To All District 67 Ditches:

This is to notify you that the following procedures will be enforced during the times when Kansas is calling for water under the Arkansas River Compact:

1. When Kansas calls, the amount of the Kansas call will be released and deducted from their account in John Martin.

2. Ditches that are taking natural flow that originated below John Martin shall have an amount equal to that diversion released from their account in John Martin.

3. The Division Engineer will determine the amount to be released from the Transit Loss Account at the time of the release.

4. When the water is delivered to the State Line, the natural flow originating below John Martin shall be made available to the District 67 ditches according to priority.

5. The Well Owners' Association Pumps must run the entire time the run is in progress.

6. The amount of water which the Buffalo Canal seeks to divert from the Arkansas River at its headgate shall be reduced by the amount delivered to the Buffalo by the Well Owners' Association Pumps. The actual headgate diversion shall be released from the Buffalo account in John Martin.
7. The amount of water which the Lamar Canal seeks to divert from the Arkansas River at its headgate shall be reduced by the amount delivered to the Lamar by Lamar Utilities cooling water. The actual headgate diversion shall be released from the Lamar account in John Martin.

Sincerely,

Robert W. Jesse
Division Engineer

cc: Jeris Danielson, State Engineer
Attorney General's Office
The United States Supreme Court said Kansas had not had any decrease in irrigated land. That if they were hurt, then Kansas could come back later. The Kansas-Colorado compact was to apportion water between the two states. Back in the '20's, the Catlin shareholders had to help pay damages to these two ditch companies, but the dispute was settled when the Compact, Kansas-Colorado Compact, was signed in 1948. I've often thought that we'd been better off if they had no settlement going and maybe had a little better deal on the John Martin Reservoir. Canal Company monies from the sale of water over the years, when it made a profit, went back to the original shareholders.

The water up until January 5, 1904, were water deeds, they were not shares of stock in the company, they were water deeds. Each man had a deed for a certain amount of water. After they consolidated, then they changed to the stock certificates which were issued after they surrendered the water deed to the companies. At the time they were surrendered, there was a running covenant that went with them that the waters of the Catlin would be used in Otero County for domestic and irrigation only and right on the faces of the certificates, it says to be used in Otero County only.

This will be one of the issues on the Game and Fish transfer.

I think maybe, if you would read when they consolidated, why this is, what the president JOHN C. VROMAN had to say at that time:

"It is January 5, 1904. Gentlemen, this is one of the happiest and one of the saddest days of my life. When I first came to this country some thirty years ago, the general appearance of the landscape was all but inviting to prospective farmers, which now are located on beautiful homes. There was nothing but a vast expanse of hill and dale thickly
covered with sagebrush and grasswood for habitation for the coyote, the rabbit, and the rattlesnakes. Thus it has been for countless ages and thus it seemed doom forever to remain and thus in fact it even would have remained, but the dauntless courage, foresight, and perseverance of the few hearty pioneers who, realizing the enormous possibilities of the soil when plentifully supplied with water, began the building of canals to convey the water from the river to these lands. Among the earliest of these enterprises, which from its magnitude, boldly called for unlimited confidence in the future, but a firm resolve to carry it through, regardless of results, to the end, that the desert might blossom as the rose and produce crops as bountifully as they farmed Valley of the Nile, was the company over which I have had the honor of being either the president or general manager for so many years. For nearly 20 years have I been thus honored, and have also had the pleasure of seeing the same Board of Directors re-elected with unerring regularity as the years have all too swiftly passed away. When I think of the many weary days and nights which I have spent in the construction and management of this Canal, of the many difficulties which have overcome in its maintenance and operation, and now that these things have vanished away in the misty past, I now see the many thousands of acres of this once barren land which I have been largely instrumental in reclaiming, transformed into beautiful farms, thrifty orchards, and green pastures from which such bountiful crops are being annually gathered, and when I see the lovely homes and gardens of our people dotted here and there by schoolhouses and churches, and listen to the lowing bovine, the bleating sheep, and the squealing pig, all evidence of an abundant prosperity, it gives me a feeling of pride and satisfaction that my efforts have not been in vain, that my hopes have
hopes have been realized, and in some small way, I have been a blessing to humanity, and yet I cannot but have a feeling of sadness when I realize that the time has come, when under the plan by which we have been operating, this control of the Canal must pass unto the hands of others who have rightfully come into its possession. Were it not for the fact that I as satisfied that the passing into the control of these who are prosperous, intelligent, and enterprising, as is shown as their success in the past and in the fact that they have chosen such eminently well-qualified persons for their Board of Directors, it would indeed be hard for me to be satisfied, but under the circumstances, it gives me pleasure to report that I, acting in my official capacity, did on the 12th day of October, 1903, transfer by deed, all the right, titles, interests, and franchises of this Catlin Consolidated Canal Company to the Reorganized Catlin Consolidated Canal Company which has been duly recorded and I now ask that this report be accepted and approved.

On motion above, report was unanimously accepted and approved."

Back in those days, the president of the Board, if he thought any officer wasn't doing his job, he could expel him and back in those days, if they didn't think you were going to do your job, you might have to put up a bond.

Well, we were talking about how long a time it took Catlin Canal, as near as I can determine, it was somewhere between 9,000 and 10,000 team days to dig the Canal and enlarge the Extension which is below Temp Creek. This would be something over 35 years for one fellow starting out to dig the Canal.

In 1903, they had been talking about the consolidation of the Fairmont Lateral and Reservoir Company and the Catlin Land and Canal
As I review contents of John Martin and river flows at Pueblo, river flows into John Martin diversions of main canals. Bessemer, Colorado Canal, Highline, Oxford, Otero, Catlin, Holbrook, Rocky Ford, Fort Lyon and Consolidated of compact reports 1950-1980 my conclusion is:

The river is operated on a daily basis under Colorado Priority System. First in use first in time. The compact reports are monthly and total for the year.

I assume in the 1943 Supreme Court ruling, Kansas irrigated land at that time had not been hurt and the Colorado Doctrine of appropriation based upon priority system dating from 1860 to 1943 was accepted. Kansas irrigated 15,000 A. in 1895; 56,000 A. in 1939; according to the opinion U.S. Supreme Court December 6, 1943.

I have not taken the time to add up the Decrees on the main stem up to 1890. Somewhere around 6,000 CFS as I remember it. 1960 report of 396,500 at Pueblo with flows daily at Pueblo. Max November 616 CFS; December 442; January 378; February 364; Mar 821; April 500; May 1,270; June 3,270; July 1,670; August 1,160; September 206; October 861.

The Arkansas River has long been over appropriated as to Direct Flow with storage rights off channel capacity - Henry 6,353 AF, December 31, 1991; .45 CFS, September 10, 1900; 3,561 AF, May 5, 1909. Meredith Lake 26,028 AF, March 9, 1998 intake capacity of 756.26 CFS for Henry and Meredith. Dye Reservoir 4,500 AF, October 10, 1903; 3,486 AF, September 3,
1909. Holbrook Reservoir 4,247 AF, March 2, 1992; 319 AF September 15, 1909 with intake capacity of 600 CFS.

Fort Lyon Storage. Adobe 61,575 AF, January 12, 1906; 25,425 AF, December 29, 1908 with intake capacity of 1,500 CFS. Horse Creek, 26,887 AF, January 25, 1906; 1,113 AF, December 29, 1908 with 1,500 CFS intake capacity.

Amity Storage in Great Plains 265,552 AF, August 1, 1996 with intake capacity of 800 CFS via Kicking Bird Canal out of Fort Lyon Diversion. The above reservoirs are all off channel storages with limited intake capacity in each case. The only two on channel reservoirs are Pueblo and John Martin. These two storages get what comes down the river. The off channel intake capacities are limited by their headgate diversion ability in flood time sometimes debris and ice in the river holds up diversion. This does not happen with on channel storage.

The ability to store is governed by canal capacity. Off channel storage also by duration of storable water run down river. Quick up quick down river. Small storage prolonged high flows have more of an opportunity to divert.

The on-channel storage get whatever comes whenever it comes with no limit of ability to divert.

In effect John Martin storage compact approval 1948 came five years after Kansas and Colorado suit settled by court, although some water was stored. By 1943 completion of first phase of Martin Dam was completed except for the big gates which were installed after the war.
After taking a look at compact reports 1950-1982, they do not reflect the daily operation of river on storage - only contents at end of month unless one goes to daily operation. Water can come in to Martin and be released and not show up at end of month report. I find the outflow exceeds in flow 22 years out of 33 years, this in spite of six foot pan evaporation. John Martin Reservoir evaporation in 1988 47,000 AF.

Starting in 1952 Martin went to 0 AF. Didn't have much till May 18, 1955 flood that washed out Catlin diversion, Fort Lyon Storage Canal diversion, and some other canals. Martin picked up 244,315 AF in May. Henry Reservoir stored no water in 1955 or 1956. The May min. was 9,158 in 1977 max. 10,300 - 1958, 8,900 max., 1959 max. 8,970, 1960 6,377 max., 1961 6,452 max., 1962 6,407 max., 1963 1,809 max., 1964 10,160 max., 1965. See charts for all total.


Dye - 1953 0, 1954 0, 1955 1,035. Rest available from charts for all totals.

Holbrook - 1953 2,295 max, 1954 1,776 max, 1955 4,038 max. - see charts for all totals.

Great Plains - 1953 max 5,399, 1954 max 2,060, 1955 0. See charts for all totals.

Adobe - 1950 max 30,830, 1951 max 12,670, 1953 max 8,900, 1953 0, 1954 0, 1955 0, 1956 0. See charts for all totals.

It is very apparent that the storages only get water that amounts to anything in the better water years in spite of the 1891 to 1909 decrees. For storage, off channel, there is no set pattern in what's at Pueblo, what is diverted to Direct Flow canals or storages. The dry years compound the problem of divertability. The wet year return flows enhance the next year.

The storages are dependent on how the water comes down the river - steady - slow - floods, there are enough early priorities to take flows not in excess of their priorities and clean the river practically for direct flows.

Storage events occur primarily in sustained large flows river. Also helped from use and reuse of water from canal systems (the pump is primed and a circulation of water is in force). The earlier priority return flows create flows for junior appropriators.

Other storage events occur when the river floods depending on how big an area is covered by storm that created flood. Some floods are very large. Some quite local. All of channel storage is strictly limited by diversion structure and size of canal and whether filling canal is also an direct flow irrigation canal. For land served by these canals also diverts water to the storage reservoirs.

The reason for development of storage reservoirs was the over appropriation of the Arkansas River by 1890. The off channel storages were developed from about 1890 to 1910
generally. In the early days of developing of agriculture when the snowmelt was over, the Arkansas River at times would go dry leaving only pot holes. The applied water return flows made the Arkansas River a live stream. Will Beaty, related to Jap and Jim Beaty who helped dig the Catlin Canal, told me that the Arkansas River would go completely dry except for the pot holes.

Snowmelt comes primarily from the higher elevations (10,000 feet or higher) and is the primary source of water for the Arkansas River. Rain in the mountains and foothills becomes a secondary source of water. It is a proven fact John Martin Reservoir lives off large snowmelt years (1957) and heavy precipitation that are fed into the river by side streams. Fountain Creek, St. Carles River, Chico Creek, Apishapa River, Timpas Creek, Horse Creek, Mud Creek, and a host of other side streams all drain into the Arkansas Basin from many hundreds of square miles of water drainage area. There has not been a Big Flood on the Arkansas River since 1965. I would say the snow producing area is a much smaller area than the total drainage area of the Basin including total square miles area of flood plains.

It is my opinion the winter water storage program in Pueblo Reservoir enhanced the river flows and helps the circulation of the river streams. The water that's stored in the four months was diverted and stored in the soil on the farms; also the river flows in the winter are quite storable in the offchannel reservoirs. The winter water program is
very definitively a good management practice to get best use of all water in a water short area.

I have lived on a farm in the Arkansas Valley for 75 years, 68 of them under the Catlin Canal. We had the Dirty 30's and drought. 1942 was a huge water year. The late 40's and early 50's were in a wet cycle. 1940 a dry year. 1960, 61, and 62 above average, 1963 and 64 on the dry side. 1965 big floods, lots of storage, 1970's average, 1974 was dry. 1977 driest year in Catlin's history of 91 years. 1981 dry year till it started raining late in season. Rest of the 80's above average.

To get a picture of how Arkansas River operated under the priority system, direct flow and storage. The problem must be dealt with on a daily basis.

There is no such thing as averages. Only looking backwards are averages established after the fact.

The Lord only knows what the future will bring. It looks as though weather runs in cycles. Dry cycles are followed by wet cycles. "After all, the Arkansas Valley was a desert until the development of irrigation between 1860-1900 which made the prairie turn into a Garden of Eden when the water was brought from the river to the gentle slopes of the productive soil" said John Vroman, one of the the founders of the Catlin Canal.

As to the ground water uses much of the water was taken off the direct flow priorities. The well drilling started generally in Dirty Thirties - 1931-35. Dry again in 1944, 54, 64. House Bill 1066 passed in 1966 stopped most well drilling
except below Martin. Western Kansas has gone from 15,000 Acres in 1895 to God knows how many more - several hundred thousand irrigated acres now.

The first well came in during the Dirty Thirties 1930-1935 drought. 1944 a dry year put another sprint of well drilling also 54 and 64 dry cycles.

The pumping peaked at 250,000 AF. Much of it was done on land served by canals with decrees. In effect pumping came off decreed water for canals. In the better water years for canals, pumping declined. It would take the wisdom of Solomon to know above John Martin the pumping effect, would the canals have gotten more water or would the trees and salt cedar have gotten more water?

Many cities have grown to depend on ground water. Many took it without regard to priorities. Developers found ground water much cheaper than paying for decreed water.

Both Kansas and Colorado have developed soil conservation and contour farming, stock ponds, and water conserving practices paid for by the U.S. Government. There have been many flood control projects and retention ponds built by cities and other entities.

TRINIDAD

1981: Trinidad Lake was enhanced by water purchased from the Arkansas Valley delivered to Trinidad by exchange; not the 19,000 AF claimed by Kansas, but 7,000 or 8,000 AF less due to exchange. Trinidad has operating principals that should
control the operation of Trinidad Project, if proper studies show a benefit to Trinidad can be had without a determinant to Martin. Take a look at it.

CONCLUSION

At the time compact was written probably the most knowledgable, honest people worked on it. Times change, conditions change, weather changes, farming changes, ranching changes, towns change. Government has caused major changed. There has not been a flood to the the magnitude of the 65 flood since, some flooding in 81 on the Fountain River. Pumping has developed. Sprinklers developed. Many canal companies who used to think they had adequate supply find themselves short of water, over which they have no control. The desert area has never had a totally dependable supply and never will.

I do not think John Martin Reservoir has had any more shortages of water than the canals that divert out of the Arkansas River. Good years are good years. Bad years are bad years. I see no change anyone can make to improve the weather at this time.

Martin has been short, and so have all the off channel storages at the same time, so have the canals. Let's not get too damned excited.

At the time of the compact negotiation, probably the most knowledgeable people were working on it. 50 years of time has a way of changing things to what they really are. As I see it
we would all like to rewrite the existing compact to fit now - what you thought would happen probably didn't in full; what you didn't think of has now showed up. That's Compacts. We could all improve on them 50 years later.