

LAND, WATER, AND REAL ESTATE: ED FLETCHER AND THE CUYAMACA WATER COMPANY, 1910-1926



By Theodore Strathman

The lands without water are worthless. The water with no lands upon which to use it would be valueless. Just what rule of fairness or equity would suggest that those who use their money to develop and supply the water which transforms these barren lands into dividend-paying orchards should not be allowed as much interest upon their investment as if they had put the money in to a savings bank, while the parties who owned the lands should have had the value of the same increased twenty or thirty fold, the writer is unable to appreciate.¹

Charles Crouch, Cuyamaca Water Company attorney

I have let my garden die this fall, I can buy shipped in vegetables cheaper than I can pay water and raise it at that rate. We are like a man that is made to dig his own grave, paying for a pump that they can sell water to the city of San Diego which I understand they are doing at present at the rate of between two and three million gallons per day.²

C. A. Weston, Cuyamaca Water Company customer

From 1910 to 1926, Ed Fletcher, manager and part-owner of the Cuyamaca Water Company, attempted to transform the troubled system into a profitable business. At the same time, he viewed the Cuyamaca Company as a tool he could use to aid his real estate development schemes in the suburban areas east of the city of San Diego. Fletcher used novel technology and the rate-setting power of the California Railroad Commission to increase deliveries to the western portions of the company's service area where he owned substantial amounts of land. As the above quotations suggest, however, Fletcher encountered stiff resistance from some customers who believed their farming operations could not survive rate increases.

The conflict between Fletcher and many irrigation customers reflects more than just a simple dispute over the cost of water. Rather, this conflict was at its heart a question of the future economic development of the El Cajon Valley and its surrounding communities. Fletcher's economic interests as a real estate developer and the manager of the Cuyamaca Water Company (CWC) demanded that larger farms give way to smaller ones, and that ultimately much of the area become suburban in character. Fletcher's success in improving the Cuyamaca Company's infrastructure, and in setting water rates that generated profits for the company while simultaneously increasing the

Theodore Strathman received his B.A. from the University of California, Riverside, and he completed his Ph.D. at the University of California, San Diego, in 2005. His doctoral dissertation examines water politics and San Diego County growth in the first half of the twentieth century. He is currently a lecturer in United States history at the University of San Diego. He wishes to thank Kate Breece of the Helix Water District for her assistance.



Ed Fletcher and his employees standing at the entrance to the Ed Fletcher Company, ca. 1910. Edward Fletcher stands on the right. William Gross, for whom Grossmont was named, stands on the far left. ©SDHS #81:10665.

value of his real estate developments, had important consequences for the trajectory of suburban development in greater San Diego.

Fletcher's battles with irrigation customers also suggest that conflicts between rural and urban water users, a common struggle in much of the arid West, were in the context of San Diego's hinterlands more complicated than this simple dichotomy would suggest. While many customers in the eastern portion of the Cuyamaca Company's service area complained that Fletcher discriminated against irrigators and favored residential users, Fletcher's management of the company revealed more subtle patterns. For Fletcher, the proliferation of small, highly improved farms was a desirable development. Nevertheless, Fletcher viewed these farms not as an end in themselves but as a first step in the eventual transformation of undeveloped lands to communities of "bedroom" suburbs.

The San Diego Flume Company was organized in the nineteenth century and consisted of a storage reservoir created by the Cuyamaca Dam, a diverting dam on the San Diego River, and a thirty-five mile long wooden flume that delivered the water to the Eucalyptus Reservoir. From there, a pipeline took the water a short distance to the La Mesa Reservoir east of San Diego city limits.³ While he believed the system was in a "deplorable condition," and though he lacked the capital, Fletcher viewed the company as an attractive investment possibility.⁴ Having acquired an option to purchase the system for \$150,000, Fletcher persuaded James Murray, a Montana capitalist who had earlier funded Fletcher-led ventures in the county, to provide \$125,000 of the purchase price. Fletcher borrowed funds for his share, and the two formed a new corporation called the Cuyamaca Water Company, to which they transferred the properties of the



San Diego flume running adjacent to groves. Courtesy of the Helix Water District Archives.

recently-purchased Flume Company.⁵

In his 1952 memoir, Fletcher presented his involvement in the Cuyamaca Water Company as “accidental,” but it was no mere coincidence that he became involved in water development in the El Cajon Valley and its environs.⁶ Fletcher was above all a real estate developer, and perhaps more than any other San Diego booster, he recognized the speculative power of water. Unlike some of his competitors, though, Fletcher’s vision of the region’s growth had an agrarian component, a quality that can be traced to his early experiences in the county. After arriving in San Diego at the age of fifteen, he worked as a salesman for produce wholesalers Nason and Smith.⁷ Within a year Fletcher was working as an agent for the firm, traveling throughout San Diego’s “back country,” arranging sales from farmers, making produce deliveries, and settling accounts with customers.

These peregrinations acquainted Fletcher with the agricultural potential and water resources of the county as well as their possible role in development. Fletcher himself acknowledged that it was in part his “handling fruits and produce in my business” that suggested the connection between water, agriculture and real estate. He argued that “in the long run a plentiful supply of water, and good land in a citrus belt in San Diego County would some day be of great value and a profit maker; that water was the basis of real value in San Diego County.”⁸ By the 1910s, Fletcher had become involved in several real estate ventures focused on two main areas: the strip of coastal lands from Del Mar to Oceanside and the lands stretching east from San Diego’s city limits to El Cajon.⁹ The latter of these was the area served by the Cuyamaca Water Company.

To Fletcher, ownership of the water system serving the lands he intended to develop made good business sense. Under irrigation, the small farm plots served by the CWC would blossom. The addition of a water supply made agriculture possible and thus boosted land values. Control of the Cuyamaca system would allow Fletcher



La Mesa 1919. Courtesy of the Helix Water District Archives.

to ensure that his real estate ventures would have a supply of water. The initial purchasers of land would pay Fletcher for water that would in turn increase the value of all land in the area. Fletcher also believed that once settlement in the San Diego area became dense enough to allow for suburbanization east of city limits, the improvements made on these agricultural lands would increase the value of adjacent tracts.

San Diego developers had operated private water companies since the late nineteenth century, but by the Progressive Era the state had begun to regulate these enterprises as public utilities. The California Railroad Commission, created in 1879 to curb what many state residents viewed as unjust rates and services, was reorganized by three amendments to the state constitution and the Public Utilities Act of 1911. With these pieces of legislation, lawmakers granted the Railroad Commission the power to regulate not only rail companies but private corporations operating telephone or telegraph networks and systems delivering oil, heat, power, and water.¹⁰

Shortly after the reorganization of the Railroad Commission, Fletcher utilized its newfound jurisdiction to gain an increase in rates charged by the Cuyamaca Water Company. When Fletcher and Murray purchased the San Diego Flume Company (SDFC) in 1910, they also acquired the contracts under which the company supplied water to customers in the El Cajon Valley and its environs. These contracts typically stipulated that the Flume Company would deliver a specific quantity of water at a location and pressure agreed upon by the two parties. In addition to sales to individuals, the Flume Company reached agreements with several land development companies. In these cases, the development companies typically agreed to pay a yearly fee for access to the SDFC's system.¹¹ While these contracts constituted an important asset to the CWC, by the time of the system's sale, the rates charged to many early customers were substantially lower than prevailing prices. Fletcher therefore filed a

petition with the Railroad Commission in June 1912 asking for permission to increase the company's rates.

The Railroad Commission's decision in this hearing illustrates its potential as both a protector of customers and guarantor of corporate interests. After reviewing the history of the Flume Company and the CWC, the Commission decided that the Cuyamaca Company "was from its inception a public utility and, as such, subject to the jurisdiction of the Commission as to its water rates."¹² In its ruling, the Commission declared that the CWC could increase the rates it charged its customers, including those served under the contracts inherited from the Flume Company. At the same time, though, the Commissioners declared that before the new rates could take effect, the Cuyamaca Company must show evidence that it was taking steps to repair the flume to ensure that it could properly serve its customers.

Fletcher's response to the Railroad Commission's demand illustrates both his creativity in the management of the CWC and his desire to keep water rates as low as possible. The Commission informed Fletcher that he should reline the entire flume in concrete, a repair that Fletcher claimed would cost the company \$1.4 million.¹³ The Railroad Commission would probably have allowed for a further rate increase after the repairs were made, since it based rates on the value of a water company's properties and tried to guarantee that its owners would receive a "reasonable return" on their investment.¹⁴ Fletcher, however, believed that increased water rates would harm his real estate developments in the areas served by the CWC. Seeking cheaper methods to repair the flume, Fletcher instructed his engineer, William Post, to investigate the possibility of lining the inside of the flume with a rubber roofing material. After a successful experiment along one mile of the flume that convinced the Railroad Commission that this alternative was practicable, the CWC lined the entire length of the structure in this manner. The relining of the flume, which kept the structure functioning for another twenty years, cost the company about \$45,000.¹⁵ Besides satisfying the Commission's demands, the repair of the flume also significantly improved the system's efficiency: relined stretches of the flume lost about three percent of water diverted, compared to losses of over thirteen percent before the repairs.¹⁶

The efficiency of the flume was especially important because the Railroad Commission could prohibit the CWC from adding new customers if it found that the system could not reasonably accommodate them. New customers were important as a source of revenue, but Commission approval to add more consumers also allowed Fletcher to subdivide more land in La Mesa and its environs. Almost as soon as Murray and he had purchased the Flume Company, Fletcher began to investigate the possibility of increasing the capacity of the system. To begin with, the CWC filed requests with the California Division of Water Resources for permission to make additional withdrawals from the San Diego River. In another attempt to "perfect" its claims, the CWC purchased rights from riparian users along the river.¹⁷

To accommodate these increased withdrawals from the river, Fletcher and his engineers planned a series of improvements to the Cuyamaca Company's system. Fletcher designed a series of upstream reservoirs to increase diversions from the San Diego River.¹⁸ Furthermore, he built two storage facilities near the downstream terminus of the flume. The first was the Grossmont Reservoir, built in 1913 to hold water for the suburb of the same name.¹⁹

Fletcher's construction of the second of these downstream structures, the Murray Dam, revealed once again his willingness to experiment with new techniques in order

to increase profits while keeping the price of water low. In the flood of 1916 that destroyed the city of San Diego's Lower Otay Dam, the CWC's La Mesa Dam survived only when the flood waters receded after coming within a foot of the earthen structure's crest.²⁰ Fletcher and Murray decided to replace the La Mesa Dam, both to ensure the safety of the reservoir and to increase its storage capacity. To design the new structure, Fletcher hired John S. Eastwood, a controversial engineer who specialized in multiple arch dams. Fletcher was attracted to Eastwood's multiple arch design because it used less concrete and was thus less expensive to construct than traditional gravity dams.²¹ For Fletcher, Eastwood's design allowed the CWC to increase its capacity and the number of customers it served without placing too much strain on the company's finances. Unlike an irrigation district or a municipality, the Cuyamaca Company could not

draw directly (through bond issues) on the resources of its customers. With the endorsement of the Railroad Commission, Fletcher and Murray constructed a dam that was within their "relatively limited financial resources."²² Furthermore, their use of Eastwood's comparatively novel technique meant that they could continue to serve both domestic and agricultural customers. Since water was a factor of production for the irrigators of the El Cajon Valley and surrounding areas, the unit cost of water was a crucial concern. While domestic customers could absorb some increase in water rates,

Fletcher believed that these low water rates would help entice settlers to the semi-rural communities that he was helping to develop. Fletcher's real estate promotions thus stressed the potential for small-scale agriculture in San Diego's suburban areas.

A 1926 advertisement for Maryland Heights, a Fletcher-sponsored subdivision north of La Mesa, highlighted the agricultural potential of suburban San Diego. After assuring settlers of suburban amenities and an adequate water supply, the advertisement noted that nearly 500 acres of the area consisted of "small, highly improved ranches," where producers of tomatoes could earn "\$200 to \$250 an acre clear profit," and growers of winter vegetables generally could "average from 25% to 50% net on their investment" each year. As the advertisement's promise of profits for growers of vegetables suggests, these small farms in themselves would attract settlers. In addition, though, the well-maintained farms increased land values in the area, and Maryland Heights' position "directly in the path of San Diego's growth to the north and east" made the area an attractive investment.²³ Fletcher's ideas about regional economic development, then, depended upon a supply of cheap water that would make possible the initial phase of agricultural settlement. As a real estate promoter, Fletcher stood to gain from the increase in land values created by these early settlements.

In its first ten years under the management of Fletcher, the Cuyamaca Company



Downstream face of Murray Dam, 1917, showing one arch of the multiple arch structure. Courtesy of the Helix Water District Archives.



La Mesa, 1925. Courtesy of the Helix Water District Archives.

appeared before the Railroad Commission at least fifteen times in hearings pertaining to water rates. Under the first rates set by the Railroad Commission, the CWC charged customers on either a domestic or irrigation scale, depending upon the size of the tract served. Customers who owned a parcel of land less than one-half acre had to pay a flat domestic rate of \$1.25 per month. Tracts larger than this qualified for the irrigation rate, which was 1.25 cents per 1,000 gallons.²⁴

The Cuyamaca Company soon realized that this dual rate structure posed several problems. First, some large landowners subdivided their tracts but insisted that the CWC honor their original contracts for irrigation water. For example, in a 1914 letter to the Railroad Commission, the Cuyamaca Company complained about a fifteen acre tract that had been split into more than eighty lots. The tract, which had originally been devoted to growing lemons, had an outstanding contract with the San Diego Flume Company that provided for 1.25 inches of water. Under the Railroad Commission-mandated rate schedule, holders of such contracts would pay seventy dollars per year for a right of one inch; thus the CWC would earn \$87.50 for water sales to these fifteen acres. The company complained that this rate was unfair because the owners were taking delivery of their full allotment and then selling it to purchasers of smaller lots. The subdividers, then, were acting as water retailers, but unlike the CWC, they were not subject to the jurisdiction of the Railroad Commission. This practice was especially unfair, according to the CWC, because there were now forty-one houses that received Cuyamaca water but did not pay the domestic rate. In material terms, the CWC argued that it should collect \$615 per year for sales to these houses, rather than the \$87.50 it received from the original contract holder. The existing rate structure was flawed, the Cuyamaca Company argued, and “we should eliminate the question of size of the tract of land and sell water according to the quantity with a minimum charge to everyone alike, whether it be domestic or irrigation.”²⁵

Another problem with the dual rate structure based on tract size arose when *de facto* domestic customers claimed the irrigation rate by virtue of owning a piece of land

over the one-half acre limit.²⁶ An official of the CWC complained to the Railroad Commission in 1915 that “these so-called irrigation customers are playing horse with this Company and none of them are entitled to an irrigation rate except for the fact that they own an area a very few hundred[th]s in excess” of the minimum.²⁷ The records of the Cuyamaca Company illustrate that there were in fact many such tracts.²⁸

Responding to complaints issued by the CWC and its customers, the Commission initiated an investigation into the question of rate differentials for domestic and irrigation customers.²⁹ In a 1917 decision, the Railroad Commission disposed of the dual rate structure based upon tract size. Under the new rate structure, the CWC charged a flat rate of four dollars for the first 2,000 cubic feet a customer used each month. Once a customer exceeded this amount, an irrigation rate of 2.5 cents per hundred cubic feet went into effect.³⁰ For the CWC, the new rate structure eliminated the problem of domestic customers claiming an irrigation rate on the basis of the amount of land they owned. However, Fletcher maintained that the company was still losing money. In subsequent hearings, the Commission allowed several adjustments to the rate structure that granted the CWC the “reasonable return” its owners desired. By 1920, the Commission allowed the CWC to increase the irrigation rate to six cents per hundred cubic feet for customers in the “flume service” area (the eastern portion of the system, where customers drew water directly from the flume) and seven cents for “pipeline” customers (those in the western areas near Grossmont and La Mesa).³¹ The Railroad Commission set the domestic rate, which applied to the first two thousand cubic feet, at twenty-one cents per hundred cubic feet.³²

In its efforts to increase water rates and add more clients, the Cuyamaca Company faced opposition from many of its customers. An important leader of some of these disgruntled customers was D.G. Gordon, an attorney and citrus farmer who lived in the El Cajon Valley town of Bostonia. At the CWC’s first hearing before the Railroad Commission in 1912, Gordon appeared as a representative of customers who lived adjacent to the flume.³³ Over the next several years, Gordon repeatedly demanded that the CWC abide by the terms established by the Commission, and his correspondence with Fletcher and the Commission reveals both Fletcher’s goals and the resentments they engendered.

Gordon and other “back country” residents who held outstanding contracts when Fletcher and Murray purchased the SDFC argued that the new owners of the system should honor these agreements. In an application before the Railroad Commission, the Cuyamaca Company asked to be recognized as a public utility; the Commission granted this request and stipulated that under agreements already signed and based on its existing water rights and infrastructure, the CWC could enter contracts to deliver a maximum of 473 miner’s inches.³⁴ The Railroad Commission’s decision also stated that the CWC could take on new domestic customers only if it complied with several orders, including the repair of the flume and the delivery of water to all irrigation customers with valid contracts. On both of these points, Gordon and others challenged the CWC. While Fletcher boasted to the Commission that the flume relining was a “howling success,” Gordon was much less sanguine.³⁵ He claimed that the relining did little to strengthen the redwood structure, which could collapse and leave irrigators without a supply of water.³⁶ Gordon’s complaints appear to have made little impression on the Commission, which allowed the CWC to continue to operate the flume.

The irrigators in the eastern portions of the Cuyamaca Company’s service area also claimed that Fletcher was failing to meet their needs even as he was increasing deliver-

ies to domestic customers. In a complaint filed with the Railroad Commission in 1914, Gordon, representing about 100 irrigators who held contracts for more than a third of all water the CWC sold, argued that the company's deliveries were inconsistent at best.³⁷ During the preceding year, Gordon claimed, the CWC had delivered a full supply to these irrigators for a total of about five and a half months. During several weeks in the dry season, irrigators received no water at all.³⁸ Gordon argued that the CWC's failure to deliver water resulted not from a lack of supply: stream flow had been sufficient to keep the system's reservoirs nearly full. According to Gordon, the CWC was diverting water from its rightful claimants to domestic customers, a practice that was not only injurious to the successful operations of agricultural enterprises, but in violation of the Railroad Commission's orders as well.

Gordon's ire was especially aroused by the CWC's sale of water to the city of San Diego. Fletcher began making sales to the city in 1914 on what he claimed was a temporary basis.³⁹ Having satisfied the Railroad Commission that the CWC was complying with its order to repair the flume, Fletcher felt justified in selling "surplus" water to the city.⁴⁰ Gordon and other irrigators expressed outrage; in their view, Fletcher was simply depriving them of water because he could sell to the city at ten cents per thousand gallons, a much higher price than he received from irrigators. In a complaint filed with the Commission, Gordon depicted Fletcher's actions as a deliberate attempt to steadily remove irrigators as the chief recipients of CWC water. Efforts by the CWC to increase the capacity of the flume, Gordon argued, were designed to increase the domestic supply, which included "virtually all uses, except farm irrigation, which by [the Cuyamaca] Company is considered inferior."⁴¹ To Gordon, the actions of the city of San Diego foreboded more purchases from the CWC in the future: the municipality's expenditure of \$100,000 for a new pipeline from the La Mesa Reservoir to city limits suggested the CWC's deliveries were anything but temporary.

In a decision upheld by the California Supreme Court, the Railroad Commission increased irrigation rates in 1920. This decision effectively denied the claims of Gordon and other back country irrigators, and it suggested the importance of the Commission in providing state sanction to the CWC's operations.⁴² While the Commission did offer an important arena in which customers could protest the actions of a water company, its mandate to offer investors a reasonable return allowed the utility to increase rates with the imprimatur of state authority. The "reasonable return" doctrine became an important point of contention between the Cuyamaca Company and its customers. Gordon, for example, argued that the Railroad Commission should not grant the CWC rate increases to the detriment of irrigators. "The Commission," he wrote to Fletcher, "has been too easy with you. You are not in fairness entitled to an income from this system while consumers are suffering such heavy losses."⁴³ An attorney representing disgruntled CWC customers put the issue even more clearly in a hearing before the Commission. The Flume Company had never been a successful venture, the attorney argued, so why should Fletcher and Murray be able to purchase it, "and by investing large sums of money and by simply putting it under the Railroad Commission, exact that the Railroad Commission allow them a fair return from the beginning when it never had paid?"⁴⁴

While the Commission remained unmoved by the arguments of Gordon and other back country irrigators, their claims were not simple paranoia. Fletcher managed the CWC in a way that suggested he was less interested in the needs of the "flume service" customers than expanding the company's water sales to the western portion of the

service area. From his first years as the manager of the system, Fletcher believed the CWC's future was in sales to these customers, who used water mainly for domestic purposes. William Post, an engineer for the CWC, acknowledged this vision in a 1913 letter to Fletcher. Reporting on the future development of the system, Post wrote, "You do not propose any further irrigation sale, but intend to concentrate on extension of domestic water sales."⁴⁵ Domestic customers would be added in the towns of La Mesa and East San Diego, where Fletcher believed suburban growth would occur as the population of San Diego expanded eastward.

Fletcher's correspondence reveals that he indeed wished to add pipeline service customers at the expense of flume service irrigators. In a 1917 letter to Fletcher, Gordon complained about the CWC's irrigation rates; why, he asked, should customers pay 3.33 cents per thousand gallons when they could pump water at a rate of two cents? Fletcher forwarded the letter to his secretary Lou Mathews with a hand-written note instructing Mathews to keep it for future reference, "as he has admitted that [flume service customers] can pump water for two cents per thousand gallons."⁴⁶ If these customers had another means to water their crops at low rates, Fletcher reasoned, why should the CWC be obligated to continue to serve them? While it is unclear if Fletcher publicly expressed this desire to eliminate flume service customers, he certainly made it clear to the Railroad Commission. "The people of the El Cajon Valley," Fletcher wrote to Commissioner Irving Martin, "have testified that they can develop water cheaper than they can buy it from us. We would like to have them do it, and be relieved of that burden." Fletcher argued that "the only way to eliminate the people of El Cajon Valley is to increase the rate, thereby reducing the demands on our system," and allowing the CWC to increase sales to the city of San Diego and pipeline customers.⁴⁷

The building program of the CWC reflected this intention to concentrate on the western portion of its service area. The construction of Murray Dam, for example, increased by four times the storage capacity of the system at the terminus of the flume, near the communities of La Mesa, Lemon Grove, and East San Diego.⁴⁸ Gordon and other back country irrigators complained that this improvement did nothing to increase the amount of water available for customers further upstream. Even before the structure was built, Gordon complained that the CWC diverted water from Cuyamaca Reservoir and stored it in La Mesa Reservoir, a practice that left flume service customers wanting in times of shortage.⁴⁹ While domestic customers in the vicinity of La Mesa could draw a gravity supply from Murray Dam, upstream irrigators could not. Furthermore, Gordon and others argued, the Cuyamaca Reservoir could not provide all customers between it and Murray, and on several occasions in the previous years, shortages had forced the CWC to pump water from the bed of the San Diego River and institute a surcharge to cover the additional expense.⁵⁰ Facilities like Murray Dam not only failed to increase deliveries to customers upstream; they also added to the expenses of the company, for which all consumers had to pay through increased rates.⁵¹

The records of the Cuyamaca Company indicate that Fletcher succeeded in increasing sales to customers in the western portions of its service area. The relining of the flume and filings with the California Division of Water Rights apparently satisfied the Railroad Commission that the CWC was making honest efforts to improve its system for the benefit of all its customers.⁵² As Table 1 illustrates, the CWC steadily increased sales to domestic customers from 1915 to 1923; in this period, domestic

sales more than tripled. By 1923, the CWC still sold over three-quarters of its water to irrigation customers, but in absolute terms, the quantity of water sold to irrigators slightly declined in this period. The table also demonstrates the importance of sales to the city of San Diego. In 1921, for example, almost half of the water sold by the CWC went to the city. Perhaps as significant as the amount of water delivered was the number of domestic and irrigation customers. Throughout this period, domestic consumers were the bulk of CWC customers, and three-quarters of the net increase in customers from 1916 to 1921 consisted of domestic users.⁵³

Table 1: Consumption of Cuyamaca Company Water, by Irrigation and Domestic Customers and the City of San Diego, in Cubic Feet⁵⁴

YEAR	IRRIGATION	DOMESTIC	TOTAL	CITY	GRAND TOTAL
1915	136,128,000	11,719,000	147,848,000	50,077,000	179,925,000
1916	146,204,000	13,876,000	160,080,000	68,245,000	228,325,000
1917	117,192,000	11,884,000	129,076,000	None	129,076,000
1918	112,171,000	16,358,000	128,529,000	49,468,000	177,997,000
1919	114,953,000	17,383,000	132,336,000	45,402,000	177,738,000
1920	119,658,000	19,567,000	139,225,000	None	139,225,000
1921	98,781,000	23,535,000	122,316,000	105,425,000	227,741,000
1922	102,659,000	28,105,500	130,764,500	None	130,764,500
1923	125,915,900	39,345,800	165,261,700	None	165,261,700

Although the CWC continued to sell most of its water to irrigators, Fletcher was willing to engage in business practices that alienated many of these customers. There are several reasons for this pattern. First, domestic consumers provided a customer base that offered several benefits in terms of the profitable and efficient operation of the system. Domestic customers, for instance, could be counted on to use a relatively consistent amount of water per household. The water needs of irrigators, on the other hand, varied significantly from year to year, depending on factors like rainfall and the weather. Table 2 illustrates the relative consistency of domestic consumption compared to irrigation use, which fluctuated more markedly. From a business perspective, then, domestic customers would allow the CWC to rationalize important aspects of its operations. The company could determine with some accuracy how much water it would take to service a given number of households, for example.

Table 2: Cuyamaca Company Water Use per Customer, in Cubic Feet⁵⁵

YEAR	DOMESTIC	IRRIGATION
1918	6,566	261,011
1919	6,868	266,116
1920	6,931	249,559
1921	7,160	184,206
1922	6,850	159,283

Domestic customers would also be less sensitive to fluctuations in water rates. Since water was a factor of production for back country farmers, they were much more likely to protest increases in water rates, a fact not lost on Fletcher, given his experi-

ences with customers like Gordon. Furthermore, many irrigators living adjacent to the San Diego River pumped water from underground supplies. If the rates charged by the CWC rose above the cost of pumping, these irrigators would turn to this alternative supply.⁵⁶

Sales to the city of San Diego were especially attractive to Fletcher for a couple of reasons. First, the city purchased CWC water at ten cents per thousand gallons, a higher rate than that paid by irrigators in the company's service area. Furthermore, sales to the city involved little added expense to the CWC. According to the Cuyamaca Company (if not the flume service irrigators), only "surplus" water was sold to the city.⁵⁷

Besides the benefits that domestic customers offered to the CWC, Fletcher's decision to expand service to these consumers also aided his work as a real estate developer. In his sixteen years as manager of the CWC, Fletcher succeeded in expanding the company's deliveries to areas in which he owned or directed subdivision projects. The communities of Grossmont, Mount Helix, and Murray Hill were all developed by Fletcher in the 1910s, and these tracts were located in the western portion of the CWC service area.⁵⁸ Significant improvements to the company's system, such as the new Murray and Grossmont Reservoirs, provided additional water to these areas. In conjunction with Fletcher's road-building activities, the extension of CWC service to these areas created a significant infrastructural base that increased land values and attracted home seekers.⁵⁹

The Cuyamaca Company's ability to have its irrigation rate based on amount of water used rather than lot size was an important victory for the company. Since the irrigation rate went into effect only after a customer had consumed 2,000 cubic feet of water, all CWC consumers paid the higher domestic rate for this first amount. The amount of water used at the lower irrigation rate would depend upon a variety of factors, including land use and the concentration of land ownership. The relationship between settlement patterns and profits from water sales can be illustrated by considering a fifty-acre piece of land. For the CWC, the least profitable situation would be one in which one person owned this whole tract. If this landowner irrigated his or her tract, he or she would pay the domestic rate on only a small fraction of the total water used. A more desirable situation for the CWC would be one in which the land was more densely settled; if one hundred houses were located on half-acre lots, the CWC would have one hundred domestic customers and would have to sell little or no water at the irrigation rate.

A third pattern of settlement offered the CWC even greater benefits. In 1922, Chester Harritt, superintendent of the Cuyamaca Company, wrote to Fletcher about the value of the system and the water use of its customers. According to Harritt, "an irrigator who only irrigates from 2 to 5 acres is a much greater asset to the company than a straight domestic customer."⁶⁰ On small tracts of this size, an irrigator would often not use enough water for the irrigation rate to go into effect. The owner of a small farm would therefore use a significant amount of water but would pay a high rate for it.

Fletcher and his attorneys attempted to convince the Railroad Commission that such small-scale agriculture was practicable in the San Diego area, and that it could be carried on profitably even with increases in CWC water rates. The hearings of the Commission, while ostensibly about the expenses of the CWC and the rates it needed to charge to operate profitably, were also a forum in which Cuyamaca Company



1925 flume inspection. Left to right: Chet Harritt, CWC engineer Tom King, Ed Fletcher. Courtesy of the Helix Water District Archives.

officials and customers debated the viability of farming in the CWC service area. In 1919, the CWC applied with the Commission for an increase in domestic and irrigation rates; at the hearing held the following February, a number of customers protested that the system was poorly managed and that agriculture would be unprofitable if rates were increased further.

Fletcher's strategy before the Commission was to argue that an increase in domestic and irrigation rates would allow the company to operate profitably while still leaving room for practicable agriculture. Fletcher's attorneys called several witnesses who testified that their farms made reasonable profits. The CWC also used experts such as engineers and tax appraisers to discuss factors like soil quality, the amount of water required to grow different crops, and the relative prices charged by other water companies and municipalities. Fletcher's main contention was that irrigators in the CWC's service area were able to make profits if they worked their land properly, and that farmers in other parts of southern California operated successfully while paying more for water.⁶¹

Complainants' attorneys, on the other hand, maintained that the rates charged by the CWC were already so high as to render agriculture a losing proposition for most farmers.⁶² The successful irrigators called by the CWC, they claimed, were exceptions rather than the rule. Attorney Jesse George, for example, argued that the profits claimed by a farmer raising winter vegetables were excessive and did not take into account the cost of labor provided by the farmer and his wife. The complainants also called expert witnesses of their own, including an official with the El Cajon Citrus Association, who maintained that the average grower in the area lost nearly \$250 for every acre planted in lemons.⁶³ According to the protestants, the profits claimed by some lemon growers in recent years were an aberration caused by external factors such as the influenza epidemic which increased the demand for lemons because of their apparently curative properties. Under normal circumstances, irrigators claimed, the high price of CWC water made lemon growing unprofitable.⁶⁴

Fletcher and his attorneys countered these arguments about the failure of lemon growers by maintaining that the El Cajon Valley and adjacent areas were not suited for citriculture. Other crops, especially winter vegetables, were more suited for the region and would bring reasonable profits to farmers, even with increased water rates. For example, Fletcher called as a witness the owner of an eleven-acre ranch near La Mesa. This farmer grew guavas as well as eggplants, tomatoes, and peppers, and Fletcher attempted to illustrate that this tract operated profitably with Cuyamaca water.⁶⁵

To bolster its claims that truck gardening was profitable in the San Diego area, the Cuyamaca Company also pointed to farmers working lands within the limits of the city of San Diego. Fletcher called W. H. Judy, the city's manager of operations, who testified that the municipality offered no special irrigation rate to farmers; all users paid eleven cents per one hundred cubic feet. According to Judy, approximately 500 acres within city limits (concentrated mostly around Pacific Beach, Point Loma, and La Jolla) were under irrigation, and Fletcher noted that these lands were about the same distance from downtown San Diego as the farms in the La Mesa area.⁶⁶ According to Fletcher, farms in the western portion of the CWC's service area could engage in truck gardening as successfully as those within city limits, even with the increase in rates sought by the company.

Attorneys for the disgruntled flume customers challenged the claims of Judy and the CWC attorneys by pointing to the racial composition of those farmers irrigating successfully within city limits. In his cross-examination of the city's manager of operations, Jesse George asked if the majority of these farmers were Japanese, which Judy acknowledged was the case. "And what has been your experience," George asked, "can the American gardeners compete with the Japs?" Judy maintained that success was within the reach of white farmers if they would "get out and work" like Japanese do. The protestants' attorney pressed Judy further, attempting to force him to concede that Japanese truck gardeners could only operate profitably under the city's water rates because of their purported ability to observe a simpler "standard of living."⁶⁷

Judy refused to concede that white farmers could not operate successfully with the city's prevailing rates, and Fletcher pointed out in his re-examination that a sizable minority of the city's irrigators were white, but the exchange reveals the extent of "yellow peril" hysteria as well as divergent opinions about the causes of white farmers' woes. California's Alien Land Laws prohibited Japanese from owning land, but loopholes in the legislation meant that white farmers in the state still had to contend with what many saw as unfair competition from Japanese and Japanese American farm tenants and owners.⁶⁸ As several scholars have noted, the proponents of the back-to-the-land movement of the 1920s, which relied in many parts of the West upon irrigation, argued that one of its benefits would be the displacement of Japanese farmers by settlements of stable, white family farms.⁶⁹ The increasing price of water may have troubled white irrigators of suburban San Diego because it not only threatened the profitable operation of their farms but also the racial composition of their communities. If the CWC continued to increase its rates, white irrigators may have worried, only ethnic Japanese farmers would be able to work the land in its service area.

The white irrigators who complained of the CWC's high rates, whether their language was explicitly racial or not, expressed concerns about the future of family farming in the company's service area. One problem was the increase in land values that accompanied water deliveries. While Fletcher and other real estate developers welcomed this development, some farmers (many of whose lands and homes were



Sycamore Canyon trestle, eastern El Cajon, 1928. Courtesy of the Helix Water District Archives.

mortgaged) were concerned. Increased land values might mean higher tax assessments for farmers and more limited opportunities for increasing their acreage through purchases of additional tracts. The protestants contended that with increases in land prices and water rates, only a farmer with “a little nest egg on the side” could profitably engage in raising citrus. Clarence Preston, attorney for the protestants, went so far as to suggest that conditions for citriculture were so

poor that “there are two crops that are controlling: One is the crop of fruit and the other is the crop of suckers that come to this country to buy these orange groves and imagine they are going to make their fortunes out of them.”⁷⁰

In these and other rate hearings, the Railroad Commission had to weigh the CWC’s request for a “reasonable return” against farmers’ complaints about losing money on their investments. One of the principal problems confronting the CWC system, the Commission discovered, was that its service area was sparsely settled, which meant that it cost the company a relatively large sum per customer served. The Commission reasoned that if the CWC added more customers, the investment per consumer would decrease. One solution to the financial woes of the CWC, then, was for the commissioners to grant rate increases which could fund expansion of the system. This course would not only “enhance the value of the land of the present consumers under this system and add to the wealth of the community, but will also create a market for the commodity which this utility delivers.”⁷¹

The Commission’s decision in this case must have pleased Fletcher, for it effectively sponsored a program of expansion while guaranteeing a revenue stream to fund it. Furthermore, the commissioners seem to have paid little heed to irrigators who claimed they could not bear irrigation rates over the present 2.5 cents per hundred cubic feet. For his part, Fletcher contended that “the statement that the irrigator cannot pay 5 cents [per] one hundred cubic feet for water is absolutely erroneous.”⁷² The Commission apparently agreed and granted an increase that set the irrigation rate at between five and six cents per hundred cubic feet. To have left rates alone would have forced the commissioners to restrict the CWC to its current customers, since the Railroad Commission’s own engineers found that it would cost the company 4.5 cents per hundred cubic feet for all additional supplies it developed.⁷³

Fletcher must also have enjoyed the decision’s implications about the kind of expansion that the CWC would enjoy in the future. If the back country irrigators were right about their inability to farm profitably under increased rates, then the bulk of new customers would be located in the pipeline service area, precisely where Fletcher’s real estate interests lay. Furthermore, back country farmers confronted with higher prices might resort to pumping, thus freeing water for sale in downstream areas. The Cuyamaca Company would thus lose the burden of these irrigation customers who purchased much of their water at lower rates. As Table 3 illustrates, the Railroad Commission’s new rates allowed the CWC to decrease the amount of water delivered

to flume service customers while significantly increasing the revenues it received from them.

Table 3: Irrigation Consumption and Revenue, Flume Service Customers⁷⁴

YEAR	CONSUMPTION (IN CUBIC FEET)	REVENUE
1919	43,132,800	\$16,646.56
1920	45,572,740	\$18,414.34
1921	33,395,200	\$19,893.34
1922	31,157,460	\$22,157.76

Many back country irrigators grew frustrated with the Commission's apparent failure to consider their needs, and they continued to express their chagrin in letters and appearances at rate hearings. One farmer complained that these hearings had become mere formalities, and that Fletcher "takes it for granted that all he has to do is to ask the commission to grant him the right to raise his rates." According to this irrigator, the Commission focused its energies on assuring the CWC reasonable returns but cared little for the problems of its customers. "I have so much money invested in this little place of mine and it isn't paying me any interest," the farmer wrote to Commissioner Irving Martin, "so where is the commission for me to go before and ask that I be made safe and certain interest on my investment be paid?"⁷⁵ Under the new rates, another farmer complained, "the ranch business in this county cannot be successfully followed. The sufficient proof of this is found along the line of the Cuyamaca w[a]ter system, where not one acre in one hundred available to water service is actually under irrigation today."⁷⁶

The rate adjustments granted by the Railroad Commission in the early 1920's allowed the CWC to operate profitably. The Commission's auditors found that in 1921 the company made a seven percent return on investment (the CWC had lost money in three of the previous seven years).⁷⁷ However, Fletcher regularly attempted to sell the system to either the La Mesa, Lemon Grove and Spring Valley Irrigation District or the city of San Diego. After several efforts failed, Fletcher finally sold the Cuyamaca system to the irrigation district in 1926 for \$1.2 million.⁷⁸

In his memoirs, Fletcher maintained that he only earned \$78,000 from the operation and sale of the Cuyamaca Company, and he characterized his experience as its manager as "a headache" and "the greatest worry and trouble of my life."⁷⁹ In spite of these claims, though, his operation of the system was surely a success. His ability to increase rates allowed him to lose the burden of back country irrigation customers and focus instead on expanding deliveries further downstream. The improved infrastructure that this created in areas like La Mesa made possible new Fletcher-directed subdivisions.

Furthermore, Fletcher's management of the CWC made him a leading expert on local water development. He had at his disposal a team of engineers who conducted surveys and studies of the San Diego River and its tributaries. Fletcher's personal papers as well as the records of the CWC contain a steady stream of correspondence in which these experts discussed in detail the technical, financial, and legal intricacies of the company's quotidian affairs. In the 1920s and 1930s, when the city of San Diego took steps to develop its eponymous river, Fletcher frequently joined public debates in the city's newspapers, and he liberally supplemented his ideas with technical data he derived from his corps of experts.

Fletcher's struggles with flume service irrigators indicated that the future of San Diego's "back country" would be contested by a variety of interests. Aided by the rate-setting power of the California Railroad Commission, Fletcher helped create in places like La Mesa a landscape that was neither rural nor suburban in our understandings of those terms. These irrigated plots, Fletcher believed, would encourage settlement and increase land values in anticipation of a suburbanization that would surely accompany the growth of the city of San Diego. While Fletcher and city leaders alike viewed the areas to the east of San Diego as the "natural" destination of suburban expansion, Fletcher's experience with his customers and the Railroad Commission illustrated that land use patterns there were to an important degree the product of particular visions of regional economic development.

NOTES



1. Charles Crouch, "Legal Rights of Applicant," brief filed in Application No. 4515 Before the Railroad Commission of the State of California, March 8, 1920. Public Utilities Commission Records, California State Archives, Sacramento, California (hereafter cited as PUC Records, CSA), F3725:6939.
2. C. A. Weston to Railroad Commission, October 15, 1919. PUC Records, CSA, F3725:6947.
3. On the early history of the San Diego Flume Company, see Gregg R. Hennessey, "The Politics of Water in San Diego, 1895-1897," *The Journal of San Diego History (JSDH)* 24, no. 3 (Fall 1978), 367-383; Carl Joseph Courtemanche, "The Utilization of Water in San Diego County from 1890 to 1940: A Cultural Analysis" (master's thesis, San Diego State University, 1982), 6, 10.
4. Ed Fletcher, *Memoirs of Ed Fletcher* (San Diego: Pioneer Printers, 1952), 164. Ed Fletcher to M. C. Healion, January 12, 1910. Ed Fletcher Papers, Mandeville Special Collections Library, University of California, San Diego, MSS 0081, Box 10, Folder 26 (hereafter cited as Fletcher Papers, UCSD).
5. Fletcher, *Memoirs*, 166. For Fletcher's account of his earlier dealings with Murray, see 179-180.
6. Fletcher, *Memoirs*, 163.
7. Fletcher, *Memoirs*, 1-18, 20-21.
8. Fletcher, *Memoirs*, 76.
9. See Fletcher, *Memoirs*, 117-130 for Fletcher's description of the development of these coastal lands. See also Samuel T. Black, *San Diego County, California: A Record of Settlement, Organization, Progress and Achievement* (Chicago: The S.J. Clarke Publishing Company, 1913), 2:131, and Donald C. Jackson, *Building the Ultimate Dam: John S. Eastwood and the Control of Water in the West* (Lawrence: University Press of Kansas, 1995), 156.
10. Clyde C. Baker, *The California Public Utilities Commission: An Organizational Profile* (Davis: Institute of Governmental Affairs, University of California, Davis, 1966), 2-5. Gerald D. Nash, "The California Railroad Commission, 1876-1911," *Southern California Quarterly*, 44, no. 4 (December, 1962), 287-305. See also D.E. Pegrum, "Rate Theories and the California Railroad Commission," *University of California Publications in Economics* (Berkeley: University of California Press, 1932), 10:6-11.

ED FLETCHER AND THE CUYAMACA WATER COMPANY

11. Contract between El Cajon Valley Company and San Diego Flume Company, January 19, 1889. Cuyamaca Water Company Records, Mandeville Special Collections Library, University of California, San Diego, MSS 503, Box 4, Folder 3 (hereafter cited as CWC Records, UCSD).
12. *California Decisions*, 64, no. 3405 (November 21, 1922), 462.
13. Fletcher, *Memoirs*, 166.
14. Baker, *The California Public Utilities Commission*, 8.
15. William S. Post to H. W. Johns-Manville Company, September 29, 1913. Fletcher Papers, UCSD, Box 9, Folder 24; Ed Fletcher to Stuart Haldorn, October 11, 1922. Fletcher Papers, UCSD, Box 9, Folder 25.
16. "Measurement of Flume Leakage as Determined by C.H. Lee," February 16, 1915. CWC Records, UCSD, Box 2, Folder 2. See also Drawing No. 2003, "Types of Structures Contemplated for Replacement," July 1913. CWC Records, UCSD, Box 2, Folder 2. This folder also contains untitled reports and data on the cost of repairing the flume.
17. See "List of Appropriations of San Diego River and Tributaries, 1883-1913," n.d. CWC Records, UCSD, Box 4, Folder 4. See also assorted deeds showing transfer of riparian rights to the CWC in CWC Records, Box 4, Folder 2.
18. These structures included the proposed Fletcher and South Fork Dams, neither of which was ever built. See Thomas H. King to the Special Committee of the San Diego Chamber of Commerce, August 5, 1923. CWC Records, UCSD, Box 3, Folder 7; William S. Post, "Report on Boulder Creek Reservoir Site No. 5," February 17, 1913. Fletcher Papers, UCSD, Box 40, Folder 14; Fletcher, *Memoirs*, 367.
19. Fletcher, *Memoirs*, 166.
20. Jackson, *Building the Ultimate Dam*, 157.
21. According to Donald Jackson, there are two basic "traditions" in dam design: the massive, or gravity tradition, which relies upon the weight of the materials in the dam itself to hold back the water; and the structural tradition, in which the shape of the dam is critical in resisting hydrostatic pressure. Jackson, *Building the Ultimate Dam*, 18-21.
22. Murray Dam, completed in 1918, cost the Cuyamaca Company about \$119,000. By comparison, the city of San Diego's Lower Otay Dam, built contemporaneously, was a concrete gravity dam of similar dimensions, but it cost six times as much as Murray Dam. Jackson, *Building the Ultimate Dam*, 158. R.C. Wueste to Hiram N. Savage, February 5, 1929. Hiram N. Savage Papers, Water Resources Center Archives, Berkeley, Folder 3:1. "Otay Dam Is Dedicated as Link in San Diego's Extended Water System," *San Diego Union*, September 2, 1919, 1.
23. "Maryland Heights: La Mesa's Garden Spot," advertisement in the *San Diego Union*, February 14, 1926, p. 12 ("Development Section").
24. Case No. 631 before the Railroad Commission of the State of California, July 29, 1914. PUC Records, CSA, F3725:852.
25. Manager, Cuyamaca Water Company to John M. Eshelman, January 3, 1914. Fletcher Papers, UCSD, Box 10, Folder 8.
26. The Cuyamaca Company's records show numerous examples of such landownership patterns. See Cuyamaca Water Company, "Census Sheets," July 29, 1914. PUC Records, CSA, F3725:5018.
27. F. M. Faude (engineer for CWC) to R. W. Hawley, November 26, 1915. Fletcher Papers, UCSD, Box 10, Folder 17.
28. See "Small Tract Plats, 1915-1916," n.d. CWC Records, UCSD, Box 3, Folder 10.
29. Case No. 631 Before the Railroad Commission. PUC Records, CSA F3725:852.

30. "Computations Showing Duty of Water on the System," September 25, 1918. CWC Records, UCSD, Box 1, Folder 5.
31. "Is the Cuyamaca Making Money?" *La Mesa Scout*, November 7, 1924, p. 6. The "pipeline" customers were served by pipelines that delivered water from one of the CWC's storage dams (such as the Murray and Eucalyptus reservoirs). The CWC sometimes classified these customers as "low service" (those between the City of San Diego and La Mesa) or "high service" (between La Mesa and the Eucalyptus Reservoir). See "Computations," CWC Records, UCSD, Box 1, Folder 5.
32. Chester Harritt to Ed Fletcher, November 13, 1922. Fletcher Papers, UCSD, Box 10, Folder 5.
33. *California Decisions*, 64:3405, 462.
34. A miner's inch is a measurement of discharge and equals about one and a half cubic feet of water per minute. D.G. Gordon, "Application No. 724 before the Railroad Commission of the State of California," October 17, 1914. Fletcher Papers, UCSD, Box 9, Folder 14. See also Decision No. 8145 for Applications No. 4515 and 4670 and Case No. 1272, September 24, 1920. PUC Records, CSA, F3725:6937.
35. Ed Fletcher to R.W. Hawley (Railroad Commission engineer), February 11, 1914. Fletcher Papers, UCSD, Box 10, Folder 14.
36. Chester Harritt to Ed Fletcher, August 7, 1917. Fletcher Papers, UCSD, Box 10, Folder 5.
37. Many of the complainants found in the records of the Railroad Commission lived in the Boston Ranch area of the El Cajon Valley and owned sizable tracts. For example, Gordon owned twenty-seven acres, E. W. Moyer seven, and R. T. Robinson eighty-five. See "Small Tract Plats," CWC Records, UCSD, Box 3, Folder 10.
38. Gordon, "Application No. 724," Fletcher Papers, UCSD, Box 9, Folder 14.
39. See Lou B. Mathews to Ed Fletcher, July 21, 1919. Application 4670, PUC Records, CSA, F3725:6947.
40. Ed Fletcher to D.G. Gordon, March 15, 1914. Fletcher Papers, UCSD, Box 9, Folder 14.
41. Gordon, "Application No. 724," Fletcher Papers, UCSD, Box 9, Folder 14.
42. *California Decisions*, 64:3405, 466.
43. D.G. Gordon to Ed Fletcher, December 18, 1913. Fletcher Papers, UCSD, Box 9, Folder 14.
44. Jesse George (attorney for protestants) in "Rate Hearing of Cuyamaca Water Company," CWC Records, Box 2, Folder 10, p. 1260.
45. William S. Post to Ed Fletcher, October 20, 1913. Fletcher Papers, UCSD, Box 40, Folder 18.
46. D.G. Gordon to Cuyamaca Water Company, July 20, 1917. Fletcher Papers, UCSD, Box 10, Folder 5. Fletcher to Lou Mathews, July 23, 1917. Fletcher Papers, UCSD, Box 10, Folder 5.
47. Fletcher to Irving Martin, March 3, 1920. PUC Records, CSA, F3725:6938.
48. "Annual Report of the Cuyamaca Water Company to the Railroad Commission of California for the Year Ending December 31, 1919," PUC Records, CSA, F2511:2998. See also "Annual Report of the Cuyamaca Water Company," 1915. PUC Records, CSA, F2511:2997.
49. D.G. Gordon to Ed Fletcher, July 23, 1913. Fletcher Papers, UCSD, Box 9, Folder 14.
50. "Rate Hearing of Cuyamaca Water Company." CWC Records, UCSD, Box 2, Folder 10, 1231-1248. See also Decision No. 8145. PUC Records, CSA, F3725:6937.
51. "Answer of Defendants Jesse George and Anna L. George to Application No. 4515," November 14, 1919. PUC Records, CSA, F3725:6937.

ED FLETCHER AND THE CUYAMACA WATER COMPANY

52. See water rights summaries (dated 1920-1922) in CWC Records, UCSD, Box 4, Folder 2.
53. "Total Consumption of Water in Cubic Feet – 1915 to 1920 Inclusive," n.d. CWC Records, UCSD, Box 3, Folder 11. The figures contained in this folder only list the total number of customers as of September in each year. They do not show how many new customers connected to the system or how many discontinued their service.
54. Source: "Total Consumption of Water." CWC Records, UCSD, Box 3, Folder 11. Chester Harritt to Ed Fletcher, September 12, 1921. Fletcher Papers, UCSD, Box 10, Folder 5.
55. Source: Chester Harritt to Ed Fletcher, November 13, 1922. Fletcher Papers, UCSD, Box 10, Folder 5.
56. See Gordon to Cuyamaca Water Company, July 20, 1917. CWC Records, UCSD, Box 10, Folder 5; C. S. Alverson, "Report on the Underground Water of the San Diego River," July 27, 1912. CWC Records, UCSD, Box 2, Folder 15; Chester Harritt, "Description of Cuyamaca System," n.d. CWC Records, UCSD, Box 1, Folder 10.
57. Fletcher seems to have believed that the water he was selling was indeed surplus water. He asked an engineer to investigate the demands of current CWC customers to determine how much water he had available for sale to others, including the city. The engineer found that the CWC had a surplus supply of 3.8 million gallons per day that it could sell. F. M. Faude, "Net Safe Yield, Cuyamaca Water Company's System and Amount Available for Sale to Others Than Present Consumers," November 20, 1917. CWC Records, UCSD, Box 1, Folder 7.
58. Black, *San Diego County*, 129. While it is difficult to ascertain the precise acreage owned by Fletcher in this period, his investments in real estate were significant. When the La Mesa, Lemon Grove and Spring Valley Irrigation District reorganized in 1925, for instance, Fletcher petitioned to have several tracts included in the district. The irrigation district's delinquent tax list for 1929 listed Fletcher as the owner of 123 lots in the Fletcher Hills subdivision and co-owner of another 26 lots in the Boulder Heights tract in La Mesa. See "Petition for the Inclusion of Lands," *La Mesa Scout*, March 20, 1925, p. 2; "Delinquent Tax List," *La Mesa Scout*, August 1, 1930, sec 2, p. 1. As early as 1918, Fletcher wished to include in the district up to 5,000 acres that he and his partners owned. See Fletcher to J. H. Halley, May 6, 1918. Fletcher Papers, UCSD, Box 9, Folder 31.
59. See Cuyamaca Water Company, "Small Tract Plats, 1915-1916," n.d. CWC Records, UCSD, Box 3, Folder 10. These maps show CWC pipelines and meters and indicate lot owners and purchasers of water.
60. Harritt to Fletcher, November 13, 1922. Fletcher Papers, UCSD, Box 10, Folder 5.
61. See, for example, CWC attorney Charles Crouch's arguments that irrigators in Claremont and Upland (in Los Angeles and San Bernardino Counties, respectively) paid twice what CWC customers did. "Rate Hearing of Cuyamaca Water Company." CWC Records, UCSD, Box 2, Folder 10, pp. 1130-1137.
62. The term "protestant" was used by the Railroad Commission in its transcripts to describe customers who filed complaints with the regulatory body. I use the term interchangeably with "complainant."
63. "Rate Hearing of Cuyamaca Water Company," 1164.
64. See testimony of J.H. Halley, a director of the Lemon Grove Fruit Growers' Association and an official with the Lemon Grove Mutual Water Company. "Rate Hearing of Cuyamaca Water Company," 1086-1098.
65. "Rate Hearing of Cuyamaca Water Company," 1209-1212.
66. "Rate Hearing of Cuyamaca Water Company," 1177-1179; 1188.
67. "Rate Hearing of Cuyamaca Water Company," 1180-1181.

68. On the Alien Land Laws, see Ronald Takaki, *Strangers from a Different Shore: A History of Asian Americans*, rev. ed. (Boston: Little, Brown, 1998), 203-206; Roger Daniels, *Asian America: Chinese and Japanese in the United States since 1850* (Seattle: University of Washington Press, 1988), 139.
69. See Donald J. Pisani, *From the Family Farm to Agribusiness: The Irrigation Crusade in California and the West, 1850-1931* (Berkeley: University of California Press, 1984.), 442. Eric Boime has recently pointed to the importance of anti-Japanese sentiment in the movement for the All-American Canal in the Imperial Valley. Eric I. Boime, "Fluid Boundaries: Southern California, Baja California, and the Conflict over the Colorado River, 1848-1944," (PhD diss., University of California, San Diego, 2002), 191-215.
70. "Rate Hearing of Cuyamaca Water Company," 1107-1108. See also in this record Jesse George's examination of S.C. French (p. 1212), in which the attorney intimated that newcomers to the region would have difficulty starting new farms.
71. "Decision No. 8145 for Application Nos. 4515 and 4670 and Case No. 1272," September 24, 1920. PUC Records, CSA, F3725:6937.
72. Fletcher to Irving Martin, March 3, 1920. PUC Records, CSA, F3725:6938.
73. Decision No. 8145. PUC Records, CSA, F3725:6937.
74. Chester Harritt to Charles Crouch, February 2, 1923. PUC Records, CSA, F3725:7147.
75. S.D. Hyatt to Irving Martin, February 26, 1923. PUC Records, CSA, F3725:7147.
76. E.B. Waite to Railroad Commission, September 8, 1919. PUC Records, CSA, F3725:6947.
77. Decision No. 12277 before the Railroad Commission of the State of California, June 26, 1923. PUC Records, CSA, F3725:7147. See also Thomas G. Hughes, "Cuyamaca Water Company" (report to Railroad Commission), April 2, 1924. CWC Records, UCSD, Box 2, Folder 8.
78. Fletcher, *Memoirs*, 173.
79. Fletcher, *Memoirs*, 165, 177.