

HISTORY OF RIVERSIDE WATER COMPANY CANAL SYSTEMI. ORIGINAL CONSTRUCTIONA. Engineering

1. Design and survey by Higbie from Los Angeles
2. Used flat gradient of about 2.5 feet per mile to prevent erosion of earthen unlined main canal ditch.
3. River had grade of 15 feet per mile. Started at Colony and extended canal upstream far enough to intersect river grade.
4. Canal heading established on river at north end of La Loma Hills south west of Colton about $\frac{1}{2}$ mile west of La Cadena.
5. Original capacity about 1000 miners inches; enlarged several times to a maximum of 5000 inches.
6. Distribution system used check gates and variable orifice plate delivery weirs patterned after the miner's inch box in the Placer gold mining country of Northern California.
7. System was simple but very dependable. Later copied by the development in Imperial Valley and some systems in the San Joaquin Valley.

B. Construction

1. Tom Cover with extensive experience in building canals and flumes in the gold mining country was brought in as superintendent of construction.
2. Brought in Chinese labor to do hand work.
3. Crossed arroyos with flumes of timber construction.
4. First flow of water reached Riverside sometime between May and July of 1871.
5. Canal extended to near Arlington by 1875.

II. SECOND CANALA. Purpose

1. To develop additional land in Valley south of Arlington Avenue.
2. The first canal only used a part of the river flow and it appeared that there was adequate water to develop Arlington Valley.

History of Riverside Water Company Canal System (Continued)

B. Location

1. Land to be served was lower so heading on river was established downstream at southwest side of La Loma Hills about 25 feet lower than upper canal.
2. Lower canal was ^{roughly} ~~roughly~~ parallel to first canal. It entered the Mile Square near First and Market.

C. Capacity was for 5000 inches maximum.

III. EARLY OPERATIONS AND DIFFICULTIES

- A. Zanjeros on horseback patrolled the canal system and made deliveries. Also cleaned aquatic growths and mud from canals.
- B. Diversions dams of sand and green brush forced the water from the river into each of the canals. The dams had to be attended to daily and frequently washed out.
- C. Sand and mud from river settled out in canal because of lower velocity and had to be shoveled out by hand.
- D. Aquatic weeds and algae choked up canals requiring constant cleaning. Sometimes canal ran over and washed out because of this problem.
- E. Seepage losses. About half of the water diverted was lost by seepage before reaching the Mile Square.
- F. The greatest difficulty and disappointment of all was the continually decreasing flow in the river caused by a change in the climatic cycle.
 1. The principal source of river water was from Artesian springs east of San Bernardino. With decreasing rainfall this water was partially sinking into river channel before reaching canal intakes creating a shortage of water.
 2. A new canal heading was made upstream on Warm Creek nearer the Artesian springs to regain a full supply. This required a new canal from near Spring Street and La Cadena northerly through Highgrove to Colton to the new heading location. This was completed in 1886.
 3. The canal system created a new type of agricultural economy. Fresh fruits from irrigated land brought cash and a better living than 10 times as much land devoted to the pastoral scheme.

History of Riverside Water Company Canal System..(Continued)

4. Due to the prosperity and demand for more irrigated acreage, the first canal was enlarged to 5000 inches and lined with concrete to the Mile Square by 1892.
5. With further diminution of river flow due to drought conditions wells were drilled and pumped into the canal about 1900.
6. The lower canal was abandoned about 1913 due to lack of water and expense of maintenance.
7. Sand - earlier diversions under conditions of full supply skimmed water off the top of the stream and allowed the sand to go on down with the river. However, later when entire river flow was diverted it was necessary to install a special sand pump to remove sand and mud from canal. Some sand was sold to railroad companies for engine sand.

IV. PRESENT CONDITIONS

A. SUPPLY

1. The surface stream continued to diminish and finally diversions were ceased altogether in 1959.
2. The supply since 1959 has been 100% from wells located from downtown Riverside to east of San Bernardino.
3. Maximum stream in canal is now less than 1000 inches.

B. OPERATIONS

1. Still have two zanjeros to deliver water and patrol canal.
2. Have cleaning crew to control aquatic weeds and algae. Use chemicals to suppress growth.
3. Pumps operated by Domestic Water Division.

V. FUTURE

- A. SHAREHOLDERS - Nearly all canal users traded their shares in Riverside Water Company for cash and an irrigation contract when City condemned system in 1961. Contracts terminate in 1981 and after that time essentially the only customer left will be the Temescal Water Company in Corona.

History of Riverside Water Company Canal System. (Continued)

- B. STORM WATER - The canal serves also as a carrier of storm water originating from adjacent land and City streets. After the canal is no longer needed for irrigation it will be abandoned if the storm water can be routed to storm drains.

To help him/become better acquainted with the details of the water company operations and it will be in the form of a report, it will be given just from memory so it may sort of disconnected, but let's have a go at it. It will be entitled:

A REVIEW OF RIVERSIDE¹⁵ OWNERSHIP IN LOCAL WATER COMPANIES (JAN. 1975)
(INTRODUCTION)

The water sources of Riverside's Municipal Water system were mainly acquired thru the purchase of assets and shares of stock of various local water companies. The Rights so acquired were in some cases burdened with complex obligations and limitations that are not widely understood, but are well documented in various documents in the archives. Details of the Rights acquired prior to about 1934 are conveniently set forth in a very excellent report written by Charles Judson, a former staff member of the Water Department.

The information presented herein covers the period following the Judson Report up to January 1975, and is intended, by the writer, to be a casual and formal narrative to help administrative personnel to become better acquainted with the background of the complex Water company involvements. For anyone wishing more specific information, please refer to the documents referred hereinafter.

CHAPTER I. RIVERSIDE WATER COMPANY

Because Riverside Water Company is such an old company, it is very necessary to give you a quick review of the company's history in order that you will better understand some of the operations that we are involved in at present. The Riverside Water Company really was started by it's predecessors - The California Silk Center Association which was organized

prior to 1870 for the purpose of developing a colony on the Riverside Mesa where it was hoped that new land can be developed into an colony where people could live in peace and prosperity. The original development was built around the economy of raising silk worms to produce silk, and of course water was needed to grow the mulberry trees on which the silkworms would be fed. The guiding light that attempted to form the silk center operation was named Louie Provost, a Frenchman who was skilled in the culture of silkworms and unfortunately before the operation could be finalized, Mr. Provost died and left their colony without the guidance and technical skill required to complete the project. Their beginning was then transferred to the Southern California Colony Association which attempted then to develop the water system that was originally contemplated. The source of water then available for this enterprise was the Santa Ana River; and of course at that time there was no pumping equipment and it was necessary to make a gravity diversion from the river at a point far enough up the river so that the water would flow by gravity to the Riverside Mesa. The point selected was a point on the southbank of the river at the northerly end of the La Loma Hill where a granite outcrop came right to the edge of the river making a convenient place to make a heading. This point of diversion is south and a little west of Colton, about a quarter of a mile, or half a mile westerly of the bridge where LaCadena crosses the Santa Ana River. The canal from that point followed a contoured grade around the westerly side of La Loma Hills, and then down across the the Table land to the existing canal where it crosses La Cadena near Spring St. in Highgrove; and then it followed more or less along the route of LaCadena to the downtown area. This became, then, the supply for the old Milesquare area and the area north of the city in the Southern California Colony Association lands.

Not long after that, another development was conceived for the Arlington Valley area, and a second canal was planned with the diversion point downstream from the original diversion point. This second canal was by a different group of developers to start with, but finally was merged into one land development operation. The second canal was actually built and put into operation in 1875. The two canals operated up until about 1913 when the second canal, and lower canal, was abandoned. The cost of maintaining the second canal was quite a burden, and it became more economical to develop lateral pipes and ditches from the first canal than to maintain the second canal.

The first canal reached the Tequesquite Arroyo area by about 1875 and was extended gradually, from time to time, until it was finally extended extended all the way down to Cajalco Wash near Corona, by about 1890. This Canal is still in existence all the way down to Cajalco Wash, pretty much as it was built in 1890. As the community grew, placing greater demands on the water system, it became obvious that there was not enough water in the river to satisfy all the demands all the time, and investigations of the upstream water source area indicated that the river diminished in size from a point about opposite and easterly of Colton, and they discovered from stream gauging records that the stream reached its maximum flow about where it crossed what we recognize today as the Bunker Hill Falls. For that reason, they found it necessary to make a new diversion further upstream to avoid the loss in that section of the river that was the losing stream. So in 1886, a new branch of the canal was installed from about where the canal crosses La Cadena near Spring Street up through the Highgrove Mesa and on up to the branch of the Santa Ana River known as Warm Creek where the summer

flow of the river actually originated. For a short period of time, then, from 1886 up until 1913 there were actually three different headings; one on Warm Creek, the original diversion near La Cadena; the second diversion which was down near the Pellissier Ranch properties where North Orange Street formerly crossed the river. After 1913, the two downstream headings were permanently abandoned, although parts of the canal are still visible there today. The Warm Creek Canal provided an adequate supply for a few more years, but around the turn of the century it became obvious that even that new diversion would not develop enough water to meet the demands. It became necessary about 1902 to drill wells in the Colton area and pump into the canal system in order to augment the supply. In addition, even before that, as early as 1890 it was found necessary to drill artesian wells in the basin above the fault line in order to augment the flow of Warm Creek. So we find a gradually increasing demand for water and apparently a decreasing supply; because actually with the drilling of the artesian wells and allowing them to flow into the creek it diminished the supply of natural rising water in the creek. As an example: if you opened up a number of wells so that the combined flow of these wells was 1,000 inches, it would mean that the natural flow in the Warm Creek collection system would diminish because of this lowering of pressure by uncapping the artesian wells; so that instead of getting 1,000 inches of additional water, you generally get about half of that. It was discovered that drilling the artesian wells did improve the supply somewhat but not as much as expected. There was a continual effort to constantly increase the supply of water available by drilling additional wells and installing additional pumping equipment in the basins below the artesian basin. These pump wells were first installed

along the flume crossing the Santa Ana River, and became known as the Flume Wells. There were also some wells drilled in a different tract to the west called the Huerstel Tract, which were only useful up to about 1912 because the water developed in the Huerstel Tract Wells was carried in an open ditch along the north bank of the Santa Ana River down to the original heading and the water was then diverted across the river in a little wooden flume that was a temporary arrangement that was put across the river each year in the summertime to carry the water across into the original heading. Of course, after the canal was abandoned in 1912, those wells were not usable except that for a short period of time a pipeline was installed to carry the water back upstream northeasterly to the Warm Creek flume. These wells were not pumped after about 1928 when they were permanently abandoned. Later in the mid '20's it was found necessary to drill additional wells to augment the supply to the canal. These additional wells were drilled in the Riverside area - the 11th Street Well, the Palmalita Well, the Electric Avenue Well and the Fill Well were all developed in the mid-twenties for the purpose of augmenting the supply. Following the drilling of wells in the Riverside area, there was some additional development in the Colton Basin just upstream from the diversion of the Warm Creek Canal. The Johnson Tract ^{and} the Vaughn Tract had wells developed on them to further supplement the supply obtained from the Riverside Wells. Then, ultimately, it became necessary to install pumps in some of the artesian wells to further augment the supply of water to Warm Creek. That was about the last of the water development for the system. The system as it is operated today is about the same as it was after the drilling of the wells in the Colton area and the equipping of the artesian wells in the San Bernardino area. So much for the physical system that developed and transported water to the Riverside area.

Now in order to get some feeling for the complications of water rights that were involved, we'll have to go back to the beginning and look at the nature of the rights that were acquired. The first diversions from the Santa Ana River were done by appropriation. At the time these rights were established, the law required simply that you post a notice on the bank of the creek at the point of diversion stating your intent to divert water and the amount that you intended to divert. You also had to make public notices of it. So the original headings of the first and second canals were done by simple appropriation. And, likewise, the Warm Creek diversion was done under the same law of appropriation. Now, the first diversion didn't create any problem because there was a lot of undeveloped water in the river and the first diversion didn't create any shortage of water downstream. But the second diversion, talking now about the one near the Pellissier Ranch where North Orange used to cross the river, when that diversion was made - it interfered with two prior rights that were established there. One was the Trujillo Ditch that was on the east bank of the river and came off very near the Pellissier Ranch to serve the area along what is now the Pellissier Ranch but was then La Placita and some of the area down along the North Main Street area near North Main and Placentia. The second ditch that was involved was the Jurupa Ditch on the west bank of the river about 1,000 feet above the county line. Both of these ditches had been in operation for many years before the Riverside Colony was commenced and so naturally there was an interference with the established ditch rights down below and there was a controversy ending in a judgement in both cases against the Riverside development. In the case of the Jurupa Ditch right, which had a history dating from about 1860 or somewhere along in there, the Court decreed that they had a prior right to 300 inches of flow and that the Riverside

diversions had to be done in such a manner that they didn't interfere with the Jurupa Ditch right to obtain that 300 inches. So began, then, the free right to the Jurupa Ditch Company wherein the diversions had to be manipulated in such a fashion that they never deprived the Jurupa people of their 300 inches of water. This is a difficult thing to live with because of the daily variation in the stream and the percolation of the stream. In order to get that 300 inches at the head of the Jurupa Ditch, it was necessary to let about 1,000 inches go by the diversion point so that there would be a net of 300 inches by the time it reached the Jurupa Ditch heading. Because of this tremendous loss of water, it became rather obvious that if they were to keep the full supply of water, they had to operate differently. They entered into an agreement with the Jurupa Ditch people whereby they could operate pumps at the head of the ditch and make up water into the ditch adjusted to the 300 inches without foregoing that 1,000 inches that they could divert upstream. This was a much better arrangement because it made it possible to control the flow in the Jurupa Ditch much more carefully because with the pumps operating you didn't have the problem of the variable flow because of transpiration evaporation losses in the Creek. This carried on for a number of years whereby the flow of the river was diverted by Jurupa Ditch but augmented by flow from the wells in order to get the full 300 inches. By about 1930 the rising water in the river was disappearing so that there was very little water coming into the Ditch, which meant that the Riverside people had to then supply the whole 300 inches. Probably the last rising water that was available for diversion from the river came about 1931 or '32. From that time on, there has been practically no water available for diversion from the river at the Jurupa Ditch heading. This developed into a burdensome

obligation to continue pumping. The same thing happened with the Trujillo Ditch. The Court decreed that the Riverside interests had to provide 100 inches for the Trujillo Ditch. In this case, it was much easier for them to divert the entire river into the second canal and then make a delivery from that canal back into the Trujillo Ditch to save maintaining two different diversion points. But, in effect, it did require Riverside interests to give up 100 inches perpetually to satisfy this ditch right.

I'll group these continuing obligations together later on, so they will probably make a little more sense. Let's go back now and continue with looking at the nature of the water rights that were developed. In addition to the appropriative rights to take water from the stream, we see that the installation of pumping equipment developed a new right to pump water, in other words, a prescriptive right. This right to pump water was challenged later on in the Barton suit which came about 1904. As these wells were drilled in the Colton area and equipped with pumps and as the artesian wells were drilled in the upper area that caused some apprehension in the people upstream, they found that with the operations being carried on by the Riverside people that the pressures in the artesian wells were dropping were dropping rather rapidly and that there was a fear that they would permanently interfere with the rights of the people upstream. In the litigation that ensued, the Court held that because these people permitted Riverside to come in and develop these rights and base an economy on it, they could not cut them off without injury and decided that Riverside did, in fact, have a prescriptive right to pump those wells, and so became entitled to prescriptive right of pumped water.

In some cases, water rights were actually purchased or negotiated. As an example: there were a number of small ditches on Warm Creek that diverted water from Warm Creek up in the area east of San Bernardino. One of these was the McKinzie Ditch and Riverside Water Company did really, in fact, purchase right to the McKinzie Ditch to eliminate the burden on Warm Creek and generate a little more net water for the diversion to the canal. There were not too many of these rights that were developed by purchase negotiation. They were fairly insignificant. The prescriptive rights were challenged at different times by different groups of people, following the Barton suit the next controversy that developed over the pumping of wells and the use of artesian water to augment the creek came from the use of wells on the Walkinshaw property by Riverside Water Company. In this case, Riverside Water Company had made an arrangement with the land owner, Margaret Walkinshaw, to drill wells on her property and let the discharge of the wells flow into the creek as a means of an additional supply of water. It benefited the Walkinshaw property to some extent because it dried up some of the swamps on the property and made it usable for farm land. It also interfered with one of the neighbors, a Mrs. Katz, who alleged that because of the unusually large amount of water being developed on the Walkinshaw property it interfered with the pressure in her artesian well that supplied her domestic water, and was doing the same thing with other townspeople around in San Bernardino. As a result of the litigation that ensued, the Court determined that this was an unreasonable use of water by Riverside Water Company and because it did interfere with the rights of other people near the Walkinshaw property, that it was necessary for them to stop the release of water from the Walkinshaw wells. Thus, was born the Doctrine of Correlative Rights where it was determined

that the landowner did not completely control the land from the sky above his property down to the center of the earth, but could only occupy and enjoy that property so long as they did not interfere with the rights of adjoining landowners. From that time on, it was apparent that to enjoy the rights developed from the Santa Ana River System, there would have to be a constant effort to defend those rights against people upstream and downstream that would seek to have those rights discontinued.

The rights so developed by the Riverside Water Company through the years have been modified from time to time by various Court actions and can best be defined today by the 1969 Judgement wherein the Orange County suit was settled and also the suit between Western Municipal Water District and the East San Bernardino County District was settled. In this judgement document will be found the identification of Riverside Water Company's rights as a part of the City of Riverside's overall rights in that area. Also, in that same judgement an attempt was made to limit and define the rights of the Colton-Rialto Basin and the overall right to extract from the Riverside Basin that portion of which is in San Bernardino County, even though the rights for each individual producer were not defined, the overall obligation of Western Municipal was set forth so that if an excess of water was pumped out of the San Bernardino Basin, or the Riverside Basin in San Bernardino County, that Western Municipal would be responsible for providing replenishment water. Even the rights to pump out of the Riverside Basin in Riverside County were similarly fixed on an overall basis. The rights enjoyed by the City of Riverside that were developed by Riverside Water Company are pumped from various tracts of land that were acquired throughout Riverside Water Company's history. Some of them are fee owned parcels, some of them are only

easements to drill and pump water from the various tracts of land. As a matter of trying to set these forth, I will name them starting at the most northeasterly part of the basin and progressing southwesterly along the system. Start off with the McCurry Tract which is a drilling right only and is located south of Base Line near Sterling Street. It was along Warm Creek and there were about five or six different wells that were drilled, very small diameter wells, that were intended to be artesian wells only and discharged into the creek to augment the flow of the creek. Further down near 9th and Tippacanoe was the Poole Tract, a five acre tract that permitted the extraction of water in that area. One well was drilled there. It originally discharged into the Warm Creek channel about 300 or 400 feet north of 9th Street on Tippacanoe. The next was the Styles Tract which bordered on the north side of Warm Creek and westerly of Tippacanoe. In the Styles Tract there was, I believe, a 12 acre parcel with certain corridors around the outer edge of the tract and one through the middle of the tract where wells could be drilled. One well was drilled there and is presently equipped and delivering water into the city system. Likewise, the Poole well that I mentioned previously is equipped and is pumping into the city system today. The next tract would have been the Alfred Cooley tract which had one well drilled on it, but because of the particular arrangement made where Riverside Water Company agreed to provide 30 inches of flow to Mr. Cooley in perpetuity, it turned out to be a bad thing because the well stopped producing water and they were faced with the prospect of finding water someplace else to deliver to Mr. Cooley. So, as a means of getting rid of that burden, the Cooley property was quit claimed back to the owner along with a little cash to buy back that obligation. So the Alfred M. Cooley Tract is no longer in existence today.

The next one down the line is the E. M. Cooley tract which is between 6th Street and 9th Street and on the south bank of Warm Creek. There was one well that was drilled to produce water into the Warm Creek area and was finally equipped with a pump and is now serving the city system, also.

Next, we have the Garner Tract which is along the southerly side of 6th Street between Waterman and Tippacanoë. There are five wells on the Garner Tract. Four of them are equipped. Garner #3 was such a crooked well that it could never have pumping equipment installed and so after the artesian flow stopped, it was never used again.

Next we have the Eastwood Tract which lies a little to the east of the Garner Tract, generally east of Tippacanoë and stretching from 6th Street down to 3rd Street. In this tract, Riverside Water Company acquired drilling rights on the rear half of all the lots in the tract. One well was drilled and the water was delivered into the gutter of 6th Street where it ran down the gutter and finally reached Warm Creek but it was such a nuisance trying to get the water from this tract to Warm Creek that it was never used and abandoned. Part of the Eastwood Tract was served by a pump ^{was} that/placed in this well, and for many, many years, Riverside Water Company would carefully police that well and keep a meter reading of the amount of water that was used in the tract because they were only permitted to use out of the well for use on that one tract and not to export it to a different tract.

The next tract of land downstream would have been the Wozenkraft Tract, which was east of Waterman and north of 3rd Street. Here again, was a tract adjacent to Warm Creek but no wells were ever drilled on this tract.

Further downstream you come to the Brown Tract, which is at the corner of Arrowhead and Central, part of the Orange Show property. It lies on the westerly side of Arrowhead and slightly south of Central Avenue. There was one well drilled on the Brown Tract but it was a very low producer and never equipped with pumping equipment because it was too small. Incidentally, the name Brown was the same man that was once Mayor of Riverside, Lyman Van Winkle Brown. He bought it as a personal investment over there, for some reason, and finally sold it to Riverside Water Company.

Next we have the Paine Tract, which fronts on Waterman on the north side of the Santa Ana River just north of the City of Riverside's Warren Tract. There was one well drilled on this Tract that produced artesian water for a number of years, very hot water at a temperature of 140°. Riverside Water Company had the right to extract artesian water out of the well but it did not have the right to install pumping equipment so it had limited value. That same well is still operating today, supplying water to the San Bernardino Public Golf Course which occupies a portion of the Warren Tract and the Thorn Tract.

Coming on downstream, we have the Thorne Tract which is on the north side of the Santa Ana River west of Waterman Avenue and south of Dumas Street. This tract, I believe, was a 24 acre tract that Riverside Water Company originally owned in fee and then sold it off retaining the easements to drill and lay pipelines. Because of difficulty with tenants with that arrangements, they managed to buy it back in small parcels until they had finally reacquired the entire tract in fee.

Further downstream, we have the Rice Tract which stretched from the corner of the Thorne Tract over to South "E" Street. There were two

parts of the Rice Tract. The part that was west of "E" Street and the part that was east of "E" Street. There were a number of wells drilled on the portion east of "E" Street. They were not producing wells. They had such a miserable flow that they never even bothered to build a system to get them into the canal. There were no wells drilled on the Rice Tract west of "E" Street but the Rice-Thorne pipeline and flume did traverse through both of these tracts to get the water back to Warm Creek Canal.

About where the Holiday Inn is today, was a little one acre tract called the Deecan acre, which had some rising water on it and that did get into the Rice-Thorne flume at one time and into the Warm Creek Canal.

Further downstream about opposite the Holiday Inn on the south side of Fairway Drive was the Heath Tract, a 10 acre tract that never had any wells on it, which is on easement only. Then to the west of that is the Johnson Tract that had three wells drilled on it. Two of them were in the channel of the Santa Ana River on the south side of Interstate 10 and they were destroyed in the flood of 1938 and never re-equipped. The first well drilled on the Johnson Tract is still equipped and delivers water the canal system. The Vaughn Tract which was north of the Johnson Tract, in fact north of Fairway Drive, had one well that is still equipped and still delivers water into the canal system. Kinyon Tract was along the bank of Warm Creek between Fairway Drive and Interstate 10. One well was drilled there many years ago but it was considered nonproductive and was abandoned and later destroyed in the 1916 flood.

Downstream and along near the diversion structure for the Warm Creek Canal was the Meeks Tract, which was a fee on parcel and below that was the Mill Tract which was rather a large piece of property, something like 160 acres originally, that was partly in the Santa Ana River and

partly on the westerly bank. Further down we have the Sterling Tract where the flume wells are located and then to the west we have the Huerstel Tract which had three wells on it that delivered into the original canal heading mentioned before. Most of this tract was sold to the Griffin Wheel Company where they make wheels for railroad cars. There is still a small portion of that property remaining, but it has no particular use and if we were to drill wells on that property and equip them it would mean a very expensive pipeline to get the water back over to the Riverside Water Company Canal. ~~THE~~

The fee on parcels, as they stand today, of the Riverside Water Company water production system consists of the ^{Schenley} Shire Well Tract between 6th Street and 9th Street in San Bernardino - that was just recently purchased about three years ago. Then the Garner Tract on the southerly side of 6th Street. The Thorne Tract, the Meeks Tract and still a portion of the Mill Tract remaining. Most of the Mill Tract was sold off to the Flood Control for channel right-of-way. Likewise, the Sterling Tract where the flume wells are located was largely sold off to the Flood Control District for right-of-way but there is still some fee ownership remaining there - about 40 acres. Then Heurstel Tract that I mentioned is also a fee owned. Downstream along the canal we have the Electric Avenue property, Pal^{ar}arita well site, Cunningham well site, 1st Street and 11th Street sites. Fillwell was originally fee owned but was sold to the Food Machinery Company and is operating now on an easement only. A quick review of the operations of the Riverside Water Company will help to round out the history of the company. The operations from the beginning were fairly simple. They had a ditch tender that lived near the head of the ditch on the original diversion, to keep the dam repaired and keep the water coming down the ditch. They also had ditch tenders

that removed the mud and debris from the ditch and kept the wheels out of the ditch and also the zanjeroes that made the deliveries. The usual office crew handled the administration and billing. The revenue was obtained entirely from the water toll in the early days. No assessments were levied, the inch rate was established from time to time to cover the cost of operation. When the company was faced with the prospect of drilling more wells in the mid-twenties, it became obvious that there were a lot of land owners that had shares of stock that had never developed their land, that were just holding it for speculation. It wasn't fair to the active shareholders to put all of the burden of financing capital improvements on the water toll. So for the first time in the history of the company, they levied an assessment in 1930 to cover the cost of the capital improvements necessary to augment their water supply. At that time there 24,000 shares of stock outstanding and a great number of those were forfeit, something on the order of 6,000 shares were forfeit in that first assessment because people that had never developed the water and never really had any need for water had only kept the land for speculation, decided they didn't want to participate in the capital improvements. So they forfeited their right to receive water. A large number of these shareholders had already obtained domestic water for their property so there was no economic necessity for joining and paying the assessment for irrigation water. From that time on there was a steady decline in the number of shares outstanding because of the continually increasing assessment. It was something they could never quite forego because of the continual need to add capital improvements and also it seemed advisable that beyond capital improvements, there was items of fixed overhead that should be shared by all the shareholders and not just by the ones using water.

We find that the assessments gradually increased and the number of outstanding shares declined.

Agricultural operations were somewhat reduced with the passing of time, especially during the Depression days. There was a temporary upsurge following World War II, but then back to the steady decline. In fact the decline in shares outstanding after World War II became very noticeable, it followed a particular rate of decline that was almost constant after about 1947. Because of this decline in the number of shares outstanding, it became obvious that the remaining shareholders had to shoulder more and more of the burden of administrative overhead. The cost of maintaining shares in the Riverside Water Company was increasing every year to the point where some people decided it was no longer profitable to carry on agricultural operations. The company administration was painfully aware that something had to be done or else the company would eventually go out of existence. In order to find a market for their water, they reorganized their stock structure, with permission of the Corporation Commissioner, to issue a second-class stock to be held by individuals for wholesale delivery without being appertinant to a piece of agricultural land. By this devise, they were able to find a new market for the water to keep the company in a more stable position. In order to create a market for their water, they could see a great need to supply domestic water to the lands of their shareholders lying outside the city service area. It was conceived, as a means of finding a market for their stock, that a public utility could be organized to supply domestic water to certain lands. This was done in two cases. The first was the Highlanders Water Company that was organized to serve the area around the University.

suitable for agriculture use so the original shareholders of Daly Water Company transferred the assets of the Daly Water Company to the Riverside Water Company in exchange for the right to get Riverside Water Company canal water on their orchards. The Riverside Water, later on in 1956, set the Daly Water Company up as a public utility, made an application for a certificate to serve a particular area for the benefit of their shareholders as a means of trying to get a domestic supply for their people. However, in this case, it did not supply an additional market for Riverside Water Company rights since there was no convenient producing well of Riverside Water Company that could deliver domestic water to this area. Daly Water Company was subsequently sold to the Southwest Water Company to be added to their La Sierra system.

About 1959, when it appeared obvious that the San Bernardino Valley Municipal Water District intended to condemn the rights of all of the agencies that exported from the San Bernardino Basin, the Riverside Water Company and the City of Riverside elected to go the route of the Friendly Condemnation Suit to secure those rights for the City of Riverside rather than let them be taken by the San Bernardino people for use in their area. A satisfactory agreement was quickly reached which provided that the city acquired all of the assets of the Riverside Water Company in exchange for the assumption of liabilities of that company. No cash consideration being passed from the city to the company directly. However, as part of the agreement, the city established a market value of \$200 per share for all of the outstanding Riverside Water Company's stock, which consideration passed directly to the shareholder.

AS an alternate to a cash purchase of the shares of stock, the city also agreed to provide a downpayment of \$100 per share plus a contract which provided for continued use of the irrigation water.

.....shareholder elected to terminate the contract for the residual value. The judgement was entered May 23, 1961 and the city began operation for the benefit of the remaining shareholders and obligees and to receive the benefits of the ownership of the water rights for which transaction was made. The judgement documents contained a very complete description of all the real properties transferred to the City of Riverside from Riverside Water Company as well as a very complete list of obligations that must be continued by the city. These continuing obligations are mostly in the form of free rights that have to be delivered to various entities resulting from former negotiations and court judgements limiting Riverside Water Company's rights. I previously mentioned the Trujillo Ditch and the Jurupa Ditch rights, explaining the development of water rights of Riverside Water Company; but I'll repeat them here so that all of the free rights will be listed together. I believe the Trujillo Ditch obligation came first and it came about 1885, or somewhere in that time frame, and it was for 100 inches of water in perpetuity. The ditch had a custom of dividing the allotment of water into hours of flow wherein the entire flow of the ditch was given to the recipient for the number of hours or time that each one was entitled. This was on a recurring 11 day cycle, 24 hours a day. There would be a total of 264 hours of ditch rights. Full flow of water was provided for the Trujillo ditch from the water of the lower canal up until the time it was abandoned and then water was transferred from the upper canal through a pipeline system down to the Trujillo Ditch to carry on the obligation after the abandonment of the lower canal in 1913. The allotment of water on the hourly schedule gave rise to many problems in the distribution of the Trujillo water and ultimately most of the ownership of the ditch rights were

transferred into corporate ownership, however, not all of the interests of the ditch went into the incorporation/^{but}remained as hours of flow of the ditch outside of the corporation. Only 211 of the hours were incorporated. Part of the unincorporated rights were on the Pellissier Ranch for 14 hours. Part was on the Acquist Ranch and there was also another unincorporated right that I can't recall off hand.

In later years when Riverside Water Company was having difficulty in meeting its irrigation demands, it became obvious that these free rights should be watched rather closely and purchased whenever the possibility arose. Through the years, Riverside Water Company managed to buy a great many of these rights until finally in the early '50's they had enough to control the Board of Directors of the Trujillo Water Company and following that, they made certain changes in the By-laws of the company to limit the service area of the Trujillo Water Company and try to keep it from becoming an expanding operation. About 1953, Riverside Water Company purchased a piece of property immediately south of the Pellissier Ranch called the Williams Ranch and began to supply the Trujillo Ditch right with water from a well on that property. This was to avoid the necessity of transfer of water from the canal which had been produced from wells with a much higher pump lift than the ones on the Williams Ranch. At this time, the Trujillo right has been largely retired with the City of Riverside now owning 70% of the rights of the ditch. The remaining 30% is still being used and is supplied water from the old Garner well off Placentia Street. The principal shareholders in the Trujillo Water Company are Charles Garner, who owns property fronting partly on Orange Street and partly on Placentia Street, and his entitlement is something on the order of 40 hours, I believe. The rest of the

remaining hours of the ditch are located on North Main Street - the DeYoung Dairy, there are probably six different shareholders all in a little cluster on North Main Street just inside Riverside County.

Riverside Water Company, more or less, set the market value of the shares of stock of Trujillo at \$400 per share. However, very little activity has taken place in the purchase of Trujillo shares after the Riverside Water Company was taken over by the city. Incidentally, a share of stock entitles the holder to one hour of the entire flow of the ditch.

The Trujillo Water Company has to do its own distributing. The city is only obligated to deliver water into their system and from there on it has to be distributed by Trujillo itself or its individual shareholders. However, formerly it was a sort of a selfoperating system where each user turned on his water and turned it off at the appointed hour and because of their failure to follow the rules, there developed a number of disputes between shareholders and it seemed adviseable to begin to operate the thing by company employees so as to avoid confusion. Later on, the old gentlemen, Mr. Robinson, that supervised the distribution of water, passed away and after that time it was difficult to find someone on a part-time basis to handle the distribution of water so the city took over the actual operation of the system and annually bills the Trujillo Water Company for the cost of making repairs and handling the distribution of water. The city's expenses are accumulated under an annual work order but there is a record of the actual expenses in the way of labor, material and supplies required to keep the system operating.

The Jurupa Ditch Right, similar to the Trujillo Right in that they follow the old Mexican custom of dividing the flow up into hours of run, However, in the Jurupa Ditch, the recurring cycle is every eight days which gives

rise then to 192 hours for each half of the ditch or 384 hours total.

So, there are 384 shares outstanding in the Jurupa Ditch Company and each shareholder gets half of the flow of the ditch for one hour. All of the rights of Jurupa were incorporated from the old Mexican ditch. The Jurupa Ditch has its diversion point on the west bank of the Santa Ana River about 1,000 feet upstream from the county line and the ditch follows a contour grade from that point down along the flood plain of the river finally getting up above the flood plain of the river about where Market Street now crosses the Santa Ana River. The open ditch has been largely replaced by a pipeline for most of its length until you get down into the Rubidoux area. It has some service area on a couple of parcels near the County Dump along Highway 60, but practically all of the service area now is downstream from Mission Blvd. in the area between the Santa Ana River and Riverview Drive and southerly of Mission Blvd. Practically all of the water is used for pasture land either for horses in the recreation business or a few cattle. Riverside Water Company acquired 10 shares of the Jurupa Water Company with the idea of trying to buy up the shares and retire the right but was never successful in getting more than a very small number of shares. Other shares have been offered but have not been purchased because no agreement could be worked out with the Jurupa Ditch Company whereby the city would be excused from delivering water under those shares purchased. The cost for pumping water at the Jurupa Wells ~~EEEE~~ into the ditch ran about \$3,000 a year up until recently when power rates increased rather sharply. Probably the cost under today's electric power rates is more like \$4,000 to \$5,000. The future of the Jurupa Ditch right is rather uncertain. It appears that there is no sound economy for the use of the water but it is being used by people who keep horses for recreation purposes and sooner or later there may be some attempt to try to dispose

of the right for domestic water to the Jurupa Community Services District. However, the Service District ^{appears} ~~prefers~~ to not have enough money or capacity to finance purchase of the right and it may be several years in the future before any move is made to try to transfer the right for use of the domestic right.

There is a certain built-in deterrent for using the water for domestic purposes because the ground water is quite heavily polluted with sewage from the affluent from the San Bernardino-Colton-Rialto treatment plants that discharges to the river immediately upstream from the Jurupa Well. It is questionable if the State Health Department under the present knowledge of the hazards involved would permit water to be used from those wells for domestic purposes. So there is this one safeguard built in that will probably retard the transfer of the water for domestic use. However, the city should seriously consider the purchase and ultimate retirement of this right if it has the opportunity in appropriate circumstances.

The Ward and Warren Ditch is the third and last one of the ditch rights that Riverside Water Company was obligated to serve as a result of Court Judgements. The Ward and Warren Ditch was located on the south bank of the Santa Ana River about where South "E" Street in San Bernardino crossed the Santa Ana River. It was an open ditch following a grade contour from that point to a southwesterly direction to the land at the foot of Grand Terrace which is around the area where the BBW Restaurant is now located. The right consists of a right to divert 300 inches from the Santa Ana River for domestic and irrigation purposes. The 300 inch entitlement consisted largely of water from the main stream of the Santa Ana River but also included 80 inches from a spring that was on the Thorne Tract and when the wells on the Thorne Tract developed, it dried up the spring and interfered with the Ward & Warren's

ability to get the full flow of 300 inches out of the river. For that reason, suit was filed and the Court did recognize their right to 300 inches and provided that Riverside Water Company had to limit its operations so that it did not interfere with the 80" flowing off of the Thorne Tract or, in the alternative, had to supply water from its ditch to make up the loss. The Judgement establishing this obligation was entered about 1888.

Riverside-Highland Water Company ultimately acquired the Ward & Warren right and through the years, many agreements have been made which altered the original judgement obligation. The obligation was last amended about 5 years ago where an agreement was entered into with Riverside-Highland Water Company that provided the Riverside-Highland Water Company would pay the city for the cost of production for the water so delivered under the original obligation. The amount of 80", which I mentioned, is more precisely 78 and a fraction inches - that is usually spoken of as an 80" right.

In the 1969 Judgement that fixed the city's rights in the San Bernardino Basin, the water that was delivered from the City of Riverside and Riverside Water Company to the Riverside-Highland Water Company under this obligation was credited to the City of Riverside's production so, therefore, the water delivered added to the city's right to extract from the basin. However, during the five-year period that was the measure of the established rights, the Ward & Warren deliveries were only made on an irrigation cycle which was only about 10 months out of the year; which resulted in deliveries of only on the order of 700 acre feet that they got credit for in the extraction of water. It's possible that if Riverside-Highland demanded this water on a continuous flow, that it would require something on the order of 1000 acre feet or over, which would be a disadvantage to the city. Any possibility of purchasing this

right should be taken advantage of, however, Riverside-Highland is fairly aware of the value of their right and it is not conceivable that they would sell it too cheaply.

The Salazar and Balardi Ditch was a small ditch had its diversion on the south bank of the Santa Ana River approximately where old Mt. Vernon Avenue crossed the river. This would be about 600 feet west of the existing Mt. Vernon Avenue. The water was used for irrigation on a portion of the flood plain of the Santa Ana River along the toe of the bluff west of the Bluffs Restaurant. This obligation did not result from a judgement, rather from a voluntary agreement between Riverside Water Company and the owners of Salazar and Balardi. It seemed that the Salazar Ditch had a right to divert 600 inches from the Santa Ana River but because their diversion ditch was in the flood plain of the river it lost a lot of the water by percolation. By the time they got the water to the field they were irrigating, they had a very small stream left with a tremendous amount of sand to handle because when the stream started with 600 inches of water it carried a lot of sand in the form of bed load that tumbled along in the bottom of the ditch and as the water would percolate, it would leave less and less water to move all of the sand. They were continually faced with the problem of cleaning the sand out of the ditch or have the ditch break and run over. As a means of trying to help the Salazar Ditch problem and at the same time create a larger supply for the Riverside Water Company, this voluntary arrangement was entered into. Before the agreement was made, Riverside Water Company had to adjust their diversion from Warm Creek so that 600 inches of water would come on down the stream to the Salazar Ditch. After the agreement was made, the amount of water was

limited to 75 inches and was delivered from the Warm Creek Flume directly into the Salazar Ditch. It was good arrangement for both parties, it eliminated a tremendous maintenance problem for the Salazar Ditch people and also created an additional 500 inches of supply for the Riverside Water Company. The Salazar & Balardi Ditch was not used too extensively because the land they were irrigating was not too fertile and not too profitable and it later was bought up by the developers attempting to develop the Jurupa Rancho by the development of the North Riverside and Jurupa Canal. This did come to pass, the people that were ~~behind~~^{trying to} develop the Jurupa Ranch out in the West Riverside area did manage to build a canal and, as a means of getting a supply of water to the canal, they first developed water from springs that were really fed by the underflow of the Santa Ana River. These springs and infiltration galleries were really the forerunner of what is now the Three Hundred & Fifty Inch Water Company. The amount of water they were able to develop without interfering with the flow of the water in the river was not sufficient to do the job they had to do and they made an all-out attempt to purchase the Salazar & Balardi Ditch so that this could be used to augment their supply of water. This was done, the Salazar-Balardi Ditch was owned by a number of different individuals but the rights were all accumulated into probably two blocks of stock. This has never been quite clear to me, how this was handled. The archives of Riverside Water Company really don't disclose too much about the beginning of the Salazar & Balardi Ditch. There doesn't seem to be any continuity of title from Salazar or Balardi or any of the other recognizable shareholders in the ditch to these other people. It appears that a man names Shirley Ward, apparently he was not the same Ward that was mention previously in the Ward-Warren Ditch, he was a Los Angeles developer that was attempting to put together

the West Riverside Development. You will see a block of the ditch rights that he accumulated in his name and also there was another name mentioned and that was Harriet Fudicker. Apparently they were both involved in the same development scheme, whereby they accumulated the rights of the Salazar Ditch for transfer to ownership in the West Riverside area. Their scheme of development was that they would offer the sub-divided land into agriculture parcels with a water right and they would first of all develop the Three Hundred & Fifty Inch Right and then they developed a separate right of the Salazar free right which they parcelled off to fit the size of lot that they were putting on the market. So it turned out that the Salazar & Balardi became just the Salazar Right which was owned by a number of individuals in the West Riverside area and finally was incorporated about 1904 and 1905 into a corporation and began to operate that way very successfully. Salazar had no assets other than the right to receive water from Riverside Water Company. The water was transferred through the West Riverside Canal and delivered canal side to the owners of the right in the West Riverside area. Through the years, like these other free rights, when water became scarce Riverside Water Company set out on a policy of buying the rights whenever they were available. The right was divided up into 75 shares when the incorporation was made so that you divided the 75 inches up on a basis of one inch for each share of stock. For a number of years the full 75 inches was used very consistently in the West Riverside area. But through the efforts of Riverside Water Company with a lot of help from former operators of the West Riverside Canal System, Riverside Water Company was able to buy up these rights as different people went out of agricultural operations along the West Riverside Canal. As it stands today, the city has finally acquired all of the 75 inches back, the last of the right

was purchased back from Dr. Bravo in the last year. That right has been completely terminated.

There were three other early ditches on the north side of the river that were involved in continuing obligation. These were the Jaramillo, Agua Mansa and Meeks & Daley and they will be treated all together because they were pooled together and treated as one right. In 1886 when the Riverside Water Company diversion was moved upstream to Warm Creek, the company was faced with the problem of what to do with the ditches that would have their intake below their new point of diversion. The Jaramillo Ditch was on the north bank of the river, immediately south of the Edison Company substation about 500 feet westerly of the old Mt. Vernon bridge that washed out in the 1916 flood. It went in a southwesterly, mostly westerly, direction from that point to irrigate a small acreage south of Colton. The Agua Mansa Ditch had its heading a little further down the river and apparently from some springs that were directly south of Colton roughly in the area between the Santa Fe Railroad track and the Southern Pacific Railroad track, both branches to Riverside. When the diversion was made from Warm Creek, these rights would have been interferred with. Also the Meeks & Daley right came off of the Santa Ana River a little further upstream but still below the proposed diversion on the Warm Creek Canal. It was decided that the Riverside Water Company would build a new canal and establish a new point of diversion upstream from their proposed diversion which would give these three companies a better diversion point with a more stable supply of water and put them above so that they wouldn't be interferred with. What this meant was that the Riverside Water Company had to build a considerable length of new canal and that was all part of the agreement.

The point that they elected to use for the new delivery was on the west bank of Warm Creek just above where the San Jacinto Fault crosses Warm Creek. There was a diversion structure built there of timber to make the diversion with, the main gate and the sand gate that diverted the surplus water back into the creek. From that point a concrete lined canal followed in a southwesterly direction and gradually left the flood plain up onto a little mesa east of Colton where their service area began. The Meeks & Daley and the Agua Mansa were the two big ones. Jaramillo was a very small right, as I recall, it was only 50 inches which gave a combined flow of 850 inches for the three of them; with 50 inches going to Jaramillo and 400 each to Agua Mansa and Meeks & Daley. Somewhere along the line, the Jaramillo Right was actually eliminated and merged with the Agua Mansa and Meeks & Daley companies so it doesn't appear in any modern records. This canal wandered through the easterly and southerly portion of Colton and came around the easterly point of the Colton Cement hill, followed south of the cement plant and eventually connected up with what is now the West Riverside Canal. The Agua Mansa service area was the area south of the cement plant. This was a very costly operation for Riverside Water Company to build that concrete lined canal, set up the diversion works and in addition to this original investment they were bound to maintain that diversion for the three companies. If it washed out from a storm, they had to go back out and replace it at their cost. This carried on for many, many years. The last time that it washed out and had to be replaced was in 1943 and a few years later it appears there was an opportunity to make a property exchange. Meeks & Daley wanted to get the benefit of some water production lands that the Riverside Water Company had a right-of-way on and in exchange for the water production

easeement that Riverside Water Company had, they were excused for maintaining that diversion structure for Agua Mansa and Meeks & Daley. It was considere a good deal for both parties because Riverside Water Company really had never been able to make much use of the water production land and Temescal really needed the extra water bearing lands and decided they would take their chances on rebuilding the structure if it was ever necessary. What really happened was that they were right on the verge of losing the rising water and forever after would be faced with pumping water so the diversion structure really didn't mean much and even though Riverside Water Company eliminated it permanently, it probably wouldn't have been much of a burden to them had they remained as they were.

Nevertheless, the original agreement still stands that Riverside Water Company is entitled to the flow of Warm Creek after Meeks & Daley has taken their 850 inches out, if there is that much rising water.

Subsequently, the construction of the Lytle Creek and Warm Creek Flood Control Channels by the San Bernardino Valley Flood Control District and the Corps of Engineers has eliminated the old Meeks & Daley diversion and also the old Riverside Water Company diversion on Warm Creek so that now both of them are completely altered. If rising water should ever occur in Warm Creek, both the Meeks & Daley and the Riverside Water Company would have to pump water out of the storm channel in order to get it up to either one of the canals. However, it appears from the conditions today that neither party would ever have occasion to make diversions from Warm Creek again.

In addition to the free ditch rights that have been mentioned, there were also some obligations created in the acquisition of some of the water production easements over certain properties. One of them was on a piece of property acquired from Alfred Heap on 9th Street between Warm Creek and Waterman Avenue. In this event, Alfred Heap secured from

Riverside Water Company an agreement that they would provide him with 30 inches of perpetual flow in exchange for that right to drill wells and take water off of the property. They were sort of naïve in getting into it, neither party realized what they were really doing but what they were doing was creating an obligation on the part of Riverside Water Company to provide 30 inches of flow whether there was any water on his property or not. It soon became obvious in the early '30s that this was going to be the case, where there would be no water available on the Heap property and Riverside Water Company would have to pipe in water to fill that obligation. Negotiations were made to buy that obligation out, and it was in fact bought out and eliminated, fortunately.

On the Stiles Tract, there was an easement secured from Mr. Stiles to develop water on the property and the area that he provided this easement over was sort of a corridor around the edge of a 12 acre parcel and a strange little strip through the middle of it where Riverside Water Company could drill wells and export water but he was entitled to the first 12 inches of water out of the well for domestic purposes of the tract. However, the tract was never really developed and to my knowledge no water was ever delivered to the Stiles property as a result of that agreement; but it is part of a covenant in a deed where Riverside Water Company is the grantee accepted the Grant Deed with the understanding that Stiles would be entitled to 12 inches of the flow of that first well that was drilled. The property is within the service area of the East San Bernardino County Water District and it's not much of a threat that anyone will make a demand for that water because really it is of such a nature that you don't have to pump the water for them unless you are taking the water out for the benefit of the city. In other words, if we didn't elect to pump the water there at all and there was no

artesian flow, the property would have to develop his own water. So, I don't consider this one very damaging.

A similar arrangement was made on the Paine property, a 5 acre tract fronting on Waterman Avenue just north of the Warren Tract between the Santa River and Dumas Street. The rights gave Riverside Water Company the right to develop several artesian wells in the property and take the flow from the property. But here again, part of the flow of the first well was set aside for use on the property itself and it ^{was} ~~would~~ used for many years in connection with a laundry that was operated there. It was a natural supply of hot water, about 140°, being very soft delightful water for laundry purposes. However, with the disappearance of artesian pressure in the area, the well had to be equipped with a pump for the benefit of the overlying landowner. Riverside Water Company has made no use of the property since back in the early '30s. The well today has become the supply for the San Bernardino Public Golf Course, which is constructed partly on the Warren Tract and partly on the Thorne Tract.

The Eastwood Tract is quite a large tract to the east of San Bernardino being between 6th Street and 3rd Street and lying easterly of Tippacano. It was not a continuous tract of land, it was a subdivision wherein the subdivider agreed to give Riverside Water Company the right to drill on the rear half of all the lots in the tract in exchange for cash and also in exchange for water from the first well for use on the tract. Riverside Water Company did drill a well and equipped it and pumped water out of the well even with a pump to try to get water over to Warm Creek but it was so far away from the creek and so much of it was lost in getting it there and running along open ditches that they abandoned it. Never made very much use of it. The well is apparently still being used to develop

water for the little mutual water company that serves a portion of the tract, but the city is not obligated to produce water for them. Only would they be obligated if they would take water from the tract. That concludes the list of free ditch rights and obligations in connection with water production parcels. However, there are still continuing obligations to serve the water users in the service area.

These consist of a few remaining shareholders, a larger number of contract holders that were formerly shareholders that took a city contract and then there are the wholesale contract users that still have a right to receive water. They are the City of Corona that succeeded to the Temescal 650 inch wholesale contract and the Southern California Edison Company which succeeded to the old California Electric Company's contract.

The City of Corona would like very much to be able to take water under the contract but haven't as yet worked out an arrangement whereby they can take direct delivery for domestic use out of the canal and at this point it is not certain what arrangements they will make to either make use of the contract or retire it.

The Edison Company has not made use of their contract for many, many years and apparently are holding it as an insurance policy in case they need an extra supply of water in an emergency. ~~XXXXXXX~~

Even though both of these contracts represent a potential demand on the city's supply of water, there is some slight advantage in having these in that they both pay us a substantial amount into the city as an equivalent of a shareholders assessment.

In the case of the City of Corona, their rights were originally based on a certain number of shares. However, when Riverside Water Company was condemned by the City of Riverside, the Temescal Water Company -

the then holder of the right was afraid that in future years it would be difficult if not impossible to adhere to the mutual water company basis of accounting and for that reason they elected to modify the contract to provide a means of escalation so that they would be treated fairly in future years. The basis of the contract was 3600 shares of stock that at the time of condemnation was paying \$9.00 per share per year as an assessment. Under the modification of the contract, there was an escalation provision for taking into consideration a change in the cost of living and this escalation index was selected as the 20 cities' average from the Engineering News-Record publication thinking that this would be the fairest indication of the change in cost of living either up or down. The index has really worked out very much as expected. The terms of the contract with Corona require that under the present conditions that Corona transfer to the City of Riverside about \$100,000 per year even though they don't use water so there is that benefit coming from that particular contract.

In the case of the Edison Company contract, it was based upon a smaller number shares of stock, 1250 shares of stock. In their case, they didn't elect to modify the contract and it operates just the same as it did with Riverside Water Company where Riverside computes an assessment based upon the operating costs of the system and levies that assessment against any remaining shareholders and the Edison Company since they still are the holder of the contract based upon shares of stock. In their case it turns out to be, as I recall, about a little less than \$12.00 per share per year on that 1,250 shares of stock equivalent.

Completely apart from the water delivery obligations that I have mentioned, there is one other obligation that has been somewhat troublesome to the Riverside Water Company and the City Water Department and that is the

carrying of storm water in the canal. The original development, in an attempt to improve the properties that they were putting on the market, decided to intercept storm water in certain areas and let the canal carry it to some convenient area of disposal as a means of improving the land that they were putting on the market. Throughout the years it has served a very useful purpose, but it has been an additional burden on the water delivery system to handle storm water. A great many improvements have been made within the city area to construct new storm drains and reroute water to take some of the burden off, but there are still some areas in the city that are burdened with handling storm water and there are still some areas outside the city in the county area that must handle storm water. Notably among these is the San Jacinto storm ditch which has a drainage area running westerly from the Lake Mathews Dam down into the valley floor into the canal. It seems that this particular storm ditch was altered by the San Jacinto Land Company back in the early days when they were trying to develop some orchard lands. This resulted in damage on one occasion to some landowners that filed suit and got a judgment that required the San Jacinto Land Company to maintain the ditch down to the canal where it could not break out and flood the lands of these people that had been damaged. So for many years the San Jacinto Land Company was obligated to maintain this ditch and not let it get out of bounds and keep it in a condition to carry water down to the Riverside Canal. In the early '40s it appeared that the San Jacinto Land Company was going out of business and there was nobody to look after the ditch. It appeared that they wanted to do the right thing and the San Jacinto Land Company agreed to put up \$10,000 to Riverside Water Company to maintain that ditch with, which was intended to be adequate to maintain the ditch for a few years until

the Flood Control District of Riverside County could be formed and be organized to handle such problems as that. The Water Company did take over the obligation and, in fact, the City of Riverside is still obligated to maintain that ditch as a part of that continuing obligation because the Flood Control District has consistently refused to take over the maintenance of it and provide flood protection in that area.

Providing capacity for storm water in the canal has not been a great financial burden to Riverside Water Company and the city in past years but it does require a lot of extra work during storms to route the water and creates certainly a potential liability if there is escape from the ditch causing damage to adjacent property. If there is an opportunity in future years to eliminate the storm water from the canal it certainly should be pursued so that when the canal is no longer used for irrigation it will not have to be maintained for a storm water ditch by itself.

Through the years, Riverside Water Company found itself involved in arrangements with other companies that provided certain benefits to the Riverside Water Company in the way of limiting some of the actions that other companies could take in our field of operation. Some of those should be remembered so as to not loose the benefit of some of these limitations.

Riverside-Highland Water Company entered into an agreement with Riverside Water Company to put a limit on their operation to provide some stability to prevent litigation between the two organizations. Because Riverside-Highland operates in several areas that we operate, it's well to point these out. They entered into an agreement, about six years ago or more, whereby they agreed not to produce, ~~xxxx~~ in the aggregate, more water from all of their sources than they produced in the year 1961

which was a long dry year and which represented what might be a maximum year on the climatic cycle. Concern was chiefly in the Colton area around the area of the flume wells. Riverside-Highland drilled one well not too far away from the flume wells on the easterly side of the Santa Ana River channel and slightly north of Washington Drive. Nevertheless, by coming in there with a new well in later years it did put an extra burden on the basin so in our discussion with them they agreed that they would so limit their production from all of their sources so as to not exceed the 1961 production. Certainly, they are entitled to some flexibility where they could transfer from one to the other but we didn't want them to be able to keep on expanding their service area at the expense of overdrawing any one of the basins from which they are operating. Also, they were not supposed to be drilling wells in Riverside County. Their sphere of influence was supposed to be around the area just north of the county line where they have a well on California and the county line. By inadvertance, they did drill two wells in Riverside County on the south side of Spring Street between California Avenue and Mt. Vernon Avenue. When it was pointed out to them that they had drilled and equipped these wells in violation of the agreement, they were somewhat dismayed that they had inadvertantly done this but because they had spent a sizable amount of money on pipelines and drilling and equiping the wells, they asked that they be permitted to continue those but not to be permitted to drill any others. They were allowed to continue those wells there but in exchange for that privilege of keeping those wells there, they also agreed to pay for the cost of the Ward & Warren right which had previously been a free right. I mentioned that before in the free right obligations. So, all together,

they have four sources of supply. They have a well field in the upper basin in the Lytle Creek area, they have a well field on the south bank of the Santa Ana River just barely in the San Bernardino Valley Basin which is just across the river south of the Thorne Tract, and they have wells in the Colton area which is in partly the Riverside Basin north and partly in the Colton-Rialto Basin and then they have the well field just mentioned down in the Riverside Basin that provide their total sources of supply. From time to time their total production should be scrutinized to make sure that they are living within their 1961 limitation.

Meeks-Daley Water Company also encroached into our area of operation in the Rialto Basin by drilling a well on the west bank of Warm Creek between Fairway Drive and Interstate 10. This was done when the rising water in Warm Creek began to disappear back in the mid '50s and they were not able to get their total entitlement of gravity flow. The operation of the well they drilled which they designated Station 36 definitely interferes with the water level in the Vaughn Well and the Johnson Well. To avoid litigation, we allowed them to maintain their well but they agreed they would not run the well except when they were unable to get their full 850 inches from Warm Creek or other wells in the San Bernardino Valley Basin. Although we have not watched this very closely in the past, because of our excellent relations with Meeks & Daley, it is a consideration that we shouldn't forget in case it becomes a bargaining weapon that we need to use sometime in the future. As it stands now, our entitlement out of the Colton-Rialto Basin is only 2400 acre feet and any interference that they could make with this would be very minimal. I think it is best that the right not be invoked or the limitation not be invoked unless it really is necessary as a tool.

There are certain limitations on the activities of the San Bernardino County Flood Control District that should be pointed out also. When the Norton Air Force Base was developed back after World War II, the channel of City Creek was developed straight through to the Santa Ana River to avoid flood damages to Norton Air Force properties. In so doing, they eliminated flow in the old channel of City Creek which provided a substantial amount of percolation in the coarse gravels of the City Creek cone into the basin. Because we protested the diversion of City Creek through an unnatural channel into the Santa Ana River, they agreed by a letter that they would pass the first 252 feet of flow in City Creek through the old channel so as to provide that natural percolation that we had always enjoyed from City Creek. This has been quite a heavy financial burden on San Bernardino because it is very, very difficult to keep the old channel of City Creek open and carrying water because of the tremendous debris load that it deposits. A very substantial amount of coarse clean sand comes out with the first 252 feet so they are continually trying to keep that channel clean when there is water in the creek, but they do it willingly and cheerfully, but from time to time it is necessary to take a look when there is flow in City Creek to see if they are following that obligation. This is of great value to us, it helps replenish the water in our well fields in the upper basin.

When the Twin Warm Creek Channel was constructed down through the easterly part of San Bernardino, here again, the flow in Warm Creek was diverted from its natural channel into an artificial channel directly into the Santa Ana River, which deprived the Riverside Water Company and the other producers in that lower end of the basin of some percolation that occurred in the channel of Warm Creek. To compensate for this they

built a by-pass channel from the Twin Warm Creek Channel just above Mill Street and piped it back over to the old channel at Warm Creek at the corner of Arrowhead and Central Avenue. They have the same problem here in trying to split off the first 252 feet of flow in that concrete channel they get a tremendous amount of sediment and trash that plugs the outlet up and creates a real maintenance problem. They do the best they can to keep it open. They have also provided off-channel spreading grounds down in the old channel of Warm Creek below the Inland Shopping Center where this water can be percolated to a good advantage.

One more area where the Flood Control District in San Bernardino is involved is in the main channel of the Santa Ana River. The portion of the Sterling/^{tract}that was sold by Riverside Water Company to the Flood Control District for the channel of the Santa Ana River

(change tapes)

in practicing their water spreading operations to replenish ground water around the flume wells. When the channel area was sold to the Flood Control District the right was reserved to practice water spreading in the channel area providing it didn't interfere with the maintenance of the channel for flood control purposes. Since the channel area has been improved by the Flood Control District, we have had not occasion to go into the channel area to practice water conservation purposes because the Flood Control District has done a very excellent job of trying to maintain temporary spreading works in the channel for the benefit of all the downstream users. However, should it become necessary in the future to step in and conduct specific spreading operations for our benefit, we have that privilege.

Riverside Water Company and the City of Riverside entered into several agreements providing for the carrying of storm water in the Riverside Canal. These agreements provided, among other things, the right for Riverside Water Company to discharge waste water from the canal at Spring Street which goes into Spring^{brook}broken and into Fairmount Park. Also, after the 12th Street Canal was deeded to the City, Riverside Water Company retained the right to dump waste water at the 11th Street turn-out into the 12th Street Canal which goes into ~~TEXNHX~~ Tequesquite storm drain. Also, at the 15th Street wasteway, the Riverside Water Company had the right to dump water at that point which goes into the Téquesquite storm drain also. Further downstream, the agreements provided that the canal could be dumped at Washington Street which goes into the Washington Street drain and thence into the drain system that discharges into the Santa Ana River near Grand Avenue and Jurupa. Also, there was the right to discharge water at Monroe Street which goes into the Monroe Street storm drain thence through Hole Lake and the Santa Ana River. These rights are still in effect and provide/^{that}the Utility Department may continue to dump these waters into the city owned storm drains under the control and operation of the Public Service Department. More recently, there have been other storm water outlets provided by mutual agreement. At Jefferson Street a few years back, in the development of drainage work to serve the Auto Center a connection was made to ~~xxxxwxkx~~ ^{un-water?} the canal at Jefferson Street into the Jefferson Street storm drain which goes down to California and then in to the Monroe Street storm drain. Also, just downstream from Harrison Street, a wasteway was provided to dump into the natural drainage way and into the concrete channel that goes down the natural drainage way to the Santa Fe Railroad track; however, the developed ditch

doesn't go all the way down to the Flood Control District's Arlington Storm Drain, it meanders along the Santa Fe Railroad right-of-way in a unlined earthen ditch on the Santa Fe right-of-way and could cause problems with the railroad company although Riverside Water Company blanket easement takes precedent over their right-of-way and probably there would never be any damage suit as a result of dumping water into this Harrison Street wash. Now that the city has acquired all of the Riverside Water Company's assets, these rights to discharge storm water really are rights for the utility department to discharge into the Public Service Department's channels but they are still of some substantial benefit to the Utilities Department as a means of getting wastewater, storm water out of the canal and to prevent excessive maintenance costs to the Utility Department.

Chapter IV - Administrative Operations that must be continued.

It was the custom of Riverside Water Company to levy an assessment to cover the cost of fixed overhead and capital improvements. In 1961 when the company was acquired by the city the company had levied two assessments of \$4.50 each making a total of \$9.00 for the year. One assessment was levied early in the spring and the second assessment was levied usually in September. This practice was followed under city operation. The assessment apply only to outstanding shares of stock and to share equivalents under the wholesale contracts. These contracts were issued some time ago by Riverside Water Company in lieu of shares of stock since they covered wholesale deliveries and had to be treated differently than shares of stock.blank space.....

worked out with Joy Jameson of Temescal Water Company where he acquired shares of stock from lands that were never developed and never used irrigating water under the Riverside Water Company system. He accumulated

quite a few of these shares of stock and then requested that the Riverside Water Company deliver water under those shares of stock. The company was very reluctant to do this and, in fact, refused to do it because they could see that it would be a dangerous operation to permit water to be taken outside of the company's service area and have a lot of power exercised in the operation of the company by an outside interest. Their plan was simply to transmute the stock into a contract where the contract holder would pay assessment on the number of shares originally transmuted into the contract. The contract holder would not have the right to vote and control the affairs of the company. Also, the area where the contract was to be made appertinent would have to be included in the company's service area. This was done in the case of Temescal. The original contract was amended several different times. I believe the first one was issued back in the early '30s and then it was modified by adding more to it some time in the mid '50s and was modified a third time to get it from the original amount up to a total of 600 inches which was based upon 3600 shares of stock. The other contracts were patterned very much after the Temescal contract and, in effect, provided a way to sell wholesale water to other agencies as distinct from having it appertinent to a particular piece of property. There were several of these contracts entered into. The Hole Ranch, W. J. Hole, had a small one for 300 share equivalents which provided him 50 inches of supplemental water. The California Electric Power Company was given a contract on 1250 share equivalents which entitled them to 125 inches. You will note that there is a difference in the duty of water. Agricultural water was a little different, it required six shares for one miner's inch and the industrial type contract for

Cal Electric the rate was 10 to 1 and required 10 shares of stock to get 1 inch of water. There was also a small contract issued to Arlington Mutual for 102 shares. There was also one contract issued to the Gage Canal Company for 600 shares providing them with supplemental water in the amount of 100 inches. The total shares of stock and the contract equivalents under these water right contracts totalled about 18,223 shares altogether. This total of 18,223 is the amount that has to be used to determine the assessment per share. The procedure for computing the assessment is set forth in a worksheet that Terri Walschmidt has in her files. Briefly, this is the way that it is done. The variable costs for producing and delivering water are paid for by the water toll, the inch rate. It is designed to recover the cost of the power to pump and the labor and the labor to distribute the water. The water toll is first calculated based upon the projected inch rate and the estimated amount of water to be delivered in the ensuing year. Then this amount is subtracted from the estimated total operation cost for the Riverside Canal System. Then that remainder is divided by the 18,223 share and share equivalents to come up with the amount of the assessment per share for a whole year. Then that is split into two separate assessments, one in the spring and one in the fall.

The Cal Electric contract, which has now been acquired by the Edison Company, is the only remaining outstanding contract. The Temescal contract was renegotiated in 1961 and follows a different pattern of payment. There are only a very few shares outstanding since most of the shareholders elected to sell their stock to the City of Riverside and take back a special irrigation contract when the city acquired the Riverside system in 1961. The present number of shares outstanding that this assessment will apply to is something on the order of 90 shares. This assessment

calculation is somewhat complicated since the city does not assess itself. Neither does the city pay a water toll, an inch rate, for the water that it produces from Riverside Water Company wells. To compensate for this, the variable expenses of Riverside Water Company does not include power to pump water received by the city from their company wells and does not include labor and repairs for that water so pumped. The intent of the assessment calculation is to find a figure that truly represents a pro rata share of canal operation and maintenance to the remaining shareholders and share equivalent holders. The annual assessment in 1961, the time the city took over the system, was \$9.00 per year as compared to the last assessment of something over \$11.00, practically \$12.00. This comparison indicates that the shareholders have certainly been treated fairly when you consider the terrific inflation that has occurred since 1961.

The annual Income and Expense Statement for city operations shows the results of the operation for the irrigation system. But this figure has to be used very carefully in making the assessment calculations because it has a number of expenses and incomes in there that are not really a true part of Riverside Water Company operations. As an example, the service charge levied on the individual contract holders is a subsidized rate that was guaranteed by the city. Also, the Income and Expense Statement includes expenses for the East Riverside system and the Twimⁿ Butte System and therefore has to be corrected when making the Riverside Water Company assessment calculations. It is the intent of the assessment calculations to arrive at a figure which is truly representative of the mutual water company cost of operation to the shareholders which is based upon a pro rata share of those operating costs. After the assessment calculation has been made, it is then necessary to have the Board of Public Utilities levy the assessment and send a written notice of the

assessment to all shareholders of record. The assessment notice should conform to the requirements of the Corporation Code with specified elapsed time between the time of the levy, the delinquency and the forfeiture. It has been the practice of the city to permit redemption of shares forfeit for nonpayment of assessment, under certain extenuating circumstances. However, there have been very few forfeitures and only a couple of requests for redemption since 1961.

The inch rate for water delivered must be determined each year for the remaining shareholders. In the past it has been set to be equal to the rate specified in the contract with the individual former shareholders who have city contracts. The irrigation contracts provide for an annual adjustment depending upon the cost of power and taxes and results in a cost of water which would be very close to a break-even rate as provided under a mutual water company operation. The inch rate for shareholders and contract holders has been remarkably constant since 1961 up to the end of 1972 when power rates began to climb. The increased cost of power has caused a noticeable increase in the inch rate in 1973 and 1974. It has been the practice to have the Board of Public Utilities approve the inch rate as it is adjusted each year.

The Temescal 350 inch contract requires some very complicated adjustments annually, both for the assessment equivalent and the inch rate. When Riverside Water Company was acquired by the city in 1961, Temescal Water Company was afraid that, because of the city operation, it would no longer be possible to keep mutual water company accounting and therefore, they wanted some means of providing an adjustment that they could rely upon to be fair. The contract was, therefore, renegotiated between the Temescal Water Company and the city and the provision was made in the contract to adjust the assessment equivalent each year depending upon a particular

index. The index selected was that published by the Engineering News Record and called "Twenty Cities' Average Labor Index". The adjustment factor then becomes the current Engineering News Record Index over the 1961 index, and in general, has provided roughly a 5% increase each year in the assessment equivalent. The Twenty Cities' Average Labor Index is published monthly in the Engineering News Record magazine and it is necessary to take the 12 monthly figures and get an average for the year to make the adjustment with. Also, the inch rate for water delivered must be adjusted annually. This adjustment will depend upon the cost of power, the cost of taxes, ~~XXXXXXXXXXXX~~ plus a fixed increment of cost. The billing under the Temescal Contract is somewhat complicated in that the current billing is estimated from the previous year's Engineering News Record Index, and must be adjusted annually when the index for the current year is available. ~~XXXXXXXX~~

Some of the operating facilities of Riverside Water Company were located on easements rather than fee owned rights-of-way. Therefore, it is necessary to make property declarations each year to the assessors in both counties to advise them of any change in the asset value. In San Bernardino County, because of the water rights tax it is necessary to report the water production for the previous calendar year. Incidentally, these declarations are usually filed in the month of March or February. As a matter of giving them a handle on the amount of water to be taxed, they have agreed to make the current year's tax based upon the previous year's production. The forms are usually sent out in the month of January for making these declarations.

As mentioned earlier in the report, the Riverside-Highland Water Company became the successor to the Warden-Warren free right. This right has been amended from time to time by mutual agreement and, at present,

Riverside-Highland is required to pay the city for the cost of producing water that is delivered to them under the Warden-Warren right. The agreement provides that Riverside-Highland must pay the cost of production, cost of labor for pumping and for the cost of lubrication and minor repairs, for producing the water from the Thorne Tract to which they are entitled. In recent years, the pump lift on the Thorne Tract has been fairly high and has resulted in a cost of production to the city which is somewhat higher than the cost of production under the Riverside-Highland system. For this reason, they have not taken water under the Warden-Warren right until just recently when their water demands required that they take all the water they can get under their entitlement. It appears that from now on they will be taking their full entitlement under the Warden-Warren right so this bill will have to be rendered every year. In the past, the bill has been computed by a pro rata method. For example, on pumping labor it was considered that the pump operator serves in that area a certain number of wells. The wells that are operated on the Thorne Tract for the benefit of the Warden-Warren right probably at the present time only number about two wells, so the labor is allocated on the ratio of the two wells to the total number that the pump operator services. The cost of minor repairs has to be accumulated under the various work orders that are written and they will consist of repairs to the electrical panels, to the pump itself or to the structures around the well or any pipeline repairs that have to be made. The cost of lubrication is very nominal and is usually just thrown in for a couple of bucks or so because they require such a little amount of lubrication oil. The power is an easy thing to accumulate since all of the wells are individually metered that produce the water for Riverside-Highland.

History of Twin Buttes Water Company -

The Rancho La Sierra Sepulveda was a grazing land grant with very little development on it. The owners apparently borrowed money back in the early days from a W. J. Hole who eventually had to foreclose and repossess the property in satisfaction of the mortgage. He held the property for a number of years and then in an attempt to put it on the market and get his money back out of it, he devised a plan of development where he sought to create different types of development. One, to divide it up into agricultural lots for individual ownerships and; two, to create a townsite with residential lots. To do this, he needed a water supply for his agricultural operation and also for the residential development. The Arlington Mutual Water Company and the Twin Buttes Water Company were both organized and formed to provide irrigation service to his land he sought to develop and put on the market. The Twin Buttes system was intended to serve the southwesterly portion of the ranch property. The Arlington Mutual was intended to serve the area more to the northeast around the area which is now Arlington, from Arlington on up into the region around the airport. Twin Buttes system originally consisted of one well on Magnolia Avenue between Pierce and Buchanan which is known as the Twin Buttes Magnolia Well or #1 well. This well produced water which was transported through a pressure pipeline from the well site to the Twin Buttes Canal up at a higher level which runs roughly through the La Sierra College property and then in a northeasterly direction up to Arlington Avenue. After the Twin Buttes system had been in operation for a few years, it became obvious that the water from the Magnolia well was saline enough to cause problems in the agricultural operations. The salinity was such that it was not desirable for certain types of crops, notably citrus. To correct this problem, some wells were drilled on the south bank of the Santa Ana River to provide a better source of

water to dilute the water from the Magnolia Well. This worked fairly well for a number of years, but because the wells were very shallow and in the flood plain, they were subject to frequent damage by storm and were abandoned in favor of another new well that was southwest of the Colton Cement Plant on Agua Mansa Road. Water from this well was pumped into the West Riverside Canal and transported through the canal through the Pedley lateral and discharged into the Twin Buttes pipeline in Pedley where it was carried across the river on a trestle and connected with the original system. To further augment their water supply, shares of stock were purchased in the La Sierra Water Company which was a mutual water company with water production facilities in the area south of Colton between La Cadena and the Southern Pacific Railroad track on the south bank of the Santa Ana River. Water from the La Sierra Water Company was transported through the West Riverside Canal through the same pipeline to serve the Twin Buttes area. After the La Sierra community was annexed to the City of Riverside, the decision was made to acquire Twin Buttes system as a means of securing their water supply for eventual domestic use. In negotiating for the acquisition of the system, the Twin Buttes attorney recommended that instead of going through the usual route of condemnation, the transfer of assets to the city should be handled by distribution upon liquidation. This method offered some tax relief to the shareholders of Twin Buttes Water Company and was, therefore, pursued. It was a very complicated method of transferring the assets. Fundamentally, it required agreements between the city and the various shareholders wherein they would transfer a certain percentage of their shares to the city. There were two classes of shareholders in Twin Buttes. There was a large block of shareholders

that were actively using water and a fairly large block of shareholders that were not using water. The ones who were actively irrigating transferred a portion of their share of ownership to the city in exchange for a cash payment and a contract to continue delivering irrigation water. The shareholders who were not irrigating transferred a portion of their ownership to the city in exchange for a cash payment. The percentage of shares transferred to the city then entitled the city upon liquidation of the company through distribution of certain assets which were defined as the water production system and the water distribution system, in other words all of the physical assets of the water system itself, however, the percentage of shares retained by the two classes of shareholders entitled those shareholders to distribution upon liquidation of certain other assets, namely some real property that was retained by the company that was not useful to the production and distribution of water and certain other liquid assets. When the acquisition was complete in 1967, the city hired the two employees that were formerly with Twin Buttes Water Company and commenced operating the system in exactly the same way that it had been operated before the acquisition. The supply to the system consisted then of water from the Magnolia Well which was used on a limited basis plus the Agua Mansa Well which was the principal supply, and was supplemented from time to time with water from the La Sierra Water Company through the West Riverside Canal. The Twin Buttes system, being almost entirely citrus, operated on fixed schedule. The trestle across the river that carries water from the Agua Mansa Well and the La Sierra Water Company supply is subject to destruction by storm water in the river and has had some difficulty on two occasions since the acquisition of the system. The trestle had to be repaired. Also the cost of transporting water through the West Riverside Canal is quite expensive in that there are relatively few shareholders in the canal to share the burden of keeping the canal in

operation. The assessments paid to the West Riverside Canal Company are currently slightly in excess of \$12,000 annually. This annual cost coupled with the cost of repairing the trestle has led to the consideration of an alternate method of getting water to the Twin Buttes service area. The water rights established in the Agua Mansa Well could be relocated a little further upstream to other wells owned by the city acquired from the Riverside Water Company and the water thus produced could be transported through the Riverside Canal as far as a point between Pierce and Buchanan Street where another pipeline could be made to connect the Riverside Canal to the Magnolia well and by that devise the West Riverside Canal could be abandoned and eliminate the potential of having the trestle washed out and also reduce somewhat the annual expenses of operating the Twin Buttes system. The economics appear to favor the abandonment of the Agua Mansa Well and the construction of the connecting pipeline from the Riverside Water Company Canal to the Twin Buttes Magnolia well.

The irrigation contracts for the users in the Twin Buttes service area provide for an automatic escalation of the assessment each year. The contracts run until almost the year 2000. There has been very little subdivision of the Twin Buttes service area and practically none of the contracts have been surrendered since the system was acquired. The income from the water users in the Twin Buttes service area appears to be adequate to meet the cost of operating this system. One of the assets acquired with the Twin Buttes Water System was shares of stock in the West Riverside Canal which entitles the city to transport water through the canal to the Twin Buttes service area. For this reason, it is necessary for the city to be represented on the Board of Directors of the West Riverside Canal and participate in the management to try to keep the costs as reasonable as possible and to insure that the canal will operate and

transport the water for the system so long as it is necessary to do so. If the alternate method of serving the Twin Buttes service area as mentioned above should be adopted, then it would no longer be necessary to hold shares of stock in the West Riverside Canal Company and participate in its management. However, the shares have no market value and they would just simply be forfeited if the alternate method is adopted. The only other conceivable use of the West Riverside Canal would be to transport surplus water from the State Aqueduct in the winter time and discharge it into some gravel pits along the course of the canal where it could be percolated and recaptured by pumping at a later date. However, this presents some problems in trying to pursue this use of the canal. It would require acquisition of the gravel pit areas, it would also require a very high capital expenditure for a pipeline to connect from the State Aqueduct connection where it crosses the Santa Ana River at Colton in order to get the water into the Riverside Water Company Canal where it could be transferred into the West Riverside Canal.

East Riverside Water Company

The East Riverside Water Company was acquired in 1966 shortly after the Gage Canal was acquired by condemnation and the only assets that the East Riverside Water Company had was the right to receive water from the Gage Canal Company. It has no assets other than that water right plus its distribution system that delivers water from the canal to the various shareholders. The acquisition agreement provided that the shareholders of the East Riverside who wished to continue irrigating would be offered a contract which would supply the same quantities of water that they received under the company operation for a price stipulated in the contract which was to be automatically adjusted each year to compensate for the inflationary trend. Practically all of the shareholders accepted the

irrigation contract as a means of continuing their agriculture operations except for the University of California at Riverside, The San Bernardino Valley Municipal Water District and a couple of small owners. Because the contract has a termination date beyond which no guarantee of water delivery will be made, the University of California could not accept those conditions and wished to continue as a shareholder with their right unaffected by the condemnation because their agriculture operations were really of a more permanent nature. The San Bernardino Valley Municipal Water District, of course, wanted the water for their own domestic consumption within their district boundaries and found that the contract would not be of any value to them, so therefore, they retained there share ownerships.

The East Riverside Water Company system was operated through an agreement with the Gage Canal Company to handle the distribution of water in their distribution system. This was a convenience to East Riverside since their operation was too small to justify having a full crew, seven days a week, to handle the distribution of water. After the system was acquired from East Riverside Water Company, the city by agreement with the Gage Canal Company, had them continue this same service to make the distribution of water and keeping the pipelines in repair. The East Riverside Water Company right originated from deeded rights from Mathew Gage to certain individuals who later organized their rights into the East Riverside Water Company. The magnitude of the right was 695 miner's inches and at the rate of 5 shares to the inch, it gave rise to about 3475 shares of stock, that's not exact but fairly close. Before the acquisition by condemnation of the East Riverside system, the city was a shareholder in the East Riverside Water Company by reason of having purchased some of the Eastside companies

back in 1913, which had East Riverside Water as their source of supply.. However, the city sold some of the shares of stock with the passing of time and also traded some of its East Riverside shares to the Gage Canal Company as a means of securing potable water directly from one of Gage's wells. This exchange involved trading 450 shares of East Riverside to Gage for 600 shares of Gage which provided the same delivery of water directly from one of Gage's wells that was suitable for potable water. This exchange has worked out very well and continues to work very well although it has created a small complication in administration. It must be remembered that the Gage Canal Company has to be billed for the equivalent of the East Riverside assessment each year.

After the acquisition of the East Riverside system, the San Bernardino Valley Municipal Water District was notified that there would be no further assessments levied on their stock since the city did not intend to deliver water under those shares of stock.

It is necessary for the Board of Public Utilities to levy an assessment on the remaining shareholders of East Riverside which consists of the University of California and a couple of small owners and this assessment has been made to be identical with the amount due under the irrigation contracts since the irrigation contract annual amount very closely approximates the cost of operating the system would be equivalent to a break-even rate under the mutual water company concept.

Gage Canal Company

The Gage Canal Company was acquired by condemnation in 1965. The assets acquired included only those assets that were necessary for the production of water, transportation and distribution of water. It did not include the office property and certain fee owned lands near the headworks that

were not used for water production. The company also retained ownership of a portion of the Mockingbird Canyon Reservoir property which consisted of the property upon which the employee residences are located near the reservoir and also a narrow strip of land fronting on Jackson Street that could be developed in residential lots at a later date. The city took title to these assets subject, however, to prior free right obligations to a portion of the water rights and also carrying out obligations in the canal. The free rights consisted of the East Riverside obligation which originally consisted of 695 inches which had to be delivered at canal side without any compensation for the cost of pumping the water. The 695 inches was reduced to 605 inches by the transfer of shares of stock owned by the City of Riverside in East Riverside Water Company to the Gage Canal in exchange for shares to provide an equivalent amount of water from the Gage Canal system. The other free right obligation was the Hunt & Cooley right which requires the delivery of a stream of water to the Cooley ranch properties east of Colton. The Hunt & Cooley right provides for a higher rate of flow to be delivered during the winter months than in the summer time and it averaged out to be about equivalent to a 45 inch stream. The carrying right obligations in the canal consist of a right to the University of California in the amount of 125 inches. Also to the Alta Mesa Water Company in the amount of 216 inches and to the Temescal Water Company in the amount of approximately 600 inches. However, these carrying right holders must pay their pro rata cost of canal maintenance for carrying the water. The free water right obligations and the carrying right obligations of Gage Canal are very well set forth in the document prepared by the Gage Canal Company during the course of the condemnation. This review of the development of the Gage Canal Company very adequately describes the creation of these free

water rights and the carrying right obligations. Anyone wishing details should refer to this document which was prepared by Stewart Mallack working for the Gage Canal on a special assignment to prepare this review. Even though the city owns the operating property of the Gage Canal, including the water rights, the actual operation of the system is conducted by the Gage Canal Company under an agreement which was a part of the judgement document. According to the operating agreement, the city receives water in accordance with its share entitlement and also has the privilege of taking extra water at the cost of production. However, the extra water taken by the city must not interfere with the basic entitlement to water by the remaining shareholders. The city's only control over the management of the Gage Canal comes through their exercise of their voting rights as a shareholder. The city is the largest shareholder in the Gage Canal Company and currently owns about 2700 shares of stock.