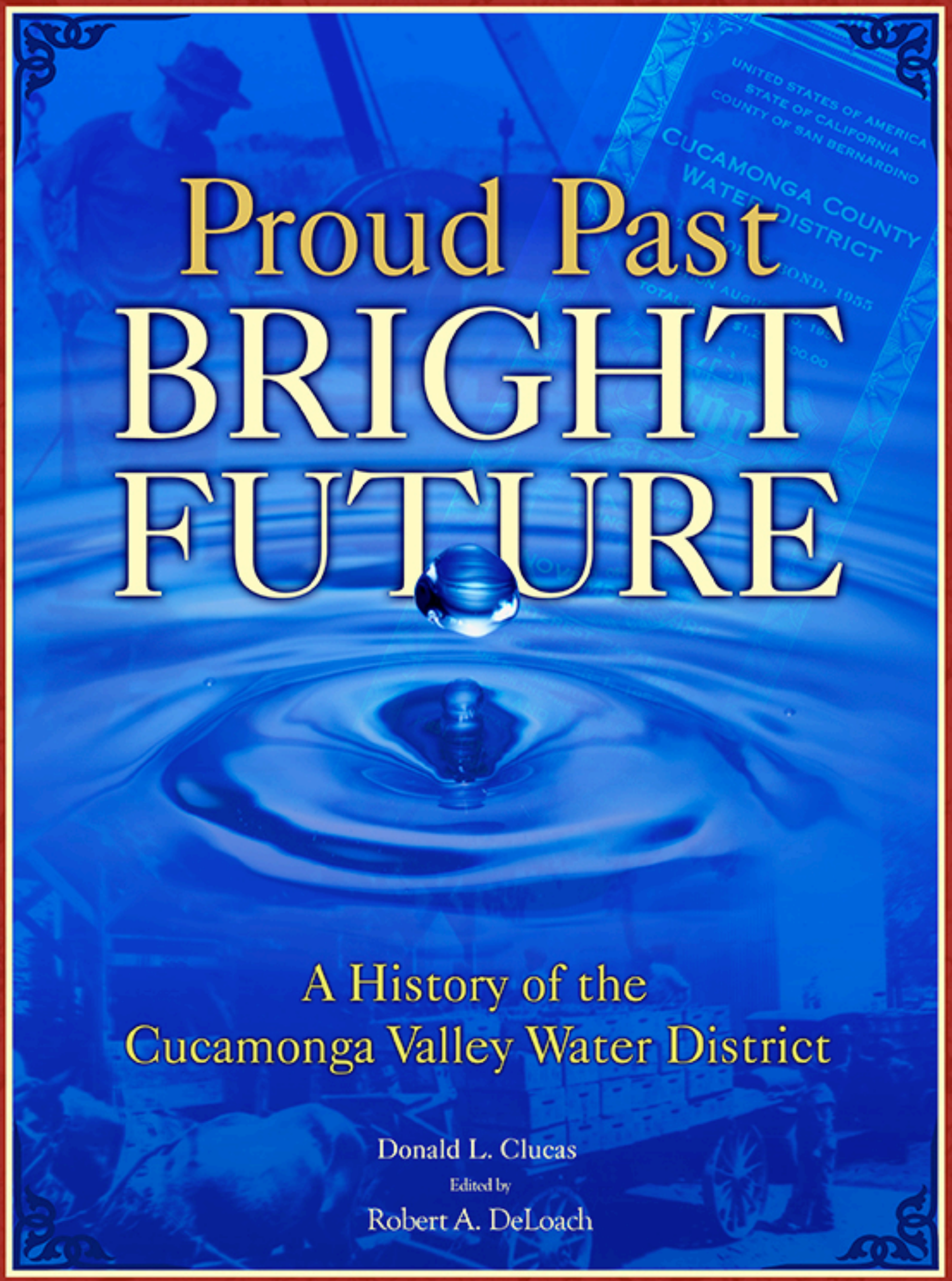

Proud Past BRIGHT FUTURE

A History of the Cucamonga Valley Water District

Donald L. Clucas

Edited by

Robert A. DeLoach


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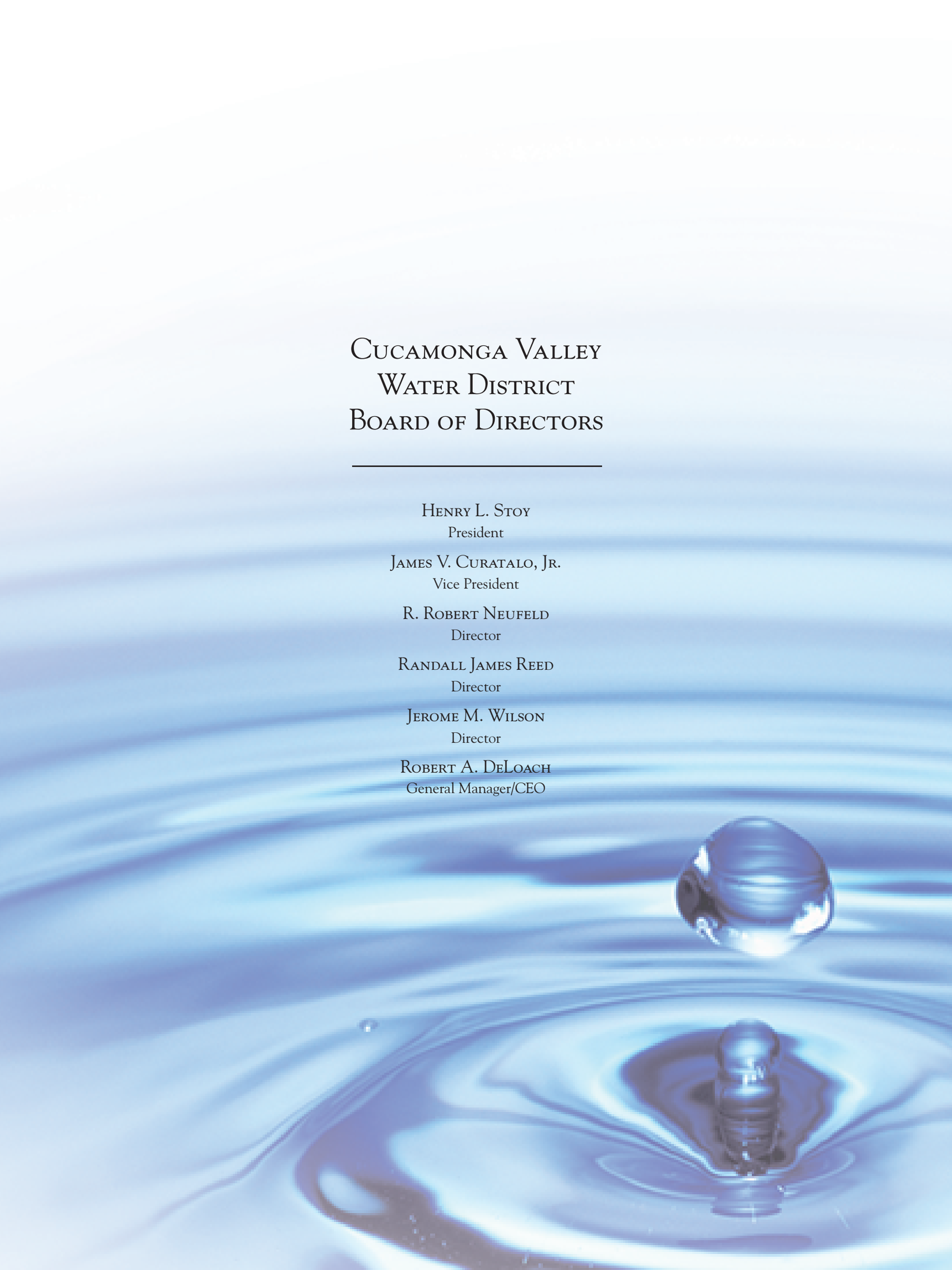

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Dedicated to

Everyone, past and present,

Who has worked diligently to

Bring to our valley the

Precious resource of water



Contents

Foreword 9
Acknowledgements 11
Introduction 13
Chapter One: Early Use of Water 17
Chapter Two: Water for the Settlers 23
Chapter Three: Visionaries 33
Chapter Four: Water for Crops 43
Chapter Five: Early Twentieth Century Water Companies 55
Chapter Six: Establishment of the CCWD 67
Chapter Seven: The CCWD at Work 77
Chapter Eight: CVWD Fulfills the Need Today and Tomorrow 97
Chapter Nine: Reflections 111
Chapter Ten: Epilogue 121
CVWD Timeline 123
Service Roll 126
Bibliography 128
Index 131



Foreword

Water has played a pivotal role in shaping the Cucamonga Valley region of the Inland Empire. The Cucamonga Valley established its roots in agriculture — irrigating croplands, vineyards and citrus. In water, we have encountered our past, our present, and our future. Using the simplest of principles, bringing water from where it was to where it was needed, this vast region has been transformed into the economic engine that drives much of the State's economy.

Proud Past, Bright Future is an historical perspective of water in the Cucamonga Valley, and of the early pioneers who established the region and the Cucamonga Valley Water District. We have attempted to capture a sense of history, as well as pass on many of the interesting accounts that have formed our rich heritage. Individuals featured in this book such as Tiburcio Tapia, John Rains, George Lord, Isaias Hellman, and George and William Chaffey, will be recognized for their accomplishments beyond the development

of water in the Cucamonga Valley. New forms of agriculture, electrical generation, government, and the birth of whole new communities resulted from the collective vision and strength of these individuals.

Proud Past, Bright Future also recognizes the future of water and the role that the Cucamonga Valley Water District will play. Our present day leaders and employees of the district continue to implement the original vision and the entrepreneurial spirit that is the foundation of our existence. The Cucamonga Valley region continues to grow and outpace much of the rest of the nation and the demands for water to meet the needs of new customers will never be less than what it is today. Our success will require that the water leaders of today and tomorrow lead with vision, innovation, integrity, and a commitment that joins our future with the efforts of those who have made this possible. Improved water management practices will be required that reflect changes in our everyday behavior to conserve water, and changes in the accepted culture which allows for more use of recycled water.

During the preparation of this book, I have come to realize that in many ways we share the very same values as those early water pioneers. Knowing that I am a part of the future that our predecessors worked diligently to create and that I belong to the "next generation" of employees and leaders of the Cucamonga Valley Water District is in itself inspirational. I count myself extremely fortunate to have served the board of directors of this district and to have worked along side some of the finest professional employees I have ever encountered. My conversations over the years with past leaders such a Lloyd Michael, Arthur Bridge, Charlie West, and Marjorie Stamm have left me with a tremendous sense of responsibility to guide and protect the natural resources that allow CVWD to provide the highest quality water to its customers. As with most things in life the future of the Cucamonga Valley Water District will surely change as our region and responsibility for water service continues to grow and expand. Those chapters have not been written yet but if our past is any indication of our future, it will be a story worth telling.

Robert A. DeLoach
General Manager/CEO
Cucamonga Valley Water District

Acknowledgements

My deepest gratitude is extended to all those who so graciously participated in the effort to bring about this much needed history of the *Cucamonga Valley Water District* (CVWD).

I would like to thank CVWD General Manager/CEO Robert A. DeLoach and Assistant to the General Manager Jo Lynne Russo-Pereyra for their initial desire to see the book written. Both gave me a tremendous amount of support during the entire project and worked tirelessly in their efforts to see the book finished. My thanks also to Betty Fien who has been an employee of the district for thirty-three years and is in charge of the CVWD archives and to Maria Mardesiche who was helpful finding information. I would also like to thank Rita Parra whose smile and friendly greetings always made it a pleasure to visit the CVWD office.

Again, as in previous endeavors of mine, the staffs of the Upland Public Library and the Ontario City Library, especially the Model Colony Room, were of great assistance to me. Former Cucamonga County Water District General Manager Lloyd Michael and Senator Ruben Ayala were valuable resources and I especially enjoyed my talks with them. Also, the book could not have been written without the previous research and writings of people such as Larry Bartholomae, George B. Blanchard Jr., James Cline Jr., Rand Herbert, Frances Hively, Robert L. Hickcox, Leotta Scott, and Stephen Wee. I am also indebted to the person whose name is lost to history who had the foresight to save all the old newspaper clippings which reported on the formation of CCWD.

Of course, I am extremely grateful to the entire staff at Dragonflyer Press, especially Chris Wheeler and Erin Hennessy.

D.L.C.



Introduction

From the beginning of time humans have found themselves dependent upon three physical needs; food, shelter, and water. If any of these is missing, life is at best miserable, at worst deadly. Although safe and comfortable shelter has always been desirable, humans have been able to survive with minimal housing including straw huts, animal skin-covered structures, and even caves.

It is not the same with food and water, however. It has been said, correctly or not, that the average person can survive for three weeks without food and three days without water. Whether or not the statement is true, it does indicate our extreme dependence on water.

The importance of water has been seen throughout history. The biblical Garden of Eden was strategically located near four rivers in order that it might be irrigated, and Native Americans living

in what was to eventually become the state of California, settled on areas of land near water sources.

It is possible that the name given to Cucamonga by the native peoples of the area might have referred to the abundance of water in the area. Although unsubstantiated, one version of the meaning is "Place of Many Waters."[1]

Junipero Serra and his fellow padres chose to establish missions in the same places previously inhabited by Indians. The popular notion has been that the Franciscans chose the spots because potential converts were numerous. In fact, it must be remembered that the original Spanish expedition to Alta California was carried out for the main purpose of colonization. The excursion was under the direct leadership of Gaspar de Portolá whose assignment as Governor of Las Californias was to lead a group of soldiers, settlers, and missionaries to create bases along the coast in San Diego and Monterey. When the exact site was chosen for the original mission structures at San Diego, Father Serra wrote, "We have seen Indians in immense numbers." However, before making the entry concerning the inhabitants of the area, he found it important to write, "The tract through which we passed is generally very good land, with plenty of water."[2]

Of course, it was of great importance for the padres to find places to settle where people were already living. However, without raw materials for building, workable land for tilling, and an abundant supply of water, the missions would not have been constructed in those same places.

Following the secularization of the missions, Spanish and Mexican rancheros found themselves dependant on water sources from creeks which flowed from nearby mountain canyons. Some of these were the same streams used by their predecessors. One of these rancheros was Tiburcio Tapia, Los Angeles merchant, government official, and owner of the Rancho Cucamonga. Tapia acquired the rancho through an 1839 land grant by Governor Juan B. Alvarado.[3]

When California became a state in 1850, and Americans began taking over former rancho lands, the need for water remained the same. One example was that of John Rains who purchased the Rancho Cucamonga in 1858 from Leon V. Prudhomme and José María Valdez (Tapia's son-in-law and foreman, respectively).[4] Rains' aggressive development of his newly acquired enterprise made greater demands on water supplies in the area. As a result he constructed a small earthen dam at the south end of what is now Red Hill Park. The reservoir created by the dam held mountain waters which flowed from Cucamonga Creek.

In subsequent years men such as Isaias Hellman became landowners in what had been the Rancho Cucamonga. He and other future developers such as George and William Chaffey, Adolph Petsch, and Secondo Guasti, were in constant need of water, especially for irrigation purposes.

As the need for water increased during the following years, it was necessary for associations to be formed in order to control and regulate rights to the water resources within Cucamonga. From 1871 when the Cucamonga Company was established, to 1954 when the Southwest Suburban Water Company was formed, no fewer than thirty-one companies and associations would have at least some control of area water.[5]

In 1955, two new companies were formed. One was the tiny Adobe Water Company which was established to provide agricultural water to a limited number of stockholders. The other was made up of all water companies which had been established before 1954. The name of the organization was to be the

Cucamonga County Water District,[6] a public agency formed by the citizens of the community in order to maintain a reliable supply of water.

Almost a half-century later, in 2004, the name was again changed to the Cucamonga Valley Water District. There were several reasons for the change, not the least of these being the fact that many of the district's inland empire partners are located in the Cucamonga Valley, a term that dates back to the region's wine-making roots.[7]

Management of water today extends far beyond an agency's jurisdictional boundaries. For example, CVWD's area of influence covers the former viticultural boundaries of the Cucamonga Valley. While the district's mission continues to focus on customers within the CVWD service area, the entire northwestern region of the Santa Ana Watershed extending southward to Prado Dam is in reality one contiguous water supply region with multiple agencies strategically united together to meet the growing water demands of the region.

(Notes)

[1] Atchison Topeka & Santa Fe Railway, *Along Your Way, 1946*

[2] William H. Davis, *Seventy-five Years in California*. P.371.

[3] Donald L. Clucas, *Light Over the Mountain*. P.22.

[4] *ibid*. p. 33.

[5] James H. Cline Jr. *Cucamonga County Water District: History of Rights*.

[6] *Ibid*.

[7] Cucamonga Valley Water District website. www.cvwdwater.com.





Chapter One
Early Use of Water

Native Americans

The Native Americans of the valley area always established dwelling places near good sources of water. These people inhabited the area of the Santa Ana River Watershed for possibly hundreds of years. Because they were not an agrarian people, they used the Santa Ana River as a source of food as well as water.

The Tongva, later called Gabrielino by Spanish mission priests, were inhabitants of Kukumo-nga living near what is known today as Cucamonga Creek. The creek is part of the Santa Ana Watershed because water from it eventually flows into the Santa Ana River. During the time the inhabitants of Kukumo-nga lived in the area, the creek ran along the western side of Red Hill through the site now occupied by Upland Memorial Park. An abundance of fresh

Facing page: "East Canyon Pond" by Anne Bridges-Lindquist

water was always available to the inhabitants of the area at a ciénega (swamp) formed by the pooling of water from the creek and located at the southern base of Red Hill. It has been estimated that the ciénega covered an area about fifty acres in size. At least one site has also been excavated in San Antonio Heights near San Antonio Creek.

The Tahtam (Serranos) lived along mountain streams such as Lytle Creek. One Tahtam group was supplied with water from springs, which bubbled up from sources such as those found in the Urbita Springs (Bunker Hill) area of San Bernardino.[1]

San Gabriel Mission

When Mission San Gabriel Arcángel was originally founded in 1771 near the present city of Montebello, it was built close to a fine source of water. Located near the banks of the San Gabriel River, the site did not lack for water. In fact, there was usually too much. In 1772, floods ruined crops and damaged buildings. After four years of struggle, the mission was re-established at its present site in the city of San Gabriel.[2]

During the apex of operations at Mission San Gabriel it was estimated that 115,000 head of livestock along with enormous amounts of fruits and grains were being raised. Commerce flourished with tanning vats, granaries, brick and tile works, and a winery. These activities along with the basic needs of the people made for a tremendous demand of water at the mission.

Nearly a half-century after the founding of Mission San Gabriel it was determined by mission priests that the land surrounding the mission had become infertile due to its overuse for farming. With this in mind, and the increasing belief among mission priests that a chain of inland missions should be established, an estancia[3] was established at Puente (La Puente) in order to plant crops and raise livestock.[4] Water for the new venture was drawn from the San Gabriel River.

With the success of the venture at Puente, mission administrators made the decision to establish estancias farther east near San Bernardino. One of these was established at Guachama in 1819. The site was close to what apparently seemed to be a good source of water, the Santa Ana River. In 1827, Father José Sanchez wrote, " . . . on the Rio San Gabriel, below the Mission, there is a good stretch of so-called mountain. The same is the case at San Bernardino. It is from there the Rio Santa Ana comes down. There are springs all over the sierra of San Gabriel."[5]

About the year 1830 the rancho was moved closer to present-day Loma Linda. During the establishment of the rancho the Guachama Indians asked the mission priests to teach them how to farm. In order to do this the priests realized a good source of water was needed. During the years 1819 and 1820 a zanja (water ditch) was constructed to bring water from Mill Creek northeast of Yucaipa to the Guachama estancia below. Los Angeles landowner Pedro Alvarez was chosen to construct the ditch.[6]

While the estancias such as Guachama were being developed throughout the valley, the mission priests were also busy with other water-dependant industrial undertakings. One of these was El Molino Viejo (the old mill), a grist mill located about two miles north of the mission in what is now the city of San Marino. Around the year 1816, Fr. José María de Zalvidea was placed in charge of designing and building the mill. Before the construction of the mill, all of the grain at the mission had been processed by Indian women using hand stones.

Zalvidea decided to build a grist mill between Los Robles and Mill Canyons which closely paralleled each other. Water from the

merging streams in the canyons was used to turn the huge grinding stones in the mill. Water which was used for grinding ran from the mill through a zanja and to a small lake below which had been dammed up by Fr. Zalvidea. The water in the lake was then used to power a sawmill, tannery, and wool works farther down the hillside.[7]

New Mexicans

During the 1840s, a group of settlers from New Mexico established a small settlement on the Santa Ana River at a place where it passed through the Rancho San Bernardino. Antonio María Lugo offered to allow the New Mexicans to form the colony on the land in return for their promise to protect his family's rancho from outlaws. The twelve families at Politana, as the emigrants called it, obtained their water from a swamp on Mill Street. A small ditch was dug in the ground to allow water to flow from the swamp to the colony. The villagers did not stay at Politana for long. They grew weary from reconstructing the ditch every time Lugo's cattle would break it. The Lugo family was known to hold rodeos where the ditch was located. And Vicente Lugo, Antonio María's brother, withheld water from the New Mexicans on a frequent basis.[8]

Soon, most of the settlers moved south along the river to the Jurupa Rancho that was owned by Juan Bandini. The location was at the confluence of the river and Lytle Creek.[9] The new site covered two thousand acres of land on the east side of the river. It was called La Placita de Los Trujillos. In 1845, another group of New Mexicans settled on the west side of the river directly across from La Placita. The western colony was named Agua Mansa (Gentle Water). The people of the two communities immediately dug an extensive irrigation system. With an abundant supply of water, the colonists then planted vineyards, orchards, and various crops. Eventually, however, it was water that was the undoing of the two colonies. In 1862, the villages were destroyed by a great flood which filled the Santa Ana River to overflowing.[10]

Mormons

In late May of 1851, a group of Latter Day Saint pioneers made their way through Cajón Pass and into the San Bernardino Valley. They had been sent from Salt Lake City by Brigham Young to establish an agricultural supply outpost for the church.[11] After seeking out the possibilities of purchasing land in the area, church officials Amasa M. Lyman and Charles C. Rich decided to negotiate for eighty thousand acres of the San Bernardino Rancho.

The settlers built a stockade for protection from Indian attacks. Outside the stockade, the colonists planted fields of crops such as wheat. About a mile to the south of the fort a grist mill was built. The water needed to run the mill and to irrigate the crops was brought to the settlement by way of a one and one-half mile ditch which was dug from Lytle Creek.[12] The ditch was built in 1853 by David Seeley.

The Mormons quickly set about developing and enlarging an irrigation system just as they had done in Salt Lake City in 1847. One year following the creation of Seeley's ditch, the colonists had created more irrigation ditches and they were successful in helping gain the passage of the first California state law regulating the use of irrigation water (see chapter 2).

By 1855, they were irrigating fifty farms ranging in size from one to thirty acres. The system of water distribution used by the Mormons in the valley was simply a copy of the system established in Salt Lake City a few years before. It worked well as long as there

was water. However, the water level in the creek began to recede by 1857. This, coupled with Brigham Youngs' request for the colonists to return to Utah the same year, began to bring about a temporary end to extended usage of Lytle Creek for irrigation.

The Rancho Cucamonga

With the enactment of the secularization plan in 1831 the missions gradually began scaling down operations. During the next five years, the twenty-one missions closed their doors one by one. Scores of private citizens began applying to receive grants of land once owned by the missions.

One of these was Tiburcio Tapia. By the year 1839, Tapia had become a successful businessman in Los Angeles and was president of the ayuntimiento (city council) of the small but thriving village that boasted a population of about 1,300 people.

On January 3rd of that same year, Don Tiburcio submitted an expediente (application) to Governor Juan B. Alvarado requesting he be granted a parcel of land in the area known as Cucamonga. The request was for approximately thirteen thousand acres of land located between the San Jose (Pomona, La Verne, and San Dimas) and the San Bernardino lands. Along with the request Tapia provided a diseño (map).[13] Possibly the most important items Tapia sketched on the map were the locations of Arroyo de San Antonio (San Antonio Creek) and Arroyo de Cucamonga (Cucamonga Creek).

After receiving the grant of the Rancho Cucamonga on March 3rd, Tapia and his foreman, José María Valdez, immediately began construction of a massive adobe house on the crest of Red Hill and planted a small vineyard consisting of 564 vines. He could have accomplished neither of these without an abundant source of water — especially the making of the adobe bricks for the house.

Following Tapia's death in 1845, the rancho became the property of his daughter Maria Merced Tapia. In 1847, she married Leon Victor Prudhomme. For the next eleven years they carried out the business of the Rancho Cucamonga. During that period the Prudhommes along with Valdez tended vineyards, corn and grain fields, and fruit orchards. Irrigation water was carried to the fields by way of two zanjas.[14]

Cucamonga Creek appeared to be an abundant source of irrigation water during the middle of the nineteenth century when in 1854 Lieutenant A.W. Whipple camped there while searching for a railroad route to the Pacific Ocean. Whipple wrote " . . . after a march of twenty miles, we arrived at the Rancho of Cucamonga and encamped upon a pretty stream that waters it. The house of Señor Prudhomme, the owner, stands on a grassy knoll, and has been visible nearly the whole day. Below it are cultivated fields and vineyards.[15]

Ownership of the Rancho Cucamonga again changed in 1858 when an American by the name of John Rains purchased the property. Rains moved on to the property with his wife María Merced Williams, daughter of Isaac Williams and María de Jesús Lugo of the Rancho Santa Ana del Chino.

Rains was an ambitious man and began developing the agriculture of the Rancho Cucamonga on an enormous scale. Under Rains' direction the vineyard grew in size from the 564 vines which Tapia had planted to over 150,000. A large amount of water was also required in order for Joseph Mullally to manufacture bricks used to build a house and a bathhouse for John and María Merced in 1860. Water was obviously also needed for cooking and bathing. The source of the water which was needed to operate the rancho

came from a reservoir a short distance to the north of the house. The reservoir was constructed by John Rains and was filled with water diverted from Cucamonga Creek. Following the death of John Rains in 1862, the courts divided Rancho Cucamonga between María Merced and her children.

(Notes)

1 Fr. Juan Caballeria, *History of San Bernardino Valley*. p. 39

2 Paul Johnson, ed., *The California Missions*. p. 98–100

3 An agricultural extension usually located several miles from the main mission

4 George and Helen Beatty, *Heritage of the Valley*. p. 11–12

5 Fr. Zephryn Engelhardt, *San Gabriel Mission*. p. 143

6 *ibid*, p.13

7 Robert Glass Cleland, *El Molino Viejo*. pp. 3–9

8 George and Helen Beattie, *Heritage of the Valley*. pp. 59–60

9 Clark Harding Jones, *Agua Mansa Settled by Those Who Spoke Spanish*. pp. 37–38

10 San Bernardino County Museum Website, *The Agua Mansa Cemetery*.

11 Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water District*. p.5

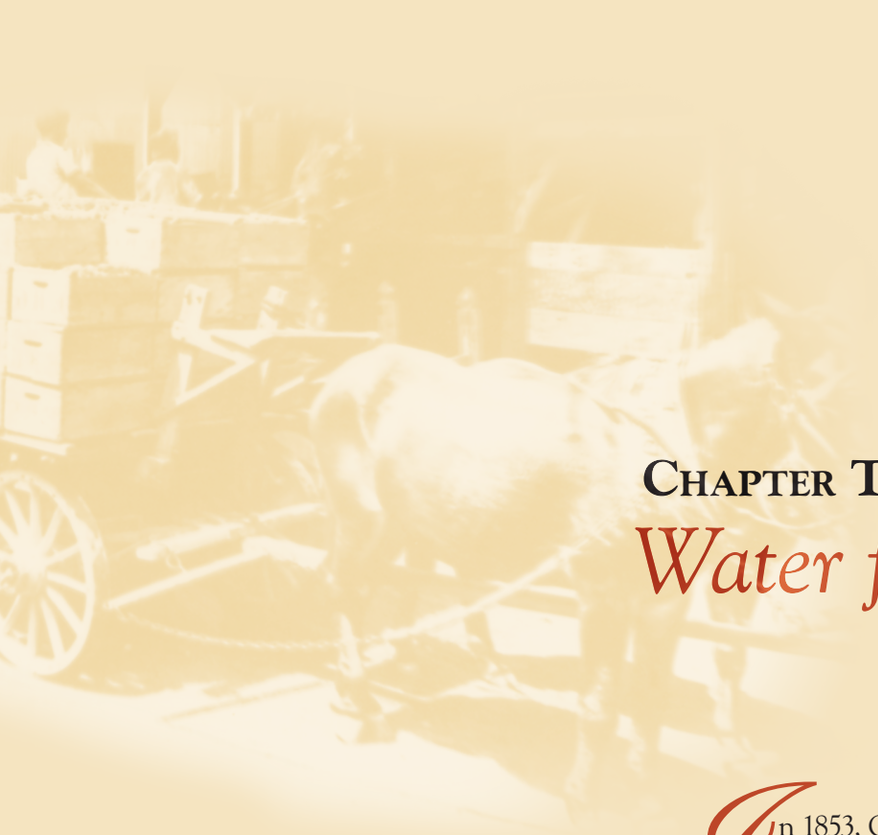
12 Gorge and Helen Beattie, *Heritage of the Valley*. p. 214

13 Donald L. Clucas, *Light Over the Mountain*. pp. 21–22

14 Esther Black, *Rancho Cucamonga and Doña Merced*. P. 204–205

15 George and Helen Beattie, *Heritage of the Valley*. p. 147





Chapter Two

Water for the Settlers

In 1853, George Lord began taking irrigation water from the opposite side of Lytle Creek from where David Seeley had dug the ditch for the Mormon colony in San Bernardino. He first began extracting water from below the mouth of the creek at George Winner's place which later became known as Ferguson Ranch.

Lord built a diversion dam across the south fork of the creek, causing half of the flow of Lytle Creek to be carried about two miles away to the Lord Ranch. Lord owned approximately 120 acres of land upon which he had planted a vineyard, alfalfa, and other crops. Later, Lord extended the ditch south to the ranches of John Garner and George Day.

After a disagreement with Winner and a rancher named Bill McMine, Lord was forced to move downstream in order to gain

Facing page: "View Overlooking East Canyon" by Anne Bridges-Lindquist

access to the water from the creek. He used the second location until 1858, when the stream began to dry up.

At about the same time, other settlers moved into the area and began helping Lord in the construction of another ditch. Because one of the settlers was named Singleton, this became known as the Singleton Ditch. After Singleton and the other settlers left the area, Lord continued to use the ditch.

In 1854, the legislature of the State of California passed the Water Commission Act. This was to be the first water allocation law in the state. The act stated that the residents from nine of the thirty-nine counties in existence at the time could, if they desired, elect a board of three water commissioners and an overseer. All four members were allowed to serve a term of only one year. The act sought to provide for centralized regulation and control of the use of water for irrigation. It also provided for capital which, during this time in the state's history, meant the physical labor of the water users since funds themselves were scarce.

The Water Act of 1854 did not set well with George Lord. Because he had begun diverting water from Lytle Creek before 1854, he did not recognize the authority of the commission to regulate his use of water.[1]

During the years immediately following the Water Commission Act, disputes arose between Lord and other water users in the valley. Lord had been taking all the water he believed was rightfully his and some ranchers and farmers farther downstream were doing without water for their own use.

In about the year 1859, Lord agreed to allow other irrigators to receive their share of water. He did so with the provision that he did not have to share with anyone to whom he had not given consent.[2]

Three years later, there occurred an event which some have said comes only once every one hundred years. It was the Great Flood of 1862. The rain actually began to fall in November of 1861. The downpour continued for fifteen days. The ground became saturated. The rain stopped for a few days only to begin again on December 24th. It continued for thirty days and nights, stopping for only two brief periods of time. When the calendar came to the end of January, the rainfall was three times the normal amount for that time of year. During a single two-day period, twenty inches of rainfall was recorded in some areas.

And Southern California was not the only part of the state to experience the deluge. Record amounts of rainfall had flooded rivers throughout the state from Oregon to the Mexican border.[3]

Several areas in the valley were demolished. The tiny colony at Agua Mansa on the banks of the Santa Ana River was virtually washed away on January 22nd leaving nothing but the chapel and a store. Flooding continued until the 6th of February.[4] Surprisingly, the upper portion of George Lord's Lytle Creek ditch survived the flood. Below his ranch, however, the ditch was entirely destroyed. Following the flood, the water commission passed a resolution to vacate the part of the ditch which had been destroyed.[5] The commission also decided to restrict Lord "to the amount of water actually necessary for irrigating the same as every other person along the line of the ditch."[6]

The two years following the flood brought a tremendous drought to the valley. During that time, farmers and ranchers in the area decided to construct a new dam and intake on the west bank of Lytle Creek.

About 1867, a new ditch was finished. Called the "Old Zanja," the ditch was used to divert all the water in the stream to farmers and ranchers until 1878. After the Old Zanja was constructed conflicts over the rights and

usage of water from Lytle Creek seemed to disappear.[7]

In 1867, Mormon rancher George Day bought a piece of land near the foothills at the northern portion of the Rancho Cucamonga from E.K. Dunlap who had been the administrator of John Rains' estate. Day paid $450 in gold for the property.[8] He then filed for rights to water usage in West Canyon which was located near the property.[9] The canyon would later bear his name. He also filed for rights to a small ditch which conveyed water from the canyon.[10] Two years later, he filed on Young (East) Canyon and re-filed on West (Day) Canyon. In, 1873, Day and William B. Pierce filed a claim for all water in Day Canyon to the extent of four hundred inches.[11]

During the following decade, various ranchers and settlers filed claims for rights to water in the canyons above the Rancho Cucamonga. Included in these filings were those of Day, Isaiah P. Smith, and August Bienfort.[12]

In the early 1870s,[13] Isaiah P. Smith purchased 160 acres of federal land slightly northeast of the old rancho near what is now the intersection of Summit and East Avenues. He apparently rented the old Rains' home before building a house for his family. Smith also obtained water rights for his land eventually



George Day standing behind a water flume on his property at the northern portion of the old Rancho Cucamonga, California 1870.

digging a ditch from his house to East Canyon in order to supply water for the family's needs. About 1874 or 1875, he sold the land and water rights to Joseph S. Garcia, a retired Portuguese sea captain.

Captain Garcia had been buying and selling parcels of land in the Cucamonga area since 1871. In fact he was one of the buyers at Hellman's sale of May 19th (see chapter 3). The land he purchased from Smith became the portion upon which he would build his home.

In 1880, Dr. Adolph Petsch and his good friend Judge Benjamin Eaton had been traveling through the Cucamonga area when Petsch became enchanted with what he saw. He decided to inquire as to the possibility of buying an interest in the tiny Day Canyon Water Company. He then purchased land and water rights in Deer and Alder Canyons. The land ran from the Base Line to Highland Avenue. After another land purchase by Petsch, his holdings totaled 720 acres. Giving the name Hermosa[14] to the land holdings, Petsch and six of his associates formed the Hermosa Land and Water Company.

Following the formation of the Hermosa Land and Water Company, the Lytle Creek Water Company was organized in 1881. It was established for the purposes of acquiring water by appropriation or purchase and to construct, buy, or sell rights-of-way for water ditches, conduits, and flumes. The corporation divided its stock into seven hundred and fifty shares.[15] The company exchanged its stock for the water shares owned by the existing irrigators according to the records of the Board of Water Commissioners, and each shareholder was allowed to divert the entire flow of Lytle Creek for a specified period of time, once every fifteen and one-half days.[16]

During the next several years, the Lytle Creek Water Company was involved in several disputes over claims to water rights. Suits and counter-suits were filed. Following one of the cases, R.N.C. Wilson, an attorney representing ranch owners in a suit against the Lytle Creek Water Company, eventually began acquiring water and purchasing stock in the company. By April of 1886, Wilson had gained all water rights to the creek which had previously been owned by George Lord and two ranchers by the names of A. Schimff and C. Schall.[17]

In 1886, another company was in the process of being established for the purpose of not only dealing with water, but also with land investments. During that year, ranch owners who had been obtaining water from Lytle Creek began contracting to sell their property to the Semi-Tropic Land and Water Company. The Semi-Tropic was at the time the majority stockholder in the Lytle Creek Water Company. Actually, two new companies were being formed. The first, the Semi-Tropic, was founded by George H. Bonebrake and F.C. Hawes of the Los Angeles National Bank. The company was formed in order to subdivide and sell real estate. The company purchased over twenty-eight thousand acres of land west of Lytle Creek. The Semi-Tropic also secured rights to eight hundred inches of water from the stream. The second company, the Lytle Creek Water & Improvement Company, had the function of providing water for the properties sold.

In 1888, the companies completed what was called the Fontana Ditch in order to supply water to the Rosena township (Fontana) and to the Sansevain township, four miles west of Bloomington.[18] The cement-lined ditch was approximately five feet wide and four feet deep. It carried water from the mouth of Lytle Creek for about four miles south to a place near what is today the intersection of Riverside and Highland Avenues.[19] The sister companies would also become instrumental

in supplying Lytle Creek water to the settlements of Rialto and Bloomington.

In 1896, the Semi-Tropic was unable to meet its financial obligations and was foreclosed upon. The San Francisco Savings Union took over twenty thousand acres of the company's land holdings along with the Semi-Tropic's water rights to Lytle Creek. The land was later sold to two smaller companies, the Anglo-American Canaigre Company and the Chicala Water Company.[20] Canaigre is commonly known today as American ginseng. Following non-compliance of its agreement by the two companies, the land was taken back by the San Francisco Savings Union then deeded to the Fontana Development Company in 1903.[21]

In 1887, the legislature of the State of California passed the Wright Act giving settlements the authority to form large irrigation developments. As a result of the passage of the act, three irrigation districts were formed by those irrigators who had been using water from the diversions on Lytle Creek. The three districts which were formed were the Citrus Belt, Rialto, and Grapeland Irrigation Districts.[22]

The first of the three districts to be organized appears to have been the Grapeland Irrigation District. In August of 1890, J.D. Ousterhout, who had homesteaded on land west of Lytle Creek in 1883, became president of the district. This action was most likely a result of his diligent efforts to see that the district was formed.

Before Ousterhout had acquired his homestead, Alexander Perdew and Jake Graham constructed the first irrigation ditch to divert water from Lytle Creek to the settlement they had named Grapeland. The year was 1867.[23]

The Grapeland Irrigation District constructed what was at the time the largest reservoir in Southern California. The so-called Sierra Vista or Scofield reservoir had a capacity of 3,600,000 gallons and was owned by D.G. Scofield who also owned 1,500 acres in the Grapeland district.[24] It was formed in a perfect circle with the bed of the reservoir being sloped fourteen inches from northeast to southwest in order to provide complete drainage.[25]

In 1892, the Grapeland Irrigation District began work on a tunnel. In 1895, the district completed construction of the Grapeland Ditch.[26]

The Citrus Belt Irrigation District was established in 1890 with over eleven thousand acres of Semi-Tropic land located in the Fontana area. A year later, the Semi-Tropic began construction on a water distribution network which delivered water through the Fontana Ditch. In exchange for building the system and delivering water to the settlement, the Semi-Tropic received $662,000 worth of district bonds.[27]

The Rialto Irrigation District was also organized in 1890. On December 10th of that year, the irrigation district board entered into an agreement with the Semi-Tropic to furnish artesian water from George Lord's property to 7,320 acres of land in the Rialto settlement. Later, 1n 1896, when the Semi-Tropic faced bankruptcy, the Rialto Irrigation District became the owner of the water rights developed on the Lord Ranch as well as other ditches and flumes which had been developed in the area. These rights were later acquired from the district by the Citizens Water Company.

During the 1880's, Cucamonga lands were being bought and sold with a frenzy. In April, 1886 the Cucamonga Fruit Lands Company was created. In 1887, the organization purchased all previously unsold land of the Rancho Cucamonga. The purpose of the company was to sell land and control certain water rights in areas south of the Base Line Road. The land sales "boom" which began





Charles Smith standing directly to the right of Smith water tunnel in San Antonio Canyon, California 1890.

in 1887 developed an extremely urgent need for water. Farmers and ranchers were putting great demands on the local supply. The need to direct water to the farms, ranches, and a whole new town even resulted in the formation of Lacy, Ward, and Company, a manufacturing establishment which produced nothing but irrigation pipe. Eventually, the demands caused the old ciénega near Red Hill to dry up completely.[28]

Also during 1887, the Cucamonga Homestead Association and the Iowa Tract Association (a small colony established along Hellman Avenue above Base Line Road) formed the Cucamonga Development Association in order to sell land and develop the under flow of Cucamonga Canyon. During August of that year, the Hermosa Water Company was formed.

Before the year 1887 had come to a close, those who had established the Cucamonga Fruit Land Company decided a new water company should be organized. Therefore, the Cucamonga Water Company was established. The new company immediately began the digging of artesian wells in the area around the old ciénega. The completion of wells, along with tunnels which some believe were started by local Chinese laborers beginning in 1885, were desperately needed. It should be noted here that according to former Cucamonga County Water District Assistant General Manager George B. Blanchard, Jr., although the accepted theory is that the Chinese dug most of the tunnels in the area, little proof has been found to substantiate the idea. Blanchard has stated that a search of Hermosa Water Company records discloses only one reference to Chinese workers, and most references are to men with Anglo and Spanish surnames. Blanchard also gives a proper definition for the term "tunnel" as it pertains to water. He describes a tunnel as a horizontal shaft created for the express purpose of intercepting subterranean flows of water and transporting these flows to a pipeline system. He states that a tunnel is ideally dug in order that its invert, or bottom, sits on bedrock with the upper walls being above the bedrock. Because the bedrock is impermeable, water passes over it and is intercepted in the tunnel.[29] By 1888, it was reported that the Cucamonga Fruit Land Company's tunnel at the Lone Star Spring had been dug to a length of 225 feet. It was also stated that a good stream of water had been found which would provide an ample supply the needs of the citizens. The local newspaper also reported that the company had done a vast amount of work not only in successful development of water, but in distributing and completing the water system in the area.

In 1888, all stock, water rights, properties, and pipelines were conveyed to the Cucamonga Water Company by the Cucamonga Fruit Land Company. Facilities included five reservoirs and the same number of pipeline systems.[30]

At about the same time, a new township was being developed in the southeastern area of the old rancho. It was 1889 and three brothers, Charles, Rudolph, and Frank Smith were in the process of selling land in an area they called Rochester. The new tract ran along Rochester Avenue south of Foothill Boulevard. The entrepreneurs built a fine wooden hotel upon which they painted an advertisement in huge letters. The sign read, "5,000 acres of orange and lemon land with perfect water wrights [*sic*] sold on easy terms." The men had already been storing water for the tract in an old abandoned reservoir which had been standing empty after the failure of a previous project. The source of their water was Day and Deer Canyons. The Rochester Water Company was organized on February 9th with a capital stock of $100,000. On February 20th, Charles sold all his Rochester land

holdings to the water company. The company then began digging a tunnel under the gravel of Day Creek at an elevation of about 5,000 feet. Everything seemed to be progressing well for the brothers and for those who had eagerly purchased land dreaming of their future as fruit and grape ranchers.

There was one slight problem, however. The Smiths had not counted on the fact that there were others, those north of Rochester, who had already laid claim to water in the two canyons. The Etiwanda Water Company claimed ownership to the flow of water produced by the newly cut tunnel. In 1893, a suit was filed against Smith and his associates by the Etiwanda Water Company. Four years later, all of the Rochester holdings in Day Canyon were sold to the Etiwanda Company for $30,000. Within a few years, after being deprived of its principal source of water, the community of Rochester and its water company had, for the most part, faded away.[31]

(Notes)

1 Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water District*. pp.6–8

2 *ibid*. p.9

3 U.S. Geological Survey Website, *www.geochange.er.usgs.gov*

4 California State University, Long Beach Website, *www.csulb.edu*

5 Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water District*. p. 9

6 San Bernardino County Board of Water Commissioners, *Minutes, Book A/1–2. Document No.8*

7 Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water District*. p. 11

8 Robert L. Hickcox, *A History of Etiwanda*. p. 26

9 George Blanchard, Jr., *Cucamonga County Water District, Rancho Cucamonga, CA:. Development of Gravity Water Sources. Revised Edition*. p. 32

10 Robert L. Hickcox, *A History of Etiwanda*. p. 26

11 George Blanchard Jr. *Cucamonga County Water District, Rancho Cucamonga, CA: Development of Gravity Water Sources. Revised Edition*. p. 32

12 *Chaffey High School and the Community Website*

13 There is some evidence Smith may have purchased property in the area as early as 1863

14 Spanish meaning "beautiful"

15 Lytle Creek Water Company, *Articles of Incorporation, Document No. 73*

16 Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water Company*. p. 32

17 *ibid*. p. 42

18 *ibid*. p. 44

19 *Rialto Unified School District Website*

20 Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water Company* p. 91

21 *City of Fontana Website*

22 *ibid*. p. 64

23 *ibid*. p. 65

24 Donald L. Clucas, *Light Over the Mountain*. pp. 232–233

25 Robert L. Hickcox, *A History of Etiwanda*. pp. 178–179

26 Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water Company*. pp. 70–71

27 Fontana Union Water Company vault, Document No. 140

28 George and Helen Beatty, *Heritage of the Valley*. p. 139

29 George B. Blanchard, Jr., *Development of Gravity Water Sources for the Cucamonga County Water District*. p. I

30 James Cline, Jr., *Cucamonga County Water District: History of Water Rights*

31 Robert L. Hickcox, *A History of Etiwanda*. pp. 165–166



Chapter Three
Visionaries

Isaias W. Hellman

Isaias W. Hellman was a banker, not a man concerned primarily with water. Yet, he would become one of the most instrumental figures in the development of the Cucamonga area and as a result, its water industry.

Born in Bavaria in 1842, Hellman came to Southern California with his brother Herman in 1859. The two had been preceded by their cousins, Isaiah M., Herman M, and Samuel Hellman, who had become the proprietors of a small stationery and book store. Upon arriving in Los Angeles, Isaias was given a job as clerk in the store.[1] This lasted until about 1865 at which time Hellman had saved enough money to set himself up in business.

Upon leaving the position at his cousins' establishment, Hellman purchased a dry goods business from Adolph Portugal. Under

Facing page: "Cucamonga Valley in the Early Years" by Anne Bridges-Lindquist

Hellman's ownership, the business flourished. He then began investing in real estate in the fledgling town of Los Angeles. Before long, he had acquired over forty-five thousand acres of what had once been Southern California rancho land.

Possibly during the same year he purchased the dry goods store his thoughts began to turn to banking. By 1868, he had sold the store and became a part of the financial world. That year he joined into a partnership with William Workman and Francis P.F. Temple and opened Hellman, Temple and Company. One of the local newspapers reported that " . . . under the superior business management of Mr. Hellman, the institution cannot be otherwise than successful."[2]

On the first day of February 1871, after a disagreement with the banking philosophies of Workman and Temple, Hellman bought their interests in the bank and changed the institution's name to I.W. Hellman and Company. The same day he dissolved his partnership with Workman and Temple, Hellman gathered together twenty-two associates and for the purpose of founding the Farmers and Merchants Bank of Los Angeles.

In November of 1870, before he had founded the Farmers and Merchants Bank, Hellman was in the process of attempting to purchase the Rancho Cucamonga. Following several legal issues, he was able to do so at a sheriff's sale. The boundaries of the sale were roughly from San Antonio Creek on the west to what would later become Turner (Hermosa) Avenue on the east and 8th Street on the south to the foothills on the north.[3]

He did not receive title to the property until May 9th of the following year. On May 19, 1871, just ten days after receiving the deed to the Rancho Cucamonga, Isaias Hellman sold 4,840 acres and one-half of the water rights from Cucamonga Creek and Springs to the Cucamonga Company.[4] A year later, the Cucamonga Company returned all water rights to Cucamonga Creek back to Hellman. This was because of the fact the Cucamonga Company was not profitable and lacked the necessary capital to continue investing in water systems.

During the year of 1874, Hellman formed the Cucamonga Homestead Association for the purpose of selling tracts of land to early settlers. Unfortunately, although the Homestead Association owned approximately 2,500 acres immediately west of Cucamonga Creek and owned rights to the creek, it made no provision for water to be supplied to purchasers of the land.

Two years later, Hellman sold the part of the old rancho which was bounded on the west and east between San Antonio Creek and what is today Ramona Avenue in Alta Loma to the Homestead Association. The southern limit of the parcel was the San Bernardino Base Meridian (Baseline Road). The line running where Almond Street is located today served as the northern boundary. In turn, the Homestead Association sold a portion of land to the Cucamonga Company which lay between Cucamonga creek and just to the east of San Antonio Creek [5]

After the Chaffey brothers founded the colonies of Etiwanda and Ontario, Hellman apparently was very impressed with their success. As a result, although his Cucamonga Homestead Association had not provided water for settlers, as president of the Cucamonga Fruit Lands Company he became more aware of the need to provide the precious commodity to his customers. His attempt at producing wine through his Cucamonga Vineyard Company was possibly another reason he realized the importance of water. Whatever the case, Hellman did lay the foundation for all future water companies that received water from Cucamonga Canyon.[6]

After years of buying and selling Cucamonga real estate, Hellman decided to sell the remainder of his interests in the area. In 1917, he moved to San Francisco.

George Chaffey

In 1881, a man ventured onto the scene who would eventually make what would possibly be the greatest impact ever-regarding water development in Cucamonga. George Chaffey, along with his younger brother William, made an historical visit to Captain Joseph S. Garcia at his ranch home located to the northeast of what would become the intersection of Highland and Etiwanda Avenues.

Before his excursion to the Cucamonga area George Chaffey had been recognized as a young man of great intelligence and a seemingly unlimited curiosity. He was happiest when reading textbooks such as *Euclid's Geometry* and he devoured books which explained anything belonging to the mechanical realm.

While working in his father's shipbuilding company in Kingston, Ontario, Canada, he discovered those who were willing and able to share their knowledge with him. He was taught the craft of draftsmanship and the mechanics of engines. While still a teenager, he received a certificate as a ship's engineer.

At age twenty-three, Chaffey's interests changed. No longer was he fascinated with shipbuilding. He had heard of plans for irrigation in the hot and dry areas of Southern California. In fact his own father and siblings had moved to Riverside, California in 1878 and they were undoubtedly sharing their enthusiasm for the area in letters sent home to George.

In 1880, Chaffey brought his wife and children on a trip to California to visit his



George and William Chaffey as they appeared a few years following the purchase of Cucamonga lands from Joseph Garcia.
Courtesy of Model Colony Room, Ontario City Library

family. While in Riverside, he was able to witness for himself the wonders of irrigation on the dry, sandy land. He began to dream about what this industry might hold in store for his future. He saw row upon row of citrus trees including one of the first orange groves to be planted in the Arlington district. It was one his own family had planted. He made up his mind not to return to Canada.[7]

The next year, on Thanksgiving Day, George and William, accompanied by J.C. Dunlap, made their trip out to view the Cucamonga Plains and to meet with Captain Garcia. The valley would never be the same after their visit.

The brothers were attracted by two different yet inseparable features of the Garcia property. William, the horticulturalist, was intrigued with the rich soil which would be excellent for raising fruit trees. George, on the other hand, was overwhelmed by the abundance of water flowing down three canyons near the ranch. These canyons would later be known as Day, Middle (Deer), and Young (East). He was also struck with the reality that Garcia owned water rights to the streams in those canyons.[8]

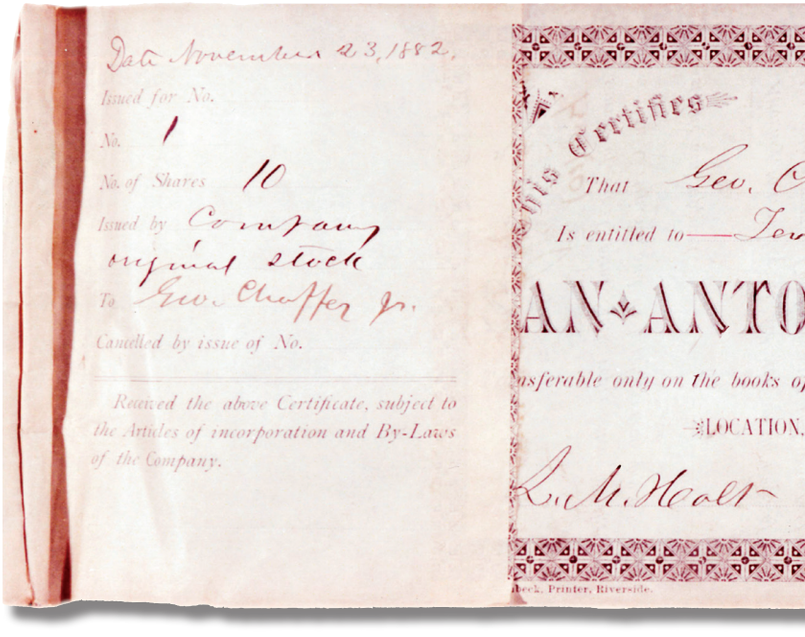
After inspecting the water supply, George became captivated by the possibilities which existed for founding a colony based on agricultural principles. And, of course, crops needed water.

Chaffey immediately offered to buy one thousand acres of the land with water rights at a price of $1.50 an acre. Garcia agreed to the deal. Two months later, in January of 1882, Garcia deeded 560 acres to the Chaffeys for $30,000.

The Chaffeys, especially George, were men of action rather than words. Their energy, along with the abundance of water in the canyons, proved to make their venture a success. Dividing the land into ten-acre blocks, the brothers had founded the colony of Etiwanda which would eventually grow to a size of 7,600 acres by 1888.

Studying other settlements which had floundered because of water problems, George set about perfecting what was at the time a novel method of distributing the precious commodity. Using cement pipes, water was delivered to the highest corner of every ten-acre block. The pipes were run underground. This meant the elimination of the wasteful open-ditch system being used by all the communities surrounding Etiwanda. This obviously revolutionized the irrigation system of California.

By May of 1882, the Chaffeys had organized the Holt-Chaffey Mutual Water Company. Members of the original water company board were George Chaffey and his brother Charles, their father, George Sr., Thomas Hendry, R.A. Cunningham, C. Newton Ross, J.C. Dunlap, J.H. Scott, and James Weston. Eleven years later, the company would reorganize as the Etiwanda Water Company, the first Mutual Water Company in Southern California.

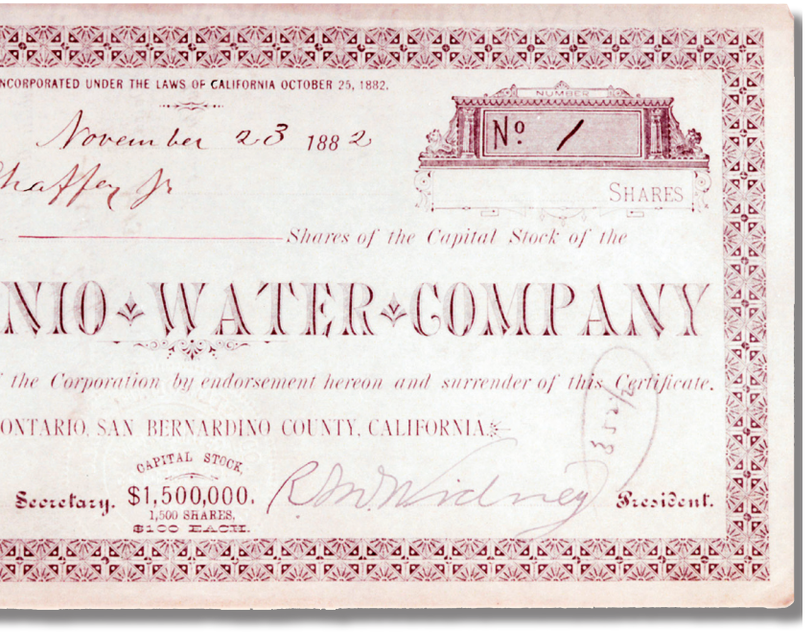


1882 San Antonio Water Company stock certificate.

The system used by the company would become the model for all future irrigation companies based in California.[9] It was developed by Chaffey in association with his good friend L.M. Holt who was at the time considered the dean of irrigation journalism. As editor of the *Riverside Press and Horticulturalist*, he had become a visionary concerning the future of agriculture and water in the state. With his genius and George Chaffey's energy they were a dynamic team.

Before Holt developed his theory, each landowner simply dug a ditch leading from the water source to his property. This was done without regard to anyone downstream who was in need of water. Those near the headwaters of the creek or river would usually receive an unfairly large amount of water. Obviously, arguments and battles were numerous with this type of system.

Under Holt's system, all the water which was available for the irrigation of a definite area would be owned by the members of the colony in that area. The amount of water owned by an individual would depend on how much land that person owned.[10] Basically, a water company would issue stock consisting of one share per acre existing within the colony. Every landowner would receive one share in the company for every acre of land held. The water company, then, would assume responsibility for distributing the water to each tract no matter the distance from the source.


NCORPORATED UNDER THE LAWS OF CALIFORNIA OCTOBER 25, 1882.

November 23 1882

haffey Jr

No. 1

SHARES

Shares of the Capital Stock of the

NIO WATER COMPANY

the Corporation by endorsement hereon and surrender of this Certificate.

ONTARIO, SAN BERNARDINO COUNTY, CALIFORNIA.

CAPITAL STOCK

Secretary. $1,500,000. President.

1,500 SHARES,

$100 EACH.

A report written in 1888 gave a very concise description of the operation. It stated that the system was designed to irrigate the Etiwanda plain by means of water transported from Day, Young, and Middle Canyons. It was noted that the main work of supply consisted of a V-shaped flume which was twenty-four inches across at the top and eighteen inches deep on the sides. The flume began about one mile above the mouth of Day Canyon running easterly where it intercepted water brought by another flume leading from Middle Canyon. After a distance of about another mile, the flume received water from Young Canyon. Continuing toward the point of distribution on the northern boundary of the colony, the water was received by a small concrete-walled reservoir. The water entered the reservoir through sliding gates which were operated by a "zanjero"[11] using a system of levers.

The water was then distributed to farmers through a system of pipes which varied in size from seven to ten inches in diameter. The system consisted of seven parallel lines of piping with most at distances of 330 feet apart. Some pipes were set 660 feet apart. A supply pipe led from the reservoir to small concrete chambers which in turn distributed water to each of the other pipes in the system. The zanjero kept a list of irrigators and followed a stated rotation in delivering the water.[12]

A very notable achievement of Chaffey's while associated with the Etiwanda colony was to install electric wiring in the house built by Joseph Garcia. This was undoubtedly



George Chaffey in front of the Chaffey College Library on Euclid Avenue in Ontario. COURTESY OF MODEL COLONY ROOM, ONTARIO CITY LIBRARY

a result of his interest in hydroelectric power. He also established what was at the time the world's longest telephone line. It ran from Etiwanda to San Bernardino.

Due in great part to the efforts of George Chaffey to bring water to Etiwanda, the colony grew to become one of the choicest places in Southern California in which to live. Many varieties of crops including grapes, oranges, and lemons were grown in abundance.

The initial success of the Etiwanda colony had given the Chaffeys so much satisfaction that during the fall of 1882 the brothers were striking out on a new venture. Actually, it would not take them far from Etiwanda. This enterprise lay just a few miles to the west. It was another parcel of land which had been part of the Rancho Cucamonga. Eventually it would become the cities of Ontario and Upland.

Earlier in the year, the Chaffeys had purchased over six thousand acres of land from the Cucamonga Company for a reported amount of $60,000. The transaction also included water rights for San Antonio Canyon and waste water from Cucamonga Creek. This land along with four thousand other acres including the Kincaid Ranch at the mouth of San Antonio Canyon, comprised what would be the original Ontario settlement.

Continuing to put into practice his knowledge of irrigation, Chaffey began to formulate plans for a water system which would depend upon gravitational flow from the canyon to the valley below. At the outset, he had a struggle in obtaining use of the water in San Antonio Canyon because the town of Pomona had laid claim to that region.

The battle for water rights was short-lived but heated. Settlers at Pomona, believing they had first rights to the water, sent an armed guard to protect the canyon from outsiders. In return, Chaffey sent his foreman into the canyon with orders to fence it off. This brought about an altercation between the guard and the foreman with Chaffey's man coming out the better. The man from Pomona quickly packed his rifle and left the canyon.

There would be more disagreements and claims concerning rights to the water, but for all practical purposes, the Chaffeys had their land and their water. What they did not have was a settlement. That meant there had to be an organized plan to colonize the area. Therefore, George developed a four-point plan which was called by some, the most perfect plan then formulated. Not surprisingly, the first point of the plan dealt with water and sounded much like the system instituted in Etiwanda. It stated as follows, "Distribute the water over the whole tract to each farm lot in cement pipes, each holder to share in the water proportionately to his holdings irrespective of distance from the source."

Water was brought to the Ontario colony in iron pipes as well as the concrete pipes mentioned in the original plans. Chaffey hired Nathan W. Stowell to manufacture the cement pipes needed for the project. The pipes were manufactured on the spot as Stowell's "plant" was the packed soil of the newly graded Euclid Avenue. Originally, a forty-mile network of pipes was laid so as to furnish water to the highest corner of each lot.

Chaffey also realized that a great amount of the water which came down from the mountains above the colony was being lost due to percolation through gravel and rock bed. Because of this he made a decision to excavate a tunnel under the bed of San Antonio Canyon.[13]

In November 1882, Chaffey entered into a contract with the San Antonio Water Company which had been incorporated the month before. The contract stated that the Chaffey brothers were to receive the stock from the company in return for water rights to San Antonio Canyon. The contract also assured future land buyers that the Chaffeys

were not selling more land than they were able to supply with adequate water. Not that anyone mistrusted the brothers.

Again, the Chaffeys would witness the development of a settlement far surpassing most its size in Southern California. In 1903, the United States government selected Ontario as the standard for American irrigation colonies. George and William, along with their water, had truly developed what was to become known worldwide as "the model colony."

A.B. Miller

A.B. Miller settled in the area which was later to become Fontana in the year 1905. He was an agriculturalist, a financier, and a gifted administrator. After arriving in the San Bernardino Valley, he formed an association with three colleagues. Together, the men leased eight thousand acres of Fontana Development Company land in the little settlement known as Rosena. The lease carried with it an option to purchase the land at a later date.

A year following his arrival in the area, Miller and his associates purchased twenty thousand acres of Rosena land which was held by San Francisco Savings Union. Miller visualized what could be accomplished in the area regarding the planting of fruit trees and vineyards. However, he was faced with the problem of getting water to the new tract.

The land purchase had also included seventy-five per cent of the water flow in Lytle Creek, but distributing the water to fields and orchards was not going to be an easy task for Miller. He was aware of the fact that the surface flow of the creek changed with the seasons and was not a dependable source. He also knew that a system of ditches he had already put in place was inadequate because of a loss of water due to evaporation and seepage. He then decided to go underground and make use of the subsurface flow of water. Digging eighty-five feet below the surface, Miller constructed a tunnel which was one mile in length.

Miller was still not satisfied with the amount of water available for irrigation. Therefore, he began drilling several wells in the area. Deep shafts called "inverted wells" were dug in order to collect the excess winter flow of water below Lytle Creek.[14]

From about the years 1901 to 1923, Miller organized a total of ten different companies which dealt in the businesses of agriculture, real estate, water, and electrical energy. These were the Fontana Development Company, Fontana Land and Water Company, Fontana Water Company, Fontana Company, Fontana Union Water Company, Fontana Power Company, Fontana Farms Company, Orchard Mutual Water Company, Rialto Domestic Water Company, and Fontana Domestic Water Company. By 1919, Miller was president of all the Fontana companies.15 In later years, the Fontana Union Water Company would become the successor to some of these companies. Today, Cucamonga Valley Water District is the majority stockholder of Fontana Union.

(Notes)

1 Robert G. Cleland and Frank B. Putnam. *Isaias Hellman and the Farmers and Merchants Bank*. p.3

2 *Los Angeles News*. June 2, 1868

3 Esther Black. *Rancho Cucamonga and Doña Merced*. p.vi

4 *ibid*. p.168–169

5 James Cline Jr. *Cucamonga County Water District: History of Water Rights*.

6 *ibid*.

7 J.A. Alexander, *The Life of George Beatty*. p. 30

8 *ibid*. p. 32

9 J.A. Alexander. *The Life of George Beatty*. p. 34

10 *ibid*. p.35

11 From the Spanish word *zanja* (irrigation ditch), a zanjero was the man who regulated the flow of water through the ditches or pipes to those using the water. 12

12 Robert L. Hickcox, *A History of Etiwanda*. pp. 131–132

13 *ibid*. p.51

14 Karen Frantz, *A History of Rural Fontana and the Decline of Agriculture*. p. 11

15 Rand F. Herbert and Stephen Wee, *Water Rights Investigation: Fontana Union Water Company*. p.111



Chapter Four

Water for Crops

During the period of time beginning with Tiburcio Tapia's land grant, through the "boom" days of real estate sales, and to the 1980s, the Cucamonga Valley and agriculture were almost synonymous terms. Tapia had his vineyards and his cattle. John Rains continued the viticultural activities of Don Tiburcio by increasing the size of the vineyard. He brought in sheep and horses to the ranch and added corn and fruit trees to the landscape. He may also have planted crops such as barley and alfalfa.

Following the decline of the rancho, the new set of pioneers quickly busied themselves with the planting of almost anything that could and would grow. Those who came riding through the valley on horse back or in carriage could view the vast stretches of fields covered by apricots, plums, peaches, olives, and figs. Groves of almost every variety crossed the land. Walnuts, chestnuts, and almonds became very popular crops in the area. Hay and grain

Facing page: "De Berard Vineyard in Cucamonga" by Anne Bridges-Lindquist

were also extremely important commodities to the d istrict.

Surprisingly, the most abundant crop during the 1880s and the 1890s was not grapes. It was potatoes. Cucamonga potato farmers were not afraid to take on the challenge of growers from any area including Idaho and Maine. And the varieties were many. The *Cucamonga Early Rose* was greeted with delight wherever it was shipped. The *Cucamonga Mountain* was shipped as far away as San Antonio, Texas. It was reported by one newspaper of the day that the "Connoisseurs of the esculent farinaceous tuber" in Los Angeles and San Bernardino bought the potatoes as often as they could be had.[1]

The man who founded the Hermosa (Alta Loma) colony, Adolph Petsch, was successful in raising to fruition practically anything he put in the ground. The only crop with which he was not successful was the banana. Doctor Petsch established a vineyard with over sixty thousand grapevines. He also raised Washington navel oranges. It was reported that at least one orange from his crop was thirteen inches in circumference. He supplied the local market with bark from his cinnamon trees. He not only raised food crops in abundance, but he also had several varieties of ornamental plants on his property. His collection of palm trees was said to have been the largest in Southern California, containing sixteen different varieties. Petsch also owned plants from all the inhabited continents of the world with special varieties coming from such places as the West Indies, India, Lebanon, Algeria, Italy, and the Himalayas.[2]

Wine producers in the Cucamonga area were always blessed with an abundance of grapes and water.

Courtesy of Model Colony Room, Ontario City Library





Secondo Guasti (upper left) was a visionary of great magnitude, 1906.

Courtesy of Model Colony Room, Ontario City Library

To the east of the Hermosa colony, ranchers and farmers were carrying on the work begun by George Chaffey in Etiwanda. In 1887, the vineyards of the settlement were flourishing. Newspapers reported that the Muscat grape crop "was where Etiwanda came in." It was also stated that the Malaga and sultana crops were not large, but they had been raised to perfection.[3] And there were more raisins being processed in Etiwanda than the people of the valley could use. Not only were the vineyards of Etiwanda flourishing but also the many other crops which helped the ranchers of Etiwanda to remain in competition with their rivals in Cucamonga and Hermosa. Oranges, lemons, apricots, peaches, and pears were all raised in considerable amounts.[4]

At the same time that Etiwanda, Cucamonga, and Hermosa were having such great agricultural success, there were other tiny colonies being established throughout the valley. Places with names such as Grape-



Secondo d'Asti Church with a portion of Secondo Guasti's vineyard in the foreground.

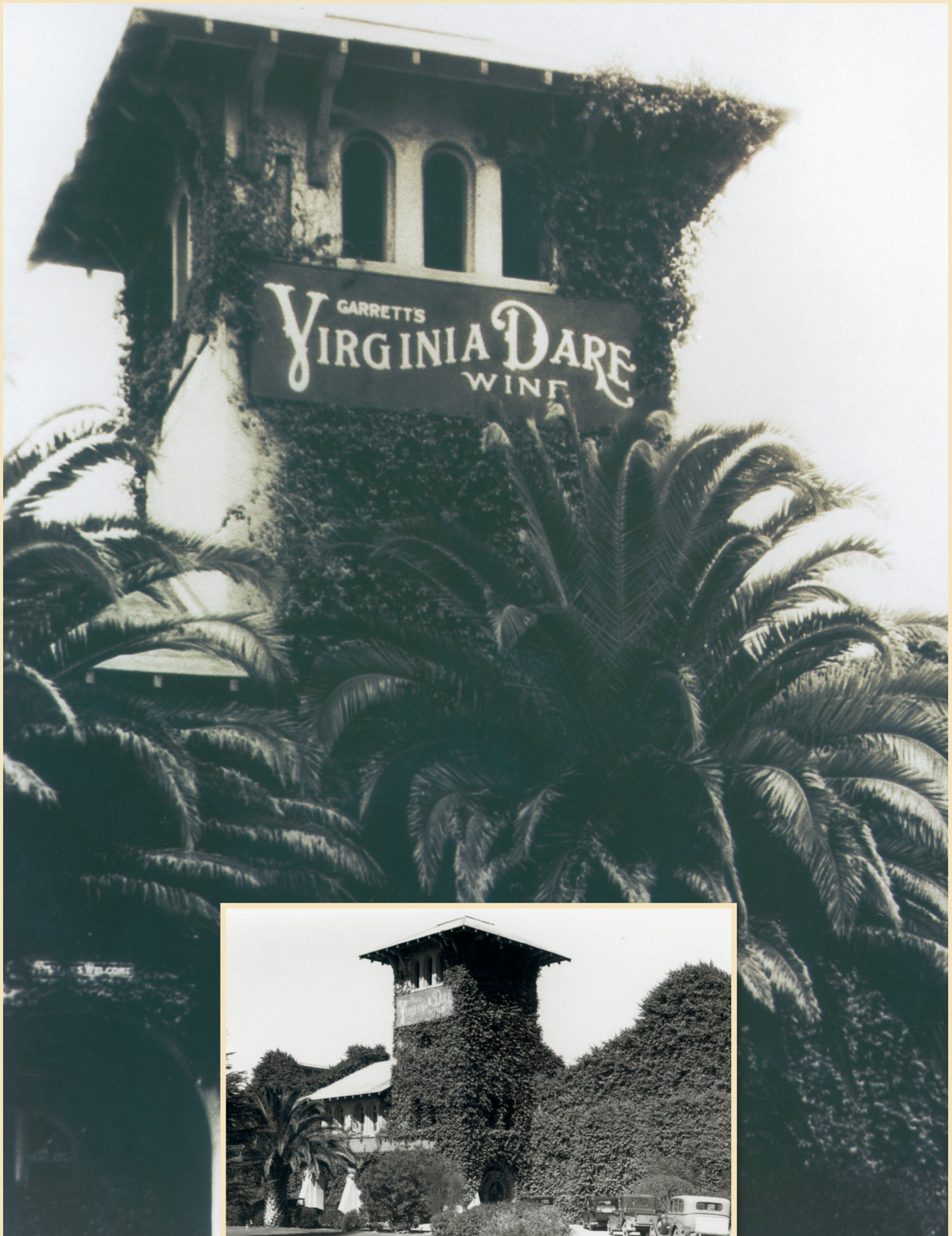
Courtesy of Model Colony Room, Ontario City Library

land, Marquette, and Rochester, were springing up. Each one was involved in its own farming enterprises to one degree or another.

A few miles south of where all this was taking place, another settlement was established in 1901. Italian immigrant Secondo Guasti purchased four thousand acres of land in the area now partially covered by Ontario International Airport. Before purchasing the land, Guasti and his wife had made several trips to the dry, sandy area which sprawled below the beautiful foothills of Cucamonga. On each of the visits they considered the possibility of turning the expanse of desert land into a great, thriving vineyard. Many thought the purchase to be an insane gamble, but Guasti knew that with a supply of water it could be done. Eventually, he purchased one thousand additional acres and, according to Idwal Jones, turned the property into the largest vineyard in the world.[5]

Shortly after acquiring the land, Guasti set about the task of developing his enterprise. First he planted grapevines with cuttings from his native Italy and from France. In 1904, he began construction of the Italian Vineyard Company which also included a dairy and a hog farm.

Guasti, of course, was not the only successful agriculturist and vintner. Other



The Virginia Dare Winery was very dependent on local water supplies as were all wineries in the valley.

names associated with the grape industry in Cucamonga were Haven, Milliken, Garrett, Lafourcade, and Filippi.

In approximately 1890, George Haven and Daniel Milliken purchased a section of land in Cucamonga near what is now the intersection of Haven Avenue and Arrow Highway. The two men immediately set out several hundred acres of grapes, especially of the wine varieties.

In 1918, Paul Garrett became the director of the Virginia Dare Winery which had opened as the Mission Winery in 1911. The Virginia Dare met with great success even during the era of prohibition when it was converted into a grape juice manufacturing plant. In 1945, five years after the death of Garrett, the company purchased the Guasti Winery. Together, the two companies prospered until 1961 when the business was dissolved.

John Lafourcade owned 780 acres near the intersection of Foothill Boulevard and Rochester Avenue. Lafourcade's vineyard was at one time classified as the most beautiful in the valley. His company town was immaculate and second only to that of Secondo Guasti. The greatest portion of his business was dedicated to the production of raisins. His raisin company employed 250 workers during the packing season.

Giovanni Filippi was one of the workers who helped build the original Guasti Winery in 1904. After returning home to his native Italy, Giovanni decided to come back to Cucamonga.[6] In 1921, he and his son Joseph were working in vineyards planted by Giovanni's brother Antonio. A year later, the three were busy planting a twenty-two acre vineyard in the Wineville (Mira Loma) area. The small vineyard was located within a 124 acre pasture. By 1965, the family had developed the Joseph Filippi Winery into a company which was producing several hundred thousand gallons of wine per year with a winery which

Field workers were an important part of the Cucamonga wine industry, 1941.
Courtesy of Model Colony Room, Ontario City Library





(Top): Winery workers handling grapes which have been brought in from the fields.

(Bottom): Horse-drawn wagon loaded with grapes from the vineyards.



had the storage capacity of over one-million gallons of wine.[7]

The agricultural success experienced by the grape growers also blessed those who tried their hand at citrus ranching. In 1896, following the success of growers such as J.W. North in the Riverside area, men such as E.W. Reid, P.A. Demens, Charles Brown, and J.C. Lynch banded together to form a citrus growers' exchange in Cucamonga. Joining them were W.C. James, O.H. Stanton, J.M. Kirk, John Beattie, Jeff Kincaid, and a man by the name of Thayer.

These were not the last to engage in the industry, as the region in and around Cucamonga became well known for its citrus. In fact, shortly after the institution of the industry in Cucamonga, it was reported that the orange and lemon groves were not only the finest in the state, but in all the country. It was said that to see the abundance of Washington navels, Mediterranean Sweets, and other varieties of citrus which had been planted only two years earlier was a beautiful sight.

The citrus industry was a vital part of the Cucamonga economy for many years. Until the 1970s, oranges, lemons, grapefruits, and tangerines could be seen growing on most of the lands which graced the valley below the foothills.[8]

And what was it that allowed the farmers and ranchers of the Cucamonga Valley to fare so well? Beside their own industrious

Illustrated postcard depicting grapefruit groves in the Cucamonga Valley area.
Courtesy of Model Colony Room, Ontario City Library





Postcard representing the wealth of oranges grown by local ranchers.
Courtesy of Model Colony Room, Ontario City Library

nature, there were other reasons. Climate and soil were two factors. Concerning the climate, it was mild and especially suited for raising crops such as grapes and citrus which had originated in the Mediterranean area. The soil was some of the best in the world (once a hard working farmer made his way through all the rocks). An agronomist by the name of Westman described the soil as being unequalled in its richness. He stated that in his worldwide travels, the only valley he had found to equal Cucamonga was the Chamonix in Switzerland.

But the farmer, the climate, and the soil were not enough. The final ingredient that made it all work was water. Without it there would have never been the thriving agricultural industry so closely associated with Cucamonga.

As an example of what water meant to the growers of the area, a 1922 newspaper article concerning John Lafourcade's operation described the importance of this resource. The article stated that water was the keynote of success or failure on the desert in raising a crop to maturity or to allow one to enlarge his holdings. It went on to say that Lafourcade had obtained stock in Etiwanda, Cucamonga, and Rochester Water Companies, but was not satisfied. He realized the importance of developing his own water supply, not only to get a larger flow, but to enable himself to increase his acreage and to have water at all times. For sanitary reasons, also, and for the benefit of

his employees, he knew that pure water was an extremely valuable asset. With pure water developed on his own property, it could be transported through pipes to the houses in the company settlement for drinking and cooking purposes.[9]

After government experts tested the land around his acreage and passed a negative report stating that no water was to be found, Lafourcade decided he would take a chance and drill a well. He spent $26,000 to drill the well and to set up a pump. Another $7,000 was expended for pipe which he laid over 430 of his acres. The initial flow of water was seventeen inches. The flow was later increased to eighty inches and the depth of the well was 630 feet.[10]

Etiwanda Board of Trade brochure published for the 1914 Orange Show held in San Bernardino.



This brochure was published for the 1914 Orange Show

(Notes)

1 Donald L. Clucas, *Light Over the Mountain*. p.63

2 *ibid*. p. 193

3 *Ontario Record*. January 18, 1888

4 Donald L. Clucas, *Light Over the Mountain*. p. 211

5 Idwal Jones, *Vines in the Sun*. p. 180

6 Rob L. Wagner, *Sleeping Giant*. p. 70

7 Joseph Filippi Winery website

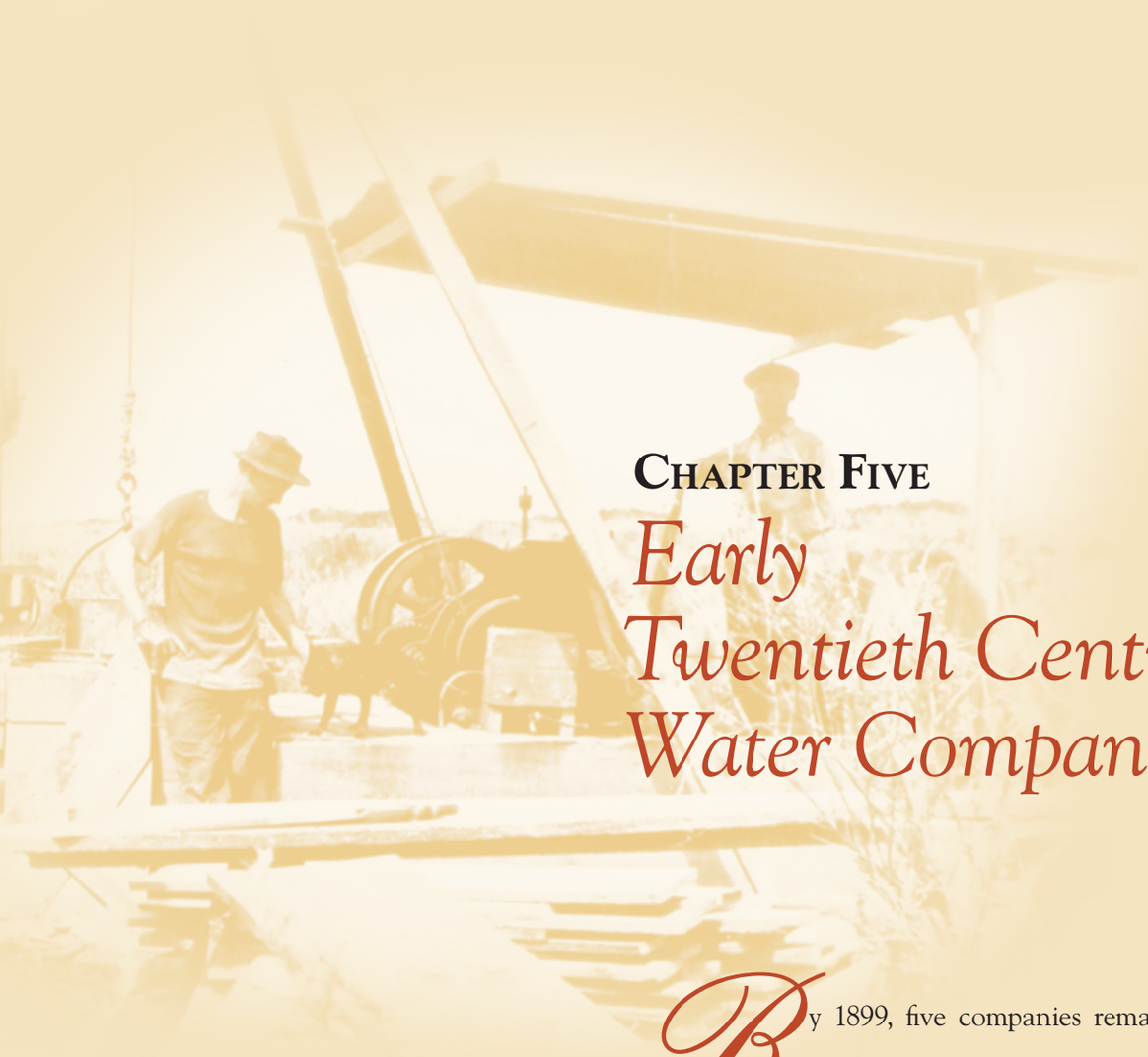
8 Donald L. Clucas, *Light Over the Mountain*. pp. 76–78

9 *Colton Daily Courier*, October 30, 1922

10 Donald L. Clucas, *Light Over the Mountain*. pp. 109–110







Chapter Five

Early Twentieth Century Water Companies

By 1899, five companies remained from the earlier days of the land "boom." The Etiwanda, Cucamonga, Hermosa, Rochester, and Ioamosa Water Companies had all been formed from 1882 to 1900.

At the turn of the century, the Cucamonga area was to witness the creation of a series of small water companies.[1] From 1900 until 1955, no fewer than nineteen companies would come into existence. Added to the companies which were already in operation, the total would be twenty-four.

In the early 1900s, the Cucamonga Water Company began feverishly working to provide water to the settlers of the area. The local newspaper reported that the drilling of several wells was

Facing page: "Home of Captain Peter Demens (Tolstoy House)" by Anne Bridges-Lindquist

taking place in the area. It also stated that San Bernardino Road was being torn up from the post office near the Rains' house to the schoolhouse at Hellman Avenue in order to dig a trench for a pipeline. The paper also said that the upper part of the Cucamonga area was a fine water producing district, water being obtained from wells from fifty to one hundred feet from the surface, while but a short distance to the south no water had been obtained, although a number of wells had been sunk. [2]

In 1903, the digging of wells was reported to be taking place by the Cucamonga Water Company in the area north of the Base Line. The local newspaper stated that the company owned a large parcel of land above the road and it was of such character that it would undoubtedly produce an abundance of water.[3]

During the same year there were groups other than the water companies that were at work sinking wells. One example was the California Wine Association. In May, the organization entered into a contract for the sinking of its well at North Cucamonga.[4] The winery contracted for the drilling of another well on its property in July.[5]

In 1912, the Cucamonga Water Company found it wise to organize the Cucamonga Investment Company. Using the Board of Directors from the water company as administrators, the new organization could oversee the purchase of land, water, and water rights. Soon after the incorporation of the Cucamonga County Water District in the 1950s, the Cucamonga Investment Company was dissolved.

The first of the new companies to form during the twentieth century was the Sunset Water Company. Its date of establishment was 1901. The Sunset was an agricultural water company which owned two wells. One



The construction of this check dam in Cucamonga Canyon brought together quite a gathering of laborers and those with water concerns, 1933.



Early well and pump in Cucamonga Valley.

well was located on the east side of Amethyst Avenue in Alta Loma near La Grande Street. The other was directly east near where Archibald Avenue would eventually extend. The company began pumping water in May of 1903 with a steady flow of forty miner's inches (sixty cubic feet per minute).[6] The Sunset Water Company served a total of 190 acres.

In 1902, the Old Settlers Water Company was incorporated. The company had actually formed in the late 1880s when a group of settlers joined together in a casual agreement. The group purchased 520 acres of land from the Cucamonga Land Company and gave to each parcel of land a share of interest in the company's water holdings. The company had one well located five hundred feet west of Archibald Avenue about halfway between Base Line Road and Church Street. In 1903, a newspaper report stated that D.R. Kilbourne had made a trip to Los Angeles for the express purpose of purchasing a "model" gasoline engine of eighteen horse power in order to pump water from its well.[7] The type of service given by the company was agricultural and domestic water. Extraction rights for the company were four hundred acre feet of water per year from the Cucamonga Basin.

The year 1903 still saw the Smith Brothers of the Rochester Tract attempting to locate more water for their struggling settlement. Reports were made that they had struck water at four hundred feet in their new well and the water raised fifty feet in the pipe. It was also stated that the men would be continuing to drill more wells.[8]

The Deer Canyon Irrigation Company incorporated in 1912 in order to supply irrigation water to a quarter-section of land near Rochester and Highland Avenues. A well was dug to a depth of about four hundred feet and water was struck at two hundred feet. In 1918, the well was heavily damaged by an earthquake and although a windmill was installed to help pump the water, the well never resumed its initial production.[9]



Drilling a well in Cucamonga Canyon.

In 1913, the Alta Loma Mutual Water Company was established. Serving agricultural customers, the company's single well on the south side of 19th Street west of Hellman Avenue extracted six hundred acre feet per year.

Formation of three companies came about in 1914. The Foothill Irrigation Company distributed agricultural and domestic water while the Citrus and Joya Water Companies served agricultural customers only. The Citrus Water Company was the first of the three to be formed followed by the Joya, then the Foothill.

The Citrus Water Company owned one well on the east side of Amethyst Avenue about one hundred feet south of 19th Street. The company wells produced 450 acre feet per year.

The Joya Water Company which extracted three hundred feet per year had only one well. It was located at the southeast corner of Orange Street and Sapphire Avenue in Alta Loma.

The last company to form during 1914 was the Foothill Water Company. This company was the most active of the three having three wells and extraction rights of one thousand six hundred acre feet. Two of the company's wells were located on the east side of Amethyst Avenue, north of Highland Avenue. The third was located on the South Side of Highland Avenue, west of Archibald Avenue.

The two wells on Amethyst Avenue are still used by the CVWD today.

In 1917, the Alta Loma Domestic Water Company came into being. Holding shares of stock in the Citrus and Sunset Water Companies, the Hellman Well, Inc., and later, the Hedges Well, Inc., the company drew its domestic use water from the wells of these organizations.

The year 1920 brought about the formation of Hedges Well, Inc. The company owned rights to a little over seven hundred acre feet of water per year. It also drew from the supplies of several other companies. Apparently all wells in the area were interconnected to a networked system allowing each company to draw water from that system.

During the decade of the twenties, two water companies were organized. They were the Arrow Route Water Company, and the Rex Mutual Water Company.

The Arrow Route was formed in 1927 for agricultural purposes. The company's single well located on the south side of Arrow Route east of Vineyard Avenue extracted only two hundred acre feet per year. The well was eventually connected to the Cucamonga Water District system.

The Rex Mutual Water Company owned two wells with rights to six hundred acre feet of agricultural water. One well was located at the northwest corner of Orange and Carnelian Streets. The other was at the northeast corner of Carnelian Street and Lemon Avenue.

The Estates Water Company was established in 1930. This domestic water company had no wells of its own. The company was a public utility developed by an individual. It had no production facilities and obtained water from various other companies.

The Schowalter Mutual Water Company was also formed in 1930. Located on the north side of Almond Street and the north side of



Expanse of vineyards with Virginia Dare Winery in the foreground. Intersection of Foothill Boulevard and Haven Avenue is at lower right.

Hillside Road east of Hermosa Avenue, the Schowalter wells drew 128 acre feet of water for agricultural and domestic use.

In 1936, the Archibald Avenue Water Company was organized. The company's well was located a short distance south of Foothill Boulevard between Hermosa and Haven Avenues. Water in the amount of 1,320 acre feet per year was used for agricultural purposes only.

A year later, the Banyan Heights Water Company came into being. Also intended for agricultural use only, the company had one well located at the northwest corner of 19th and Sapphire Streets. Extraction rights were in the amount of 625 acre feet of water. The Banyan Heights Company would be the last company developed until after the end of World War II.

Following the war, five additional small water companies were established in the area. These were the Mesa Linda, North Cucamonga, Carnelian, Southwest Suburban, and Adobe Water Companies.

In 1950, the Mesa Linda Water Company was established. Having no extraction rights, the company did have rights to one miner's inch of agricultural and domestic water from Cucamonga Canyon.

The North Cucamonga Water Company which was formed in 1952 also lacked rights to the extraction of water. The company

Etiwanda Water Company office building located on Etiwanda Avenue, 1941.



maintained two connections on Archibald Avenue in order to distribute domestic water to residents on Feron Boulevard and Main Street north of 8th Street. The company also had connections on Hermosa Avenue in or-der to serve those on 26th Street south to 8th Street as well as Center and Humboldt Avenues.

A year later, the Carnelian Water Company was established. The company maintained one well located on the east side of Carnelian Street south of 19th Street. The agricultural water from the well was distributed to ranchers from 19th Street south to Base Line Road and Carnelian Street east to Beryl Street. Extraction rights were in the amount of six hundred acre feet of water per year.

Following the formation of the Carnelian Water Company came the Southwest Suburban Water Company in 1954. The source of water for the company was the Etiwanda Water Company. The location of the company's service was from Wilson Avenue on the north to Foothill Boulevard and from Day Creek channel on the west to Cherry Avenue. The water extracted was for domestic use only.

In 1955, the Adobe Water Company began supplying agricultural water from Cucamonga Creek east to Vineyard Avenue. The territory covered also extended from 19th Street south to Foothill Boulevard. Water for the Adobe Company was supplied by Cucamonga Water Company.

Aerial view of agricultural lands in Etiwanda, 1952.



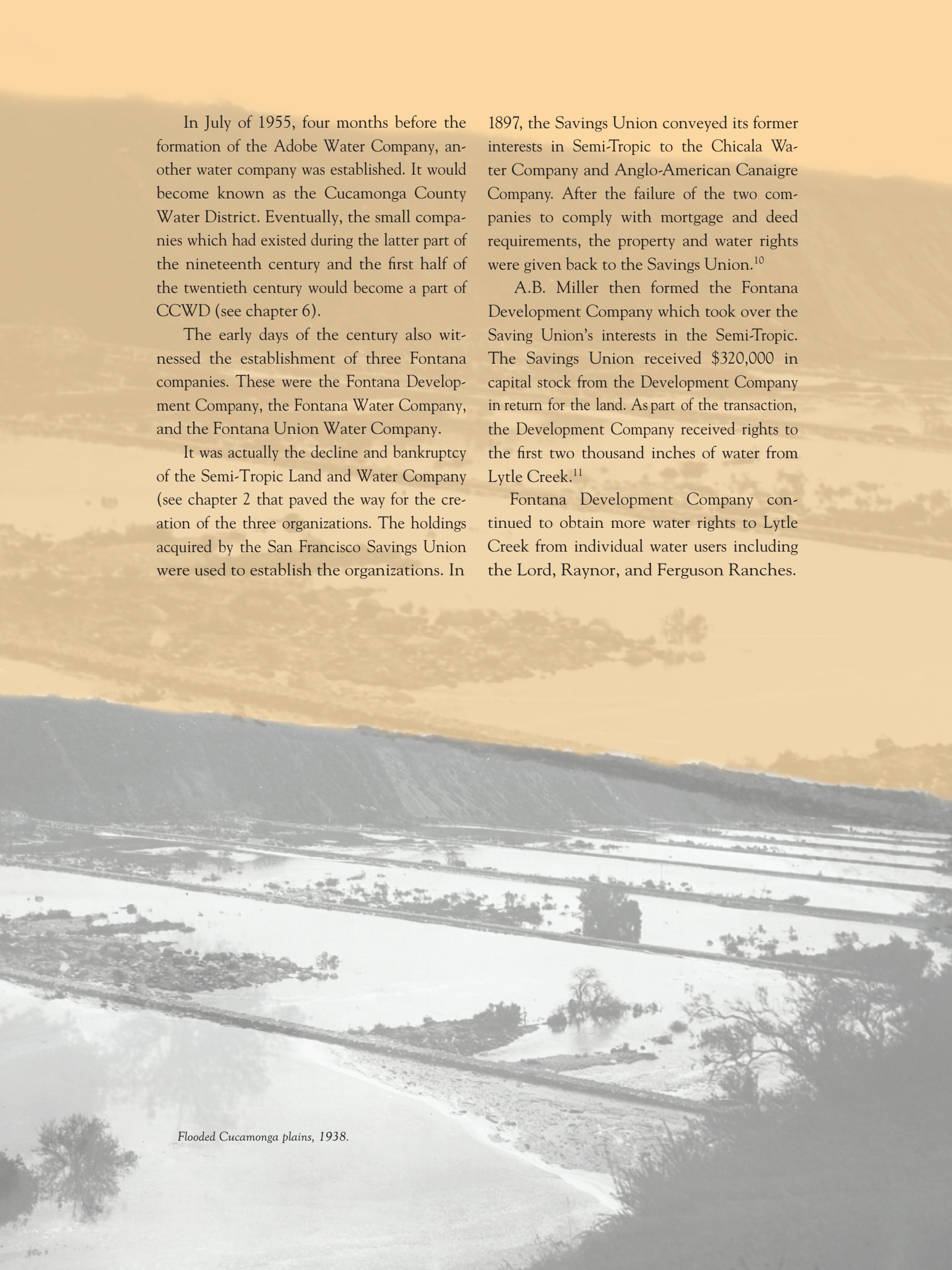
In July of 1955, four months before the formation of the Adobe Water Company, another water company was established. It would become known as the Cucamonga County Water District. Eventually, the small companies which had existed during the latter part of the nineteenth century and the first half of the twentieth century would become a part of CCWD (see chapter 6).

The early days of the century also witnessed the establishment of three Fontana companies. These were the Fontana Development Company, the Fontana Water Company, and the Fontana Union Water Company.

It was actually the decline and bankruptcy of the Semi-Tropic Land and Water Company (see chapter 2 that paved the way for the creation of the three organizations. The holdings acquired by the San Francisco Savings Union were used to establish the organizations. In 1897, the Savings Union conveyed its former interests in Semi-Tropic to the Chicala Water Company and Anglo-American Canaigre Company. After the failure of the two companies to comply with mortgage and deed requirements, the property and water rights were given back to the Savings Union.[10]

A.B. Miller then formed the Fontana Development Company which took over the Saving Union's interests in the Semi-Tropic. The Savings Union received $320,000 in capital stock from the Development Company in return for the land. As part of the transaction, the Development Company received rights to the first two thousand inches of water from Lytle Creek.[11]

Fontana Development Company continued to obtain more water rights to Lytle Creek from individual water users including the Lord, Raynor, and Ferguson Ranches.



Flooded Cucamonga plains, 1938.



Inside view of the construction of an early reservoir.

Some of the rights gained by the company included use of tunnels, reservoirs, and dams. In 1901, the company acquired an additional two thousand inches of water rights to Lytle Creek.

In 1902, the Development Company leased usage of the Grapeland Irrigation District tunnel for a period of five years in order to collect and transport its water. The company also made an agreement with Lytle Creek Water Company and Lytle Creek Improvement Company to build a canal from the entrance of the tunnel to the ditch that had been cut by the Semi-Tropic Land and Water Company. In 1903, after leasing the ditch for only a few months, the Development Company purchased the tunnel from Grapeland Irrigation for $1,500. During the same year, Fontana Development Company, along with Lytle Creek Water and Lytle Creek Improvement Companies, constructed a pipeline to the tunnel.[12]

During the next several years, until 1912, the Development Company built pipelines, erected dams, and generally improved the delivery of water to irrigators. The company was also involved with conservation projects in the upper portion of Lytle Canyon and it entered into an agreement with the Edison Electric Company granting use of 1,200 inches of water to Edison for the purpose of generating electricity in the Canyon.

The Fontana Water Company was established in 1909 with five stockholders. The members included E.D. Roberts, Roy Bradley Wheeler, A.B. Miller, W.H. Powers, and M.A. Hebberd. Much of the property obtained by the company was received from the Fontana Development Company. The Development Company also conveyed to Fontana Water

the rights to 206 inches of water in Lytle Creek, a cement pipeline and several smaller pipelines, and the right to use the Grapeland Tunnel for twenty years.[13]

While using the Grapeland Tunnel the Fontana Water Company gained permission from the Development Company to repair and extend the tunnel ultimately increasing its flow of water. Fontana Water also sank several shafts in the gravel beds of Lytle Creek and built diversions to direct floodwaters into the shafts. In return for the work, the Development Company gave to Fontana Water the right to develop three hundred inches of water from Development Company lands near the mouth of Lytle Creek Canyon.

Fontana Water Company continued to operate for eighteen years following its incorporation. In 1927, it transferred all of its assets to Fontana Union Water Company in return for four thousand shares of Fontana Union stock.[14]

Fifteen years before Fontana Water made the transfer of its assets, the Fontana Union Water Company had incorporated with a board of directors which included Roy Bradley Wheeler, J.S. Torrance, C.M Rasor, S.G. Baker, and, not surprisingly, A.B. Miller. Because of his experience with previous companies, Miller was elected president of the Fontana Union as well as its office manager.

Immediately following its incorporation, the Fontana Union secured $900,000 bonded indebtedness from Los Angeles Trust and Savings Bank. In 1913, the company increased its operation by purchasing cement canals, irrigation systems, the Fontana Ditch, the Fontana Rock Rubble Ditch, the main pipeline running south of the Santa Fe Railroad, various pipelines, street laterals (side ditches, and division boxes.

The Fontana Union Water Company continued the projects in Lytle Creek Canyon which had previously been carried on by Fontana Water. This situation caused some concern for the Lytle Creek Improvement Company. As a result of the situation, Kenneth MacRae, E.W. Winslow, and zanjero G. Easton, of Lytle Creek Improvement met with A.B. Miller in order to observe exactly what was taking place in the canyon.[15]

Fontana Union continued its work without interruption for the next several years. Then, in 1919, relationships between the two companies became even more strained. In July of that year, Lytle Creek Improvement refused to give permission to Fontana Union to pump from its well. [16]

During the 1920s, several companies merged with Fontana Union. In 1922, Fontana Farms transferred its water rights to Fontana Union. Fontana Farms was established by A.B. Miller about 1901. The company consisted of several acres of vineyards and orange groves. A camp for field workers was also maintained at the Farms.[17] In 1924, Fontana Land and Water Company, Fontana Water Company, and Orchard Mutual Water Company became part of Fontana Union. Fontana Company's rights were vested in Fontana Union in 1927.[18]

The following decade witnessed the completion of several wells by Fontana Union. In fact, by 1939 Fontana Union owned twenty-nine wells in the valley below Lytle Creek. Two more wells would also be dug in 1948 and 1951.[19]

In 1942, immediately following the outbreak World War II, Kaiser Steel Corporation established a steel production factory at Fontana. In need of a tremendous water supply for steel production, Kaiser entered into an agreement with Fontana Union Water Company. The agreement stated that Kaiser could drill its own wells, but not in the area where Fontana Union wells were already in existence. The steel company also agreed not to pollute the groundwater of the area and to

keep accurate records of water usage by the company. Fontana Union agreed that as long as Kaiser followed the guidelines laid out for water usage on its part, the water company would not seek damages from Kaiser for using any water obtained from the Chino Basin. Fontana Union also agreed that Kaiser could drill wells in the area if the water company was not able to provide adequate water.[20]

(Notes)

[1] Most of the following information on the early companies is from Cucamonga County Water District: History of Water Rights by James H. Cline Jr.

[2] Ontario Record. September 29, 1902

[3] ibid. February 21, 1903

[4] ibid. May 2, 1903.

[5] ibid. May 2, 1903.

[6] W.C. Belden, Ontario Record. May 30, 1903

[7] ibid. June 6, 1903

[8] ibid. July 4, 1903

[9] Robert L. Hickcox, A History of Etiwanda. p. 188

[10] Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water Company*. p. 112

[11] *ibid*. pp. 112-113

[12] *ibid*. p. 114

[13] *ibid*. p. 124

[14] *ibid*. p. 125

[15] *ibid*. pp. 129-130

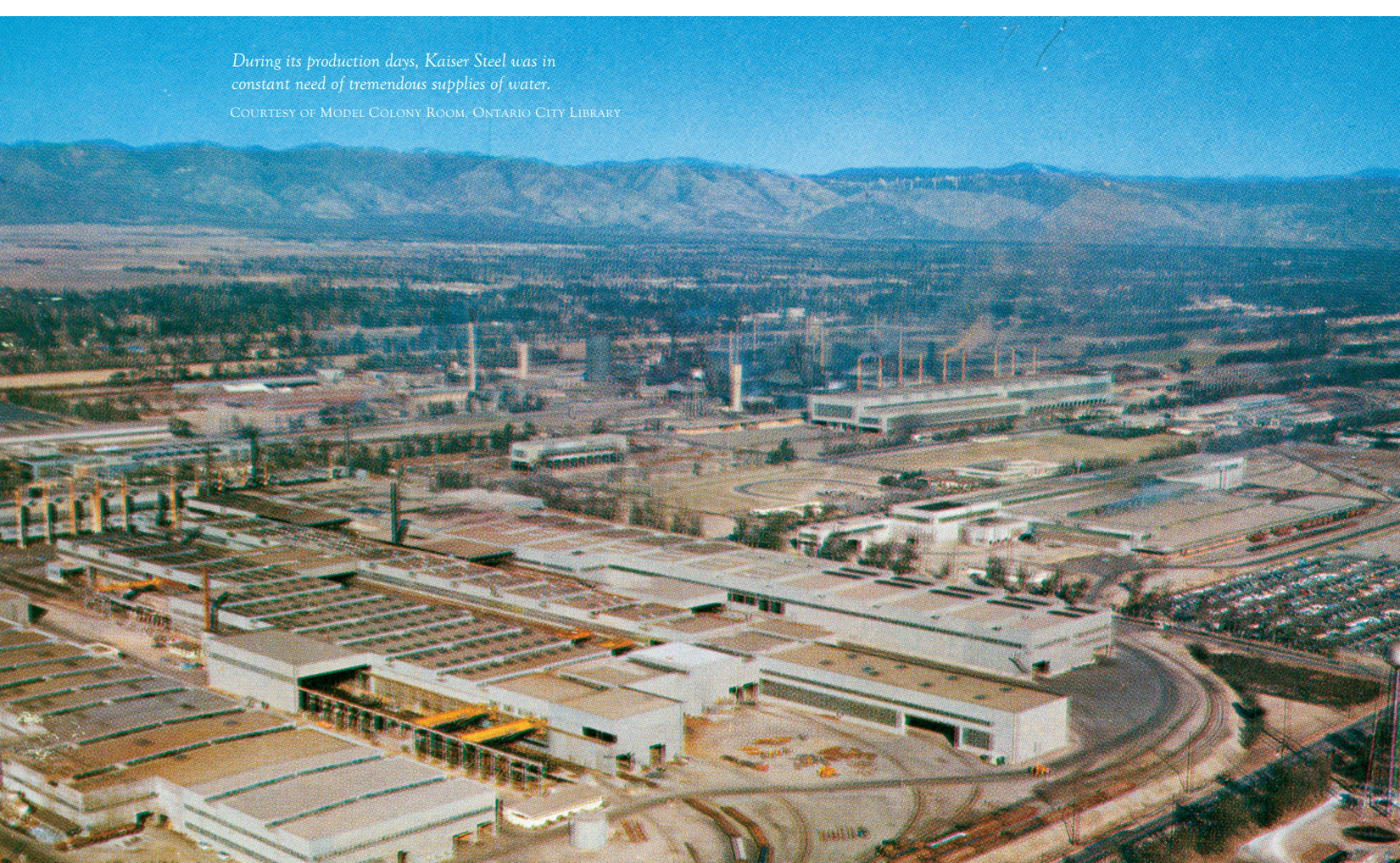
[16] *ibid*. p. 133

[17] *City of Fontana Website*.

[18] Rand F. Herbert and Stephen R. Wee, *Water Rights Investigation: Fontana Union Water Company*. p. 134.

[19] *Ibid*. p. 135

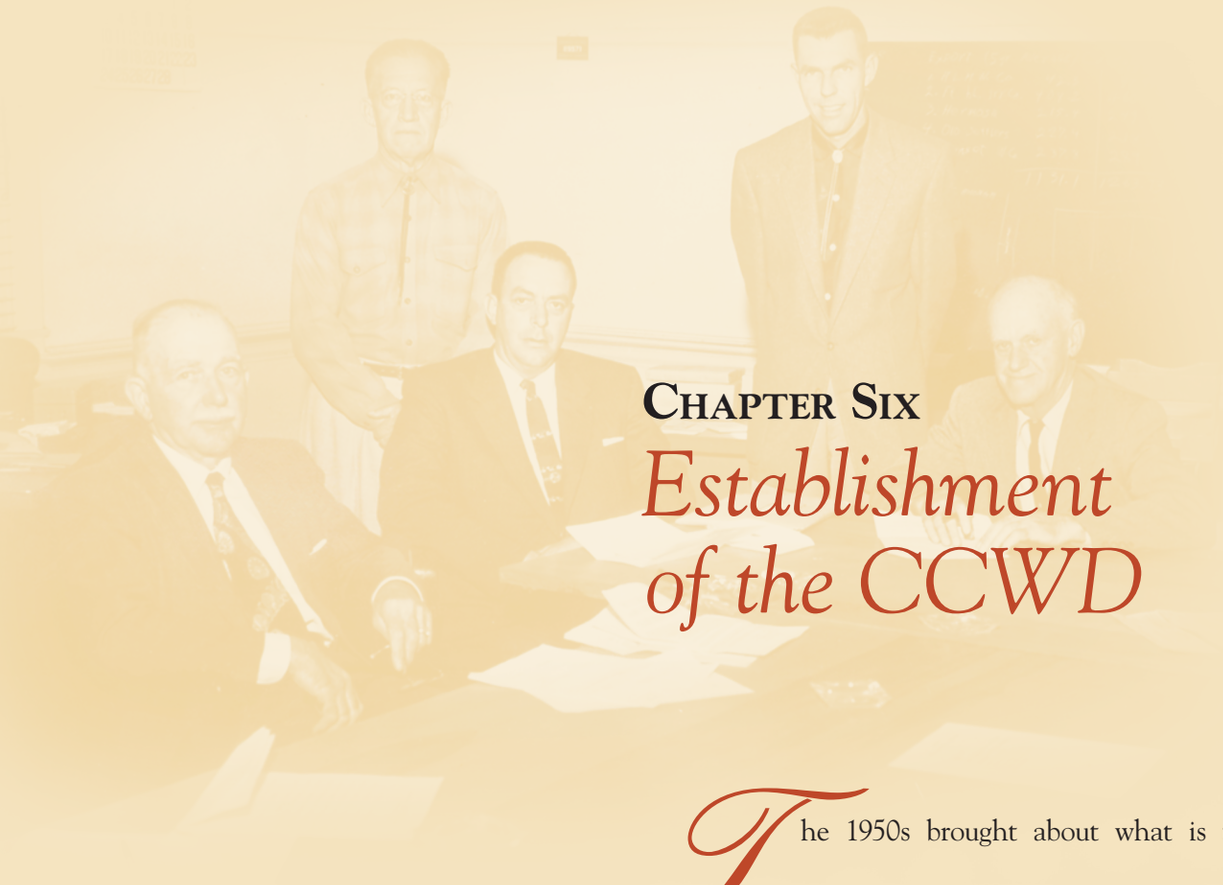
[20] *ibid*. p. 137



During its production days, Kaiser Steel was in constant need of tremendous supplies of water.

Courtesy of Model Colony Room, Ontario City Library


Cucamonga County
Water District



Chapter Six

Establishment of the CCWD

The 1950s brought about what is undoubtedly the greatest event in the history of water in the Cucamonga Valley. This event was the organization of the Cucamonga County Water District (CCWD).

Before a movement took place to form a new water district, however, there were those who made a different proposal. Some residents favored annexation of what was called the Mid-Valley area (Cucamonga-Alta Loma district) to the Chino Basin Municipal Water District (CBMWD) and to the Metropolitan Water District of Southern California (MWD).[1]

Over seven hundred petitions were signed calling for an election. The date of the election was set at Tuesday, February 9th. As the day of the election approached, there appeared to be no organized public opposition to the measure. There was some

Facing page: "Cucamonga County Water District Headquarters, 1955" by local resident Harriet White

opposition expressed at the precincts in the way of negative votes, but not enough to defeat the issue. In fact, annexation was approved with a seventy-five per cent favorable vote. The result of the election was that eighty-five thousand acres valued at $20 million were annexed by CBMWD and MWD. Of nine precincts involved in the election, only Etiwanda and Mountain View voted to defeat the measure.[2]

During the six-month period following the annexation election, the CBMWD struggled as it made attempts to supply water to the Mid-Valley area. In July, it was reported by Howard Clark of the CBMWD that development of the Archibald connection with the aqueduct to provide water for the Cucamonga Water Company was being blocked due to the recent sale of three hundred acres of the Lucas Ranch. A required easement had been arranged with the former owners, but the new owner had not been notified of the agreement at the time of the property sale.[3]

Also in July, an agreement was made with the San Antonio Water Company to extend service to supply domestic customers on Red Hill. It was agreed that lines would be extended to connect with the Estates Water Company's reservoir on 19th Street at Sapphire Avenue. The added source of domestic water was meant to help supply the rapidly growing west side of the Mid-Valley area.[4]

In August, it was being reported that water in the Chino Basin was at its lowest level in history. In fact, water in the Mid-Valley area had dropped thirty feet in comparison to the same time one year earlier. Fears of shortages were eased temporarily when residents were assured additional water was available through the MWD.[5]

Perhaps generated by the problems being faced following the annexation of the Mid-Valley area to the CBMWD, there was a growing opinion among the people in the area that they should have their own organization to deliver water where the various water companies, individuals, or groups of individuals could make use of it. The purpose of a new organization was "to have an organized body which could hire the necessary engineering force to decide the most feasible and economical plan for getting the water to the various portions of the district."[6]

With the idea in mind of possibly forming a water district which would serve the Mid-Valley, it was decided an informal meeting should be held to discuss the situation. On the evening of August 19th, interested property owners gathered together to discuss "the necessity, advisability, and possible boundaries for a Mid-Valley district which would eventually obtain water from the Colorado River."[7]

Following the initial meeting it was determined that a preliminary study should be made in order to form an organization that would receive Colorado River water for the Mid-Valley district. The study revealed that it would require a bond issue of about $600,000 in order to serve an area of approximately thirteen thousand acres. It was also determined that one back-feeder line would be required to serve the more than twenty companies already existing in the area.[8]

On August 30th, the Cucamonga Basin Protective Association held a meeting with the purpose being to decide on the future of the water companies in the valley. The association represented more than twenty water companies within the area. President of the association was J.F. Grass Jr. Vice president was John Klusman, and Norman Hixson served was secretary. Directors included John Belcher, Harold Blatz, Galer Royer, Francis Lucas, Robert Nesbit, and Gordon Billings.

Several decisions were made during the meeting including the idea of proceeding with the organization of a new water district. The

purpose of the new district would be to provide funds for creating a distribution system. The association also recommended that the boundaries of the district be changed slightly, possibly excluding a sagebrush-covered area to the north of Cucamonga. The boundaries were to be Upland's eastern city limit to Milliken Avenue and Fourth Street on the south to the mountains. The district was to cover an approximate twenty-four square mile area. A decision was also made to hold two elections. The purpose of the first election was to legally establish the special district and to choose directors for the new organization. The second election was for the authorization of bonds.

On September 9th, *The Upland News* reported that petitions were being circulated in order to seek a special election for the purpose of establishing a new water district. The newspaper stated that if approved the new district would be called the Mid-Valley Metropolitan Water District. Five directors were to be named to the initial board. The newspaper also reported that water was scheduled to be purchased from the Chino Basin Municipal Water District (CBMWD) at eleven dollars an acre foot. The water was to be distributed within the proposed district on a cost basis. In other words, water pumped to areas of higher elevation would cost more than those at a lower elevation.

On October 22nd, *The Upland News* reported that half of the owners in the twenty-four square mile area had signed the petitions for the formation of the new district. The newspaper also stated that several residents living outside the proposed boundaries had requested that they be included in the district. However, during a meeting held the previous day, the protective association had decided the boundaries should remain as they were initially intended with the possibility of annexing other areas after the district was formed and operating.[9]

The following week *The Cucamonga Times* reported that there were more than enough signed petitions requesting the county board of supervisors to call an election to vote on forming the CCWD. The newspaper also reported that in order to at least temporarily solve the problem of who would be served by the new district, it was decided that no land originally included in the proposed district would be excluded. It was also stated that no land would be included which would not in the judgment of the board of supervisors be benefited by the district. However, if it could be established that land not included would be benefited, the board could rule to include that parcel.[10]

A pre-election plan and a drawing up of the boundaries were made by manager-engineer Howard F. Clark of the CBMWD. The plan was simply a suggestion and it was stated that any plan finally adopted by the new district would have to be based on detailed engineering data and upon the desires of the citizens within the boundaries of the district.

During the following four months, the proposal of a new water district and the election itself was discussed and argued back and forth. As early as the first week of November, 1954, organizations throughout the community were holding meetings with the proposal of a new water district as the main topic. The Cucamonga Service Club was apparently the first to hold such a meeting. On Monday, November 4th, the organization held a forum with the purpose of discussing the proposed water district. Several prominent citizens from Cucamonga were addressed by J.F. Grass, Jr., Harold Blatz, and Francis Lucas from the group representing the protective association. There were no speakers representing those who were not in favor of the project. There were those in attendance,

however, whose land was not included with the original boundaries and who were anxious to have their property included. Lucas addressed the issue informing property owners who were interested in being a part of the new district to be on hand at the final hearing before the San Bernardino County Board of Supervisors when the final boundaries would be determined.[11]

In the mean time, Howard Clark had completed the final proposal for the boundaries of the new district.[12] A notice of petition to the county board of supervisors for formation of the CCWD was then published in local newspapers for the legally prescribed period of time. The notice described the boundaries of the proposed district. Basically, the area included within the proposed district was bounded by the city limits of Ontario and Upland on the west, Milliken Avenue on the east, Fourth Street on the south, and the Angeles National Forest boundary on the north.[13] The proposed district would also lie wholly within the CBMWD thereby allowing the new district to obtain Colorado River water to distribute to customers through mutual water company lines.[14]

The names of the first five individuals who signed the petition were attached to the notice. Those citizens were H.B. Blatz of Cucamonga as well as Joseph F. Grass, Jr., John S. Ingalls, Marjorie F. Stamm, and Elda P. Rota of Alta Loma. Along with the petition notice was a statement in the newspaper that the Board of Supervisors had set December 13th as the date of the hearing regarding the incorporation of the district. The place of the hearing was to be the County Health Department Building in San Bernardino[15]

The hearing of December 13th was held, but the County Board of Supervisors delayed for two weeks the setting of a date for the election in order to allow time for an area to the east of the proposed boundaries to join the district at the same time. The decision to delay fixing the boundaries and setting an election date was made in response to a plea from residents living in an area which adjoined the proposed district along a section of Highland Avenue.

During the meeting of December 13th, the Pacific Electric Railway and the Atchison, Topeka & Santa Fe Railway Company requested that their rail lines be excluded from the proposed district. The Board of Supervisors denied the requests of both companies. Spokesmen for the railroad companies argued that while they were willing to have the stations and similar property that might benefit from the added water supply included in the special district, they did not desire to have the rail lines included. Pacific Electric requested exclusion of all its track right-of-way, but Santa Fe asked only for exemption of the center thirty feet of its one hundred foot right-of-way on the grounds that no trackage would receive benefit from the additional water supply. John P. Knauf, the attorney representing Santa Fe, stated that neither rail line objected to the formation of the water district, but the companies did regard it as a duplication of the CBMWD.

The argument continued between the rail companies and proponents of the new water district. Knauf stated that he had been informed that the new district was proposed in order to achieve autonomy from the CBMWD, but that the railway companies did not believe it was a necessary move. Knauf also termed formation of the proposed district as "pyramiding" of special districts which would add vastly to the railroads' operating costs through extra taxes. He stated that the CBMWD, the CCWD, and the Cucamonga Water Company would all become the "three middle men" between the Metropolitan Water District (MWD) and actual water users. He indicated that the railroads considered

ATTENTION VOTERS!

THREE INCUMBENTS OF THE BOARD OF DIRECTORS OF CUCAMONGA WATER DISTRICT ARE RUNNING FOR RE-ELECTION

NEXT TUESDAY – MARCH 24, 1959

These Men Have Proven Their Ability:

IN THREE YEARS HAVE CONSTRUCTED 1½ MILLION DOLLARS OF NEW WATER FACILITIES

IN THE PAST YEAR HAVE PURCHASED AND CONSOLIDATED ELEVEN (11) WATER SYSTEMS INTO ONE ECONOMIC OPERATING UNIT.

IN SPITE OF THE TREMENDOUS GROWTH AND DEVELOPMENT HAVE MAINTAINED SOUND FISCAL POLICIES AND REDUCED TAXES THIS YEAR.

WE URGE YOUR SUPPORT

HAROLD B. BLATZ	X
GALER ROYER	X
EUGENE BILLINGS	X

— The Committee For Good Local Government

Printed by The Cucamonga Times

Cucamonga County Water District election campaign handbill, 1959.



Original CCWD Board of Directors in 1955. From left to right are Galer Royer, Joseph Grass, Jr., Harold B. Blatz, John S. Ingalls, and Robert Nesbit.

this to be a needlessly costly way of distributing Colorado River water.[16]

Scoop Foster, editor of *The Cucamonga Times*, wrote that the case for formation of the district had been capably presented by such people as Harold Blatz, Leon Lucas, and Joseph F. Grass, Jr.[17] County Counsel Albert E. Weller also argued that a county water district could not only provide water, but could also provide other services such as certain types of sanitation work, construction and operation of a community swimming pool, and the acquisition of privately-owned mutual water companies through purchase of their lines and equipment.

Knauf continued to argue against the proposed district by claiming that raw Colorado River water could never be used by any industry. Leon Lucas countered with information showing that untreated MWD water had been widely used throughout Southern California by several industries.

H.B. Blatz emphasized the fact that the primary purpose for forming the water dis-

trict would be to provide water for agriculture, particularly citrus, in the Cucamonga area. He also noted that the water supply in Cucamonga was constantly declining and availability of an adequate water supply would not only protect existing citrus investments, but would make possible the development of land which had little value because of the lack of water. Blatz also stated that the formation of the district was not simply a desire on the part of citizens living in Cucamonga, but it was a necessity. He argued that the district would most likely be an additional tax burden, but the ranchers needed it in order to stay in business.

The date of December 27th was set for another hearing. At the meeting the Board of Supervisors decided that the election would be held on Tuesday, March 1st, 1955. The final boundaries were fixed according to the ones presented which included the annexation of the section along Highland Avenue.[18]

Petitions proposing the names of five persons as directors of the new water district were immediately circulated for signatures in the Cucamonga-Alta Loma area. Twenty-five signatures were required before the name of each candidate could be placed on the ballot for the March 1st election. Proposed directors were Harold B. Blatz, John S. Ingalls, Joseph Grass Jr., Robert Nesbit, and Galer Royer. By February 3rd, three more names were added to the list of candidates. They were F. Clinton Haskell, Harry H. Hargraves, and Nellie V. Elliot.[19] Of course, the director positions would only become available if the creation of the new water district was approved by the voters.

During the days leading up to the election, Joseph Grass Jr. submitted several articles to *The Cucamonga Times* informing readers the reasons why it was necessary to cast their votes in favor of the proposed water district. In one article Grass cited the lack of adequate rainfall during the preceding seven years. He stated that the growing needs in the area and the increasing population were causing an extreme negative imbalance of supply and demand. He also stated that the Cucamonga Basin Protective Association had been organized in 1932 with the purpose of conserving as much water as possible in the Cucamonga Basin. Grass also noted, however, that more than twenty water companies or individual wells were drawing water from the basin. Those companies and individuals claimed the rights to extracting more than twenty thousand acre feet of water annually. He also pointed out that only twelve thousand acre feet of water had flowed into the basin each of the previous seven years. His conclusion was that the water level in the basin was only going to get lower. He proposed that the only way the problem could be resolved was for citizens to vote for the formation of the Cucamonga County Water District and to bond themselves. Although it would add more taxes, he told the citizens of the area it would bring about an adequate supply of water in a short time.[20]

In a subsequent article Grass wrote concerning the quality and quantity of water which would be delivered from the Metropolitan aqueduct to the proposed CCWD. As to the question of quantity, Grass stated that the water from the MWD would be a supplemental supply and would supplant the local supply in order to relieve the overdraft situation for many years. He also informed his readers that the water shortage would not be completely resolved by formation of the district. He stated that other sources of water would have to be obtained in the future, but believed that with cooperation between the new district and the MWD, new supplies could be appropriated.[21]

As far as the quality of water was concerned Grass stated that water from the Colorado River had been used in Imperial Valley and other areas for over fifty years. He admitted that Colorado River water was probably not on a par with the local supply when used for domestic or agricultural purposes, but tests at La Verne over an eleven year period had indicated that navel oranges irrigated with raw water produced greater yields than those irrigated with softened water.[22]

Without question the concern on the minds of most residents was that of financing the new district. Grass explained that cost would depend entirely on the extent to which the citizens within the district desired the system be developed. The initial idea of the group sponsoring the project, he wrote, was to wholesale water only. If so desired, more detailed plans could be worked out at a later time to deliver water closer to the ultimate consumer. Grass also made it clear that any plan for a distribution system would have to be financed by a bond issue. Such a bond issue would have to be voted on at a special election. It was also stated that while the plan was being formulated funds would be needed for administrative expenses and engineering

Cucamonga County Water District bond issued in 1955.



studies since no taxes could be levied until the year following the election.[23]

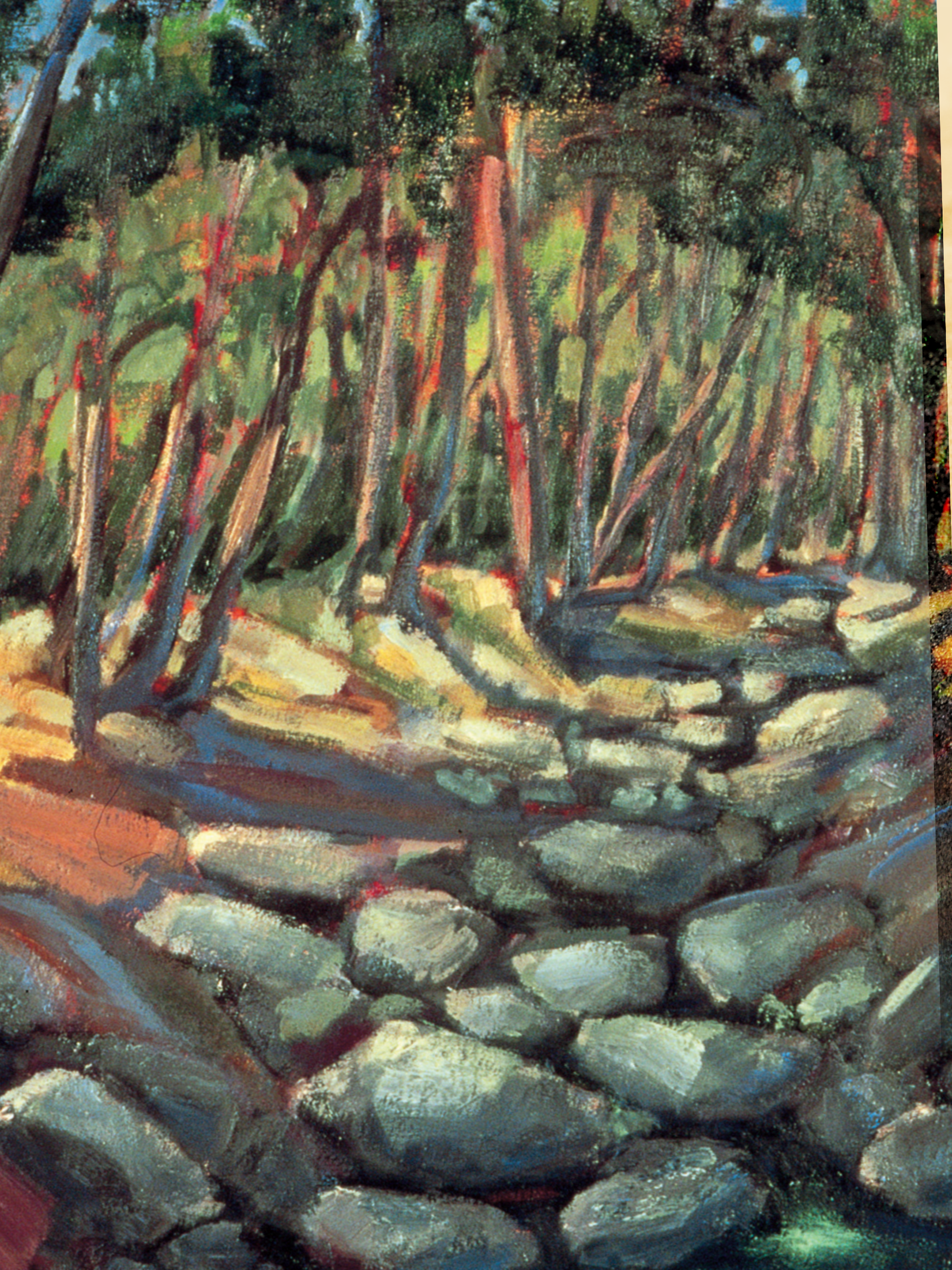
In an effort to further educate local ranchers and others within the community as to the need for a new water district and the way in which the MWD system operated, a tour was held in late February. Gathering in Ontario, the party drove to Lake Mathews. At the lake the group was told that the reservoir was capable of holding a reserve storage supply for a two-month period in case of a breakdown of the system anywhere to the east. From Lake Mathews the group followed the main system to Parker Dam on the Arizona side of the Colorado River. Here the men and women in the party viewed the tunnels and canals that could carry the full amount of water to which the district was entitled. The estimated amount was about 1,660 cubic feet per second. They were also given the opportunity to inspect power plants at the dam as well as at other installations.

Following the tour, Joseph Grass wrote that the system was well planned and was installed at a time when cost was low. Therefore, it was his opinion that the Mid-Valley area would be getting in at a very reasonable price and would reap the benefits of the vision and courage of those pioneers who set out in the face of opposition to build the system.[24]

The arguments and editorials in favor of forming the new district were received positively. The result of the March 1st election was 368 in favor of establishing the CCWD and 55 against. By area the ballots cast showed Alta Loma with 184 in favor and 16 against while the Cucamonga total was 184 to 39. Directors elected to the new board were Blatz, Grass, Ingalls, Nesbit, and Royer.[25]

(Notes)

1 *The Upland News*. January 14, 1954
2 *ibid*. February 11, 1954
3 *ibid*. July 15, 1954
4 *ibid*. July 22, 1954
5 *ibid*. August 19, 1954
6 *The Cucamonga Times*. October 28, 1954
7 *The Upland News*. August 19, 1954
8 *ibid*. August 26, 1954
9 *Upland News*. October 22, 1954
10 *The Cucamonga Times*. October 28, 1954
11 *The Cucamonga Times*. November 11, 1954
12 *Legal Description of the Boundaries of a New County Water District in the Mid-Valley Area*. November 1, 1954
13 *The Cucamonga Times*. December 9, 1954
14 *The Daily Report*. December 14, 1954
15 *The Cucamonga Times*. November 18, 1954
16 *The Daily Report*. December 14, 1954
17 *The Cucamonga Times*. December 16, 1954
18 *The Daily Report*. January 6, 1955
19 *The Cucamonga Times*. February 3, 1955
20 *ibid*.
21 *The Cucamonga Times*. February 10, 1955
22 *ibid*.
23 *The Cucamonga Times*. February 17, 1955
24 *The Cucamonga Times*. February 24, 1955
25 *The Cucamonga Times*. March 3, 1955



Chapter Seven

The CCWD at Work

The 1950s

Following the election, the first organizational meeting of the Board of Directors was held on March 25th at the Alta Loma Fire Hall. Robert Nesbit, peach and citrus rancher, was elected president and Harold B. Blatz was chosen as vice president. Frank Van Fleet was chosen as secretary for the group. Business matters carried out at the meeting included a decision that future meetings would be held on the first and third Wednesdays of each month at Van Fleet's accounting office on Archibald Avenue. It was also determined that the services of an engineer would be required in order to lay out the type of water district improvements necessary for the community.[1]

During the following board meeting of April 6th it was decided that a waiting period of five months would be necessary before

Facing page: "Day Creek Canyon" by Anne Bridges-Lindquist.

construction of a water system could be started to bring aid to the area. It was also determined that a bond election could not be held until at least the middle of June due to legal election stipulations. The board also began the process of selecting a district engineer.[2] Following interviews with several candidates, the position of engineer was assigned to James Montgomery of Montgomery & Associates in Pasadena. Jerry Dibble of Redlands was also retained to assist Montgomery during the preliminary stages of the survey.

During the month of April it was reported that the Cucamonga basin had registered a six thousand acre-feet overdraft of water every year for the preceding five years. It was also predicted that by October 1st there would be a sixty-eight foot drop in the water level compared to the same date of 1953. It was noted that with the constant drop in water level threatening wells of the twenty-three producing water companies in the basin, the ranchers and domestic users were faced with a critical shortage problem.[3]

Vice president Harold Blatz of the newly formed CCWD stated that many of the smaller companies with only one well were probably going to experience some extreme problems during the coming year. He also made the comment that he was interested in several of the small companies and probably all that could be done would be for them to go on a water percentage and to work out an agreement for delivery. As a result, ranchers and business people of the Cucamonga community were nearly unanimous in their opinion that a supplemental supply of water should be brought to the area for agriculture.[4]

Ranchers were also beginning to talk among themselves concerning the possibility that the several small water companies could merge into one. Public opinion favoring the establishment of a single unified water distribution system for the water district area was on the increase. There were those who believed it had become necessary to research what would be required in the way of new lines and facilities and what the exact cost would be to buy out all existing water companies lying within the district.[5] On June 1st, several representatives from the companies were in attendance at the meeting and consolidation of the smaller companies within the district was a primary topic. The meeting resulted in the formation of a committee whose purpose would be to investigate and study other water districts with situations similar to the local area in order to discover how those districts solved their individual problems. Montgomery and Dibble also submitted their initial survey reports at the meeting.[6]

The CCWD Board of Directors continued in its energetic push to develop a plan for the new district. Most of the April 20th meeting was devoted to a discussion of the budget for the coming year.

The committee in charge of researching the feasibility of consolidating the smaller companies into one submitted its report at the June 29th meeting. It was the conclusion of the committee that the present local water supplies were not adequate to meet the growing demand for water service within the area. It was also the opinion of the committee that the eventual creation of a one-agency distribution system, with the county water district being that agency, should take place.[7]

At the same meeting a recommendation was also made for a bond issue of $1,200,000. The bonds would be sold in order to finance construction of a $900,000 main trunkline and to supply a revolving fund which would be used to finance the construction of lateral lines.[8]

One week later, on July 6th, following the recommendation by the research committee, the water district board made a decision to hold an election for the purpose of incurring

a bond indebtedness of $1.2 million. July 27th was set as the hearing date for the proposed bond issue.[9]

It was also decided that a bond election should be held, the research committee also recommended a plan be formulated for eventual creation of a "one agency" distribution for domestic water in the local area and that the Cucamonga County Water District be the agency. A committee report stated that other districts that had turned to MWD water as their source were being operated more efficiently and economically. The committee submitting the report also urged the board of directors of the water district to protect the values of local ground water developers and distributors to every extent possible.[10]

The public hearing regarding the bond election was well attended by citizens of the community. Following the hearing, the Board of Directors held a meeting at which time a resolution was adopted setting in motion election machinery for the proposed bonds. The board set the date as August 30th. The directors also made a decision to issue a brochure which would inform voters concerning the issue at hand.[11] Two informational meeting dates of August 18th and August 25th were also set.[12]

While the CCWD was keeping itself busy with the bond election and planning stages of the district, smaller water companies within the area were struggling to keep themselves in operation. The Alta Loma District Water Company held its annual stockholder meeting at which time Eugene M. Billings was re-elected president. At the meeting, Billings stressed the critical situation of inadequate water supply the company was experiencing. He explained that the company had agreed to a hook-up with the Ioamosa Water Company along north Hellman Avenue. He went on to state that the company was also attempting to negotiate similar agreements with other small agencies in the area. Billings also noted that one thousand five hundred feet of new lines had been laid during the past year and he was certain everything possible was being done to ensure sufficient water.[13]

At the same time Billings was speaking about the hook-up with the Ioamosa Water Company, J.F. Grass Jr. was reporting that the Ioamosa well had recently been lowered to the eight hundred foot level because it had run dry at five hundred feet.[14]

The August 11th edition of *The Cucamonga Times* was filled with articles concerning the bond election. All were favorable. Clifton Chappell, manager of the Cucamonga Water Company, stressed that the need for voting for the bonds on August 30th was as serious as the water supply situation itself. Chappell cited that the company's Hedges Well had "started sucking air" a month previously and that flow to irrigators had to be restricted.

The Cucamonga Service Club also gave its support to the bond issue with a unanimous endorsement by its members. A statement from club representatives said the members intended to actively work for the bonds and members of the group were willing to provide transportation to the polls for those needing it. After hearing a message by CCWD board president Robert Nesbit, the Cucamonga Chamber of Commerce gave its full support to the election.[15]

Election day finally arrived and support for the bond issue was tremendous. As stated in *The Cucamonga Times*, "With 599 voters coming out on a hot day to register their opinion, the issuance of Cucamonga County Water District bonds in the amount of $1.2 million was approved Tuesday by a majority of 7 to 1."[16]

The Board of Directors of the CCWD immediately began making plans to carry out the wishes of the voters. At the meeting of September 1st, the board met with consult-

ing engineer Montgomery in order to begin plans and specifications for the pipeline project. In an statement from Harold Blatz it was reported that the CCWD intended to do everything in its power to provide water to the uppermost portion of the district by July 1st, 1956.[17]

By the end of September, Blatz was also reporting that the board had asked Montgomery to hasten efforts to complete the plans by about thirty days because the board was hoping to make an initial order of construction materials by October 1st. Knowing delivery of pumps, pipe, and materials for the construction of reservoirs could not be expected for three to four months after the order was placed, the board was anxious to get started. At the same time, bonds were being processed and legal compliance was being facilitated in order to be able to bring potential buyers to inspect the district property by October 7th. It was hoped that buyers would take up the bonds at or near the October date which would allow immediate funds to finance the material orders.[18]

On October 13th, it was reported that the CCWD was advertising for bids for 29,900 feet of pipe. The fourteen to twenty-one inch diameter pipe was to be used in the first step of laying a line for pumping water from the main line below the Santa Fe Railway tracks to the northern boundary of the district.[19]

Bids for the construction of five steel reservoirs were opened the following month. The district's plan was to construct one reservoir of one million gallon capacity and four of five hundred thousand gallons each. At the same time bids were opened for the reservoirs, an announcement was made that Southern Pipe and Casing Company of Azusa was the low bidder for pipe.[20]

The future was looking bright for the CCWD. By the middle of November, however, hopes dimmed a little. A court action instituted by the Santa Fe and Pacific Electric Railways interrupted progress in the development of the district wide system. A restraining order issued in superior court on November 15th temporarily canceled the sale of bonds and, obviously, operations. The restraining order was a complete surprise to members of the CCWD board because of the fact that they believed all disputes between the water district and the railway companies had been settled. In a statement made by J.F. Grass, Jr., it was noted that the action would require a new legal start in various phases of bringing Colorado River water to the Cucamonga-Alta Loma area. He also said that he could not forecast the extent of the delay occasioned by the actions of the rail firms.[21]

The following week brought about almost continuous negotiations between the water district and the rail companies. On November 24th, it was announced that the restraining order was hopefully in the process of being dissolved. According to the CCWD the railroads had agreed to dissolve the restraining order, reserving the right to proceed with their suit for exclusion of their land within the district.[22]

By December 2nd, the restraining order had been lifted and the way had been cleared for the sale of bonds. In a press release, the railway companies stated they were cooperating with citrus growers in the CCWD by abandoning the injunction which had temporarily postponed the sale of bonds. The companies also waived any right to escape taxation of their operating rights-of-way should the court ultimately decide the rights-of-way were improperly included in the district.[23] The injunction had set operations back about thirty days. It was now hoped that the lines and reservoirs could be completed by April 1, 1956.[24]

At a special meeting held on December 14th, bid proposals for the general obligation

bonds were opened. The successful bidder was the Security First National Bank of Los Angeles. At the same meeting, contracts were awarded to the Southern Pipe and Casing Company for transmission pipelines and to the General American Transportation Corporation of Los Angeles for the building of the reservoirs.[25]

The next step for the CCWD was to discuss policy pertaining to connections to the main line and the preparation of specifications and plans for the pumping equipment. This needed to be completed before bids could be advertised in January, 1956.[26]

In January, 1956 the local news reported that the CCWD was hopefully going to complete the process of bringing Colorado River water to the area by the following July. The report stated that with contracts released for two phases of the project, bids were to be opened January 25th on the third phase of five booster pumps and other equipment. Actual construction of the phase was to begin in March.[27]

It was also stated that the Colorado River water would supplement the supplies of the thirty-one existing water companies in the area. The engineer's plans for the new phase provided for the location of major water mains, reservoirs, and pumps which would serve the total area covered by the district. Plans were made for reservoirs to be installed on the feeder line which would parallel Archibald Avenue from the vicinity of the Santa Fe Railway tracks near 8th Street to Base Line Road. The line was to travel west to Amethyst Avenue, then continue north to an elevation of about two thousand feet.

New water was to be purchased from the MWD through the Chino Basin District. It was believed that as long as a surplus of water existed with the MWD, the district could purchase as much water as it needed.

A study made by CCWD engineers indicated that the most economical and flexible supplemental water system could be obtained by dividing the district into two sections. The district was to be divided by Haven Avenue. Plans were made for the western section of the district to be developed immediately with the eastern area being reserved for future development. The study stated that the ultimate annual water requirement of the western area was estimated to be 20,520 acre feet while the supply at the time was only thirteen thousand feet. Therefore, the remaining requirement would be met by Colorado River water.[28]

On February 1, 1956, five companies were awarded contracts for the providing of equipment for booster pumping stations of the transmission line. The five were Layne and Bowler Pump Company, Wallace and Tierman, Sparling Meter Company, Grinnell Company of the Pacific, and the Pelton Division of Baldwin-Lima-Hamilton Corporation.[29]

The following month it was reported that bids had been opened on March 7th on a major construction phase in looking to the arrival of Colorado River water in Cucamonga and Alta Loma. The news report also stated that 29,995 feet of pipe line on Archibald and Amethyst Avenues were being scheduled for installation.[30]

One week later CCWD director J.F. Grass Jr. announced that the district was planning to distribute organizational information in order to aid in forming a single domestic water company to service users above Base Line Road in the Cucamonga-Alta Loma area. Grass also stated that he had met with representatives from six local water companies to investigate possibilities of forming a single agency. The companies represented at the meeting were the Foothill, Ioamosa, Sapphire, Hermosa, Scheuloff, and Alta Loma Domestic Water Companies. During the meeting

three possible plans were outlined that were considered workable for the development of a water agency. The first plan called for the formation of a municipal organization within the scope of the present district. The second was relative to forming a public utility company and selling stock. The third plan, which was labeled "unwieldy" by some of the representatives, called for a mutual water company for the area.[31]

With Galer Royer as head of the engineering committee on the project, construction was on schedule during the first week of April. A conduit was run under the Santa Fe tracks near Eighth Street by Shacklett & Bradfield of Claremont. The purpose of the conduit was to house a twenty-four inch diameter water line as it was extended north from the MWD aqueduct connection at Fifth Street in Ontario to the five new reservoirs. Another conduit was run under Foothill Boulevard along the east side of Archibald Avenue. It was also reported that the first delivery of pipe was scheduled to be delivered March 16th.[32]

The month of July brought about a temporary suspension of construction as there was a delay in receiving electrical equipment due to an electrical industry workers' strike which had been taking place at the time. Director Harold Blatz of CCWD reported that completion date had been pushed back to sometime in August.[33]

On September 5th, five new connections to the main transmission line were approved by the CCWD Board of Directors. The connections were to be established for the Sunset, Cucamonga, Alta Loma Domestic, and the Citrus Water Companies as well as the Vai Ranch in Alta Loma. At the same time the district was finding itself to be in need of a new office. A decision was made to move from its original small office on Archibald Avenue to the Cucamonga Community Center.[34]

The following week it was announced that installations were being rushed in order to bring water to CCWD users before the end of September. According to newly elected general manager Norman G. Hixson, the time was nearing when the CCWD would obtain its first supply of water at the connection near Archibald Avenue and Acacia Street. Hixson stated that the CCWD was putting forth great effort to finish construction of the new system because some of the mutual companies throughout the area were in desperate need of water. He also stated that no ceremony would mark the first flow of water into the multi-million dollar reservoir and distribution system. He did state, however, that when all construction was completed there might be a ceremony.[35]

On October 4th, it was announced that beginning that day Colorado River water was being delivered to the Andrey Tolstoy Ranch on Hillside Drive in Alta Loma. The highest point of the new water delivery was at an elevation of 2,300 feet. General Manger Hixson stated that the delivery point was only one of several which would receive the new source of water for Alta Loma and Cucamonga. He also stated that the Hermosa Water Company had the distinction of being the first customer for the Colorado River water through the district agency. The second to receive the water would be the Ioamosa Water Company. Hixson also noted that when the first rains came to the area it would no longer be necessary to use the Colorado River water.[36]

At the end of October, James Montgomery was again assigned to a special project for CCWD. He was asked to make two studies. The first was a complete engineering analysis of the portion of Chino Basin ground water which lay under the Cucamonga district. The study was meant to determine the feasibility of CCWD using Chino Basin ground water to help supply the existing and future demands



Supervisors oversee the well development process.



"Cucamonga County Water District Headquarters, 1955"
by local resident Harriet White


Cucamonga County
Water District
HARRIET WHITE



Workers measure the well capacity of early days of Cucamonga County Water District.

of the CCWD. The study would also provide necessary information regarding the most favorable locations for wells and the manner in which they could be adapted to the CCWD system. The second part of the project was to establish a master plan of development which would give additional information supplementing Montgomery's report of June, 1955. The purpose would be to outline the most feasible method of incorporating all existing water supplies and facilities into an integrated domestic system. Both studies would also be used to determine the best locations for storage facilities.[37]

In February, 1957 one of the local newspaper reported that the CCWD was soon to be entering the domestic water business as the district had submitted an application for a state health certificate which would permit the district to add the additional service.[38] The first distribution of domestic water was planned for the upper regions of Alta Loma and Etiwanda where there had been a shortage of local water supplies.

During the same month it was announced that a disinfection plant was ready for operation at the district's main pumping station at Archibald Avenue and Acacia Street. It was also noted that work was to begin in April or May on the district's new four million gallon suction reservoir adjacent to the disinfection plant. Previous to the announcement, the CCWD had authorized construction of the reservoir in order to provide a continuous supply of MWD from the Colorado River.[39]

Progress by the CCWD since its inception was tremendous. A major portion of the original design was completed. The CCWD was now in the position of supplying water to fifteen mutual water companies within the district as well as to individual ranches and other private consumers.

In March, the ceremony which Norman Hixson said "might take place" was planned. It came in the form of an open house for the community. On Saturday, March 23rd, residents were treated to tours of the new established water system. Those attending were taken on an automobile tour where they viewed all that had taken place since they had voted for the water district improvement bonds. Citizens of the community were able to see the reservoirs, ten pumps, four stations, and the electronic control system which had been constructed during the previous several months. Needless to say, those attending the tour were well pleased.[40]

In August, 1957, while all this was taking place, James Montgomery had been diligently working on the special studies which had been assigned him ten months earlier. The final plan drawn up by Montgomery provided for the integration of all existing water companies within the district, the construction of eight new wells, additional reservoirs with a capacity of over twenty nine million gallons, three water treatment plants, a total of four hundred and seven thousand feet of pipeline, completion of the existing pumping stations, and construction of six additional pumping stations. Montgomery was also busy researching the water supply situation as it pertained to the newly proposed Chaffey Community College site at the north end of Haven Avenue.[41]

In his report the engineer stated that the CCWD needed to make plans which would eventually include service to a population of five hundred thousand people in the district. The report also noted that when the population reached that number it would take more than eleven million dollars to bring the master plan into full realization. Therefore, Montgomery proposed an election be held on October 1st, for the purpose of approving $3.7 million in bonds.[42]

In a statement given by Norman Hixson while promoting the need to approve the

bonds, he was quoted as saying that passage of the bonds would be very beneficial to all parts of the water district. He also stated that the proposed plant would preserve a more than adequate drinking water supply for the community as well as providing new sources when needed.[43]

The election of October 1st resulted in approval of the bond issue. With passage of the bonds the thirty year master plan and development of a complete district water system was assured. Although not certain how much of the master plan the bonds would finance, the

CCWD was certain that at least fifty percent of the total project could be completed.[44]

While new service and construction by the CCWD was continuing, the small water companies in the area were carrying on business as usual. However, operations were becoming extremely difficult especially in light of the fact that there were serious water shortages being experienced by the various companies.

Less than one and one-half inches of rain had fallen on the area during the previous six months, and the lowest levels of water in the history of the local basin had been recorded. The CCWD was offsetting the problem to some extent with the use of the Colorado River water from the MWD and the drilling of new wells. The Cucamonga Basin water level was at its lowest in history, thirty-two feet lower than the previously low on record.[45]

One example reported by the Alta Loma Domestic Water Company president Eugene M. Billings stated that the company was making attempts to obtain service from the MWD in order to stave off serious shortages in the Alta Loma area. Billings noted that MWD water would be used for irrigation and local water would be used for domestic users because local well water tasted better. At the time, only two of Alta Loma's three wells were operating and they were producing below-normal amounts. In fact, a drop in the water table had lessened local production twenty-five to fifty percent compared to the previous year.[46]

In August, the Alta Loma Domestic's wells were producing so poorly that the company purchased seven shares of a well at the Sumner Hedges grove on Beryl Avenue. The company also discussed the possibility of water rationing.[47]

Other companies within the district were experiencing similar problems and, even though they were electing new officers and attempting to provide users with adequate water, it was appearing more and more likely that the agencies might be considering the plans presented by Grass and the CCWD a few months earlier.

During the years following the formation of the CCWD, the twenty-four small companies which had operated in the Cucamonga Valley beginning in the 1800s all became part of the larger district. Revenue gained by the sale of bonds approved in the October 1957 was used for the initial purchase of some of the companies.[48] A few companies became a part of the CCWD almost immediately following its formation. Others took longer to unite with the CCWD.

The first company to become part of the district was the Archibald Avenue Water Company which joined in 1957. In 1958, nine of the smaller companies came together with the others. These were the Alta Loma Domestic, Arrow Route, Carnelian, Alta Loma Citrus, Cucamonga, Estates, Old Settlers, and Sunset Water Companies, as well as the Hedges Well, Inc. Due the consolidation of the companies the CCWD relocated from the Cucamonga Center building to the office of the Cucamonga Water Company at 9641 San Bernardino Road.[49]

Some of the companies that did not initially merge with CCWD continued to experience problems. The North Cucamonga Water District, for example, recorded operating losses from 1954 to 1958.[50]

Eventually, the remainder of the companies merged with the CCWD in the following order: Foothill Irrigation Company (1959), Schowalter Mutual Water Company (1961), Mesa Linda Water Company (1962), North Cucamonga Water Company (1963), Alta Loma Mutual Water Company (1967), Rex Mutual Water Company (1968), Rochester Mutual Water Company (1973), Joya Mutual

Water Company (1974), Hermosa and Ioamosa Water Companies (1976), Banyan Heights and Southwest Suburban Water Companies (1977), and the Etiwanda Water Company (1986). It is not clear what date the Adobe Water Company joined with the CCWD.[51]

It should be noted that in 1966 most of the lands east of Rochester Avenue which had previously been served by the Rochester Mutual Water Company were annexed to CCWD. The CCWD then made plans for an assessment act district to provide facilities for improved service to the area. Following the annexation, the Southwest Suburban and the Rochester Mutual Water Companies filed an action in Superior Court restraining CCWD from making the planned improvements. A court order resulted in years of litigation, but in 1972 CCWD was awarded title to all assets of the Rochester Mutual Water Company.[52] The action also included payment of $300,000 to the Rochester Company by CCWD.[53]

The 1960s

During the half-century following the initial formation of the CCWD, the organization made continuous strides in its efforts to supply the valley with domestic and irrigation water. In 1963, additional water supplies were obtained by developing gravity sources in Deer and Cucamonga Canyons.

During the late 1960s and early 1970s, a surge in residential construction began to take place resulting in CCWD's entrance into agreements with several builders concerning pipeline easements, fire flow requirements, water rights, water use, and sewer line refunding. The district also began to investigate the possibility of charging one agricultural rate for water use as well as specific rates for potential nurseries, golf courses, and country clubs.[54]

Maintaining a consistent flow of water to the community was not an easy task. Much of the following description concerning the job of searching for water and keeping it flowing has been written by George B. Blanchard Jr., former Assistant General Manager of CCWD.

When the CCWD obtained ownership of the Hermosa Water Company in 1976, the major assets CCWD received were Hermosa Tunnel, Thayer Tunnel, and Tunnel A which was developed as a natural spring source in Deer Canyon. The company also received the falls and collection point in Fan Canyon, the transmission mains connecting the various sources to a small reservoir located on the south side of Lemon Avenue to the east of Archibald Avenue in Alta Loma.

Of great concern to CCWD was the reestablishment of water delivery from Deer Canyon due to the fact most of the transmission lines and facilities in the canyon had been destroyed or damaged in the flood of 1969. In fact, damage to the district's system was so severe, a resolution requesting financial assistance from the State of California was presented by CCWD Director Charles "Ted" Vath for adoption.[55] Initial reports gave the estimate of damage as approximately $80,000.[56]

A field investigation by CCWD General Manger Norman G. Hixon did not immediately disclose the whereabouts of the Hermosa Tunnel. It was discovered later that the mouth of the tunnel had been hidden by a collapse of its entrance and heavy overgrowth of brush. However, it was determined that most of the 6,500 feet of pipeline from the supposed area of the tunnel entrance to a division box had been destroyed by the flood, damaged by vandals, or had become too old to use. It was determined that with the possibility of increased canyon flows, any new pipeline which was to be laid would have to be of greater diameter than that which had been used previously.

The mouth of Thayer Tunnel was located during the survey and most of its pipeline was still intact. It was decided to also increase the size of the pipeline from Thayer Tunnel to Hermosa Tunnel.

The pipeline from Tunnel A was discovered at the place where it connected into the main pipeline south of Thayer Tunnel. However, there was no evidence of water found.

The 1970s

Former CCWD Manager Lloyd W. Michael recalls that a tremendous boost came to the district in the 1970s when an $8 million bond issue was passed by the voters of the district. The success of the measure was due in part to the work of the employees of the district who created hand painted brown paper signs supporting passage of the bonds. Permission was then given by business people in the community to cover the signs on their company billboards. It was one of only two water bond issues passed within the state during that particular election period. The passage of the bonds created the support to handle the growth which was beginning to take place in the district. The day the bonds went on the market, CCWD received a better rate than did the MWD for their bonds.[57]

In November of 1971, it was decided by CCWD that certain repairs and new construction would have to take place before the lines in Deer Canyon could become operable. George Blanchard Jr. was given the task of overseeing the operation.

First, Hermosa Tunnel would need to be located. Once this had taken place, the next step was to determine the damage to it and to Thayer Tunnel as well. The re-establishment of the water collection system had to take place at Hermosa Tunnel and the tunnel collection systems had to be connected to the main transmission lines at both tunnels. A new 6,500 foot pipeline route was then selected and constructed from Hermosa Tunnel to the delivery box.

One of the problems facing Blanchard and the CCWD was that most of the old pipeline had been laid above ground. Hence, the extensive damage during the flood of 1969. Apparently Hermosa Water Company had not attempted to do any trenching in order to adequately cover and protect the pipeline.

It was during construction of the pipeline that the entrance to Hermosa Tunnel was located. It was discovered that the interior of the tunnel had been severely damaged, and temporary pipeline connections were then made.[58]

Following an exhaustive amount of work, the project of rebuilding the pipelines and the tunnels was finally completed. In 1979, natural spring water from Tunnel A was turned into the system thus completing the project.[59]

The same year CCWD received ownership of Hermosa Water Company it also obtained rights to the Ioamosa Water Company. The Ioamosa Tunnel was located in Cucamonga Canyon. A problem concerning the Ioamosa Tunnel was that its back cross tunnel had not been inspected since the 1950s, and in 1977, it was determined that the tunnel was transporting very little water. During a field investigation similar to that of the Hermosa and Thayer Tunnels, it was determined that the tunnel was in fairly good condition except for some rotting timbers, one break in the pipeline, and a blockage of the tunnel about forty feet from a vertical shaft with an opening to the outside of the tunnel.

During repair work on the tunnel, it was discovered that several of the original timber sets had been nailed together with square nails suggesting that the timbers had been in place since before 1900.

While repair work was taking place, it was decided that a new crosscut tunnel should replace the old tunnel. The new tunnel was installed with a six-foot diameter asphalt-coated corrugated steel pipe thus making it as maintenance free as possible. Final work on the tunnel was accomplished in 1979.[60]

In 1979, CCWD's first treatment facility, the Royer-Nesbit Treatment Plant, was constructed. The following year, as the population of the area grew, deep wells were dug in the Cucamonga Basin to meet the growing demand for water.

In July of 1979, a financial plan for a regional sewer study was presented by CCWD. The plan proposed a joint treatment facility by the CCWD, the Chino Basin Water District, water districts in the communities of Chino, Montclair, Upland, and Ontario.[61] In De-cember of the same year, an interim proposal for the joint treatment of sewage between CCWD, CBMWD, and the City of Ontario was made. It was agreed that the manager of CCWD proceed with the creation of an agreement with CBMWD on a lease agree-ment sewer plan.[62]

(Below): Groundbreaking ceremony for the Lloyd W. Michael Treatment Plant in 1988. Left to right are Bill Hill, Board of Directors, Jerome Wilson, Charlie West, Robert Neufeld, George Kuykendal, Beverly Braden, and Congressman Jerry Lewis.

















(Top left): Micheal [sic] Water Treatment Plant reservoir construction. (Top right inset): Construction of Michael Water Treatment Plant channel number 7. (Bottom right inset): Tying rebar for filters.

The 1980s

About 1987, according to Lloyd W. Michael, it was determined by the CCWD Board of Di-rectors, the engineering department, and staff that the district would not be able to keep up with the growth unless new facilities were built. It was then decided the district would pursue revenue bonds in order to build a new water treatment facility. The district received the anticipated revenue making it able to construct the plant.

Camp Dresser & McKee, Inc. was chosen to engineer the project. Emmit Lowry was selected as project engineer for the district. There was a not a great deal of time allowed to complete the project. A visit was made to a new plant in Scottsdale, Arizona to view an example of the type of system that could be built by CCWD. Construction of the plant was done in increments without use of a set of plans.

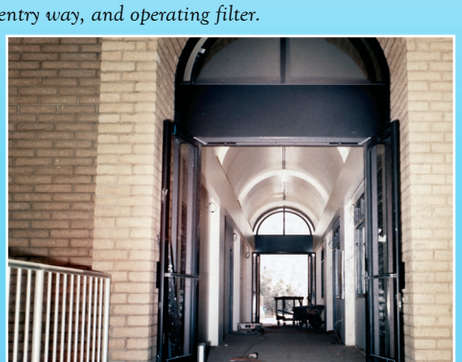
Camp Dresser & McKee, Inc. responded to, and met, the challenge by fast-tracking the design and construction of the $20 million Lloyd W. Michael Water Treatment Plant. Design of the plant began in November of 1987, and the facility began producing saleable water on May 17, 1989. This was two ahead of the district's deadline of June 1st. Further expansion was made to the plant in 2003.[63]

In 1989, CCWD's second treatment facility, the Lloyd W. Michael Treatment Plant, was constructed. The original facility provided up to thirty million gallons per day of treated potable water. The treatment plant is utilized for the production of drinking water through treatment of raw water obtained from the Metropolitan Water District of Southern California from Northern California sources.[64]

(Bottom insets, left to right): Aerial view of site, piping filters, construction of filter beds, construction of north side of operations building, pipe galley area construction, main entry way, and operating filter.









About the same year, Lloyd Michael made an agreement with MWD to transfer an acre foot of water storage in return for every acre foot delivered to the treatment plant. This took place with the support of the Chino Basin Watermaster. In doing this, CCWD no longer had to pump Chino Basin water to its reservoir at an elevation of 1,100 feet. MWD's connection to the CCWD water treatment plant was at an elevation of approximately 1,600 feet. Therefore, the district realized a savings in pumping water about five hundred feet. The result was a great financial benefit to the district.[65]

The 1990s

In 1992, an agreement was entered into with Kaiser Resources to lease Fontana Union Mutual Water Company shares, entitling CCWD to fifty percent of the water produced by the company. The following year, Cucamonga Canyon water source became subject to new state standards for surface water treatment and disinfection As a result, CCWD authorized the construction of a third treatment facility to treat the Cucamonga Canyon water supply. Toward the end of the decade, in 1997, CCWD's third treatment facility, the Arthur H. Bridge Microfiltration Treatment Plant, became operational. This treatment plant was unique in that it used membrane microfiltration technology.

Before the new treatment process was installed, The CCWD traditionally collected filtered Cucamonga Canyon surface water and transported it by gravity flow to a reservoir where the water was chlorinated and put into the district's distribution system. Surface Water Filtration and Disinfection Treatment regulations which had been enacted in 1997 by the U.S. Environmental Protection Agency[66] determined that the district could no longer use the canyon water without installing an approved treatment process. Since the canyon water was a low-cost, reliable quality source, CCWD made the decision to treat the water for continued use.

With information obtained from Southern California Edison, CCWD initiated an engineering study which compared the potential life-cycle costs of membrane microfiltration to two-stage filtration (with and without ozone) and ultrafiltration. The study revealed the membrane system's capital and operational cost benefits, and CCWD chose the technology for its new treatment plant.

Membrane microfiltration is a pressure-driven process that uses microporous membranes with pore sizes typically ranging from 0.01 to 0.2 microns. The process filters small contaminants including *Giardia* cysts, bacteria, and viruses that find their way into drinking water and are not handled effectively by sand filters with chemical additives.

At the district treatment plant, canyon water first flows through 500-micron screens to remove coarse solids that could damage the membranes. The water is then filtered through the micro-filtration membranes to remove the smallest contaminants. Finally, the treated water is disinfected with chlorine before being discharged into the distribution system.

The system discharges chemically free backwash water from the membrane units to an area adjacent to the creek for percolation. The low solids content of the water and the absence of chemical additives allows for a very low maintenance backwash discharge system.

The plant has a treatment capacity of four million gallons per day, expanding to an ultimate treatment capacity of five million gallons. It is the largest water treatment plant utilizing the microfiltration process to treat a surface water source in Southern California.[67]

(Notes)

[1] *The Daily Report*. March 29, 1955
[2] *The Upland News*. April 7, 1955
[3] *The Upland News*. April 21, 1955
[4] *ibid*.
[5] *The Cucamonga Times*. April 28, 1955
[6] *The Cucamonga Times*. June 1, 1955
[7] *The Cucamonga Times*. June 30, 1955
[8] *ibid*.
[9] *The Cucamonga Times*. July 7, 1955
[10] *The Upland News*. July 14, 1955
[11] *The Cucamonga Times*. July 28, 1955
[12] The Cucamonga Times. August 4, 1955
[13] *ibid*.
[14] *The Cucamonga Times*. August 11, 1955
[15] *ibid*.
[16] *The Cucamonga Times*. September 1, 1955
[17] *ibid*.
[18] *The Upland News*. September 29, 1955
[19] *The Cucamonga Times*. October 13, 1955
[20] *The Cucamonga Times*. November 10, 1955
[21] *The Upland News*. November 17, 1955
[22] *The Cucamonga Times*. November 24, 1955
[23] *The Cucamonga Times*. December 2, 1955
[24] *The Daily Report*. December 2, 1955
[25] *The Cucamonga Times*. December 15, 1955
[26] *The Cucamonga Times*. December 29, 1955
[27] *The Upland News*, January 5, 1956
[28] *ibid*
[29] *The Cucamonga Times*. February 2, 1956
[30] *The Upland News*. March 8, 1956
[31] *The Upland News*. March 15, 1956
[32] *The Upland News*. April 12, 1956
[33] *The Upland News*. July 12, 1956
[34] *The Cucamonga Times*. September 6, 1956
[35] *The Upland News*. September 13, 1956
[36] *The Upland News*. October 4, 1956
[37] *The Upland News*. October 25, 1956
[38] *The Upland News*. February 21, 1957
[39] *ibid*
[40] *The Upland News*. March 21, 1957
[41] *CCWD Board Minutes*. August 7, 1957.
[42] *The Upland News*. August 15, 1957
[43] *The Upland News*. September 26, 1957
[44] *The Upland News*. October 3, 1957
[45] *The Upland News*. January 3, 1957
[46] *The Upland News*. July 26, 1956
[47] *The Upland News*. August 30, 1956
[48] *The Upland News*. May 8, 1958
[49] *The Upland News*. July 24, 1958
[50] *The Upland News*. March 19, 1959
[51] James H. Cline, Jr., *Cucamonga County Water District: History of Water Rights*
[52] Robert L. Hickcox, *A History of Etiwanda*. p. 166
[53] Lloyd Michael, *Interview*
[54] *CCWD Board Minutes*. May 7, 1969 to September 2, 1970
[55] *ibid*. March 14, 1970
[56] *ibid*. February 5, 1969
[57] Lloyd W. Michael, interview by author, October 22, 2004.
[58] George B. Blanchard, Jr., *Development of Gravity Water Sources for the Cucamonga County Water District*. pp. 1–6
[59] *ibid*. p. 32
[60] *ibid*. pp. 34–43
[61] *CCWD Board Minutes*. July 2, 1969
[62] *ibid*. December 3, 1969
[63] Lloyd W. Michael, interview by author, October 22, 2004.
[64] Western Summit Constructors, Inc. website
[65] Lloyd W. Michael, interview by author, October 22, 2004.
[66] U.S. Environmental Protection Agency website
[67] Southern California Edison, *Microfiltration Reduces Chemical Usage, Energy Costs for Water District*.





Chapter Eight

CVWD Fulfills the Need Today and Tomorrow

The year 2000 brought about one of the greatest changes for the CCWD. The district had been operating in the same facility practically from its outset. CCWD had outgrown its existing office due to growth which had occurred as the service area rapidly expanded in the 1980s and 1990s. Therefore, it was decided that construction of a new administration facility should take place. Located at 10440 Ashford Street, a modern twenty-six thousand square foot building was erected housing all district administration, finance, and engineering functions.

Designed by Williams Architects, Inc., the facility has been recognized with three awards for architectural design. In recognition of excellence in the design and execution of architecture, the Inland

Facing page: "View Overlooking Deer Canyon from Tunnel A" by Anne Bridges-Lindquist.

California Chapter of the American Institute of Architects bestowed their 200 Award of Merit. The building has also received the 2000 Merit Award from the Concrete Masonry Association of California and Nevada and a Gold Nugget Award of Merit presented by the Pacific Coast Builders Conference.

In 2004, the CCWD changed its name to the Cucamonga Valley Water District. The new name was chosen because it reflects the area's rich heritage and is more representative of the organization's growing service area and regional leadership.[1] In a quote from CVWD's Board President Henry L. Stoy, "The district's leadership is investing in wide-ranging partnerships beyond our boundaries — both inside and outside of the Cucamonga Valley — to ensure sufficient water supply and infrastructure are in place to meet the needs of our service area. The name change represents this commitment to regional collaboration and local service."[2]

Concerning the name as related to the winemaking industry, in 1995 the United States Bureau of Alcohol, Tobacco and Firearms (BATF) received a petition from Gino L. Filippi of J. Filippi Vintage Company proposing the establishment of a viticultural area in San Bernardino and Riverside Counties. It was also proposed that the area should be called "Cucamonga Valley." In the petition, Filippi stated that the 109, 400 acre area was most likely planted with grapes of the mission variety in 1839 or 1840. He also pointed out that the wine industry in the Cucamonga Valley grew during the late nineteenth and early twentieth centuries, reaching its peak in the 1940s and 1950s with over sixty wineries producing from approximately 35,000 acres. The petition to have the area named Cucamonga Valley was also signed by Philo Biane of Rancho de Philo Winery, René Biane of Guasti Plaza, Don Galleano of Galleano Winery, Paul Hofer III of Hofer Ranch, LeAnn Smothers of the City of Rancho Cucamonga, and Jeff Wilson of Inland Empire West Resource Conservation District.[3] On May 1, 1995, the BATF designated that the area should indeed be called Cucamonga Valley.[4]

In 2003, a few months before the name change, CCWD adopted a $75 million master plan which outlines district plans to provide water and wastewater services to its customers through the year 2030. This was part of the district's "Investment in Our Infrastructure" program.

The district currently purchases nearly two-thirds of its supply from the State of California Water Project, a system of dams and canals that transports water from the northern part of the state. The remaining supply is comprised of groundwater pumped from local basins and from captured surface water. The district has four main local canyons and four tunnel sources. The water supply is stored in twenty-seven reservoirs throughout the district. Storage capacity of the reservoirs is 62.2 million gallons.

The construction of additional wells, a main component of the master plan, will soon allow the district to increase its basin pumping by twelve thousand acre-feet of water yearly. That is enough to cover an area of more than eighteen square miles one foot deep in water, or to meet the annual needs of ninety-six thousand people.

In addition to supply reliability found in local groundwater basins, MWD which is the provider of State Water Project water announced in its 2003 Water Supply Report that it is able to meet one-hundred percent of CVWD's demands through at least 2025. This provision can be made even during multiple dry year periods. To maximize these resources, CVWD doubled the capacity of the Lloyd Michael Treatment Plant, allowing it to

treat 60 million gallons a day of purchased MWD water.

Future partnerships with other Inland Empire water agencies will allow CVWD to deliver recycled water to irrigation and industrial users. The district is working on the development of plans to utilize approximately $10 million from HR2991, a proposed congressional water recycling initiative sponsored by United States Congressman David Drier, to build two satellite recycling facilities. These state-of-the-art facilities will produce recycled water that meets strict federal and state standards for irrigation and industrial purposes. The facilities will be located near potential major recycled water users such as parks, greenbelts, and commercial centers.

Set for 2005, the backbone of the regional recycled water system will be constructed by the Inland Empire Utilities Agency (IEUA) and will produce seventy thousand acre-feet of water annually. The district is currently constructing a recycled water distribution system that will annually free up an additional five thousand acre feet of drinkable water that would otherwise be used for irrigation and industrial purposes.[5] Recycled water is not intended for consumption and is currently not available for use by individual customers, but these new treatment facilities would free enough drinkable water to supply the annual needs of over eight thousand homes.

In 2002, the Department of Homeland Security and the U.S. Environmental Protection Agency required water providers to prepare a vulnerability assessment report evaluating susceptibilities to terrorist attacks. These in-depth studies provided a solid framework for CVWD to follow in order to enhance security at local facilities and improve its ability to respond to emergency situations. The district has also teamed with local police, fire, and utility agencies as part of the Inland Empire Private Sector Terrorist Response Group in an effort to coordinate responses to terrorist threats and receive regular updates from the federal government with the latest security information and procedures. These efforts ensure that CVWD's water supply is safe and of the highest quality.

Over the past two decades, the Inland Empire's population has grown at an unprecedented rate. The Cucamonga Valley itself is the fastest growing area in the Inland Empire with expectations that it will gain another seventy-five thousand residents by the year 2020. As the region continues to expand at a record pace, CVWD is working to ensure that it can continue to provide its customers with reliable, high-quality water at the present as well as in the future.

During the next five years, as part of its "Investment in Our Infrastructure" program, CVWD plans to spend between eight and ten million dollars annually on necessary capital improvements.

The largest capital improvement projects during 2002 and 2003 were the construction of the Banyan Street and Highland Avenue transmission mains. A twenty-four inch pipeline along Banyan Street was completed in August of 2003, placing eleven thousand linear feet of pipe from Rochester to Haven Avenues. A similar thirty-inch pipeline was constructed along Highland Avenue between Milliken and Haven Avenues. The two water transmission lines increased CVWD's ability to transport large volumes of water to the district's west side to meet demands during peak periods. The transmission lines were required because of the need to move water east to west due to growth in the central section of the district.

It has also been realized by the district that a need for reliable infrastructure projects has developed due to such incidents as a water shortage which occurred in June, 2001. Acting upon the need, the CVWD developed



Dedication of Cucamonga Water District Administration Building in April, 2000. Board of Directors from left to right: James V. Curatalo, Jr., Henry L. Stoy, Vice-president Donal J. Kurth, President Jerome Wilson, and Robert Neufeld.

projects that have increased reliability and the movement of water throughout the district. These projects have been bid and constructed in record time.

In October of 2003, CVWD opened the doors to its newly completed operations facility. The forty-two thousand square-foot complex was built to contain a secured warehouse, workshops, and maintenance garage. Additional administrative offices and the district's Emergency Operations Center (EOC) are also housed in the facility. The new building replaced CVWD's original facility which had been housed in the former post office on Klusman Avenue. It is the first time the district has built its own operations structure even though the number of employees has quadrupled since 1955. The new facility will help the district continue to provide quality service to the community.

It has been estimated that new development in the district's service area will generate over 25,000 new water connections over the next twenty years. To prepare for the increased future demand, the district invested in several capital improvement projects during the years of 2002 and 2003.

In 2003, design began on what is called Reservoir 1B. The project consisted of two 2.1 million gallon reservoir tanks. Construction of the reservoirs which will provide improved water supply reliability in the southern portion of the district began in early 2004. The project, scheduled for completion by 2005, also includes pumping facilities and two groundwater production wells that will pump water from the Chino Basin to supply the reservoir. The benefit of the project is the increased available storage, pumping, and water production capacity for customers in the southernmost part of the district's service area.

Reservoir 1C, which includes construction of two steel storage tanks along East Avenue began in the latter part of 2004. Providing an additional storage capacity of 9 million gallons of water to serve customers in the southern portion of the district, the project includes the construction of two water production wells.

Construction was also begun on a thirty-inch pipeline to connect Reservoir 1C with customers in the southern portion of the district. Termed Zone 1 & 2 Interconnection Pipeline, the project will consist of a total of 21,800 linear feet of pipeline connecting the two zones. The benefits of the project will be to allow CVWD greater flexibility in transporting water throughout the district to meet changing needs.

In the early years of the twenty-first century, under the direction of General Manager/CEO Robert DeLoach and the district's Board of Directors James V. Curatalo Jr., R. Robert Neufeld, Randall James Reed, Henry L. Stoy, and Jerome M. Wilson, CVWD has grown from providing water mainly to agricultural customers to being a leader in regional, state, and national urban water issues. In 2002 and 2003, CVWD worked diligently in Sacramento and Washington, D.C., as well as in the local area, to ensure the district's interests were recognized.

In May of 2002, CVWD hosted a briefing with Mack Gray, deputy undersecretary for the U.S. Department of Agriculture, to discuss the manner in which nitrates and salts which were left from decades of agricultural use were contaminating the region's groundwater basins. CVWD partnered with several other local water providers and the agricultural community in lobbying Gray to provide the Chino Basin with a bio-solids digester to process dairy waste and protect the area's groundwater resources from further contamination.

Gray toured both the digester site and CVWD facilities to view a demonstration of the pilot project, an example of the way in

which agricultural and commercial interests are able to cooperate with each other toward a common goal. Members of the U.S. Department of Agriculture, State Water Resources Control Board, and the Milk Producers Council were in attendance.

Chemicals from decades of industrial contamination also threatened water quality in Inland Empire groundwater basins in recent years. To find a solution to the problem, CVWD partnered with California State Senator Nell Soto and other water providers in July, 2003 to host a round-table discussion with John Paul Woodley, Jr., assistant undersecretary for the U.S. Department of Defense. The panel discussed the impact of perchlorate on Inland Empire water agencies. Perchlorate is the primary ingredient of solid rocket propellant and is a hazardous chemical which could have a potentially harmful effect on the basin. At the meeting, a statement of intent was signed between the parties identifying the necessary steps to rid the region of the contaminant.

CVWD, along with the Department of Defense and other stakeholders, continues to work on innovative solutions to clean perchlorate from the basins. Additionally, CVWD submitted a $500,000 grant proposal to the Department of Defense for the testing and evaluation of new perchlorate remediation technology. CVWD's analysis has shown that there may be new technologies which could reduce pumping and treatment costs by as much as fifty percent.

Strategic partnerships and alliances with other water agencies allow CVWD to take advantage of funding opportunities and to influence the legislative process for its customer's benefit. Several costs have been contained through regional solutions that help the district avoid carrying financial burdens by itself. Examples are the selling of surplus water to other water providers and teaming with the Inland Empire Utilities Agency to bring recycled water to the district.

The CVWD Board of Directors' prominent positions on other key industry boards and the district's regional and statewide alliances provide it with advantages when advocating for specific causes which influence water costs and reliability. CVWD also communicates on a regular basis with state and local legislative representatives in order to educate them regarding issues impacting the district. An example has been that of working with United States Congressman David Dreier on a proposed congressional water recycling initiative which would help to obtain funding for the construction of satellite wastewater treatment plants within the district's service area.

The CVWD has always believed it is important to cultivate relationships with the customers it serves. In order to help educate customers regarding the importance of water resources, the CVWD sponsors several annual events.

CVWD's Water Awareness Day celebration is held every year during May. It has been an event which is held to present the community with hands-on water-related demonstrations. In 2004, the first Kids Environmental Festival was held as part of Water Awareness day. The inaugural festival involved fifth-grade students from the Alta Loma School District. Over five-hundred students from Alta Loma, Banyan, Carnelian, Deer Canyon, Hermosa, Jasper, and Victoria Groves Schools were involved in interactive activities concerning water resources. The festival was sponsored by the CVWD in cooperation with industry professionals and local area businesses.[6] In speaking about the festival, CVWD Board Vice President Jim Curatalo Jr. has stated, "Educating our children about the importance of protecting our local water resources is a priority at the district. This event

is an excellent opportunity for students to expand upon what they learn in the classroom by seeing water at work firsthand."[7]

Another popular and successful event is the CVWD poster contest. Each year, all local elementary schools are invited to submit entries from their fifth grade students. First, second, and third place winners from each school receive a U.S. savings bond. A sweepstakes winner is also chosen and posters have on occasion been selected to be included in the MWD annual calendar which becomes part of a traveling art exhibit from water districts throughout Southern California. Local high school students may become entrants in the CVWD water bottle label contest. The district began the bottling of its own water in 2001 and has continued to provide this water to community groups throughout the district for community functions.

The district also offers educational programs and materials to educators at schools located within CVWD's service area. Included are books, video and audio tapes, teacher guides, workshops, and presentations.[8]

Adult members of the community as well as students are also invited to participate in tours of CVWD facilities. The trips usually include a brief history of the district and a tour of a facility such as the Lloyd Michael Water Treatment Plant and Reservoir. The tours give participants a first-hand view of where local water comes from and how it reaches community homes.

The district has also furthered its conservation message by participation in activities such as CVWD Night with the Rancho Cucamonga Quakes minor league baseball team. The CVWD has also hosted an annual event entitled the Residential Plant Workshop. The four-week series of classes is held in the spring for the purpose of informing customers regarding proper irrigation methods, plant selection, and soil use. The classes include instruction on the ways in which customers can improve water ef-ficiency and maintain vegetation native to the local region. The CVWD also hosts workshops concerning other water issues including the ways in which current events will affect the region's resources in the future. An example is Water Is-sues 101 which is an educational course designed for district customers who are interested in learning more about the operations of the water district.[9] The district also provides programs concerning landscaping with drought-tolerant plants.[10]

The CVWD uses a variety of avenues to provide the latest water news, conservation tips, and information affecting the local area. Included in these is *The Pipeline*, a newsletter which is published and mailed to CVWD customers quarterly. The publication serves as the customers' main source of district information and provides updates concerning matters including CVWD special events and regional water issues.

The CVWD has also been aware of the need to use modern computer technology to the fullest. The district's innovative website allows customers to pay water bills, review account information, view a calendar of district events, and read the latest CVWD news online.

Since 1996, the U.S. Congress has required water providers to deliver an annual report to their customers concerning district water quality. CVWD has provided such a report since 1990. In 2002, enhancements were made to the CVWD Consumer Confidence Report to provide customers with information regarding the challenges the district faces in maintaining a water supply which is both safe and of the highest quality.

While CVWD is a public entity, regulated by state law provisions for the governance of special districts, its success can be traced to sound business practices found in successful

private sector companies. The district has remained fiscally conservative while providing water to thousands of customers and managing a budget of over $40 million. The CVWD Board of Directors, which has focused on improving infrastructure and implementing new technologies, has provided the district a clear fiscal vision to follow.

In 2003, CVWD was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association. The highest form of recognition in the area of governmental accounting and financial reporting, the certificate was awarded for the district's comprehensive 2003 Annual Financial Report. The district received the honor, based upon its full fiscal disclosure and the valuable statistical information provided.

The CVWD has also established a reserve fund in order to prepare for unforeseen costs and emergency situations. Funds have been earmarked for equipment replacement, debt service on CVWD bonds, and for a Rate Stabilization Fund which would allow for the purchase of up to eight thousand acre-feet of water and offset any spikes in imported water or power costs. These measures have made it possible for CVWD to maintain a steady rate structure in an ever-changing market. For example, in 2001, CVWD utilized the Rate Stabilization Fund to offset an increase in power costs, minimizing the impact on customers during the electricity crisis.[11]

As with private citizens and other agencies within the community, the CVWD has been affected from time to time by special as well as emergency situations. The most recent were the wildfires of October, 2003 and an emergency pipeline closure in June, 2004.

On Friday, October 24, three days after the onset of the Grand Prix Fire, the district fully activated its EOC. The center was in operation twenty-four hours a day until October 27th while the wildfires were being fought and until all danger had passed. Men and women from the district were stationed at the command post which operated out of the district board room, while a district liaison was stationed at the city's EOC. The fire surrounded, and in some instances, burned onto the property of the district's Bridge, Michael, and Royer-Nesbit Water Treatment Plants. There was minor damage to all three facilities. During the fire, water district personnel were stationed at several locations in order to assist with maintaining proper water pressure and flow for fire protection. The most critical point occurred when the raging fire caused an external loss of power to a string of four reservoirs that feed the most northerly section of the district. District employees were instrumental in hooking up generators to the sites to ensure power was available and facilities remained operational. The workers also monitored reservoir levels to ensure adequate water supplies were maintained for fire suppression. The district also maintained excellent communication with the Rancho Cucamonga Fire Protection District throughout the emergency.

In December of 2003, it was reported that restoring and protecting the Santa Ana River Watershed from the effects of the fires could cost nearly $450million. As part of the Santa Ana Watershed Project Authority, the CVWD supply of water was greatly affected by ash and soot from the fires. At the time, Jo Lynne Pereyra, CVWD's assistant to the general manger, reported that the district was unable to use water from four area canyons. To make up for the loss of canyon supplies, the CVWD found it necessary to purchase additional imported water from MWD.[12]

In June of 2004, the CVWD was involved along with other water agencies in dealing with a water shortage caused by the need to make emergency repairs to a portion of a



In 2003 CVWD completed construction on its new operations facility.

twenty-six mile pipeline owned and operated by MWD. The portion of the line which was in danger of collapsing was located in the Webb Canyon area of La Verne.

On May 27th, the MWD made a decision to shut down the pipeline for seven days, beginning just after midnight on June 7th. During the days preceding the shutdown, the CVWD worked diligently to inform citizens regarding the situation and how they could help during the emergency. News releases, press conferences, and fliers were used to inform citizens about the circumstances. This included getting information to local businesses, school districts, and manufacturers. During the shutdown the district monitored the area by sending out employees to patrol neighborhoods and businesses to watch for those who might be watering lawns, washing cars, or otherwise ignoring the water agency requests to conserve water.

On Saturday, June 5th, the district attempted to fill its reservoirs to their capacity in hopes it could establish sufficient water reserves to carry the district through the shortage.[13] However, full capacity could not be reached due to the fact that major water users were watering down as much as possible before the shutdown.

During the emergency, the district was able to bring a dormant well back on line. This was accomplished after attaching a mobile treatment unit to the well in order to remove nitrate contaminants and DBCP.[14] The treatment system provided an additional ten million gallons of water during the emergency shortage. The water treatment system consisted of three on-site units each processing four hundred gallons per minute of clean water to remove the nitrate. According to CVWD general manager/CEO Robert DeLoach, the procedure was critical in order to ensure that the water district was able to meet the needs of its customers. The operation could not have been accomplished without a temporary permit being provided by the California Department of Health Services with whom CVWD has always maintained an excellent working relationship. The district officials also made arrangements to borrow water from surrounding agencies if necessary.[15]

Also in 2003, after determining that the Lloyd W. Michael Treatment Plant was unable to meet current demands created by increased population and an increased demand for potable water, the facility was modified in order to increase the plant's capacity to sixty million gallons per day. New construction included the addition of filters, flocculation and sedimentation basins, a raw water channel, a washwater recovery structure, and an equalization basin pumping station. Renovations and upgrades were completed to the existing filters, flocculation and sedimentation basins at the existing plant. At completion of the mass excavation for the new facilities, there were over 3,400 cubic yards of concrete placed to complete the structural components of the expansion and renovated areas of the facility. Underground utility piping, ranging in size from one inch to sixty-six inches in diameter, included pump discharge, sludge distribution, effluent, backwash drain, settled water, raw water, and dual containment ammonia feed services. Interior process and chemical piping installations, ranging in size from two to thirty-six inches in diameter, included sodium hydroxide, caustic and ammonia feed, air scour, sludge and washwater drains, backwash water supply, and filter water services. Mechanical equipment furnished and installed included residual collecting, plate settlers, vertical flocculation, filter underdrains, in-line static mixers, sluice and slide gates, FRP washwater and sedimentation troughs, polymer and liquid chemical feed systems, with associated metering equipment.

In June, 2004, DeLoach gave testimony before the Committee on Resources Subcommittee on Water and Power of the United States House of Representatives. The purpose of the testimony was to speak in favor of H.R. 4606 which would authorize the Secretary of the Interior to participate in the funding and implementation of a balanced, long-term groundwater remediation program in California and for other purposes. Most of the following is taken from that report.

As of 2004 the CVWD provides water and wastewater services to more than 170,000 people within a forty-seven square mile service area. The City of Rancho Cucamonga has been identified by the United States Census Bureau as being the third fastest growing city in the nation with a population of over one hundred thousand. During the previous five years the CVWD has averaged over one thousand new customer connections for water and sewer service annually. By the year 2020, it was projected that the population of the city would reach approximately 230,000.

As has been stated, CVWD water is derived from three sources. The greatest amount of water is imported from the State Water Project through the Inland Empire Utilities Agency and is the most expensive source. The IEUA is a municipal water district that distributes water from the Metropolitan Water District of Southern California and provides municipal and industrial wastewater collection and treatment services to a 242 square mile area in the western portion of San Bernardino County.[16] *The balance of the CVWD water is obtained from groundwater and surface water from the local San Gabriel Mountains.*

Throughout Southern California, and specifically in the area of the Santa Ana Watershed (SAW), imported deliveries of water are being reduced at a time when water demand is increasing. The increased demand comes at a time when the district needs to be more and more prepared for situations such as a serious drought. The CVWD realizes the need to develop more production wells and to pump a greater amount of groundwater from the Chino Groundwater Basin. Four additional production wells have recently been drilled for the installation of well-head treatment equipment to treat contaminated groundwater. As a result, more groundwater has been pumped rather than receiving supplies from state water projects. Financial support for the projects has come directly from Proposition 13 funding.

In addition to the requirement that Southern California adjust to the new reality of reduced imported water deliveries, CVWD's ability to produce adequate supplies of groundwater is being threatened by contamination due in large part to the actions of the federal government. The two primary federal legacy sources of groundwater contamination are perchlorate and volatile organic compounds (VOCs). Perchlorate and in many cases VOC contamination in the watershed have been linked directly to past military (Department of Defense) or aerospace industry (NASA) activities, which used ammonium perchlorate and potassium perchlorate in the manufacturing and testing of solid rocket propellants. These federal activities account for approximately ninety per cent of the known perchlorate in local drinking water wells, according to academic and government experts. There is also a possible link to the manufacturing of pyrotechnics and other products such as agricultural fertilizers. A known and defined volatile organic compound plume is currently threatening

groundwater supplies within the lower Chino Basin region in and around the Chino Airport resulting from its past use of serving military aircraft.

Recycled water plays a major role in meeting the needs of the SAW and is being threatened by the actions and policies of the federal government as well. The development of new recycled water supplies is the most significant new supply to the Santa Ana River watershed. Approximately 250,000 acre feet per year of new recycled water supplies have been identified in the SAWPA Integrated Watershed Plan. The ability of the CVWD to continue to develop this reliable, drought-proof source of water for non-potable uses such as agriculture, landscape, and manufacturing was potentially threatened due to the Department of the Interior's initiative to eliminate the Title XVI water recycling program[17] which the district has historically depended on to assist in funding recycled water programs. However, on July 19, 2004, legislation in the form of H.R. 2991 (The Inland Empire Water Recycling Initiative) was passed which provided federal support to two new water recycling projects in the area. The bill was sponsored by Representative David Dreier and co-sponsored by Representatives Joe Baca, Gary Miller, and Grace Napolitano, all of California. H.R. 2991 authorizes Title XVI funding for the Inland Empire Regional Water Recycling Project and the CVWD pilot satellite recycling plans. The bill will add a projected seventy-five thousand new acre feet of water annually to the region. In commenting on the passage of the bill, Dreier thanked Robert DeLoach, general manager/CEO of CVWD and Rich Atwater, general manager/CEO of the Inland Empire Utilities Agency "for their tireless work on behalf of the Inland Empire."[18]

The Department of Defense has shown considerable interest in evaluating new technologies that will treat contaminated groundwater. The CVWD, while supporting the Department of Defense in its desire to solve the problem, has formulated a proposal itself.

In October 2003, the CVWD submitted a project proposal to the Department of Defense asking for a grant of $500,000 to test and evaluate the effects of high intensity pulsed ultra violet light (PUV) on perchlorate in groundwater. The proposal was received with considerable interest and the CVWD is confident it can proceed with the project in the near future. It is believed by CVWD that the Department of Defense should investigate and test any and all treatment technologies rather than to simply accept existing technology.

The CVWD supports H.R. 4606 (The Baca Bill)[19] which would commit the federal government to provide funding assistance to water agencies and communities which are attempting to protect and reclaim valuable water supplies through existing and innovative technologies. The bill will establish a Southern California remediation fund which will provide much needed grants to local water agencies in order to reimburse the local water authority for the federal share of costs associated with designing and constructing groundwater remediation projects. This will allow water agencies and communities such as CVWD to leverage local funds to further develop projects which will protect, treat, and reclaim valuable groundwater supplies.[20]

(Notes)

[1] CVWD. *Investing in Our Future.* p.7

[2] CVWD, *The Pipeline: Spring 2004*

[3] U.S. Department of the Treasury Bureau of Alcohol, Tobacco and Firearms, *Federal Register, March 31, 1995*

[4] Joseph Filippi Winery website

[5] Cucamonga Valley Water District website.

[6] Christina Guerrero, *Inland Valley Daily Bulletin*, May 27, 2004

[7] CVWD, *The Pipeline: Spring, 2004*

[8] CVWD website

[9] CVWD, *Customer Service Guide*

[10] CVWD, *The Pipeline: Spring, 2004*

[11] CVWD. *Investing in Our Future: 2002-2003 Annual Report.* 2004

[12] Joe Florkowski, *Inland Valley Daily Bulletin.* December 16, 2003

[13] Conor Friedersdorf, *Inland Valley Daily Bulletin.* June 5, 2004

[14] 1,2-Dibromo-3-Chlorpropane

[15] *Inland Valley Daily Bulletin*, June 5, 2004

[16] Inland Empire Utilities Agency website

[17] The Bureau of Reclamation's water reclamation and reuse program authorized by the Reclamation Wastewater and Groundwater Study and Facilities Act of 1992.

[18] Congressman David Dreier website

[19] H.R. 4606 (The Baca Bill) had not yet been passed into law at this writing.

[20] Robert DeLoach. *Testimony Before the Committee on Resources Subcommittee on Water and Power, United States House of Representatives*



Chapter Nine
Reflections

The following descriptions of the importance of water to the Cucamonga area are taken from oral narratives given by various individuals. It should be noted that occasionally information given in such a manner does not coincide with what history has shown to be factual. However, the stories and descriptions given by individuals who have "lived the history" always make for enjoyable and worthwhile reading. The stories are theirs. They give us a first-hand account of the significant role water has played in the history of the Cucamonga area.

Ruben S. Ayala

Ruben Ayala is a former California State Senator. He served for eighteen years as chairman of the state Committee for Agriculture and Water Resources. Ayala was chosen to chair the committee due to his substantial agricultural activity in his senate district.

Facing page: "Waterfall in East Canyon" by Anne Bridges-Lindquist

When Ayala became chairperson of the committee he brought with him the philosophy that without a continual healthy water supply California could not continue to prosper as it had during previous decades.[1]

He believed that with its continual rise in population California could not afford to ignore its water issues, nor could it procrastinate implementing programs designed to mitigate the increasing challenge.

In 1959, Ayala became an avid student of the California State Water Project (SWP). During this time, it became clear to the senator that more water would be needed to meet growing urban and industrial demands, sustain agricultural production, and maintain stream flows for fish, recreation, water quality, salinity control, and navigation.

As a result, Ayala introduced two separate bills in support of the construction of a Peripheral Canal which would bring water from the San Joaquin Delta area to Southern California. The second of his two bills (SB 200) was passed both houses and was signed by Governor Jerry Brown in 1982. Scheduled to become law on January 1, 1983, the bill was never enacted due to a petition which was circulated by both environmentalists and farmers. The matter was placed on the November 1982 general election ballot where it was defeated.

Ayala is still certain the peripheral canal should be built in the future. He strongly believes it is needed in order to reduce or eliminate future critical water shortages in the southern and central potions of the state.

Because of his tireless effort in helping to find and develop water resources for Southern California, Ayala has been recognized by various groups. The former senator was honored as the first recipient of California State University San Bernardino's Water Resources Institute Lifetime Achievement Award.

Robert L. Hickcox

The information presented here concerning Etiwanda resident Robert L. Hickcox is taken from excerpts found in an interview given in 1980. Portions of the story are from his own personal experiences. Others are based on history he has learned concerning the use of water in the area.[2]

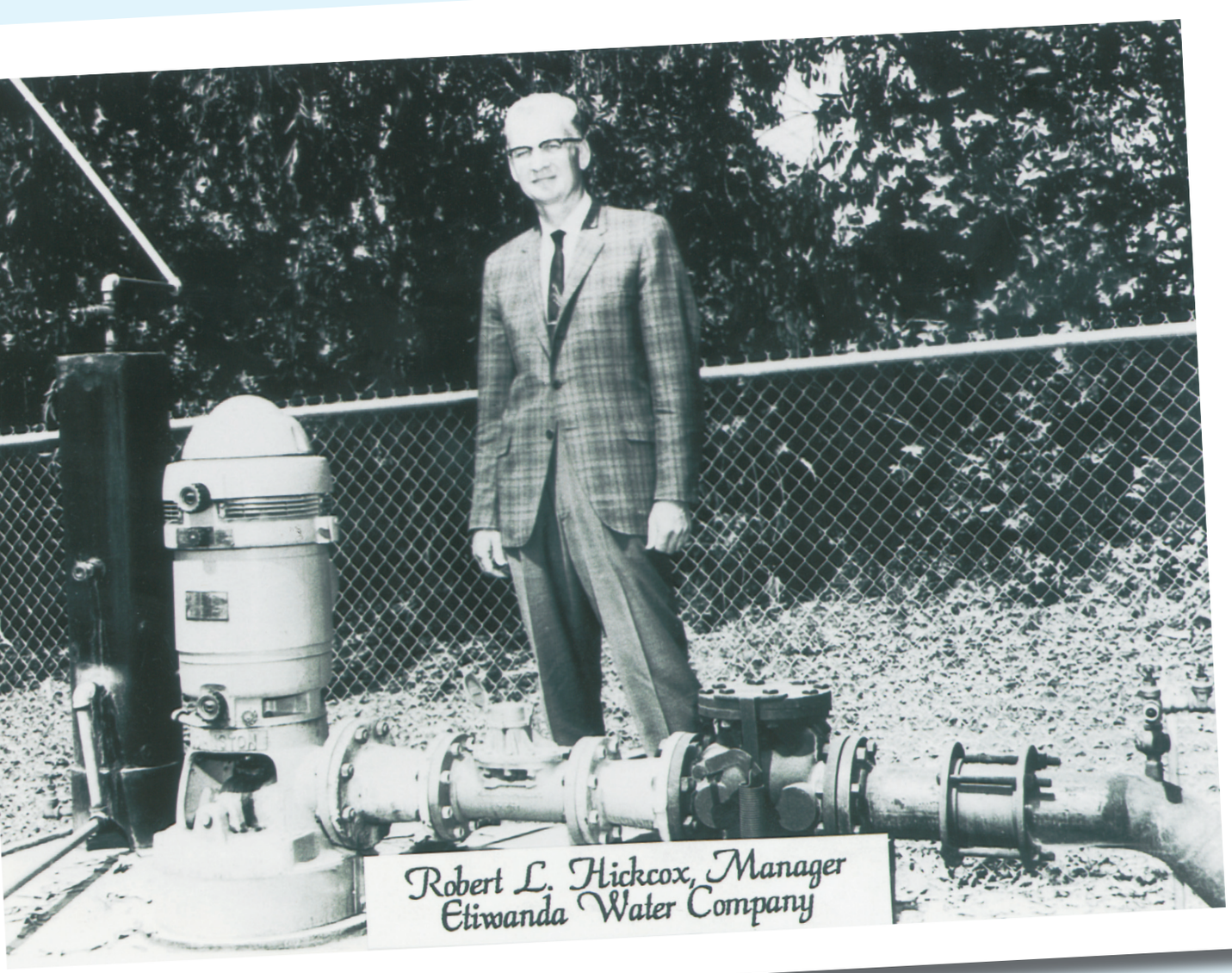
According to Hickcox, the water system prior to 1927 consisted of a concrete reservoir located at each of the individual groves. Each tank held approximately five or six thousand gallons of water. They were filled once or twice a month with water from Day and Etiwanda Canyons.

In years of plentiful rainfall there was more water than the community could use. Precipitation in the area has averaged from seven to thirty-five inches annually. When there was little rainfall, there was little water coming from the canyons in August and September which is the time citrus trees are most in need of irrigation.

In the spring, there was enough water to irrigate citrus and grapes as well. When summer arrived, however, the grapes were not watered. Originally, the trees and vines were irrigated from open ditches, but this system caused a great amount of water to be lost due to evaporation.

An account given to Hickcox by his father tells of the particularly dry summer of 1899. During that time, the area was struck by a heavy earthquake. Following the earthquake, the water supply began to increase in the area. The increase was between fifty and one hundred inches. A steady flow continued all summer. Possibly, when the earth moved water began streaming from a fault which had been caused to widen.

Hickcox recalls that when the Etiwanda Domestic Water Company was formed it totaled eighty subscribers. The company built



Robert L. Hickcox served as manager of the Etiwanda Domestic Water Company before it was sold the Southwest Water Company.

a 150,000 gallon reservoir on 23rd Street and ran three and four inch diameter steel pipelines down each avenue in order to serve the area. Before the construction of the reservoir each grower had to provide for his own household water by building small reservoirs which could hold two thousand gallons and which would barely last the month. No one had lawns or yards at that time. At times, water had to be borrowed from neighbors.

At one time, Hickcox served as water company manager in Etiwanda. When problems would arise within the system he was not always able to call upon the company foreman to handle the situations. Therefore, he had to handle many of the problems himself. In the winter when storms approached, he had to make certain there would be a constant flow of clear water. During a thunderstorm he might have to shut off the flow into the reservoir in order that muddy water from the canyons would not pollute the supply. In the summer, the greatest problem usually came from motors and equipment breaking down.

In later years, the Cucamonga County Water District offered to purchase stock from the Etiwanda Domestic Water Company. The Cucamonga District offered $175 per share of water rights provided certain restrictions were met. The Etiwanda Company was required to divide into three entities. One was to hold

title to water rights. The other two retained the real estate holdings of the company.

In 1957, the Etiwanda Domestic was sold to Southwest Water Company. Twenty years later, the residents of the area voted to annex to Cucamonga County Water District and the CCWD purchased all assets in the Etiwanda area belonging to Southwest Water.

Howard Mason

Howard Mason's story is taken from an oral interview which was given in 1977.[3] Mason was a resident of Alta Loma. He worked on his parents' ranch as well as that of Joe Loeb on Banyan Street.

The Masons lived on a parcel of forty acres. Before the family moved onto the property others had settled on the adjoining 120 acres. A well had been drilled by these residents, but by the time the Masons arrived it had run dry. The well had been dug in a crooked fashion and it was difficult to keep it operating. In later years, when the Cucamonga County Water District bought the property and the well, it was discovered it had been drilled off the property. Apparently, people did not always pay attention to exact property lines in days past.

The organization that originally operated the well was the Joya Mutual Water Company. It is not certain how the company got the name or who named it.

A water company in Alta Loma would pump water to the Joya reservoir in order that Joe Loeb could irrigate his grove. The system proved to be unsatisfactory, therefore Loeb changed to a different method of operation. The same line was used to deliver domestic water to homes on the property. When the Cucamonga Water Company bought the property it also took possession of the reservoir which was located on a seventy-five foot square piece of property. The company attempted to give the reservoir and property to Joe Loeb free of charge, but he refused the offer.

In order to irrigate the groves on the Loeb ranch, thousands of feet of aluminum pipe and a sprinkling system were installed. Mason was of the opinion that sprinkling was a much more efficient way to irrigate the trees than was the use of furrows. This was due to the fact that furrows brought the water to a limited place while sprinklers spread water over a broad area. He also believed that sprinkling caused a better feeder root system to form and saved water at the same time.

Following Mason's association with the Joya Mutual Water Company, it went out of business and was sold to the Cucamonga Water District. The Cucamonga District bought all of the small companies in Alta Loma with the possible exception of the Ioamosa Company.

Lloyd W. Michael

Lloyd W. Michael served as general manager of CCWD from August 22, 1972, until April 30, 1990. His experience with the CCWD is taken from a personal interview given to the author.[4]

Michael began his relationship with the district in 1968 when he was elected to the CCWD Board of Directors. His total expenditure for the election was less than $400. At the time, he was a board member for the Alta Loma School District. He resigned from the school district board in order to avoid any possible conflict of interest.

In 1972, an attempt was being made to find a new general manager for the district due to the fact the original manager, Norman Hixson, had been hired by James M. Montgomery Engineering of Pasadena. The position was offered to Michael, but he responded with the fact that he was not a water expert.

He was told he did not have to be. He would merely be required to be a guide to the district. Because he believed he could be of help to the district and because his citrus business had been severely damaged by the winter freeze of 1968, he decided to accept the offer and became general manager.

Michael believes his position of general manager of CCWD came during a challenging period of time. One of the reasons being the great transition of the area from rural to urban. When he first accepted the position, he had no idea of what was to happen to the community in the way of growth. He believes, however, that the CCWD was able to keep ahead of the growth due to careful master planning. The growth has been unbelievable. At one time, ten thousand homes were under construction.

The district recognized Michael for his work and dedication to the district by naming the plant the Lloyd W. Michael Water Treatment Plant. Although honored by the naming, Michael realizes the plant was a result of the efforts of many talented and dedicated individuals and staff, especially Assistant Manager George B. Blanchard, Jr.

A highlight for Michael during his employment with CCWD was negotiating with privately owned small individual and mutual water companies in order to purchase water rights and services. During the negotiations, CCWD was never involved in a law suit with any of the companies and there was always a mutual agreement as to the value of the companies and the manner in which they were acquired. The only company with which there was a small problem was the Etiwanda Water Company. After appraisal to determine the value of the company, CCWD was only able to purchase between eighty and ninety percent of the stock. CCWD agreed to deliver water in perpetuity to those customers who did not agree to sell their stock to the district. It was agreed that water would be delivered to the customers and their children at a fixed rate as long as the stock remained in their hands. Michael recalls that the Mueller and Musser families were instrumental in helping CCWD to finally acquire all of Etiwanda Water Company.

During his time as general manager, Michael was instrumental in bringing new ideas into the district. He changed the title of *Assistant to the General Manger* to *Assistant General Manager* and he held to the belief that the position of president of the board should rotate every two years. He also helped form Improvement District 5 and was involved with Chino Basin concerning the adjudication of rights to the water in the Chino Basin. CCWD was instrumental in developing the Regional Sewage Service Program.

Michael believes that CVWD has been, and is, one of the finest water districts in California. The district has grown and changed, especially concerning the type of equipment use. It has not changed, however, in the manner in which it treats its customer. Michael takes pride in the fact the district has always taken care of customer problems efficiently and courteously. One example is that of a resident who lived on Red Hill. Following a sewage backup at the customer's home, CCWD not only repaired the problem, but cleaned up the house including the replacement of damaged carpets.

CVWD has been the envy of other water districts because it has more water sources than any other local district. For example, CVWD has water rights in Cucamonga, Deer, Day, and Etiwanda Canyons, as well as over sixty percent of the water in Lytle Creek. Because of the tremendous sources held by CVWD, the district has never had to curtail delivery.

Michael recalls that some of the joy of his position also came from the humorous events

which happened from time to time. In one instance, there had been complaints from some customers in the northwest area of the district concerning low water pressure. Victor Cherbak, president of the CCWD Board of Directors, announced to the customers he would go to the office the next day and solve the problems. Cherbak questioned the CCWD staff as to what could be done to solve the problem. He was informed that the district would make a connection through a pressure regulator to a high-pressure line located north of the customers. The "best laid" plan failed, and several lines to toilets were blown up.

Another incident Michael remembers with fondness happened during the time CCWD was building Tunnel A at the five thousand foot elevation in the mountains. Hoping it would be a major source of water, the district had been extending the tunnel with dynamite. Representatives from the California Occupational Safety and Health Administration (Cal/OSHA) made a surprise visit to the CCWD offices during the time of the blasting. The representatives requested to be taken to Tunnel A to inspect the tunnel and determine if regulations were being properly followed during the blasting. Michael informed the men it would take over an hour to drive to the tunnel and perhaps they should return another day for the inspection. However, the representatives insisted on inspecting the tunnel that day.

Michael then asked engineer Jim Cline to turn off the radio in his pickup truck as Michael was going to use the truck to drive to the tunnel. Cline then called the workers at the tunnel from another radio and informed them there was to be an inspection within an hour.

After inspecting the tunnel and finding everything was in perfect shape, Michael and the inspectors began the trip back down the dirt road. Michael was not very pleased with the time he had lost in his work day and apparently began driving a little too fast on the narrow mountain road. Coming around a graded curve, Michael stepped on the brakes causing the passenger side of the vehicle to slide out over the edge of a 1,500 foot high cliff above Cucamonga Canyon. The truck was stuck on the embankment and the men were able to slide out through the driver's side of the truck. Michael then activated the radio and requested a truck and chain be dispatched to the canyon road. Two district workers arrived and pulled the truck back onto the road. The Cal/OSHA representatives never returned for inspections again.

A few weeks later, some of the men from the CCWD Board of Directors asked to be taken to Tunnel A by Michael. Driving his truck up the same road, Michael arrived at the spot where the incident had taken place with the Cal/OSHA inspectors. There at the spot was a huge sign which looked exactly like a U.S. Forest Service sign. It read, "Lloyd's Viewpoint."

Robert Nesbit

Robert Nesbit's story is also taken from an oral interview given in 1977.[5] He was one of the members elected to the original Board of Directors of the Cucamonga County Water District in 1955.

In the years preceding the formation of the CCWD, there were many mutual as well as domestic water companies in the area. Alta Loma had a little domestic water company as did the Cucamonga district. Since the formation of CCWD, the district bought out practically all of the old mutual water companies.

Some of the companies were the Ioamosa, Hermosa, Archibald Avenue, and the Sunset. The big company was the Cucamonga Water Company which was a mutual company.

The CCWD paid a million dollars for the Cucamonga Company.

The decision was made to form the district because the area was short of water. There had been a season of light rainfalls locally and it was believed that more water would have to be purchased from the MWD. Therefore, a connection was made with the MWD in order to use its water when necessary. The connection was actually more of an "insurance policy" because the need to use MWD water was minimal. Water from the MWD was used only once or twice during 1977.

Nesbit recalled that large pipelines and a booster station were installed during the initial stages of the district. The project was begun at an elevation of 1100 feet and with water being boosted up the hill to an elevation of 2300 feet.

During the early days of the district a great amount of tunnel work was also accomplished in the mountains. Work took place in Cucamonga, Deer, and Etiwanda Canyons. Nesbit believed this was a worthwhile project because tunnel water was so pure it did not have to be treated as did water from the streams.

In the interview of 1977, Nesbit was asked why the water company was called Cucamonga County Water District since there is no County by the name of Cucamonga. Nesbit's answer was simply that the district was located in an [unincorporated] area of San Bernardino County.

(Notes)

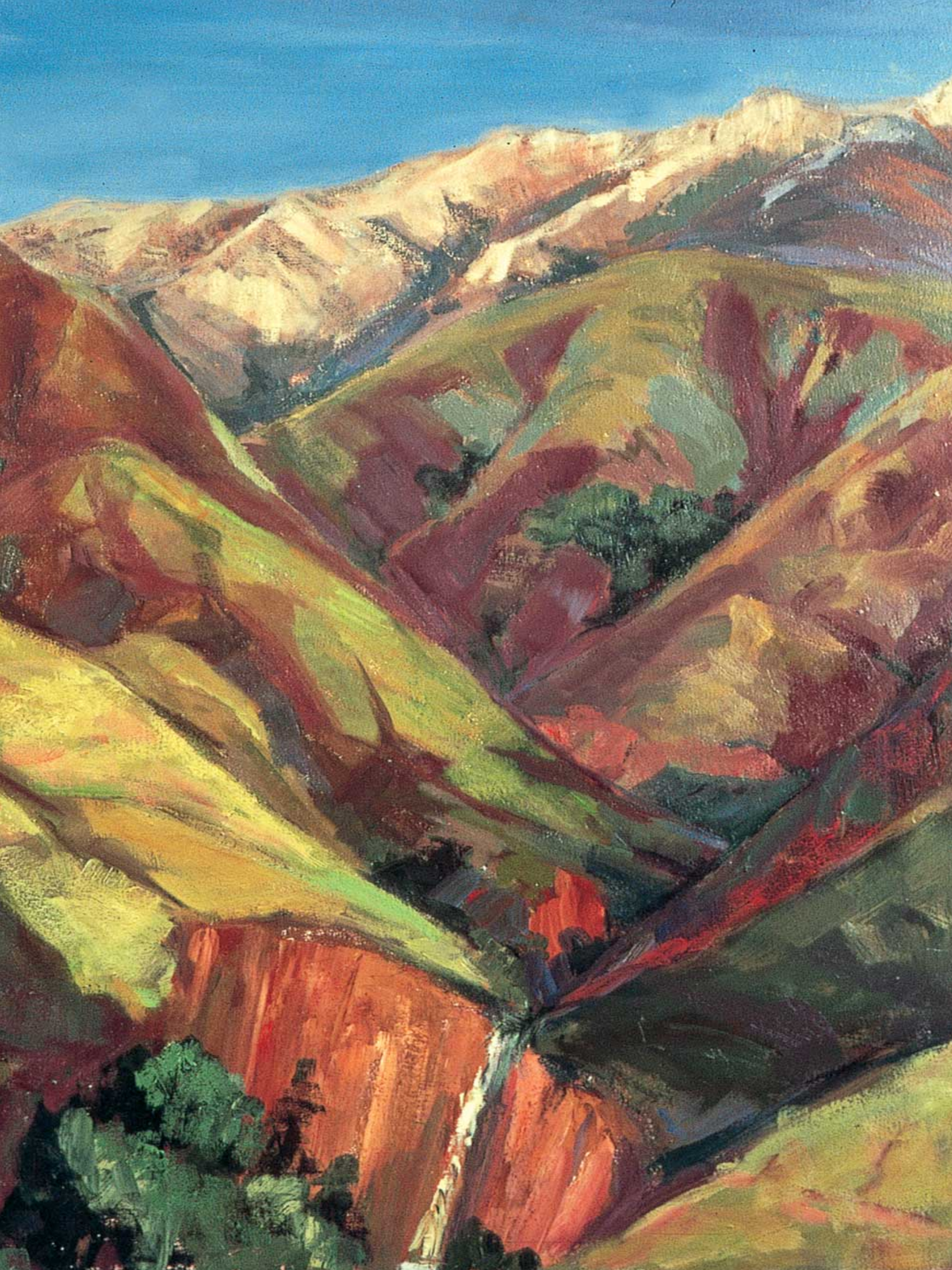
1 Ruben S. Ayala, *Up from Second Street*. p. 101

2 Upland Public Library, *Oral History Interview with Robert L. Hickcox*

3 Upland Public Library, *Oral History Interview with Howard Mason*

4 Lloyd W. Michael, interview by author, October 22, 2004.

5 Upland Public Library, *Oral History Interview with Robert Nesbit*



Chapter Ten

Epilogue

What of the future of CVWD? What are the future plans of the district to continue to provide the precious resource of water to the Cucamonga Valley.

At the writing of this book, projects which have been adopted by CVWD for future completion are many. To begin with, the district plans to resize pipelines to ensure correct hydraulic flow and fire protection, and to make certain the pipes have the ability to deliver the maximum daily demand.

A second project will include the construction of additional reservoirs to increase operational fire and emergency storage capacities. Currently the district has a total of sixty-two million gallons of storage capacity throughout its network of reservoirs. It is estimated that the district will need to increase this amount to approximately 130 million gallons of total storage by 2030.

Plans are also being made to upgrade existing pumping facilities. New facilities will also be constructed.

The district will also drill additional wells during the next several years in order to increase its pumping capacity at the Chino Groundwater Basin. Through its water rights and transfers, the district is capable of pumping approximately ten thousand acre feet per year from the Chino Basin, but it is currently pumping only seven thousand acre feet. Drilling new wells in the Chino Basin will allow the district to fully use its Chino Basin Groundwater rights which is a less costly alternative to purchasing imported water.[1]

With an eye toward the future, CVWD is exploring many new opportunities to ensure district customers are afforded adequate supplies of high quality drinking water. CVWD will be an integral part of the region and the state's water future with new groundwater storage projects, water transfers from abundant sources in Northern California, and expanding opportunities for recycled water.

(Notes)

[1] Cucamonga Valley Water District, *Infrastructure: An Investment in Our Future*

Timeline of CVWD

1955

Cucamonga County Water District formed.

1956

Basic system construction completed.

1957

Plan approved by voters to acquire fourteen private water companies and develop additional water supplies and storage facilities.

1963

Additional water supplies obtained by developing gravity sources in Deer Canyon and Cucamonga Canyon.

1979

State Water Project established, connecting Southern California with water to the north. CCWD's first treatment facility, the Royer-Nesbit Treatment Plant, constructed.

1980

Deep wells dug in Cucamonga Basin to meet growing demand.

1989

CCWD's second treatment facility, the Lloyd W. Michael Treatment Plant, constructed.

1992

Agreement entered into with Kaiser Resources to lease Fontana Union Mutual Water Company shares, entitling CCWD to fifty percent of the water produced by the company.

1993

Cucamonga Canyon water source becomes subject to the Surface Water Filtration and Treatment Disinfection Rule. CCWD authorizes the construction of a third treatment facility to treat its canyon water supply.

1997

CCWD's third treatment facility, the Arthur H. Bridge Microfiltration Treatment Plant, becomes operational.

2000

CCWD completes construction of its new administrative facility. The 26,000-square foot building houses all district administration, finance, and engineering functions.

2003

CCWD approves the "Investment in Our Infrastructure" program, allocating $75,000,000 through 2030 to improve and maintain the district's water supply system. Construction of Operations Building.

2004

Cucamonga County Water District changes its name to Cucamonga Valley Water District. The new name reflects the area's winemaking roots and is more representative of the organization's growing service area and regional leadership role.

Service Roll

The following include those employees and board members who have served the CCWD and the CVWD Present Employees and Board Members

Raymond Abeyta
Raul Agredano
Adham Almasri
Chris Alnwick
Rossana Ammari
Earl Anderson
Fred Anderson
Melody Anderson
Howard Andrews
Art Antonitz
James Arnold III
Roland Arrighi
Timothy Baker
Frank Barnes
Carolyn Barry
Luana Baumeister
Charles Bergson
Eugene Billings
Dawn Birra
Jerry Black
George Blanchard Jr.
Ariel Blanco
Harold Blatz
Patrick Bolander
George Boltze
Darrell Bomgaars
Hugo Borja
John Bosler
Dennis Bowman
Kathleen Bown
Beverly Braden
Chad Brantley
Kenneth Bray
Guido Brayford
Arthur Bridge
Sandra Brierley
Alan Briggs
Inger Briggs
John Brooks
James Bryan
Olivia Buron
Steve Busch
Kristeen Buxton
John Campione
George Campos
Valerie Card
Jeffrey Carter
Audra Casias
Eric Chamberlin
Victor Cherbak
Bud Christancy
Shelley Cirrito
Matthew Clifton
Jim Cline
William Clippert
Fernando Cobos
Viola Combs
Hector Conti
Joseph Cook
Todd Corbin
Carrie Corder
Samuel Cortes
Joseph Cowan
Gerald Cunningham
James Curatalo, Jr.
Gary DeFriest
Scott Degner
Efrain Delgadillo
Robert DeLoach
Thomas Diggs
Richard Dinges
Donald Dzierwa
Karl Fernandez
Elisabeth Fien
Carlos Fimbres
John Finch
Murray Fontes
Jaymie Foote
Perry Frese
Ray Fritchey
Richard Fuller
Albert Garcia
Edgar Garcia
Eugene Garcia
Miguel Garcia
Neil Garcia
Kenneth Gaudy
Karen Gianella
Robert Gibson
Lewis Gilbert
Teri Gonzalez
Joseph F. Grass Jr.
Debra Green
Donald Gregor
Gerald Griffith
Lori Griggs
Eric Grubb
Mauricio Guardado Jr.
Jeffrey Guerin
Joseph Guidera
Clyde Hague
Monica Hallberg
John Hargrave
James Hauser
Catherine Hawk
Laura Hawley
Brian Henderson
Gilbert Hernandez
Pedro Herrera
Robert Hills
Harold Hively
Norman G. Hixson
Frank Homes
Robin Hvidston
John S. Ingalls
Dennis Interlicchia
Robert Jacobs
Victor Jimenez
Eric Johnson
Debra Johnston
William Johnston Jr.
Rae Ann Kaliher
Robert Keniston

Patrick Kerrigan
Audrey Kick
John Knapp
Robert Koczko
Donald J. Kurth, M.D.
Rita Kurth
George Kuykendall
Jacqueline Lawrence
Kelly Lavin
Frank Lesinsky
Ray Lewman
David Lopez
Richard Luna
Michael Maestas
Jerilyn Mammoser
Kaibrick Manns
Maria Mardesiche
Alicia Martin
Ida Martinez
Carl Masingale
Dorothy Maurus
Robert McCarty
Dianne McCormick
Hugh McDowell
Charles McGaugh
Dorothy McGivney
James McNair
Clyde McSween
Gustavo Medina
Claude Meeker
Danny Meeker
Marty Mercado
Linda Merrick
Lloyd Michael
Penny Molsby
Catherine Moore
Sondra Morrison
Theodore Munson Jr.
Evette Navarro
Robert Nesbit
Robert Neufeld
Gayle Norton
Richard Oaxaca
Joseph Ohyenart
Robert O'Lenic
Harold "Marty" Olson
Sandra Olson
Gustavo Ortiz
Alafua Otine
Ann Overman
Gabriel Parisi
Jacob Parker
Rita Parra
Boris Paspalof
David Pastor
Jaime Paz
Lawrence Perdew
Cesar Perez
Robert Perez
Roberta Perez
Shawn Perumean
Don Peters
Peter Peters
Janelle Peterson
Rudolph Pimentel
David Plumb
Susan Pohlers
John Poli
Darron Poulsen
Ernest Pruden
Jeffrey Ramirez
Irene Redfern
Randall Reed
Stephen Reynolds
Mary Riemersma
Doroteo Rivas
William Rivera
John Roberts
Armando Rodriguez
George Rodriguez
John Rodriguez
Mario Rodriguez
Galer Royer
Paul Rugge
Jo Lynne Russo-Pereyra
Henry Rutledge
Frederico Salazar
Ilene Sargent
Phil Schmutz
Lawrence Schulz
Lisa Schultz
Diane Schumacher
Bruce Scott
Dale Sharp
Genevieve Shea
Kirk Shimek
James Shirley
Thomas Shollenberger
Linda Silva
Russel Silva
Sally Singbeil
Jesse Skinner
Charles Smith
Kenneth Smith
Mark Solano
James Sotelo
Kathy Spear
Ingrid Spiteri
Gregory Springman
Michael Stanford
Ronald Stark
Shane Stevens
Gary Stockwell
Henry L. Stoy
Vincent Sudeta
Bonnie Tazza
Patricia Theis
Karina Thibodeaux
Brandon Thomas
Matthew Tirre
Jeffrey Traugott
Cathleen Trunnell
Jay Trunnell
Jose Urioste
Steven Usher
William Van Damme
Frank Van Fleet
Lourdes Vargas
Charles "Ted" Vath
Jessie Vega
John Vega
Rachelle Vega
Ignacio Velásquez
Mary Voss
Mary Lou Walker
Raymond Welborn
Arlis Wessel
Charlie West
Shawna Whallon
Diana White
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Steve Wilson
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Karen Woodall
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Ruth Wynn
Dennis Zielke
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Index

A

Adobe Water Company
Agua Mansa
Alta Loma Domestic Water Company
Alta Loma Mutual Water Company
American Transportation Corporation
Anglo-American Canaigre Company
Archibald Avenue Water Company
Arrow Route Water Company
Arthur Bridge Water Treatment Plant
Atchison, Topeka & Santa Fe Railway Co.
Atwater, Rich

B

Baca, Joe
Baker, S.G.
Baldwin-Lima-Hamilton Corporation, Pelton Division
Bandini, Juan
Banyan Heights Water Company
Belcher, John
Biane, Philo
Biane, René
Bienfort, August
Billings, Eugene
Billings, Gordon
Blanchard, George B., Jr.
Blatz, Harold
Bloomington
Bonebrake, George H.

C

California Wine Association
Carnelian Water Company
Certificate of Achievement for Excellence in Financial Reporting
Chaffey, Charles
Chaffey, George
Chaffey, George Sr.
Chaffey, William
Chappell, Clifton
Chicala Water Company
Chinese
Chino Basin Municipal Water District
Church of Jesus Christ of Latter Day Saints
Citizens Water Company
Citrus Belt Irrigation District
Citrus Water Company
Clark, Howard F.
Colorado River
Cucamonga Basin Protective Association
Cucamonga Chamber of Commerce
Cucamonga County Water District
Cucamonga Creek
Cucamonga Fruit Lands Company
Cucamonga Investment Company
Cucamonga Service Club
Cucamonga Valley Water District
Cucamonga Valley Water District Poster Contest
Cucamonga Valley Water District Water Awareness Day
Cucamonga Vineyard Company
Cucamonga Water Company
Cunningham, R.A.
Curatalo, James V., Jr.

D

Day, George
Day Canyon
Deer Canyon
DeLoach, Robert
Dreier, David
Dunlap, E.K.
Dunlap, J.C.

E

East Canyon
Easton, G.
Eaton, Benjamin
Edison Electric Company
Empire Lakes Golf Course
Estates Water Company
Etiwanda
Etiwanda Water Company

F

Fan Canyon
Farmers and Merchants Bank of Los Angeles
Ferguson Ranch
Filippi, Gino L.
Filippi, Giovanni
Fontana
Fontana Company
Fontana Development Company
Fontana Ditch
Fontana Domestic Water Company
Fontana Farms Company
Fontana Land and Water Company F
ontana Power Company
Fontana Rock Rubble Ditch
Fontana Union Water Company
Fontana Water Company
Foothill Irrigation Company
Fort San Bernardino
Foster, Scoop

G

Galleano, Don
Galleano Winery
Garcia, Capt. Joseph S.
Garner, John
Garrett, Paul
Government Finance Officers Association

Graham, Jake
Grapeland
Grapeland Ditch
Grapeland Irrigation District
Grapeland Tunnel
Grass, Joseph F., Jr.
Gray, Mack
Great Flood of 1862
Grinnell Company of the Pacific
Guachama
Guasti
Guasti, Secondo
Guasti Plaza

H

Haven, George
Hawes, F.C.
Hebberd, M.A.
Hedges Well
Hedges Well, Inc.
Hellman, Herman M.
Hellman, Herman Wolf
Hellman, Isaiah M.
Hellman, Isaias W.
Hellman, Samuel
Hellman, Temple and Company
Hellman Well, Inc.
Hendry, Thomas
Hermosa Tunnel
Hermosa Water Company
Hickcox, Robert L.
Hixson, Norman G.
Hofer, Paul III
Hofer Ranch
Holt-Chaffey Mutual Water Company
House of Representatives Committee on Resources

I

Imperial Valley, CA
Ingalls, John S.
Inland Empire Private Sector Terrorist Response Group
Inland Empire Utilities Agency
Inland Empire West Resource Conservation District
Ioamosa Tunnel
Ioamosa Water Company
I.W. Hellman and Company

J

Joseph Filippi Winery
Joya Mutual Water Company

K

Kaiser Steel Corporation
Kilbourne, D.R.
Kincaid Ranch
Klusman, John
Knauf, John P.

L

La Verne
Lacy, Ward, and Company
Lake Mathews
Layne and Bowler Pump Company
LightStream Technologies, Inc.
Loeb, Joe
Lloyd Michael Water Treatment Plant
Lone Star Spring
Lord, George
Lord Ranch
Los Angeles National Bank
Los Angeles Trust and Savings Bank
Lucas, Francis
Lucas Ranch
Lugo, Antonio María
Lugo, Vicente
Lyman, Amasa M.
Lytle Creek
Lytle Creek Improvement Company
Lytle Creek Water Company
Lytle Creek Water & Improvement Company

M

MacRae, Kenneth
Marquette
Mason, Howard
McMine, Bill
Mesa Linda Water Company
Mid-Valley (Cucamonga-Alta Loma)
Mid-Valley Municipal Water District (see Cucamonga County Water District)
Milk Producers Council
Miller, A.B.
Miller, Gary
Milliken, Daniel
Montgomery, James
Montgomery & Associates
Mormon Stockade (see Fort San Bernardino)
Mormons (see Church of Jesus Christ of Latter Day Saints)

N

Napolitano, Grace
Native Americans
Nesbit, Robert
Neufeld, R. Robert
North Cucamonga Water Company

O

Old Settlers Water Company
Old Zanja
Ontario International Airport
Orchard Mutual Water Company
Ousterhout, J.D.

P

Pacific Electric Railway
Parker Dam
Perchlorate
Perdew, Alexander
Petsch, Adolph
The Pipeline
Politana
Powers, W.H.

R

Rains, John
Rancho Cucamonga
Rancho Cucamonga (city)
Rancho Cucamonga Quakes
Rancho de Philo Winery
Rasor, C.M
Rate Stabilization Fund
Reed, Randall James
Rex Mutual Water Company
Rialto
Rialto Domestic Water Company
Rialto Irrigation District
Rich, Charles C.
Roberts, E.D
Rochester
Rosina (see Fontana)
Ross, C. Newton
Rota, Elda P.
Royer, Galer
Royer-Nesbit Water Treatment Plant
Russo-Pereyra, Jo Lynne

S

Salt Lake City
San Antonio Water Company
San Bernardino County Board of Supervisors
San Francisco Savings Union
San Gabriel Mission
Sansevain township
Schall, C.
Schimff, A.
Schowalter Water Company
Scofield, D.G.
Scott, J.H.
Seeley, David
Semi-Tropic Land & Water Company
Singleton Ditch
Smith, Isaiah P.
Smothers, LeAnn
Soto, Nell
Southern Pipe and Casing Company
Southwest Suburban Water Company
Sparling Meter Company
Stamm, Marjorie F.
State of California Water Project
State Water Resources Control Board
Stowell, Nathan W.
Stoy, Henry L.
Sunset Water Company

T

Tapia, Tiburcio
Temple, Francis P.F.
Thayer Tunnel
Torrance, J.S.
Tunnel A (Deer Canyon)

U

U.S. Department of Agriculture
U.S. Department of Defense
U.S. Department of Homeland Security
U.S. Environmental Protection Agency
USFilter

V

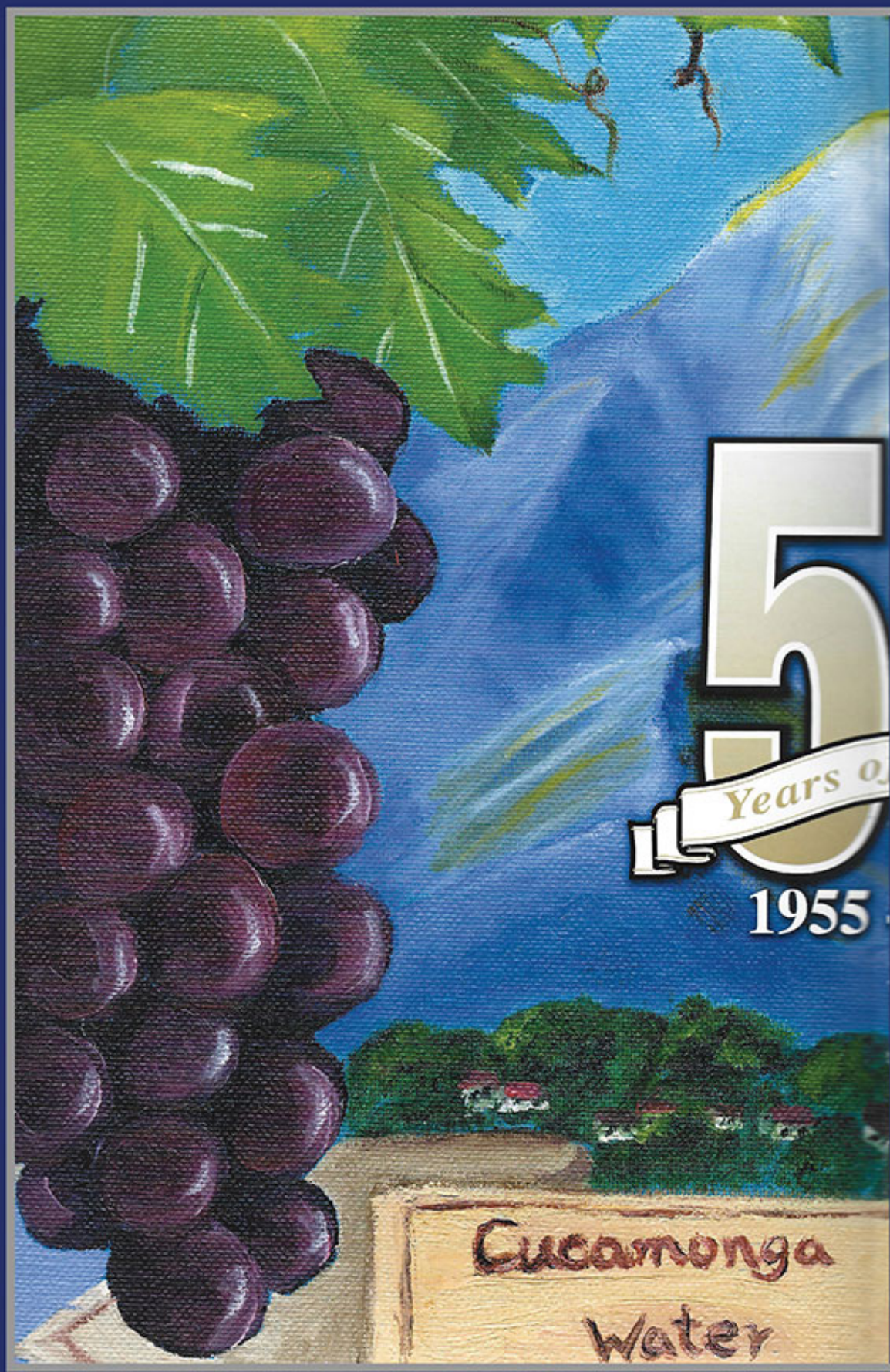
Vai Ranch
Van Fleet, Frank
Volatile organic compounds

W

Wallace and Tierman
Water Commission Act of 1854
Water Quality Report
Webb Canyon
Western Summit Constructors, Inc.
Weston, James
Wheeler, Roy Bradley
Wilson, Jeff
Wilson, Jerome M.
Wilson, R.N.C.
Winner, George
Winslow, E.W.
Woodley, John Paul, Jr.
Workman, William

Y

Young, Brigham
Young Canyon (see East Canyon)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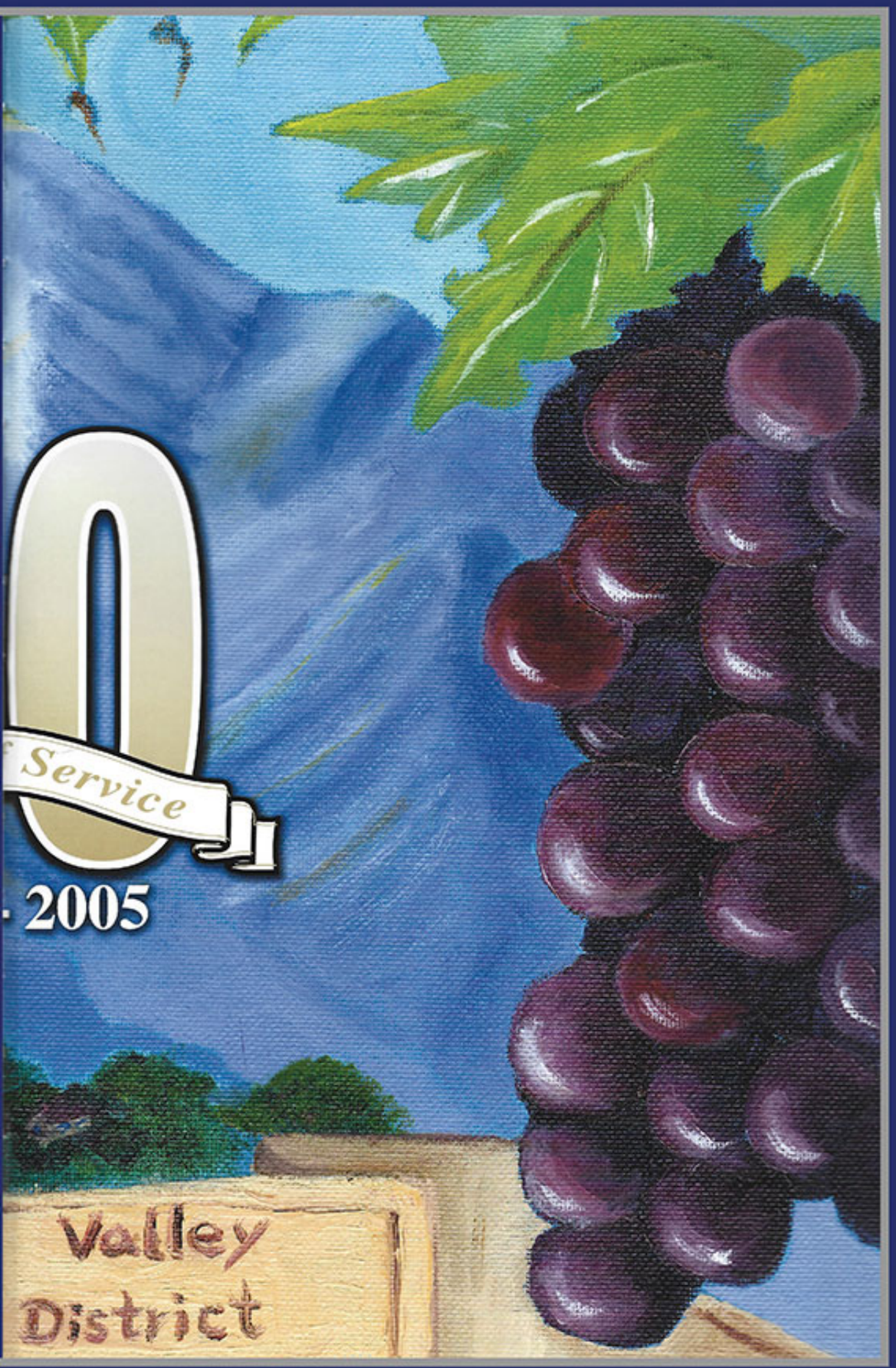
Years o
1955
Cucamonga
Water


Service
2005
Valley
District


CHAFFEY JUNIOR COLLEGE OF AGRICULTURE
PRUNING EXPERIMENT



For some, writing a book concerning the history of a water district might seem boring at best. For Don Clucas, however, the experience has been exciting. Because of his previous experience in writing histories of Rancho Cucamonga and Upland, he realizes the vitally important way in which the need for an abundant supply of water and the history of the people of the valley are intertwined.

Having grown up in California during the 1940s and 1950s, Don was a witness to the tremendous need farmers and ranchers had concerning water. His family home, which was located in south Santa Ana, was in a highly agricultural area–which included truck crops, lima beans, sugar beets, and citrus. The area also had its share of dairy farms and egg ranches. One of Don's childhood memories is that of swimming in the deep irrigation ditches of the bean fields, a practice which did not please his mother at all.

Don's surroundings and the fact he had come from a family with farming and ranching background most likely influenced him as his original college major was agriculture. During the course of his studies, he became even more aware of the need for good water sources in the Southern California area.

Then, of course, there has been a high demand for domestic and industrial water. This became especially true during and following World War II. With all of this in mind, it is hoped that the reader will find *Proud Past, Bright Future* to be an informative and enjoyable book.



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