

*misnumbered*

PROSPECTUS PREPARED BY DION GERALDINE.

Proposed Consolidation  
of the Properties of the

- (1) San Diego Flume Company,
- (2) Consolidated water Company
- (3) Santa Ysabel Placer & water Company
- (4) 10,000 acres land covering river bed and reservoir sands of San Diego River.

The properties above referred to lie in San Diego County, California, northeast from the city of San Diego, extending from the city limits to the crest of the Cuyamaca Mountains fifty miles distant and consisting of reservoirs, flume and pipe lines, canals, tunnels, agricultural lands, town lots, reservoir sites, telephone line, water rights and a placer gold mine.

The first and second properties, the San Diego Flume Company and the Consolidated Water Company, are described in detail in a special report and therefore a brief condensed statement only will be given in this report.

The San Diego Flume Company was incorporated in 1886 and work began shortly afterwards, the chief object of the Company being to supply the city of San Diego with water by the continuous flow from the springs and small streams of the Cuyamaca Mountains, and by storing torrential waters behind dams constructed on natural reservoir sites. For this purpose land was acquired, of which the Company still owns nearly four thousand acres, reservoirs and diverting dams constructed, a flume line about thirty-five miles long was constructed, terminating at La Mesa dam eight miles northeast of the city, from which point pipe lines were laid to the city limits and to adjacent lands for irrigation.

The property and construction work of the San Diego Flume Company has cost to date nearly \$1,700,000, all of which has been well and judiciously expended. But the water supply from the sources relied upon has not come up to the expectations of the original builders, who

figured on the precipitation of the mountain region under normal conditions or the average as far back as recorded prior to the commencement of their work.

In the early nineties a series of very dry seasons set in running seven years, the rainfall shrinking to less than half its former average and affecting the water supply for the flume accordingly. Since 1899 the rainfall has been steadily increasing; the catchment in the reservoirs of the Flume Company at the present date, April, 1902, is approaching two billion gallons. With some additional work which the Company has now in hand, a constant supply of 1,000 miner's inches can be relied upon, which now has ready sale at \$800 per inch for the water right and \$75 per inch annual tax.

By the construction of additional dams on the reservoir sites owned by this Company and under water rights owned by them, the supply can be raised another thousand inches during dry seasons similar to the past seven years, and double that amount if the average precipitation for the past fifty years is maintained. (All records show that wet and dry periods alternate in terms of about seven years and the recently past dry seasons are not unusual.) However, the present resources of the Flume line are about a thousand inches without further development, and it is for the purpose of bringing this delivery up to five thousand inches or more that the consolidation of the various properties is proposed. The Santa Ysabel property will add two thousand inches and the water filled sands or reservoir sands under the bed of the San Diego River and embraced in property No 4 or the 10,000 acres of land under contract for consolidation, will supply any reasonable quantity desired according to the capacity of pumping plants installed. This source of supply will meet any deficiency below five thousand inches, which the other two properties might suffer in extreme dry seasons, making a constant supply of five thousand inches absolutely sure. For details and facts to substantiate these statements, see the separate reports made on each property and refer to the map.

What 5,000 inches means.

In Southern California water is king, and the natural supply of that region will never irrigate one-half the lands available for cultivation. For about fifty years the best intelligence of practical American fruit growers and farmers, engineers and scientists have been dealing with this problem of water supply. After countless experiments many failures in water systems, dams and methods of corralling torrential waters, the problem has been solved and the business reduced to a practical science, devoid of risk or experimental features. Today there is no place in the world where the profits from irrigated lands are as large and where the price of such land is as high as in Southern California. In the vicinity of Los Angeles, Pasadena and many other localities where development is advanced and transportation facilities good, irrigated land or land which can obtain a permanent water supply for irrigation, ranges as high as \$500 per acre for the bare ground; a common rental for irrigated ground being \$15 per acre and upwards annually. In the San Gabriel valley where orchards are advanced in growth, water rights sell at \$1800 per inch for the right and an annual tax of \$100 and upwards.

The El Cajon valley, which is watered by the San Diego Flume Company and in which the consolidated companies will own upwards of ten thousand acres, is one of the loveliest agricultural valleys that any man has ever seen. For a perfect climate it has no superior, - not only in Southern California but in the world. The soil is excellent. Its olives, oranges, lemons and raisin grapes are equal in quantity, size and appearance to those produced anywhere else in America; and in quality and flavor, they are superior to the product of any other valley in California. Farther up this valley on the higher slopes, the apples and other deciduous fruits produced have taken prizes at every exposition where they have been shown. They took first prize at the World's Fair in Chicago.

The consolidated companies above referred to will never produce any more water than this valley requires, although the demands for water

beyond the valley and tributary to the flume are at present more pressing than within the valley itself. Five thousand inches of water can be sold as fast as the consolidated companies will be able to deliver it and the price need not be less than \$800 per inch for the water right with an annual tax of \$75 per inch. You can figure this out yourself. The time is near at hand when a thousand to twelve hundred and fifty dollars per inch, with an annual tax of \$100, will be eagerly contracted for.

It must be borne in mind that throughout a large portion of Southern California an inch of water supplemented by the natural rainfall takes care of from ten to twenty acres of land, while in other portions of the arid region an inch per acre is often used.

Santa Ysabel Placer & Water Company.

The placer gold property is located in San Diego County directly northeast of San Diego about twenty-five miles; forty miles by wagon road up the San Diego River valley - a fine road of easy grade - and about fifteen miles by wagon road from Foster, the present terminal of the Cuyamaca & Eastern Railroad, which extends up this valley from San Diego, the placer ground being located on Sections 16, 17, 19 and 20 T. 13 S. R. 2 E. and containing about 600 acres, immediately west by north from Mt. Gower. From the placer ground, the general slope of the valley is to the south, toward the bed of the San Diego River, the diverting dam and head of flume line of the San Diego Flume Company being located on the San Diego river about four miles directly south east from the placer at an elevation of 800 feet, while the elevation of the placer ground is about 1800 feet. Directly north from the placer, five miles air line, flows the Santa Ysabel river at an elevation of 1000 feet above the placer, being separated from it by a narrow ridge considerably higher than the river. Over twelve years ago the present owners of this property bought the placer ground and began work on a tunnel to conduct the waters of the Santa Ysabel under the ridge referred to and thence by open ditch to the placer; the length of the proposed tunnel and canal being about nine miles. For this purpose

they located the water right on the santa Ysabel of 3,000 inches, the last filing under this location being made in 1893, since which time they have worked constantly on the tunnel, preserving the water rights absolutely intact. But the hard times of '92 and after proved very disastrous to them in their regular lines of business outside of this property, but they held on to the placer and water rights and kept up the work continuously, having now driven the tunnel thirteen hundred feet and there remains about two hundred feet to be completed. When this tunnel is completed, it will discharge into the valley below and into the canal prepared for it, not less than three thousand inches for six months in dry seasons; for the remaining six months an accurate record kept during the dry years shows a gradual shrinkage down to 200 inches just before the annual rains set in; the average for the year being two thousand inches normal flow without taking into consideration torrential waters or the swelling of the stream after each heavy rain, and also whenever there is a sudden melting of the snow on the mountains above. As the plan provides for the storing of these waters in reservoirs below, it is therefore safe to figure on an average flow of two thousand inches, since the average flow without the torrential waters exceeds two thousand inches in the driest seasons experienced. The cost of completing this tunnel and canal to the placer mine and conducting the water to the end of the flume line after using it on the placer, is about \$100,000.

#### The Gold Placer.

The syndicate who undertook this work bought originally about 400 acres of placer ground which they have since increased to about 600 acres, which is supposed to cover about all the pay gravel which would come under the ditch. This placer was well known to miningmen of California twenty-five years ago and considerably dry washing was done at that time, but there being no water available for washing the gravel, very little headway was made, it never having apparently occurred to any one interested to tunnel under the mountains from the Ysabel, until the present owners bought the property. Various tests of the gravel have been made. The present owners state that from their own

tests and from all information obtainable, they consider that the yield cannot possibly average less than 20 cents per yard for the entire mass of gravel which they think will average nearly 20 feet in depth. On this basis they calculate about four millions of gold in the gravel, which can be brought under the nozzle and washed at an expense of less than 10 cents per yard after the water is brought to the placer, but including all other expenses.

Some time since a distinguished English engineer named Haworth made a thorough examination of the placer and the owners gave me a copy of his report which is hereto attached.

As soon as practicable, a thorough sampling test of this placer gravel will be made, although the chief object of consolidation is to get the water from the santa Ysabel river into the san diego flume. Between tunnel and flume a considerable amount of water can be sold for irrigation if desired, and contracts for the same can be made at any time.

#### Reservoir sands of the San Diego River.

The san diego River has its source in the mountains north east of San Diego where the highest peaks approach seven thousand feet above sea level and where the precipitation for a large area drained by this river averages about 60 inches annually. Flowing generally southwest this stream discharges into the Bay of San Diego just north of the city. (Please refer to map and note the water bearing sands marked in yellow along the water course.)

The bed of this river is confined by impervious rock bottom which rises on either side of the river bed, at some point to high and precipitous walls; at other points the rock falls below the surface many feet. But within these walls there are at intervals immense deposits of sand at some points 500 feet in depth, which at all seasons are full of water, the flow of the stream being above its level. At a few points in this sandy bed the rock rises nearly or quite to the surface directly across the stream and dipping again to make another underground reservoir. By referring again to map observe that from the

mouth of the river for a distance of six miles or more up stream there is a body of water bearing sands. The red dots thereon indicate the pumping plants of the city of San Diego, and from this underground reservoir the City of San Diego receives its water supply. Observe that directly north of La Mesa dam begins another body of water bearing sands extending up stream about 12 miles. At the lower end of this sand deposit directly north of La Mesa dam and just within the boundary line of the El Cajon land grant (see map) the solid rock comes to the surface and the stream for a few miles flows over solid rock. Beginning at this point, we have secured options on upwards of ten thousand acres of land along the valley, covering completely this underground reservoir of water bearing sands; the cost of said lands being approximately an average of \$25 per acre.

In the wet season the water line in these sands rises to the river bed before the river will flow over the rock bottom at the lower extremity of the sand bed. In the dry season the water line drops to an average of between fifteen and twenty feet below the surface of the ~~tillable~~ tillable land on either side of the river bed. By extensive pumping this water line would be gradually lowered during the dry season until the sands were again replenished by rainfall. An approximate average of lift throughout the year for the irrigation of several thousand acres adjacent ~~at~~ to the river would not exceed 75 feet while in portions of southern California water is now being lifted over 400 feet for purposes of irrigation, and at a high profit.

Referring again to the map observe two red dots in the sands above the village of Lakeside. They represent two pumping plants owned and operated by the San Diego Flume Company and are used for pumping water from these river sands into the flume, which, at this point, is carried high up on the mountain side nearly 300 feet above the valley, the lift of water being nearly 300 feet. These pumps are used to supplement the flume in the dry season and for extra water supply during the balance of the year. The price paid for this water by the users is at the rate of 8 cents per thousand gallons, the cost of pump-

ing it being a small fraction over 4 cents, steam boilers being used for power. By removing these boilers and substituting gas engines, the cost of pumping would be reduced more than one half.

For irrigating ten thousand acres more of the El Cajon Valley the water can be pumped at a cost of \$40 per inch or under per annum.

The 10,000 acres under option above referred to lie along this valley on either side of the river and are nearly all tillable. At the price under the various options it averages about \$25 per acre. Once under permanent water supply by pumping plant or otherwise, it can readily be sold in small and large tracts at \$100 per acre, with an annual water tax of at least 100% profit on the cost of pumping and delivering the water and keeping up all repairs on the plant. By purchasing this land at the option price and supplying water to it at 100% profit, a half million net profit can be realized within five years by the sale of 10,000 acres, and the land can be sold at that profit as fast as the water is ready for it.

Another feature of this water supply will be understood from the following facts:- When our pumps are applied to the sands as above explained, the supply for the city from the sands below will be materially diminished. (Our absolute rights to pump water from these sands cannot be disputed or contested by the city or by any water rights on the river above or below our property. All below the surface of river bed is stationary water.)

The city is growing rapidly and in the near future will want more water. The surface of these sands where the pumping plants will be placed is over 200 feet above the main part of the city. While the flume line about Lakeside is 300 feet above the valley, it falls rapidly to La Mesa dam. By referring to map observe that it is about three miles from the river sands south to the flume line near La Mesa dam, and water from these sands can be put into the La Mesa reservoir at a lift of 75 feet, or sent direct to the city by gravitation. From La Mesa dam or the end of the flume line, the pipe lines of the San Diego Flume Company extend to the city limits, The La Mesa reservoir

now has a capacity of 370,000,000 gallons, with the dam at its present height of 65 feet. By bringing the dam up to the 75 foot contour line, for which the Company has the rights, 750,000,000 gallons can be stored. The Company can at a small expense secure the land necessary to raise the dam to the 140 foot contour line, making a storage capacity of over six billions gallons; or by raising it to the 100 foot contour line or adding 35 feet to its present height, two billions gallons can be stored. Two billion gallons is equal to about 425 inches continuous flow for a year, which would be equal to a continuous flow of a thousand inches during the dry season, or if the flow by gravitation in the flume was two thousand inches during the six months of wet season, this reservoir alone would supplement the flume sufficient during the dry season to keep the constant supply up to two thousand inches throughout the year. The facts given in this paragraph are very significant to anyone who follows the logical conclusion.

Yours truly,

Chicago ,Ill.

April 30th, 1902.

331 South Main St.  
Los Angeles ,cal.

Los Angeles,cal. Sept. 22,1902.

M. C. Healion, Esq.,

San Diego,cal.

Dear sir:-

In reply to your inquiry as to bringing the santa Ysabel water into the San Diego Flume.

My investigations last Spring led me to conclude that the santa Ysabel is one of the most desirable and reliable water supplies in your part of the state. There are two water rights which practically control both the normal flow and the storm water, and the owners of these two water rights are very easy to deal with.

They have a tunnel nearly completed for conducting the santa Ysabel to the Gold placer mine, which lies adjacent to Mount Gower, about four miles northwest of your diverting dam. After using this water on the Placer , it will flow by gravity into your flume. If turned loose at the mouth of the tunnel, it would flow by gravity through the dye Valley into your flume and would find its way naturally without much loss, coming into the San Diego considerably above your diverting dam. Its fall would be very rapid giving at one point nearly 500 ft. within a mile, which if piped would make a tremendous water power for generating electricity.

The normal flow of this stream during the past extremely dry season has fallen as low as 175 inches rising to 3000 in the wet season, and at times, I was reliably informed, the storm water reaches a flow of 10,000 inches. with good reservoir facilities this stream should furnish 2000 inches constant or average flow for the year. As before stated, the owners of this water right are not hard to deal with. The Gold placer and water rights can be bought for less than the actual value of the water, or the water right can be purchased leaving them the right to use a portion of it on their Placer, after which it would flow by gravity into your flume. They would sell on this basis at a very low figure, as they value the Gold Placer property very highly

and justly so, as it is a very valuable property after water is delivered. If this property were combined with yours and if the river sand which lies at Lakeside and below to where the rim rock reaches the surface were purchased, the combination would undoubtedly make one of the very best propositions on this coast. There can be no question as to its safe, permanent and immense earning power when you take into consideration the low prices at which the three properties can be secured.

The generation of electric power alone has a fortune in it, if those properties are consolidated, reservoirs built so as to insure a constant flow. The pumping of water from the river sand can be made immensely profitable.

The completion of plans on the Pine Valley site, or the bringing in of the Santa Ysabel water, or both gives your flume system at once a tremendous earning power and brings it up in value to the lines originally planned.

I am sure that if this plan of consolidation and development was understood by Eastern capitalists, there would be no difficulty in securing the necessary money to takeover the proposition and make the improvements. I know of nothing better for investment and shall be glad to take a hand in the work myself, if it is still open after I am free from present obligations. In fact, I am extremely anxious to do so.

Yours truly,

Dion Geraldine.

# Ed Fletcher Papers

1870-1955

MSS.81

Box: 53 Folder: 10

**Business Records - Water Companies - Cuyamaca Water Company - San Diego Flume Company - San Diego Flume Company correspondence - Geraldine, Dion. Prospectus**



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