WATER

Colorado's Most Precious Asset

THE CONSOLIDATED HOME SUPPLY DITCH & RESERVOIR COMPANY

Contributed To Its Development

1881-1986
AUTHORIZATION

W.R. ‘Reg’ Keirnes, as historian and author of this booklet, was born and raised on a farm served by the Home Supply system. Prior to his 30 years as a company officer, ‘Reg’ had served on state and local Soil Conservation Service boards and has been a life-long defender of agricultural water rights in general.

This History of The Consolidated Home Supply Ditch and Reservoir Company’s effort to help Colorado develop its most precious asset “WATER” was published by the Company in March, 1986.

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1986

Credits

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ACKNOWLEDGMENTS

This 105-year history of THE CONSOLIDATED HOME SUPPLY DITCH AND RESERVOIR COMPANY was initially made possible when the encumbent 7-man Board of Directors including Kenneth Markham, President, Robert Lebsack, Vice-President, Neil Hamilton, Treasurer, Floyd Hale, Reuben Hoffman, Gary Grommon and John Nelson with William Egner as Associate Director, requested the writer to search through more than 2,000 pages of minute books and company records and attempt to sift out some of the highlights depicting Home Supply’s struggle to serve its stockholders and to develop into the valuable farm and community asset which it is today.

The writer thanks the Board and the present Secretary-Manager, Delbert Helzer for the information and support they have all provided through the 15 months during which this endeavor has been underway. He is especially grateful to his wife, Georgia, who not only typed and re-typed this manuscript, but who gave support and suggestions which helped make the ‘History’ as accurate and meaningful as possible. Without her help the project would have been ‘no-go’.

Acknowledged also are important bits of pertinent information gleaned from: The Soil Conservation Service, The State Water Conservation Board, The Northern Colorado Water Conservancy District, Big Thompson Historic Society and files of the LOVELAND REPORTER HERALD.
DEDICATION

Since 1881, more than 60 dedicated individuals including directors, associate directors, officers, superintendents and managers have collectively given more than 600 man-years of effective effort and leadership to the creation, the improvement and to the preservation of the CONSOLIDATED HOME SUPPLY DITCH AND RESERVOIR COMPANY.

Many of these former and present directors have also given much extra time and effort while serving as president, secretary, treasurer or even superintendents for the company in addition to their duties as Board members.

Other equally dedicated citizens who have never been Trustees, have totally given more than a century of effort toward increased efficiency and better service to all water users who must depend upon Home Supply.

This historian found it impossible to recount all the individual contributions made by 60 or more persons. It seemed best to dedicate this 105 years of historic achievements to those who played an important role as shown by the representative examples of individuals who have given 15 or more years service to Home Supply.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Began Service</th>
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<tbody>
<tr>
<td>W.R. Thornton</td>
<td>Director and Supt.</td>
<td>1882</td>
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<tr>
<td>E.S. Allen</td>
<td>Director and Secretary</td>
<td>1886</td>
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<tr>
<td>William Clark</td>
<td>Director and President</td>
<td>1892</td>
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<tr>
<td>G.A. Hamilton</td>
<td>Director, Pres. Treas. &amp; Sec'y.</td>
<td>1896</td>
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<tr>
<td>D.T. Pulliam</td>
<td>Director and Secretary</td>
<td>1901</td>
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<tr>
<td>J.B. Sloan</td>
<td>Director</td>
<td>1917</td>
</tr>
<tr>
<td>*George W. Lee</td>
<td>Director and President</td>
<td>1917</td>
</tr>
<tr>
<td>*Named as Honorary Director Emeritus</td>
<td></td>
<td>1962</td>
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<tr>
<td>A.B. Hamilton</td>
<td>Director and Treasurer</td>
<td>1926</td>
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<tr>
<td>D.R. Pulliam</td>
<td>Director &amp; Vice-President</td>
<td>1938</td>
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<tr>
<td>Harold Hale</td>
<td>Director</td>
<td>1941</td>
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<tr>
<td>John H. Sloan</td>
<td>Director and President</td>
<td>1945</td>
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<tr>
<td>Neil Hamilton</td>
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<td>1957</td>
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<tr>
<td>Kenneth Markham</td>
<td>Assoc. Director, Director &amp; Pres.</td>
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<td>Floyd Hale</td>
<td>Assoc. Director and Director</td>
<td>1957</td>
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<td>Robert R. Lebsack</td>
<td>Assoc. Director, Director &amp; Vice Pres.</td>
<td>1963</td>
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<tr>
<td>Reuben Hoffman</td>
<td>Assoc. Director and Director</td>
<td>1968</td>
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<tr>
<td>Alonzo Hagler</td>
<td>Superintendent</td>
<td>1907</td>
</tr>
<tr>
<td>Lula P. Colwell</td>
<td>Secretary</td>
<td>1925</td>
</tr>
</tbody>
</table>

The Company recognizes and appreciates all those whose efforts continue to support Home Supply.

It honors the memory of those valued contributors now departed.
COLORADO'S WEALTH

From Gold to Water

Prior to 1850 the few white men who came to the ‘Colorado Territory’ were mostly hunters, trappers and fur traders. Early exploration parties entering this area pronounced the region to be a hostile and barren wasteland with little or no promise.

Following the discovery of gold at Cripple Creek in the late 1850’s and throughout much of the mountainous areas of the ‘Territory’ during the following 30 years, thousands of eager, ‘Get Rich Quick’ hopefuls swarmed into Colorado. A few found gold and silver and other valuable minerals. However, most had their dreams of wealth shattered.

Many mining camps did grow into bustling towns which first thrived and later almost died. Vestiges of some remain as ‘Ghost Towns’. Fortunately others revived themselves based on big mining enterprises and later to the lure of Colorado’s mountains to visitors, hunters, fishermen and skiers.

As panning the gravel bars for gold and as ‘pick and shovel’ mining proved backbreaking and usually unrewarding, the search for riches became massive in nature. Large mining companies were formed. Huge dredges and hydraulic screening devices laid waste to miles of alpine streams for the few ounces of gold which collected behind the machines baffles.

THE ‘MINERS’ INCH

Water Measured Through a 1-inch orifice

Colorado’s territorial government learned that legal controls over an individual’s right to divert and to use the State’s waters was sometimes a matter of life and death. When the early ‘Gold Panners’ discovered that the amount of sand and gravel that could be sifted in a bowl was limited, some hit upon the idea of filing claims on promising gravel bars in high altitude streams.

Then they followed with building of rock or log dams in the stream in order to divert water into a sluice or wooden trough fitted with slats or baffles nailed to the bottom of the device. Then, all the hopeful wealth seeker had to do was shovel gravel into the sluice, allow the flowing water to flush the sand and gravel away and collect the gold, if any, which had been caught behind the baffles on the floor.

Serious problems soon arose. Others also built such screening devices along the same high altitude streams in which the volume of water flows decreased greatly after mid-summer. Thus, occasionally the placer miner down stream found the volume of water flowing into his sluiceway was reduced to a dribble. Unfortunately when he went up stream to look for the problem, he often carried a gun instead of a shovel.

In an attempt to prevent the state’s sand bars changing from a tint of gold to a stain of red, Colorado placed certain legal requirements on would-be placer miners. Applications to divert water were granted or refused based on seniority, volumetric flow of the stream etc. Successful applicants were required to construct large wooden boxes as a part of their flume troughs. A portion of the stream was diverted into the box and from there the miner’s legal water entitlement was measured into his flume through one-inch orifices or slits cut into a box 6 inches below the top of
the structure. Water surplus to each individual’s rights must be routed back to the stream. Thus, was born the ‘Miner’s Inch’; as a means of measuring water and the beginning of the application of Colorado’s basic water appropriation law, ‘FIRST IN TIME-FIRST IN RIGHT’.

**NEED TO STANDARDIZE TERMS**

Pioneer irrigators were a rugged breed. They joined with others in a given locality to form non-profit mutually owned irrigation companies. Most adopted the ‘Miner’s Inch’ as a means of measuring water to each user. However, other ditch companies defined and measured water in terms of rights, shares, heads, streams, ‘Farmer’s Inches’ and other innovations.

A few water officials attempted to measure flowing water by routing it through wooden flumes of uniform width and of specified length. The depth of the water was determined and the velocity of the flow was timed by dropping a floatable object into the upper end of the flume and then noting the time it took to pass to the lower end of the device. For many years Home Supply used 55 inches, or parts, as constituting a cubic foot per second.

The State of Colorado and the U.S. Bureau of Reclamation long ago standardized the measuring of flowing water in terms of cubic feet per second of time. Water stored in reservoirs and water allotments as administered by the Reclamation Bureau and by the various Water Conservancy Districts in the State is recorded in terms of ‘Acre Feet’. The output from irrigation wells is usually measured in terms of ‘gallons per minute’.

**MANY WATER USE PRIORITIES PRE-DATE THE STATE**

Evidence of construction and use of irrigation systems by the Indians at Mesa Verde amaze the present day visitors.

In 1787 Juan Bautista de Anzi, governor of the Spanish province of New Mexico, sent a group of farmers to work with the Comanche Indians in developing an irrigation project in the Arkansas River basin located about 8 miles east of the present city of Pueblo.

In 1852 construction was started on the ‘Peoples’Ditch’ on the Rio Grande in Colorado’s San Luis Valley. This ditch was awarded a decreed priority of 1852, the earliest in the State. It is still in use today.

1859 marked the beginning of organized irrigation systems along Colorado’s Front Range. Ten diversion decrees out of Boulder Creek, Bear Creek and North Clear Creek collectively were legally approved by the Territory during that year.

About 25 months later, on November 10, 1861, the earliest priorities granted out of the South Platte drainage to Big Thompson River users were appropriated. Before December 1, 1861, 199 applications for South Platte water diversion projects had already been tentatively approved. By May 1, 1863, 350 early priorities had been established.

By the same date, May 1, 1863, approximately 250 cfs of water had been appropriated out of the Big Thompson River. Thus, all of the dependable season-long flow of the stream had already been set aside for the early diverters, all located on river bottom farms.
APPROPRIATION DOCTRINE: 'FIRST IN TIME-FIRST IN RIGHT'

Fortunately for Colorado it has long been recognized that, excepting for the high mountain regions, our climate falls into the semi-arid range of precipitation. 'Front Range' moisture averages about 14 inches annually; 10 inches or less make for desert conditions.

The 'Doctrine of Prior Appropriations', sometimes known as the 'Colorado Doctrine', set the legal groundwork which permitted the development of irrigation in western United States.

COLORADO'S WATER RIGHT CHAMPION, WAYNE N. ASPINAL

Former U.S. Representative Wayne N. Aspinal, a man who has spent a lifetime in working for the development and the use of Colorado’s water resources, says it best. We quote: "If Colorado had followed the traditions of her forefathers in the East and adopted the riparian doctrine of water rights under which the water belongs to the land owners adjacent to the stream and must be kept undiminished in quantity and quality, a preferred class of water barons could have evolved to control the water resources—and not necessarily in the best interests of the people of the State".

BETTER LATE THAN NEVER

Prior to 1860, agricultural enterprises were mostly confined to scattered ranching in the foot-hills and along the river bottoms. Some dry-land wheat was grown on higher grounds.

During the period 1859-1870, from present La Porte south to Boulder, interest in the farming possibilities offered by irrigation, rose to a fever pitch. In just a few years all of the dependable water yields from the Poudre, Big and Little Thompson, St. Vrain, Boulder and Clear Creek rivers were appropriated and were used to irrigate lands either adjoining or close to each of these streams.

Colorado's water laws recognized the doctrine of prior appropriation. This meant that the early irrigators had already been granted the legal right to divert and to put to beneficial use, all of the dependable season long water flows from each of our Front Range rivers and streams. The higher grounds, away from the river bottoms, were still semi-arid and were essentially underdeveloped.

Front range streams are fed by mountain snows. Front range river flows peak between mid-May and June 30. These high volume, short-term flows were greatly in excess of the amount of water that could be beneficially used by the early appropriators on their river bottom farms. Seasonal floods, causing much damage, occurred periodically.

River bottom lands are relatively level. They were laid down during the melting of the last ice age.

The fertile top soil is underlain by ancient river deposits of sand and gravel. It was comparatively easy to build low diversion dams in the river in order to gain the sufficient water elevation needed to irrigate these areas adjacent to the stream. However, the challenge of bringing such development to the high grounds separating our front range streams posed serious problems.

Areas between our rivers rise from 50 to several hundred feet above the flood plains. These high ground soils were laid down by wind action over thousands
of years. They are deep and usually are underlain by shale deposits. The general terrain in these upland areas is rough and undulating.

To be able to reach such elevations by gravity flows, high and expensive water diversion dams must be built at, or near the mouth of the canyons where our mountain rivers empty upon the plains.

Handy Ditch Company of Berthoud built the first such high diversion dam on the Big Thompson River right at the eastern end of the canyon. Handy was granted an initial appropriation right of 31.2 cfs, dated February 28, 1878.

Home Supply entered the irrigation scene three years later in 1881 when the company built the Home Supply Dam, locally called ‘The Big Dam’, about 3/4 miles down the river from the Handy Dam.

ESCAPE FROM THE AFTERMATH OF THE CIVIL WAR

Following the end of the Civil War on April 9, 1865, many families sought to escape the devastation and the bitterness left by the conflict. Many fled to Missouri and Iowa to start life anew. Unfortunately some could still not escape the aftermath of the war.

About three years previous to General Lee’s surrender at Appomattox, Virginia, which ended the terrible conflict, the U.S. Congress had on May 20, 1862, passed the Homestead Act. The lure of a free farm plus the added incentive of the birth of irrigation in Northern Colorado, in 1861, encouraged another migration to unknown lands in the West.

Routes along the rivers and streams provided the only ways possible. Water and wood were necessary for survival.

Many who hoped to reach the northwest via the Oregon Trail were discouraged by the time they had reached Fort Laramie and decided to go south to ‘hoped for’ friendlier country down through Virginia Dale, Bellvue and Fort Namaqua and on South.

Those that knew they were Colorado-bound, went along the Missouri to near what is now Plattsmouth, Nebraska, thence up the Platte River to the present site of North Platte, Nebraska. They then followed the South Platte to its junction with the Poudre or the Big Thompson, or the Saint Vrain or Boulder Creek, depending upon the ultimate destination of each immigrant group.

DAM DISASTER

The first Home Supply dam, built as a log and rock fill structure in 1881-1882 was destroyed by high water crashing down the Big Thompson River during late May and early June 1894. Failure of this most critical structure placed severe stress on Home Supply’s ability to deliver water to its users during the 1894 crop season. The lower end of the system received minimum water needs from releases out of Lone Tree reservoir. Stockholders who must draw water from direct river diversions however were saved from complete disaster by the much appreciated cooperation of the Handy Ditch Company, which was able to accept a small portion of Home Supply’s appropriation at the Handy Dam structure and thence temporarily route this emergency water into the upper end of the Home Supply system.

In spite of heroic efforts by the company to save the system and its stockholders, a few individuals filed suit against Home Supply, claiming loss from crop failure
Home Supply Diversion Dam (Big Dam) on Big Thompson River - (Photo courtesy U.S. Soil Conservation Service)
and alleged damages along the river below the dam after the structure was washed out.

A MONUMENT TO ENGINEERING

The re-built dam, completed March 3, 1895, stands today as a monument to the vision and the dedication of our Home Supply forefathers. It has withstood 5 severe floods and many minor ones. Even the 1,000-year flood of July 31, 1976 that caused 31,200 cfs of water to crash down the Big Thompson Canyon did not destroy the Home Supply Dam. Aside from superficial damage, it remained basically sound.

John H. Nelson was the engineer who designed the 1894 dam. George C. Kelly was the prime contractor. Charles Lester was the main stone mason.

The structure they built for the Home Supply was, and is still, considered to be an engineering landmark, of massive masonry arch design resting on a 40 ft. x 40 ft. bedrock base. Maximum height is 60 feet. The huge sandstones are cut to fit the up-stream arch design. Flood water stress pressures are thus transferred into solid rock walls on both ends of the dam which are keyed into the canyon walls. This one-of-a-kind dam cost $11,000.00 to design and build. 13 bids on the job were offered. To survive these emergency expenses and to ease existing pressures of indebtedness, Home Supply approved the sale of $40,000.00 in bonds.

As of 1985 the Colorado Society of Registered Civil Engineers are exploring the possibility of officially designating the present Home Supply Dam as an ‘Historic Engineering Structure’.

During December of 1895, the City of Loveland petitioned the Company for the right to divert the town’s water rights from the Big Thompson River at a point immediately above the dam on the opposite side of the river from the Company’s intake headgates. Loveland paid $1,250.00 to Home Supply for this valuable privilege. It also agreed to certain rules and restrictions regarding the exercise of this right.

NAME THAT ‘LONE TREE’

Home Supply Reservoir Company (formerly Farwell Reservoir) was organized 105 years ago and was given a filling appropriation of 9,183 A.F., dated February 1, 1881. Following purchase by the Home Supply Reservoir Company, Farwell Reservoir was re-named Lone Tree. Various old timers had different notions concerning the particular tree for which the new lake was named. Some thought it must have been a Juniper or a Ponderosa Pine sprouting from seeds brought in by birds. Others thought it more logical that it was a cottonwood tree started from seed carried in by the wind from trees along ‘Dry Creek’.

However, careful historic research done in connection with the moving and the dedication of the one-room Lone Tree school house from north of Lone Tree lake to the Park on the northwest shores of Lake Loveland, has revealed that the honored tree was, in fact, a Hackberry.

THE RESERVOIR CAME BEFORE THE DITCH

Home Supply Ditch Company was organized on July 15, 1881, 5½ months after the formation of Home Supply Reservoir Company and was given a #50 Direct Flow Right of 278.84 cfs. (when the Big Thompson River flow was sufficient,
This #50 priority is essentially a flood right. Some years it yields no water to Home Supply. During wet years it allows the 278.84 cu. ft. to be diverted wholly, or in part, for a period of a few days to a few weeks.

It took less than one year for the organizers of the separate Home Supply Res. Co. and the Home Supply Ditch Co., which both must use much of an identical canal system, to realize that these two irrigation organizations must join forces. Thus, in 1882, THE CONSOLIDATED HOME SUPPLY DITCH & RESERVOIR COMPANY was organized as a Colorado non-profit Irrigation Corporation.

**COMPANY MUST BE REBORN EVERY 20 YEARS**

In order to continue to exist as a non-profit corporate body, when State granted charters expired after each 20 years, Home Supply was obliged to hold special stockholder corporate renewal meetings in 1902, 1922 and again in 1942. On August 31, 1942, the corporate existence of The Consolidated Home Supply Ditch and Reservoir Company was granted by the State in perpetuity.

The new company found itself with a good storage right and a very poor ‘Direct Flow’ river right. The lucky stockholders, whose farms did lie below the Lone Tree Lake Canal, had a fair water supply. The unfortunates with farms and ranches along the Home Supply between the Big Thompson River and the confluence of Home Supply’s Lake and River ditches had no late water and, during dry years, none at any time.

**MARIANO RESERVOIR—(BOEDECKER LAKE)**

To partially correct this situation, and after many months of negotiations, Mariano Reservoir was built. Its filling right was adjudicated on August 1, 1888. Mariano’s authorized capacity is 5,570.7 A.F. During 1964, by reason of research, proof that the 4,132 A.F. listed in the State Engineer records as the capacity of Mariano Reservoir from 1888 to 1964 was in error, Home Supply gained an additional 1,439 A.F. of recognized storage right. At present construction costs, this is worth about one million, four hundred thirty-nine thousand dollars. ($1,439,000.00).

This lake’s water cannot directly serve Home Supply users. It is an exchange reservoir only. It must trade water with the Big Thompson River. For example; if 76 cfs is released from this lake to flow directly back to the river, the Water Commissioner may permit 75 cfs of water to be diverted from the river into the Home Supply canal at the Company’s ‘Big Dam’ headgate.

Mariano Reservoir was named for Mariano Modena, the first white settler on the Big Thompson River near the foothills. Mariano Butte, ½ mile north of the lake also bears Mr. Modena’s name.

Locally, Mariano Reservoir is known as Boedecker Lake. Emil Boedecker owned part of the north ½ of the land now occupied by the lake. C.G. and Priscilla Buckingham owned much of the south ½ of this proposed reservoir area.

The then trustees for Home Supply entered into a tentative agreement with the Buchinghams and with Emil Boedecker to purchase the Mariano Reservoir site as proposed. Final action on the matter was postponed for several months in order to permit company stockholders to have a voice in the final decision. Times were hard, money was difficult to come by and Home Supply, as a company, was already...
debt. The stockholders instructed company trustees to request a release 
by Buckingham and Boedecker from the contract. Buckingham was willing, but 
Boedecker had already committed his expected proceeds from the sale and could 
not release Home Supply from its agreement.

In an effort to partially salvage the situation and still gain a much needed addi-
tional water supply for Home Supply, Company representatives were able to work 
out a compromise deal with the Buckinghams for less money, whereby Home 
Supply would have a perpetual right to store water in the new lake as well as an 
acanal easementfor the release of these waters out of the reservoir.

This area in question was not deeded, nor recorded as a final sale. In fact even 
today, the half section line which runs through the lake from east to west defines 
the north property line of present homeowners whose lots lie immediately along 
the south shore of the reservoir. However, controlled recreational use of Mariano 
is presently vested in the Colorado Fish and Wildlife Department and not with the 
adjolving landowners.

In spite of these money-saving compromises, several stockholders started 
preliminary action to separate the existing Home Supply Corporation from the pro-
posed Mariano Reservoir development. The protestors felt that the company could 
not afford to build this project and moreover, that benefits would not justify the 
cost. Land and easements costs for the new lake and the necessary inlet and outlet 
canals would cost about $10,000.00. Construction costs were, at that time, 
unknown.

FORTUNATELY—COOLER HEADS PREVAILED

G.A. Hamilton, whose farms were largely served by water from Lone Tree Reser-
voir, nonetheless knew that the Home Supply Company must never be divided 
and that the supplemental water supply promised by the proposed Mariano Reservoir 
would ultimately be worth many times the cost, made the resolution and the speech 
that helped save the new lake and that assured that all Home Supply stockholders 
would equitably reap the benefits and share the cost of the additional water supply.

The principle key to Mr. Hamilton’s resolution is herewith quoted:

“Whereas, the price paid for said reservoir is high - and considering the present 
large indebtedness of the Company, will be hard on the Company to pay for it 
- but when paid for will be worth all it cost-; and Whereas, being stockholders 
of the same Company it would be unwise to enter into a lawsuit, for whichever 
party should win - the Company would be the losing party”.

THE CONSOLIDATED HOME SUPPLY DITCH & RESERVOIR CO.

I. WATER RIGHTS (Direct)

A. * 15 cfs - priority #1 - 11/10/61 (Transferred from old Big Thompson #1 Ditch) 
   * (1) Home Supply loses 5 cfs #1 - July 14 NOON
   * (2) Loses additional 5 cfs #1 - Aug. 31 MIDNIGHT
   * (3) Remaining 5 cfs #1 good during entire irrigation season unless B.T. River 
      gets very low during the Fall season.
B. 13.02 cfs Priority #2  )-4/1/63  
14.19 cfs Priority #4  )-5/1/64 Collectively known as #2  
25.06 cfs Priority #10½  )-3/1/67 All transferred from Big  
3.74 cfs Priority #20  )-5/1/72 Thompson Ditch and Mfg. Co.  
NOTE: Home Supply'sNos. 2, 4, 10½, and 20 priority water goes out on July 14 NOON, excepting the 10 cfs out of these priorities which belong to the Town of Johnstown.  
The Water Commissioner determines daily the amount of 1, 2, 4, 10½ and 20 transferred water that Home Supply may divert. This determination is made depending upon the total flow of the river and the demands placed on these priorities by other irrigation systems.  

C. 278.84 cfs Priority #50 - Dated 7/15/81  
Priority #50 is essentially a flood right. During dry years it does not come in at all.  
Depending upon demands for water by other ditch companies, holding priority rights earlier that #50, the Big Thompson River must usually be flowing 1,000 cfs or more before Home Supply's #50 right is of any real value.  

II. WATER RIGHTS (GEO. RIST DITCH)  
A. Direct flow priority #21 of *195 cfs is a free water right. No assessments are paid to Home Supply.  
*The State Engineer's office reduced this 195 cfs to 73 cfs on July 1, 1978. This 122 cfs abandonment reduction applies only to direct flow users under priority #21. It does not affect Home Supply's right to a maximum 195 cfs when filling Mariano Reservoir through the Geo. Rist Ditch.  
Home Supply owns the Geo. Rist Ditch from the B.T. River to the Mariano inlet chute structure. The Company's only use of this section of ditch is for the purpose of filling Mariano Reservoir.  
Irrigation waters ordered under priority #21 are used by the Buckingham Ditch Co. The Buckingham Ditch starts at the diversion headgate located on the west side of the Mariano inlet chute structure. This Buckingham canal is operated and maintained by Buckingham Ditch Co. and is not the responsibility of Home Supply.  
NOTE: Several water users along the 3-mile stretch of the Geo. Rist owned by Home Supply, also claim and have historically received water from the Geo. Rist.  

III. WATER RIGHTS (STORAGE)  

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<th>Reservoir</th>
<th>Priority No.</th>
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<td>9,183 A.F.</td>
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<tr>
<td>Mariano</td>
<td>3</td>
<td>8/1/88</td>
<td>5,571 A.F.</td>
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<td>Lon Hagler</td>
<td>Junior</td>
<td>7/7/59</td>
<td>5,228 A.F.</td>
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<td>Lone Tree Refill</td>
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<td>9,183 A.F.</td>
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<td>42</td>
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<tr>
<td>Lon Hagler Refill</td>
<td>Junior</td>
<td>1,778 A.F.</td>
<td>3,529 A.F.</td>
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absolute conditional
Lon Hagler Reservoir in foreground and Mariano Reservoir in background - (Aerial photo courtesy U.S. Soil Conservation Service)
IV. COLORADO-BIG THOMPSON PROJECT WATER 60 acre foot units.

This CBT water had been previously allotted to the Ed Anderson farm. Home Supply acquired this supplemental right as a part of the Long Hagler Reservoir site purchase.

By contract agreement with Colorado's Fish and Wildlife Department, the annual net yield from these 60 A.F. units, along with the water dividend from 7 shares of Home Supply from the Anderson farm, but now owned by the State, are stored in Lon Hagler Reservoir to help maintain the minimum 13½ foot water depth required for a conservation pool. This arrangement benefits both the ditch company and the State by helping compensate for annual evaporation losses.

Fish and Wildlife pays its yearly assessments on 7 shares and also re-imburses Home Supply for CBT charges on the 60 A.F. units.

START OF WATER TRANSFERS AND EXCHANGES

Mariano Reservoir has a #3 filling priority. Its exchange waters offered some relief to all Home Supply stockholders, particularly to those whose farms cannot be directly served from Lone Tree Reservoir. Even so, Mariano Reservoir did not always fill. Home Supply water users were restricted to a small grain and alfalfa type of farming. The Company still had no dependable direct flow river rights. In reality, Home Supply was just a reservoir company, holding #1 and #3 filling priorities.

During the late 1890s and the early 1900s, there was much talk of a possible beet sugar processing plant to be built in Loveland. Successful sugar beet raising demands a dependable irrigation water supply from early May to mid-September. This incentive of extra water also meant that corn could be raised, which in turn, would encourage dairying and livestock feeding.

Something had to be done. All of the dependable early direct flow rights were confined to the flood plain or to the so-called 'first bottom' lands adjoining the river. The greatest potential for irrigated agricultural development was on the higher ground areas, away from the river. Unfortunately, these areas had the poorest water rights.

Beginning in 1898 and continuing into 1903, several farm owners, with lands located both in the flood plain and on higher, water-short grounds, began negotiating with Home Supply to explore the possibility of securing legal changes in points of diversion to permit the use of a portion of these early direct rights on farms served by Home Supply but owned by the petitioners.

Many other irrigation companies, whose waters were derived from the Big Thompson River, feared that such changes in points of diversion, might injure their respective water rights. Lawsuits were threatened and negotiations continued. District Judge James E. Garrigues of Boulder, declined to consider the transfer petitions until all parties had amicably settled their differences.

Petitioners requesting such points of diversion changes included: Wm. A. Hankins, John Derby, David Hershman, Aaron Trindle, Elizabeth Koenig, Wm. H. Gard, Mathew Daley, W.C. Stiles and The Consolidated Home Supply Ditch and Reservoir Company.

A total of 56 cfs was involved in this court action. Using the January 10, 1903, signed (and later recorded) contracts between Gard and Home Supply and between Koenig and Home Supply as acceptable guide, Judge Garrigues, on April 6, 1903,
ordered and decreed that the 56 cfs in question, with certain limitations, could be diverted at Home Supply’s intake on the Big Thompson River during each and every year hereafter.

HOW HOME SUPPLY ACQUIRED ITS 71 cfs TRANSFERRED WATER RIGHTS

The total Gard and Koenig water represented 10 cfs of the remaining #1 priority water originally appropriated by the Old Big Thompson #1 Ditch. Gard and Koenig each sought to transfer 5 cfs of their respective #1 rights into the Home Supply system. Together, these 10 cfs are involved in the 1903 contract. This Old Big Thompson #1 Ditch Company no longer exists as a corporate body. Under the administration of the local Water Commissioner and when the river flows so justify, Home Supply may now legally divert and put to beneficial use, this full 10 cfs #1 water from the start of irrigation season until July 14 NOON of each and every year and under similar controls, the Company may divert and use 5 cfs of the combined Gard and Koenig contract water from July 14 NOON until August 31 Midnight during each and every year. Thus, the protestors’ rights were protected.

The 46 cfs remaining in the transfer decree granted by the Boulder District Court is comprised from 2, 4, 10½ and 20 priorities, all being originally a part of the water decreed to the Big Thompson Ditch and Mfg. Co. These 46 cfs, as administered by the Water Commissioner and as dependent on river flows may legally be diverted by Home Supply during each and every year hereafter, from the start of irrigation season until July 14 NOON only.

Home Supply, as a company, owns 24 cfs of this water right. The balance is owned by individuals and by Johnstown, but is delivered through Home Supply system. Johnstown acquired its 10 cfs of so-called #2 water, transferred to Home Supply system in 1928.

The remaining 5 cfs of #1 transferred water, which makes up the balance of Home Supply’s well-known 71 cfs of transferred direct flow early water rights, were legally transferred to Home Supply’s point of diversion by certain Home Supply stockholders and by the Town of Johnstown during 1913, 1914, and 1928.

In accordance with stipulations contained in the Gard and the Koenig contracts and by action by the Company, as authorized in the By-Laws, Home Supply treats these 71 cfs transferred waters as foreign water. Since the beginning of these transfers, the company has imposed a carrying charge for the handling and delivery of such waters to respective owners, on demand. Owner receives 50% of such transferred water, as measured out of the company’s main canals. The remaining 50%, less shrink, is credited to company stockholders in proportion to the stock owned or controlled by each. This carrying charge water is an important part of the annual irrigation water supply available to each shareholder.

Down through the years, there have been many efforts by certain individuals to sell a portion of this most valuable water right out of the Home Supply system. Other attempts have been made to ignore or to cancel the water use provisions as set forth in the Gard and Koenig contracts with Home Supply. Company minutes reveal at least two of such efforts involving threat of lawsuit separately by a Fort Collins and by a Greeley attorney. To date, the Company has managed to block all attempts to injure Home Supply’s hard-earned direct flow water. This 71 cfs
of early river water, coupled with Home Supply’s three storage reservoirs, have helped to make the company what it is today. What our fathers and grandfathers fought for in the past, we must be willing to protect today.

D.T. Pulliam spearheaded Home Supply’s 7-year, and ultimately, successful struggle to acquire rights to early direct flow river water.

On April 6, 1903, Boulder District Judge James E. Garrigues signed the transfer order and decree that, with certain limitations, empowered Home Supply to divert and use 10 cfs #1 water plus 46 cfs of so-called #2 water. The 5 cfs #1 and the 10 cfs #2 additional transfers were legally made by action taken by the Town of Johnstown and by two individual Home Supply stockholders.

These 15 cfs, of later transfers combine with the 56 cfs of 1903 transfers, make up the well-known 71 cfs of early direct flow river rights which are so vitally important to Home Supply.

**BUT IT WASN’T QUITE THAT EASY**

When Home Supply was founded in 1881 and 1882, the Company had only a partially completed canal system and a reservoir (Lone Tree) which was not in condition to store water. Money was extremely scarce and construction equipment was mostly mule or horse drawn slips and scrapers plus human muscle, sweat and determination. In 1956, during a dragline cleaning job on the Lone Tree outlet cut to reslope the excavation and to remove 75 years of silt and debris accumulation, several mule shoes were brought up along with the mud.

Let us reflect—12 to 15 thousand cubic yards of hard shale had to be removed, at less than ½ cubic yard at a time, just to the dig the Lone Tree outlet cut, then add to that the building of necessary dikes and dams for Lone Tree and for Mariano reservoirs and the digging of 38 miles of canals, it is a major miracle that the Home Supply system was ever built. Let us pause and give sincere thanks to our forebears.

Without their collective determination, coupled with back-breaking effort, we would never have had an irrigation company.

**PROBLEMS WERE PLENTIFUL—MONEY WAS SCARCE**

During the early 1880s when the Home Supply system was under development, human sweat and muscle guiding horse and mule power, dug the ditches and built the dams. In lieu of money many workers gladly accepted ditch company stock, at the rate of $50 per share, as payment. Much potential individual farm land was secured under the U.S. Homestead Act.

Canals at first were shallow and required few check structures. But, as erosion took place and the ditches were enlarged, many farms could not be adequately served. Only a few checks, then known as stop boxes built of lumber, were in existence. Some enterprising farms asked for and received company permission to mount water wheels at proper diversion points. The wheels, using the canal’s flowing water as power, scooped water from the main ditch and dumped it into the head of the individual’s lateral. This ingenious plan worked fair during periods of ample water supply and not at all when available flows barely covered the bottom of the main canal.
As rapidly as money and manpower became available, wooden stop boxes were installed where needed. These devices required much maintenance and were only partially satisfactory.

Farm commodity prices, during and immediately following World War I made possible much semi-permanent type of improvements. Concrete check structures were built, diversion headgates were installed and the water flow was measured over wooden cipolletti weirs. Prior to this, the only measuring of water to an individual user was by proportioning the width of his flow slot in the side of the stop box in proper ratio to the larger amount of water flowing in the main canal. Most recently, as an important feature of the Home Supply Watershed project, more than 90% of these checks were rebuilt of steel re-inforced concrete, new headgates with tile outlets were installed and now all water, excepting to some pumps, is measured through Parshall Flumes.

MANY OLDER IMPROVEMENTS STOOD THE TEST OF TIME

Volunteer growth of trees and brush along all irrigation canals have always caused problems. Transpiration losses through the leaves on a hot windy day have been estimated at 1,000 gallons per large cottonwood tree. Flowing water undermines old trees which sometimes collapse during violent wind storms or, under the weight of wet snows. The annual dropping of limbs and leaves add greatly to ditch maintenance costs. Hundreds of troublesome trees have been removed. Many more need to be.

However, Home Supply recognizes this understandable fact—homeowners love trees. Thus, the company’s present policy is that, while it has legal right to remove trees or brush growth which pose impending problems, it spares trees that seem not to be immediately hazardous to the safe and efficient operation of the system.

Canal bank erosion, particularly below check structures and on meandering sections of the ditch, has been serious for more than a century. Thousands of cubic yards of rock and broken concrete materials have been hauled and placed along Home Supply’s 38 mile canal system and reservoir dams. More thousands will be placed in future years as needed.

FOUR CRASH PROGRAMS OF IMPROVEMENT

In its 105 year history, Home Supply has, on four different periods of its existence, been forced into emergency programs of repairs and improvements.

The Consolidated Home Supply Ditch and Reservoir Company received its certificate of Incorporation as a non-profit, mutually-owned irrigation company on September 15, 1882—9 o’clock A.M., with a capital stock of $100,000 based on 2,000 shares of stock at $50.00 per share.

In preparation for that memorable occasion, trustees of the Home Supply Reservoir Company and The Home Supply Ditch Company held a joint meeting on August 31, 1882 at the Grange Hall in Loveland, Colorado. As previously directed by stockholders of both companies it was then mutually agreed that the original two separate corporations should dissolve and should re-unite into a single corporate body to be known as THE CONSOLIDATED HOME SUPPLY DITCH AND RESERVOIR COMPANY. E.S. Allen and S.A. Forbess, trustees of the Ditch Company and J.R.
Palmer and E.J. Chapman, trustees of the Reservoir Company, were unanimously elected as the first trustees of the new Company. J.R. Curtis was elected as the required fifth director of the corporation.

Before irrigation service could be provided to the newly developed farms under the system, necessary easements and rights-of-way had to be attained; 38 miles of canal must be dug; stop boxes (checks) were placed in the ditch to make possible proportionate water service to users; Home Supply diversion (Big Dam) was built in 1882 and re-built in 1894; 2 large reservoirs, Lone Tree and Mariano were created after a multitude of legal and financial problems were solved; George Rist diversion dam was constructed; the battle to gain 56 cfs of early river priorities transferred into the Home Supply system was won.

When Lon Hagler became superintendent of the Home Supply in Oct., 1907, he found the entire ditch system in a near state of failure. An intensified effort was made over the next 5 years to rebuild the physical works of the company to enable it to furnish irrigation water to its owners. A typical one-month period of this effort to save the ditch is shown from the records of Oct. 1908 when 73 different checks were drawn to pay for work on the canal.

From 1915-1920 another intensified effort was made to improve the Home Supply. It was during this period that at least 90% of all concrete work, headgates, clay tile outlets and cippoletti measuring devices were installed. The concrete work represented a good job in its day, but it contained no steel re-enforcing and no adequate footings. Sand and gravel on the upper end of the system was simply scooped from the deposits in the canal and mixed, dirt and all, into the concrete mix. Headgates were not rust resistant and clay tile outlet line joints were set in weak mortar which cracked and broke anew each passing winter.

Until 1965, these World War I period repairs were the last major attempt to keep the Home Supply in top shape. This situation was, in no way, the fault of Mr. Hagler. Stockholders simply did not vote the money to keep the system in top operating condition.

A systematic study, made in 1958, revealed that, since about 1930, Home Supply was suffering an annual depreciation of $30,000 due to lack of proper maintenance. However, until 25 years ago, Home Supply did not face up to this fact and realize that 80-90% of all concrete, metal and clay pipe features and wooden measuring devices were depreciated beyond economic repair. Something had to be done before the ability of the Home Supply to serve users collapsed in mid-season.

MAKE DO OR RENEW?

During the depression and drought years of the early 1930s no check structure, headgate, measuring device or reservoir outlet works could be re-built if it could possibly be repaired. Extra maintenance funds were simply not available. During those difficult years Mr. Hagler did a marvelous job of making-do. He often remarked, sometimes jokingly, sometimes in earnest—"Keep the headgates from falling into the canal by tying them back with baling wire, and if the gate leaks badly, even when shut off, seal the leak with dry horse manure." These emergency repairs even worked for a while.
PROGRESS WAS SLOW—3 STEPS FORWARD—2 STEPS BACK

Many semi-permanent repairs were made from 1955 to 1965 and are mostly giving good service at this time. The problem with solving only the most apparent problem first was when an emergency situation happened during mid-irrigation season, money had to be borrowed to alleviate it and quickly.

The company's two main foothills canals, the Home Supply River Ditch and the George Rist Ditch both cross Dry Creek, after each merges with this stream's flow for a short distance. Floods have occurred periodically, some causing considerable damage to our irrigation company.

During the 1928-1929 off-season, the director authorized Mr. Hagler to construct a massive flood by-pass concrete dam in the Dry Creek channel where Home Supply's main canal temporarily merges with the natural stream. This dam was built to by-pass a 3,000 cfs flood and also required installing a high concrete flood wall into which was set 3 headgates to enable by-passing the proper flow of water on down the canal. 100 yards downstream from the dam a sandtrap helps to flush flood-carried sand and gravel back into Dry Creek. These gates are operated by electrically powered hydraulic systems.

Further down Dry Creek, where the George Rist Ditch crosses this natural channel, a similar flood dam and sandtrap device was installed. At a more recent date, hand operated hydraulic lifts were incorporated.

According to old company records, Home Supply did not originally join with Dry Creek. Instead, a long and relatively fragile wooden flume crossed the wide Dry Creek drainage. Lack of capacity and excessive maintenance on the flume prompted the building of the dam.

Another major concrete enterprise was tackled in 1931. A 2½ foot thick concrete facing was added to the lake side of the old masonry outlet wall at Lone Tree Reservoir.

BUT THE JOB IS NEVER FINISHED

From 1955 to the present time major repairs and improvements in both the Home Supply and the George Rist Ditch systems have been made. These works were done and paid for apart from the P.L. #566 provisions of the general Watershed Improvement plans.

New rust-resistant outlet gates set in a steel re-enforced concrete bulkhead were installed at Mariano Reservoir in 1964. They are mounted in a re-enforced concrete headwall and are lifted by stainless steel stems.

During 1964 - approximately 50 cu. yds. of gunnite concrete seal was applied to the upper 6 ft. of the Home Supply Dam and to the concrete outlet tower at Mariano. This work probably saved severe damage to the upper sections of the dam during the 1965 and the 1976 floods.

As the gunnite process seemed to be well worth the cost, a few years later, the gate headwall and the downstream face of the flood dam at Dry Creek were similarly treated.

An accurate 10 ft. concrete Parshall measuring flume was installed just below the Lone Tree Lake outlet.

To eliminate problems caused by both the Gard Lateral and the Connor Lateral being originally diverted from the Home Supply River Ditch and thus being forced
to go over or under the company’s Lake canal, water service respectively to both laterals now are diverted directly out of the Lake ditch. Water has been saved, service was improved and the length of both laterals has been shortened.

In the canal immediately below the Home Supply Dam, an outcropping of rock rising 2 feet above the canal bottom, and extending 125 feet down the ditch, caused a false water flow reading through the 12 foot Parshall Flume located immediately above this problem area. This measuring device lies close to Home Supply’s diversion gates on the Big Thompson River. It is fitted with a State required water flow recorder which prints upon a chart the hour by hour water volume entering our irrigation system. These charts are removed weekly by the Water Commissioner and are filed as State records.

Fairly accurate measurements were proven on diversion flows of less than 150 cfs. However, the Parshall started to submerge with back water when flows reached 200 cfs.

At 300 cfs, which is still 25 cfs below Home Supply canal’s design capacity, the Parshall submerged badly. Carefully monitored water measurements at various control locations between the river and Dry Creek revealed that 300 cfs, as recorded through the flooded Parshall, was actually only 280 cfs. Thus, the company was being shorted 40 A.F. daily, worth $200.00 @ $5.00 per A.F.

Similar inaccuracies were feared at the Mariano Exchange Ditch measuring device. Home Supply poured a new concrete floor in the device and improved the ditch channel, both above and below the flume. The company requested and received a new water-flow calibration made by State Water Technicians. Now, at a 75 cfs measured exchange between Mariano and the Big Thompson River, Home Supply is receiving credit for about 10% more water than was recorded before re-calibration was granted and the inaccuracy was corrected.

**IT WAS HARD TO WALK 38 MILES AND BE ON TIME**

When our ditch system was first excavated, rough canal bank roads enabled the superintendent and his ditch riders to use horse drawn carts and spring wagons so each could daily travel a portion of the system and make water releases to users.

By 1900 the company built a cabin and other buildings at Dry Creek on land owned by Alice Boardman. Mrs. Boardman received $5.00 monthly for land rental. Assistant superintendent for the foothills section of the ditch system and his family lived there for many years. During these same years, the superintendent lived near Lone Tree. Lake canal’s rider was at Campion and so on down the entire irrigation system.

Home Supply went modern in 1915 when it bought its first car, a Model T Ford, for Mr. Hagler’s use. Unfortunately, it was then assumed that the superintendent and his helpers could use county roads to travel down the ditch system. Debris from canal cleaning jobs was piled on the banks. Access for purpose of maintenance was through farms and private property.

Beginning in 1956, the company hired bulldozers and graders to establish passable ditch bank roads wherever necessary. This made possible the placing of thousands of cubic yards of rip-rap on formerly inaccessible sections of badly eroded canal banks and improved service to water users.

From 1955 to 1967, Secretary-Manager Keimes furnished his own transportation
and was reimbursed for vehicle operating costs. Now, the Manager and the Head Ditch Rider both use company-owned pick-ups and are able to give better service.

Before the recent onset of the building boom, custom ditch and reservoir maintenance companies were readily available. This situation is changing. To be able to care for most canal bank repairs, Home Supply wisely now owns a small backhoe, a side dump truck and weed control equipment. Present Manager, Delbert Helzer, operates and maintains this needed machinery. He has thus been able to clean sections of canal, remove troublesome trees and brush, and to stabilize with rip-rap, certain critical areas of the ditch system. A prime example of this work is readily evident along the south side of Highway #60 immediately east of I-25.

DIGGING FOR CLAMS—(PETRIFIED)

Time was when rip-rap material had to be bought at so much per truck load. Thus, availability of funds largely dictated the amount of rock hauled. Home Supply had been buying limestone material from C.E. Buckingham who offered to sell 40 acres of this formation lying immediately north of the easterly section of Mariano Reservoir for $2,500. After considerable negotiations the deal was consummated in 1957 and the company became the deeded owner, but only because then President, George Lee, loaned the company the entire purchase price @ 5%.

Aside from the acquisition of the company’s 3 reservoir sites, the purchase of this limestone ridge must rank as one of the best investments Home Supply ever made. Not only is rip-rap material immediately available when needed but, the quarry property has greatly increased in value. In 1962, 7 acres out of the northwest corner of the 40 acres were sold to Stratman and Clark for $1,400.

Initial excavations of the limestone formation exposed many petrified clams and oyster-type shells. It might well cause a person to pause in wonder. What was this area like in prehistoric times when these fossilized remains were alive?

CANAL AND RESERVOIR MAINTENANCE IS NEVER ENDING

It may be compared to washing the dishes or feeding the cattle. It must not only be done several times daily, but repeated tomorrow and every day thereafter.

During his all-time record as Home Supply’s superintendent for 48 years, (1917-1955) Lon Hagler, with the support of the company directors, improved the Home Supply system to enable it to carry its full appropriated water right and to proportionately deliver it to qualified users on less than a 24-hour notice. In 1900, 5 days written notice was required of each stockholder desiring to draw reservoir water. (This regulation proved very unpopular and had a short life.)

Mr. Hagler’s ability to keep the ditch system in good repair was greatly enhanced when the company bought its first dragline in October, 1927, for $11,200. A newer one was purchased in January, 1942. Lon operated the machines himself for almost 25 years until about 1952 when he taught Melvin Collins, head ditch rider at the time, to operate the equipment. By 1960, most of the State and main county highways had been asphalt surfaced making it necessary to hire the machine trucked from one job site to the next. Stratman Brothers Excavators from west of Loveland, had often been hired as operators and repairmen for the dragline as well as providing the flat-bed semi to move the outfit. Stratman’s now have bought the machine, and to date continue as the number one earth moving and canal cleaning contractor.
whenever Home Supply must have such help. Stratman’s knowledge of the ditch system, coupled with their know-how and their willingness to help has been very valuable to the company for many years and is deeply appreciated.

TRADING DIRT FOR WORK

Mutually beneficial trades have proven helpful to Home Supply and to County and State entities.

Larimer County, while seeking to upgrade the west First Street road, needed quality fill material. Close by, Home Supply had a severe problem with tons of shale and soil sliding into the company’s George Rist Ditch where it traverses a deep cut. The county cleaned and sloped the entire problem area and used the stuff for road base fill.

Colorado’s Fish and Wildlife Department, subject to periodic review, has a recreational use agreement, until 1994, with the company on Lone Tree Lake. The department developed a public use area west of the reservoir and needed an adequate road leading to the campsite. A severe dog-leg bend in Home Supply’s canal north of the lake blocked the way. The department re-aligned the ditch and filled in the old scar.

Similarly, Fish and Wildlife needed an improved access to its public use area immediately north of Lon Hagler Lake. The State has a permanent but specifically controlled recreation use right on this new lake due to its investment of $47,000 as part of the $75,000 purchase of the Edwin S. Anderson ½ section on which
a portion of the lake lies. Home Supply owns the entire reservoir and dam area as well as a maintenance strip around its perimeter.

The State built and maintains the access road from the county highway to the lake, a route used by thousands of fishermen and by company personnel. The department also paid for and installed most of the necessary fencing on the former Anderson farm.

When that portion of Interstate #25, four miles west of Johnstown, was under construction, enormous yardage of earth fill material was needed to establish the interchange with State Highway #60. The State Highway planning engineers worked out a deal with Home Supply, with the Harry Lateral Ditch Company and with the two adjoining land owners whereby portions of the 2 farms in question were leveled making possible the straightening and shortening of both ditch systems and the re-location of the Harry Lateral diversion structure and measuring flume. The Highway department’s site contractor did the rough excavating on the ditch sections as now re-located. However, the section of this new ditch alignment that passes immediately in front of the Eleanor Bein farm house was placed in a buried pipeline at Home Supply’s cost.

**WATER—SOMETIMES TOO LITTLE—SOMETIMES TOO MUCH**

High stream flows following winters of above average snowfall can usually be stored and cause little damage. But severe cloudbursts on the foothills and the mountain drainage below 8,000 feet elevation are a different and serious matter.

1894 - The original Home Supply Dam washed out.

1914 - Heavy rains during the spring, added to the melting of the 4-foot record snows of December 1913, caused flooding on Dry Creek and on the Buckhorn.

1921 - Thompson Valley, east of the foothills, was inundated. The highway immediately south of Loveland was temporarily impassable. A courageous and well-known young farmer from the Johnstown area was to be married in Loveland during that period. In his Model T, he was blocked at the river south of town. Rather than leave his intended bride at the altar, he backed up and went west to the Colorado and Southern railroad tracks and drove his car over the rough ties on the bridge spanning the flood.

1938 - Two weeks of heavy rains during the last of August and early September, put the Big Thompson River out on low stretches of the Estes Park Highway. Boulders fell upon the road and hundreds of tons of sand and silt ended up in irrigation canals.

1951 - Buckhorn Dam washed out due to a 16-inch cloudburst on the creek’s upper watershed.

1965 - A series of floods, hailstorms and cyclones hit most of eastern Colorado. Record high water on Plum Creek devastated bridges and commercial buildings along the Platte River in Denver.

Parts of 21 agricultural counties in the State including Larimer, were declared to be in the disaster area which made them eligible to receive financial aid in rebuilding and making emergency repairs.

Home Supply suffered $8,000 in estimated damages. $7,210.77 were granted to help put the system back in operation. Two areas received major damage; the
Dry Creek crossings of both the Home Supply and the George Rist ditches and the area west of Mariano Reservoir where the main canal crossed a steep slope underlain with shale.

The concrete structures at Dry Creek were repaired and strengthened, including raising the height of the flood control dam by 8 inches.

Heavy rains, including hail and a destructive cyclone struck west of Loveland on June 14. Continuing rains, followed by an 8-inch cloudburst on June 17, caused a rock slide on the company's canal west of Mariano Lake. Damage was so extensive that a 500-foot section of the ditch had to be re-located further up the slope. The bottom and the lower side of the new cut was protected with compacted clay and small particle rip-rap. All necessary rights-of-way and easements were provided by Home Supply.

Woody Robertson and his wife Sandra had recently moved here from Oklahoma and were temporarily living in a mobile home located just above the Barnes canal west of Loveland. Soil Conservation Service had appointed Mr. Robertson as the resident engineer to give professional assistance to the Home Supply Watershed project, if and when it might be approved.

The June 14 cyclone swept the trailer, with Woody and Sandra inside, into the Barnes ditch. Although both were injured, Woody fortunately was able to save his wife and himself. He even rescued their little dog.

1976—ONCE IN 1000 YEARS IS TOO OFTEN

During the night of July 31-August 1, some thirty to thirty-five thousand cubic feet of water per second crashed down through the Big Thompson Canyon carrying with it thousands of tons of destroyed homes, trailers, automobiles, propane tanks, bridges, trees and assorted debris. The flood caused 139 known fatalities. Six persons are still listed as missing.

Since February 1955, Home Supply had maintained an office and kept most of its records in the home of the secretary. Many irreplaceable records, which were not in bank boxes, were kept in three fire-proof files in the office. Other less critical material and supplies were kept in regular steel files and storage cabinets. Scores of old water delivery books and non-current papers and records were wrapped and stored in the basement and garage at the secretary's residence.

The initial thrust of the flood did not destroy the secretary's home. However, sometime between 10:30 P.M. and midnight, the concrete and steel structures supporting the quarter million pound Bureau of Reclamation siphon, which spanned the river at the mouth of the canyon, gave way. Accompanied by a muffled roar resembling an avalanche, the huge pipe rolled and ground its way over the Handy Dam and smashed into the west side of the Keimes home. The garage, the three bedrooms and the sun room were telescoped into splinters. Wild flood waters, increased one fourth in volume by mud, sand and debris, coursed through the house.

All furnishings and equipment, except Home Supply's heavier files were tumbled about like corks.

The Keimes home was condemned by executive order of the Governor. Within a relatively short time, the house and most of its contents were bull-dozed down and hauled away by demolition and clean-up crews.

Home Supply's stock list and most recent financial and water records were salvaged.

—21—
The Company's 1970 ¾-ton Ford pick-up plus the stocklist and a few other vital records were saved just a few minutes before the flood struck.

Extensive repairs and reinforcement work done previously on the Home Supply diversion dam and concrete bench flume unquestionably saved the flume from destruction and possibly saved the dam as well. Had these structures failed, no water, excepting a little from Lone Tree Reservoir, could have been delivered after July 31, 1976. Cost of replacing these structures would probably have exceeded 200 thousand dollars.

**COST SEVENTY-NINE THOUSAND—NOT COUNTING THE SAND**

Federal Disaster Relief Funds provided $80,539.80 toward Home Supply's flood repairs and clean-up costs. Then Superintendent, 'Chuck' Benton, estimated an additional ten thousand would be needed for sand removal further down the ditch system. 'Chuck' worked very hard during the balance of the 1976 irrigation season in fighting silt and debris in order to provide service to company irrigators.

Handy Ditch Company's concrete bench flume immediately below its diversion dam at the mouth of the canyon was completely destroyed. Home Supply accepted a portion of Handy's direct river flow rights into Home Supply to partially serve Handy irrigators east of Campion. Home Supply remembered similar help from Handy when the Big Dam washed out in 1894.

1980

April 30, 1980 saw a major foothills flood come down the Buckhorn and the lower drainage of the Big Thompson. The dam and Parshall Flume at the Big Thompson Ditch and Manufacturing Company's diversion on the river were destroyed. Big Thompson Ditch was forced to petition for a new point of diversion on the south side of the Barnes diversion dam. Greeley and Loveland Irrigation Company, owner of the Barnes dam and the State engineer, both approved of this emergency measure.

Farmers Irrigation Company ditch also received considerable damage.

1982

Lawn Lake Dam, located on the Roaring Fork of Fall River in Rocky Mountain National Park, was washed out on July 15, 1982. The town of Estes Park, along with campgrounds and trailer parks above the village, were severely damaged.

A flood of another nature; lawsuits against Farmer's Irrigation Co., owners of the dam, the State of Colorado and others are still pending. Most insurance companies have panicked and have either refused to cover irrigation companies, or have made premium rates almost prohibitive.

**FINALLY—A GENERAL WATERSHED IMPROVEMENT PLAN**

A 1958 survey was made by Home Supply, with advice from irrigation engineers, contractors and suppliers, to determine what must be done to overcome the effects of 60 years of deterioration on dams, dikes, headgates, checks, measuring devices and all other necessary appurtenances required to satisfactorily operate and maintain an irrigation system. No government agency participated in this survey. Results of the study revealed that an estimated $600,000 at 1958 prices, would
be required to do the minimum job needed to restore the Home Supply to an acceptable standard of safety and efficiency.

After investigating many possible sources of credit, including the 'Bank for Cooperatives', it became evident that interest rates from such sources were too high and the required repayment period was too short. The 'Bank for Cooperatives' in 1958 tentatively offered money repayable over a 20-year period @ 5%. Thus, in order to amortize the loan, stock assessments would have amounted to $22.50 - $25.00 per share, which when added to $15.00 per share Operation and Maintenance costs, would have set the annual assessment at $37.50 - $40.00 per share at 1958 costs. (No new reservoir would have been built under this plan).

After a great deal of vigorous pro and con discussion during annual meetings and special meetings called for the purpose over a span of nearly 5 years, Home Supply stockholders on May 28, 1963, officially approved a complete irrigation system rehabilitation program plus the creation of a new 5,000 A.F. reservoir under the provisions of U.S. Public Law #566, as supervised by the U.S. Soil Conservation Service, with approved credit available from F.H.A. A $650,000 loan at 3.137% interest payable over a 50-year period was approved.

Annual F.H.A. debt retirement payment would be approximately $27,200 and would require about $13.60 per share assessment. Federal matching funds, $1.00 for $1.00 for project construction was guaranteed. When the project was completed, approximately one and one quarter million dollars of construction was done for the Home Supply on a $650,000 loan. At the end of the 50-year repayment period Home Supply will have paid a total debt repayment, plus interest, of about 1¼ million dollars, or the approximate equal to the cost of the total project if 1¼ million had been borrowed, interest free.

BUT IT STILL TOOK TEN YEARS

11/4/57 - President George Lee appointed a committee to recommend plans for long-time improvements to Home Supply. 7/7/58 - President Lee investigated possible reservoir sites and costs of same. 11/3/58 - John Sloan, Alex Hamilton and Harold Hale named as committee to study possible R.O.W. for proposed reservoir and outlet canal. 2/2/59 - Learned that Soil Conservation Service aid in engineering was available. 12/14/59 - Lou Bein, secretary of Handy Ditch Co., raised the possibility of combining certain sections of Home Supply and Handy canals where the two run immediately adjacent to each other.

U.S. PUBLIC LAW #566 TO THE RESCUE

Before plans for physical improvements of the Home Supply system could be agreed upon, adequate financing must be found. Local lending agencies and the 'Bank for Cooperatives' were studied. The Cooperatives Bank did tentatively offer loan funds @ 5%—repayable over 20 years. Lower interest rates and a longer repayment term must be found.

It was learned that former U.S. Congressman from Colorado, Byron Johnson, was to hold a public information meeting in Loveland’s Old City building. Neil Hamilton, who at that time was an Associate Home Supply Director and Sec’y-Manager, Keimes, waited outside the building, hoping to confer with Representative Johnson when he came out. The two did visit with Mr. Johnson and explained
to him that Home Supply was seeking some realistic plan to carry out and to finance a much-needed rehabilitation program.

Representative Johnson told the two Home Supply representatives of U.S. Public Law #566 and suggested that they inquire as to possible benefits and restrictions provided by this law.

Shortly thereafter it was learned that P.L. #566 was created by U.S. Congress to provide possible assistance to Irrigation Districts, Water Districts etc. which were created by State Legislation and which had the authority to collect an advalorem tax. Mutually-owned non-profit irrigation companies did not qualify. Thus, the painful alternative was, either give up, or attempt to persuade the U.S. Congress to amend P.L. #566.

MIRACLES DO OCCASIONALLY HAPPEN

It soon became obvious, if Home Supply had any chance whatsoever of pursuing the U.S. Congress to amend an existing public law, the Company must secure assistance from interested and influential parties. Neil Hamilton worked with the Big Thompson Soil Conservation Service in enlisting the interest of the U.S. Department of Agriculture. Floyd Hale asked the Colorado Farm Bureau to help.

Letters were sent to Senators Allott and Carol and to Representative Dominick and later to Representative Brotzman asking these gentlemen to sponsor a bill amending P.L. #566.

Fortunately, these efforts in behalf of Home Supply paid off. Senator Allott informed Floyd Hale that on September 4, 1961, President John F. Kennedy signed into law the amendment to P.L. #566 which made Home Supply and similar water organizations eligible to apply for federal assistance under the act as amended.

Several months previous to the official confirmation, Home Supply, with the help of attorney Robert Christensen, had applied for assistance in order to be on record in the event that P.L. #566 was eventually amended.

U.S. SENATE AND U.S. HOUSE COMMITTEES APPROVE

On August 12, 1964 word was received that the U.S. Senate sub-committee on Watershed Improvements had approved Home Supply’s request for assistance under the Act as amended.

Colorado Representative Donald G. Brotzman, appeared on September 24, 1964, before the House sub-committee on Watershed Development to sponsor the Home Supply Watershed’s request for assistance under P.L. #566 as amended.

R. Neil Lane, Chief Projects Branch, Watershed Planning Division, Soil Conservation Service, personally appeared before the committee to brief it on the engineering and the technical study which had been made by S.C.S. to support the need and the financial worth of the proposed project, which included renovation of the irrigation system, appropriate land treatment measures and a much needed new 5,000 A.F. reservoir.

Mr. Lane recommended approval of the entire package on the basis of S.C.S. indication that the work would show a favorable benefit-cost ratio of 2.1 to 1.

Congressman Brotzman submitted a prepared statement to the committee which contained information in support of Mr. Lane’s testimony. It was additionally revealed in Mr. Brotzman’s statement that; “This program was requested by local
sponsors in Colorado including the Big Thompson Soil Conservation District and two irrigation companies" (Home Supply and Handy). "It has been reviewed and approved by the Governor of Colorado, the U.S. Department of Agriculture, the Bureau of the Budget and the U.S. Senate." Rep. Brotzman recommended strong support of the entire rehabilitation, land treatment and the new reservoir plan.

In later executive session the House Committee unanimously approved Home Supply's eligibility for assistance under P.L.#566. Home Supply's determined efforts to obtain this federal assistance had paved the way for life-saving irrigation improvements, not only to our own company, but, to Handy Ditch Company and the Louden Irrigation Company.

Doubtless, other farmer-owned ditch companies outside of the Big Thompson and Little Thompson watersheds have also been assisted by P.L. #566 as amended. Letters of appreciation were sent to Senator Allott, Sen. Carroll and to Rep. Dominick for help given.

**NEXT STEP—FINANCING AND STOCKHOLDERS APPROVAL**

On December 13, 1965, Attorney Robert Christensen announced that the Farmer's Home Administration had approved a $650,000 50-year loan to the Consolidated Home Supply Ditch and Reservoir Co. @ 3.137% firm interest; annual repayment, including interest to be $27,157.00. Actual activation of the loan was to coincide with the company's stockholders official approval of the entire watershed renovation plan along with the local sponsor's financial responsibilities in maintaining the system and in repaying the loan according to schedule.

Among other things, F.H.A. would require Home Supply to build a debt service reserve fund equal to one or preferably two years annual payments.

As of December 1, 1965, past financial records show that Home Supply had a bank balance of $116.58 and a short-term indebtedness of $8,500.00. Home Supply must come up with a plan to build a substantial reserve.

President John H. Sloan believed that some qualified guidance would be helpful. On January 3, 1966, he appointed Paul Rice, President of the First National Bank in Loveland, attorney John Cross and accountant Harold Trindle, as a Financial Advisory Committee to assist Home Supply Directors and officers in setting up a realistic goal of building the necessary reserve fund and, of equal importance, prepare and follow an annual Operations and Maintenance Budget. To date the plan has worked. Otherwise the company would have had difficulty in making on-time debt retirement payments to F.H.A. over the past 15 years.

As of November 1, 1984, Home Supply had $90,000 in C.D.'s drawing interest and a checking account balance of $63,541.69, drawing interest. All short-term indebtedness was retired. However, a remaining obligation to F.H.A. of $552,523.38 as of December 1, 1984 must be provided for. Annual interest earned during each of the past several years has brought in about $10,000.00 and has thus reduced the necessary yearly stock assessment by approximately $5.00 per share.

**AFTER 8 SPECIAL MEETINGS**

Quite naturally, 1 ¼ million dollar undertaking, involving a 50-year $650,000 debt, could not and should not be entered into lightly. Assuredly it was not. During 1963, 3 special Home Supply Stockholders' meetings were held, supported by 5
project information meetings in addition. These questions and answers sessions were assisted by water experts from the U.S. Soil Conservation Service, the State Engineer's office and the Colorado Water Conservation Board.

Following many years of surveying and analysis from 1959 to 1963, S.C.S. specialists gave the proposed Home Supply project, including a new reservoir a 1.94 to 1.00 benefit over cost ratio. Renovation of the system, without a reservoir, showed only a 1.16 to 1.00 ratio. State and Federal Department of Agriculture officials doubted that the undertaking, without an additional water storage plan, would be approved for financial assistance.

The State Water Conservation Board was requested to make a study concerned with the probable efficiency of a third reservoir, if such was built. This lake's filling right from the river would, of course, be junior to all such developments made during prior years. However, the State Water Board did recognize the fact the portions of river flows following winters of excessive snow as well as from seasonal floods, could be captured. Perhaps the greatest plus was the fact that residual Colorado-Big Thompson Diversion Project water allotted to the Home Supply system, but not demanded by its users by the end of the irrigation season, could be legally stored in the new reservoir. The State Board gave the proposed lake an 80% chance of annual filling. To date, Lon Hagler Reservoir, the new lake, has performed beyond all expectations. It first filled in 1968, the same year it was finished, and, since that time, to date, it has shown an average annual filling equal to 95% of its capacity.

1¼ MILLION DOLLARS OF WORK ON $650,000 LOAN

As guaranteed under the provisions of P.L. #566, as amended, Home Supply received very substantial benefits:

1. Engineering, surveying, final design and supervision during construction was borne entirely by the U.S. Soil Conservation Service.
2. Actual contracted construction costs were shared dollar for dollar with Home Supply as the principle sponsor. Handy Ditch Co. shared sponsor costs in building that part of the canal section, owned jointly by Home Supply and Handy.

Entire cost of acquiring required land, easements, water rights, legal costs, etc. were borne by the sponsors.

An additional and much appreciated benefit was provided free of charge, resulting from Colorado Soil Conservation Board's accepted offer to serve as the sponsor's representative in dealing with and in making approved payments to the various successful job contractors. Clarence Svedman, as secretary of the State Soil Conservation Board, was the key figure who helped with the vast amount of clerical work. Project sponsors, with the help and advice provided by registered engineers and the State Soil Conservation Board were in control of letting of bids for each phase of construction.

The specific rights and the responsibilities of both the project sponsors and the State Board were detailed in a written and signed contract between all parties concerned.
SOME MODIFICATIONS WERE MADE

The Home Supply Watershed Work Plan involving portions of Larimer and Weld Counties, Colorado, was prepared under the authority of the Watershed Protection and Flood Prevention Act (Public Law #566, as amended.)

Actual preparation by: The Big Thompson Soil Conservation District, Consolidated Home Supply Ditch and Reservoir Co. and Handy Ditch Co.

Active assistance and evaluation provided by: U.S. Department of Agriculture, U.S. Soil Conservation Service and the Colorado Soil Conservation Board.

The first over-all printed plan for improvement of the Home Supply Watershed was provided by the U.S. Soil Conservation Service in December, 1963. This advance document was given to all interested federal, state and local organizations to assist in getting an interagency field review of the proposed project. The final Watershed work plan, with the preliminary approval of all parties, was printed in January 1964. A copy was mailed to each Home Supply stockholder.

During the 8 years, 1965-1972 construction on the multitude of objectives as set forth, some modifications had to be made. One major concrete canal lining plan was deleted due to unfavorable soil conditions. A pipeline segment as proposed east of I-25 was dropped due to unacceptable costs. Several checks and one concrete wall, initially thought to be repairable, were rebuilt.

Deterioration, since the start of the project, indicated that remaining useful life of these structures would not meet minimum requirements. The final major job, not initially planned, was the concrete lining of approximately 9,000 ft. of the eastern end of the incorporated Home Supply Ditch system. This stretch of canal has a slow grade, was subject to seepage and occasionally failed to fully provide adjacent farms with service equitable to the farms further upstream.

These changes in the 1963 plan were made only after careful evaluation by the sponsors and with consent of the U.S. Soil Conservation Board.

8 YEARS WORK PRODUCED MAJOR IMPROVEMENTS

Approximately 4½ miles of canal were concrete lined.

8,000 linear feet of this lined section, from a point immediately above the McIntyre Lateral diversion down to the confluence of the Home Supply River ditch and the Home Supply Lake canal is mutually owned and maintained by Home Supply and Handy. Previous to the project renovation work, Handy and Home Supply were located immediately adjacent to each other through the 8,000 feet in question. Proper maintenance was impossible. Seepage from both canals was a major problem. No merger of stock or respective company identities was involved in this necessary joint venture.

An inspection committee, the respective members of which are appointed by each concerned company, annually inspect the jointly owned canal.

Recommendations for repairs or improvements are separately presented to Directors of each company. Annual approved maintenance costs are borne equally by each company. Home Supply personnel provide all ordinary operation and maintenance work. Handy re-imburses Home Supply in accordance with a formula agreed to by the joint inspection committee. The remaining 15,760 ft. of concrete lined canal in the system belongs to and is maintained by Home Supply. Under the two company agreement, Handy water is delivered to a point one mile east of DeFrance Lake.
All concrete check structures in the Home Supply canal system, excepting 3 or 4 which were judged to have a minimum of 20 years of life, were replaced with modern, steel reinforced concrete installations.

All water measuring devices were standardized. Universally approved and accepted Parshall Flumes were installed throughout the system. To assure fair and equitable treatment to each farm, 9-inch pre-cast, self-cleaning, concrete Parshalls were placed at each such outlet. Service to lateral ditches and joint-use turn-outs naturally required that larger concrete Parshall measuring flumes be installed. To accurately account for water measured into 3 or 4 necessary pumping diversions, modified installations were made.

Major contracted re-alignment jobs reduced erosion and cut the length of the canal system by approximately 1½ miles. Other shorter, but nonetheless valuable canal re-alignments were done, without charge to Home Supply, by Larimer County, by the Colorado State Highway Department and by the State Fish and Wildlife Department. These various departments received free fill material for nearby highway improvement work.

Six much needed bridges over the Home Supply were built. Larimer County constructed and assumed most of the cost of the new bridge immediately south of Lon Hagler Reservoir. Three old weak wooden bridges over sections of the canal that bisected private farms were replaced with structures that would safely carry a loaded truck. Home Supply’s operation and maintenance responsibilities required such access. The Ed Anderson farm east of Campion required the use of a substantial crossing and shared in the cost of this particular bridge.

A 72-inch reinforced concrete pipe now replaces the old masonry arch where the Home Supply crosses under the Handy Ditch on the Ted Yelek farm in the foothills west of Loveland. If the old structure had failed, Home Supply and Handy would have been unintentionally combined.

**A STITCH IN TIME—SAVES NINE**

Periodic flooding and seasonal high waters on the Big Thompson River carry an abrasive load of sand and gravel which causes concrete structures to deteriorate rapidly. The bench flume and the sand trap immediately downstream below Home Supply’s diversion gates at the Big Dam took a severe beating down through the years. A possible collapse of this bench flume would have spelled near catastrophe in the Home Supply system for at least one irrigation season.

To forestall such an eventuality, this concrete structure, including the sand trap, was heightened and strengthened by casting a steel reinforced concrete wall and floor as a unit. Thus, the excess weight of water during a flood actually serves to anchor and to stabilize the outer wall of the flume. This work probably saved this bench flume during the 1976 Big Thompson flood.

An originally unplanned equalizer was built immediately below the Lone Tree outlet which now makes it possible to divert surplus flows from the River Ditch down into the Lake Ditch instead of routing this water into and through Lone Tree Lake. This not only saves River ditch water formerly partially lost from evaporation on the 500 acre surface of Lone Tree, but enables the ditch riders to make early morning adjustments of water flows in both canals as needed to supply that particular day’s orders, and best of all, these daily water releases can be made at a single location which saves both time and water.
Showing a section of the Home Supply-Handy jointly owned concrete lined canal - adjacent to the Roy Peterson farm -  
(Photo courtesy U.S. Soil Conservation Service)
Many private farms received substantial side benefits from Home Supply project work. Some have quick access to parts of their farms as provided by permission to use new bridges over the canal. Two farms were able to reclaim substantial acreages of alkali seepage areas due to re-alignment and lining of the adjacent canal and the placing of tile drains prior to the placing of concrete lining.

It is not feasible to attempt to detail every contract which dealt with over-all Home Supply Watershed improvements under the provisions of P.L. #566 as amended. However, very favorable bid offerings on the construction of Lon Hagler Reservoir and its inlet and outlet features, made possible improvements on other sections of the Home Supply system which were originally considered unachievable under the project due to lack of money.

**BIG MONEY SAVED ON BIG CONTRACTS**

Fortunately, the most money was saved on the biggest jobs. Engineer's estimate to build Lon Hagler Dam was $515,706.61. Monks Construction Company of Limon, Colorado was awarded the contract on a low bid of $380,468.58.

$111,578.01 was the engineer's estimate to install the 30-inch re-inforced concrete outlet pipe line from Lon Hagler to Mariano Reservoir. Colorado-Wyoming Construction of Loveland was the low and successful bidder with an offer of $69,802.01.

Monks Construction Company did major canal re-alignment and built a needed bridge over the main ditch southeast of Lon Hagler Reservoir on a bid of $125,356.46. Engineer's estimate on this job was $136,989.36.

**NOT EVERYTHING TURNED UP ROSES**

In spite of careful planning, engineering supervision, and, with one exception, reputable contractors, not every feature of every finished job withstood the test of time.

First phase of the total rehabilitation project to be advertised for bids was for the concrete lining of the 8,000 ft. of new canal to be mutually owned by Home Supply and Handy Ditch Company. Moffat and Son, Inc. of Evans, Colorado, on February 7, 1966, submitted the low bid of $259,283.35. Engineer's estimate was $227,684.92. Home Supply and Handy, acting jointly, rejected the bid as too high. On March 14, 1966, Moffat offered a new bid of $245,400.00 which, after deliberation by the two ditch companies and the U.S. Soil Conservation Service, was accepted.

Moffat and Son was a quality contractor and performed according to engineering specifications. However, during course of construction, and every year thereafter, problems developed which were initially not anticipated by the engineer planners.

Early spring of 1967 revealed that approximately 3,000 feet of concrete ditch lining placed the preceding fall, had shown much cracking and heaving due to frost action. No water had been run through this damaged section prior to the partial failure of the new lining. Home Supply, Handy and S.C.S. officials met on site to evaluate the damage. S.C.S. at its sole cost spent $14,000 in an attempt to re-seal the ruptured area.

This emergency job proved only partially successful. Damage from annual winter freezing has continued. A section of concrete lining adjacent to the McIntyre Lateral failed completely. This relatively small area was torn out and replaced with

CHANGE IN SPECS DID NOT ELIMINATE ALL PROBLEMS

Hoping to conquer the problems, design engineers made several changes before any additional length of canal was lined. Additional tile drainage placed in gravel beds was required. Floors were coved slightly to increase strength and lateral scoring on the side banks was done in the hope of eliminating random cracking of the slip-formed concrete.

These design changes increased the cost of new contracts and, at best, were only partially effective. Time and experience has shown that the south bank (shady side) of a lining job will continue to crack and heave following each winter’s freeze. Sections of the concrete lined canal which over-ran a soil with a high water table, which were on a slow grade and which necessarily had many farm service check structures were most prone to damage.

AND LO—THE BOULDERS TURNED TO SAND

Rip-rap material originally approved to protect Lon Hagler Dam proved to be unsuited for the job. Monks Construction Co. was in no way to blame. It used the rock material that it was instructed to use and placed this approved rip-rap over a gravel blanket according to contract specifications.

However, after the passing of two winters, rocks and boulders placed on the face of Lon Hagler Dam were slacking and degrading into gravel and sand. During periods when the lake was full, wind and wave action caused the protective blanket to erode and bench out. Soil under the rip-rap was beginning to show. Home Supply Directors and officers insisted that the State S.C.S. officials personally inspect the serious problem. Initially, the project’s engineer planners insisted that the rock approved for rip-rap had been laboratory inspected and rated satisfactory. But, evidence of weather damage on the face of the dam was overwhelming.

In order to obtain professional expertise, Home Supply retained Mr. L.T. Irwin of Denver, to help prove what went wrong. Mr. Irwin, a registered irrigation engineer, had more than 35 years experience in dam building with the U.S. Reclamation Bureau; the U.S. State Department and the City of Longmont on its Buttonrock Dam.

Newly appointed State Conservationist, D.R. Burdick, personally inspected the dam problem and recommended that S.C.S. be solely responsible for bringing the rip-rap job back to original specifications.

Floyd Hale, while in Washington D.C. on Farm Bureau business, was granted an audience with Senators Allott and Dominick and with Representative Wayne Aspinall who all agreed to support the critical repair job on Lon Hagler Dam at no cost to Home Supply, the local sponsor.

Following additional months of meetings, inspections and letter writings, a base contract was let to Coulson Excavating Co. of Loveland for $63,600 to bring the protective blanket back to original specifications. This bid exceeded engineer’s estimate of $39,400. However, in consideration of the fact that the new rip-rap material, approved by engineer Irwin, must be hauled from andicite and sandstone quarries southwest of Berthoud and northwest of Lyons, the Coulson bid was considered reasonable.
Home Supply directors and officers feared that the basic rock blanket renovation plan would not heal other Hagler Dam rip-rap areas, which were beginning to show damage. Thus, an understanding with S.C.S. was reached. The $63,600 repair job cost would be borne by the government agency. Additional protective sandstone material placed upon the face of the dam, over and above original requirements, would be paid on the basis of Coulson’s bid of $3.00 per square yard with S.C.S. and Home Supply sharing equally in this additional cost. Observations made throughout the 15 years following the emergency project has proved that the additional cost was well justified.

A less spectacular, but none-the-less serious failure occurred when a portion of the Hagler Reservoir outlet pipeline sank below proper grade alignment. This damage was caused by the placing of insufficient gravel under a small portion of the line where it crossed a slough. S.C.S., at its cost, re-excavated the problem area and relaid the tile line after adding a sufficient gravel bed to eliminate future problems.

**THERE WAS ONE BLACK SHEEP CONTRACTOR**

To prevent weather erosion on the downstream face of the dam and to dress up the completed job, a grass seeding contract was let to protect the dam, the spillway and the outlet pipeline scar. The successful contractor agreed to use adapted grasses and to regularly sprinkle the downstream dam area until the grass was well established. Unfortunately, he failed to adequately water the areas in question and, excepting for the lake’s spillway did not establish a stand of grass. Moreover, he left the county before the job was done with several project local cost bills unpaid. In view of the fact that State Conservation officials had approved the contract and the contractor, S.C.S., at its cost, reseeded the dam and adjacent disturbed areas.

**LATERAL DITCH COMPANIES UPGRADED THEMSELVES**

None of the lateral ditch systems served by either Home Supply or Handy are a part of the incorporation of either parent company.

To the lasting credit of many of these laterals, extensive improvements were made. The Harry Lateral, the Harry Lateral East Extension, the Christian Lateral and the Home Supply Extension Lateral, have each concrete lined all, or most of, their respective delivery systems. The Connor, the McIntyre, the Waggener, the Sunny-side, the Gard and other smaller laterals have done much to save water and cut maintenance costs by tree removal and by rip-raping eroded areas.

**THE GOVERNMENT GIVETH—IT ALSO TAKETH AWAY**

Vital financial and professional assistance provided by the U.S. Soil Conservation Service, the Farmer’s Home Administration and the Federal Disaster Relief Agency has had a major beneficial impact on the Home Supply Irrigation system. Such help has been, and will continue to be, deeply appreciated.

However, other branches of the Federal Government, under pressure by special interest groups, are imposing expensive, and oft times, impossible demands on irrigation companies and cities alike.

Environmental impact, water quality, recreational, and possibility of flooding are but a few of the studies to which rural irrigators are subjected. U.S. National Parks, Monuments and Forest Administrations seek to claim special rights to
Colorado’s waters which originate on Federal lands within the State.

**DAM SAFETY AND INSPECTION ACT**

Approximately 15 years ago U.S. Congress passed a public safety measure known as the ‘Dam Safety and Inspection Act’. This legislation was prompted by the failure of an Appalachian coal mine dump which partially blocked an adjacent free flowing stream. Lives were lost. Damages ran into the millions.

Intent of this Act was to require the U.S. Corps of Engineers to annually inspect all man-made dams in the nation and then require respective owners thereof to upgrade the structure or structures in question to meet minimum U.S. safety requirements.

Naturally, the U.S. Corps could not handle such an assignment nationwide. In Colorado and in other western states, the onus was passed on to the State Engineer. His department lacked the personnel to handle the job, so many reservoir inspection jobs were contracted out to professional engineering firms, including some from other states. Estimated costs of completely complying with safety renovations as stipulated by inspection contractors were prohibitive.

**MUCH WORK WAS DONE PRIOR TO DEMANDS**

As previously described, new outlet headgates set in reinforced concrete, were installed in both Lone Tree and Mariano reservoirs.

Later the dividing dike between the River Ditch and the north side of Lone Tree was thickened and raised with compacted soil and rock material bull-dozed from the lake bed to form a gently sloping dike, resistant to erosion.

Similar dike raising and strengthening work was done at the southeast sector of Lone Tree where it lies adjacent to Handy’s Welch Reservoir.

To reduce the chance of local flooding into the south bay of Lone Tree, the Town of Berthoud removed an earthfill which carried the town’s domestic raw water line and replaced it with a siphon under that particular small neck of the lake.

Previous to 1956, Mariano Reservoir Dam did not have the required 5 feet of freeboard above high water line. It had no dike whatsoever adjacent to the county road along its southeast sector. It had no spillway excepting a low area on the south end of the dam which, if activated by a major cloudburst, would have dumped excess flood waters onto the county road.

Mariano’s main dam and its south dike have been raised and strengthened to an elevation of 30 feet above the bottom of the outlet gates, which provided a minimum freeboard of 6 feet above high water line.

The old spillway has been filled. It is now replaced by a reinforced concrete overflow crest at the north end of the dam which, if activated by flood waters, will pass the excess water down the natural outlet channel of the lake. Recently, this concrete structure has been further improved to eliminate erosion around its concrete side walls. Much additional rip-rap has been added to the inner face of the entire dam.

**WHEAT DOES NOT GROW WELL IN WATER**

Need for recorded description of legal water lines on Lone Tree and Mariano lakes coupled with the necessity of a descriptive separation of company property
from adjacent new lake-side homes made advisable a re-survey of the highwater lines on both reservoirs.

Mariano’s maximum fill, including the temporary effect of naturally caused floods, was set at 1 vertical foot above the spillway elevation.

On Lone Tree, one vertical foot above full authorized capacity, was recorded as maximum high water line which allowed for 12 inches of temporary flood effect.

On the east side of Lone Tree, Home Supply’s maintenance easement was, and still is, described as 16½ feet horizontally from high water line.

However, on the southwesterly sector of the lake, Home Supply’s Lone Tree property deed was laid out to correspond with regular 40-acre survey lines. Naturally water, in seeking its level, pays no heed to neat 40-acre boundaries. Thus, it was shown that Mr. Doyle Jones; the adjacent landowner was raising wheat on Home Supply property and the company’s reservoir had flooded a portion of Mr. Jones’ farm. Fortunately, the respective acreage owned by each party was about the same. A legal swap was made with the company paying legal costs. The lake’s legal line was redescribed.

THEN CAME THE HEAVY HAND

In compliance with the U.S. Corps of Engineer’s placing of responsibility for safety inspection of Colorado’s dams, the State Engineer contracted with Bovay Engineers Inc. of Spokane, Washington to inspect and to recommend safety improvements on Lone Tree Reservoir.

After preliminary analysis of Bovay’s report, Home Supply called upon consultant engineer, Kenneth Dickey, for professional evaluation. Mr. Dickey had recently retired from the Bureau of Reclamation as an irrigation works maintenance professional. He no longer had access to a crew in order to perform contracted engineering jobs. Consequently, Bruns Engineers of Longmont was retained to work with Mr. Dickey in an attempt to recommend safety improvements at Lone Tree which would satisfy the State Engineer and still not bankrupt the Home Supply. Dickey had estimated that to follow Bovay’s suggested remedies to the letter, would cost approximately 1½ million dollars.

Colorado felt that it must comply with the ‘Federal Dam Safety and Inspection’ law and if necessary, must apply pressure on dam owners to make improvements. Thus, on November 29, 1973, a hold order was placed on filling Lone Tree above the 21.6 foot level on the depth gauge. Decreed filling rights permit filling the lake to 24.8 foot level. Loss of water from this restriction amounted to about 1,600 A.F. annually.

Much smaller safety precautionary work was done by the company without benefit of contracted help. Most of the timber and brush which weakened the dividing dike between Lone Tree and the adjoining river ditch was removed and such dikes raised, compacted and protected. Tile drains were installed in the 60-year old borrow pits along the north side of this particular section of canal. Before this work was done, water ponded in the borrow pits which weakened the ditch banks. Grouting of the masonry floor in the outlet tunnel at Mariano reduced deterioration. A concrete cut-off wall was built at the outer end of this outlet to control seepage.

Major tunnel floor repairs were done at Lone Tree. The existing wooden floor was covered with heavy gauge over-lapping sheets of aluminum fastened to the
wood with cadmium plated lag bolts. Erosion at the outlet end of this tunnel was substantially reduced. $5,800 was spent for safety improvements on this floor passage under the Lone Tree Dam.

Stratman Brothers did extensive work to alleviate seepage through the bed rock underlyin the north half of Mariano Reservoir Dam. A trench 10 feet wide was cut down to solid shale along the base of the lake side of the dam. The cut was re-packed with clay and new fill was re-sloped and protected with added rip-rap.

¡$30,000 FOR PLANNING PLUS TWO YEARS TALKING ¡

Colorado’s State Engineer was unwilling to accept major changes in Bovay’s report unless Home Supply could come up with an acceptable alternate plan drawn up by an engineering firm of good repute.

Bruns company of Longmont re-surveyed the entire Lone Tree drainage area in order to plan for a spillway which would pass the state specified probable maximum precipitation of 18 inches in 24 hours and not raise the water level in the lake to more than 28 feet above the bottom of the outlet gates. Bottom of the spillway crest must be set at 25 feet above the elevation of the base of the gates.

Due to the gently sloping terrain adjacent to portions of Lone Tree, together with the fact of new private homes along the southwest sector, 6 feet of required free-board could not be attained with any reasonable flood control plan. Three feet of freeboard was the maximum that could be secured and not sacrifice 1,600 acre feet of the lake’s capacity. Hence, the State had invoked the 21.6 feet hold order.

Home Supply desperately needed some expert backing in its attempt to convince the State Engineer that Bovay’s recommendations were, not only expensive, but unrealistic.

Fortunately, the company did receive such help from The Atmospheric Science Department at Colorado State University. Company officials asked for and received an appointment to discuss the flood potential with university weather specialists. All available precipitation records for the Loveland area, compiled over the past 70 years, together with similar data gleaned from the State of Colorado were furnished to the college experts.

This information, combined with a century of northern Colorado rainfall records available at the University were studied and were computerized. Location of Lone Tree Reservoir and its contributing drainage areas were also analyzed by the machine.

RESULTS:

Based on 75 years of accurate weather records for northern Colorado:
1. 50-year probable maximum precipitation in a 24 hour period equals 4.3 inches
2. 100 year (P.M.P.) in 24 hours 5.2 inches
3. 200 year (P.M.P.) in 24 hours 6.3 inches
4. 2,000 year (P.M.P.) in 24 hours 20.0 inches

Thus, Engineers Bruns and Dickey calculated that a flood spillway at Lone Tree, 1,000 feet in crest length would pass 11,000 cubic ft. per second and still leave 3 feet of freeboard below the crest of the lake’s dam and dikes. Water flowing 3 feet deep over this 11,000 ft. spillway, according to the experts, would pass an 18 to 20 inch cloudburst in 24 hours without endangering the reservoir’s dam.
The State Engineer, on several occasions sent special deputies to Loveland to make field evaluations of this new information. Home Supply's representatives twice went to Denver to personally plead Home Supply's case with the head of the department.

Finally, on April 13, 1976, Colorado removed the restrictive hold order on filling Lone Tree with the stipulation that it would be reinstated if this proposed spillway, and if major flood safety work was not done on the reservoir's outlet works dam within a reasonable time.

Frontier Construction Company, as the low qualified bidder, excavated and built the 1,000 linear foot flood way for $77,781.50

AFTER 1981—PERHAPS A FEW YEAR'S REPRIEVE

Following years of negotiating with the State Engineer's office relative to mandatory public safety work required by the State on both Lone Tree and Mariano reservoirs, major improvements were completed in 1981.

The concrete spillway structure at Mariano was improved, a new steel reinforced concrete dam, containing new outlet gates, was installed at Lone Tree. The old dam and the old gates were not removed, the space between the old and the new dams was filled with compacted earth.

Eagle Construction Company of Loveland did the new dam and outlet gate job.
1. Cost of Mariano spillway improvements—$3,200.00
2. Cost of new dam, gates and outlet pipe at Lone Tree incl. excavation and backfill—95,823.30
3. Engineering Services—8,762.25
TOTAL—$107,725.55
Fencing the new dam area—2,500.00

Present Home Supply Manager, Delbert Helzer, gained much valuable experience during construction of this project. As chief maintenance man for the company, Delbert did then and continues to do high quality work for Home Supply.

Company Directors and Mr. Helzer realize that continuing public demands will be a fact of life. Annual inspections of all dams is required by the State of Colorado. Irrigation companies must cooperate or partially lose reservoir filling rights.

Over the past 20 years Home Supply has spent more than one quarter million dollars in an attempt to meet public safety demands. Liability insurance coverage is difficult to obtain and near prohibitive in cost. 1926 premium for such protection was $452.10; now it exceeds $16,000.00. Legal fees have gone from $200.00 in 1958 to $8,683.00 in 1984. C.P.A. audit costs have increased 7 fold. All of the above annual expenditures are necessary and must be provided for in the budget.

WHAT IS A HIGH HAZARD DAM?

Through lack of understanding of technical terms, the general public is led to believe that a so designated 'High Hazard Dam' is one which is about to fail. Fact is that the hazard rating as imposed by State Engineer's Dam Inspectors has nothing to do with the condition of the dam. The High, Medium or Low Hazard rating is based entirely on estimated loss of life and property damage in areas lying below such man-made structures in case of failure.
Another vital fact of which the public is generally unaware, is that the dam in question may have been built 100 years ago when there was little or no development below it and that the subsequent in-road of homes and businesses are there primarily due to the economic impetus supplied by the dam and its reservoir. Reservoir owners are now required to spend thousands on improvements and for insurance protection that was not a factor 100 years ago.

COMMENTS PRESENTED BY W.R. KEIRNES 8/16/79 AT THE LARIMER-WELD COUNCIL OF GOVERNMENTS 208 MEETING

Irrigators have been advised, under threat of loss of water rights, to rebuild dams, install monstrous spillways, upgrade outlet gates and conduits, conform to state imposed sanitation and water quality standards, and—the list goes on.

Moreover, ditch companies are expected to allow public recreational use of reservoirs, permit trail systems along canals, maintain a pleasant park-like appearance of ditch rights-of-way through cities, towns and rural subdivisions and, do all this with little, or no public or private financial assistance.

Industry and society in general, is attracted to locate along Northern Colorado’s front range area. This rapid influx is due partly to favorably climate. However, the big attraction is water. Irrigators are rapidly losing Colorado Big Thompson project water to cities, industries, rural water districts and to speculators. Even stock shares in many ditch companies are now owned by non-farming interests.

This inexorable process has nearly strangled certain smaller irrigation companies. Even larger of such concerns find that ever increasing costs of operation, coupled with unrealistic requirements imposed by federal and state bureaucracies have placed a destructive financial burden upon the very segment of Colorado’s economic society which made possible all of the population and industrial growth in the first place.

Finally, our states irrigators have reached the end of the rope. For some it is already too late. It seems inevitable, and certainly fair, that if the public, acting through its State and Federal agencies, can demand the costly upgrading of all irrigation reservoirs and can expect that all waters stored in or carried by such facilities, be made fishable and swimmable, then the public must assume the major cost of attaining such objectives. Otherwise, irrigation companies will become bankrupt and irrigators will be forced to throw in the towel - and with the towel, will go the public’s food supply.

MEETING PLACES

From Grange Hall To Conservancy District

Grange Hall—Loveland—August 31, 1882

Stockholders of Home Supply Reservoir Co., and the Home Supply Ditch Co. met in Grange Hall to seek consolidation of the two 1881 companies into the present CONSOLIDATED HOME SUPPLY DITCH & RESERVOIR COMPANY. The new certificate of incorporation was granted by Colorado’s Secretary of State on September 15, 1882.
UNITED STATES OF AMERICA, ss. CERTIFICATE
OF RENEWAL

J. Walter F. Morrison, Secretary of

STATE OF COLORADO, SS.

NOW, THEREFORE, pursuant to the provisions of the
Statutes of the State of Colorado and by virtue of the
authority vested in me as Secretary of State of the State of
Colorado, I do hereby certify that said corporation has made
full payment of all fees and taxes authorized by law to be paid
to the Secretary of State and due at the time of issuance of
this certificate.

IN TESTIMONY WHEREOF, I have hereto set
my hand and affixed the Great
Seal of the State of Colorado, at the
City of Denver, this TWELFTH day of AUGUST, A. D. 1942.

[Signature]
SECRETARY OF STATE.
Old Loveland Opera House—Located On The North Side Of Fourth Street Between Lincoln And Jefferson Avenues

From 1883 to 1910 Home Supply annual stockholder's meetings were held in the Opera House. Some heated arguments over money and over the eventually successful effort to build Mariano Reservoir received attention from other than company stockholders. Some outsiders dubbed certain hotly contested Home Supply meetings to be the biggest show in town.

Old City Hall—1911 - 1962

Corporate certificate renewed in perpetuity 8/12/42.

It was also here on December 11, 1961 that George W. Lee requested that the stockholders honor his desire to step down as President of Home Supply. He had served as a Director since Dec. 10, 1917 and as President since Jan. 13, 1926. He was unanimously acclaimed to the life-long position of Director Emeritus, the only person so honored.

Gold Room—First National Bank—Loveland (1963-1977)

It was here that the 10-year struggle to enter into a program of general rehabilitation of our irrigation system and the creation of Lon Hagler Reservoir was finally approved.

Northern Colorado Water Conservancy District—1978-

The battle to stay alive as an irrigation company and to provide good service to users continues.

MEETING DATES

During the early years annual stockholder sessions were held on the first Monday of February. Beginning 1911, as required in the present By-Laws, annual meetings fall on the second Monday of December.

For many years Directors' meetings were irregularly held on call by the President. Now regular Board meetings are scheduled on the first Monday.

Down through the years, Directors' meetings were held in private homes and offices, including Mrs. Lula Colwell's home, D.R. Pulliam's office, Big Thompson Soil Conservation District and now, The Northern Colorado Conservancy District.

NUMBER OF DIRECTORS:

1882 - 5 directors
1965 - Dec. 13 - By-Laws amended to 6 directors to be elected on staggered terms of 3 years each.
1979 - Dec. 10 - By-Laws amended - number of Directors increased to 7 to serve on staggered terms of 3 years each.

ASSOCIATE DIRECTORS: President George Lee believed that qualified Home Supply stockholders who might eventually be interested in becoming candidates for a company directorship, could obtain valuable experience in the affairs of the corporation by first serving as a non-voting Associate Director. During 1956 annual meeting a motion was approved to instruct a nominations committee to submit
the names of 10 qualified and interested candidates, and to mail a copy of this list to all Home Supply stockholders for a through-the-mail vote; the top 3 to be selected.

This process was followed and on March 4, 1957, President Lee announced that Neil Hamilton, Kenneth Markham and Floyd Hale had been elected as Associate Board Members. At the 1957 annual meeting on December 9, stockholders unanimously ratified the re-appointment of the 3 successful candidates.

This apprentice learning approach to a better understanding of Home Supply problems has proved to be beneficial. All present company directors began service to the company as associates. However, as the number of voting directors has increased from 5 to 6 and then 7, the number of associates has been decreased from 3 to 2 and now 1, who serves on a one-year term basis.

**A LITTLE NEIGHBORLY ASSISTANCE**

1934 was one of the driest years on record. Great Western Sugar Company's Loveland factory was hard pressed for sufficient raw water to process the sugar beet crop. Arrangements were made with Home Supply to furnish a portion of G.W.'s needs with water released out of Mariano Reservoir.

An interesting side light on the sugar business reveals that John Campion, for whom the Campion settlement is named, was in fact, a so-called 'Sugar Tramp' who helped bring G.W.'s first sugar factory to Loveland. The area of Campion was so named because the first out-of-town beet receiving station was established there in order to be adjacent to the railroad.

How many old timers recall that the Loveland plant, built in 1901 originally bore the name LOVELAND SUGAR COMPANY?

**CO-SPONSOR HANDY DITCH COMPANY IMPROVEMENT**

Due to the fact that Handy was already involved in the Home Supply Watershed Improvement plan under Public Law #566 as amended, it was eligible to undertake improvements of its own under the same program if Home Supply would agree to Co-sponsor.

On February 7, 1972, by unanimous consent, Home Supply agreed to co-sponsor Handy's project but only as a non-assessable member with no financial responsibility in any work done.

Handy accomplished many improvements to its ditch system; the most visible of which was the elimination of the old flume across Dry Creek and the First Street road and replacing it with a modern and efficient siphon.

**TRADE AND SAVE**

Many irrigation companies with exchange reservoirs find it necessary to trade water with the river in order to use this type of storage. Actually this process involved exchanging with other ditch companies which divert from the Big Thompson River. Besides Home Supply; Handy, South Side, Louden and the Greeley-Loveland, all exchange water with one another by means of the river.

Some years ago, in order to accurately monitor the flow of the river at a point below where most of the above water diversions have been made and then replaced to the river, a new 15-foot Parshall Flume was installed at the head of the Greeley-
acknowledgment, dates back to the approval, you have to pay for that Home Reservoir. The plan was, and still is, a worthwhile dream with no realistic financing plans.

In the interim, Home Supply, with proper stockholder, engineering and financial approval, built Lon Hagler Lake in 1967-1968. It first filled during late spring of 1968 and was put to beneficial use that same irrigation year as a valuable supplemental water supply.

With necessary insistence from then company attorney, Robert Christensen, Lower South Platte Conservancy District agreed that it (The District) would accede to the fact that Lon Hagler's State approved July 7, 1959 filling priority is, and should be, senior to the Narrows September 1, 1931 application. In consideration of this acknowledgment, Home Supply withdrew its legal protest.

In the event that Narrows is eventually built, Home Supply officials will do well to remember and to insist that this agreement be honored. Such memory may be worth thousands.

OCCASIONALLY SOME IN EACH BEATS ALL IN ONE

Lone Tree Reservoir holds the #1 filling decree in Water District #4-Division #1 which includes all diversions out of the Big and the Little Thompson Rivers. Louden Ditch Company's Donath Lake holds #2 filling rights, and Home Supply's Mariano ranks #3.

Prior to 1956, Louden and Home Supply often engaged in controversy relative to Home Supply's #1 & #3 reservoir filling priorities and Louden's #2 rights. This situation was non-productive. Representatives from both companies finally agreed that Home Supply be allowed to store its #1 filling right of 9,183 A.F. partly in Lone Tree and partly in Mariano when such procedure provides for better canal maintenance for both companies. An additional benefit to Home Supply and to Louden protects the right of Lone Tree and of Donath to complete filling ahead of the earliest call on the lower South Platte dated April 28, 1883. Lone Tree's priority dates back to February 1, 1881. Donath's date is February 24, 1883. Colorado's State Engineer has approved of this local agreement as long as Home Supply and Louden both wish it to continue.

WHAT IS WATER WORTH?

During 1958 annual meeting of stockholders, Judge Hatfield Chilson, who was then attorney for Home Supply, was asked that question. His answer, "Whatever you have to pay for it", surprised and even shocked some. History has proven the Judge to be correct.
Many recently created water storage reservoirs have cost more than $1,000 per acre foot of capacity to build. In 1968, Lon Hagler Lake cost $100 per A.F.

After construction of the Fryingpan-Arkansas Reclamation project, the city of Aurora paid $2,900,000 for 2,800 A.F. of storage rights in the enlarged Twin Lakes Reservoir southwest of Leadville.

Many ranches and farms with water rights out of the South Platte or the Arkansas rivers have sold such rights to cities, water districts and developers. Financial returns from crops and livestock did not justify the value of the water.

**MOST INTERSTATE RIVER COMPACTS DO NOT FAVOR COLORADO**

Major rivers which head in Colorado and thence flow into neighboring states include the North Platte, South Platte and all of its tributaries; the Arkansas, Rio Grande, and biggest of all, The Colorado. Federally sanctioned Interstate River Compacts determine how much of these waters may be used in Colorado over a specified period of time and how much of these flows must be passed to neighboring states. Due to high mountain barriers and lack of money, Colorado has never been able to fully exercise its rights.

**CIRCUMSTANCES HAVE PROMPTED CHANGE**

According to old company ledgers, Home Supply’s financial records were first kept on a February 1-January 31 basis. Later, the calendar year system - Jan. 1-Dec. 31 was tried. Neither seemed to fit the needs of an irrigation system.

Next; December 1 through November 30 of the following year was designated as the fiscal year. By that time annual stockholders meetings were held on the second Monday of December. Thus, a November 30 cut-off date left one to two weeks to complete and to balance company records, print the annual report and mail a copy of same to each Home Supply stockholder previous to the second Monday in December.

By authorization of the stockholders at the December 9, 1968 annual meeting, the present fiscal year runs from November 1 through the following October 31. This arrangement corresponds with the water delivery year as set forth in company By-Laws. It makes record keeping less frantic and more accurate. The present plan is worth keeping.

**DIVISION OF NOTHING EQUALS NOTHING**

Before the advent of urbanization upon the farm scene, there was no incentive to divide Home Supply stock into less than ½ share units. It took that much water to care for the demands of even a small rural home with lawn and garden.

Now, however, developers and subdividers have bought farm land and, in some cases, are building 2 or 3 dwellings per acre. They then seek to have water shares divided into 1/4 or even 1/8 segments per new home.

Home Supply is an irrigation company designed and built to serve farms and ranches. One-half cubic foot per second is the smallest head of water that can be efficiently measured to users. If a theoretical small home owner had 1/8 share of stock and, if the company allotted 8 A.F. per share, such home owner drawing the required minimum of ½ cfs for 24 hours, would exhaust his entire season’s water supply in only one day.
By action of the stockholders on Dec. 12, 1972, no stock certificates may now be issued for less than one full share, unless such surrendered certificate for ½ share was in existence before that date. Excepting as explained above, only fractional shares of ¼, ½ or ¾ may be issued, and those must be combined as a part of a certificate for at least one full share.

Rural subdivision home owners do have a solution to this problem. They are advised to form a legal Home Owner's Water Users Association. Thus, the entire number of stockshares which were originally used by the farm or portion of a farm on which the subdivision is located may be issued to the Users Association which may then order irrigation water in required amounts and then divide such water among home owners as the Association sees fit. Several such Home Owner's Associations are now in existence and are mostly functioning well.

HOW MUCH WATER EQUALS ONE INCH?

Pioneers who developed the many irrigation systems along Colorado's Front Range were a rugged lot. Each group determined its own method of issuing water shares or rights and each developed its own system of measuring water to its users. However, all must honor state and federal standards when diverting respective appropriated water from the river. At all such diversions flowing water is measured and recorded in terms of cubic feet per second. Reservoir storage rights and Colorado Big Thompson Project allotments are granted as so many acre feet. The output from irrigation wells is usually rated at gallons per minute.

Before the State of Colorado adopted the cfs and A.F. standards for measuring water, it recognized the 'Miner's Inch' of 38.4 as being the equivalent of 1 cubic foot per second. 38.4 inches, or parts, was not a convenient figure for ditch company officials to use in keeping records. Some used 38½, others 40 or 50 or even 55 inches, or parts, as equaling 1 cubic foot per second. Home Supply used the 55 inch standard for almost 75 years.

By authorization of the stockholders during 1962 annual meeting, the 55-inch method was dropped and the universal standard of cfs and A.F. was adopted.

Before the event of delivery of Colorado's Big Thompson project water through a portion of the C.B.T. system in 1947, the different water measuring standards used by various ditch companies was a matter of choice and caused little confusion. However, seasonal C.B.T. project credits can legally be exchanged or rented by water users from one ditch system to another within the Conservancy District's legal boundaries.

Problems and misunderstandings arose when individuals agreed to rent or exchange in terms of 'inches' but the Northern Colorado Water Conservancy District must make the exchange record from one irrigation company to another in terms of acre feet. (1 cfs running 24 hours equals 2 A.F.)

For example a farmer under a 40-inch per cubic foot system agrees to rent 1,000 inches to a farmer under a 55-inch per cubic foot standard. No. 1 farmer honestly believes that his 1,000 inches will equal 25 cfs or (50 A.F.). No. 2 farmer sincerely thinks that this 1,000 inches, as calculated by his ditch company, should deliver 1,375 inches to him in order to equal 25 cfs (50 A.F.).

Thus, it is not difficult to understand why State and Federal Water Agencies will only make requested transfers in terms of A.F.
CONVERTING TO CUBIC FEET PER SECOND 
AND ACRE-FOOT STANDARDS

Beginning January 1963, Home Supply converted all of its stockholder's water 
rights from 'Home Supply Inches' to universally and legally accepted water measure­
ment terms of cu. ft. per sec. (cfs) for flowing water and to acre feet (A.F.) for stored 
water and for water credits.

Irrigation Equivalents

1. One cubic foot per second (cfs) equals:
   38.4 Miner's Inches
   448.8 gallons per minute
   approximately 1 acre inch per hour or
   2 A.F. in 24 hours.
2. One acre foot (A.F.) equals 43,560 cubic feet or 325,851 gallons.
3. One cubic foot equals 7.48 gallons.

Devices For Measuring Water

1. Rectangular Weir
2. V-Notch Weir
3. Cipollotti Weir - (previous to 1963, Home Supply measured water to its users 
   over Cipollotti Weirs. This system was inaccurate and hard to maintain).
4. Parshall Flume - (Designed by Ralph L. Parshall, world renowned irrigation 
   engineer at Colorado State University (then Colorado A. & M. College).

As an important feature of Home Supply's recent Rehabilitation Project, uniform 
and accurate Parshall Flumes were installed immediately below each individual's 
headgate in order to make possible fair and equitable irrigation water service to 
each user. Excepting for diversions from the main canal into laterals or into ditches 
serving more than one stockholder, 9-inch pre-cast concrete, self-cleaning Parshall 
Flumes have been installed by the Company to measure water to individual farms.

KEEP HOME SUPPLY HOME

Until the last 20-25 years no thought was ever given to the possibility of selling 
stock share water rights out of one established irrigation company to another or 
to a city or to a subdivider none of which were in areas historically served by 
the company losing the water.

Early in the year 1977, it was learned that an Estes Park subdivider whose pro­
posed project could not be served by the City's water system had bought ½ share 
of Home Supply stock and had petitioned the Water Court to allow credit for this 
water for augmentation purposes. Waste water seeping back into the river from 
the homes to be built was supposed to repay the river for losses caused by the 
drilling of domestic water wells.

On December 12, 1977, Home Supply stockholders passed the following 
resolution, "It shall be the policy of the Company, its Directors and officers, that 
all decreed water allocated to the Company shall be beneficially used and admini­
stered only within the boundaries of the Company's area of service."
When the Estes Park developer's augmentation case was tried at the Greeley Water Court, the judge ruled in favor of the developer on the grounds that a resolution, as such, was not legally binding.

Thus, during annual meeting of December 11, 1978, the resolution in question was officially voted as an amendment to Home Supply's By-Laws. The favorable vote exceeded the required 3/2 majority.

To date this protective By-Law has saved the company from any further inroads on its water.

**WATER—SOMETIMES TOO MUCH AND NO PLACE TO SAVE IT**

Following an extremely dry year in 1911, the effects of which determined the supply of irrigation water in 1912 and into the 1913 season, things changed dramatically. Four feet of heavy wet snow fell during early December of 1913. This all-time record storm in the Loveland and surrounding area shut down most activities. Store owners along 4th Street were forced to shovel the snow off the roofs of buildings and then off the sidewalks. All this excess snow was hand piled along both sides of 4th Street. A horse and buggy path was cleared down the center. Old timers recall that when walking along one side of 4th a person could not see a shopper on the opposite side. Home Supply's annual meet was postponed.

Naturally, snow melt the following spring improved the water supply but this blessing had a price. Flooding during June and the removal of mud slides and debris was costly to all irrigation companies.

But, periodic droughts and poor water supply years provided rural and city leaders alike with the determination to go all out in seeking the approval and the construction of the Colorado-Big Thompson Transmountain Water Diversion Project. The Northern Colorado Water Conservancy District was created by Colorado's legislature in September 1937.

With the overwhelming approval of taxpayers living within the new district, N.C.W.C.D. was authorized to enter into a construction and repayment contract with The United States Bureau of Reclamation on July 5, 1938.

Including construction delays caused by World War II, it was 1957 before the project was essentially completed and project water could be delivered to most users within the boundaries of the District.

**ADAMS TUNNEL DUG—BETTER USE IT**

When the 13-mile Alva B. Adams tunnel was completed by 1946, it was not possible to deliver project water to project allottees. Front Range features of the C.B.T. system were still either under construction or were in the final planning stages.

Representatives of 5 local irrigation companies and the City of Loveland, with the professional assistance of Attorney Hatfield Chilson, conferred with the Bureau of Reclamation and the N.C. Water Conservancy District relative to the possibility of building a temporary pipeline from the east portal of the Adam's tunnel to a small stream tributary to the Big Thompson River southwest of Estes Park.

Engineers estimated it would take a maximum of $115,000 to do the job. The investigating committee suggested that a temporary, but legal, corporation be formed with shares to be bought by the 5 interested ditch companies at $100 per unit. City of Loveland would not be a share-holder, nor would it make consumptive
use of any water. However, it would pay $25,000 for 16,500 A.F. of pipeline water to be run through its hydro-electric power plant.

Besides attorney Chilson, D.R. Pulliam and Don Foote represented Home Supply on the Temporary Pipeline Committee.

BIG THOMPSON MUTUAL PIPELINE & IRRIGATION COMPANY

After holding two special stockholders meetings, one on Sept. 5, 1946 and the second on Oct. 10, 1946, Home Supply received approval to buy 46 shares of stock @ $100, total of $4,600.00, for its share of construction costs. Under the old 55 inches per cubic foot system, this amounted to about $22.50 per 100 inches to the pipeline contractor and an additional $12.00 to $15.00 per 100 inches annually, during the life of the Temporary Corporation to be paid by each company stockholder who signed up for a portion of this supplemental water.

Greeley & Loveland Irrigation Co. took 575 shares.
Louden Irrigation Canal & Res. Co. took 180 shares.
South Side Irr. & Res. Co. took 11½ shares.
Farmers Ditch & Res. Co. took 46 shares.

From 1947 through 1954 Home Supply paid a total of $47,935.93 for pipeline water. Most of this amount was recovered through payments by individual stockholders who had committed themselves to pay for and use such water at the start of each season. In the event that any individual had over-committed himself, his excess water was rented to others. The contract holder thus received partial reimbursement.

These special funds were held in a separate “Grand Lake Water” account during the active service of the pipe and for two years following the termination of the temporary Mutual Pipeline Company.

Previous to 1957, when C.B.T. project allottees began paying their respective annual water charges as a part of their county property tax assessments, Home Supply, from 1947 to 1956 inclusive, had paid for the total of all C.B.T. allotments which named Home Supply as carrier. Qualified individuals were billed by the company for project water used.

THEY TRIED TO SQUEEZE WATER FROM THE CLOUDS

When water was very scarce and no Indians were available to stage rain dances, seeding of the clouds was tried. Some weather experts believed that certain cloud formations contained moisture and needed only to be encouraged to release it where wanted and needed. The theory was that if certain nuclei with a proven affinity to collect water vapor was shot into the air by a cannon or, was discharged by a high-flying airplane, a chain reaction would begin and water vapor trapped in the clouds would be released and rain or snow would fall upon the earth.

A loosely knit organization called the Northern Colo. Natural Resources Ass'n., was formed. Home Supply contributed $950.00 total to the fund - $800 in 1951 and $150.00 in 1954. Ski resorts continued cloud seeding for increased snow pack for many years after irrigators lost confidence in the idea. Many lawsuits were threatened in years when high snow fall caused flooding in the spring.
A FEW NOTES—SOME HISTORIC—SOME TRIVIAL

Present concrete checks were preceded by wooden stop boxes and before that, a few water wheels were permitted to lift water from the canal into the user's ditch.

10,000 inches (at 55 in. per cubic foot) was once considered as full delivery or a 'One Day's Run'. In the early days Home Supply's Superintendent was expected to estimate the total available water for the season in terms of so many of these 'Days'. Now, the year-by-year projected water supply is calculated as so many acre feet per share.

Back in the days of ordering water by the inch, an obviously irritated irrigator called to complain that his inches were (short). He was assured by the superintendent that Home Supply delivered only (long inches).

Along about the turn of the century it was apparently thought that record keeping on direct river flow water and the use of reservoir water should be separate. It was thus decided to ask company irrigators to give 5 days written notice of intent to order and use water from the lakes. This procedure did not survive one season.

Just two years separated the least and the most irrigation water that Home Supply ever declared to be available. In 1938, 525 inches (19 A.F.) were issued per share. In 1940, 85 inches (3.1 A.F.) per share was the allotment.

In 1971, a total of 32,024 A.F. of water was actually delivered to Home Supply users.

10,837 A.F. of this total was delivered during August of that year. This August 1971 delivery was equal to about 175 per cent of the entire water availability for the 1940 year. Experiences like this helped sell the idea that extra water and more storage was needed.

Previous to 1961, Home Supply and its water users enjoyed toll free telephone calls to and from Loveland, Berthoud and Johnstown alike. Johnstown callers free service was discontinued by A.T.&T. beginning January 1, 1961.

In an effort to treat all stockholders alike, Home Supply reimbursed callers from Johnstown for all toll calls related to water orders. 28 checks were drawn averaging about $1.50 each. Company intentions were admirable, cost effectiveness was poor. The reimbursements were discontinued in 1962.

HOW TIMES HAVE CHANGED

Directors have received from $3.00 to $20.00 per meeting. The $20.00 present per diem fee is less than other irrigation companies of similar size provide to board members.

Stock transfer fees have gone from 50 cents to $10.00 for each new certificate issued. Sometimes the cost exceeds $10.00

Interest (or penalty) to be collected on past due assessments has always been, and still is, 1% per month. Whenever the company is obliged to mail repeat notices for several months it loses money.

For many years—following the 1882 birth of the Company—the President would appoint two qualified stockholders at annual meeting to check Home Supply's financial records. The pay was "Thank You". Then followed inspection of annual company records by bank officers. These fees ranged from $20.00 to $50.00. Beginning 1965, Small Business Administration demanded an annual audit by a Certified Public Accountant. These charges have now climbed to more than $1,000.00 annually.
First Property Damage and Public Liability insurance, other than for vehicles, carried an annual premium in 1928 of $89.92. For 1985, such coverage will cost between $16,000 and $17,000. The latter figure is equal to the assessment from 261½ shares of stock @ $65.00.

Legal fees have ranged from $100 in 1927 to $8,683 in 1984.

$1,500 was the amount invested by the company for its first Certificate of Deposit back in 1966; $30,000 annually is now set aside in C.D.'s to assure the annual debt repayment of $27,157 to Small Business Administration.

Even postage—3 cents first class to 22 cents.

Assessments per share of stock have ranged from a low of $3.00 to a high of $70.00. Federal and State required work to improve public safety has caused recent high assessments. Following the passage by the U.S. Congress of the Federal Dam Inspection and Safety law, neither the Feds nor the State had sufficient man power to carry out the mandate of the law. As previously mentioned, the State Engineer awarded a flood safety inspection and suggested remedies contract to Bovay Engineers of Spokane, Washington.

Local engineers estimated that about 1½ million dollars would be spent by Home Supply if Bovay's remedies were completely acted upon. After three years of 'give and take' dealing with the State Engineer, Home Supply won approval for Public Safety work which has cost the company about ¾ million dollars. Without a doubt, the public will demand even more flood prevention work and the cost of insurance, if available at any price, will continue to rise.

**FROM 2-WHEELED CARTS TO PICK-UPS**

Previous to 1915, company superintendents and ditch riders used 2-wheeled carts, spring wagons or beet beds to ride the ditch system, release water orders to users and to haul maintenance materials where needed. The carts and wagons and the horses to pull them belonged to the employees.

Home Supply bought its first self-powered vehicle in 1915 - a Model T Ford, purchased from Bashor and Wray of Berthoud; and its first dragline in 1927.

Presently the company rightly furnishes pick-ups for the Manager and the Head Ditch Rider.

Weed control equipment, a dump truck, backhoe and a tractor mower have now been acquired to help the Manager do his job. Present Manager, Delbert Helzer, operates this equipment and personally cares for most of its necessary maintenance. A copy machine eases secretarial chores.

First electric typewriter was bought in 1969. Previous to that time, the Secretary's wife used her own machine. Metal filing cabinets, fire resistant vaults, and a Monroe calculator were added to help meet secretarial needs. Most of this equipment along with a pick-up load of Home Supply records were lost in the 1976 flood. Old water books back through 1911 which were wrapped and stored in the secretary's garage and basement, were swept away or made illegible.

**SOME BITS OF HISTORY WERE NON-PRODUCTIVE**

Before certain water rights, legally transferred from other ditch companies, were added to Home Supply's much needed water supply, other possible actions were studied. Possibly one local small ditch system might be willing to sell its canal and
its water rights. Money was actually invested in an old #1 priority known as ‘The Washburn Water Right’. Any and all of the plans would involve court action. The State Engineer took the position that existing water rights served by the ditches under consideration would be severely damaged. Home Supply eventually dropped these plans and pursued possible transfers from the ‘Old Big Thompson #1 Ditch’, now defunct, and from the ‘Big Thompson Ditch and Mfg. Co.’ Both of these plans withstood all legal tests and were finally ordered and decreed by District Judge James E. Garrigues on April 6, 1903.

A RESERVOIR RIGHT DOES NOT IMPLY SQUATTER’S RIGHTS

When the Ed. Anderson farm was appraised prior to making an offer to Mr. Anderson to buy a portion of this property for a part of the proposed Lon Hagler Reservoir site, an old delapidated cabin was observed to be standing on the property to be bought.

This old shack was worthless. Home Supply planned to eventually dismantle it and salvage its lumber.

After the Anderson property had finally been purchased and surveyors were preparing construction plans for the new lake, it was noted that the cabin was no longer empty. A group of Loveland High School senior boys had set about to exercise ‘Squatter’s Rights.’ The boys hoped to establish a ‘Hide-away-Club’ without the knowledge or consent of parents or of the ditch company. Club members had cleaned the place and had moved in several pieces of old furniture. Disappointed but understanding, especially after the leader’s parents had been notified, the boys removed the furnishings and vacated their hoped for ‘Squatter’s Rights.’

The old ‘Club House’ was given to the Colorado Game, Fish and Parks Department, which tore down the buildings and cleaned up the mess.

SELL SANDWICHES—OK—ENTERTAINMENT FEES—NO!

During the summer of 1934, around the north side of Lone Tree Reservoir two ladies who were apparently roughing it in an old pick-up camper, were occasionally observed to be selling sandwiches to hungry fishermen. They were not advised to move on until someone reported that they might be charging for ‘goodies’ other than food.

Based on this fear, Home Supply Directors unanimously passed the following resolution, which is a part of the company’s minutes and which was published in the LOVELAND REPORTER-HERALD.

“The Board of Directors of THE CONSOLIDATED HOME SUPPLY DITCH AND RESERVOIR COMPANY, at their regular meeting, Sept. 3, 1934 voted unanimously that they would not permit any entertainment for which a fee is charged; or any desecration of the Sabbath Day on any of the properties of the Company.

They have formerly given notice, and hereby renew such notice, that they will not be responsible for any damage to any person or persons or property while trespassing on property belonging to the Company.”

Records do not reveal any further problems of that nature around Company reservoirs.
BEWARE OF PLAGUING THE EXPERTS

Unreasonable public safety work at Lone Tree as proposed by Bovay engineers of Spokane, Washington, made Home Supply officials a little cynical of the apparent cost of compliance.

Manager Keimes questioned Bovay's crew concerning the need to prepare for an 18-inch rain falling in a 24-hour period. Keimes chided one of the surveyors, "I'm thankful you fellows don't have the statistics for Noah's Flood". The man shot back, "Believe me brother - If we had 'em, we'd use 'em."

HOME SUPPLY PRESIDENTS—1882-1985

1882 - 1884 — S.A. Forbess
1885 — J.R. Palmer
1886 - 1889 — E.K.C. Evans
1890 — W.T. Bransom
1891 — J.A. Cochran (resigned) — C.J. Chapman
1892 — William Clark
1893 — C.J. Chapman
1894 - 1895 — W.A. Hankins
1896 - 1897 — H.F. Stewart
1898 — W.A. Hankins
1899 — H.F. Stewart
1900 — G.A. Hamilton
1901 - 1910 — William Clark
1911 - 1926 — G.A. Hamilton
1927 - 1961 — George W. Lee
1971* (resigned) — Eugene Bashor
1971 - 1985** — Kenneth Markham

(**Mr. Markham still serves as president as of Jan. 1, 1986)

NOTE: The reader of these records, in regard to the time and the length of service of any Home Supply Director, officer or superintendent, should take note that prior to December 1911, annual meetings were held in February. In December of 1911, annual meeting date was changed to the present 2nd Monday of December. Thus, there were two elections held in 1911. Consequently, in so far as records are clear, Directors and superintendents chosen during the February annual meeting years were recorded as serving that year. Present December elections name the Directors, officers and superintendents to serve beginning with the following January.

HOME SUPPLY DIRECTORS 1882—1985

1883 - 1884 - (List of Directors not available)
1886 - W.R. Thornton, E.K.C. Evans, Volney Chapman, E.S. Allen, R.S. Cox - Secretary E.S. Allen
1887 - E.K.C. Evans, R.S. Cox, W.R. Thornton, E.S. Allen, A.A. Knott - Secretary E.S. Allen
1888 - E.K.C. Evans, E.S. Allen, W.R. Thornton, R.S. Cox, J.A. Cochran - Secretary E.S. Allen
1889 - E.K.C. Evans, W.R. Thornton, R.S. Cox, E.S. Allen, C.J. Chapman - Secretary E.S. Allen
1890 - H.F. Stewart, E.S. Allen, C.J. Chapman, J.A. Cochran, W.T. Bransom - Secretary E.S. Allen
1891 - J.A. Cochran, C.J. Chapman, John F. Hartford, H.F. Stewart - Secretary E.S. Allen
1892 - W.R. Thornton, R.S. Cox, C.J. Chapman, William Clark, E.S. Allen - Secretary E.S. Allen
1894 - W.A. Hankins, H.F. Stewart, C.J. Chapman, C.H. Keirnes, E.S. Allen - Secretary E.S. Allen
1897 - H.F. Stewart, E.S. Allen, W.A. Hankins, Wm. Clark, G.A. Hamilton - Secretary E.S. Allen
1898 - (Same as 1897) Secretary G.A. Hamilton
1900 - (Same as 1899) Secretary W.R. Thornton
1901 - (Same as 1899) Secretary W.R. Thornton*
* Thornton died June 1901 - balance of term served by D.T. Pulliam)
1905 - 1917 (Same as 1904)
1918 - G.A. Hamilton, L.W. Hendershott, J.B. Sloan, George W. Lee, D.T. Pulliam - Secretary D.T. Pulliam
1919 - (Same as 1918)
1920 - (Same as 1918) Howard Colwell - Secretary Pro tem
1921 - (Same as 1920)
1922 - 1924 - (Same as 1918)
1925 - (Same as 1920) Secretary Lula P. Colwell
1927 - George W. Lee, J.B. Sloan, C.C. Hendershott, D.T. Pulliam, A.B. Hamilton - Secretary Lula P. Colwell
1928 - 1935 - (Same as 1927)

1937 - (Same as last ½ of 1936)*(D.T. Pulliam resigned Mar. 1937 Lula P. Colwell finished out term) - Secretary Lula P. Colwell


1939 - 1940 - (Same as 1938)

1941 - George W. Lee, D.R. Pulliam, Wayne M. Hamilton, J.W. Whowell, Harold Hale - Secretary Lula P. Colwell

1942 - 1944 - (Same as 1941)


1946 - George W. Lee, D.R. Pulliam, H.C. Hale, John H. Sloan, W.M. Hamilton (resigned) replaced by A.B. Hamilton - Secretary Lula P. Colwell


1948 - 1954 - (Same as 1947)

1955 - (Same as 1947) Secy. Manager W.R. Keirmes

1956 - 1960 - (Same as 1955)


Note: George W. Lee refused to be nominated. He was unanimously named to honorary position of Director Emeritus') Secy. Mgr. W.R. Keirmes

1963 - 1965 - (Same as 1962)


* (By-Laws now called for 6 directors)

1967 - 1968 - (Same as 1966)


1972 - Kenneth Markham, Robert Lebsack, Neil Hamilton, J.A. Anderson, Reuben Hoffman, Floyd Hale - Sec'y. Manager W.R. Keirms

1973 - 1975 - (Same as 1972)

1976 - Kenneth Markham, Neil Hamilton, Floyd Hale, Robert Lebsack, Reuben Hoffman, Norman S. Gibbs* - Secretary W.R. Keirms

* Dr. Gibbs resigned Nov. 1976

1977 - Kenneth Markham, Neil Hamilton, Floyd Hale, Robert Lebsack, Reuben Hoffman, Gary. Grommon - Secretary W.R. Keirms

1978 - 1979 - (Same as 1977)

---54---
1980 - Kenneth Markham, Neil Hamilton, Floyd Hale, Gary Grommon, Robert Lebsack, Reuben Hoffman, John Nelson* - Secretary W.R. Keirnes
*(By-Laws now called for 7 directors)
1981 - 1984 - (Same as 1980)
1985 - (Same as 1980) Delbert Helzer, Secretary-Manager

ASSOCIATE DIRECTORS

President Lee, in 1957, initiated the concept of electing qualified and concerned stockholders to the non-voting position of Home Supply Associate Directors. Keener knowledge of the Company’s plans and problems would be valuable in the event that any Associate might later be elected as a regular member of the Board. All present directors first served as associates.

Associates elected to date include: Neil Hamilton, Kenneth Markham, Floyd Hale, Eugene Bashor, Melvin Carlson, Robert Lebsack, Reuben R. Hoffman, David Lewis, Dr. Norman Gibbs, Wayne Birkley, John Waggener, Gary Grommon, John Nelson, Don Reichert, Daryll Williams, William Egner.

SUPERINTENDENTS AND O. & M. MANAGERS

Early records concerning Home Supply Superintendents are vague and incomplete. Lack of money forced the company to encourage interested Directors to bid for the Operation and Maintenance job. He who submitted the lowest bid was the lucky (or unlucky) winner. W.R. Thornton, C.J. Chapman, W.A. Hankins, and C.H. Keirnes are listed as some who were low-bidders from 1885 to 1900.

The writer recalls hearing his grandfather, C.H. Keirnes, who won the job in 1893 with a $600 per year bid, experiencing so many problems that he jokingly regretted bidding so low.

Lucas Brandt - chosen superintendent - 1897
Hiram Maize - chosen superintendent - 1900
Alonzo Hagler - November 1907 - May 1955*
*Mr. Hagler worked as Ass’t. Supt. 3 extra years.
W.R. Keirnes - May 1955 through 1975*
* First Manager to also serve as secretary to Jan. 1, 1985.
Charles Benton - January, 1976 to April 12, 1979
Delbert Helzer - April 16, 1979 and continuing*
*Mr. Helzer was named Secretary-Manager at the retirement of Keirnes on December 31, 1984.

A LOT OF WORK WITH LITTLE CREDIT

Head Ditch Riders and their respective wives and the wives of company superintendents spend a great deal of time and effort taking phone calls, preparing reports and answering hundreds of questions on water matters. Home Supply thanks Melvin and Lillie Collins, Gene and Louise Gray, Florence Hagler, Georgia Keimes (for 30 years), Deborah Benton, Annelda Helzer and Issac Reimer for the valuable contributions of each.

Home Supply owes part of its progress to many who were not directly associated with the Company. For example, the Stratman Brothers, beginning in April 1944,
have done most of the heavy equipment work for the company including necessary earth work, tree removal and rip-rapping.

In the event of emergencies, Stratmans would immediately provide help.

During the research, data analysis and the actual construction of The Home Supply Watershed Project, the State Soil Conservation Service charged Civil Engineer, Woody M. Robertson, as the resident expert to assist the project's sponsors. Mr. Robertson not only did his job well, but won the appreciation and the friendship of all who worked with him.

**MANY LEGAL PROBLEMS AROSE**

Occasionally a stockholder might complain that the canal was seeping his farm or the ditch, cutting through his place made access difficult; or, one of the reservoirs was too full. Usually the offended party could be placated for a few dollars damages.

But sometimes an attorney was necessary. G.A. Hamilton offered a bit of advice "When you sue your own ditch company - you are also suing yourself and both sides usually lose."

Later George Lee gave all stockholders past and present the benefit of his own unselfish philosophy, "If it's good for Home Supply - it's good for George Lee."

Home Supply attorneys, past and present, starting with B.L. Carr included H. N. Haynes, (38 years), Ab Romans, Hatfield Chilson, Robert McCrery, John Cross, Robert Christensen, Randy Starr and Stephen Williamson.

**FOR SOME—HOME SUPPLY WAS A SECOND FAMILY**

The Hamilton family, starting with Grandfather, G.A. in 1896, has served the company in an unbroken chain for 90 years. Following G.A. Hamilton was son Alexander B., and two grandsons, Wayne M. and Neil. Neil is presently a Director and Company Treasurer.

C.H. Keirnes, in the mid 1890's was both a Director and Superintendent. J.W. Keirnes was an assistant superintendent in 1901-1902. W.R. 'Reg' Keirnes spent 21 years as Secretary-Manager for Home Supply and an additional 9 years as Secretary. C.H. was Reg’s grandfather and J.W. was his father.

Two Chapmans, C.J. and Volney were Directors in the mid 1880's, C.J. was also Superintendent.

The Hendershotts, L.W. and C.C. were both Directors.

D.T. Pulliam as Director and Secretary, daughter Lula P. Colwell as Secretary and son D.R. as Director and Vice President show a combined family service of 85 years to Home Supply.

J.B. Sloan, father and J.H. Sloan, son and Company President, gave 45 years to help the company.

Harold Hale and Floyd Hale, father and son, as Home Supply Directors, spent 43 years of time and effort in behalf of the Company.

**SAME GAVE 30 YEARS AND MORE**

*G.A. Hamilton - 1896 - 1927  
( President for 26 years - Treas. for 1 year and Sec’y. for 1 year.)

*D.T. Pulliam - 1901 - 1937

( Secretary for 24 years.)*
GEORGE W. LEE - 1918 - 1961 (Incl.)
(President for 36 years.)

LULA P. COLWELL - served as secretary 1925-1954 incl. She is also distinguished as the only woman Home Supply Director. Her father, D.T. Pulliam, resigned March 1937. Mrs. Colwell was appointed to complete his term.

ALONZO HAGLER - 1905 - 1954 incl.
Lon Hagler entered the employ of the Home Supply Ditch Company during March of 1905 and became superintendent in October 1907. He served continuously and well for 50 years plus two months. Mr. Hagler died May 11, 1955 on the banks of the canal while discharging his duties.

He was appointed Secretary following the resignation of Mrs. Colwell in February, 1955. ‘Reg’ was chosen Secretary-Manager following the death of Mr. Hagler on May 11 of that year. He served 21 years as Secretary-Manager and 9 more years (1976 through 1984) as Secretary. Keirnes was appointed ‘Home Supply Consultant’ January 1, 1985.

HOME SUPPLY PIONEERS SERVED THE COMMUNITY

Many pioneers who helped develop the Home Supply system worked equally hard in building necessary lateral ditches which diverted water from the main canal to serve users not adjacent to the Home Supply Ditch. Others helped build private reservoirs to augment irrigation water supplies. Many of these ‘Old Timers’ are also mentioned in historic documents concerning Loveland, Berthoud and Johnstown.

Listed among these community builders are these well-known names: Madison Harry, Peter Christians, John A. Connor, Wm. H. Gard, W.A. Hankins, C.J. Chapman, Volney Chapman, J.J. Ryan, David Hershman, J.W. McIntyre.

Equally prominent in Loveland’s history, as well as in Home Supply’s was Zenas McCoy, who in 1904 was elected as the first secretary of ‘The Associated Ditches’ created to protect all irrigation interests along the Big and Little Thompson rivers.

The name Lucas Brandt was a very well-known Loveland Pioneer. Mr. Brandt served as Home Supply Superintendent in 1900.

A.A. Ferguson, father of Jay Ferguson, grandfather of ‘Andy’ Ferguson was elected as a director and as secretary of Home Supply in 1885.

D.T. Pulliam served for 10 years, beginning in 1902, as President of the Thompson Valley Associated Ditches. He helped work out a legally acceptable compromise with concerned local ditch companies during Home Supply’s 7-year struggle to obtain the 71 cfs transfer water rights which have been so valuable to our company.

During those same 7 years many tentative contracts were drawn and some money was actually held in escrow depending on whether these early agreements concerned with obtaining certain water transfer rights could be legally obtained and recorded.

G.A. Hamilton served the water transfer committee as trustee for documents and money related to the effort to obtain much needed rights to early direct flow river water.

—57—
INDEX

A Life Time of Service To Home Supply, .................................................. 56-57
Colorado's Wealth - Gold to Water ......................................................... 1-3
Crash Improvement Programs .................................................................. 14-17
Dam Disaster ............................................................................................ 4-6
Dam Safety And Inspection Demands ....................................................... 34-39
Early Efforts To Obtain More Water ....................................................... 47-48
Floods ........................................................................................................ 20-22
Historic Odds And Ends .......................................................................... 49-51
Home Supply Presidents And Directors .................................................. 52-55
Lone Tree And Mariano Reservoirs .......................................................... 6-8
Meeting Places And Dates ....................................................................... 39-41
Mutual Benefits From Cooperation ....................................................... 19-20
Need For Uniform Water Measure Terms ............................................ 44-46
Vital Help from Public Law #566 ............................................................. 23-33
Water Rights ............................................................................................ 8-10
Water Right Transfers and Exchanges ................................................... 11-13
IF WE FAIL TO RESPECT THE INTEGRITY OF OUR AIR, OUR WATER AND OUR SOIL, THE EARTH'S OTHER PROBLEMS WILL EVENTUALLY BE OF LITTLE CONSEQUENCE