annexations - when cities annex narrow strips of land to capture far-flung commercial developments for their coveted sales and real estate tax revenues. It didn't stop more flagpoles, but it made them wider, more expensive and less likely to occur. And HB 1006, which requires Colorado's larger cities and counties to develop land use plans. But most of them already have such plans. Once again, the legislature failed to give the force of law to these growth plans. They are only advisory and therefore virtually meaningless.
It passed HB 1020, which was supposed to establish a framework for resolving land disputes between adjacent local governments. Under this law local governments will be encouraged to voluntarily resolve their differences. If they fail to do so, courts will make the final decision. But the court resolution remedy is already available to cities and counties.

After forming an improbable alliance between enemies - homebuilders and Sen. Matsunaka - it gave counties and statutory cities authority to levy impact fees. Home rule cities, which account for 65 percent of Coloradans, already have this authority. Impact fees can be used to make new development pay its own way for public services and infrastructure - water, sewers, fire and police protection, etc. Statutory cities are those which do not have home rule status. They, along with counties, had not previously been allowed to charge impact fees.

The legislature failed to correct an important impact fee problem. Neither home rule nor statutory cities are able to use their impact fees for schools, which account for much of the cost of new development.

It was the legislature's incremental approach to growth management legislation. Four small steps, some (like impact fees) questionable, but overall, probably headed in the right direction. Building blocks placed upon a foundation of small quasi-successes.


In 1999, Gov. Owens signed a bill to expand the concept of conservation easements. It provided state income tax credit to farmers and ranchers who donate land for conservation easements. It wasn't entirely successful, because farmers with little income needed cash flow rather than income tax credit.

Owens supported expansion of the state parks system and sales and income tax relief for developers' "brown fields" - urban lands that are open space, or economically defunct.

Colorado has 295,000 acres of state school land set aside for conservation, but it had made no significant effort to set aside large areas for open space. Not until Ken Salazar proposed his Crown Jewel Legacy Program.

What's that?
It's a plan to buy land to save it. How? By expanding the Great Outdoors Colorado program.

Salazar wanted the Great Outdoors program to receive an additional $50 million a year from surplus state revenues - if there are any - during the next 20 years, to buy the crown jewels of remaining open land in Colorado. He identified ten proposed crown jewels but said applicants for Great Outdoors' funds should help make the final choices.

What was Colorado's attorney general doing, proposing legislation? Why was the state's legal branch messing around in its legislative branch? Hidden political agenda? Does Salazar want to be governor? Or senator?

Salazar's plan had no chance in the legislature, but it spurred legislators into developing their own open space plan, before Salazar took his plan to voters by ballot initiative. It would permit GOCO to borrow money for open space by issuing bonds - up to $180 million including interest - to be repaid over a 20-year period, using lottery funds.
The legislator's open space plan was placed on the November 2001 ballot and voters approved it.

The Great Growth Debate of 2001 was finally over!

*   *   *

The legislature's 2002 session presented another opportunity to do something to control suburban sprawl, but the legislators had no stomach for it, even though polls showed that growth remained the No. 1 issue with Coloradans, along with the September 11 terrorist attacks and the plunging economy.

Legislators were preoccupied initially with the growth dividend - the popular term for revenue Colorado lost because its population estimates were too low during the 1990s. TABOR - the 1992 Taxpayer Bill of Rights - limits growth in state revenue to the rate of inflation and population growth, but it also allows adjustments if the estimates are wrong. This adjustment had to be made by the legislature in 2002, or the money would be lost.

After the 2003 legislature took care of the urgent growth dividend problem, it forgot about growth legislation and tried to do something about problems caused by the continuing, severe drought.
WATER, WATER, EVERYWHERE. Yet we know so little about it.

Water is the only substance that exists in all three physical states - liquid, gas, solid. We are two-thirds water by volume, 97 percent by weight. Our bodies can't process food without water. We can't live without water.

Water is so important! Why do we ignore it? In the press, on television, in our legislature, at our dinner parties, at our morning coffee talks? Until a drought occurs.

We live in a land where life is written in water, as Thomas Hornsby Ferrill's murals in our state capitol building remind us. Yet, in that same building, water is the forgotten issue. Until there is a drought.

Bob Ewegen, deputy editor of the *Denver Post*'s editorial page, understands Colorado's political problems and its water problems, after working nearly three decades for the Post. The Ewegen family has owned a farm in Phillips County since 1887. Water - and the lack of it - are deeply ingrained in Bob Ewegen's psyche. In a January 2000 column in the *Denver Post*, he said:

> I had a ... feeling of déjá vu all over again reading the six-way discussion on growth issues that the Post featured in yesterday's Perspective.

> It was my job to edit the 12,000 word transcript of our six experts' discussions down to the 3,800 word article we had room to print. In reading those 12,000 words, I was struck by the one word I DIDN'T see - water.

> Water has always been the ultimate arbiter of growth in the arid West. Yet not one of our erudite panelists had thought it worthy of mention in the growth debate.

> Water is so unique. It's like Arthur Golden said in *Memoirs of a Geisha*:
Water never waits. It changes shape and flows around things, and finds the secret path no one else has thought about - the tiny hole through the root or the bottom of a box.

There's no doubt it's the most versatile of the five elements. It can wash away earth; it can put out fires; it can wear a piece of metal down and sweep it away. Even wood, which is its natural complement, can't survive without being nurtured by water.

We forget about water. Until we have a drought - the byproduct of aridity.

ARIDITY. Do we really understand it?

Wallace Stegner did. He wrote about it eloquently in *Where the Bluebird Sings to the Lemonade Springs*.

Aridity, more than anything else, gives the western landscape its character. It is aridity that gives the air its special dry clarity; aridity that puts brilliance in the light and polishes and enlarges the stars; aridity that leads the grasses to evolve as bunches rather than as turf; aridity that exposes the pigmentation of the raw earth and limits, almost eliminates, the color of chlorophyll; aridity that erodes the earth in cliffs and bandlands rather than in softened and vegetated slopes, that has shaped the characteristically swift and mobile animals of the dry grasslands and the characteristically nocturnal life of the deserts. The West, Walter Webb said, is 'a semi-desert with a desert heart.' If I prefer to think of it as two long chains of mountain ranges with deserts and semi-deserts in their rain shadow, that is not to deny his assertion that the primary unity of the West is a shortage of water.

The consequences of aridity multiply by a kind of domino effect. In the attempt to compensate for nature's lacks we have remade whole sections of the western landscape. The modern West is as surely Lake Mead and Lake Powell and the Fort Peck reservoir, the irrigated greenery of the Salt River Valley and the smog blanket over Phoenix, as it is the high Wind River Range of the Wasatch or the Grand Canyon. We have acted upon the western landscape with the force of a geological agent. But aridity still calls the tune, directs our tinkering, prevents the healing of our mistakes; and vast unwatered reaches still emphasize the contrast between the desert and the sown.

Drought is a byproduct of climate. Our climate records reach back only about a hundred years - a mere blink of climate's paleo-eyes. Long, dry periods have occurred in the past, prior to the last century, on land that is now Colorado. How do we know that?
Tree rings tell the story.

Tree rings? Yes. Back in the 1920s, Professor A.E. Douglass at the University of Arizona began studying the growth rings of ancient trees. He studied more than a million tree rings, including rings in 1,500-year-old yellow pines and 3,300-year-old California sequoias.

Douglass' studies evolved into the science of dendrochronology - dating past climatic changes by the comparative study of annual growth rings in the stumps of ancient trees. These rings are narrow in dry years, wide in wet years.

Now, dendrochronologists use advanced technology involving computers and carbon-dating cores of ancient trees found in sediments of rivers, lakes and swamps.

Megadroughts lasting two to four decades or more have occurred periodically during the past 700 years in what is now the central U.S. Tree rings in centuries-old chunks of wood found in the Four Corners area show evidence of a drought lasting nearly 50 years.

Archaeologists have long disputed whether the Anasazi, ancestors of today's Pueblo Indians, were forced by drought to have a mysterious mass exodus in the 12th century. Kenneth R. Wright, of Wright Water Engineers in Denver, has developed evidence that there was an incredibly dry period that persisted from 1135 to 1180.

Wright's research indicates that drought may have been one factor in the exodus of the Anasazi, but it wasn't the primary cause, because the Anasazi didn't really start moving out until 1250.

Tree ring research isn't the only drought history game in Colorado. The U.S. Geological Survey's Earth Surface Dynamics Program is in the hunt. It's been studying the longterm Pacific Decadal Oscillation. Its recent report has this closing statement, "Recent trends in southwest precipitation and the Pacific Decadal Oscillation suggest that the climate of the region (Colorado) may become drier for the next two or three decades."

Suggest. May. Scientists' hedge words - but drier for the next two or three decades, however qualified, gets our attention.

Ice core research is a relatively new way of identifying ancient wet and dry periods and major droughts. When snow fell eons ago in polar regions, it settled on unmelted snow from the previous year, creating annual layers. Cylindrical cores drilled from ice miles thick in Greenland and Antarctica - some of it more than 400,000 years old - provide an unbroken record of past climates.

Almost 13,000 polar ice cores have been collected since the National Ice Core Laboratory opened in 1983 at the Federal Center in Lakewood. Ice cores are stored there and preserved for research. Climate researchers can order ice chunks shipped to them by Federal Express in insulated boxes.

A graduate student studying ice cores at the Federal Center said recently, in an interview with Rocky Mountain News reporter Jim Ericson, "Think of each tube as a book, a history book recording the climate in an area. The pages of the book are the annual layers of ice."

A new kind of history book is being developed - the history of climate. Mother Nature's secrets are being revealed hundreds - thousands - of years after they occurred.
We all know aridity in general terms. Lack of adequate precipitation. Extremely dry. But how little precipitation? Where does aridity start in the West and where does it end?

Aridity starts its westward movement at the hundredth meridian - a geographic term for a great circle extending from the south pole to the north pole. It passes through a point between North Platte and Kearney, Nebraska. Land west of the 100th meridian, all the way to the Pacific Ocean - except in the mountains - receives less than 20 inches of average annual precipitation - the minimum required for unassisted agriculture.

Colorado's climate is semi-arid. Our annual precipitation averages about 17 inches statewide. It varies from a low of 6 inches in some valleys to a high of 55 inches in a few isolated mountain locations. Metro Denver's precipitation averages 13 to 14 inches annually.

Colorado's dilemma, or opportunity, was expressed by the Denver Post columnist Ed Quillen recently: "You can adapt to the desert, or make the desert adapt to you. The founders of Colorado took the latter course, and we're still trying to make it work."

Early expeditions into the area that later became Colorado had no clue about Colorado's climate. Dr. Edwin James, chronicler for Major Long's expedition to the Rocky Mountains in 1820, wrote in his journal that this area was part of the Great American Desert - "a dreary plain, wholly unfit for cultivation and, of course, uninhabitable by a people depending on agriculture for their subsistence."

Dr. James' desert label wasn't intended to imply large sand dunes and big cacti with little or no water, but it took root in the public mind anyway and lingered there for more than 40 years. But rains came, eventually, and settlers ventured west of the 100th meridian, into eastern Colorado.

In the late 1870s, settlers newly arrived on 160-acre homestead claims encountered an unexpected problem - the Rocky Mountain locust.

They came in sky-blackening swarms through Nebraska and into Colorado and other states, chewing down everything green and much more. They brought trains to a halt, because squashed bug bodies made the tracks too slick for rail cars to move. The federal government declared the Rocky Mountain locust "The most serious impediment for the settlement of the West."

A Colorado Springs resident described what it was like to be caught in a swarm of locusts: "They circle in myriads around you, beating against anything animate or inanimate, diving into open doors and windows, heaping about your feet ... their jaws constantly at work."

By 1902 the locusts were gone. They've never been seen since. Gone forever? Don't count on it. Entomologists have found frozen locust bodies preserved in western glaciers.

A 14-year dry period in Colorado, from 1890 to 1904, along with the locusts,
forced many settlers to leave. Those that remained rejoiced during a subsequent 24-year wet period from 1905 to 1929, the longest recorded in Colorado's precipitation records.

New settlers flocked into Colorado, encouraged by a new concept that grew rapidly in public acceptance - *Rain follows the plow*. Climate west of the 100th meridian changes for the better when settlers turn the sod and plant crops and trees. They forgot all about Colorado's aridity. Until 1930.

*        *        *

The mother of all droughts in our nation's recorded history arrived in 1930 and stayed until 1940. The *Dust Bowl Drought* occurred simultaneously with the Great Depression. A double whammy of historic proportions.

Many years of poor agricultural practices had left the topsoil susceptible to winds, which whipped it up into big clouds of dust and sand called *Black Blizzards*.

The Dust Bowl Drought came in three waves - 1934, 1936 and 1939-40, but some High Plains areas experienced drought conditions for eight to ten continuous years. It was embellished in the public consciousness by writers, singers, poets and artists.

John Steinbeck's classic *Grapes of Wrath* memorialized the Dust Bowl Drought with long lines of old jalopies, loaded with poor families and all their possessions, moving slowly west to California, like biblical Joabs.

Woody Guthrie wrote and sang songs about the Dust Bowl Drought that mirrored the public mood. His *Talking Dust Bowl Blues* included this:

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Back in nineteen twenty seven,
I had a little farm and I called it heaven.
Prices up and the rain came down,
Got the money, bought clothes and groceries ... 
Fed the kids and raised a big family.

But the rain quit and the wind got high.
Black old dust storm filled the sky.
I traded my farm for a Ford machine,
Poured it full of this gas-i-line,
And started rocking and a-rolling ... 
Over deserts and moun-tains to California.
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Dust Pneumonia was a killer. In Guthrie's *Dust Pneumonia Blues*, he sang, *I went to see the doctor and the doctor said, 'My son, you've got the dust pneumonie and you ain't got long, not long.'*

Guthrie sang about Colorado's Black Sunday in *The Great Dust Storm*:

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On the 14th day of April of 1935,
There struck the worst of dust storms
That ever filled the sky ...
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From Denver, Colorado,
They said it blew so strong,
They thought that they could hold out
But they didn't know how long.

Tom Noel and Stephen Hart described Black Sunday in a recent Colorado Heritage article:

Among the worst dust storms was one beginning in February 1935 and continuing for two months with few interruptions. 'Black blizzards' ravaged the land and dug 'blow-out' trenches six feet deep.

At Two Buttes Reservoir, fifteen miles east of Springfield in Baca County, on Sunday, April 14, 1935 - 'Black Sunday' - some 300 picnickers and fishermen were hit with little warning. A fierce 'roller' approached from the northwest shortly after 2 p.m., and by 3:15 had curved back toward Springfield to envelop the town in darkness. The wind lasted more than twenty-four hours and left dirt dunes deep enough to block the road north to Lamar...

Two weeks before 'Black Sunday,' Springfield and Baca County made the national news because of forty-eight cases of 'dust pneumonia' and other respiratory illnesses which killed three youngsters and several adults...

But even the metropolis of Denver was not safe. The dust storm of March 26, 1935 required drivers in downtown Denver's Sixteenth Street to use their headlights at noon.

On May 21, 1935, the wind dumped an estimated 12 million tons of dry prairie soil on Chicago. Dust obscured the sun in Washington, D.C. It settled on decks of ships 300 miles out at sea. The dust storms of 1935 were the biggest in American history.

Louise Noel recalled, "People talked about looking up into the sky and seeing prairie dogs digging holes." Will Rogers quipped, "If Colorado blows over and lights on top of Kansas, it looks kinder like Kansas ought to pay Colorado for the top soil."

Humor helped. It's an essential survival tool. But there was an underlying sense of fatalism, which Clark Secrest caught in a recent Colorado Heritage article:

The people of southeast Colorado were resigned to their fate, ... because there was nothing they could do about nature's black blizzards. Written with a wet finger on a store window:

Ashes to ashes and dust to dust.
The men folks raved and the wimmen folk cussed.
Take it and like it!
In God we trust.

The Dust Bowl Drought is ingrained deeply in our national psyche - or should be. But droughts have long been part of the fabric of the West. Alexander McLeod, owner and operator of a stage station, wrote a long poem about *The Drought of 1897*. Here's part of it:

> The old year's gone and the new Year's come  
> With never a drop of rain.  
> It's enough to test the nerve of the strongest man  
> To gaze on the sunburnt plain.  
> The water holes in the creeks are dry,  
> With never as much as a dog could lap  
> So we've had to shift stock to the running springs  
> In the country away out back.

Frederick Remington's classic 1903 painting, *Fight for the Water Hole*, spoke of drought in the West.

Struthers Burt, a Jackson Hole, Wyoming, dude rancher, wrote a long poem in 1914 titled *Drought*. It started thus:

> Day in, day out, dust devils dance  
> Along the ridge. The cattle die  
> Stark mad, by leprous water pools.  
> Day in, day out, in wicked trance  
> A white sun sears in twain the sky.  
> And we who know so much are fools,  
> And God is dead - and you away:  
> You in the north and I so parched C  
> Day after day, day after day.

The Dust Bowl Drought and the Great Depression linger vividly in my memories. Especially the forest fires.

Fires were important to me when I was growing up in a small town in northwestern Wisconsin. I was afraid of them at first. Then I romanticized them. Finally, I fought them. All of this was recorded in either my diaries or in my autobiography:

> Sometimes, on a cold winter night, the siren would sound, wailing up and down, a dozen times or more. I knew what it meant. Somebody's house, or barn, or store, was on fire. It was the call for volunteers to report to the fire station. The severity of the fire determined the number of times the siren sounded. I put my head under the covers and waited for it to stop.

In 1928, when I was ten, I wrote about the Barros department store fire. It was
where my father worked. It changed his life and placed our family in a precarious financial situation.

I am sick and so is Dad. Barros' store caught fire. All I can see is smoke. Now the smoke is so thick I can't see anything further than Nell's house. Now the smoke is so thick on the south and west sides of our house that I can't see anything but the tops of the trees.

Dad's job disappeared in the thick smoke that enveloped St. Croix Falls.

Later, when I was in my early teens, distant fires somehow seemed exciting to me. I decided that I wanted to be a forest ranger and put them out. I loved the woods and forests.

Sometimes the air in the St. Croix River Valley was filled with smoke from distant forest fires. The smell was pleasant and a little exciting. I wondered where the fires were. To the north, no doubt. I heard stories about big fires in the past - the Peshtigo fire, the Hinkley fire, the Cloquet fire. Those stores excited me. The Peshtigo fire in 1871 was the largest in Forest Service history at that time. It burned about 1.3 million acres and killed 1,500 people. Many stories were told about those fires.

When I was seventeen, I enrolled in the Civilian Conservation Corps for a year. In the summer of 1936, I was assigned to the fire crew in the Nicolet Forest in northern Wisconsin.

The summer of 1936 was one of the hottest and driest of record in northern Wisconsin. I was assigned to the spotfire crew. About a dozen of us were located at the Forest Service garage in Mercer, next to the fire tower. When the fire lookout spotted a smoke, he called our foreman and we jumped into the back of trucks loaded with fire control equipment: shovels, grub hoes, axes, saws and water tanks (with short rubber hoses) that we carried on our backs.

Our job was to get to a fire quickly and put it out before it got out of control. Our crew went to 96 fires that summer. A few were false alarms. Many were hard to reach. It was hot, dirty, sweaty work, not at all like the outdoor paradise I visualized when Uncle Al showed me his fire tower photos.

It ended my boyhood dream of becoming a forest ranger.

The Civilian Conservation Corps is mostly forgotten now. But Denver historian Tom Noel remembered the CCC boys in his Rocky Mountain News column in June 2004.
Last Sunday about two dozen people gathered in the old mess hall. Al Coven, Chapter 7 president, worked at the Monument CCC Camp - the last one in the state to close - in 1942.

'We were more blasted poor than people can imagine nowadays,' he recalled. 'We lived the old Depression song':

Wear it out
Use it up
Make it do
Or do without ...

Red Rocks Amphitheater is their greatest and most visible achievement - and the place where years ago they decided they wanted the CCC marker to go ...

Some had dozed off, but nearly all grew alert when Coven reported on the long-awaited statue. For years the waning numbers of CCCers have been struggling to raise money to memorialize their work. Most of them figured, rightly, that they would be dead before this 6-foot-high bronze statue ever came to Red Rocks.

'The Worker' is a shirtless teenager working with a large, double-bladed axe. It has now been placed in 22 sites across the country.

The statue at Red Rocks will be dedicated on Labor Day 2004.

*  *  *

After the Dust Bowl Drought, President Franklin Roosevelt created the Soil Conservation Service. It's still around, now called the Natural Resources and Conservation Service. The SCS and county agricultural agents (like USBR's Floyd Dominy) helped farmers adopt soil conservation practices designed to hold the topsoil in place during dry years.

So the dust didn't blow as much during the next big drought, which occurred in the 1950s. But it blew enough, as Reb Sakata of Sakata Farms north of Denver, recalled recently: "I experienced in 1955 a severe drought that lasted until 1959. It will be hard for you to believe that when I drove from Brighton to Greeley, I had to drive about 20 miles an hour with headlights on because of the dust storm blowing over Highway 85 and even I-25."

The 1950s drought started in the southwestern U.S. in 1950. By 1953, it had spread into Oklahoma, Kansas and Nebraska. By 1954 it covered a 10-state area from the Midwest to the Great Plains and south into New Mexico. It was most severe in an area
DROUGHT

from the Texas Panhandle to central and eastern Colorado, Kansas and central Nebraska. It hit Colorado's Front Range where it really hurt - its water supply.

I vividly remember 1956, when the Denver Water Board's main storage reservoir - Cheesman - was dangerously low. Newspaper headlines chronicled the daily status of Denver's dwindling water supply, until help arrived in the form of a very large mountain snowpack in the spring of 1957. I was the DWB's water supply engineer at that time.

I also remember the drought music of the 1950s, especially Cool Water:

\[
\begin{align*}
\text{All day I faced the barren waste} \\
\text{Without the taste of water} \\
\text{Cool water.} \\
\text{Old Dan and I with throats burned dry} \\
\text{And souls that cry for water} \\
\text{Cool, clear water.}
\end{align*}
\]

\[
\begin{align*}
\text{Keep a-movin', Dan, don't you listen to him, Dan} \\
\text{He's a devil not a man} \\
\text{And he spreads the burning sand} \\
\text{With water} \\
\text{Dan can you see that big green tree} \\
\text{Where the water's runnin' free} \\
\text{And it's waiting there for me and you}
\end{align*}
\]

\[
\begin{align*}
\text{The nights are cool and I'm a fool} \\
\text{Each star's a pool of water} \\
\text{Cool water} \\
\text{But with the dawn I'll wake and yawn} \\
\text{And carry on} \\
\text{To water.}
\end{align*}
\]

And Tumbling Tumbleweeds, also sung by the Sons of the Pioneers and recorded on 45 and 78 rpm records.

This country music captured the essence of all droughts. Cool Water was written and sung by Bobby Nolan, whose real name was Robert Nobles. Bobby was born in New Brunswick, Canada, in 1908. He performed on radio in Los Angeles in 1933 with the Pioneer Trio. In 1934-35, the trio changed its name to Sons of the Pioneers - the most successful western harmony group of all time.

The Sons of the Pioneers introduced many western classics as a vocal and instrumental group and sold millions of records. Bobby Nolan was inducted into the Country Music Hall of Fame in 1980, the year of his death in California.

Cool Water and Tumbling Tumbleweeds have been placed in the National Archives. The Smithsonian Institution has designated the Sons of the Pioneers a public treasure. Droughts and Bobby Nolan helped them reach the heights of public acclaim.
Those of us who lived in Colorado in the 1950s know all about droughts. Don't we? But can we define them?

Maybe. It all depends upon who we are, where we live, and where our interests lie. There is no single definition of drought.

The dictionary offers a couple of simple definitions: (1) a period without enough rain, or (2) a period of shortage.

Then it can get complicated. A period without enough rain is called a meteorological drought. A period of shortages is called various drought names, such as hydrologic, agricultural, and socioeconomic.

Meteorological drought is described by location, beginning time, precipitation and ending time. From these variables we determine the frequency and duration of droughts.

Hydrologic drought means shortages in streamflow and reservoir storage. Like the 1950s drought.

Agricultural drought depends on soil moisture levels determined by precipitation and plant water use. Like the 1930s Dust Bowl Drought.

Socioeconomic drought might be shortages due to poor preparation and excessive demand, rather than lack of precipitation. Back East, a college seminar might discuss a drought of good creative writing. In Colorado, we might (should) discuss a drought of good water policy and planning.

The federal government, of course, has the longest definition: "Drought is a period of insufficient rainfall for normal plant growth, which begins when soil moisture is so diminished that vegetable roots cannot absorb enough water to replace that lost by transpiration."

In Colorado, where more than 80 percent of our surface water supply comes from melting snowpack, we can define drought as a period of insufficient snowpack and reservoir storage to provide adequate water supply to urban and rural areas.

One person's drought is another person's sunny day. Three weeks of little snowfall prior to the holiday season in Colorado's high country can be a ski resort owner's financial disaster. Or a golfer's delight.

Is it drought, or is it drouth? We called it drouth in Wisconsin. Wallace Stegner called it drouth. So did Elmer Kelton, a Texan, who wrote about drouths.

It doesn't matter what we call it, or how we define it. Drought - or whatever - is a unique item in Mother Nature's bag of tricks. It's not a clearly defined single event like fire, flood, earthquake, tornado and hurricane, with a definite beginning and ending. Drought sneaks up on us, disguised as beautiful sunny weather. It might have interruptions, which cause people to think the drought is over. It's sort of like an economic recession. We're not sure when it began, or when it ended, until sometime later.

Historically, droughts have caused important policy and legal changes in Colorado and the West. The statewide 1865-72 drought caused the Colorado Territorial Supreme
Court to announce basic water law principles applicable to periods of water scarcity and principles that provide for public access to water sources for beneficial uses.

The 1890-94 drought in eastern Colorado caused the 1897-99 Colorado Legislature to enact statutes allowing water exchanges and transfers of water rights from agricultural to municipal and other uses.

The 1898 and 1904 droughts in southwestern Colorado contributed to enactment of the Federal Reclamation Act in 1902, which established the Reclamation Service, which later became the Bureau of Reclamation.

The 1930-40 statewide drought caused the Colorado Legislature to create water conservancy and conservation districts and the Colorado Water Conservation Board. It also was an important factor in the U.S. Congress' authorization and funding of the Colorado-Big Thompson Project.

The 1950-56 statewide drought set the stage for:

- Congressional authorization and funding in 1956 for construction of Glen Canyon, Flaming Gorge, Blue Mesa, Navajo and Fontenelle dams - key units of the Colorado River Storage Project.

- Congressional authorization and funding of the Fryingpan-Arkansas Project in 1962.

- Enactment of the Colorado Groundwater Management Act by the Colorado Legislature in 1965.


The Drought Response Plan was blown out of public consciousness by the 1982 Christmas Day Blizzard.

* * *

It arrived with very little fanfare on Christmas Eve. Forecasters predicted a routine 4 to 8 inches of snow in Metro Denver.

Christmas Day dawned with Metro Denver knee-deep and higher in snow. Twenty-four inches in Denver, nearly 3-feet in Wheat Ridge and Golden. Winds created 10-foot drifts and wind chill factors of 30-below.

Streets were impassable. Cars were stalled everywhere. An estimated 2,500 passengers were stranded at Stapleton International Airport. Hundreds were stranded on highways and in malls. About 600 shoppers sought shelter in the Northglenn Mall. Some 2,000 others sought emergency shelter wherever they could find it - in malls, schools, churches. Streets were a whiteout nightmare.

It was a costly blizzard. It took over two months and $8.5 million for Denver to dig
itself out from the storm. It caused only three deaths in Denver, if you don't count the political demise of Mayor Bill McNichols. His staff and emergency workers were on holiday.

Mayor Bill was accused of failure to act quickly and efficiently. Snowbound residents were angry because it took five days for the city to start clearing residential streets. These and other storm-related problems ended the political career of McNichols at the next election.

The Christmas Day Blizzard of '82 still holds the Colorado record for biggest snowfall in a 24-hour period, but it was not nearly as big and bad as the Great Blizzard of 1913. It buried the state under 4-feet of snow over five days.

But it was big enough to bury the D-word - *Drought* - in deep recesses of the public mind, if there at all, for twenty years.

The 20-year period 1979-99 was the second longest, sustained wet period in Colorado's recorded history and its longest drought-free period since 1890. Extremely abundant snowpack and surface water supplies from 1982 to 1987 resulted in the largest streamflow volumes in this century for several Colorado rivers.

What goes around comes around. *Déjà vu* all over again. The dry period in Colorado from 1890 to 1904 followed by the wet period from 1905 to 1929. The dry periods of the 1930s and '50s followed by wet periods. Researchers have found that years with excess precipitation have balanced out the drought years over the past 1,500 years.

But we can't base our water policy and planning on *averages*. That would be stupid and dangerous. Some of the smaller water departments in Colorado do it anyway.

* * *

We should have seen it coming - the current drought that has *worldwide* dimensions. Demon Drought was down there, watching us, during our 20-year wet period, twisting its dry lips into a demonic smile, waiting, biding its time.

Southeast Asia has had its most severe dry spell in 40 years. New Guinea has experienced its worst drought in 50 years. Australia is having its worst drought in a century.

The Balkans - especially Romania - are having the longest drought in 30 years. In Yugoslavia, an agricultural expert said, "We are only a step away from a humanitarian catastrophe," because of drought.

By mid-2000, Afghanistan was in its third year with little or no rainfall. Regions of India and Pakistan were suffering from a momentous drought, with millions of people facing severe water shortages. Drought-stricken Israel, Syria, Jordan and Palestine were bitterly contesting increasingly scarce water supplies.

The politics of water during droughts has a global reach. By selling water to nearby thirsty countries, water-rich Turkey can boost its status as a regional power.

Much of the area in China's arid north and northwest is turning into a dust bowl, its land destroyed by drought and overuse. Its residents are caught in terrible poverty. China is doing something about it. It is taking gigantic steps to bring Yangtze River water to its areas of need.
The Yangtze - a river flowing from the Tibetan plateau about 3,000 miles through central China to the China Sea. A wild river, prone to disastrous flooding. Could it be tamed? Harnessed to produce hydroelectric power China desperately needed? And control floods?

Those were important questions in the mid-1940s, when China's Natural Resources Commission sent engineers to the Bureau of Reclamation in Denver to design the Yangtze Gorge Project. I was placed in charge of a group of Chinese engineers who would do the hydrology for the dam. I became enchanted with the magnitude and importance of the project. My writing juices started to flow and I wrote a feature article about the Yangtze Gorge Project for USBR's monthly Reclamation Era magazine.

It wasn't published. It was my introduction to bureaucratic politics.

The Yangtze Gorge Dam Project was abandoned in the late 1940s, after the Communists took control of China. It was revived, late in the 20th century, as the Three Gorges Dam - a highly controversial, $25 billion dam - the world's largest, slated for completion in 2009. In 2003, the project officially began storing water in the huge reservoir, which will hold as much water as Lake Superior.

It will be China's most formidable engineering feat since construction of its Great Wall.

* * *

Our current drought has national, as well as global, roots. It arrived in the United States in the late 1990s. Texas was its initial target. Texas seems to attract droughts. And drought books, such as Elmer Kelton's, *The Time It Never Rained*, published in 1973.

During the long Texas drouth of the 1950s, a joke - probably already as old as the state - was told again and again about a man who bet several of his friends that it would never rain again, and collected from two of them.

Indeed, it seemed the rain was gone forever. For parts of West Texas the ordeal lasted a full ten years. Though some would argue that it was not the most devastating drouth they had ever seen, it was by all odds the longest in memory.

Each generation tends to forget - until it confronts the sobering reality - that dryness has always been the normal condition in the western part of the state. Wet years have been the exception.

In 1996, more than half of Texas' 254 counties were declared drought disaster areas. Drought-related damages totaled $5 billion.

In 1998, drought hit the Eastern U.S. hard. Maryland, Pennsylvania, New Jersey, New York, Delaware, northern Virginia. Lake Erie's water level was down a foot from the previous year. Florida had its worst fire season in at least 50 years, with more than 200,000
acres burned. Texas had its 59th day without precipitation - a longer dry period than during the Dust Bowl Drought.

Drought spread over much of the U.S. in 1999. Crops and lawns from Virginia to New England were devastated. The Middle Atlantic states had the driest 12-month period ever experienced. New York parks lost most of their lawns. Maryland's severe water restrictions were enforced by fines up to $1,000.

The Drought of 2000 choked the Midwest - particularly the Corn Belt. It extended from Nebraska and Iowa across parts of Missouri, Illinois and Indiana and into Ohio. The Southeast was in the grip of a drought not seen in previous decades. It extended from South Carolina through Georgia, Alabama, Florida, Gulf Coast Louisiana and parts of West Texas.

Widespread drought in the U.S. continued in 2001. A wetland near Chicago that normally gets as much rain as Seattle dried-up. Water levels in the Great Lakes were falling. The northeast was having its second-driest year in 72 years of record keeping.

Nationally, drought conditions were bad in 2001, but worse in 2002, when it affected 30 percent of the U.S. Drought covered two vast eastern and western strips, each hundreds of miles across. The eastern strip went from Maine to Georgia. The western strip reached from Montana to Houston. They covered an unusually broad area, but not nearly as broad as the Dust Bowl Drought.

Wildfires raged out of control, nationally, in 2002. Fueled by the driest conditions ever recorded in many western states. An average of 1.5 million acres burn every year in the U.S., but 4 million acres burned in 2002. It was the worst wildfire season in 50 years.

By the first week in June 2002, range and pasture condition in Arizona, New Mexico and Colorado were poor to very poor. Lake Mead, on the lower Colorado, was at its lowest level in 30 years. The Rio Grande in New Mexico was less than 10 percent of its longtime average.

A New York Times columnist, Andrew Revkin, blamed the widespread 2002 drought on global warming. "Longterm planners in the United States," he said, "are already trying to adjust. Next year, California will for the first time incorporate climate change in its five-year water management plan."

The stage was set, globally and nationally, for Colorado's current drought.

* * *

Some Colorado climatologists saw it coming.

In late 1999, two Colorado State University climatologists - Nolan Doeksey and Tom McKee - said, "When drought returns to Colorado, as it surely will, it will be challenging to see how far we can stretch our water." They and others authored a CSU report published in February 2000 - A History of Drought in Colorado - Lessons Learned And What Lies Ahead.

A few others started to beat Colorado's D-drums - the drums of drought.
"We are on the verge of a drought," Leonard Boulas told the Colorado Drought Task Force in April 1999. In mid-June 2000, the Colorado Water Conservation Board warned that the threat of a severe sustained drought "looms over Colorado and its vibrant economy."

CWCB's staff contacted most municipal water providers in the state and inquired about their plans for coping with drought. Of the 69 that responded, less than half had done any drought planning. Only 4 percent had made a risk-based drought analysis. Many water departments were using average water supply records to design their water systems.

CWCB's report included this ominous statement: "A severe sustained drought will occur again. It is only a question of how often, how dry and how long."

In August 2001, CSU's Colorado Climate Center published *Drought Threat to Colorado*. It identified Colorado's five driest years during the past century - 1934, 1939, 1950, 1954, and 1956. Roger Pielke, Sr., one of the CSU report's authors and also state climatologist, told the *Denver Post's* Kit Miniclier, later in August 2001:

Now, while lawns are green and rain is in the forecast, is the time to begin preparing for a devastating drought of several years' duration...

Nobody knows whether the next major drought will be next year, or in 10 years or 20, but this area goes through unpredictable drought cycles and has had two remarkably good decades of moisture. Ignoring the inevitability of drought won't make it go away.

As scientists we can say that can happen, but someone at the political level has to grab this and do something.

DO SOMETHING?

In Colorado, where the legislature doesn't have a clue, where no water leaders have emerged in more than a dozen years? Where Metro Denver water agencies have not built any major storage reservoirs during more than a dozen years since the demise of Two Forks?

* * *

Colorado started experiencing severe drought conditions in 1999. Winter 1998-99 snowpack was 15 to 40 percent below average - quite variable statewide. Warm temperatures and winds in spring 1999 pushed much of eastern Colorado into drought. Three-fourths of the state reported only half of their average precipitation in March. November 1999 was the second-warmest of record in Colorado.

The following year - 2000 - was somewhat more benign, but precipitation continued to be below normal through the summer of 2001. The first five months of 2000 were the warmest of record. Range grasses withered. Temperatures at DIA set a record in summer 2000 - 61 consecutive days of 90 degrees or higher.
A mid-July 2000 article by Mike Alton in the Rocky Mountain News spoke of George Jenik's daily battle against drought. The Sedgwick farmer's day begins at 4:30 a.m., when he and his sons set the water in their irrigation ditches and laterals, "painstakingly switching out hundreds of rubber hoses that water the corn and sugar beets from Jenik's overtaxed well, giving each row barely what it needs and not a drop more.

"With no rain, we have to do this three times a day,' the 66-year-old, third generation farmer said. 'Three times a day, day in and day out. And after three months with no rain, and after doing all that work, you find you're just treading water financially.'"

Day in and day out. Remember the poem by Struthers Burt, the Jackson Hole rancher, in 1914?

Struthers Burt understood drought at ground zero. So did George Jenik.

* * *

Strange weather returned in November 2000. It was the coldest month in 120 years in Colorado, second only to 1880. Winter 2000-01's snowpack was below-average again, for the third consecutive year.

The water content of Colorado's mountain snowpack is measured at more than 92 sites equipped with automatic data transmission facilities operated by the Natural Resources Conservation Service. Measurements are usually made on about the first day of the month, January to May - sometimes oftener. The snowpack's water content usually peaks in Mid-April.

Colorado's 2001-02 snowpack was far below-average and it melted much earlier than usual. Its water content peaked in late March and averaged only 10 inches, compared with an average peak of about 18 inches. It melted steadily and much of it seeped into dry soils before reaching streams and reservoirs.

By April 24, 2002, snow water content was only 5 inches, compared with the historical average of about 17 inches. Governor Owens asked the feds to declare the entire state a drought disaster area.

During the third, and worst, year of drought - 2002 - Colorado recorded the lowest streamflows of record. And record-high wildfire activity. It was the driest year ever observed for much of Colorado. In an average year, Colorado's rivers carry about 16 million acre feet of water. In 2002, they carried only 4 maf.

Mary Crow, Colorado's poet laureate, composed a poem about the drought of 2002. Colorado Drought was published in Headwaters.

Drier than the left husks of last year's corn, drier than dead lichen,
air carries death to leaves,
a red dream burning stem and flower with its flare.

Overtaken by air's fire,
the greens turn brown, then browner.
Wind sears the afternoon,
twisting the yuccas on hillcrests
while the mountains melt.

In fear of their homes,
people gather in restless circles
and the earth bakes hard.
In the hush of noon, the sun lets down
its terrible streamers.

The economic effects of Colorado's 2002 drought were devastating. But the biggest hurt that Demon Drought laid on Colorado in 2002 was FIRE!

*        *        *

On April 24, 2002, the day Gov. Owens asked the feds to declare Colorado a disaster area because of the drought, a wildfire started near Bailey in Park County. It was the beginning of the worst fire season in Colorado's history.

Three teenage boys skipped a morning class at smoke-free Platte Canyon High School. A careless toss of a Camel Light ignited the Snaking Fire. It burned 2,500 acres and forced evacuation of a thousand homes for a week.

In May, the Schoonorer Fire, southwest of Deckers (near Cheesman Reservoir), burned 3,860 acres. The Black Mountain Fire started June 2 and scorched nearly 4,500 acres.

The biggest fire of all - Hayman - started June 8 and burned 137,700 acres and 133 homes. It required 2,564 fire fighters on the ground. Hot, dirty, dangerous work with bulldozers, picks, axes, shovels, grubhoes, pumpers, long water hoses. The air attack used six old slurry tankers, led to droop zones by small planes.

On June 9, 2002, Governor Owens declared: All of Colorado is burning!

Not all of Colorado, but it seemed like it.

About 4,600 wildfires consumed a record 619,029 acres in Colorado in 2002. Many of these fires will linger long in the memories and scrapbooks of Coloradans affected by them.

Serious water pollution problems followed in the footsteps of the Hayman fire. It burned so intensely that tree roots died from burns, life-giving soil microbes were killed, and the soil surface formed a water-resistant coating.

As Penelope Purdy noted in a Denver Post column, the soil surface "looks, feels and acts like water-proof, kiln-dried clay - not much good for growing anything but trouble."

All this caused serious water pollution problems for Denver Water, Aurora, and other downstream municipalities that divert and treat South Platte River water.
Snowmelt and rainstorms carry ashes and surface trash from the Hayman fire into Lake Cheesman and the river below it. This could continue for many years, because the watershed above Cheesman is a high-altitude desert where the soil is mostly eroded granite.

This area must be revegetated, in order to reduce water pollution and improve the watershed's water supply capabilities. But we can't wait dozens of years, or longer, for Mother Nature to do it in a hostile environment.

Denver Water will have to do most of the watershed rehab work. USFS isn't able to help much because of budget limitations.

DW will spend untold millions of dollars for land rehabilitation on the watershed above Cheesman Reservoir. Plus more millions making its Foothills water treatment plant able to cope with fallout from the Hayman fire.

Denver Water has already spent more than $2.5 million cleaning-up from the Hayman fire. Dredging sediment and debris from its South Platte reservoirs will cost many more millions. And its good water reputation may take a hit.

* * *

Colorado's wildfires in 2002 were bad. Very bad. But no lives were lost. Not comparable to the tragic Storm King Fire - ten years ago today - when 14 elite firefighters died in the nation's worst wildfire disaster in modern times.

They died on a steep, rocky slope of Storm King Mountain, seven miles west of Glenwood Springs. The firefighters were overrun by a wall of 2,000 degree flames, whipped by 45-mpm winds.

More than 200 family members are expected for the memorial service today in Glenwood Springs. Thousands of firefighters from around the nation have gathered there, to pay tribute and discuss what Storm King has taught them.

* * *

By late January 2003, Colorado's storage reservoirs were drawn-down to historic lows - 48 percent of capacity. Aurora's reservoirs were only 29 percent full. Five major storage reservoirs in Summit and Grand counties were less a third-full. DW's big Western Slope replacement reservoir - Williams fork - was down to about 10 percent of its capacity.

It was a very bad water situation. Denver historian Tom Noel said, in his February Rocky column, "This dry spring, the American Desert is coming back to haunt us."

Then Mother Nature looked in her bag of weather tricks, smiled, and took out a big one - the March 2003 Blizzard!

This time, they saw it coming.

They knew it would be big.
Snow removal routes were cleared.

Snowplows were placed at strategic intersections.

Waiting.

Waiting for the March Blizzard!

It arrived on schedule and dumped 24.5 inches on Denver, 58 inches on Lookout Mountain, 78 inches on Coal Creek Canyon. Up to 7 feet in parts of the foothills.

It eclipsed the 1982 Christmas Day Blizzard for second place on Colorado's record of big snowfalls. Second only to the Great Blizzard of 1913.

The March 2003 Blizzard ranks first in quality - *water content*. And first in snowstorm *damages*.

It was wet - really wet. It normally requires about 12 to 14 inches of snowfall in Colorado to create an inch of water. It only took 5 inches during the March Blizzard of 2003.

Heavy snow caused roofs to cave-in, tree branches to break, powerlines to snap and much more.

It was a perfect example of what can happen if the ingredients in Mother Nature's weather cookbook are mixed and timed the right way during an El Niño spring in Colorado.

Spring precipitation usually is above-average when El Niños visit Colorado. But a *big* snowstorm requires more than the El Niño route. The route and velocity of the jet streams have to be just right. That's the river of wind 20-35,000 feet above the earth that moves west to east from the California coast to the Rockies and beyond. The jet stream usually moves at about 120 mph over Colorado in the spring. In March 2003, it was racing at 180-190 mph. Its increased velocity made more energy available for storms.

Colorado's March Blizzard was born off the coast of Southern California. It dumped 5 inches of torrential rain on Los Angeles. Then it moved northeast through the desert, sparking thunderstorms and electrical fireworks. When it reached southwestern Colorado, its low pressure core was a hundred miles wide.

High winds whipped counterclockwise around the storm's core, sucking-up moisture-laden Gulf air and slamming it against the Front Range's mountains, where it was uplifted and condensed. The result was very heavy snowfall - Mother Nature's *perfect snowstorm*.

Perfect if water is your mantra. A backbreaker if you had to shovel it.

Did it break the back of Demon Drought?

Maybe. Maybe not. We didn't know.

It's like Yogi Berra said. *It ain't over 'til it's over.*
Drought! Fires! A worsening economy. What did Colorado's 2002 Legislature do about all of this?

Not much.

It was primarily concerned about money and transportation in its regular session.

The Rocky - tongue in cheek - sympathized with the legislators. "With the economy in a stall, tax revenues down 10 percent and no surplus revenues to lard in new programs, how's a legislator supposed to have any fun?"

In the same editorial, the Rocky became serious. It commented on Gregg Hobbs' suggestions.

* * *

Colorado Justice Gregg Hobbs not only practiced water law before he joined the court, he studied the history of water use and its role in the West as few others have. And he suggests it is time for legislators to review recent events to see which water users had decent supplies at crunch time and which did not, and why? What worked and what didn't? Who planned well and who didn't, and how might the law be adjusted to ensure more of the former and less of the latter ...?

Hobbs is a judge, not a lawmaker, and he's not recommending any specific reforms. But his reminders about the importance of long-term water planning - and the critical role of reservoirs to life in the West - are something legislators need to keep in mind as they contemplate how to respond to the ever-worsening drought.

The 2002 legislature tossed a few crumbs to water interests. It passed a law that determines when the state engineer may approve substitute water supplies for applicants awaiting court approval of permanent changes of water rights. The applicant still has to obtain the state engineer's approval of the substitute water supply.

The legislature strengthened CWCB's ability to keep water in streams to protect their ecosystems. And it established the Colorado Foundation for Water Education, which later published Citizen's Guide to Colorado Water Law, written by Justice Gregg Hobbs.

With the drought and the economy worsening and wildfires threatening, Gov. Owens called the Colorado Legislature into special session in July 2002. It quickly appropriated a million dollars to help Colorado farmers buy upstream storage water for augmentation, so that they could continue to pump their irrigation wells out-of-priority.

There wasn't any storage water available for purchase.

The 2002 legislature believed it had to do something about drought. It was too late to do much about the present drought, but perhaps it could do something about future droughts. So it considered creation of a $10 billion water bond financing plan.

$10 BILLION? Yes! It was originally priced at $5 billion. Then the legislators
realized the amount really didn't matter since the plan wouldn't create new state debt or levy new state taxes. Bonds would be repaid by the applicant's water revenues. It sounded like they were finally doing something about Colorado water. And drought.

The plan was fairly simple. Colorado communities, cities, or farmers would propose a water project to the Colorado Water Conservation Board. If the project is feasible, it would have to be approved by the Colorado Legislature. Then the legislature would authorize use of state credit to help the applicant obtain better financing for its revenue bonds.

"This is the most significant water legislation introduced in the past 100 years," said one of its sponsors. "We just want to get a funding mechanism in place so that we can get off the dime and start building new storage."

If you believe that - well -?

It's hard to imagine any Metro Denver water agencies submitting their proposed water projects to the CWCB and politicians in the legislature for approval.

The primary motivation behind the $10 billion plan probably was the Big Straw - resurrection of a huge water project first discussed in 1998 - the Colorado Aqueduct Return Project - CARP.

CARP's plan was to use Colorado's remaining compact water by pumping an average of 400,000 acre feet annually from the Colorado River at the Utah state line up to thirsty municipal water users - mostly in Metro Denver. Estimated cost: about $5 billion. Maybe $10 billion. Maybe more.

The CARP acronym didn't inspire confidence. Neither would the more appropriate acronym for the Colorado River Aqueduct Project - CRAP. So the project's name was changed to the Big Straw.

Gov. Owens said the Big Straw had "enormous potential" and should be investigated. CWCB's director, Greg Walcher, agreed and said $500,000 was available to CWCB's construction fund for hiring consultants to make a feasibility study. But CWCB would have to get a go-ahead directive from the legislature.

In a rare staff departure from the governor's and CWCB's water policy line, Mike Serlet publicly disagreed with his bosses. Serlet is CWCB's chief of water supply planning and financing.

Serlet told a Rocky reporter, Deborah Frazier, that large projects such as Big Straw hadn't been built because they had fatal flaws.

Fatal flaws? Perhaps Serlet had been re-reading the Colorado River Compact.

Serlet: "There's a reason why these projects haven't been built. It's because they are dogs."

The Big Straw didn't suck-up enough lobbyists and politicians in the 2002 special session. It collapsed on the floor of the Senate finance committee. Its remains were tossed into the legislature's wastebasket.

Perhaps the Big Straw should be renamed again. How about Lazarus? Its sponsors said it would rise again in the next legislative session.

Gov. Owens activated his Drought Mitigation and Response Plan in 2002. It's a statewide plan to respond to drought first, developed in 1981 and subsequently revised in 1980, 1996 and 2000. It's intended to coordinate the assessment of emerging drought and
its impact. And disseminate information about drought and response actions.

This drought plan is overseen by a Water Availability Task Force. One of its jobs is to advise the governor when he should request federal drought-aid funds, which he did in April 2002.

*  *  *

The 2002 drought focused attention on illegal pumping of groundwater from the alluvium on both sides of the South Platte in northeastern Colorado.

The alluvium? Yes. That's the sand and gravel deposits - about 150 feet deep and several miles wide - the river has deposited on its flood plain during thousands of years. These deposits contain water - lots of water.

Wells drilled into this water-bearing alluvium irrigate about 180,000 acres of farmland in five counties in northeastern Colorado. Many of these wells - probably half of them - have junior priorities. Their depletions - about half of the water pumped - are supposed to be replaced with water from another source - usually storage reservoirs.

Replacement water wasn't available in late summer 2002 due to the severe drought. The groundwater irrigators kept pumping anyway, thereby focusing attention on a problem that had been festering and worsening during the long wet period after 1982.

First - a little background.

Colorado has more than 24,000 farms and ranches. They occupy more than half of the state's 64 million acres. Colorado farmers produce wheat, corn, potatoes, sugar beets, dairy products and much more. The state's ranchers raise cattle, sheep, lambs, poultry, hogs and they're expanding to include bison, elk, emus, ostriches and fish.

Agriculture is a big part of Colorado's economy. It is dependent on water. The 2002 drought cut some crop yields 50 percent and forced liquidation of 75 percent of Colorado's cattle herds.

There is a general public perception that farmers are fighting a losing battle to urban development and urban sprawl. That's certainly true of agricultural land near Metro Denver, but not statewide.

A recent study indicates that irrigated cropland in Colorado increased 73 percent from 1950 to 1997. Most of this increase is due to pumping groundwater from the alluvium of the South Platte River below Denver.

The problem was that downstream pumping out of the South Platte alluvium, unless depletions were replaced by augmentation, adversely affected upstream senior surface water appropriators. They complained to the state engineer, without success. Finally, in late summer 2002, push became shove and serious water litigation seemed imminent.

Gov. Owens tried to avoid, or postpone, a court battle by approving an emergency expenditure of $11 million to help well owners purchase or lease water stored in upstream reservoirs, including Cherry Creek. This effort failed because there was no extra storage water available.
Attorneys for adversely affected upstream surface water appropriators complained publicly.

John Akolt, Jr., attorney for Farmers Reservoir and Irrigation Company, said his client owns irrigation wells with augmentation plans approved by the water court. "We've spent $600,000 on our well augmentation plans," he said. "We've had to replenish every drop. Everyone else should, too."

Veronica Sperling, attorney for Boulder and Highlands Ranch, said, "If we have to pass along some of our water to senior users lower on the river, that's fine. But when there's a group of people who are continuing to deplete the river flows by pumping, that's not right. That's what we have a problem with."

Bottom line - Upstream water interests want a level playing field.

The playing field, in the hot, dry summer of 2002, seemed to be tilted toward well pumpers. Held down on one side by the official weight of the state engineer and the attorney general.

Central Colorado Water Conservancy District has a $50 million portfolio of water rights which it uses to provide augmentation for about 1,500 wells. But CCWCD's other well owners are unprotected and vulnerable to upstream demands. Finding water rights to augment their pumping will be difficult and very expensive.

"How could these farmers go out and compete against Thornton and Aurora for new water?" said David Robbins, attorney for GASP - Groundwater Appropriators of the South Platte. "It's not possible. There isn't enough money, and even if there were money, there isn't enough water."

It was a desperate situation. In late July 2002, a group of Metro Denver cities, including Denver Water, Thornton, Boulder and Highlands Ranch, filed formal protests in Greeley water court against the state engineer's well management, saying it doesn't protect their senior water rights. The cities were joined by several big upstream irrigation companies, including FRICO.

It was major water litigation.

It December 2002, Judge Hayes ruled that the state engineer has no authority to approve the operation of these wells. Well owners, like surface water appropriators, have to go to water court to obtain approval of their well operations and augmentation plans.

Attorney General Salazar appealed Judge Hayes' ruling to the Colorado Supreme Court. He asked it to expedite the appeal process, "in order to salvage as much of the 2003 irrigation season as possible."

Judge Hayes' ruling ruffled the legislative feathers of a powerful state senator - Dave Owen of Greeley. Owen is chairman of the powerful Joint Budget Committee, which controls all state spending. He's also chairman of the Senate Appropriations Committee.

He was very angry. Ready to fight.

"I'll fight Denver. I'll fight other cities," Owen said. "I'll fight the ditch companies. I'll change the state constitution if I have to, to protect those farmers and keep their wells pumping."

* * *
Would the 2003 Colorado Legislature do something to solve this well problem and some of Colorado's other water problems?

It might, if the drought continued and Colorado's water interests push it hard enough.

The first step, surprisingly, was taken by Club 20, in Western Colorado. It is a powerful political organization based in Grand Junction. It represents 22 counties and two Indian groups. It has long been a strong political force, protecting and promoting water and economic interests on the Western Slope.

In fall 2002, with the drought worsening and Metro Denver water agencies casting covetous eyes on more Western Slope water supply, Club 20 decided to go in a different direction with its water policy - cooperation and compromise, instead of litigation.

Why not try to develop a win/win approach to water policy with both sides benefitting, rather than the old, costly winner/loser approach using expensive litigation?

Meanwhile, two other rural Club 20-like groups in Eastern Colorado were expressing similar views. Action 22, representing northeastern counties and Progressive 15, representing southern counties. Led by Club 20, these three groups formed a powerful non-metro coalition called the Colorado 58. Then they developed water policy guidelines, which they would present to the 2003 Colorado Legislature.

The six Metro Denver counties were left out in the cold. They rushed to draft a response to Colorado 58's guidelines.

They tried to pave this rocky political road with some feel-good comments. Andrew Wallach, a member of the Denver Water Board and Denver Mayor Webb's water policy advisor, set the tone: "We recognize that Front Range water diversions have had negative effects," he said. "And it is important for us to remember (that) as we plan future projects."

Peter Binney, Aurora's utilities director, was frank and humble. "What you've got here today," Binney said, "is quiet desperation. We're up against the wall. We will require new storage eventually. But we're trying to look at new solutions that can help us now."

The two sides worked long and hard, in many meetings, to find common ground based on cooperation and compromise. They finally found it at the annual convention of the Colorado Water Congress.

Denver's Mayor Wellington Webb seized the moment and arranged a historic meeting during CWC's annual convention in Denver in January 2003. On one side of the meeting table sat the Colorado 58. On the other side, the Metro Six. There was a momentum building for common ground. A realization that Colorado water interests must stop litigating and try to cooperate and compromise.

They hammered-out a historic truce, joined together now as the Colorado 64, representing all of Colorado's 64 counties. They agreed to present ten principles to the 2003 Colorado Legislature. Designed to shape legislative solutions to droughts and overcome decades of water wars.

All water users must participate in solving the drought.
The state should supply resources for planning and solutions
Water suppliers should give preference to local resources before looking elsewhere.
The state should look for new storage by first fixing existing structures and building new ones.
The rights of water owners should be flexible but protected.
Water flows in rivers should be protected.
Adverse impacts of new projects should be minimized and mitigated.
Water solutions should benefit both the user and basin of origin.
Water conservation that protects water rights should be pursued.
Coloradans should be educated on the importance of water conservation and management.

Sponsors of these principles introduced legislation in mid-February to implement them. It quickly died in committee.

Then came the March 2003 Blizzard.

The 2003 Colorado Legislature - perhaps awed by what Mother Nature can do, on both of climate's wet and dry sides, acted with surprising vigor. It passed laws that:

Authorized the state engineer to approve
  Water banks for stored water
  Temporary changes of water rights
  Substitute water supply plans
  Emergency water supply plans

Allow water loans to the CWCB to help keep water in the river during drought emergencies
Prohibit new residential covenants to restrict the use of drought tolerant landscaping
Authorize conservation easements for water rights that allow owners of water rights to keep their water in use for open space, wetlands, recreation, ecological diversity, or farming
Provide financial mitigation to counties that suffer tax revenue losses as a result of the transfer of water used for agriculture to other uses in other counties
Allow interruptible water leases permitting farmers to retain agricultural water rights, while leasing water to cities during periods of drought emergency
Authorize the department of local affairs to provide technical assistance to local governments to help implement tiered water pricing with higher rates
Direct the CWCB to conduct a statewide assessment of water supply,
demand and development strategies. Called the Statewide Water Supply Initiative (SWSI), it is due for completion by November 2004.

Direct the Colorado Water Resources & Power Development Authority to proceed with development and financing for projects requested by local government agencies, such as water conservancy or conservation districts and cities, as prioritized by the CWCB, using information in the SWSI.

Allow the CWRPDA to provide revenue and bond financing for small projects proposed by government agencies requesting less than $500 million.

Allocate $500,000 for a feasibility study of a water supply project known as the Big Straw.

Place before voters a measure known as Referendum A, which could authorize the state to issue up to $2 billion in revenue bonds for water projects recommended by the CWCB and approved by the governor. At least one project must have a 2005 start date.

Give well owners three years to get their augmentation plans approved by a water court.

The last new law in the above list - Senate Bill 73 - was approved early in the 2003 legislative session. It caused the biggest water battle. Thirteen weeks of very contentious meetings, in which Attorney General Salazar played a key role. Finally, in a historic compromise, well owners were given three years to get their augmentation plans approved by a water court. Until then, they can operate under temporary plans, if the state engineer approves them and there are no objections from other appropriators.

*   *   *

SB 236 breathed new life into the Colorado Water Resources and Power Development Authority.

What is it? Why does it exist?

In order to answer these questions, we need to leave the 2003 legislature briefly and take a little side excursion into Colorado water politics.

CWRPDA is the brainchild of former Gov. Lamm and State Senator Anderson. They wanted to find a way, in the early 1980s, to build certain federal water projects they favored - particularly Narrows Reservoir on the lower South Platte and Animas-La Plata in southwestern Colorado.

They encountered an obstacle in Felix Sparks, the forceful, effective director of the Colorado Water Conservation Board. Sparks vigorously opposed the pork barrel Narrows Project, because it was obviously infeasible.

Lamm and Anderson persuaded the 1981 legislature to bypass the CWCB by creating a quasi-state authority that would be more responsive than the CWCB to their
desired federal projects. In 1982, the legislature transferred $30 million from CWCB's construction fund to CWRPDA, where it was put in an escrow account until federal funds arrived.

Gov. Lamm directed the CWRPDA to develop all of Colorado's water resources as quickly as possible.

CWRPDA is not a state agency. Its 11-member board is appointed by the governor. It is dependent on the legislature for funding.

The anticipated federal funds did not come and CWRPDA didn't have much to do. It contracted with private consulting firms for certain feasibility studies, such as the Poudre study described in the Thornton chapter.

Under certain conditions, including tight control by CWCB and the legislature, CWRPDA can now make feasibility studies, final designs and specifications for proposed water projects and provide financial assistance to any participating governmental agency, providing it does not exceed $500 million.

CWRPDA recently found a back door that it opened to make a $15 million grant, or loan, to the La Plata Water Conservancy District. This caused Post columnist Ed Quillen to write about CWRPDA in a recent column.

*Early this year, the local chapter of the League of Women Voters invited me to talk about water issues in Colorado. I began by observing that it's pretty much a waste of time for voters to concern themselves with Colorado water. Even if our state constitution says the water of Colorado belongs to the people of Colorado, we don't matter.*

*The most recent example involves the Colorado Water Resources and Power Development Authority, an obscure quasi-state agency. It helps fund water projects in Colorado, and last week it turned out that two of its board members ... had been hired to lobby the board for water projects.*

*This same body, in a year when state government is strapped, also found $15 million for a tiny water conservancy district whose assessed valuation is only $29 million ...*

*Further, the authority's current assets are about $43 million ... If you put $30 million in a 5 percent savings account in 1982, you'd now have $83 million in the bank.*

*So the authority hasn't invested well and it hasn't developed all our water ...*

*One of the two major projects that the authority was established to build, the Narrows, is as dead as a project can get in Colorado. Animas-La Plata, on the other hand, is under construction. But thanks to Sen. Ben Campbell's herculean efforts at the federal trough, the state doesn't have to help finance this destruction of a good river.*
So it might have made sense this year to just eliminate the authority as one of those bodies, like the Moffat Tunnel Commission, whose time has come and gone. And its $43 million might have been put to some productive use.

However, $15 million of that is escrowed - for a grant or a loan - to the La Plata's Water Conservancy District ... There are only 89 irrigators in it, most of them hobby farmers. One of the irrigators, though, is a state senator ...

Plus, my state senator ... pushed through a bill this session removing legislative oversight of the authority. 'It's their money,' he said, 'and they shouldn't have to come back to us with every project.'

No, it's OUR money and its our water - at least in theory. But, as noted, in Colorado that doesn't matter.

*   *   *

We're back now on the trail of the 2003 Colorado Legislature. It did many good things, but it shouldn't have tried to get these dogs to hunt:

Big Straw Project
Referendum A

The Big Straw Project feasibility study, which the 2003 legislature authorized in SB 110, was a done deal long before Gov. Owens signed the bill in May 2003. CWCB had selected Boyle Engineering to make the $500,000 study in early January 2003, using funds in its construction account.

The scope of Boyle's investigation was made public in June 2003. Water would be diverted from the Colorado near the Utah state line, then stored, treated and pumped up through pipelines to some water users on the Western Slope and mainly to the Front Range.

Three routes would be investigated. The northern route will go west of Grand Junction, up toward Meeker, then to Kremmling and up to Dillon Reservoir. The central route would roughly follow I-70 to a point east of Glenwood Springs, then up to points where it could flow into the South Platte and/or the Arkansas basins.

The southern route would run roughly along the Gunnison River to Blue Mesa Reservoir, then under Monarch Pass and other mountain ranges into Antero Reservoir in South Park, then into Tarryall Reservoir for release to the South Platte.

Boyle's study results indicated the Big Straw Project was financially infeasible - something all the knowledgeable water people in Colorado knew before the study began.

Referendum A kicked up a lot of political dust in fall 2003. Denver's two daily newspapers were full of it for months. The politics of it created strange bed fellows. For
example, anti-growth zealots joined with Club 20, the Western Slope's promotional group that normally favors economic development. On its side of the Continental Divide.

The Denver Post's Theo Stein saw the ghost of Two Forks lurking in the shadow of Referendum A.

*Gov. Bill Owens, Referendum A's biggest supporter, agreed that Two Forks forever changed the debate over water development.*

*After Two Forks failed, Denver Water dropped plans to become a regional water authority, focusing instead on existing customers and expansion within its own service area.*

*As a result, the state's most influential 'water buffalo' is sitting on the sidelines during the biggest water fight in a decade. Denver Water is 'aggressively neutral' on Referendum A, Barry said.*

*Denver Water's retrenchment created a leadership void that saddled 500,000 people in suburban counties with water systems strained to the breaking point by growth, said Chris Paulson, a leading supporter of Two Forks and Referendum A.*

Referendum A would have made the Colorado Water Conservation Board, the Colorado Water Resources Power Development Authority and the governor big players in Colorado's water game. If voters approved it.

*Conventional wisdom has frequently quoted Colorado's late Gov. John Love's maxim - Water flows toward money. Sometimes. Referendum A's backers raised $788,254. Its opponents raised only $315,000, but they defeated Referendum A by a ratio of nearly 2-to-1.*

* * *

The Statewide Water Supply Initiative, authorized by the 2003 Colorado Legislature, would "investigate all aspects of water supply and water demand in Colorado during the next thirty years by evaluating water supply and water management project alternatives in each river basin of the state, formulating water development strategies for the implementation of the most promising alternatives in each basin, and building a consensus among the state's water users as to which alternatives and strategies should be pursued for implementation." The investigation is to be completed by November 2004.

The $2.7 million contract for the SWSI was awarded to Camp Dresser & McKee - CDM - in January 2003. Long before SB 110 became law. A formal vote on the CWCB's selection wasn't required. Funds were available in CWCB's construction account.

A few eyebrows were raised in July 2003, when it was disclosed that prior to obtaining the SWSI contract, CDM employed two board members of the CWCB - Harold Miskel and Ray Wright.
Miskel - former director of the Colorado Springs Utilities Department - worked as a paid consultant for CDM for the past two years. Wright - who represents the Rio Grande River Basin on the CWCB's board - also was a paid consultant for CDM when it was selected by CWCB to do the SWSI.

Legal? Conflict of interest? Ethical?
It's legal, said the attorney general's office.
Conflict of interest? Citizen boards, such as CWCB, can decide that for themselves, said the attorney general's office.
Ethical? No way.
Wright decided not to work on the SWSI because he didn't believe the conflict of interest question could be resolved. Miskel wouldn't comment.

CDM will pay 13 "basin advisors" $50 to $200 an hour in fees totaling $200,000. Critics complain that these outside consultants and advisors who will draft reports for their basins do not represent the interests of recreational and environmental water users and the public. Nineteen environmental and public interest groups have formally asked state water officials for a larger voice in the 18-month study.

This mixture of water and politics - it can get messy. And disturbing.

*   *   *

The 2003 Colorado Legislature should have passed HB 1195. It would have required our 52 water conservancy and conservation districts to operate like other special districts.

The Denver Post's Ed Quillen had a clear view of the 2003 legislature's lack of trust from his journalistic crow's nest in Salida:

If you had to characterize Colorado's political situation in one sentence it would be simple: The voters don't trust the General Assembly, and the General Assembly doesn't trust the voters ...

As for the legislators' distrust of the public, it surfaced last week when HB 1195 was 'tabled indefinitely' by the House Committee on State, Veterans and Military Affairs.

That was the bill that would have made our water conservancy districts operate like other special districts - that is, with elected boards, rather than boards appointed by judges ...

The House committee voted 7-4 against the bill ...

According to my spy at the hearing, the only committee member who explained his vote was Rep. Shawn Mitchell of Broomfield, who said he was against it because few people vote in fire district elections, so why give Coloradans a chance to vote in water district elections?
In other words, the majority in the legislature believes that we cannot be trusted. The legislature doesn't trust the public and the public doesn't trust the legislature.

The game of politics, as played under Colorado's Gold Dome, is hardball, with lobbyists among the key players. Colorado isn't unique. It's a national problem.

Businesses, unions and issue advocacy groups spent $715 million nationally lobbying state lawmakers in 2002 and an unspecified amount in 2003. Colorado's lobbyists probably took their share out of the honeypot. And they found time in 2003 to lower the boom on Freda Poundstone.

Freda is still active, almost 30 years after the 1974 Poundstone Amendment. In the 2003 legislative session, she lobbied against homebuilders who were trying to rush a bill to restrict lawsuits over shoddy construction through the legislature. Her tactics irked her peers and House legislators.

Poundstone was alleged to have circulated a criminal background check on another lobbyist who was promoting the homebuilders bill. This led to creation of a Lobbying Practices Task Force, "to recommend how relationships between legislators and lobbyists can be improved."

Eighteen House members didn't wait for the Task Force's recommendations. They signed a note posted outside the House chamber saying they would no longer be summoned from the House floor for conversations with Freda Poundstone.

Such is life under the Gold Dome, even for a veteran lobbyist. One who shaped Denver's future in the 1970s.

* * *

How did the Denver Water Board cope with the severe drought in 2002?

It was slow to react.

On May 8, Denver Water asked its 1.2 million customers - almost half of Metro Denver's population - to voluntarily reduce their water consumption.

It didn't work.

Denver Water spent weeks debating what to do next. It finally decided to impose mandatory water use restrictions starting July 1. Months later, Chips Barry said, "With hindsight, it now looks as if we could have acted more quickly."

DW had been prodded constantly by enviros after Two Forks to conserve more water. It tried, rather half-heartedly, but now - in summer 2002 - it wanted to get serious about conserving its precariously low storage water supply. But how should it convince its customers to conserve more water?

Denver Water's public relations experts had an answer.
Use humorous, eye-catching slogans strategically placed in newspapers and on sandwich-board signs placed on downtown Denver sidewalks.

*It's a drought. DO SOMETHING.*

*Brush every other tooth.*

*Instead of a dishwasher, get a dog.*

*Spray your grass green.*

*Shower together.*

*Instead of washing clothes don't wear any.*

An unidentified woman stripped naked on the 16th Street Mall!

It was a natural for DW's manager and resident humorist. Chips Barry took his act to a gathering of business heavy hitters in downtown Denver. He spiced-up dry drought talk with various Barryisms, most of them self-deprecating. One referred to his bad car accident a year ago. It had left him with impaired vision and other problems.

"I told my staff," Chips said, "that my brain damage is no worse than usual."

Then Denver Water got really serious. It imposed a surcharge on customers who used more than 25,000 gallons of water in two months. The surcharge would increase in steps up to double the customer's normal water bill. DW also prohibited all lawn watering after October 1, 2002 until spring 2003. Water Board members talked about the possibility of more severe restrictions if the drought continues in 2003.

*Truly remarkable*, said the *Rocky* in a mid-August 2002 editorial:

*The truly remarkable thing is, even Denver - supposedly water-rich Denver, which once seemed to harbor invincibly fat supplies - is talking about further limits on outdoor use if the drought doesn't ease. Denver has never in its history banned outdoor water use ... Yet, a partial ban is a least possible for next summer.*

* * *

How about future droughts? Can they be predicted?
No they can't. Not in Colorado at this time. Drought is one of Mother Nature's least predictable forces. But the experts keep trying.

Drought prediction in Colorado started with sunspot research led by Dr. Walter Orr Roberts, director of the National Center for Atmospheric Research in Boulder.

A sunspot is one of the relatively dark patches which appear periodically on the surface of the sun. They affect terrestrial magnetism and certain other terrestrial phenomena.

Roberts' research led him to conclude that he had discovered 11-year sunspot
cycles that could cause droughts. Then he found 22-year double sunspot cycles. But these theories broke down when tested over longer periods of time.

In recent years, climate prediction efforts have focused on Pacific Ocean phenomena that first came to public attention in 1982. That's when accurate records of ocean and atmospheric records of the equatorial South Pacific Ocean first became available.

Since then, researchers have noticed that unusual global phenomena may occur under certain conditions. Like when a huge mass of hot air hovers over the equatorial Pacific, heating a layer of ocean water about 500 feet thick in an area the size of Canada.

When that happens, the big mass of warm water flows eastward over underlying cool water toward the California coast. Usually around Christmas. Spanish fishermen noticed this warm water and called it El Niño - the Little Child. The Christ Child.

El Niños have abnormal effects on weather patterns, first across the equatorial Pacific and later around the globe. El Niños tend to boost the intensity of storms and the resulting weather tends to be wetter and warmer.

El Niño's cool little sister is called La Niña - Little Girl, in Spanish. She occurs when a large, abnormally cool pool of water stretches across the equatorial Pacific. It also causes far flung changes in the behavior of the atmosphere.

These climate sisters are nearly opposites. El Niño - warm and wet. La Niña - cold and dry.

El Niño and La Niña episodes usually begin to form during June-August and reach peak strength during December-April. They typically last about 9-12 months and usually occur every 3-5 years.

It's easier for climate forecasters to predict when these tropical siblings will arrive at California's coastline than what they will do after that. Scientists were able to predict, a year in advance, the El Niño that hit the California coast hard in 1997-98.

Scientists then said they could now predict the persistent rains and damaging mudslides that periodically ravaged the California coast, caused by El Niño. Media and press caught the significance of that statement and ran with it.

Like Paul Revere of old, they ran across the nation's newspapers and magazines shouting, Floods in Southern California - Blame them on El Niño. Droughts from the Great Plains to the Southeast - Blame them on La Niña. National Geographic magazine predicted that we never again will be caught off-guard by El Niño and La Niña.

Whatever the future may bring, the world need never again be taken completely off-guard by El Niño or La Niña. Due to the unprecedented foresight that climate science has made possible, the ocean's thermal moods may not seem so unpredictable and diabolical, but rather an ordinary part of life on the planet.

Never again? Never is a long time.

In October 2000, for the first time in three years, the equatorial Pacific wasn't unusually hot or cold. This condition left climatologists with fewer pieces of the climate
puzzle. Their computers couldn't predict anything. La Nada - Nothing.

The heady days of confident climate predic tions were gone. William Patzert, an oceanographer at NASA's Jet Propulsion Lab, said, "There comes a time when you have to admit your understanding is not complete and not to say more than you know. It's hard after three years of being a hotshot. It's really hard."

Even if weather along California's coastline can sometimes be predicted a year or so in advance, that doesn't mean that long range climate patterns in Colorado - particularly droughts - can be predicted. "Eighty percent of our (Colorado's) weather is not explained by what is happening in the Pacific," Marty Hoeling said recently. He's a Colorado-based scientist with NOAA (National Oceanic and Atmospheric Administration).

Bottom line: Long range predictions of droughts in Colorado are a crapshoot. They are an Occam's razor. Or so it seems to me.

* * *

Can we reduce the impact of Colorado's droughts by cloud seeding?

The current drought has revived this question at the Denver Water Board, after a dormant period of 46 years. This revival brings back memories of my encounter with the famous Dr. Krick in 1956.

Dr. Irving P. Krick became a celebrity because of his accurate forecasting of weather for General Eisenhower's D-Day invasion in World War II. After the war, he made headlines by forecasting weather worldwide and by seeding clouds to increase precipitation.

Dr. Krick died in Pasadena, California, in 1997, at age eighty. The Rocky Mountain News remembered the flamboyant meteorologist in a long editorial:

*Krick is all but forgotten today. But beginning in the 1950s, he personified the nation's fascination with the everyday application of new science and technology, including computers, radar and satellites.*

*He combined these new capabilities with a dash of showmanship to forecast sunshine, rain or snow in Denver and cities worldwide, often weeks in advance.*

*For 55 years, he based his forecasts on current weather, historic weather patterns and atmospheric flows that he cryptically described as being influenced by 'terrestrial and extraterrestrial forces.'*

*He made even bigger headlines trying to 'control nature' and generate rain by seeding clouds with silver iodide crystals heated by an electric generator...*
In the 1950s, he was grossing more than $1 million a year and employing dozens of forecasters.

For a generation, hardly a week seemed to pass that a photograph of Krick, dressed in elegant suits and his graying hair swept back in a pompadour, was not splashed across newspapers and magazines nationwide.

He counted more than 200 corporate clients ... In 1948, Krick moved his consulting and cloud seeding business to Denver. He was convinced the high plains would experience a severe drought. His operations at 460 S. Broadway was nicknamed 'worldwide weather headquarters.'

Bone-dry weather followed. Beginning in 1950, Colorado and surrounding states started paying Krick to wring more moisture from the skies. He reported 'spectacular' cloud seeding results, and with snow and rainfall as much as 125% above normal.

In 1956, Dr. Krick made an impressive presentation to the Denver Water Board to fill its dangerously low reservoirs by cloud seeding. The DWB's manager asked me to evaluate Dr. Krick's proposal and recommend a course of action.

I was the DWB's water supply engineer and had a little credibility in my curriculum vitae. Degrees in civil engineering and agriculture from the University of Wisconsin. Professional certificate in meteorology from the University of Chicago. Weather officer in the Army Air Corps in WWII. But nothing like the credibility of the famous Dr. Krick.

My report to the DWB recommended that Dr. Krick's proposed cloud seeding contract not be approved. My reasons included a belief there would not be enough moisture-laden clouds available to seed during the drought. The DWB approved my recommendation and didn't give Dr. Krick a cloud seeding contract.

Mother Nature smiled and produced the wettest year in Colorado history in 1957. Without any help from Dr. Krick.

* * *

The Denver Water Board spent $700,000 to seed clouds during winter 2002-03. Forty-one silver iodide ground generators were installed and operated by Western Weather Consultants in the five mountain counties that are home to DWB's snowpack.

DWB spent another $400,000 to seed clouds again in winter 2003-04. Its planning director - Ed Porkeney - said, "If there is a chance you can increase snowpack, you take it."

Should you?
No!

Michael Garstang, a University of Virginia atmospheric scientist and chairman of a cloud seeding study panel of the National Academy of Sciences, said, "The attempts (to seed clouds) are much like those of a desperate cancer patient taking unapproved drugs based on hope and belief rather than science."

A federally funded 2-year study of the DWB's contracted cloud seeding, recently released, essentially arrived at the same conclusion. The Rocky reported it in a late November 2004 editorial which included this:

*Given the latest research, ... it's time to give up the cloud seeding gamble. Metro water users ought to start asking why Denver Water intends to continue spending money on a program the utility's own water engineers seem to acknowledge, as Barry did last year, is as much 'art as science.'*

* * *

Any other bright ideas for reducing the impact of Colorado droughts?

Sure. Cut trees. Clear-cut broad swaths of trees in mountain forests to let sunlight melt the snow, before it is lost to evaporation.

It's not a new idea.

Most of the early tree cutting research was done at the Fraser Experimental Forest in Grand County, one of our favorite cross country ski areas, located near our former home in Winter Park Ranch above Fraser.

In 1956, foresters removed 40 percent of the trees on the 714-acre tributary, Fools Creek watershed, in alternating strips of clear-cuts. Since then, four decades of streamflow records indicate a 40 percent increase in runoff at a gauge at the bottom of the watershed, compared with similarly gauged runoff at a nearby control watershed that was not cut.

The only other similar research project in the Rockies occurred on the 4,100-acre Coon Creek watershed in southern Wyoming during the 1990s. Twenty-four percent of the trees on this watershed were removed in patch cuts. Results indicate a 17 percent increase in runoff.

Logging for water, as some call it, has both advocates and detractors. Kent Holsinger of Colorado's Department of Natural Resources, said recently, "Up to half a million acre feet of new water could be created by logging clear-cuts in clumps and thinning trees on broad swaths of federal and state land. The idea of more actively managed forests to mitigate wildfire and help restore water yields holds tremendous promise."

Gail Schoettler, in a Denver Post column, called it a dumb idea.

*Bonehead ideas sometimes flow from state government. But this one from Natural Resources chief Greg Walcher and other officials*
in Gov. Bill Owens administration wins a prize in the knucklehead category. Clear-cut Colorado forests to produce more water, they say.

What special interest got to these guys? What kind of fools do they think we are?

If Walcher had strayed from the party line on clear-cutting trees, he recovered quickly. In a later column in the Post he said, "Clear-cutting on a landscape scale is a discredited strategy from the past. It is not supported by Gov. Bill Owens and his administration."

So clear-cutting to increase runoff is out, politically, in Colorado. Tree thinning, to increase forest health and reduce fire danger is in. But tree thinning by USFS in Colorado's forests is difficult, due to lack of funds and lawsuits by enviros who want to prevent it.

How, then, can we reduce the impact of Colorado's droughts?

More reservoirs!

During the past century reservoirs have been the West's answer to drought and aridity. During the past 15 years, they have been the enviros' favorite punching bags. Some of them want to remove certain existing dams. Since 1996, the Sierra Club and other groups have led a campaign to drain Lake Powell.

Drain Lake Powell?

Ironically, drought may be doing it for them. More about that later.

*   *   *

October 1, 2004, marked the beginning of the sixth year (water year) of a severe sustained drought in the Colorado River Basin. The drought had eased over Colorado's Front Range, but severe to extreme drought persisted in far western Colorado and across most of Utah, Wyoming, Nevada and Arizona.

In November 2004, the mother of all tree ring studies was released. It's the most comprehensive reconstruction of Western drought data to date. It compiled tree ring studies from more than 600 sites across the West and extended previous records back 600 years. It indicates a drought-prone period lasting 400 years, from 900 to 1300. This period included four decades-long droughts, centered on years 930, 1034, 1150 and 1253.

The 400-year drought in the West between 900-1300 is what many scientists call the Medieval Warm Period. Scientists are saying it could have triggered a cooling of the surface of the Pacific Ocean that caused La Niñas, which are linked to droughts in the U.S. West.

A recent study sponsored by eight nations, including the U.S., and involving nearly 300 scientists, says the Arctic region is experiencing some of the earth's most rapid and
severe climate changes ever - warming. It's mainly due to rising atmospheric concentrations of heat-trapping 'greenhouse' gases.

Tree ring studies now suggest that warm Atlantic periods tend to last more than 23 years. During those periods, drought is more likely in the West. The northern Atlantic switched into a warm phase nine years ago and shows no signs of changing.

All of this caused Gregory McCabe of the U.S. Geological survey to say, recently, "Maybe the 20th century was the anomaly and this drought (in the Colorado River Basin) isn't the anomaly. That's the scary part."
DO THE DATES December 7, 1941, September 11, 2001 and January 19, 1991 mean anything to you?

The first two should. Pearl Harbor. The Terrorist Attack. Both are deeply ingrained in our psyche. But January 19, 1991? What's that?

It's the day the Denver Water Board's new manager - Chips Barry - recommended that the Board not file a lawsuit challenging the Environmental Protection Agency's rejection of a permit for construction of Two Forks Dam and Reservoir.

The DWB accepted Barry's recommendation, despite protests from its suburban partners, and embarked on its New Era. It replaced confrontation and litigation with cooperation and negotiation as Board policy.

The Two Forks veto was a watershed event in the history of Colorado water. We are still feeling its repercussions, more than a dozen years later.

The Denver Water Board did everything Colorado's water laws and courts required to provide adequate diligence for maintaining its conditional water rights for Two Forks Reservoir.

The DWB and its suburban partners spent $40 million on the environmental impact study for Two Forks - much more than the EPA had required for any other such application. The Corps of Engineers and EPA's regional director in Denver approved the application.

Then the Environmental Protection Agency, with a one page letter, vetoed it!

This veto raised serious questions about our water rights system and our plans and policies for developing additional water supply:

Should we continue to rely on conditional water rights when planning the development of additional water supply?
Should we continue to rely on the historical yields of absolute water rights?
Is Prior Appropriation dead?
Will New Age Reformers - enviros, recreationists, seekers of social
equity - control our water rights, water supply, water policy and water development plans?

These questions strike at the heart and soul of Colorado's doctrine of prior appropriation. In order to understand them, we need to go back and review our water rights history. Let's go all the way back to the 1849 California gold rush.

Miners had to divert water from streams to extract the gold. An informal rule emerged to keep peace among newly arrived miners and those who arrived earlier and had diverted water to a location further away from the streams. Miners who used the water first have the right to it, regardless of distance of their claim from the stream.

First in time is first in right!

Miners brought this informal rule with them to Colorado when its gold rush started in 1859. They developed the first unit of water measurement - the miner's inch. It varied with locality, but usually meant a flow of 1.5 cubic feet per minute.

Western miners were practical men. Occasionally they showed flashes of unusual wisdom. For example, officials at one old mining district developed this rule: No lawyer will be allowed to practice in any court in this district, under penalty of not more than fifty nor less than 25 lashes and shall be forever banned from the district.

* * *

In 1861, Congress carved Colorado Territory out of Kansas, Nebraska, New Mexico and Utah Territories. Colorado's territorial legislature enacted statutes recognizing the rights of irrigators to withdraw water from streams.

In 1862, Congress passed the Homestead Act, which allowed settlers to obtain land ownership if they lived on, and improved, the land for five years - later reduced to two years.

In 1866, Congress enacted the Mining Act, which allowed territories and states to adopt their own water laws, which also applied to public lands.

In 1872, Colorado Territory's Supreme Court decided, in Yunker v. Nichols, that Colorado water law arises from necessity in an arid climate and not from riparian law. It includes the right to cross public and private lands to build water diversion and conveyance structures. (Riparian refers to land or habitat immediately adjacent to a stream channel.)

In 1873, Territorial Governor Samuel Elbert issued a call for an irrigation convention in Denver City, to be attended by representatives from western states. They met and sent a petition to Congress asking it to enact laws to govern irrigation in the West. Congress did not respond.

The 1873 convention, nevertheless, provided a forum for different viewpoints about how to handle Colorado's irrigation problems. Union Colony's position was presented by David Boyd and J. Max Clark. They said water disputes should be taken out of the courts and placed under a system of impartial administrative management.

David Boyd contributed much to the development of laws governing the
appropriation and administration of water in Colorado. He was born in Ireland and lived in upstate New York as a youth. Boyd's studies at the University of Michigan were interrupted by army service in the Civil War, where he became a captain. After the war, he resumed his studies at Ann Arbor and graduated in 1866. He farmed in Michigan, then joined Union Colony and became an irrigation farmer.

When Coloradans held a constitutional convention in Denver City during the winter of 1875-76, David Boyd was instrumental in placing this statement in Colorado's constitution:

_The right to divert unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose._

Delegates to Colorado's constitutional convention also placed in the constitution the concept that water is public property:

_The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided._

Colorado's doctrine of prior appropriation was born in 1876, when it adopted its constitution and was admitted to the Union. Colorado was the first state to legally adopt prior appropriation. Other states followed later, using various forms of it.

Wyoming, Utah, New Mexico, Idaho, Nevada, Montana, Arizona and Alaska are prior appropriation states. Some western states adopted a combination of prior appropriation and riparian. California has three types - prior appropriation, riparian and adverse prescription.

Prior Appropriation had a difficult birth. Denver City's power elite - especially Will Byers and the Denver Chamber of Commerce - didn't want it to happen. "There's plenty water in Colorado's rivers," their experts said. "Enough to irrigate 25 million acres."

Prior appropriation's early years produced a flood of litigation in Colorado courtrooms, as irrigators attempted to establish their water rights. It was the beginning of showtime in Colorado courtrooms.

Lawyers quickly learned that the public came to courtrooms for the show, especially if the case involved water. Men would sit around a cracker barrel in a store, or on a bench in front of a saloon, or in the post office, talking about the trials.

It was theater in the West, especially in Colorado, before there was any theater. Water law would provide the most secure and most lucrative jobs in the state. Colorado would eventually have more water attorneys than any other western state.

*   *   *

Colorado's sacred doctrine of prior appropriation has deep ancestral roots in the
legacy of John Wesley Powell, one of the greatest men in the history of water in the West.

Powell was born in New York state in 1834 - the eldest son of an itinerant Wesleyan preacher. His early years were spent in a small town in southern Ohio, where his father preached abolitionism, along with religion.

At age twelve, Powell moved with his parents to a frontier farm in southwestern Wisconsin. During the next six years, John had major responsibility for running the farm. When eighteen, he helped his family move to Illinois.

Then he broke loose from family to take a series of summer jobs and trips, whose purpose was adventure and amateur natural history. He tried several colleges, but left because they offered no scientific courses.

Powell taught himself geometry and other sciences while teaching country schools off and on. He supplemented what he found in books with extensive collecting during field trips.

Powell volunteered for the Union Army in April 1861, when he was twenty-seven years old. Within two months he rose from private to second lieutenant. Five months later, he was a captain on General Grant's staff. In April 1862, Powell emerged from the smoke and roar of Shiloh with his right arm smashed by a miniball. His injured arm was removed three days later in a Savannah hospital.

Many books have been written about Powell, none better than Wallace Stegner's Beyond the Hundredth Meridian, for which he won a Pulitzer Prize. In it, Stegner said this about Powell's early career:

What distinguishes (it) is not its unusualness, but its intensity. He did the things that many of his contemporaries were doing, but he did them with a kind of ferocity and a restless, driving will to completeness and perfection that distinguished him from local Illinois naturalists while he was still a very young man.

Powell was a rare combination of intellectual and adventurer. He was among the first to climb Colorado's Longs Peak, accompanied by a small party that included Will Byers. He was the first to navigate the unknown, treacherous rapids of the lower Colorado River, in 1869.

In 1878, Powell wrote his famous Arid Lands Report, in which he said riparian law wasn't applicable to arid regions and urged legislators of states and territories in the West to avoid riparian law and adopt new laws based on the concept first in time is first in right.

Powell was appointed head of both the U.S. Geological Survey and the Bureau of Ethnology. Congress commissioned him to conduct a comprehensive survey of potentially irrigable lands and possible reservoir sites in the West. He persuaded the Interior Department to close all lands west of the 101st meridian to settlement, pending completion of his survey. It was the most sweeping public lands withdrawal in history, but Congress overturned it in 1889.

Congressional politicians drove Powell from office and forced him to resign. But it hasn't detracted from Powell's legacy. Western States followed his suggestions and did not
leave the creation of water law for the courts to decide without guidance. State constitutions provided for the protection of water rights as property rights. The U.S. Constitution provided that federal property rights are vested under state law.

* * *

In the late 1870s, a controversy arose over the administration of water rights on the Cache la Poudre. It led to the calling of another irrigation convention in Denver City in 1878. Delegates appointed a legislative drafting committee, chaired by David Boyd.

The committee drafted a proposal for administering water rights under the appropriation doctrine. It was approved by the convention and presented to the Colorado Legislature in 1879. After a few revisions, it became Colorado law.

The 1879 law provided Colorado's first water adjudication and administration statute. Court decrees for water rights would establish priority dates for irrigation use. It also provided water commissioners to enforce the administration of priorities.

The water commissioners were given more responsibility than their training warranted. They determined ditch diversions based on priority, but they did not know how to estimate the flow in the river or the amount of water diverted. Since they were paid by their constituents, the system was vulnerable to favoritism.

The 1879 Act provided that priorities would be determined by district courts, which would appoint referees to take testimony. This would provide the factual basis for obtaining a water right. Then the district court would issue a decree awarding priorities to the applicants.

It didn't take long for the 1879 Act to run into legal trouble.

A referee was appointed to adjudicate water rights in the Cache la Poudre drainage. He published notices and started taking testimony in September 1879. When testimony was completed, the referee filed it in district court in Fort Collins and went to Denver City to obtain a decree from Judge Elliot.

Judge Elliot refused to write such a decree!

Elliot believed, along with many other lawyers, that the 1879 Act had simply created an administrative procedure. It did not provide adequate opportunity for objectors to be heard.

Union Colony irrigators decided to petition the Colorado Supreme Court for a writ of mandamus to compel Judge Elliot to proceed according to the 1879 law. They appointed a committee that included David Boyd to employ counsel and begin the lawsuit.

David Boyd was described by historian Robert G. Dunbar as "hot headed." His anger at Judge Elliot showed in a blistering article published in the Greeley Tribune, which included this statement: "How long, my fellow sufferers, are we to be the playthings of quibbling lawyers, of hidebound precedents ... of blind conservatism, of crass stupidity?"

On January 20, 1881, the Colorado Supreme Court decided in favor of Judge Elliot. On that same day a bill was introduced in the Colorado Legislature to amend the 1879 legislation regarding priorities. The new language provided proper legal procedure for the adjudication of water rights. Adjudication proceedings would be initiated by petition or lawsuit, with defendants notified by summons. The 1881 Act was given
overwhelming approval by the Colorado Legislature.

A second bill was passed by the 1881 legislature to reorganize water administration procedures and create the office of state hydraulic engineer. Six water divisions were created - two on the Eastern Slope, three on the Western Slope and one in the San Luis Valley. Each division would be supervised by a division engineer. The water divisions were divided into water districts. A water commissioner assigned to each district would be paid from state funds and he would report to the division engineer.

The state engineer was made responsible for measuring the water in each stream and in each irrigation ditch. That information would be given to the division engineers and water commissioners.

The Colorado state engineer is not the water czar he is in some western states. Colorado probably has the simplest water adjudication and water administration system in the West. It is the least troubled by political influence and governmental authority.

Who would become Colorado's first state engineer? Petitions were circulated in the Cache la Poudre valley to appoint E. S. Nettleton, the former Union Colony engineer of questionable reputation. But Nettleton had moved on to employment by the English Company as chief engineer for construction of the High Line Canal.

Nettleton had many detractors. They proposed the state auditor, Eugene K. Stimson. He was a Civil War veteran, had attended West Point, and had worked as a civil engineer on construction of the Kansas Pacific Railroad.

Governor Pitkin appointed Stimson as Colorado's first state engineer. Stimson acted quickly to install discharge measuring devices on the Cache la Poudre and Big Thompson.

In June 1881, the Larimer and Weld Irrigation Company and Union Colony farmers petitioned Judge Elliot to proceed with the adjudication of water rights in Water District No. 3. This time they did it right - legally - and, in April 1882, Judge Elliot issued a decree determining rights to the use of water in the Cache la Poudre Basin. It was the first decree granted under the Colorado system of prior appropriation.

*        *        *

In 1882, that old rascal, riparian, was finally laid to rest by Colorado in Coffin v. Left Hand Ditch Company.

Coffin was a contest between an irrigation appropriator and a group of downstream irrigators who claimed riparian rights - Left Hand Ditch Company against C. W. Coffin and his brothers.

The company diverted water from the South Fork of the St. Vrain into a ditch extending to Left Hand Creek in an adjoining watershed. Left Hand Creek was named for an Arapaho chief who lived there before the white man arrived. The St. Vrain was named for Ceran de Hault de Lassus de St. Vrain, a descendant of French aristocrats. George Coffin would lend his name to the first challenge of the prior appropriation doctrine in Colorado, along with the right to divert water from one watershed to another.

George Coffin and his brothers irrigated land on the lower St. Vrain, below the confluence of its North and South Forks. In 1870, the Left Hand Ditch Company enlarged
its upstream ditch to divert more water into Left Hand Creek. During the hot, dry summer of 1879, the company diverted almost all of the water at its headgate. Coffin didn't receive enough water at his downstream headgate to irrigate his fields.

So Coffin tore out part of the company's headgate, believing that he was entitled to water before those who diverted water into another watershed. Left Hand Ditch Company sued Coffin, claiming it had a prior right.

*Coffin* clawed its way up to the Colorado Supreme Court, which ruled for the company. It declared that because of Colorado's aridity, the doctrine of riparian rights was not applicable to Colorado. It upheld the prior appropriation doctrine and said Colorado's constitution permits diversions of unappropriated water from one watershed to beneficial use in another watershed.

*Imperative Necessity*, the high court proclaimed, "unknown to the countries which gave (the riparian concept) birth, compels the recognition of another doctrine in conflict therewith. And we hold ... the first appropriator of water from a natural stream for a beneficial purpose has ... a prior right thereto, to the extent of such appropriation."

Coffin is a rather unusual family name. It seems likely that Judge Claude C. Coffin was a descendent of one of the St. Vrain Coffin brothers. Judge Coffin subsequently played an important part in the history of the NCWCD, appointing its directors for many years and ruling on important NCWCD policy matters. He was Weld County district judge and senior judge of the 8th Judicial District. Claude Coffin died in 1954.

* * *

Prior Appropriation, at age six, had won its first important legal battle. Its confirmation, in *Coffin*, was an important event in Colorado water law history.

Prior appropriation suffered during its early years from exaggerated claims for decreed amounts of water. The only restriction was that water diverted or stored must be put to *beneficial use*. That term became subject to various interpretations. Judges were unfamiliar with the measurement of water in ditches and the amount of water required to irrigate crops.

J. Max Clark, a Union Colony irrigator, invented the first means of measuring the flow of water in irrigation ditches. It was called the *Max Clark Measuring Box*.

It was invented at a time when many thought flowing water could not be measured. It was the forerunner of the Parshall Flume, invented by Ralph Parshall, professor of irrigation at Colorado A&M College, later Colorado State University.

Elwood Mead recognized the need for measuring irrigation diversions and ditch capacity, but he left Colorado before he could do anything about it.

Mead became an important man in the early days of irrigation in the West. After obtaining a civil engineering degree at Purdue, he was named professor of irrigation engineering at Colorado A&M. He served three summers as Colorado assistant state engineer, measuring the carrying capacity of irrigation ditches.

Mead discovered large discrepancies between decreed amounts and ditch carrying capacities. "So great was this in some instances," he reported, "that the results of my gaugings and the decreed capacity seemed to have no connection with each other."
In 1888, Mead was appointed territorial engineer of Wyoming. He moved to Cheyenne at a time when preparations for statehood were underway. He wrote the article in Wyoming's constitution that created the Wyoming system of water rights enforcement. He later became Wyoming's first state engineer.

Mead urged the federal government to build storage reservoirs on streams "as a means of further extending the reclamation of the irrigated area on public land by permitting a larger use of the flood waters that now run to waste early in the season."

Elwood Mead became commissioner of the Reclamation Service. He retained admiration for Colorado's centralized water administration system. He wrote, "To Colorado belongs the credit of having been the first state to enact a code of laws for the public administration of streams and these laws have directly and indirectly influenced more people than those of any other commonwealth."

Mead enthusiastically supported the Colorado-Big Thompson Project, but he died in 1936, before it was constructed. Lake Mead, behind Hoover Dam, symbolizes the legacy of Elwood Mead.

* * *

In 1891, Colorado's Supreme Court decided, in Strickler v. City of Colorado Springs, that cities may buy and transfer agricultural water rights to municipal use, so long as injury to other water rights does not occur. 1897 was an important year for Colorado water law. The Colorado Legislature adopted the first statute for water rights exchanges. The U.S. Supreme Court, in United States v. New Mexico, held that the National Forest Organic Act and other forest statutes do not create instream flow rights for fish and recreation within the national forests.

The National Forest Organic Act, enacted by Congress in 1897, prohibited further homesteading on, and sale of, lands on watersheds of national forests. It stated, "All water within the boundaries of national forests may be used for domestic, mining, milling, or irrigation purposes, under the laws of the state wherein such national forests are situated, or under the laws of the United States and the rules and regulations established thereunder."

Either under state or federal laws?

It was a recipe for future litigation.

* * *

In 1899, the Colorado Legislature adopted the first statute for water rights changes, such as from irrigation to municipal, etc.

In 1902, Congress passed the Reclamation Act, providing federal financing for construction and operation of water diversion, storage and delivery projects, to assist irrigation in western states. This led to creation of the Reclamation Service, which later became the Bureau of Reclamation.
In 1903, the Colorado Legislature extended the system of court decrees for water rights to include all beneficial uses, not just irrigation.

In 1907, the U.S. Supreme Court established two important concepts regarding water rights. In *Kansas v. Colorado*, it established the law of *equitable apportionment*, which provided the basis for development of the Colorado River Compact and other compacts involving Colorado.

Colorado has interstate compacts for these rivers: Colorado, South Platte, Arkansas, Rio Grande, La Plata and Republican. It also has a compact with Utah, Wyoming, and New Mexico in the Upper Colorado River Basin. It has a compact with interests on Costilla Creek. Interstate compacts may involve the signatory states and the U.S. government.

Prior appropriation's reach may not extend beyond Colorado's state line, where other legal devices, such as equitable apportionment and interstate compacts, may replace it.

The belief that all water flowing within a state, including federal lands, belonged to the state for disposition solely under its own constitution and laws received a severe jolt in 1907, when the U.S. Supreme Court ruled in *Winters v. United States*.

In *Winters*, the court held that when the United States reserved land for Indians, it also reserved water rights out of the then unappropriated water within the states where the reservations were located - water rights necessary to carry-out the primary purposes of the reservations. States could not deprive Indians of water reserved to them by Congress when it established Indian reservations.

The decision in *Winters* became known as the *Winter's Doctrine*. Its interpretation has been expanded to mean that when the federal government reserves land for some purpose (Indian reservation, national monument, national forest, national park, etc.) there is an *implied* reservation of an amount of water sufficient to carry-out that purpose - and the date of claim is the date of the reservation.

* * *

In 1913, the Colorado Supreme Court decided, in *Comstock v. Ramsay*, that return waste and seepage from diversion of *native* water belongs to the stream system. New water rights can be created from return water, but only to the extent senior water rights will not be injured.

In 1951, the Colorado Supreme Court decided, in *Safranek v. Town of Limon*, that all groundwater in Colorado is presumed to be tributary to a surface stream and is subject to the prior appropriation system, unless the groundwater is proved to be nontributary by clear and convincing evidence.

In 1952, Congress adopted the McCarran Amendment to a Justice Department appropriation bill. It allows states to determine the existence, priority, and quantity of federal and tribal water rights claims. These claims may be based on state law, or federal law, or both.

It required three Colorado court cases to convince the Feds that the McCarran Amendment requires the United States to *adjudicate* its water claims in state courts, so that
federal and state water rights can be integrated into a state's water priority system.

The 1964 Wilderness Act, and case law enacted before and after it, should have quenched the enviros' thirst for federal reserved water rights, but they didn't. In the early 1980s, the Sierra Club entered claims in Denver federal district court for implied federal reserved water rights in Colorado's 24 wilderness areas. Sierra Club v. Yetter was assigned to Judge John L. Kane, Jr.

Both the federal government and Colorado water interests opposed the Sierra Club's suit. The Justice Department moved to have the case dismissed, but Judge Kane denied the motion.

In November 1985, Judge Kane ruled for the Sierra Club. He wrote: "The Wilderness Act (1964) is the initial legislation creating an entirely new reservation of federal lands" (Kane's emphasis). He ruled that when the United States creates a wilderness area it also creates water rights to go with the wilderness. Without water rights, he said, "wilderness would become deserted wastelands."

Judge Kane seemed to ignore language in the Wilderness Bill stating "nothing in this Act shall constitute an express or implied claim on the part of the United States for exemption from state water law."

The U.S. Court of Appeals vacated Judge Kane's decision in November 1985. It held that the Sierra Club's lawsuit was "speculative and hypothetical."

In 1969, the Colorado Legislature passed the Water Rights Determination and Administration Act, which changed procedures for adjudicating water rights. A water clerk and a water judge were appointed for each of the seven water divisions. Applications would be accepted on a continuous basis. Each calendar year would be regarded as a separate adjudication. Each right filed in one calendar year would be senior to all rights filed in subsequent years, regardless of the actual date of first usage.

Water referees would be appointed by the water judges to make investigations and issue rulings. Objectors to applications for conditional water rights, water rights changes, plans of augmentation, or quadrennial findings of reasonable diligence in perfecting conditional water rights, may file objections to such applications with the water clerk in the appropriate water division. The referee, after investigation, may either rule on them or refer them to the water judge. If a referee's ruling is protested, the water judge is not bound by it.

The 1969 Act started the era of augmentation plans - a bonanza for water attorneys, water engineers, and many specialists.

In 1972, the Colorado Supreme Court ruled, in City and County of Denver v. Fulton Irrigating Ditch Company, that water imported from one river basin to another can be fully consumed, by reuse and successive reuses to extinction.

In 1973, the Colorado Legislature passed the instream flow and lake level law, allowing the Colorado Water Conservation Board to obtain new water rights sufficient to "preserve the natural environment to a reasonable degree." CWCB was also authorized to purchase senior water rights and change their use to instream flow rights.

In 1979, the Colorado Supreme Court ruled, in Colorado River Water Conservation District v. Colorado Water Conservation Board that Colorado's instream flow program is not unconstitutional under its prior appropriation provisions.
In 1986, the CWCB was authorized by the legislature to appropriate water for instream flows as a beneficial use, but only for the minimum flow necessary to protect aquatic life. CWCB was also authorized to purchase water rights and change their use to instream flow rights in order to preserve the natural environment to a reasonable degree.

The enviros wanted more! They persuaded the 2002 Colorado Legislature to change its instream flow statute to allow CWCB to accept donations of senior water rights to improve fisheries' habitat and improve degraded aquatic environments. In effect it removed minimum from instream flow.

Proponents, such as Trout Unlimited, said, "This is the most significant legislation for Colorado rivers in 15 years. It gives Colorado a powerful new tool to improve the health of rivers, which is good for the fish, for the anglers and for the economy." Surprisingly, proponents included the Denver Water Board.

Opponents said the bill would prevent agricultural and development interests from completely draining rivers and streams in time of need. A Rocky Mountain News editorial in April 2002 raised a significant red flag:

*If the Water Board can acquire water rights to 'improve' the environment, then of course there is no standard at all. Any and every acquisition for instream flows would qualify under such a definition.*

*At that point, Colorado effectively would have abandoned its 'use it or lose it' doctrine for water rights that has served it so well for so long.*

*Ah, but you might ask, what's wrong with a water system that allows owners to use the resource as they please - even if what they please is not to touch it at all? Isn't that what the free market is all about? Actually, no - not if in order to leave the water untouched the owners have to donate their right to a state conservation board that effectively takes the resource off the market.*

*There's a drought staring this state in the face, and if it gets bad and long, it's not going to be easy to supply today's population - especially on the Front Range - with adequate supplies of water. Everyone already knows how difficult it is these days to move Western Slope water across the Continental Divide, which is why so many communities in recent years have resorted to purchasing agricultural water rights. Now SB156 would begin to reduce the supply of agricultural water, too.*

*In the bone-dry spring of 2002, that makes no sense whatsoever. Kill 156.*

Was the legislature listening?

*No!*
It passed Senate Bill 156.

In 1976, the U.S. Supreme Court decided *Colorado River District v. United States*. It recognized the authority of Colorado water courts over reservation water rights of the Southern Ute and Ute Mountain Indian tribes.

Now - almost 30 years later - the importance of this reserved water is finally being recognized.

Federal reserved water rights claims seemed to be dead in Colorado. Until 1999. USFS had claimed, since 1977, that it has federal reserved water rights for instream flows in two national forests in Colorado. In a historic agreement negotiated largely by Ken Salazar - Colorado's attorney general - USFS finally agreed to relinquish its 1977 claims and accept a 1999 priority for instream flow rights in the two forests.

This agreement was hailed as a first-of-its-kind breakthrough - a historic national precedent.

Not so, said USFS. It's only a one-of-a-kind agreement, not applicable to other national forests. It doesn't apply to the White River National Forest, where USFS has been demanding bypass flows at certain water facilities as a condition for renewing rights-of-way permits.

**Bypass flows?**

A bypass flow, in this context, is an amount of water required to flow past a dam or diversion to support downstream forest water needs, such as wildlife habitat or recreation. Supporters say they are a necessary tool for protecting water dependent resources in national forests.

Opponents say this illegally intrudes into Colorado's authority to allocate and manage water use.

The U.S. Forest Service used to be a benign, unobtrusive agency dedicated to the multiple use of forests. Not any more! It is now very aggressive, constantly testing the limits of its environmental authority. It exceeded those limits, during the last year of the Clinton administration, with its assumed *bypass flow authority*.

It sounded innocent, but this policy's far-reaching implications had potentially serious consequences for Coloradans. It would require water rights concessions - such as bypass flows - in return for routine right-of-way permits, or permit renewals. *Blackmail* is a good word to describe it.

Sen. Wayne Allard and Representative. Scott McInnis represent Colorado in Washington. This is part of what they said, in an April 2001 *Rocky Mountain News* article about USFS's new bypass flow policy:

> When you survey the landscape of politics and public policy in Colorado, few issues compare in importance to water. Indeed, if you've lived in Colorado for any period of time at all, you know that in this great state water is sacrosanct. It's our life blood. And when outsiders start meddling with our water resources - whether it's Los Angeles, Las Vegas or the
federal government - they can and should expect a fight.

Such is the case with a new U.S. Forest Service policy that seeks to give the federal government de facto authority to strip water users of a significant portion of their water rights ... In our opinion the policy represents the single largest threat to water users in Colorado. More broadly, it promises to permanently upset the time-honored preeminence of the state in dealing with the federal government on water-related issues...

It is our hope that the Bush administration will allow that balance to be returned to Coloradans.

It did! It told USFS to back-off its high-handed demands for unlawful bypasses. But there's no guarantee USFS won't try to impose bypass flow authority again - if and when the political winds shift.

* * *

Would these attacks on Colorado's sacred doctrine of prior appropriation ever end? Not yet. Here comes the public trust doctrine. It's a doctrine of state ownership of stream and lake beds, used to cut-back on historic diversions in order to sustain fish and wildlife habitat and recreation. It's been used mainly in California. It has not been legally authorized in Colorado.

After success in California in the early 1980s, the public trust doctrine entered a Colorado courtroom in 1988, when a coalition of environmental groups entered litigation underway in Gunnison - Aurora and Arapahoe County versus water interests in the Gunnison River Basin. The enviros wanted the claims judged by public trust doctrine standards.

The water judge decided the claims were not to be judged by public trust standards. The enviros then appealed to the Colorado Supreme Court, which declined to rule on it and sent the matter back to the trial court.

Attorney John Carlson - Colorado's most knowledgeable authority on the public trust doctrine - died suddenly in 1992 at age 52. His premature death shocked the Colorado water community. One of his many friends eulogized him for the Colorado Water Congress. David Robbins:

His ability as a real property lawyer was a foundation for success as a water lawyer because John was not really a water lawyer. He was a property lawyer who practiced water law. Now, this is a concept often lost on the law student panting to become a `water lawyer.' Most often, folks who practice water law do so from a foundation in another area of the legal profession that may be related but which is often broader or more inclusive than just `water law.' That was absolutely the case for John Carlson.
Enviros in Congress attacked Prior Appropriation in the 1960s and 1970s with a deluge of new federal laws.

- Wilderness Act (1964)
- Wild & Scenic Rivers Act (1968, 1986)
- National Trails Act (1968)
- National Environmental Policy Act (1970)
- Environmental Quality Improvement Act (1970)
- Creation of the Environmental Protection Agency (1970)
- Water Pollution Control Act (1972)

Then came a 1974 state law known as 1041 for its legislative bill number. It enables counties to stop proposed water projects, even if they have conditional water rights, if county authorities do not agree on how and where they would be built.

This law attracted little attention until the 1980s, when Aurora and Colorado Springs tried to get a 1041 permit for their Homestake II Project, high in the Holy Cross Wilderness. Eagle County would not allow any water projects built below the Mount of the Holy Cross.

The plans for Homestake II were changed to tunnel under the wilderness area. But Eagle County officials squelched them. Homestake II is still awaiting Eagle County approval.

Prior Appropriation was hit hard by the new federal environmental laws, the state's 1041 limitations and harsh rhetoric from the enviros. They called Colorado's water laws archaic, inflexible, unable to adjust to changed conditions.

Have they become a religion?

The Post's Ed Quillen wrote a column about that titled, Just Treat Water Like a Religion.

Back when I made editorial hiring decisions for various small-town newspapers, I theorized that I could simplify the process by requiring the applicant to take a simple essay test: In 200 words or less, explain the difference between a conditional and an adjudicated water right and define what role is played by 'due diligence' in this process.
The main reason that I never used this test is that anyone who could pass it would be someone I'd be in awe of, and that would have ruined office discipline in a workplace where I was supposed to be in charge.

But in recent years, I've decided that the best way to approach Colorado water law and administration is to minimize the legal and technical issues, and look at it as though it were a variety of religion.

After all, there's a `doctrine' of prior appropriation, and old propaganda for various irrigation schemes speaks of `redeeming' land, as though the terrain had somehow sinned, but with some reservoirs and canals, virtue would triumph and the prophet Isaiah would be right that `the desert shall rejoice and blossom as the rose.'

The Colowater religion has a priesthood of attorneys and engineers who understand important matters that are beyond the comprehension of mere lay people like us. It has synods, sees and presbyteries in the form of special water courts, conservation districts and conservancy districts.

Like all worldly religions, Colowater has a charismatic prophet, John Wesley Powell, and his utterances are like those of most oracles - subject to interpretation that can support just about any view you want to advance...

In other religions, people argue about the meaning of words and phrases in the sacred text, and the same is true for our Colowater denomination. The definitions of `diversion' and `beneficial use' are being examined again this week in the Division 1 water court in Greeley, which handles cases in the South Platte drainage.

The city of Golden has applied for a water right in Clear Creek for a kayak course.

That raises some doctrinal questions. If the water is flowing through its `natural course' in a creek bed, how is this a diversion? In general, water has to be removed from its natural course by some artificial means (dam, weir, pump, etc.) in order for there to be a diversion...

And is floating through the water in a small boat a `beneficial use'? Golden municipal officials point out that ... there are economic benefits to the use of water, just as there are economic benefits to irrigating cornfields or supplying subdivisions.

But the Colowater scriptures were formed in the late 19th Century, and the revelations did not include the vision that there was any economic value in
leaving water in a stream.

To them, that was wasting a scarce and valuable resource that could be used in sluice boxes, long toms, rockers, stamp mills and potato fields...

Tourism, much of it based on fishing and float trips down the river, brought in at least $34 million - nearly seven times as much as agriculture.

Colowater doctrine will adjust. After all, there's one supreme commandment in our hydraulic religion, enunciated by former Gov. John Love: 'In Colorado, water flows toward money.'

A religion? Like Broncomania?

Recreation is now Big Business and water seems to be flowing toward it, in the courts and out of them. Along with serious legal problems.

Do floaters trespass when they float over a privately owned streambed? Do they trespass when they float on water bordered by privately owned property? If they do, is it a civil, or criminal, case in a court of law?

Colorado is one of the last states in the West to address these issues. Wyoming, Idaho and Montana courts have all concluded rivers and creeks are public domain and property owners along them cannot exclude floaters. Colorado's law on floaters is murky - like the Colorado during spring runoff.

The first court case on rafting began in western Grand County in 1976. It was a test case provoked by several rafters who wanted to get themselves arrested for trespass while floating down the Colorado over land owned by rancher Con Ritchard. His deed included the river bed and he had paid taxes for his land under the river.

The floaters were convicted of criminal trespass and the case was appealed to the Colorado Supreme Court. It ruled, in 1979, that floaters who pass private property could be charged with criminal trespass.

Meanwhile, the Colorado Legislature had passed a law in 1977 - while the Supreme Court was deliberating the same floating issue - that allowed floating along private property, as long as the floaters did not disturb the premises of property owners along the river or stream.

So whom should be believe - the Colorado Legislature, or the Colorado Supreme Court?

In 1983, Duane Woodward, Colorado attorney general, dipped his legal paddle in the state's murky floating rights waters. He wrote an opinion stating that the word premises means the banks and the streambed. If floaters did not touch the bank or the streambed, they could float. They were not subject to criminal liability.

Woodward's opinion also meant that property owners were not authorized to stop floaters on rivers adjacent to, or flowing over, their property. It meant that the bottom of a stream belongs to landowners, but not the surface of the water.

Further litigation seems inevitable. Well - why not? Colorado's water lawyers have
to make a living, somehow.

Colorado's water game is complex, difficult to explain, difficult to understand. But I never promised you a rose garden, did I?

* * *

Poor Prior Appropriation!

Hit hard by new federal laws, attacked by Colorado enviros and recreationists, charged with being archaic and inflexible, unable to cope with today's conditions.

**Will Prior Appropriation survive?**

Prior is already dead, according to Professor Wilkinson.

Who?

Charles E. Wilkinson, law professor at the University of Colorado's natural resources law center in Boulder.


From his Boulder base, Wilkinson litigated successfully for Indians in Utah and Wisconsin. He seemed to fight the old southern civil rights battles on behalf of Indians. It came naturally to him.

Wilkinson told Ed Marston of *High Country News* in an interview, "I suppose I decided to become a lawyer in May 1954, when I read about *Brown v. Board of Education* in the old *New York Herald Tribune* in Bronxville ... That period was the shaping moment of my professional and personal life."

Wilkinson left Boulder in 1975 for the University of Oregon. He returned in 1987 to a position at CU's law school. In 1989, he was appointed to the prestigious, endowed Moses Lasky chair. He has written several books, which have added to his stature.

Wilkinson publicly attacked the prior appropriation doctrine, which he eulogized as a mythical person - *Prior Appropriation*. In a 1991 article in *High Country News*, he said:

*As has been so widely reported, Prior Appropriation passed away in January of 1991 at age 143. Prior was a grand man and led a grand life. By any standard he was one of the most influential people in the history of the American West..."

*The story of Prior's birth has been told so many times it is part of the bedrock of western history - how on January 26, 1848, James Marshall, literally shaking with exhilaration moments after his epic discovery of gold,*
came upon a babe on his mad rush back to Sutter's Mill to spread the news.

The child was so young he must have been left by the side of the American River that very day. And although botanists deny the species ever existed in the Sierra Nevada foothills, legend persists that Marshall found the infant in a blanket nestled in bulrushes.

Moses - reborn as Prior Appropriation?

New Age waterspeak? Wilkerson:

Prior has now passed on. He died January 19, 1991, when his heart seized up after receiving a fax informing him that, on that very day, the new director of the Denver Water Board had recommended that the water developers not file a lawsuit challenging the Environmental Protection Agency's rejection of the dam at Two Forks.

*        *        *


Gregory J. Hobbs, Jr., led the attack on that report in an article published by the Colorado Water Congress in fall 1993. Hobbs wrote: "The Longs Peak Report conjures up an imaginary Western landscape promising 'A New Era of Sustainability for America's Waters' based on 'social equity, economic efficiency, ecological integrity, and continued commitment to federal trust responsibilities to tribes', a national water policy 'to fulfill Aldo Leopold's land ethic.'

"But the Long's Peak Report is no Bierstadt. Its loftiness quickly fades into a one-dimensional brief for the exercise of federal agency power over state and local planning. Composed mainly of representatives of the major environmental groups and their ideological allies, the invitation list foreordained the outcome, a set of listed recommendations intended to nationalize water policy and effectuate a reallocation of existing water supplies ...."

"Representatives of the Colorado General Assembly, state agencies, water organizations, farmers, or cities who hold rights to those water supplies were not asked to participate, although the forum was hosted by the National Resources Law Center of the University of Colorado School of Law. As a result, the report is biased in its anti-storage, anti-use, anti-local government agenda."

Gregg Hobbs, Jr., is a heavyweight fighter in the Colorado water community. His legal friends affectionately call him Herr Pit Bull. He has participated in many of Colorado's water wars as a legal specialist in water, environmental, administrative, and state and federal legislative law.

Hobbs graduated Magna Cum Laude with a bachelor's degree in history from the
University of Notre Dame. He obtained his law degree from the University of California (Berkeley) in 1971, where he was awarded the Order of the Coif. Prior to earning his law degree he served as a Peace Corps volunteer in Columbia and a sixth grade teacher in New York City.

Hobbs worked as a law clerk to 10th U.S. Circuit Court of Appeals Judge William E. Doyle and as an enforcement attorney with EPA. From 1975-1979, he served in the Colorado Attorney General's office as First Assistant Attorney General in the natural resources section. He was a partner at Davis Graham & Stubbs from 1980-1992. Hobbs was senior partner of the Denver law firm of Hobbs, Trout & Raley from 1993 until he was appointed to the Colorado Supreme Court in April 1996.

Hobbs also said this in the 1993 CWC article:

_Hitching state water law and the Bureau of Reclamation to the whipping post has been a favorite sport of writers like Fradkin and Reisner and professors like Wilkinson and his colleagues at the Natural Resources Law Center who helped to author The Long's Peak Report._

At Lewis and Clark in February of 1991, Wilkinson eulogized the death of a mythical figure he called 'Prior Appropriation.' In subsequent writings he broadly smears Western water use as 'prodigal waste' performed by the 'lords of yesterday' ...

_Wilkinson's so-called 'lords of yesterday' were and are farmers, businessmen and women, and community leaders. 'Water follows the shovel and the City Council' would more accurately characterize the history of Western water policy ...

_The public interest in environmental protection which The Long's Peak Report seeks to vindicate cannot be assured by rhetoric. Federal regulation is a transitory means for protecting the use of water for environmental purposes._

_There is no substitute for integrating new water uses into a proven, reliable system. The Western states have the job well underway. This is the genius of Mr. Prior. Contrary to popular rumor, he's not dead yet. Not by a Long's shot._

Prior is not dead. He did not die with Two Forks on January 19, 1991. He was almost strangled by the enviros, but he survived.

Few water laws in Colorado remain unchanged. Once enacted, they are studied by water attorneys, judges, scholars and legislatures. Some are modified, amended, repealed. This continual tinkering probably is a good thing. Bad laws can be weeded out. Weak laws can be improved, or replaced by better laws. Sometimes.
Colorado's water laws are a work in progress, with no end in sight.

* * *

Should Colorado explore alternatives for water right development and administration?

That question was raised at the 2004 Colorado water workshop in Gunnison by Stephen O. Sims and reported in CSU's Colorado Water. Sims is senior water counsel in the Colorado attorney general's office.

Some of the reported comments, seem to indicate that Colorado's water court system is seriously flawed. The water court process is too long and it is too expensive. The way in which water court judges are selected is wrong. They are often unprepared for the job when appointed and - because they periodically have to be approved for retention by voters in their judicial district - they tend to become biased.

During the past 15 years - since the water right determination and administration act was passed in 1969 - the time required to try a simple change of water right case has increased from three to nearly seven days. Trying a complex case now takes many weeks, sometimes months. It takes less time to try a first degree murder case in Colorado than the average water case. Sims:

Is it any wonder that the City of Aurora favors non-water court tools to change irrigation water to municipal use when the administrative path to approve the change of the Highland 9 Mile water took 3 months while the water court process to change a similar amount of water from the Rocky Ford system has been ongoing for nearly 20 years?

Water court judges are selected from an existing group of district court judges - not from the water bar. Their past experience is usually in civil or criminal law, not water, so they may have to learn about complex water law by on-the-job training.

Water court judges have to stand for yes-or-no retention by voters in their judicial district. This creates a bias tendency favoring local interests. When a water judge retired recently, after a 30-year judicial career, he said in a newspaper interview that the proudest moment in his long tenure occurred when he denied a water court application for a large transmountain diversion project (Union Park).

Some water divisions, such as Divisions 6 and 7, have few water trials. Water judges in such divisions benefit little from on-the-job training and they are often not prepared to try complex water cases.

Colorado does not need seven water judges and seven water referees to handle the case load on the state-wide water docket.

Pre-trial disclosures can be thousands of pages. In the recent South Platte wells case, the state engineer was prepared to make a disclosure of 300,000 pages of documents. Dozens of depositions usually precede every water court trial.

Every applicant - and most objectors - in a water court trial has to retain specialized engineering consultants as part of the attorney-engineer team, and often other consultants
in geology, soils, agronomy, etc., all costing many thousands of dollars.

Much of the disclosure, discovery and trial preparation is not necessary and could be avoided with more precise legal theories from both applicants and objectors.

The functions and responsibilities of the water referee should be changed. The referee does not now have to be an attorney. The referee's findings are not considered presumptive. Objectors can bypass the referee and go directly to the water judge.

While the referee has taken on some case management duties in some water divisions, the effectiveness of this function varies, because the referee is not always legally trained.

Sims concluded that these changes should be made in Colorado's water court system:

Streamline the disclosure, discovery and trial process.
Reform the role of the water referee as a case manager.
Create a statewide water court.

Sims believes that "these ideas will fix the shortcomings of the water court system and silence the call for additional transfers of power from the water court to the state engineer." Sims:

* The function of the referee should be changed away from the original investigator role to that of a trial management magistrate. The statute should also be changed to eliminate the referral to the referee for ruling. Instead, all cases should stay with the water judge, but be managed by the referee...

* Water court problems can be resolved by abolishing the water courts in the seven water divisions. The seven water courts could then be replaced by two water-only judges, assisted by two referee magistrates that would handle all water matters in the state.

* These judges would handle only water matters and should be recruited from the water bar. Trials would be held in the locality of the division if requested by the parties, but the retention would be statewide and cases would be rotated so that no judge handled cases from just one basin. It may make sense to term limit these judges so there would be a regular change of the guard, so no one judicial philosophy became dominant.

* The draining of Lake Powell could trigger a compact call. If that happens - or if it seems likely to happen - it would threaten Colorado's doctrine of prior appropriation and it would shake the foundation of the Colorado River Basin's law of the river. And possibly result in the biggest water war ever in the West.
Theo Stein, the Denver Post's environmental writer, explained the complex legal mess in the Colorado River Basin in two excellent columns in early April 2004. At the same time, the Post presented its views in an editorial. Excerpts from these sources follow:

The once-mighty Colorado River, which flows nearly 1,500 miles from the mountains of Wyoming and Colorado to the Gulf of California, is already the most controlled, politicized and litigated river in the country.

But if the region's drought continues, experts warn that a new war over the river's highly contested waters may be unavoidable.

The complex set of compacts, congressional acts and case law that governs the river has never been tested by the kind of drought that Lake Powell, Lake Mead and the other reservoirs were designed to guard against...

The unimaginable is becoming the reality on the Colorado River. The West's hedges against drought - Lake Powell and Lake Mead - are more than half-empty, as nearly a decade of drought has deprived them of Rocky Mountain snow-melt needed to replenish their waters.

The seven states that share the river now face tough choices about how to allocate scarce supplies...

One option is litigation, which would take years and not improve the situation meantime. The other, preferable, approach, is negotiating ways to share the pain and costs - but that will require extraordinary leadership...

Powell and Mead used to hold enough water to keep states from having to test the compacts toughest provisions. The lakes released water in droughts and were replenished in wet years.

Since the 1990s, though, the reservoirs have been falling - upper basin states just didn't have enough water to send down river. But lower basin states kept using water as if there were no drought.

Lower basin states may think they're still entitled to 7.5 million acre feet, drought or not. But that's not so.

The compact says they're entitled to 75 million acre feet on a rolling 10-year average. They had been getting more than that until the drought. Upper basin states say they could reduce their water release until the average dips below 75 million acre feet.

The U.S. secretary of interior can't make the upper basin states release
water, according to some Western water law experts. The secretary's role stems from a legal settlement between California and Arizona, and only applies to lower basin states. The compact itself can be changed only with unanimous consent of the seven states that signed it.

The situation is sadly ripe for pointless lawsuits. Fortunately, a few leaders in the compact states are discussing how to cope with prolonged drought.

The Post suggested that these key provisions guide the discussions:

The seven states should share the costs and hardships.

The states must implement tough conservation policies.

The states should settle internal feuds. Colorado's Western Slope and Front Range should recognize their mutual interests. California needs to get its act together.

States should seek flexibility in the traditional role that the first person who filed a water right forever has first claim on it. Leases and other ideas should be studied.

Stein: "If the drought persists a year or two more, (Powell) could be drained dry as early as 2007," federal officials say.

"That would propel Colorado - and 30 million other Westerners who depend on the Colorado River for their drinking water - into an uncertain future punctuated by recurring water shortages and decades of litigation, experts warn...

"'Time is running out,' said Pat Mulroy, director of the Southern Nevada Water Authority. 'The drought no one thought would even happen is here'...

"If Powell dries up - and hydrologists caution that is still a big if - the state could eventually be required to turn off the massive transmountain tunnels that have supplied Colorado River water to Front Range residents and Eastern Plains farmers for more than 50 years.

"Federal and state officials have not thought through how they would react to the nightmare scenario of a severe extended drought. But Lake Powell's steadily declining levels have convinced many that the time to evaluate the vulnerability of the West is now.

"'That's something we in Colorado need to address,' said Scott Balcomb, a Glenwood Springs water lawyer who represents the state on Colorado River issues. 'These issues haven't been explored as deeply as we need to this year'...

"Several former state and federal officials added that, as a minimum, the threat of continued drought should force water managers to seriously consider questions that were once unthinkable.

"For example, what would happen if (State Engineer) Simpson had to start shutting down existing Western Slope water users to allow the legally required amount of water to
flow to California, Arizona and Nevada?

"Or should the administration of Colorado Gov. Bill Owens continue with plans to encourage diversions of more Western Slope water to the Front Range to provide for the estimated 2.8 million new residents the U.S. Census Bureau estimates will flood into Colorado by 2030?

"The moral is that if we think we have more Colorado River water that's developable, we'd better think again,' said Getches, dean of the University of Colorado Law School. 'We may already be beyond the point of safe development of Colorado.'...

"Getches, the state's natural resources director under Gov. Dick Lamm, knows he is delivering an uncomfortable message.

"If there is a compact call, we hit the wall,' he said. 'We wouldn't be able to use water called by the lower basin. We have to think about that.'"

Nevada's Pat Mulroy:

'Time is running out... The drought no one thought would happen is here'...
Mulroy said a mega-drought would ... require Westerners to suspend fiercely guarded traditions regarding water use. 'This could mean some residents of one state would temporarily give up the use of their water to prevent a crisis in another state,' she said.

'It could also mean suspending the doctrine of prior appropriation which has assumed an almost sacred position in Western water law,' Mulroy said.

'We will have to shift from what's on paper to what's needed for homes and communities,' she said. 'It doesn't have to be perpetual, but in order to get through an emergency, it's going to have to happen.'

Stein quoted John Leshby, a Hastings College law professor who was a lawyer in the Clinton administration. Leshby and many other water scholars point out that the laws governing the Colorado River, of which the compact is but one part, have never really been tested. Rather than a coherent whole, the law of the river is, Leshby says, "a mix of compacts, congressional acts and legal decisions - really a bunch of moving parts." And furthermore:

'If there is a compact call, we really are in no man's land,' he said. 'If there can't be some sort of a settlement pieced together, we're looking at horrendous litigation that could drag on for decades against a backdrop of severe water shortages. It would stack up as the biggest water war in the West.

Then Stein quoted Assistant Interior Secretary Bennett Raley, a former Denver water attorney:
We are no longer fighting about the water we will need decades in the future. The crisis we will face will be in normal years, and they'll be about meeting existing demands.

There's just not enough water.

* * *

The law of the river!

This is what Daniel C. McCool said about it in the New York Times in May 2002:

*The law of the river is hopelessly, irretrievably obsolete, designed on a hydrologic fallacy around an agrarian West that no longer exists. After six years of drought somebody will have to say, 'The emperor has no clothes.'*

McCool is a political science professor at the University of Utah and director of the American West Center.

If there is a compact call - unimaginable just a few years ago - serious questions will surface, such as:

- Will upper basin states get credit for water that federal officials have been releasing from Lake Powell to satisfy treaty obligations with Mexico?

- How much water will Colorado, Utah, Wyoming and New Mexico each have to provide to lower basin states?

- Who is authorized to make a compact call?

- If Colorado is required to either reduce, or stop, its diversions and storage of Colorado River water - or release water from its reservoirs - how should it do it?

- Should Colorado agree to suspend its doctrine of prior appropriation - temporarily - if that becomes an important part of a federal-state plan to cope with drought in the Colorado River Basin?

State and federal water officials are trying to find a way to cope with the crisis in the Colorado River Basin. Interior Secretary Gale Norton wants the seven basin states to lead the way as long as possible. Last June, they asked USBR to make computer studies of
various drought and water delivery scenarios. Results will be presented in a report to the Interior Department which will offer recommendations for water management during and after the present drought.

*        *        *

Since the annual water delivery requirement of the upper basin at Lee's Ferry is controlled by the 10-year moving average, upper basin states could deliver much less than 8.25 maf annually during the drought, until the 10-year minimum kicks in. Would lower basin states take drastic steps to prevent this?

There are no separate upper basin delivery requirements, but it has generally been assumed that Colorado is, at least theoretically, responsible for 51.75 percent of any compact delivery shortfall. This might become an issue if there is a compact call.

*        *        *

The Mexican Treaty, signed in 1944, guaranteed Mexico 1.5 maf annually from the Colorado, plus 200,000 acre feet during years of water surpluses. The treaty did not mention water salinity. That deficiency provoked a decade-long dispute finally settled in 1973. The treaty didn't mention water pollution, another problem resolved in 1979.

El Tratado - as some water managers call the Mexican Treaty - contains language about "extraordinary drought" conditions and "catastrophic accidents" to upstream dams. Would further scrutiny and litigation - or the threat of it - featuring the extraordinary drought exception, enable upper basin states to reduce their water deliveries to the lower basin?

Water attorney Jim Lochhead said recently, "We might end up in a dispute with New Mexico, because some believe New Mexico is overusing its entitlement."

Colorado's state engineer - Hal Simpson - is trying to prepare for the possibility of a compact call. In an April 2004 interview with Theo Stein, Simpson said:

One scenario is, we start with the most junior rights and start regulating those until we get the desired amount of flow at the state line, but there might be an argument for spreading the shutoffs around the state's western basins, based on criteria other than strict adherence to the prior appropriation doctrine.

It gets quite complicated. And at the same time there would be legal issues with other states that would have to be dealt with.

*        *        *

In the Colorado River Basin there are so many questions and so few answers. About all we really know at this time is that the commissioners of the Colorado River Compact grossly overestimated the average annual flow of the Colorado River at Lee's
Ferry. We shouldn't fault them for that.

The commissioners' tragic error was making upper basin states *guarantee a fixed annual delivery* of water to the lower basin. We have to live with that and cope with it as best we can.

Do we?

We don't know, in December 2004. Colorado is scrambling, trying to catch up, in the Colorado River water game. It intends to spend up to $2 million in the next two years "to build a legal war chest shoring up its rights to the drought-plagued Colorado River," the Rocky's Jerd Smith tells us.

'About a year ago the people at the Colorado Water Conservation Board began sounding the alarm, saying we need to move to protect ourselves, and I agreed,' said Russell George, executive director of the Colorado Division of Natural Resources. 'Essentially, we're building the best legal case that Colorado can have so that we presumably prevail when it comes to making decisions.

'I think we have a couple of years (before the river's supplies could drop low enough to trigger a demand for more water for Nevada, Arizona and California). But we can't waste time.'

The money is being spent on new computer models detailing how the river's supplies will be affected by ongoing drought and on creating a computerized historic archive documenting Colorado's use of the river under the 1922 Colorado River Compact.

'It also will pay for new legal research to help guide the state in the unlikely event that the lingering drought prompts new claims to Colorado's share of the river's supplies,' George said.

In other words, Colorado is preparing for battle over water in the Colorado River Basin. Again! So are the other basin states and the federal departments of Interior and Justice.

If it happens, it will be the biggest water war the West has ever experienced.

Jerd Smith continued his preparation for battle story: "How to deal with shortages has never been detailed before," George said. He and others believe all the basin states must move deliberately and calmly to decide how the water will be shared should the drought and the population boom continue.

"Ultimately the goal is to have an understanding among the seven states that everybody is cutting back and not wasting water so that we don't have to get to a true shortage that forces us back into our corners. That's never occurred, but we think it would get really ugly," he said.
Jerd Smith reported that Colorado wants three key issues resolved:

Under the 1922 compact, Mexico is entitled to 1.5 million acre feet of water, to be delivered from surplus supplies. The upper basin was to contribute only in times of shortage. But since 1970, 750,000 acre feet has been delivered from Lake Powell annually. That means, in Colorado's view, that the upper basin has delivered too much water. 'That's a fundamental issue that has to be resolved,' Lochhead said.

Colorado has also asked U.S. Secretary of Interior Gale Norton to reduce the historic outflows from Lake Powell, in light of the drought. Reducing the flows from Powell would mean the upper basin states could maintain a stronger buffer against a possible demand from extra water from Nevada, Arizona and California.

And Colorado also wants Arizona to stop storing river water it doesn't need in aquifers, further draining the two giant storage ponds. "We're very concerned about that. We would like to see it fixed right away," George said.

Has there ever been a time since the early 1920s when Colorado has so desperately needed strong, visionary water leaders to emerge and help us save Colorado River water for future generations?
OUR WATER SUPPLY emerges out of the dense fog of state and federal water laws, compacts and a treaty with Mexico. It starts life in the cold, clear waters of high mountain streams and snowpacks and after traveling long distances - sometimes hundreds of miles - comes out of our water taps.

Most Metro Denver residents tend to take their water for granted. Like electricity. It's always there. Turn on a switch, or open a faucet, and think no more about it. Until there is a drought - a drought severe enough, and long enough, to get our attention.

Drought east of the Continental Divide has eased. It's no longer one of primary concern of Metro Denver residents. The severe drought west of the divide seems remote, way over there in Colorado II.

Some water people have, for a long time, said that Denver's two big daily newspapers do not use their best writers to cover water news. That opinion surfaced in 1989, when the Colorado Water Congress asked some water people to complete this sentence: *If I were Colorado's water czar I would ...*

Water attorney Marcia Hughes' response included this:

*One final concern is the newspapers. As you've noticed with many water development projects, the POST and the NEWS assign only their environmental reporters to cover the questions of what it means to develop Two Forks, Homestake, Stagecoach or whatever.*

*The result is a biased and limited perspective offered to the people. It's a tremendous harm to attempt to have a useful democracy, because the people are deprived of information. But what would happen if the water projects were covered by the business writer or the urban affairs writer?*

*Probably the best situation would be for the newspapers to have all those writers cover these projects which are so fundamental to the state. I guess*
I wouldn't be able to write this Metro Denver Water Story without information provided by the Post and the News. I had to depend on them because of my physical disabilities. I've had no hearing in one ear since 1971. I lost most of my hearing in my other ear in late 1997 - just before I started my book.

Since then I have not been able to hear adequately on the telephone and have not been able to interview people or use the Internet for information. I've used information in the Denver Public Library (Historical Floor) and the Colorado Historical Society until limited to a 10-mile driving radius.

In recent years, particularly, I've relied on the Post and the News for information. I've given them credit for quotes and would like to give them more credit and applause now.

Bob Ewegen - deputy editorial page editor and columnist for the Denver Post - understands Colorado's water problems. The Ewegen family has owned a farm in Phillips County since 1887. Water - and lack of it - are deeply ingrained in Bob's psyche. His editorials and columns always have sound perspective, enviable flare, and a great sense of humor.

Bill Hornby - former senior editor of the Post, now long retired, is cut from the same editorial cloth as Ewegen. He wrote many excellent editorials and columns about water.

Lee Olson's expertise on water and natural resources shaped the Denver Post's editorial policies during his four decades with the paper. "He had a good command of water law and the problems in that field," said Bill Hosokawa, the Post's former editorial page editor. Hornby said, "Olson was one of the most consistent and professional men on the staff for 40 years, both for what he did on the job and off." Olson retired from the Post in 1987. He died recently.


Bearded Ed Quillen is all Colorado. Born in Eaton, he went to high school and college in Greeley. He has a long history in Colorado journalism as reporter, editor and publisher of weekly newspapers in Longmont, Kremmling, Breckenridge and Salida.

Ed Quillen's a character, it seems to me. Dennis A. Britton, the Denver Post's Editor-in-Chief said, "Some think of him as a philosopher, others an historian, or perhaps a Dust Bowl Populist ... while what he really is, is a leftover flower child with an extraordinary gift for language." Former Colorado Governor Dick Lamm said:

Ed Quillen is a tough hombre, a recalcitrant gadfly, and irredeemable curmudgeon, and a marvelous writer. His stuff is always full of pep, intelligence, wit, and he is on the correct historical side. He can write any
namby-pamby East-coast intellectual right under the table... Ed takes no
prisoners, but he's also a compassionate man. We need more of his ilk to
make the West a better place.

The Rocky's Jerd Smith is moving up fast into the ranks of Colorado's elite panel
of writers who understand water and write well about it. His reporting has been very
helpful to me, particularly during preparation of subsequent chapters.
Let's not forget the Rocky Mountain News. It's history dates back to the beginning
of Denver and Auraria. Its editorials, columns and occasional special series about water are
well-researched and well-told.
The Rocky's July 2003 special series - 24 pages, full color - "feels almost epic," wrote the Rocky's editor, John Temple. "It's the story of Colorado today, an ambitious
suburb (Aurora), and a small farm town, both needing precious water to flourish."
The Rocky's October 2004 special series - The Last Drop - describes water
problems in the four headwater counties where Metro Denver gets much of its water
supply. It provided much of the information used in this chapter.
The Rocky began its Last Drop series in Eagle County, where the Denver Water Board is trying to negotiate an agreement allowing it to divert more Blue River water.
Cooperation is now the key that opens the door to water negotiations in Colorado. It will get you a seat at the negotiation table, but it won't get an important water agreement
signed. Cooperation is not enough. There has to be a perception of equitable benefits for all parties.
The Rocky's Jerd Smith tells how it is when representatives of the DWB negotiate
with representatives of Eagle County:

Around those at the table, in jeans and leather vest, is Vail ski resort executive Paul Testwulde, a man who has spent most of the last 40 years
fighting to keep Eagle County's water at home, available for snowmaking,
condos, kyak courses and fish.

Across the frigid conference room in a starched blue shirt is Dave Little,
Denver Water's manager of water resource planning. He is a 23-year veteran of the agency, the man charged with ensuring that the state's largest municipal water supplier has access to water rights it claimed decades ago
but has never used.

For more than a year, West Slope power brokers and their urban counterparts have gathered quietly, holding nearly a dozen such meetings.

'In the water world, it's all about negotiation,' Testwulde said. 'The beautiful thing about these (talks) is that we will end up knowing how much water there is in Eagle County and how it's going to be used.'

They are working toward a landmark agreement to build what would
become the largest cooperative water project in Colorado - Wolcott Reservoir.

It's also a lot of water - the utility's 200,000 acre feet of undeveloped water rights amount to about two-thirds of what its 1.2 million customers use in a year...

The project would transform a radical not-one-more-drop Western Slope county into a sort of demilitarized water zone. It could help keep a thriving resort county lush and moist, its wilderness areas intact, its future water supplies guaranteed.

The proposed Wolcott Reservoir site is located a short distance north of the small town of Wolcott, near the Eagle River, on a former ranch located primarily on Federal Land managed by BLM and private land owned by the Denver Water Board. The reservoir could hold up to 105,000 acre feet. The cost is estimated to be about $180 million.

During the past 15 months, more than a dozen water bureaucrats from both sides of the Continental Divide have been trying to figure out how Wolcott could be built as a cooperative project, perhaps like Wolford Mountain Reservoir. Collectively, this group has already spent about $100,000 on studies.

The key to unlocking the proposed cooperative deal is DWB's agreement to permanently cap the amount of water it will take from the Eagle River Basin. Such a concession by the DWB will be difficult to obtain. Jerd Smith:

*It would mean leaving behind millions of acre feet of undeveloped water rights known as 'paper water.' In exchange, Denver would get a minimum 5,000 acre feet of usable 'wet water' at Wolcott without a protracted court fight...*

*Denver hates the idea of abandoning any of the water it has claimed in Eagle County. 'We try never to use the 'A' word,' Little said...*

*'Personally, I hate the idea of giving up water rights,' said Denver Water Board member Denise Mays. 'That's our future.'*

Can the Denver Water Board legally abandon, or give up, any of its water rights?

My interest in all of this is more than casual, because I worked on developing the DWB's claims for its Eagle River Basin water rights. I signed the claims as DWB's water rights engineer. I believe the project was then called the Robert's Tunnel Collection System.

The abandonment questions are only part of many legal problems associated with Denver's participation in Wolcott Reservoir. In order to use whatever Eagle River water rights remain on the table after an agreement is reached, the DWB would still have to go to water court to obtain approval for its change of project plans. There probably would be
many objectors not party to the proposed agreement.

If the Denver Water Board is able to convert its portfolio of conditional water rights in the Eagle River Basin to a significant storage right in Wolcott Reservoir, it probably would use it for replacement, like it does at Wolford Mountain Reservoir. This would enable it to divert more water to serve its customers in Metro Denver.

Eventually, there probably will come a time of decision. After the Denver Water Board has made its final offer and Eagle County has drawn its final 10 line in the shifting legal sands, a small, select committee will probably be appointed to scratch-out an agreement that is fair and equitable for all parties. They may leave some residual blood on the negotiation table, but that's better than prolonged, costly abusive litigation.

* * *

The Rocky's next water supply story in its Last Drop series was about Grand County, our sometimes part-time, mostly full-time, home from 1975 to 1993.

It is - definitely - a grand county!

It's the most water-rich of Colorado's four headwater counties but it may run out of the water supply it will need to meet its projected growth.

Why?

Because the Front Range's two biggest water agencies want more of its water.

Denver Water and the Northern Colorado Water Conservancy District already divert about 60 percent of the county's water, but they want more. Enough more to raise their take to nearly 80 percent.

The DWB wants to obtain another 10,000 acre feet and NCWCD wants another 30,000 acre feet. Annually. They want to do this by more fully utilizing water rights they already have.

How?

By constructing more reservoirs.

Denver Water Board wants to build Ranch Valley Reservoir. NCWCD wants to build Jasper Reservoir.

Ranch Valley. Jasper. Fighting words in Grand County, home of many past water wars.

Ranch Creek is a tributary of the Fraser River, entering between Fraser and Granby, near Tabernash. I have many good memories of this area. Many of our closest friends lived there. Some of our best cross country skiing was on trails of Devil's Thumb Ranch, in the upper Ranch Creek Valley.

Denver Water Board's proposed Ranch Valley Reservoir would have a storage capacity of about 25,000 acre feet. Stored water would be pumped up into the DWB's
Ranch Creek Canal - part of its two-pronged Fraser River collection system that meets at the Moffat Tunnel and delivers water to Gross Reservoir and the Moffat Treatment plant.

NCWCD’s proposed Jasper Reservoir would be offstream, located a short distance west of Granby Reservoir. Its storage capacity would be about 36,000 acre feet and it would firm-up the municipal subdistrict’s diversions from Windy Gap.

Both reservoir proposals have stirred up hornets' nests of angry objectors, including the EPA and the Fish and Wildlife Service. They have told both agencies to look elsewhere for reservoir sites.

* * * * *

The dusty old cow town of Granby - Grand's county seat - is best known to Colorado's old water buffaloes as the home of three late water attorneys - John Barnard, Sr., and his sons, John Jr. and Duane.

Granby received national publicity recently when one of its citizens - a welder - became so frustrated with city officials that he covertly built a tank-like cab around a big bulldozer and attacked several downtown buildings, including city hall.

Granby is changing. Rapidly. Ever since Brazilian Marise Cipriani bought the former Silver Creek ski area and 5,000 acres in Grand County in 1995.

In 2000, Cipriani changed the name of her resort to SolVista Golf & Ski Ranch. In 2003, Granby annexed SolVista, nearly quadrupling the town's area. Later, Cipriani joined a Vail-based group to develop the property, which was renamed Granby Ranch With SolVista Basin Ski Area.

Granby Ranch will embrace a planning concept called New Ruralism - the mountain village counterpart of New Urbanism. Small neighborhoods that reflect the feel of a rural town within the resort. Also a ski resort with lower elevation, less challenging slopes than Winter Park and Mary Jane, great for young families.

When Granby Ranch starts building hundreds of homes, will there be enough water for them? A question unheard of in Grand County until recently.

Todd Hartman, in the Last Stand article, explains:

*Grand County is staring at a harsh reality. One of the most water-rich areas of Colorado, home to popular ski areas and fresh mountain streams, faces a shortage that could leave rivers, developers, fish, anglers and wastewater treatment plants without the water they need.*

* A light, poor snowfall in recent years and transmountain water transfers have taken a sweeping toll.

*In Winter Park, water district officials have denied a developer's request to double the density of his luxury housing project from 250 to 500 units, citing lack of water to supply it.*

If the DWB can't build Ranch Valley Reservoir, it may have to find a less desirable
site on the Front Range.

Negotiations between the DWB and Grand County officials will continue, but the county's water people feel out-manned. "We can't fight Denver," said Bill Thompson, who has ranched near Kremmling for many years. "They've got 25 lawyers on staff."

"We're just guppies swimming with sharks," complained the manager of Grand County Water & Sanitation District. "The only reason they don't eat us alive is they don't even see us."

I'm glad we lived in Grand County when life was much simpler and there was no water shortage looming on the horizon.

* * *

Summit County - home of some of the nation's best ski areas and resorts - is booming. Its population has increased from 8,848 in 1980 to 25,725 in 2000. Its projected population in 2030 is 50,421! Summit's water requirements are expected to almost double by 2030 - from 11,000 to 21,000 acre feet per year.

By 2030 there may not be enough water available for Summit County to meet its projected water requirements.

Why not?

Because the Denver Water Board plans to take much more water from the Blue River under its Blue River decree.

How much more?

The Rocky's Jerd Smith tried to answer that question in Siphoning the Summit, another of its Last Drop series:

Many who use Dillon (Reservoir) don't yet realize that Denver Water will begin taking much larger gulps from its largest storage pond, raising and lowering water levels dramatically.

Nor do many know that the utility plans to increase by 77 percent the amount of water it diverts from the Blue River, the lifeline for the reservoir and Summit County.

That means about half of the Blue River's crisp, clear native flows will come to the Front Range in the next 25 years, up from about 25 percent now, according to the Northwest Council of Governments.

Because of this and Summit's spectacular growth, unless more water is stored for local water users, the county known as Colorado's playground will end up significantly drier. At times, the county could run short of water
for snowmaking, golf courses and trout fisheries according to a 2003 study known as the Upper Colorado River Project...

Summit officials, deeply worried that their bustling tourist-dominated home is in jeopardy, hope to rein in Colorado's largest municipal water supplier, even as it acknowledges its legal right to the water.

How?

By questioning whether the DWB's plans comply with certain provisions of the Blue River Decree (Chapter 5).

The 1955 Blue River Consent Decree requires the DWB to reuse return flow from its imported Blue River water.

The DWB hadn't reused any of this return flow until 2004, when its $164 million water recycling plant in Commerce City started operating. It will produce about 12,500 acre feet annually of recycled water initially, for industrial and irrigation uses (parks, golf courses, etc.), increasing to 17,600 acre feet annually by 2011.

Is that enough to comply with the decree?

Not according to Summit County officials and their water attorney, Glenn Porzak. Denver could recycle more water than it plans to, if it wanted to. If it had to. If it wanted to convert some selected customers into drinking recycled water, it could offer to pay for the additional treatment costs, plus some cash. The Metropolitan Water District of Southern California is starting to do this.

But it will probably require a push and a shove from Summit County for this to happen in Metro Denver. Some legal strong-arm might also do it. Jerd Smith:

The legal questions Summit County has raised could have serious consequences for Denver.

Among the issues are whether Denver has the legal right to store more Blue River water on the Front Range, whether the water can be used within Denver's service area, and whether the utility's 1.2 million customers should be forced to drink recycled water before more Blue River water is diverted.

In exchange for a promise from Summit not to sue over these issues, Little said, Denver has offered to permanently cap the average amount of water it takes at 131,000 acre feet per year.

But Summit officials aren't ready to call a truce. Such legal questions give them critical leverage with the utility, whose $227 million budget for 2004 is more than four times the size of Summit County's entire $51 million annual spending plan...
If Summit County prevails in the negotiations or wins in a court battle, some experts think Metro Denver residents could be forced to drink recycled water as part of a multiple-use program. That's never occurred before in a metro area that prides itself on its high quality, sparkling mountain water.

Is it any wonder the DWB now needs so many water lawyers on its staff?

* * *

There is no longer any doubt - at least on these pages - that developing more water supply from the Colorado's headwater counties will be very difficult. And expensive. The drought in the Colorado River Basin is telling us that the belief that there are 400,000 to 600,000 acre feet per year of additional compact water remaining to be developed in Colorado is an unrealistic pipe dream.

Deep groundwater from the Denver Basin isn't going to help much.

South Metro residents in Douglas and Arapahoe counties that rely on Denver Basin water must make alternative plans soon. Water levels in wells that serve 500,000 people in Highlands Ranch, Parker, Castle Rock and other nearby rapidly growing communities have dropped 300 feet in some places since the mid-1980s. It's dropping an inch a day in some wells.

Information presented at the Geological Society of America conference in Denver in mid-November 2004 indicated that these communities are pumping groundwater out of the Denver Basin three times faster than previously estimated. Earlier estimates indicated the annual pumping volume at about 35,000 acre feet. The current estimate is closer to 110,000 acre feet, according to Kyle Murray, a geologist formerly at the Colorado School of Mines - one of 12 scientists presenting new information on the geology of the Denver Basin.

This means that it will quickly become very expensive to extract more water from Denver Basin aquifers. Some wells are likely to go dry much sooner than previously expected.

Douglas and southern Arapahoe counties have about 200,000 residents. That number is expected to increase to 600,000 by 2050. If so, water managers will have to acquire another 80,000 acre feet of surface water to supply them, according to Stephen Boand, a hydrologist and a newly elected member of the Douglas County Commissioners.

Where will they get it?

* * *

The Colorado River Basin is experiencing its driest period in 500 years. Flows at Lee's Ferry between years 2000 and 2003, adjusted to simulate virgin flows, averaged only 5.4 million acre feet annually. Much lower than the 7.3 maf in 1954-56 and 8.0 maf in 1933-35.
The period 1905-22 used to determine Colorado River Compact allocations was one of the Colorado's historically highest runoff periods. This is beginning to attract national interest. In early May 2004, a New York Times Sunday Cover story by Kirk Johnson and Dean Murphy included this:

After five years and counting, the drought that has parched much of the West is getting much harder to shrug off as a blip.

Those who worry most about the future of the West - politicians, scientists, business leaders, city planners and environmentalists - are increasingly realizing that a world of eternally blue skies and meager mountain snowpacks may not be a passing phenomenon but rather the return of a harsh climate norm.

Continued research into drought cycles over the last 800 years bears this out, strongly suggesting that the relatively wet weather across much of the West during the 20th century was a fluke. In other words, scientists who study tree rings and ocean temperatures say the development of the modern urbanized West - one of the biggest growth spurts in the nation's history - may have been based on a colossal miscalculation.

That shift is shaking many assumptions about how the West is run. Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming, the states that depend on the Colorado River, are preparing for the possibility of water shortages for the first time since the Hoover Dam was built in the 1930s to control the river's flow...

Part of the Lake's problem, for example, dates to a miscalculation in 1922, when hydrologists overestimated the average flow of the Colorado River and put the number into a multistate agreement called the Colorado River Compact. The Compact, along with a subsequent treaty with Mexico, requires Lake Powell to release 8.23 million acre feet of water each year below the river's dam, Glen Canyon, no matter how much comes in.

Because the river's real average flow was less than the 1922 compact envisioned, Powell very often released more than half of the water the Colorado River delivered. But it did not really matter, because the upper basin states were not using their share. Now communities from Denver to Salt Lake city and Indian tribes with old water rights in their portfolios are stepping forward to stake their claims. Lake Powell, which has been called the aquatic piggy bank of the upper basin, is overdrawn.

If water levels continue to fall, Powell will be unable to generate electricity as early as 2007 or sooner, some hydrologists say. And it would be reduced
Water supply

more or less to the old riverbed channel of the Colorado River not long after that. Even now, the lake's managers say it would take a decade of historically normal rainfall to refill it.

'If we're only in the middle of this drought, then Lake Powell might be very close to some very dramatic problems,' said Dr. John C. Dohrenwend, a retired geologist for the Geological Survey, who lives near the lake.

Insufficient water for the Glen Canyon turbines would be only the beginning. At that point, much of the lake bottom would be exposed, creating a vast environment for noxious weeds like tamarisk and thistle. The next step in the spiral would come at what is called 'dead pool,' where decades' worth of agricultural chemicals at the lake bottom would begin mixing more actively with the reactivated river. The question then, environmentalists say, is what would happen to the Grand Canyon, just south of the dam?

An issue that may go to Congress.

'Americans won't stand for the Grand Canyon being endangered,' said John Weisheit, the conservation director for Living Rivers, an environmental group in Moab, Utah, that advocates removing the dam at Glen Canyon and allowing the river to return to its natural course. 'In another year, they're going to be talking more seriously about Powell in Congress.'

In an April 2004 open letter to the Denver Post, Weisheit said:

Keeping Lake Powell drained and then decommissioning Glen Canyon Dam makes more and more sense. It's obvious we have too much storage in the system and that we have planned our communities to be water-intensive, as opposed to water conservative. If we want a healthy Colorado River ecosystem and healthy communities, we must re-evaluate the way we manage the Colorado River system as soon as possible.

Living Waters places news and opinions about the Colorado River on the Internet. In June 2004 it said:

It's not a matter of if, but when, the Colorado River plumbing system will collapse. Water supply and power generation for metropolitan areas from Los Angeles to Denver will be affected, as well as the region's multi-billion dollar agricultural industry.

The sixty million acre feet of water that can be stored in the basin's reservoirs provide a cushion in times of moderate reductions in river flows,
but as is presently being experienced, are no match for a sustained drought...

Reservoirs are at their lowest level in history and dropping at a rate of ten percent per year. With below average precipitation again this year, reservoir levels continue to decline...

Despite the likelihood of a major water shortage on the horizon, federal and state water managers continue to keep their heads in the sand.

Owen Lammers, Living Rivers executive director, said, "It's time for us to recognize that dry periods are the norm for the Colorado River Basin, and that we are using far more water than the river can provide. Regardless of whether we're at the beginning of a significant climate change, or just moving through a sustained drought period, the bottom line is that our use of Colorado River water is based on mistaken mathematics which must be corrected before all excess storage runs dry."

In a New York Times article in early November 2004, Sandra Blakeslee said:

Edward Abbey, the mischievous author and defender of the natural world, called Glen Canyon the 'living heart' of the Colorado River and Lake Powell a 'blue death.' He often spoke of floating a houseboat filled with explosives to the base of the dam to get rid of `Lake Foul.'"

Lake Foul? Well - please don't mess with the name of Lake Powell's dam. Glen has a special meaning. John Wesley Powell liked to explore the beautiful canyons along the lower Colorado River. He called them glens.

Blakeslee also quoted Dr. Richard Ingebretsen, a physician and founder of the Glen Canyon Institute in Salt Lake City - a group dedicated to draining Lake Powell and restoring Glen Canyon to its natural state:

The drought is a godsend. Now is the chance for us to have the national debate we didn't have 40 years ago. With the lake so low, people can see what was lost, the lifecycles, the ecosystem. There is a powerful beauty here that can change people's minds.

The draining of Lake Powell, due to the continuing severe drought, is a catastrophe waiting to happen. Its adverse consequences could extend far beyond the problems caused by a compact call.
DOES COLORADO HAVE a water plan?

No. It does not.

Why not?

Many reasons. One is that we don't know what it is. We can't even define it. If we could, we probably couldn't implement it, because of limitations imposed by our state constitution and our water laws.

Colorado has no water policy per se. No sacred, revered document put together by men of vision to help us find our way through the Western water jungle.

What we have is a hodgepodge of state and federal laws and complex case law. It's a puzzlement for the general public - a Pandora's box for the uninitiated. A gold mine for Colorado water attorneys. This hodgepodge tells us - or our attorneys - what we can and cannot do. Taken together, this is our water policy. We use it to do whatever we can, or can get away with, to obtain water.

In 1987, Colorado Counties, Inc., formed a statewide water policy taskforce, consisting of 13 county commissioners from all over the state. It developed 14 points considered necessary elements of a state water plan. Good ideas - all of them - but they didn't move Colorado any closer to developing a state water plan.

In 1988, water attorney James S. Lochhead - then a member of the Colorado Water Conservation Board - spoke about Colorado water plans and water policy at a meeting sponsored by the Colorado Water Congress.

I do not think that a water plan is the way that we should go about solving the issues that we face in this state. First, it is a little bit difficult to define exactly what a state water plan is. There is not a consensus in this state about how a 'plan' would be structured or what it would do. There is not even consensus that existing state policies are inadequate.
In a Denver Post column in 2000, Bob Ewegen called Colorado The State That Never Plans Ahead.

Draw the shades and send the children out of the room. We're about to utter the "W" word - the surest way in Colorado politics to get into trouble.

No, not 'Dubya' as in George W. Bush. 'W' as in 'wet.' And 'war,' something the W-word has often triggered in the West.

Yep, it's time to talk about Water again.

There, I said it. Now, it's out of the closet and into the Colorado Legislature - where John The Lion Hearted Evans, R-Parker, will bring his SB 215 into the Senate State Affairs Committee today.

Actually, the committee's full name is State, Veterans and Military Affairs. That's appropriate because, as previously noted, any attempt to talk sense about water in Colorado usually leads to war.

Sen. John The Lion Hearted is a braver man than moi. This moi goes by the sobriquet of Bob The Chicken Hearted in the pundit community, because I've been burned by writing about water before. And hold your e-mails, mixed-metaphor denouncers - if you don't think you can be burned by water then you, friend, have never written about water in Colorado, The State That Never Plans Ahead.

That's what Sen. John The Lion Hearted is trying to get our state to do - to plan ahead so that the next time we have a major drought we don't rush out and do very expensive and very environmentally damaging things.

The problem is that there are reasons Colorado never plans ahead, primarily the fact we would rather beat each other over the head and nether regions with large oaken cudgels.

Exhibit A is the last big foray into water planning, the Metropolitan Water Supply Investigation, initiated in 1993. How can I say Colorado doesn't plan ahead when the study was funded 'to explore cooperative solutions to further metropolitan area water supply needs that would minimize the conflicts often associated with development of large-scale water supply infrastructure such as trans-basin diversion projects?'

Well, consider this statement:
'By design, the MWSI did not explore new water development projects involving significant new infrastructure, nor did it examine the potential savings from additional water conservation programs.

'That's like me refereeing the next Colorado Rockies game. But by design, there are two things I won't do. I won't call balls and I won't call strikes...'"

The MWSI was allowed to explore four useful areas: conjunctive use, effluent management, interruptible supplies and other systems integration opportunities. Ewegen:

"These are, in varying degrees, good and useful ideas. But all four together would fall far short of yielding the 300,000 acre feet of water for domestic and commercial purposes that the Front Range is expected to need by 2020, if it adds the projected one million new residents for a total population of 3.5 million.

To close that gap will require one or both of the 'unmentionables' excluded from the MWSI study, more conservation and/or more 'infrastructure' - i.e., dams and diversion projects.

In 2002, the Colorado Legislature, spurred by drought and the urging of a few people such as David Getches, did enact important water legislation, including SWSI - the statewide water supply initiative, which appears to be a step forward in state water supply planning. It should have been authorized and completed long ago.

A mid-December 2004 Denver Post editorial said: "Colorado needs visionary thinking to prepare itself for inevitable future droughts... There's an urgent need for local officials to wake up and smell the coffee - while there's still enough water in the pot.

"In 1950, Colorado's population was 1.3 million. By 2000 it raced past 4 million. By 2030, it could blow past 7 million. This growth is occurring without adequate planning to ensure an adequate supply of water to drink and shower, to grow our crops or water our lawns, to supply business sites, support tourism or protect wildlife. Colorado is sleepwalking toward chaos."

*   *   *

I have called this book a memoir, even though I have previously written my autobiography.

The Metro Denver Water Story extends far beyond the domain of memoir and frequently ventures into history. But I can't call it a history, because I'm not a historian and I've omitted the historian's mandatory footnotes.

What I am, or am trying to be, is a maker of understandings in the complex world of Colorado water.

While I was writing the last chapters of this book, some concepts emerged from the fog of my subconscious - sort of like a runner's high. They survived reality's critical
evaluation and seem to make sense. At least to me. So here they are:

Colorado should create a Colorado River Board.

Metro Denver should create a Metropolitan Denver Water Authority.

Colorado’s water leaders should create a Colorado Water Hall of Fame.

*       *       *

California has had a Colorado River Board since 1937. It was created by its legislature, with a 10-member board appointed by the governor. One from each of the six state agencies interested in Colorado River water and hydroelectric power. One each from the state departments of game and fish and water resources. Two from the general public. The board appoints a chairman, who also is California’s Colorado River Commissioner.

The Colorado River Board of California has broad powers and responsibilities. It is authorized to:

Carry-out activities that protect and advance California's Colorado River rights and interests.

Formulate California's policies and positions on Colorado River matters.

Develop unified positions on Colorado River related matters.

Investigate past, present and potential uses of the Colorado River system within and without the state.

Investigate, coordinate, collate, and preserve information, facts and data bearing upon the claims of all states and of all public or private agencies within and without the state to and in respect of the water and the use of water of the Colorado River system.

Confer with representatives of other states in the Colorado River Basin, representatives of the United States, and others concerning problems and measures relating to the development of the Colorado River Basin, the use of water of the Colorado River system, and the protection of the interest therein of the state and of the United States.

Negotiate, respecting such problems and measures, and discuss the
same and formulate and recommend to the governor and legislature measures, agreements and legislation deemed for the benefit of the state and the United States.

Develop a plan for California to meet its Colorado River water needs within its basic apportionment of Colorado River water.

Carry-out all other actions deemed necessary or expedient to achieve the purposes of the Board.

* * *

I suggest the Colorado River Board of Colorado have eight members:

One each from the DWB, NCWCD, CRWCD, SECWCD, CWCB and the Colorado Division of Wildlife.

Two from the general public, including one from the Front Range and one from the Western Slope, both appointed by the governor.

This board should appoint a chairman, who will also serve as Colorado's Colorado River Commissioner. The board's powers, responsibilities and authority probably should be similar to California's.

Why do we need a Colorado River Board of Colorado?

It should be obvious, from information provided in previous chapters, that Colorado is not now prepared to cope with problems in the Colorado River Basin that drought has pushed to the forefront. Colorado needs to get its act together quickly, before it is too late to adequately cope with these problems.

One approach might be for Gov. Owens to appoint a select committee to draft a document creating the Colorado River Board of Colorado. It should be submitted to the Colorado Legislature for review and revision, if necessary. The legislature would submit the proposal to Colorado voters for approval, probably as an initiated referendum in a general election.

* * *

The Metropolitan Denver Water Authority is not a new idea. There were unsuccessful attempts to create it in 1974 and 1980. In 1988, Monte Pascoe discussed the pros and cons of a metropolitan water authority in a Colorado Water Congress article.

*About four and one-half years ago I gave a speech saying the Denver Water Board was now serving almost as many people outside the City and
County of Denver as it serves within (it), that a very substantial part of its revenues now come from outside the City and County of Denver and that it was time to talk very seriously about metropolitan areas, the suburbs, sharing governance of the Denver water system...

In that talk four and one-half years ago, I said in exchange for sharing governance of the water system, which ultimately would mean equalization of rates and some other things which are very significant for the Denver water system, Denver would expect reciprocal benefits.

These reciprocal benefits would include things such as sharing the cost of cultural and recreational facilities, sharing the cost of health care, sharing the cost of a transportation system for the metropolitan area, and a number of other things. They were laid out in very general terms.

Pascoe was then president of the Denver Water Board. His comments remind me that we once worked together on a water case when he was starting his water law career and I was starting my consulting, in the early 1960s. Our mutual client was John Elliot and we were in district court in Steamboat Springs trying to get conditional water rights for Elliot's proposed Four Counties Project.

Our paths did not cross again, but I followed Monte's public career with interest. It included a run for mayor of Denver, which he lost in the primary election to Bill McNichols.

Pascoe's interest in forming a metropolitan water district meshed well with Mayor Peña's desire to achieve social equity. Peña was concerned that Denver's suburbs used its amenities - libraries, performing arts facilities, sports stadiums and much more, but paid no taxes to support them. Perhaps this inequity could be rectified by using the prospect of sharing Two Forks water as leverage.

A Group of Ten was formed to develop general principles for a Metropolitan Water Authority. It included mayors and county commissioners from the four-county core area: Denver, Adams, Arapahoe, and Jefferson. Douglas and Boulder might be added later.

The proposed authority would be a water wholesaler. It would acquire raw water supplies and sell them to municipal water distributors. There would be cooperation, instead of confrontation and litigation, in developing water projects. Whenever feasible, water distribution systems would be interconnected. The authority would have important land use planning functions.

The proposed Metropolitan Water Authority appeared to be an idea whose time had come, but it went down the drain when a coalition of suburban water districts and governments defected and formed their own organization - Metropolitan Water Providers.

The concept of a regional water authority surfaced again, briefly, in 1989, when the Colorado Water Congress asked its water czar question. Dr. Neil Grigg, then director of the Colorado Resources Research Institute in Fort Collins responded, in part, with this suggestion:
I would suggest five steps. First, we would organize regional water management in the state. The regions would be the metro area where we would have a regional water authority; Northern Colorado; Southern Colorado; the Western Slope, which might have to be divided; and the San Luis Valley. We should study all those regions and see which ones make sense.

Colorado's Attorney General - Ken Salazar - now U.S. Senator Salazar, recently proposed formation of a South Metropolitan Water Authority. It would represent Douglas and Arapahoe counties whose combined population more than doubled from 1980 (319,000) to 2000 (664,000). Both counties need more surface water supply to supplement and replace groundwater pumped from the Denver Basin.

The proposed SMWA would replace the present Douglas County Resource Authority, which includes representatives of the county's 18 largest water districts and many smaller ones. Salazar believed that a centralized authority could unify the local fiefdoms so they can speak with one voice and provide the political clout and financing required to plan and build big water projects.

True, but how about Aurora? It probably would have little to gain from a South Metro Water Authority. Wouldn't Aurora voters control the outcome of such a proposal?

* * *

A water authority proposal is cooking on the political fires of Jefferson County. It's called the Heritage Resources Metropolitan District. Its advocates say HRMD could pump new life into Jeffco areas not served by Denver Water, where inadequate water supplies threaten to limit future developments.

Primary backers: Greg Stevinson and Chris Paulson.

The Stevinson family owned a Ford garage in Golden, where I had my car serviced occasionally when we lived in Wheat Ridge. From this modest base it expanded to include large suburban sales and service centers in several cities, including Aurora. Then Greg Stevinson became a big-time developer. He developed Denver West and Colorado Mills (with others) and now is organizing the proposed Heritage Water District, along with Paulson.

Chris Paulson is a water lawyer and politician (former state representative from Arapahoe County). He was a supporter of Referendum A. Prior to that vote in November 2003, Paulson told the Post's Joey Bunch, "At the time Two Forks went down, Denver made a declaration it would take care of its infill and that's it. That left growing parts of the state high and dry. Who are the have-nots? About 500,000 people in Douglas and Arapahoe and eastern Adams and western Jefferson counties."

Stevinson and Paulson are a formidable team. Paulson understands water politics and Stevinson gets the attention of county commissioners. He can persuade venture
capitalists. He is chairman of Jeffco's Open Space Advisory Board. Greg recently donated valuable Table Mountain land in Golden to the county for open space.

So it's no surprise that Stevinson-Paulson's proposed water district sailed through a Jeffco county commissioners' board meeting, creating not even a ripple of opposition.

The proposed Heritage Resource Metropolitan District was skillfully crafted. Most special district boards are elected by voters who live within the service areas. Heritage will not need voter approval. It will be privately financed.

The district's income would be limited to fees, rates, tolls, penalties, charges. Property taxes would not be used to fund its operation or repay debt. It would be an independent unit of local government, separate and distinct from the county, but with eminent domain (condemnation) authority, its backers say.

Is that legal?

Stevinson says the district will not annex any part of another special district, will not provide water directly to existing water districts unless asked, and will not provide water directly to people's homes. It will use private financing to buy, transport and sell water wholesale to providers.

It's a very innovative approach!

Will it fly?

It will take a while to find out.

Proponents say Jefferson County and the west metro area need to jump on the Heritage Water wagon, along with Commerce City, Weld County, Elbert County and Douglas County. Heritage is touted as "an attempt to bring a coordinated regional and perhaps an eventual statewide approach to ensuring there is enough water to meet growing needs." It has the potential to become a major player among Colorado water providers, proponents say.

Paulson told the Rocky's Charley Able, "You need an umbrella district like this on the western side of the metro area ... Heritage would provide a sensible, market-driven approach to ensure that new growth has adequate water supplies."

There already are objections to the proposed Heritage Resource Metropolitan District. The Post's Ann Schrader reported some of them:

*Opponents question vagueness in the district's service plan and how the district proposal was fast-tracked by the current county board, circumventing the county planning commission and not giving the public enough opportunity to analyze impacts.*

*'This will privatize the whole business of water in Jefferson County,' said Bill Astle of Golden. 'There is a real, real danger of the district conducting*
business without sufficient public control and input.'

The Post's Ann Schrader reported comments of Margaret Cross of Evergreen:

(Cross) accused the commissioners of handing district officials 'a blank check to deal in water and development wherever they want to do it.

'This is an end run around the voters' wishes. This is an end run around the legislature,' Cross said, adding it exposes the county to possible litigation.

Chief among opponents' concerns is that the district will have the right to condemn property and forcibly take it under eminent domain laws.

So how does the Denver Water Board feel about this new water district proposal sprouting in its western back yard?

Most of Jefferson County buys treated water from Denver Water. Charley Able's column says, "Denver Water, the largest water provider in the metro area and a superpower in water politics, encourages the regional approach to water distribution that the Heritage District was designed to facilitate."

Timing is everything, the wise ones say. The timing is right, it seems to me, to propose (again) a Metropolitan Denver Water Authority. Do it now, before other proposed water authorities are started.

It probably should include, initially, the water agencies in Denver, Jefferson, Adams, Arapahoe, Douglas and Broomfield counties. Boulder probably should not be included initially because its water supply situation is much different than those in the other six metro counties.

The basic objective would be to ultimately integrate all of the water agencies in the six-county metro area into a single entity, so that there can be maximum utilization of all the water resources and facilities in an equitable and mutually beneficial manner.

One way to start on this monumental task would be for Colorado's governor to appoint and fund a select committee to develop proposed legislation that could be presented to voters in the six counties for approval.

Let's do it!

* * *

There should be a Colorado Water Hall of Fame - a way to honor water people who have done so much for our state. Shouldn't they have a place in Colorado history at least as important as the sports world's halls of fame?

The Colorado Water Hall of Fame should include water attorneys, water engineers, politicians, writers - whomever qualifies in the opinion of an appointed selection committee. Induction procedures could be patterned after those used by the National Football League's Hall of Fame in Canton, Ohio.
So here we are, at the end of this long journey through Colorado water. Past and future have met at this fleeting moment of the present. I hope this water story stimulates interest in Colorado's water problems and prods its water leaders into long overdue action.
APPENDIX A: GLOSSARY

These definitions are intended to help readers of the Metro Denver Water Story understand various terms used in it. They were mostly taken from the *Citizens Guide to Colorado Water Law.*

**Abandonment**  Loss of whole or part of a water right by intent to permanently discontinue use. Period of non-use for ten years raises rebuttable presumption of abandonment. A conditional water right is conclusively presumed to be abandoned, if an application for finding of reasonable diligence is not made within six years of the entry of the conditional decree or the most recent diligence decree. The State Engineer prepares a periodic abandonment list. Water rights are declared abandoned through a water court proceeding.

**Acre Foot**  Volumetric measurement of water used for quantifying reservoir storage capacity and historic consumptive use. This is the amount of water that will cover an acre of land at a depth of one foot, or 325,851 gallons of water.

**Adjudication**  The process for obtaining a water court decree for a conditional water right, a finding of reasonable diligence, an absolute water right, an exchange, an augmentation plan, a change of water right, or a right to withdraw nontributary water or Denver Basin groundwater that is outside of a designated groundwater basin.

**Appropriation**  Placement of a specified portion of the waters of the state to a beneficial use pursuant to the procedures prescribed by law. Speculation is prohibited. The appropriator must have its own use for the water or have a contract to serve the customers that the water will benefit. Only previously unappropriated surface water or tributary groundwater water can be appropriated. The appropriator must have a plan to divert, store, or otherwise capture, possess, and control the water for beneficial use.

**Aquifer**  A subsurface water-bearing geological structure capable of storing and yielding water to streams, springs, or wells.

**Augmentation**  Replacing the quantity of water depleted from the stream system caused by an out-of-priority diversion. When adjudicated and operated to replace depletions to the stream system, the out-of-priority diversion may continue even though a call has been placed on the stream by senior decreed rights.

**Beneficial Use**  Beneficial use is the basis, measure, and limit of a water right. Colorado law broadly defines beneficial use of water as a lawful appropriation that uses reasonably efficient practices to put that water to use without waste.

**Call**  Demand for administration of water rights. In times of water shortage, the owner of a decreed water right will make a "call" for water. The call results in shut down orders against undecreed water uses and decreed junior water rights as necessary to fill the beneficial use need of the decreed senior calling right.

**Conservation Easement for Water Rights**  Legal provision under 2003 statute allowing owners of water rights to covenant for keeping the water in use for open space, wetlands, recreation, ecological diversity, or farming.

**Consumptive Use**  Water use that permanently withdraws water from its source; water that is no longer available because it has evaporated, been transpired by plants, incorporated into products or crops, consumed by people or livestock, or otherwise removed.
from the immediate water environment.

**Cubic Feet Per Second (cfs)** Measurement of flow rate of water in running stream or taken as direct diversion from the stream. Water flowing at 1 cfs will deliver 448.8 gallons per minute or 648,000 gallons per day.

**Denver Basin Groundwater** Groundwater of the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers underlying the Front Range area from Colorado Springs to Greeley. This water is allocated to the overlying landowner by statute, administered by rules of the State Engineer, allowing pumping at a rate of one percent per year assuming a hundred-year life of the aquifer and requiring some of the pumped water to be put back into the stream system.

**Designated Groundwater** Groundwater areas not adjacent to a continuously flowing natural stream, where groundwater has been the principal water supply for at least fifteen years preceding the designation of the groundwater basin. Eight designated groundwater basins exist on Colorado's eastern high plains. Use of designed groundwater requires a permit from the Colorado Groundwater Commission.

**Developed or Imported Water** Water brought into a stream system from another, unconnected source, for example, transmountain diversion water or nontributary well water. This type of water can be reused and successively used to extinction, and is often used in augmentation or exchange plans. In contrast, native basin water is subject to one use, and the return flow belongs to the stream system to fill other appropriations, unless a decree was obtained for the right to reuse and successively use return flows.

**Diligence** Reasonable progress towards making a conditional water right absolute by putting unappropriated water to a beneficial use. Must be proved in a water court proceeding through an application initiated every six years after entry of the conditional decree of most recent diligence decree. Acts demonstrating diligence include engineering, permitting, financing, and construction of water facilities needed to complete water diversion and delivery.

**Diversion or Divert** Removing water from its natural course or location, or controlling water in its natural course or location, by means of a water structure such as a ditch, pipeline, pump, reservoir, or well. The Colorado Water Conservation Board may appropriate instream flows without diversion, and local governmental agencies may make recreational in-channel diversions, under specified statutory procedures.

**Futile Call** Determination made by the State or Division engineer to lift a shut down order if cessation of diversions by junior decreed water rights will not result in making water available to the senior calling right.

**Injury** The action of another that causes or may cause the holders of decreed water rights to suffer loss of water at the time, place, and amount they would be entitled to use under their water rights if the action had not occurred. Injury is a significant issue in any water court proceeding and in determinations of the State and Division Engineers.

**Interruptible Water Leasing** Authorization by 2003 statute to allow farmers to lease water to cities during drought emergencies.

**Nontributary Groundwater** Groundwater outside of the boundaries of any designated groundwater basin, the withdrawal of which will not, within one hundred years, deplete the flow of a natural stream at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal.

**Not Nontributary Groundwater** Denver Basin groundwater, the withdrawal of which will deplete the flow of a natural stream at an annual rate of greater than one-tenth of one percent of the annual rate of withdrawal.
Priority The ranking of water right vis-a-vis all other water rights drawing on the stream system. Priority is determined by the year in which the application for the water right was filed. The date the appropriation was initiated determines the relative priority of water rights for which applications were filed in the same year. Priority is the most valuable aspect of a water right because priorities determine who may divert and use water in time of short water supply.

Public Trust Doctrine A doctrine of state ownership of stream and lake beds that has been applied, most notably in California, to cut back on historic diversions to sustain fish and wildlife habitat and recreation. Has not been recognized in Colorado, although the Colorado Supreme Court has ruled that the Colorado Water Conservation Board has a fiduciary duty to the people of Colorado to enforce the instream flow water rights it obtains.

Return Flow Water that returns to streams and rivers after it has been applied to beneficial use. It may return as a surface flow, or as an inflow of tributary groundwater.

Riparian Referring to land or habitat immediately adjacent to the stream channel.

Riparian Water Law A legal system that permits water use only by those who own land along the banks of a stream or lake. The right is for reasonable use and is correlative with the right of every other property owner to prohibit unreasonable use that diminishes the instream quantity or quality of water. Colorado law does not recognize riparian rights.

Statute A law enacted by a legislative body such as the U.S. Congress or the Colorado General Assembly.

Substitute Supply Plan A State Engineer-approved temporary plan of replacement supply allowing an out-of-priority diversion while a plan for augmentation is proceeding through the water court. The State Engineer may also approve substitute supply plans for water exchanges, water uses that will not exceed 5 years, and limited emergency situations affecting public health or safety.

Tributary Groundwater All subsurface water hydraulically connected to a surface stream, the pumping of which would have a measurable effect on the surface stream within one hundred years.

Water Bank A program operating under rules of the State Engineer in each of Colorado's seven water divisions to facilitate the lease, exchange, or loan of legally stored water as an alternative to sale of water rights, while protecting against injury to other water rights.

Water Right A property right to the use of a portion of the public's surface or tributary groundwater resource obtained under applicable legal procedures.

Well Any structure or device used for the purpose or with the effect of obtaining groundwater for beneficial use from an aquifer. Every well requires a State Engineer-issued permit.
APPENDIX B: GLOSSARY OF COLORADO WATER TERMS

The Denver Post's Ed Quillen, with tongue in cheek, offered to provide Colorado's newcomers with "a clear and reasonably understandable explanation of hydraulic matters in the Centennial State." He titled his September 1, 2002 column, A political glossary of Colorado water terms:

Water Buffalo: A member of Colorado's water establishment who believes that water is wasted if it happens to be flowing down a river – especially toward California – rather than diverted into a ditch or stored in a reservoir. The term is not considered an insult by Water Buffaloes, who will often proudly identify themselves as such.

Although there is no formal antonym, the opposite of a Water Buffalo might be an 'environmentalist,' 'angler,' or 'taxpayer who wonders why we should pay for water projects that benefit only real-estate developers.'

Cusec: A portmanteau word formed from 'cubic feet per second,' which is also a 'cfs.' Commonly, this is used to indicate flow or diversion rates, as in 'The river's down to 220 cusecs and it was running at 600 this time last year.' The 'cfs' has something in common with the 'UFO' in that no one has really seen either.

ET: This is not related to the 'UFO' just mentioned. It's short for 'Evapotranspiration,' and it refers to the water that plants suck out of the ground with their roots and then lose to the atmosphere. It's why the air is usually cooler around green plants. The ET rate depends on temperature, humidity, solar intensity, foliage composition, ground moisture and so many other factors that it is essentially guesswork, even though numbers that look precise are often bandied about.

Burec: Another portmanteau, this one a compression of United States Bureau of Reclamation. Synonyms include 'Reclamation,' 'BOR,' and just plain 'Bureau.' It is a federal agency that builds dams and conduits for water, almost always at a financial loss to taxpayers. It is highly esteemed by many Westerners, especially those who hate the federal government and/or welfare programs.

Phreatophyte: A good word for impressing your friends and neighbors with your water wisdom. A phreatophyte is a plant with deep roots that sucks water out of the ground, like a cottonwood tree. You will not find it a bit easier to remember this when you know that it comes from the Greek 'phrear,' which means 'water well,' and 'phyte,' which means 'plant.'

Zeroscaping: Generally, the real estate agent who advertises a house with 'zeroscaping' means that the yard has 'Xeriscaping' C a yard designed for minimal water consumption. The word was most likely coined a few years ago by the Denver Water Board (now simply known as Denver Water), and it comes from the Greek 'xeris,' which means 'dry,' and 'scape,' which means 'scenery.'

On the other hand, a 'zeroscape' might be an honest but euphemistic way to say that 'this yard is just gravel, dust and weeds.'
Defending Colorado's Water: A phrase often used to justify using public money for a private benefit. For instance, farmers along the Arkansas River near the state line once pumped too much water out of wells, thereby depriving Kansas of water it was supposed to get.

On the grounds of 'defending Colorado's water,' our state treasury, rather than the farmers who profited from this theft, is paying the damages to Kansas. It is best to put your hand over your wallet whenever you hear this phrase.

Paper Water: This is something like a storage credit in a distant reservoir, as opposed to 'Wet Water,' which is a liquid for drinking, bathing, irrigation, etc.

Water Right: A form of property in Colorado, except that it is not taxed. Water rights come in many varieties, among them conditional, adjudicated, diversion, consumptive, non-consumptive, instream, domestic and in-house, to name a few. If you have trouble with these, then you need a ...

Water Lawyer: An attorney who specializes in either protecting the water rights you thought you already owned free and clear, or in acquiring water rights so that he can charge you to defend those water rights in the future.

It is often said that of all the water lawyers on earth, half of them practice in Colorado. That probably explains why nobody really understands our water.
APPENDIX C: RESEARCH INFORMATION

RESEARCH INFORMATION USED IN THE WRITING OF THIS MEMOIR
Was donated by Mr. Fisk to the Colorado State University Water Resources Archive
For details see: The Papers of Charles C. Fisk at
http://lib.colostate.edu/archives/findingaids/water/wfis.html

Mr. Fisk organized his research into 41 binders by subject, and includes mostly photocopies, clippings, drafts and books. A brief summary of the material is described below.

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