Customer Water Usage – Historical and Forecast

Table III-7 presents the District's historical and forecast water consumption and billing units. The District's billing system only tabulates billing unit totals net of minimum volumes. This means that the numbers in Table III-7 represent only consumption for which volume charges are assessed.

The table reveals that usage declined from its high in the dry year of 2011. Usage is forecast to increase nominally in each year of the next decade. Table III-7 and **Chart III-8** on the following page reveal that the 5/8" customer class is the larges user, followed by the 4" customer class.

Chart III-9 presents average monthly water consumption by meter size. These totals have been adjusted to include minimum volumes.

Table III-7

LAGUNA MADRE WATER DISTRICT
FORECAST TOTAL BILLED CONSUMPTION NET OF MINIMUMS

	5/8" Meter	1" Meter	2" Meter	4" Meter	6" Meter	8" Meter	Total
	WATER Total Consumption						
2011	396,110,200	186,943,300	122,515,100	223,951,400	46,220,400	-	975,740,400
2012	385,062,000	182,022,700	74,398,200	213,190,500	40,147,500	53,000	894,873,900
2013	361,885,100	172,010,900	63,761,300	207,469,700	39,023,500	2,600	844,153,100
Aug13-Jul14	332,942,800	156,709,100	79,626,900	195,093,900	52,272,200	100	816,645,000
2015	333,844,205	157,070,181	80,318,106	198,944,438	53,958,400	100	824,135,429
2016	334,743,182	157,430,434	81,003,414	202,721,864	55,593,503	100	831,492,496
2017	335,639,751	157,789,864	81,682,973	206,430,190	57,181,889	100	838,724,767
2018	336,533,932	158,148,477	82,356,925	210,073,076	58,727,345	100	845,839,855
2019	337,425,744	158,506,279	83,025,406	213,653,867	60,233,175	100	852,844,571
2020	338,315,204	158,863,275	83,688,548	217,175,634	61,702,276	100	859,745,038
2021	339,202,332	159,219,471	84,346,477	220,641,203	63,137,213	100	866,546,796
2022	340,087,146	159,574,872	84,999,314	224,053,180	64,540,262	100	873,254,874
2023	340,969,664	159,929,482	85,647,174	227,413,978	65,913,459	100	879,873,858
2024	341,849,904	160,283,309	86,290,171	230,725,832	67,258,632	100	886,407,948
	WASTEWATER Billing Units						
2015	218,846,028	76,531,277	28,364,251	137,477,232	28,714,603	75	489,933,466
2016	220,126,429	77,004,862	29,008,893	143,050,633	30,509,265	75	499,700,157
2017	221,406,829	77,478,447	29,653,535	148,624,034	32,303,928	75	509,466,848
2018	222,687,230	77,952,031	30,298,177	154,197,435	34,098,590	75	519,233,539
2019	223,967,630	78,425,616	30,942,819	159,770,837	35,893,253	75	529,000,230
2020	225,248,030	78,899,200	31,587,461	165,344,238	37,687,916	75	538,766,921
2021	226,528,431	79,372,785	32,232,103	170,917,639	39,482,578	75	548,533,612
2022	227,808,831	79,846,370	32,876,745	176,491,040	41,277,241	75	558,300,303
2023	229,089,231	80,319,954	33,521,387	182,064,442	43,071,904	75	568,066,994
2024	230,369,632	80,793,539	34,166,029	187,637,843	44,866,566	75	577,833,685

Chart III-8

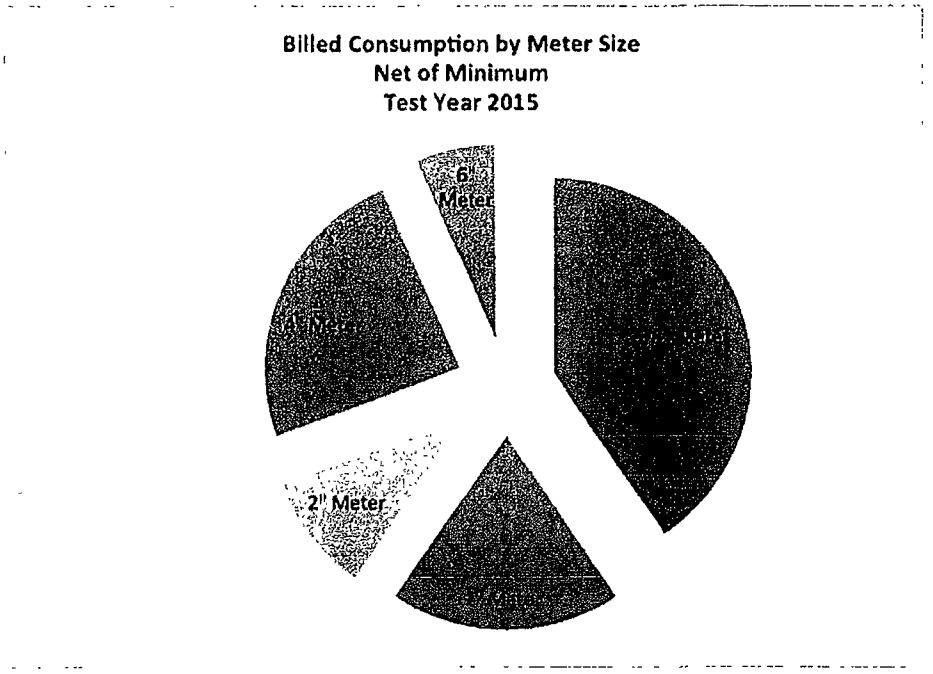
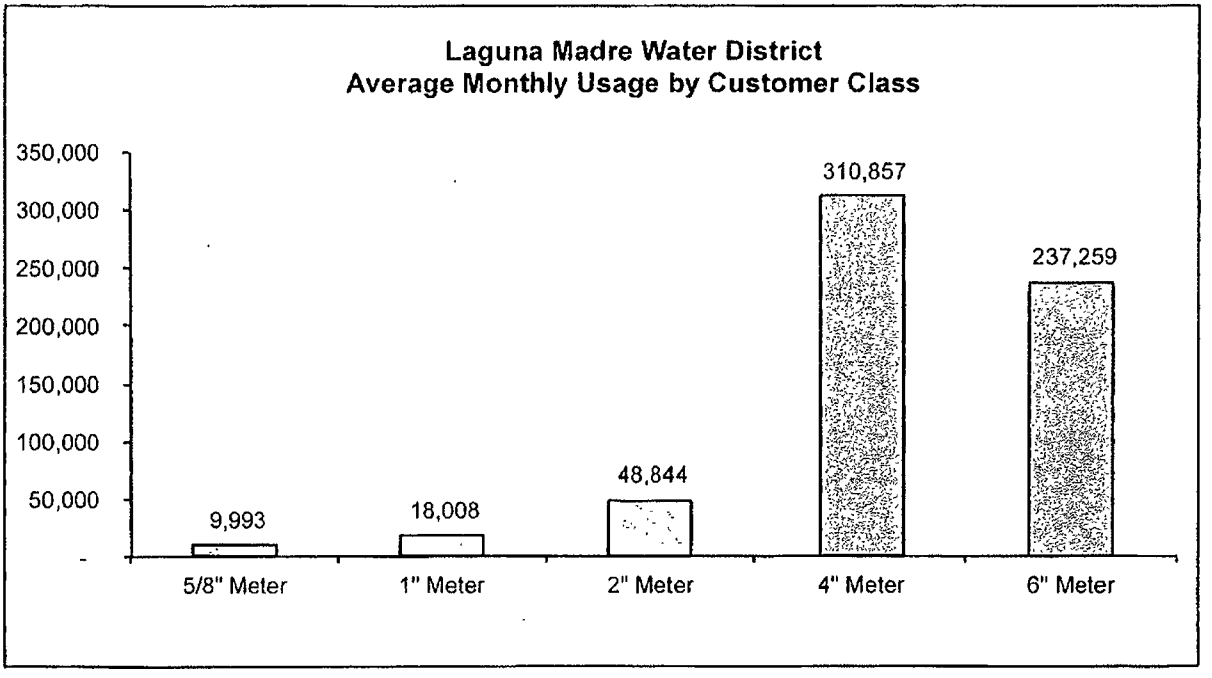


Chart III-9



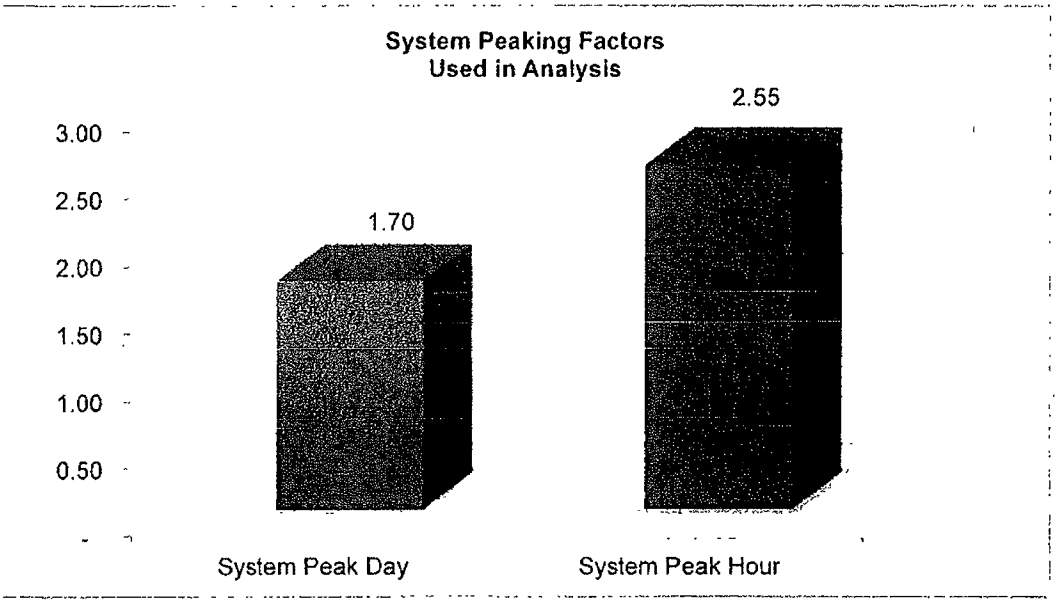
Peaking Factors

The cost of providing water to customers depends not only on the amount of water each class uses, but also on how that usage occurs over time. The maximum-day and maximum-hour peaking requirements of a water utility's customers are an important influence on the utility's costs. Because water utilities attempt to meet all of the demands of their customers, water systems are sized to meet customers' peak requirements. Therefore, during off-peak periods, there are usually significant costs associated with the unused capacity of the system. These costs must be allocated in proportion to the contribution of each customer class to the system peak, in order to develop equitable cost-based rates. Thus, it is necessary to determine the peak rate of use relative to the average rate of use for each class. This ratio is called a ***Peaking Factor***.

The calculation of peaking factors for individual classes relies on available pumping and consumption information as well as professional judgment. If customer meters could record daily flow rates for each customer, more refined information could be obtained on peaking factors. This is not feasible because of the enormous cost that would be imposed on the utility. Therefore, it is accepted practice in the water industry to develop peaking factor estimates based on standard formulas using system peak day information and monthly customer class use records. This is a conservative methodology, since customer class peaking factors based on peak months will inevitably be lower than the system-wide peaking factor, which is based on the peak day.

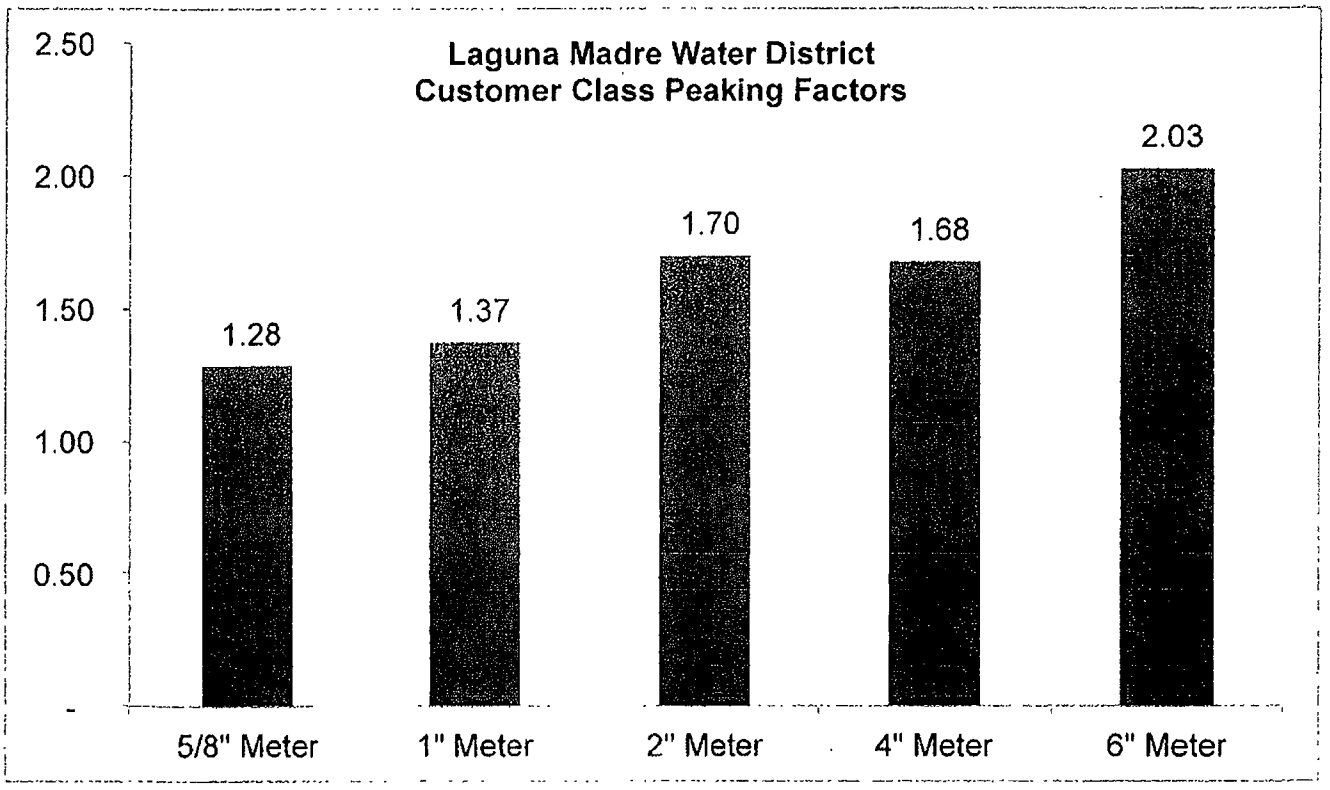
The system peak to average ratios used in the cost of service analysis are presented in **Chart III-10**. These are based on a study prepared for the District in 2012 by CDM-Smith.

Chart III-10



Based on AWWA guidelines, the customer class peaking factors calculated in this study are for non-coincidental peaks. The individual customer class peaking factors developed for this analysis are presented in **Chart III-11** below. A general rule of thumb is that the higher the peaking factor for a given customer class, the higher that customer class' per unit cost of water service. It is clear that as meter sizes increase, so does the peaking factor.

Chart III-11



Wastewater Treatment Plant Flows

Table III-12 presents total influent flows and strengths at each of the District's wastewater treatment plants. The strength factors are used as a critical input to recommended BOD and TSS rates per lb for high strength sewage.

Table III-12

LAGUNA MADRE WATER DISTRICT
WASTEWATER PLANT INFLUENT

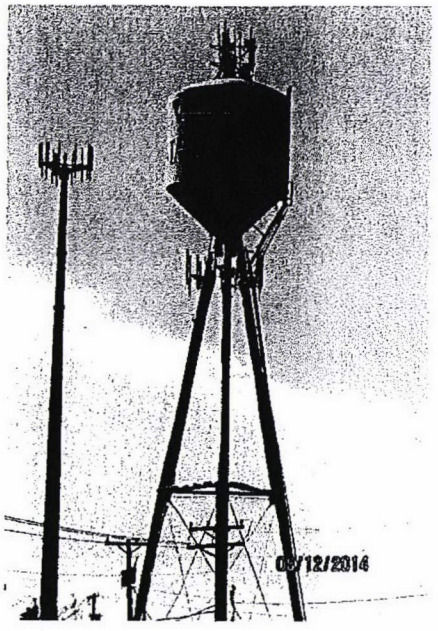
	Port Isabel			Andy Bowie			Isla Blanca			Laguna Vista			
	Total Gallons	BOD mg/l	TSS mg/l	Total Gallons	BOD mg/l	TSS mg/l	Total Gallons	BOD mg/l	TSS mg/l	Total Gallons	BOD mg/l	TSS mg/l	Total Gallons
2010	251,748,200	-	-	233,123,000	-	-	239,129,000	-	-	166,802,000	-	-	890,802,200
2011	258,246,900	198	132	201,315,000	202	156	199,107,500	181	193	140,472,000	160	146	799,141,400
2012	237,962,200	203	132	187,203,700	169	120	392,768,000	176	117	143,669,000	150	130	961,600,900
2013	232,674,100	204	133	155,729,000	137	82	356,773,400	178	118	137,706,000	137	165	882,882,500
Total 2011-2013	728,883,200	202	132	544,247,700	172	123	948,646,900	177	133	421,847,000	149	147	2,643,624,800

08/12/2014

[redacted] [illegible] [redacted]

SECTION IV

Test Year and Forecast Revenue Requirement



This section of the water and wastewater rate study and long-term financial plan focuses on the District's test year and forecast revenue requirements. For the purposes of rate design, the test year consists of the District's current fiscal year, October 1 2014 through September 30 2015. The figures presented in this section are based on the District's adopted FY 2015 budget.

The calculation of a revenue requirement differs from a utility's budget in that it represents only that amount that must be raised through the District's water and wastewater rates. This means that non-rate revenue (such as interest income, and connection fees) must be subtracted from the budget operating and capital expenditures to determine the net revenue requirement to be raised from rates.

As is typical for publicly owned utilities, the District's system revenue requirements were developed using the cash basis of ratemaking. Under the cash basis, as defined by the AWWA Manual M-1, system revenue requirements consist of cash expenditures and other financial commitments (such as debt service coverage or reserves) that must be met through system operating revenues and other revenue sources. The following specific items are included in the City's revenue requirements that must be raised from rates:

O&M expenses

Capital Outlays

Debt Service

Because the District is an independent governmental and financial entity, there are no funds transfers to be included in the revenue requirement. All data used in the development of the revenue requirements was obtained from the financial statements, budgets and other information provided by District staff.

The revenue requirement and cost of service calculations contained in this section are presented in detail in the comprehensive water and wastewater cost of service rate model in Appendix A.

Operating Expenses and Capital Outlays

Table IV-1 presents the District's test year 2015 forecast of operating expenses and capital outlays for the water and wastewater system. The forecast is based on the District's Board-approved FY 2015 budget.

Operating expenses represent personnel, chemicals, electricity and other day-to-day expenses incurred by the District. Capital outlays typically reflect the acquisition of various tractors, dump trucks, pick-up trucks, computer equipment, and so on. These expenses are separate and distinct from the major capital improvements (i.e. water system expansion, well purchases, etc.) funded through the District's long-term debt.

The table reveals that the water system's test year operating expenses and capital outlays are forecast to be **$7,286,795**, of which **$3,307,104** is for the water utility and **$3,979,672** is for the wastewater utility. Details behind these calculations can be found in the rate model presented in Appendix A.

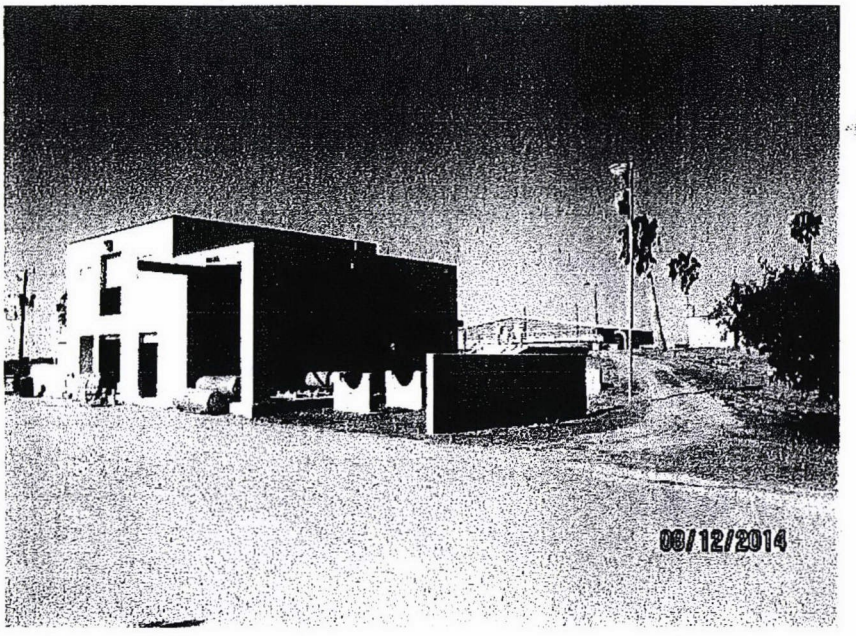


Table IV-1

LAGUNA MADRE WATER DISTRICT
TEST YEAR OPERATING EXPENSES/CAPITAL OUTLAYS

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

	FY 2015 Budget	WATER Expenses	WASTEWATER Expenses
01 -- Water Plant			
Operating	$ 1,302,431	$ 1,302,431	$ -
Capital Outlays	100,500	100,500	-
Total	1,402,931	1,402,931	-
02 -- Lift Station			
Operating	435,595	-	435,595
Capital Outlays	77,500	-	77,500
Total	513,095	-	513,095
03 -- Construction/Maintenance			
Operating	543,862	543,862	-
Capital Outlays	52,000	52,000	-
Total	595,862	595,862	-
04 -- Collections			
Operating	405,818	-	405,818
Capital Outlays	140,000	-	140,000
Total	545,818	-	545,818
05 -- Maintenance			
Operating	323,970	161,985	161,985
Capital Outlays	240,000	120,000	120,000
Total	563,970	281,985	281,985
06 -- Laboratory			
Operating	224,920	-	224,920
Capital Outlays	6,000	-	6,000
Total	230,920	-	230,920
07 -- Administration			
Operating	861,921	430,961	430,961
Capital Outlays	86,000	43,000	43,000
Total	947,921	473,961	473,961
08 -- Wastewater Plant			
Operating	1,320,548	-	1,320,548
Capital Outlays	61,000	-	61,000
Total	1,381,548	-	1,381,548
10 -- Finance			
Operating	859,757	429,879	429,879
Capital Outlays	8,000	4,000	4,000
Total	867,757	433,879	433,879
11 -- Electrical			
Operating	231,473	115,737	115,737
Capital Outlays	5,500	2,750	2,750
Total	236,973	118,487	118,487
Water Source Alternatives			
Operating			
Capital Outlays	-	-	-
Total	-	-	-
	-	-	-
Total Operating/Capital Outlays			
Operating	6,510,295	2,984,854	3,525,442
Capital Outlays	776,500	322,250	454,250
Total	**7,286,795**	**3,307,104**	**3,979,692**

Table IV-2 presents a forecast of operating expenses and capital outlays for the ten-year period FY 2015 – FY 2024. The following assumptions were used in the development of this forecast:

- Most personnel and operating expenses were forecast to increase approximately 3.0% per year.
- The District is not expected to add significant numbers of additional personnel in the next decade.
- Certain expenses, such as chemicals, electricity, gasoline, insurance and workers compensation, are forecast to increase at rates exceeding the inflation rate. This is because historically these cost categories have been subjected to higher than average increases.
- Certain expenses are increased proportionately as the District's customers and billing units increase.
- The District is forecast to construct and place into operation a reclamation facility at the Port Isabel Wastewater Treatment Plant in FY 2017. This reclamation facility will be used to offset the District's needs for water rights. All capital and construction costs are assumed to be funded through tax bonds, which do not impact the District's rate structure. District personnel have estimated that the operating costs for this facility will be $1.43 per 1,000 gallons, which results in an initial annual cost of $283,209. These costs are forecast to increase by approximately 3.0% per year.
- There is no assumption for seawater desalination costs in this ten-year forecast. For the purposes of this study, if a seawater facility is constructed, it would be beyond the ten year timeframe of this cost of service study.
- Capital outlay expenditures are forecast to increase at a rate of 3.0% per year.

The table reveals that the District's water utility's operating expense and capital outlays are forecast to increase from $3,307,104 to $5,071,691 by FY 2024. This represents an annual increase of 4.87%. The District's wastewater utility's operating expense and capital outlays are forecast to increase from $3,979,692 to $5,665,307 by FY 2024. This represents an annual increase of 4.00%. The District's combined operating expense and capital outlays are forecast to increase from $7,286,795 to $10,736,998 by FY 2024. This represents an annual increase of 4.40%.

a) Master Plan [illegible] cost of $2.17 per 1,000 gal.

Table IV-2

LAGUNA MADRE WATER DISTRICT
FORECAST OPERATING COSTS AND CAPITAL OUTLAYS

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

	Operating Expenditures	Capital Outlays	Total
	WATER Expenses		
2015	$ 2,984,854	$ 322,250	$ 3,307,104
2016	3,105,600	331,918	3,437,518
2017	3,515,624	341,875	3,857,499
2018	3,658,250	352,131	4,010,381
2019	3,806,933	362,695	4,169,628
2020	3,961,945	373,576	4,335,521
2021	4,123,574	384,783	4,508,357
2022	4,292,119	396,327	4,688,446
2023	4,467,894	408,217	4,876,111
2024	4,651,228	420,463	5,071,691
	WASTEWATER Expenses		
2015	$ 3,525,442	$ 454,250	$ 3,979,692
2016	3,669,965	467,878	4,137,842
2017	3,820,629	481,914	4,302,543
2018	3,977,717	496,371	4,474,088
2019	4,141,523	511,262	4,652,785
2020	4,312,354	526,600	4,838,954
2021	4,490,533	542,398	5,032,931
2022	4,676,398	558,670	5,235,068
2023	4,870,302	575,430	5,445,732
2024	5,072,614	592,693	5,665,307
	TOTAL Operating Expenses		
2015	$ 6,510,295	$ 776,500	$ 7,286,795
2016	6,775,565	799,795	7,575,360
2017	7,336,253	823,789	8,160,042
2018	7,635,967	848,503	8,484,470
2019	7,948,455	873,958	8,822,413
2020	8,274,299	900,176	9,174,475
2021	8,614,107	927,182	9,541,288
2022	8,968,517	954,997	9,923,514
2023	9,338,196	983,647	10,321,843
2024	9,723,842	1,013,156	10,736,998

Capital Improvement Plan

The District has developed a comprehensive long-term capital improvements plan for the next decade. The purpose of the CIP is to rehabilitate and maintain the existing system, expand the system to service new growth, and to develop new water resources.

The capital improvement plan is an integral part of any long-term rate and financing plan. The District finances its capital improvements through a combination of existing funds, tax funded long-term debt, and revenue-funded long-term debt. Only the revenue bonds impact the District's rate plan.

Table IV-3 on the following pages presents the District's CIP. The CIP involves repairs and upgrades to the raw water transmission system, the District's water treatment plants and distribution system. The wastewater CIP includes the Port Isabel Reclamation Facility as well as expenditures intended to rehabilitate the wastewater collection system and wastewater treatment plants.

Table IV-4 on the following pages presents the assumptions for how the District will finance the CIP. Much of the CIP is expected to be financed through tax bonds and existing funds. Notably, the reclamation facility is expected to be funded entirely through tax bonds. However, as shown in the table, the District will also require periodic issuances of revenue bond debt in order to complete its CIP.

Chart IV-5 and **Table IV-6** summarize the CIP. The charts reveal that the District's CIP over the next five years is estimated to be $8,613,000 for the water system and $27,184,640 for the wastewater system. Estimates for the remaining years 6-10 are based on averaging the first five years.

Further, the District is forecast to issue revenue bonds totaling $4,600,000 for the water system and $1,100,000 for the wastewater system in the next five years. Similar totals are forecast for the remaining years 6-10.

Chart IV-5

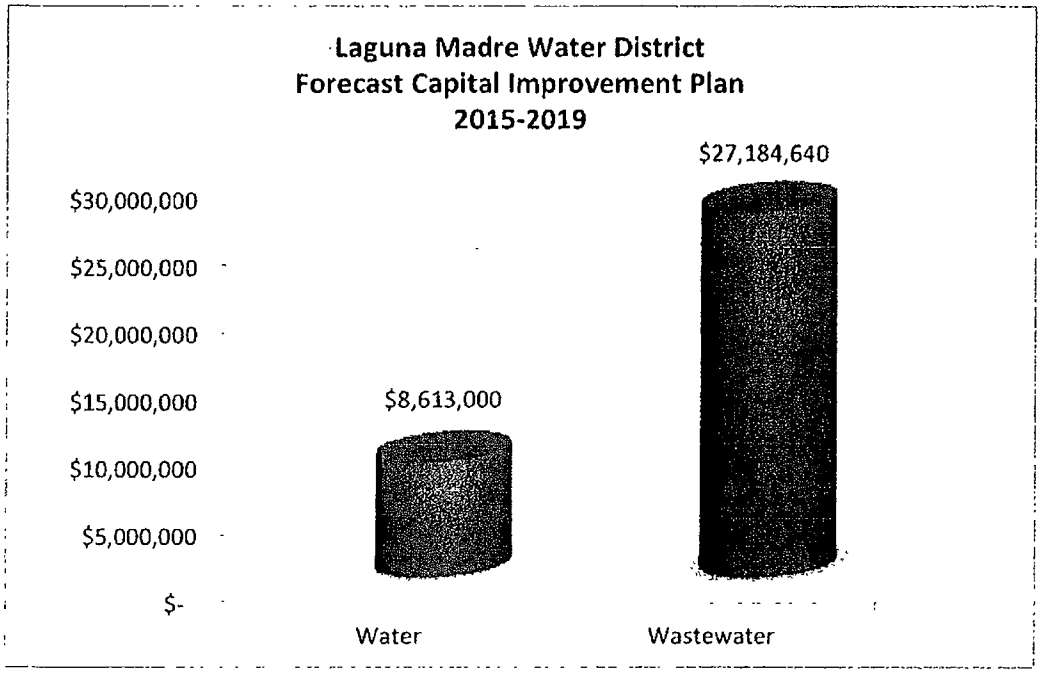


Table IV-6

LAGUNA MADRE WATER DISTRICT
FORECAST REVENUE BOND ISSUES

	Water	Wastewater	Total
2015	$ -	$ -	$ -
2016	-	-	-
2017	-	-	-
2018	4,600,000	1,100,000	5,700,000
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-
2023	4,600,000	1,100,000	5,700,000
2024	-	-	-
Total	**9,200,000**	**2,200,000**	**11,400,000**

Current and Forecast Debt Service

Table IV-7 presents current and forecast debt service assuming the bond issues outlined in the previous section. The District currently has one revenue bond, a Series 2007 issue that funded both water and wastewater system improvements. Future revenue debt is assumed to have a 20-year term, 4.0% interest rate and level principal and interest payments.

These assumptions are preliminary in nature and subject to change. Should the District's Board choose to issue more or less revenue debt than assumed in this study, or should different financing terms be available at the time the debt is issued, then the rate plans contained in this study may require revision.

Table IV-7

LAGUNA MADRE WATER DISTRICT
CURRENT AND FORECAST DEBT SERVICE

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

	WW & SS Revenue Bonds Series 2007	Future Debt	Total Debt Service
	WATER Debt Service		
2015	$ 232,609	$ -	$ 232,609
2016	232,470	-	232,470
2017	232,124	-	232,124
2018	231,571	-	231,571
2019	232,540	379,770	612,310
2020	231,113	379,770	610,883
2021	230,994	379,770	610,764
2022	232,512	379,770	612,282
2023	231,932	379,770	611,702
2024	223,680	759,540	983,220
	WASTEWATER Debt Service		
2015	439,671	-	439,671
2016	439,410	-	439,410
2017	438,756	-	438,756
2018	437,709	-	437,709
2019	439,540	90,815	530,355
2020	436,843	90,815	527,658
2021	436,618	90,815	527,433
2022	439,488	90,815	530,303
2023	438,392	90,815	529,206
2024	422,794	181,629	604,423
	TOTAL Debt Service		
2015	672,280	-	672,280
2016	671,880	-	671,880
2017	670,880	-	670,880
2018	669,280	-	669,280
2019	672,080	470,585	1,142,665
2020	667,956	470,585	1,138,541
2021	667,612	470,585	1,138,197
2022	672,000	470,585	1,142,585
2023	670,324	470,585	1,140,909
2024	646,474	941,169	1,587,643

Non-Rate Revenues

In addition to its revenue from rates, the District also receives revenue from non-rate sources. These sources include but are not limited to:

- Bulk water sales
- Raw water sales
- Tap fees
- System Development Charges
- Interest
- Equipment Sales
- Rental Fees

The forecast of future revenues from these non-rate sources is presented in **Table IV-8**. These revenues are offset from the total cost of service to determine the District's Net Revenue Requirement to be Raised from Rates.

Table IV-8

LAGUNA MADRE WATER DISTRICT
FORECAST NON-RATE REVENUES

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

	Total	Water	Wastewater
2015	$ 546,606	$ 349,477	$ 197,129
2016	352,263	252,835	99,428
2017	357,181	255,818	101,363
2018	362,186	258,839	103,346
2019	367,281	261,900	105,381
2020	372,470	265,003	107,467
2021	377,756	268,150	109,606
2022	383,143	271,343	111,801
2023	388,635	274,583	114,052
2024	394,234	277,872	116,362

Net Revenue Requirement

Table IV-9 presents the District forecast Net Revenue Requirement for the ten-year period. The table reveals that the total revenue requirement is expected to increase by an average annual rate of **5.4%** over the next decade. The primary reasons for this are the debt service from the CIP and the increases in operating expenses.

Table IV-9

LAGUNA MADRE WATER DISTRICT
CURRENT AND FORECAST NET REVENUE REQUIREMENT

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

	Operating Expenses	Capital Outlays	Current Debt Service	Future Debt Service	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
	WATER Revenue Requirement						
2015	$ 2,984,854	$ 322,250	$ 232,609	$ -	$ 3,539,712	$ 349,477	$ 3,190,235
2016	3,105,600	331,918	232,470	-	3,669,988	252,835	3,417,153
2017	3,515,624	341,875	232,124	-	4,089,623	255,818	3,833,805
2018	3,658,250	352,131	231,571	-	4,241,952	258,839	3,983,113
2019	3,806,933	362,695	232,540	379,770	4,781,938	261,900	4,520,037
2020	3,961,945	373,576	231,113	379,770	4,946,404	265,003	4,681,400
2021	4,123,574	384,783	230,994	379,770	5,119,121	268,150	4,850,971
2022	4,292,119	396,327	232,512	379,770	5,300,728	271,343	5,029,385
2023	4,467,894	408,217	231,932	379,770	5,487,813	274,583	5,213,230
2024	4,651,228	420,463	223,680	759,540	6,054,911	277,872	5,777,039
	WASTEWATER Revenue Requirement						
2015	3,525,442	454,250	439,671	-	4,419,363	197,129	4,222,234
2016	3,669,965	467,878	439,410	-	4,577,252	99,428	4,477,824
2017	3,820,629	481,914	438,756	-	4,741,299	101,363	4,639,936
2018	3,977,717	496,371	437,709	-	4,911,798	103,346	4,808,451
2019	4,141,523	511,262	439,540	90,815	5,183,140	105,381	5,077,759
2020	4,312,354	526,600	436,843	90,815	5,366,612	107,467	5,259,145
2021	4,490,533	542,398	436,618	90,815	5,560,364	109,606	5,450,758
2022	4,676,398	558,670	439,488	90,815	5,765,371	111,801	5,653,570
2023	4,870,302	575,430	438,392	90,815	5,974,938	114,052	5,860,886
2024	5,072,614	592,693	422,794	181,629	6,269,730	116,362	6,153,368
	TOTAL Revenue Requirement						
2015	6,510,295	776,500	672,280	-	7,959,075	546,606	7,412,469
2016	6,775,565	799,795	671,880	-	8,247,240	352,263	7,894,977
2017	7,336,253	823,789	670,880	-	8,830,922	357,181	8,473,741
2018	7,635,967	848,503	669,280	-	9,153,750	362,186	8,791,564
2019	7,948,455	873,958	672,080	470,585	9,965,077	367,281	9,597,797
2020	8,274,299	900,176	667,956	470,585	10,313,016	372,470	9,940,546
2021	8,614,107	927,182	667,612	470,585	10,679,485	377,756	10,301,729
2022	8,968,517	954,997	672,000	470,585	11,066,098	383,143	10,682,955
2023	9,338,196	983,647	670,324	470,585	11,462,751	388,635	11,074,116
2024	9,723,842	1,013,156	646,474	941,169	12,324,642	394,234	11,930,407
							5.4%

Water System Cost Functionalization and Classification

Once the total water and wastewater system costs have been identified, the next step in the rate development process is to isolate the costs associated with each system function. Some of these expenditures are a function of normal water demand; others are based on peak demands placed on the system. Some costs are associated with serving customers regardless of the volume of water use.

The basic steps used to allocate water system revenue requirements are as follows:

1. Water costs (revenue requirements) are categorized by utility function. This process is known as ***functionalization.***
2. Functionalized costs are classified based on the types of demand served by the utility (referred to here as service characteristics). This process is known as ***classification.***
3. Costs by service characteristic are allocated to customer classes in proportion to the respective class's service demands. This process is known as ***allocation.***

The approaches described in this section follow standard industry practices. The project team allocated operating budget line item expenses individually to system functions based on general guidelines, specific research and input from District staff. Water system costs are allocated to the following functions:

Supply/Transmission – the transportation of raw water to the treatment facility

Treatment – the process by which raw water is converted to potable water

Distribution – the lines that carry water to individual customers' properties

Administration – miscellaneous overhead and other non-operating costs

Customer Billing – the processes involved in billing and providing other services to customers

The allocation of functionalized water system costs to service characteristics follows the base-extra capacity cost allocation method recommended by AWWA. Using this method, costs are defined and segregated into the following categories:

Base costs – capital costs and O&M expenses associated with service to customers under average demand conditions. Base costs tend to vary directly with the total quantity of water used.

Maximum Day/Maximum Hours costs – costs attributable to facilities that are designed to meet peaking requirements, either on a max day or a max hour basis.

Customer Billing costs – costs associated with any aspect of customer service, including billing, accounting, and meter services.

According to AWWA Manual M-1 (p. 12), in the base-extra capacity method, care must be taken in separating costs between those devoted to base capacity and those devoted to extra capacity. All customer service-related costs are allocated 100% to billing. Administration costs are generally not directly-assignable to individual classifications. Therefore, it is standard rate-making practice to allocate these costs on an indirect basis (in which these costs are allocated to service characteristics in the same proportion as the directly allocated costs.)

Table IV-10 summarizes water cost functionalization and **Table IV-11** presents cost classification for the test year.

Table IV-10

LAGUNA MADRE WATER DISTRICT
TEST YEAR WATER COST FUNCTIONALIZATION

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

Function		Revenue Requirement	Percent
Supply/Transmission	$	450,363	14.1%
Treatment		1,250,374	39.2%
Distribution		614,268	19.3%
Administration		613,656	19.2%
Customer		261,575	8.2%
Total	$	3,190,235	85.9%

100%

Table IV-11

LAGUNA MADRE WATER DISTRICT
TEST YEAR COST CLASSIFICATION

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

Function		Revenue Requirement	Percent
Base	$	1,560,292	48.91%
Maximum Day		876,409	27.47%
Maximum Hour		477,832	14.98%
Customer		275,702	8.64%
Total	$	3,190,235	100.0%

Water System Cost Allocation

Allocation of costs by service characteristic to customer classes is based on the proportionate use levels of each characteristic by each class. **Table IV-12** presents the test year allocation of water costs by customer class, while **Table IV-13** presents a ten-year forecast of this same allocation.

Table IV-12

LAGUNA MADRE WATER DISTRICT
TEST YEAR COST CLASSIFICATION

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

Function	Revenue Requirement	Percent
5/8" Meter	$ 1,162,185	36.4%
1" Meter	545,288	17.1%
2" Meter	355,379	11.1%
4" Meter	836,115	26.2%
6" Meter	291,219	9.1%
Total	$ 3,190,235	100.0%

Table IV-13

LAGUNA MADRE WATER DISTRICT
FORECAST WATER COST ALLOCATION

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

Year	5/8" Meter	1" Meter	2" Meter	4" Meter	6" Meter	Total
2015	$ 1,162,185	$ 545,288	$ 355,379	$ 836,115	$ 291,219	$ 3,190,235
2016	1,236,990	579,676	379,890	902,729	317,816	3,417,153
2017	1,379,374	645,632	425,426	1,020,511	362,805	3,833,805
2018	1,424,686	666,070	441,250	1,067,973	383,073	3,983,113
2019	1,607,574	750,729	499,960	1,220,382	441,325	4,520,037
2020	1,655,843	772,424	517,079	1,272,389	463,596	4,681,400
2021	1,706,725	795,310	535,116	1,326,926	486,823	4,850,971
2022	1,760,409	819,472	554,140	1,384,194	511,097	5,029,385
2023	1,815,672	844,338	573,773	1,443,281	536,091	5,213,230
2024	2,002,313	930,206	635,193	1,608,476	600,767	5,777,039

Wastewater System Cost Functionalization and Classification

Conforming to standard ratemaking methodology, the District's wastewater system costs are allocated to the following functions:

Treatment – the costs associated with treating wastewater discharges

Collection – the sewer lines that transport wastewater from individual customers' properties to the wastewater treatment plant

Administration – miscellaneous overhead and other non-operating costs

Customer Billing – the processes involved in billing and providing other services to customers

As was the case for the water system cost allocation process, wastewater utility operating budget line item expenditures are allocated individually to functions. The rate model in Appendix A presents a detailed listing of the cost allocations by line item.

Allocation of wastewater system costs by service characteristic to customer classes is performed in the same manner as described for the water system. The total wastewater system functionalized costs are presented in **Table IV-14**. Allocated costs by customer class for the test year are summarized in **Table IV-15**. The ten-year forecast of wastewater system costs by customer class is presented in **Table IV-16**.

Table IV-14

LAGUNA MADRE WATER DISTRICT
TEST YEAR WASTEWATER COST FUNCTIONALIZATION

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

Function	Revenue Requirement	Percent
Treatment	$ 2,024,208	47.9%
Collection	1,330,681	31.5%
Administration	650,508	15.4%
Customer	216,836	5.1%
Total	**4,222,234**	**100.0%**

Table IV-15

LAGUNA MADRE WATER DISTRICT
TEST YEAR COST ALLOCATION

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

Function	Revenue Requirement	Percent
5/8" Meter	$ 1,974,043	46.8%
1" Meter	657,802	15.6%
2" Meter	240,030	5.7%
4" Meter	1,116,356	26.4%
6" Meter	233,955	5.5%
Total	4,222,234	100.0%

Table IV-16

LAGUNA MADRE WATER DISTRICT
FORECAST WASTEWATER COST ALLOCATION

SCENARIO: 2015 02 27 -- Alternative 1 -- PI Reclamation

Year	5/8" Meter	1" Meter	2" Meter	4" Meter	6" Meter	Total
2015	$ 1,974,043	$ 657,802	$ 240,030	$ 1,116,356	$ 233,955	$ **4,222,234**
2016	2,067,131	688,719	255,402	1,208,007	258,515	**4,477,824**
2017	2,115,629	704,780	265,491	1,275,744	278,240	**4,639,936**
2018	2,166,171	721,525	275,978	1,346,035	298,689	**4,808,451**
2019	2,258,354	752,927	292,399	1,447,683	326,342	**5,077,759**
2020	2,312,360	770,820	303,703	1,523,698	348,507	**5,259,145**
2021	2,369,856	789,903	315,634	1,603,581	371,726	**5,450,758**
2022	2,431,139	810,280	328,252	1,687,728	396,111	**5,653,570**
2023	2,493,428	830,968	341,165	1,774,072	421,191	**5,860,886**
2024	2,588,608	863,237	359,151	1,889,026	453,282	**6,153,368**

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SECTION V

Rate Plan Alternative

Rate design involves determining charges for each class of customers that will generate a desired level of revenue. The water and wastewater rates developed in this section are designed to recover the revenue requirements presented for the test year and generate revenues that approximately equal the operating and capital costs required by the District.

After extensive discussions with the District's staff and Board of Directors, the project team has developed a single rate plan alternative for the District to evaluate in setting rate policy for the next decade. The alternative is as follows:

Alternative 1 – Status Quo – Under this alternative, the District maintains its existing rate structure and gallon allowance. A series of annual adjustments are implemented that are forecast to enable the District to fund all existing and future operating and capital requirements.

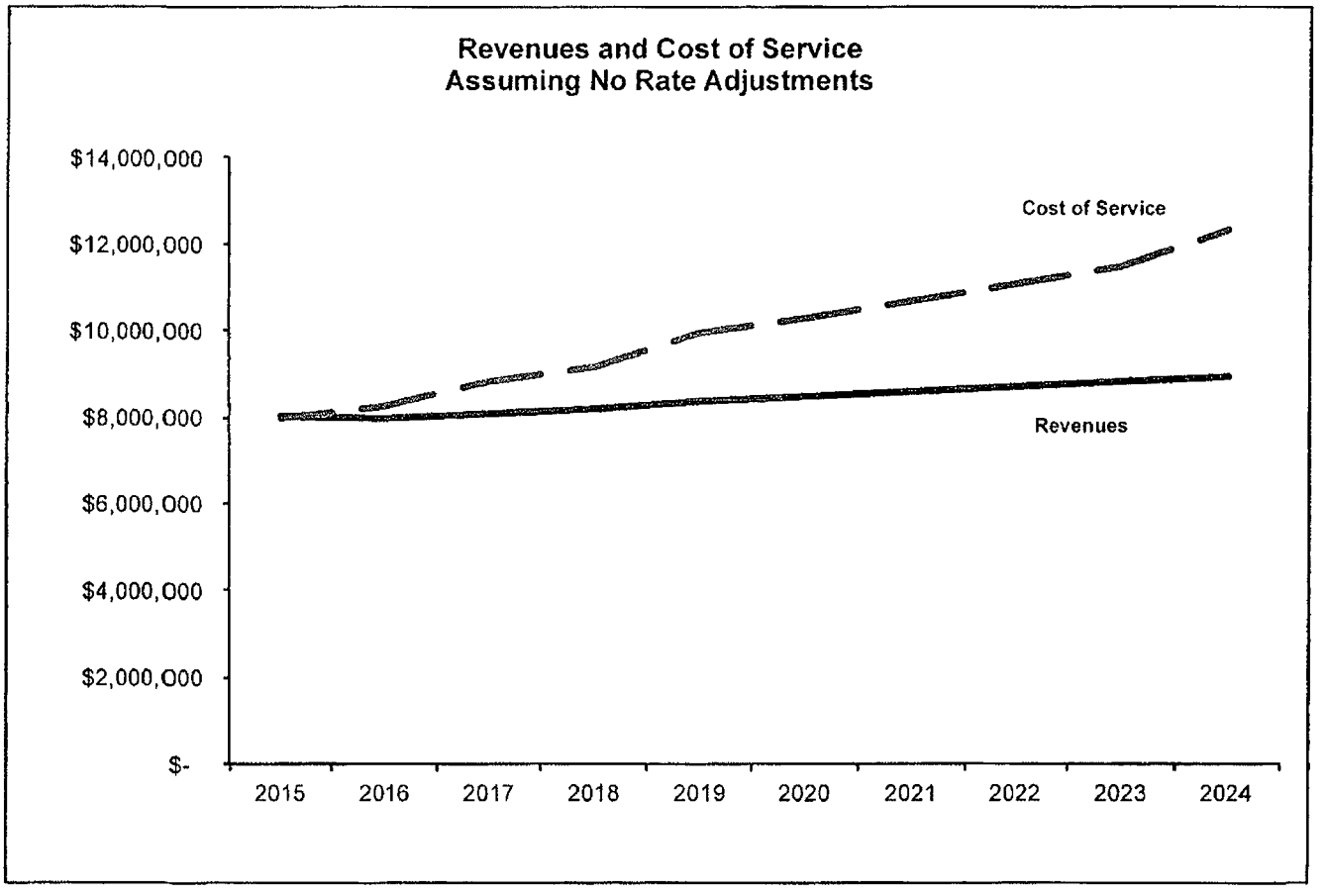
The purpose of these alternatives is to provide District staff and the Board with sufficient information to set the most reasonable and prudent financial course for the District.

Revenues under Existing Rates

As outlined in Section II, The District adopted its current rate structure in December 2014. However, as **Table V-1** illustrates, the District's current rate structure is not sufficient to fund all operating and capital obligations over the ten-year period. It is sufficient for FY 2015; however increases to expenses and the capital needs of the CIP will require further adjustments in future years.

The chart shows that without some form of long-term rate adjustment plan, the cost of service will consistently be greater than revenues. The District's revenues are forecast to increase nominally due to future account growth, but this increase will not be sufficient to fund cost increases.

Chart V-1



Cost of Service Analysis

Table V-2 compares revenues and cost of service for the water and the wastewater utility. The table reveals that in the current year, water revenues are recovering in excess of their cost of service, and wastewater revenues are recovering less than their cost of service. This carries significant implications for the recommended rate plans under both alternatives presented in this study. It means that the recommended rate adjustments will be higher for wastewater than water, with the goal for both water and wastewater rates to recover their respective cost of service within 5 years.

Table V-2

LAGUNA MADRE WATER DISTRICT
NET REVENUE ANALYSIS

	WATER	WASTEWATER	TOTAL
Rate Revenues *	**$ 4,822,866**	**$ 3,413,129**	**$ 8,235,995**
Operating Expenses	2,984,854	3,525,442	6,510,295
Capital Outlays	322,250	454,250	776,500
Debt Service	232,609	439,671	672,280
Total Cost of Service	**3,539,712**	**4,419,363**	**7,959,075**
Net Revenues	**1,283,154**	**(1,006,233)**	**276,920**

* Assumes implementation of recommended rate plan

Alternative 1 – Status Quo

The proposed rate plan assumes that the District chooses to maintain the same rate structure that currently exists. There would be no changes to the gallon allowance or the rate blocks. Under this scenario a series of annual rate adjustments would be made to all customer classes.

The rate plan for the water utility is presented in **Table V-3** and for the wastewater utility is in **Table V-4**. An analysis of the impact of the rate plan on average usage for each meter size is presented in **Table V-5**. **Table V-6** summarizes total revenues under Alternative #1 for each of the next five years. Details behind the calculations are contained in Appendix A.

The following is notable about this rate plan:

- As shown in Table V-4, no change in water rates is recommended for 2015, 2016 or 2017. The first water rate adjustment would be in effect on January 1 2018.
- Wastewater rate adjustments are recommended to take effect on January 1 of each of the next five years.
- The reason for the larger wastewater rate adjustments is to ensure that within five years the wastewater rates fully fund the cost of service, as outlined earlier in this section.
- For a 5/8" customer, the average increase for 10,000 gallons of usage in January 2015 would be between $2 and $3 per month each year for the five-year period.

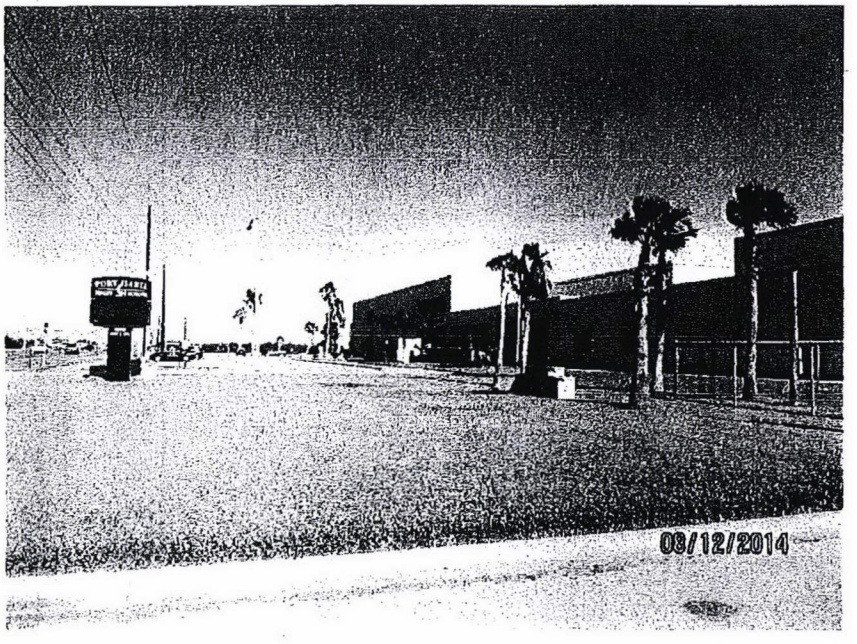


Table V-3

LAGUNA MADRE WATER DISTRICT

Alternative: 2015 02 27 -- Alternative 1 -- PI Reclamation

		Prior	Effective Jan-16	Effective Jan-16	Effective Jan-17	Effective Jan-18	Effective Jan-19
5/8" Meter							
Monthly Charge		$ 11.90	$ 11.90	$ 11.90	$ 11.90	$ 12.26	$ 12.62
Usage Charge -- Per 1,000 Gal							
4,001	10,000	2.40	2.40	2.40	2.40	2.47	2.55
10,001	20,000	3.78	3.78	3.78	3.78	3.89	4.01
20,001	Above	5.39	5.39	5.39	5.39	5.55	5.72
1" Meter							
Monthly Charge		$ 16.48	$ 23.07	$ 23.07	$ 23.07	$ 23.76	$ 24.47
Usage Charge -- Per 1,000 Gal							
6,001	20,000	2.52	2.52	2.52	2.52	2.60	2.67
20,001	40,000	3.78	3.78	3.78	3.78	3.89	4.01
40,001	Above	5.32	5.32	5.32	5.32	5.48	5.64
2" Meter							
Monthly Charge		$ 79.33	$ 111.06	$ 111.06	$ 111.06	$ 114.39	$ 117.82
Usage Charge -- Per 1,000 Gal							
25,001	100,000	2.63	2.63	2.63	2.63	2.71	2.79
100,001	200,000	3.95	3.95	3.95	3.95	4.07	4.19
200,001	Above	5.90	5.90	5.90	5.90	6.08	6.26
3" Meter							
Monthly Charge		$ 299.03	$ 418.64	$ 418.64	$ 418.64	$ 431.20	$ 444.14
Usage Charge -- Per 1,000 Gal							
101,001	500,000	2.76	2.76	2.76	2.76	2.84	2.93
500,001	1,000,000	4.14	4.14	4.14	4.14	4.26	4.39
1,000,001	Above	5.69	5.69	5.69	5.69	5.86	6.04
4" Meter							
Monthly Charge		$ 560.00	$ 784.00	$ 784.00	$ 784.00	$ 807.52	$ 831.75
Usage Charge -- Per 1,000 Gal							
101,001	500,000	2.60	2.60	2.60	2.60	2.68	2.76
500,001	1,000,000	3.90	3.90	3.90	3.90	4.02	4.14
1,000,001	Above	5.25	5.25	5.25	5.25	5.41	5.57

Table V-4

LAGUNA MADRE WATER DISTRICT

Alternative: 2015 02 27 -- Alternative 1 -- PI Reclamation
WASTEWATER RATES -- ALTERNATIVE 1

		Prior	Effective Jan-15	Effective Jan-16	Effective Jan-17	Effective Jan-18	Effective Jan-19
		5/8" Meter					
Monthly Charge		$ 12.35	$ 12.35	$ 12.35	$ 13.46	$ 14.67	$ 15.99
Usage Charge -- Per 1,000 Gal							
4,001	10,000	2.50	2.50	2.50	2.73	2.97	3.24
10,001	20,000	3.88	3.88	3.88	4.23	4.61	5.02
20,001	Above	5.50	5.50	5.50	6.00	6.53	7.12
		1" Meter					
Monthly Charge		$ 15.59	$ 21.83	$ 21.83	$ 23.79	$ 25.94	$ 28.27
Usage Charge -- Per 1,000 Gal							
6,001	20,000	2.73	2.73	2.73	2.98	3.24	3.54
20,001	40,000	4.10	4.10	4.10	4.47	4.87	5.31
40,001	Above	6.12	6.12	6.12	6.67	7.27	7.93
		2" Meter					
Monthly Charge		$ 106.04	$ 148.46	$ 148.46	$ 161.82	$ 176.39	$ 192.26
Usage Charge -- Per 1,000 Gal							
28,001	100,000	2.97	2.97	2.97	3.24	3.53	3.85
100,001	200,000	4.46	4.46	4.46	4.86	5.30	5.78
200,001	Above	6.18	6.18	6.18	6.74	7.34	8.00
		4" Meter					
Monthly Charge		$ 243.26	$ 340.56	$ 340.56	$ 371.21	$ 404.62	$ 441.04
Usage Charge -- Per 1,000 Gal							
101,001	500,000	3.09	3.09	3.09	3.37	3.67	4.00
500,001	1,000,000	4.63	4.63	4.63	5.05	5.50	6.00
1,000,001	Above	6.30	6.30	6.30	6.87	7.49	8.16
		6" Meter					
Monthly Charge		$ 400.00	$ 560.00	$ 560.00	$ 610.40	$ 665.34	$ 725.22
Usage Charge -- Per 1,000 Gal							
101,001	500,000	2.70	2.70	2.70	2.94	3.21	3.50
500,001	1,000,000	4.05	4.05	4.05	4.41	4.81	5.24
1,000,001	Above	5.40	5.40	5.40	5.89	6.42	6.99

Table V-5

LAGUNA MADRE WATER DISTRICT

Alternative: 2015 02 27 -- Alternative 1 -- PI Reclamation

IMPACT ON RATEPAYERS - ALTERNATIVE 1

	MONTHLY Gallons	Prior	Effective Jan-15	Effective Jan-16	Effective Jan-17	Effective Jan-18	Effective Jan-19
5/8" Meter							
Low	5,000	$ 28 53	$ 28.53	$ 28 53	$ 29.81	$ 31 63	$ 33 59
			-	-	1.28	1 82	1 96
Average	10 000	49.90	49.90	49 90	52 02	55.13	58 46
			-	-	2 12	3 10	3.34
High	30,000	211.95	211.95	211 95	220.41	233.16	246 85
			-	-	8 46	12 76	13 69
3/4" Meter							
Average	20,000	96.02	108.85	108 85	113 39	120 09	127 30
			12.83	-	4 54	6 70	7 20
High	40 000	233 12	245.96	245 95	256 02	271.03	287 14
			12.83	-	10.08	15 01	16.11
1" Meter							
Average	50 000	306.81	380.96	380.96	399 33	424.66	451 95
			74.15	-	18 37	25.33	27.29
High	100 000	549 68	623.83	623 83	652.23	692 43	735.70
			74.15	-	28 40	40.20	43.27
1-1/2" Meter							
Average	200 000	1,050.04	1,266.95	1,266 95	1,318.46	1,395.44	1,478 10
			216.91	-	51 51	76.98	82 66
High	400 000	2,065 54	2,282.45	2,282 45	2,375 67	2,514 69	2,663 96
			216.91	-	93.22	139.01	149 28
2" Meter							
Average	300 000	1,885 00	2,269.00	2,269 00	2,355 85	2,489 64	2,633.12
			384.00	-	86 85	133 79	143 48
High	600,000	3,503 75	3,887.75	3,887.75	4,038.39	4,269 00	4,516.39
			384.00	-	150 64	230.61	247.39

Table V-6

LAGUNA MADRE WATER DISTRICT

Alternative: 2015 02 27 -- Alternative 1 ~ PI Reclamation

FORECAST REVENUES - ALTERNATIVE 1

	2015	2016	2017	2018	2019
WATER Revenues					
Rate Revenues	$ 4,698,182	$ 4,878,521	$ 4,945,986	$ 5,113,262	$ 5,336,623
Non-Rate Revenues	349,477	252,835	255,818	258,839	261,900
Total Revenues	5,047,659	5,131,357	5,201,804	5,372,101	5,598,523
WASTEWATER Revenues					
Rate Revenues	3,254,687	3,437,268	3,720,056	4,138,303	4,601,702
Non-Rate Revenues	197,129	99,428	101,363	103,346	105,381
Total Revenues	3,451,816	3,536,696	3,821,419	4,241,650	4,707,083
TOTAL Revenues					
Rate Revenues	7,952,869	8,315,790	8,666,042	9,251,565	9,938,325
Non-Rate Revenues	546,606	352,263	357,181	362,186	367,281
Total Revenues	8,499,475	8,668,053	9,023,223	9,613,751	10,305,606

Raw Water Rate

The District has a limited number of customers who purchase raw water from the water treatment plant reservoirs for irrigation purposes. The cost of providing this water incorporates O&M for the transmission portion of the distribution system as well as replacement costs for the 36" line that transports raw water to the District.

Table V-7 presents the project team's recommendations for a 5-year implementation schedule of raw water rates. It should be noted that the rate is forecast to increase significantly when the Port Isabel Reclamation Facility comes on-line.

Table V-7

LAGUNA MADRE WATER DISTRICT Raw Water Rate Recommendations		
		1,000 Gal
Current	$	0.48
Jan-15		**0.54**
Jan-16		0.55
Jan-17		0.76
Jan-18		0.78
Jan-19		0.79

Wastewater Strength Charges

Many wastewater utilities implement surcharges to industrial and other specific customers who deliver high strength sewage to their wastewater treatment plants. High strength is typically defined as BOD and TSS levels that exceed the design parameters of the plant.

Table V-8 presents the recommendations for BOD and TSS per lb. charges for the District to implement. Details behind the calculations can be found in the rate model contained in Appendix A.

Table V-8

LAGUNA MADRE WATER DISTRICT
Strength Rate Recommendations

	Total Cost per lb.	
	BOD	TSS
Jan-15	$ 0.84	$ 1.08
Jan-16	0.87	1.13
Jan-17	0.89	1.15
Jan-18	0.91	1.17
Jan-19	0.92	1.19

Notes on Rate Recommendations

The forecast and recommendations presented in this study represent a combination of the best information available from the District and the project team's expertise. However, this forecast relies in part on assumptions about future events and events beyond the control of the project team (such as account growth rates within the District). The forecast and recommendations contained in this study may be subject to revision if any of the following events occurs:

- Actual growth in accounts and consumed volumes is less than (or significantly greater than) forecast
- Capital improvement plan funding costs increase significantly due to the rising cost of materials or other factors
- An unforeseen event impacts the District, such as a recession, natural catastrophe or terrorist attack
- Increases or decreases in interest rates, coverage requirements or reserve requirements for long-term debt.
- District budget levels or priorities change significantly from those forecast in this study It should be noted that none of these events are foreseen by the project team or District staff at this time.

Sept 1990

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

10 Year Rate Schedule
Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

Water Rates:

			Prior	Effective Mar-15	Effective Jan-16	Effective Jan-17	Effective Mar-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24
5/8" Meter													
Base Charge		4,000	$ 11.90	$ 11.90	$ 11.90	$ 11.90	$ 12.26	$ 12.62	$ 13.00	$ 13.39	$ 13 80	$ 14.21	$ 14.64
Usage Charge	4,001	10,000	2.40	2.40	2.40	2.40	2.47	2 55	2.62	2.70	2.78	2.87	2.95
Usage Charge	10,001	20,000	3.78	3.78	3.78	3 78	3.89	4.01	4.13	4.25	4.38	4.51	4.65
Usage Charge	20,001	Above	5.39	5.39	5 39	5.39	5.55	5.72	5.89	6.07	6.25	6.44	6.63
1" Meter													
Base Charge		6,000	16.48	23.07	23.07	23.07	23.76	24.47	25.21	25.97	26.74	27.55	28.37
Usage Charge	6,001	20,000	2.52	2.52	2.52	2.52	2.60	2.67	2.75	2.84	2 92	3.01	3.10
Usage Charge	20,001	40,000	3.78	3.78	3.78	3.78	3.89	4.01	4.13	4.25	4.38	4.51	4.65
Usage Charge	40,001	Above	5.32	5.32	5.32	5.32	5.48	5.64	5.81	5.99	6.17	6.35	6.54
2" Meter													
Base Charge		26,000	79.33	111.06	111.06	111 06	114.39	117.82	121.36	125.00	128 75	132.61	136.59
Usage Charge	26,001	100,000	2.63	2.63	2.63	2.63	2.71	2.79	2.87	2.96	3.05	3.14	3.23
Usage Charge	100,001	200,000	3.95	3.95	3.95	3.95	4.07	4.19	4.32	4.45	4.58	4.72	4.86
Usage Charge	200,001	Above	5.90	5.90	5.90	5.90	6 08	6.26	6.45	6.64	6.84	7.04	7.26
4" Meter													
Base Charge		101,000	299.03	418.64	418.64	418.64	431.20	444.14	457.46	471.18	485.32	499.88	514.87
Usage Charge	101,001	500,000	2.76	2.76	2.76	2.76	2.84	2.93	3.02	3.11	3.20	3.30	3.39
Usage Charge	500,001	1,000,000	4.14	4.14	4.14	4.14	4.26	4.39	4.52	4.66	4.80	4.94	5.09
Usage Charge	1,000,001	Above	5.69	5.69	5.69	5.69	5.86	6.04	6.22	6.40	6.60	6.79	7.00
6" Meter													
Base Charge		101,000	560.00	784.00	784.00	784.00	807.52	831.75	856.70	882.40	908.87	936.14	964.22
Usage Charge	101,001	500,000	2.60	2.60	2.60	2.60	2.68	2.76	2.84	2.93	3.01	3.10	3.20
Usage Charge	500,001	1,000,000	3.90	3.90	3.90	3.90	4.02	4.14	4.26	4.39	4.52	4.66	4.80
Usage Charge	1,000,001	Above	5 25	5 25	5.25	5 25	5.41	5.57	5.74	5.91	6 09	6.27	6.46

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

10 Year Rate Schedule
Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

			Proposed	Effective Jan 15	Effective Jan 16	Effective Jan 17	Effective Jan 18	Effective Jan 19	Effective Jan 20	Effective Jan 21	Effective Jan 22	Effective Jan 23	Effective Jan 24
8" Meter													
Base Charge		101,000	560.00	840.00	840.00	840.00	865.20	891.16	917.89	945 43	973.79	1,003.00	1,033.09
Usage Charge	101,001	500,000	2.60	2.60	2.84	2.84	2.93	3 01	3.10	3.20	3.29	3.39	3.49
Usage Charge	500,001	1,000,000	3.90	3.90	4.20	4.20	4 33	4.46	4.59	4.73	4.87	5.02	5.17
Usage Charge	1,000,001	Above	5.25	5.25	5.69	5.69	5.86	6.04	6.22	6.40	6.60	6.79	7.00
Other													
Base Charge		101,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

10 Year Rate Schedule
Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

Wastewater Rates

		Prior	Effective Jan 16	Effective Jan 17	Effective Jan 18	Effective Jan 19	Effective Jan 20	Effective Jan 21	Effective Jan 22	Effective Jan 23	Effective Jan 24
5/8" Meter											
Base Charge		4,000	12.35	12.35	13.46	14.67	15.99	16.47	16.97	17.48	18.00	18.54
Usage Charge	4,001	10,000	2.50	2.50	2.73	2.97	3.24	3.33	3.43	3.54	3.64	3.75
Usage Charge	10,001	20,000	3.88	3.88	4.23	4.61	5.02	5.18	5.33	5.49	5.66	5.83
Usage Charge	20,001	Above	5.50	5.50	6.00	6.53	7.12	7.34	7.56	7.78	8.02	8.26
1" Meter											
Base Charge		6,000	15.59	21.83	23.79	25.94	28.27	29.12	29.99	30.89	31.82	32.77
Usage Charge	6,001	20,000	2.73	2.73	2.98	3.24	3.54	3.64	3.75	3.86	3.98	4.10
Usage Charge	20,001	40,000	4.10	4.10	4.47	4.87	5.31	5.47	5.63	5.80	5.98	6.16
Usage Charge	40,001	Above	6.12	6.12	6.67	7.27	7.93	8.16	8.41	8.66	8.92	9.19
2" Meter											
Base Charge		26,000	106.04	148.46	148.46	161.82	176.39	192.26	198.03	203.97	210.09	216.39	222.88
Usage Charge	26,001	100,000	2.97	2.97	2.97	3.24	3.53	3.85	3.96	4.08	4.20	4.33	4.46
Usage Charge	100,001	200,000	4.46	4.46	4.46	4.86	5.30	5.78	5.95	6.13	6.31	6.50	6.70
Usage Charge	200,001	Above	6.18	6.18	6.18	6.74	7.34	8.00	8.24	8.49	8.75	9.01	9.28
4" Meter											
Base Charge		101,000	243.26	340.56	340.56	371.21	404.62	441.04	454.27	467.89	481.93	496.39	511.28
Usage Charge	101,001	500,000	3.09	3.09	3.09	3.37	3.67	4.00	4.12	4.25	4.37	4.50	4.64
Usage Charge	500,001	1,000,000	4.63	4.63	4.63	5.05	5.50	6.00	6.18	6.36	6.55	6.75	6.95
Usage Charge	1,000,001	Above	6.30	6.30	6.30	6.87	7.49	8.16	8.40	8.66	8.92	9.18	9.46
6" Meter											
Base Charge		101,000	400.00	560.00	560.00	610.40	665.34	725.22	746.97	769.38	792.46	816.24	840.72
Usage Charge	101,001	500,000	2.70	2.70	2.70	2.94	3.21	3.50	3.60	3.71	3.82	3.94	4.05
Usage Charge	500,001	1,000,000	4.05	4.05	4.05	4.41	4.81	5.24	5.40	5.56	5.73	5.90	6.08
Usage Charge	1,000,001	Above	5.40	5.40	5.40	5.89	6.42	6.99	7.20	7.42	7.64	7.87	8.11

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

10 Year Rate Schedule
Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

			Prior	Effective Jan-15	Effective Jan-16	Effective Jan-17	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24
8" Meter													
Base Charge		101,000	-	896 00	896 00	976.64	1,064.54	1,160.35	1,195.16	1,231.01	1,267.94	1,305.98	1,345.16
Usage Charge	101,001	500,000	-	2.93	2.93	3 19	3.48	3.79	3.91	4.03	4.15	4.27	4.40
Usage Charge	500,001	1,000,000	-	4.42	4.42	4.82	5.25	5.72	5.90	6.07	6.25	6.44	6.64
Usage Charge	1,000,001	Above	-	5.89	5.89	6 42	7 00	7 63	7.86	8.09	8.34	8.59	8.84
Other													
Base Charge		101,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Usage Charge	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
BOD/TSS Rate per Lb.													
BOD Rate per Lb.				0.84	0.87	0.89	0.91	0.92	0.94	0.96	0.98	1.00	1.01
TSS Rate per Lb.				1.08	1.13	1.15	1 17	1.19	1.21	1.23	1.26	1.29	1.31

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Model Summary
Scenario: *2015 02 27 – Alternative 1 – PI Reclamation*

1 **Water and Wastewater Rates**

Water Rates – 5/8"

			Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Base Chg		4,000	$ 11.90	$ 11.90	$ 11.90	$ 11.90	$ 12.26	$ 12.62	$ 13.00	$ 13.39	$ 13.80	$ 14.21	$ 14.64
Usage Chg	4,001	10,000	2.40	2.40	2.40	2.40	2.47	2.55	2.62	2.70	2.78	2.87	2.95
Usage Chg	10,001	20,000	3.78	3.78	3.78	3.78	3.89	4.01	4.13	4.25	4.38	4.51	4.65
Usage Chg	20,001	Above	5.39	5.39	5.39	5.39	5.55	5.72	5.89	6.07	6.25	6.44	6.63

Wastewater Rates – Residential

Base Chg		4,000	$ 12.35	$ 12.35	$ 12.35	$ 12.35	$ 13.46	$ 14.67	$ 15.99	$ 16.47	$ 16.97	$ 17.48	$ 18.00	$ 18.54
Usage Chg	4,001	10,000	2.50	2.50	2.50	2.50	2.73	2.97	3.24	3.33	3.43	3.54	3.64	3.75
Usage Chg	10,001	20,000	3.88	3.88	3.88	3.88	4.23	4.61	5.02	5.18	5.33	5.49	5.66	5.83
Usage Chg	20,001	Above	5.50	5.50	5.50	5.50	6.00	6.53	7.12	7.34	7.56	7.78	8.02	8.26

2 **Residential Monthly Bill – 5/8" Meter**

			Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
5,000 Gal	Total		$ 28.53	$ 28.53	$ 28.53	$ 29.81	$ 31.63	$ 33.59	$ 34.60	$ 35.64	$ 36.71	$ 37.81	$ 38.94
	Increase			-	-	1.28	1.82	1.96	1.01	1.04	1.07	1.10	1.13
	Percent Inc			0.0%	0.0%	4.5%	6.1%	6.2%	3.0%	3.0%	3.0%	3.0%	3.0%
10,000 Gal	Total		49.90	49.90	49.90	52.02	55.13	58.46	60.22	62.02	63.89	65.80	67.78
	Increase			-	-	2.12	3.10	3.34	1.75	1.81	1.86	1.92	1.97
	Percent Inc			0.0%	0.0%	4.3%	6.0%	6.1%	3.0%	3.0%	3.0%	3.0%	3.0%
20,000 Gal	Total		116.80	116.80	116.80	121.54	128.64	136.25	140.34	144.55	148.89	153.35	157.95
	Increase			-	-	4.74	7.09	7.62	4.09	4.21	4.34	4.47	4.60
	Percent Inc			-	0.0%	4.1%	5.8%	5.9%	3.0%	3.0%	3.0%	3.0%	3.0%
30,000 Gal	Total		211.95	211.95	211.95	220.41	233.16	246.85	254.26	261.89	269.74	277.84	286.17
	Increase			-	-	8.46	12.76	13.69	7.41	7.63	7.86	8.09	8.34
	Percent Inc			0.0%	0.0%	4.0%	5.8%	5.9%	3.0%	3.0%	3.0%	3.0%	3.0%

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Model Summary

Scenario: ***2015 02 27 – Alternative 1 – PI Reclamation***

		Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
3	**TOTAL Revenues and Expenses**											
	Water Rate Revenues	$ 4,698,182	$ 4,878,521	$ 4,945,986	$ 5,113,262	$ 5,336,623	$ 5,568,352	$ 5,808,762	$ 6,058,175	$ 6,316,923	$ 6,585,350	
	WW Rate Revenues	3,254,687	3,437,268	3,720,056	4,138,303	4,601,702	4,921,974	5,167,892	5,424,135	5,691,101	5,969,203	
	Non-Rate Revenues	546,606	352,263	357,181	362,186	367,281	372,470	377,756	383,143	388,635	394,234	
	Total Revenues	8,499,475	8,668,053	9,023,223	9,613,751	10,305,606	10,862,797	11,354,411	11,865,453	12,396,659	12,948,787	
	Operating Expenses	6,510,295	6,775,565	7,336,253	7,635,967	7,948,455	8,274,299	8,614,107	8,968,517	9,338,196	9,723,842	
	Net Revenues after Operating Expenses	1,989,180	1,892,488	1,686,970	1,977,783	2,357,151	2,588,498	2,740,304	2,896,937	3,058,463	3,224,945	
	Capital Outlays	776,500	799,795	823,789	848,503	873,958	900,176	927,182	954,997	983,647	1,013,156	
	Debt Service – Current	672,280	671,880	670,880	669,280	672,080	667,956	667,612	672,000	670,324	646,474	
	Debt Service – Future	-	-	-	-	470,585	470,585	470,585	470,585	470,585	941,169	
	Total	1,448,780	1,471,675	1,494,669	1,517,783	2,016,622	2,038,717	2,065,378	2,097,582	2,124,556	2,600,800	
	Total Cost of Service	7,959,075	8,247,240	8,830,922	9,153,750	9,965,077	10,313,016	10,679,485	11,066,098	11,462,751	12,324,642	
	Net Revenues for Contingency	**540,400**	**420,813**	**192,301**	**460,001**	**340,528**	**549,781**	**674,926**	**799,355**	**933,908**	**624,146**	
	Percent of COS	6.4%	4.9%	2.1%	4.8%	3.3%	5.1%	5.9%	6.7%	7.5%	4.8%	
	Net Revenues – Draft Report	276,920	212,834	90,948	365,457	250,721	453,531	565,928	676,930	797,349	472,715	
	Debt Coverage	2.96	2.82	2.51	2.96	2.06	2.27	2.41	2.54	2.68	2.03	
4	**Capital Project Fund Balance**											
	Beginning Balance	$ 9,382,431	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	
	Sources of Funds											
	Interest	187,649	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	
	Long-Term Debt – Tax Bonds	-	19,500,000	-	-	-	12,500,000	-	-	-	-	
	Long-Term Debt – Revenue Bonds	-	-	-	5,700,000	-	-	-	-	5,700,000	-	
	Capacity Fees	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	
	Total Sources	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	
	Less Uses of Funds:											
	Capital Improvement Plan	2,264,840	4,465,800	8,532,200	3,765,800	16,769,000	3,525,000	3,525,000	3,525,000	3,525,000	3,525,000	
	Total Uses of Funds	2,264,840	4,465,800	8,532,200	3,765,800	16,769,000	3,525,000	3,525,000	3,525,000	3,525,000	3,525,000	
	Ending Balance	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Model Summary
Scenario: 2015 02 27 – Alternative 1 – PI Reclamation

	Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
5	Total Accounts										
	Water Accounts										
	Total Accounts	6,138	6,178	6,218	6,258	6,298	6,338	6,378	6,418	6,458	6,498
	New Accounts	-	40	40	40	40	40	40	40	40	40
	Avg Annual Growth Rate		0 65%	0 65%	0.64%	0.64%	0 64%	0.63%	0.63%	0.62%	0.62%
	Wastewater Accounts										
	Total Accounts	5,408	5,448	5,488	5,528	5,568	5,608	5,648	5,688	5,728	5,768
	New Accounts	-	40	40	40	40	40	40	40	40	40
	Avg. Annual Growth Rate		0.74%	0 73%	0 73%	0 72%	0.72%	0 71%	0 71%	0.70%	0 70%
6	Net Volumes after Minimums										
	Water Volume										
	5/8" Meter	333,844,205	334,743,182	335,639,751	336,533,932	337,425,744	338,315,204	339,202,332	340,087,146	340,969,664	341,849,904
	1" Meter	157,070,181	157,430,434	157,789,864	158,148,477	158,506,279	158,863,275	159,219,471	159,574,872	159,929,482	160,283,309
	2" Meter	80,318,106	81,003,414	81,682,973	82,356,925	83,025,406	83,688,548	84,346,477	84,999,314	85,647,174	86,290,171
	4" Meter	198,944,438	202,721,864	206,430,190	210,073,076	213,653,867	217,175,634	220,641,203	224,053,180	227,413,978	230,725,832
	6" Meter	53,958,400	55,593,503	57,181,889	58,727,345	60,233,175	61,702,276	63,137,213	64,540,262	65,913,459	67,258,632
	8" Meter	100	100	100	100	100	100	100	100	100	100
	Other	-	-	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-	-	-
	Total System	824,135,429	831,492,496	838,724,767	845,839,855	852,844,571	859,745,038	866,546,796	873,254,874	879,873,858	886,407,948
	Wastewater Billing Units										
	5/8" Meter	218,846,028	220,126,429	221,406,829	222,687,230	223,967,630	225,248,030	226,528,431	227,808,831	229,089,231	230,369,632
	1" Meter	76,531,277	77,004,862	77,478,447	77,952,031	78,425,616	78,899,200	79,372,785	79,846,370	80,319,954	80,793,539
	2" Meter	28,364,251	29,008,893	29,653,535	30,298,177	30,942,819	31,587,461	32,232,103	32,876,745	33,521,387	34,166,029
	4" Meter	137,477,232	143,050,633	148,624,034	154,197,435	159,770,837	165,344,238	170,917,639	176,491,040	182,064,442	187,637,843
	6" Meter	28,714,603	30,509,265	32,303,928	34,098,590	35,893,253	37,687,916	39,482,578	41,277,241	43,071,904	44,866,566
	8" Meter	75	75	75	75	75	75	75	75	75	75
	Other	-	-	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-	-	-
	Total System	489,933,466	499,700,157	509,466,848	519,233,539	529,000,230	538,766,921	548,533,612	558,300,303	568,066,994	577,833,685

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

WATER Model Summary

Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

1 **WATER Revenues and Expenses**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
REVENUES										
Water Rate Revenues										
5/8" Meter	$ 1,848,025	$ 1,854,786	$ 1,861,539	$ 1,905,649	$ 1,969,895	$ 2,036,272	$ 2,104,849	$ 2,175,699	$ 2,248,896	$ 2,324,517
1" Meter	835,963	867,370	870,043	890,167	919,673	950,146	981,616	1,014,116	1,047,679	1,082,339
2" Meter	609,474	655,511	664,342	686,618	716,458	747,451	779,640	813,070	847,785	883,832
4" Meter	896,333	936,340	960,299	1,003,693	1,058,473	1,115,396	1,174,547	1,236,013	1,299,882	1,366,248
6" Meter	499,428	554,434	579,683	616,853	661,534	708,179	756 874	807,705	860,761	916,136
8" Meter	8,961	10,081	10,081	10,282	10,591	10,908	11,236	11,573	11,920	12,277
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Total Rate Revenue	4,698,182	4,878,521	4,945,986	5,113,262	5,336,623	5,568,352	5,808,762	6,058,175	6,316,923	6,585,350
Water Non-Rate Revenues	349,477	252,835	255,818	258,839	261,900	265,003	268,150	271,343	274,583	277,872
Total Revenues	**5,047,659**	**5,131,357**	**5,201,804**	**5,372,101**	**5,598,523**	**5,833,356**	**6,076,913**	**6,329,518**	**6,591,506**	**6,863,222**
COST OF SERVICE										
Operating Expenses										
01 -- Water Plant	1,302,431	1,362,000	1,424,354	1,489,631	1,557,975	1,629,538	1,704,479	1,782,964	1,865,170	1,951,279
02 -- Lift Station	-	-	-	-	-	-	-	-	-	-
03 -- Construction/Maintenance	543,862	564,667	587,256	610,804	635,353	660,947	687,634	715,463	744,486	774,755
04 -- Collections	-	-	-	-	-	-	-	-	-	-
05 -- Maintenance	161,985	168,243	174,748	181,508	188,536	195,842	203,439	211,339	219,553	228,097
06 -- Laboratory	-	-	-	-	-	-	-	-	-	-
07 -- Administration	430,961	445,520	460,596	476,206	492,372	509,114	526,456	544,417	563,023	582,299
08 -- Wastewater Plant	-	-	-	-	-	-	-	-	-	-
10 -- Finance	429,879	445,200	461,094	477,584	494,695	512,451	530,878	550,003	569,854	590,461
11 -- Electrical	115,737	119,970	124,367	128,935	133,680	138,610	143,733	149,057	154,589	160,340
Water Source Alternatives	-	-	283,209	293,582	304,322	315,442	326,956	338,877	351,218	363,996
Total Operating Expenses	**2,984,854**	**3,105,600**	**3,515,624**	**3,658,250**	**3,806,933**	**3,961,945**	**4,123,574**	**4,292,119**	**4,467,894**	**4,651,228**
Net Revenues Available for Debt Service and Capital Outlays	**2,062,806**	**2,025,757**	**1,686,180**	**1,713,851**	**1,791,590**	**1,871,411**	**1,953,339**	**2,037,399**	**2,123,612**	**2,211,994**
Debt Service										
Debt Service -- Current	232,609	232,470	232,124	231,571	232,540	231,113	230,994	232,512	231,932	223,680
Debt Service -- Future	-	-	-	-	379,770	379,770	379,770	379,770	379,770	759,540
Total Debt Service	**232,609**	**232,470**	**232,124**	**231,571**	**612,310**	**610,883**	**610,764**	**612,282**	**611,702**	**983,220**
Net Revenues Available for Capital Outlays	**1,830,197**	**1,793,286**	**1,454,056**	**1,482,280**	**1,179,281**	**1,260,528**	**1,342,575**	**1,425,117**	**1,511,910**	**1,228,774**

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

WATER Model Summary

Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Capital Outlays										
Total Capital Outlays	322,250	331,918	341,875	352,131	362,695	373,576	384,783	396,327	408,217	420,463
Total Cost of Service	3,539,712	3,669,988	4,089,623	4,241,952	4,781,938	4,946,404	5,119,121	5,300,728	5,487,813	6,054,911
Net Revenues for Contingency	1,507,947	1,461,369	1,112,181	1,130,149	816,585	886,952	957,792	1,028,790	1,103,693	808,310
	29.9%	28.5%	21.4%	21.0%	14.6%	15.2%	15.8%	16.3%	16.7%	11.8%
Net Revenues -- Draft Report	1,283,154	1,113,633	753,900	753,945	418,016	465,014	511,441	556,942	605,220	282,039
Beginning of Year Fund Balance	2,686,734	4,194,681	5,656,049	6,768,230	7,898,379	8,714,964	9,601,916	10,559,708	11,588,498	12,692,191
End of Year Fund Balance	4,194,681	5,656,049	6,768,230	7,898,379	8,714,964	9,601,916	10,559,708	11,588,498	12,692,191	13,500,501
Financial Ratios										
One Day Op Expenditure (incl debt svc)	$ 8,815	$ 9,145	$ 10,268	$ 10,657	$ 12,108	$ 12,528	$ 12,971	$ 13,437	$ 13,917	$ 15,437
Days of Operating Expenditures	476	618	659	741	720	766	814	862	912	875
Debt Coverage	8.87	8.71	7.26	7.40	2.93	3.06	3.20	3.33	3.47	-
Rec.Annual Rate Adjustment										
5/8" Meter	0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

WASTEWATER Model Summary

Scenario: 2015 02 27 – Alternative 1 – PI Reclamation

1 WASTEWATER Revenues and Expenses

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
REVENUES										
WW Rate Revenues										
5/8" Meter	$ 1,318,903	$ 1,326,620	$ 1,414,396	$ 1,550,608	$ 1,699,880	$ 1,793,143	$ 1,857,436	$ 1,923,973	$ 1,992,830	$ 2,064,087
1" Meter	444,853	467,898	499,022	547,259	600,136	633,265	656,178	679,896	704,446	729,858
2" Meter	449,738	498,138	539,760	601,128	669,171	716,494	753,050	791,154	830,867	872,251
4" Meter	752,243	812,708	895,035	1,012,172	1,143,145	1,240,834	1,321,139	1,405,147	1,493,005	1,584,871
6" Meter	281,781	321,152	360,446	414,713	475,828	524,035	565,459	608,897	654,431	702,150
8" Meter	7,168	10,752	11,398	12,423	13,541	14,203	14,629	15,068	15,520	15,986
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Total WW Rate Revenues	3,254,687	3,437,268	3,720,056	4,138,303	4,601,702	4,921,974	5,167,892	5,424,135	5,691,101	5,969,203
WW Non-Rate Revenues	197,129	99,428	101,363	103,346	105,381	107,467	109,606	111,801	114,052	116,362
Total Revenues	**3,451,816**	**3,536,696**	**3,821,419**	**4,241,650**	**4,707,083**	**5,029,441**	**5,277,498**	**5,535,935**	**5,805,153**	**6,085,565**
COST OF SERVICE										
Operating Expenses										
01 – Water Plant	-	-	-	-	-	-	-	-	-	-
02 – Lift Station	435,595	453,496	472,156	491,611	511,897	533,052	555,116	578,131	602,140	627,189
03 – Construction/Maintenance	-	-	-	-	-	-	-	-	-	-
04 – Collections	405,818	421,988	438,823	456,353	474,610	493,625	513,432	534,066	555,565	577,966
05 – Maintenance	161,985	168,243	174,748	181,508	188,536	195,842	203,439	211,339	219,553	228,097
06 – Laboratory	224,920	233,256	241,916	250,914	260,265	269,982	280,082	290,581	301,494	312,841
07 – Administration	430,961	445,520	460,596	476,206	492,372	509,114	526,455	544,417	563,023	582,299
08 – Wastewater Plant	1,320,548	1,382,292	1,446,930	1,514,605	1,585,467	1,659,677	1,737,398	1,818,806	1,904,082	1,993,419
10 – Finance	429,879	445,200	461,094	477,584	494,695	512,451	530,878	550,003	569,854	590,461
11 – Electrical	115,737	119,970	124,367	128,935	133,680	138,610	143,733	149,057	154,589	160,340
Water Source Alternatives	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	**3,525,442**	**3,669,965**	**3,820,629**	**3,977,717**	**4,141,523**	**4,312,354**	**4,490,533**	**4,676,398**	**4,870,302**	**5,072,614**
Net Revenues Available for Debt Service and Capital Outlays	**(73,626)**	**(133,269)**	**790**	**263,933**	**565,560**	**717,087**	**786,965**	**859,538**	**934,851**	**1,012,952**
Debt Service										
Debt Service – Current	439,671	439,410	438,756	437,709	439,540	436,843	436,618	439,488	438,392	422,794
Debt Service – Future	-	-	-	-	90,815	90,815	90,815	90,815	90,815	181,629
Total Debt Service	**439,671**	**439,410**	**438,756**	**437,709**	**530,355**	**527,658**	**527,433**	**530,303**	**529,206**	**604,423**
Net Revenues Available for Capital Outlays	**(513,297)**	**(572,678)**	**(437,966)**	**(173,777)**	**35,205**	**189,429**	**259,532**	**329,235**	**405,645**	**408,528**

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

WASTEWATER Model Summary

Scenario: ***2015 02 27 -- Alternative 1 -- PI Reclamation***

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Capital Outlays										
Total Capital Outlays	454,250	467,878	481,914	496,371	511,262	526,600	542,398	558,670	575,430	592,693
Total Cost of Service	4,419,363	4,577,252	4,741,299	4,911,798	5,183,140	5,366,612	5,560,364	5,765,371	5,974,938	6,269,730
Net Revenues for Contingency	(967,547)	(1,040,556)	(919,880)	(670,148)	(476,057)	(337,171)	(282,866)	(229,435)	(169,785)	(184,165)
	-28.0%	-29.4%	-24.1%	-15.8%	-10.1%	-6.7%	-5.4%	-4.1%	-2.9%	-3.0%
Net Revenues -- Draft Report	(1,006,233)	(900,799)	(662,952)	(388,488)	(167,295)	(11,483)	54,486	119,988	192,129	190,676
Beginning of Year Fund Balance	2,686,734	1,719,187	678,631	(241,248)	(911,396)	(1,387,453)	(1,724,624)	(2,007,490)	(2,236,925)	(2,406,711)
End of Year Fund Balance	1,719,187	678,631	(241,248)	(911,396)	(1,387,453)	(1,724,624)	(2,007,490)	(2,236,925)	(2,406,711)	(2,590,875)
Financial Ratios										
One Day Op Expenditure (incl debt svc)	$ 10,863	$ 11,259	$ 11,670	$ 12,097	$ 12,800	$ 13,260	$ 13,748	$ 14,265	$ 14,793	$ 15,554
Days of Operating Expenditures	158	60	(21)	(75)	(108)	(130)	(146)	(157)	(163)	(167)
Debt Coverage	(0.17)	(0.30)	0.00	0.60	1.07	1.36	1.49	1.62	1.77	1.68
Rec. Annual Rate Adjustment										
5/8" Meter	0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Forecast Summary
Scenario: *2015 02 27 -- Alternative 1 -- PI Reclamation*

1 WATER Revenues and Expenses:

	Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenues											
Water Rate Revenues	$ 4,698,182	$ 4,878,521	$ 4,945,986	$ 5,113,262	$ 5,336,623	$ 5,568,352	$ 5,808,762	$ 6,058,175	$ 6,316,923	$ 6,585,350	
Water Non-Rate Revenues	349,477	252,835	255,818	258,839	261,900	265,003	268,150	271,343	274,583	277,872	
Total Revenues	5,047,659	5,131,357	5,201,804	5,372,101	5,598,523	5,833,356	6,076,913	6,329,518	6,591,506	6,863,222	
Operating Expenses											
01 -- Water Plant	1,302,431	1,362,000	1 424,354	1,489,631	1,557,975	1,629,538	1,704,479	1,782,964	1,865,170	1,951,279	
02 -- Lift Station	-	-	-	-	-	-	-	-	-	-	
03 -- Construction/Maintenance	543,862	564,667	587,256	610,804	635,353	660,947	687,634	715,463	744,486	774,755	
04 -- Collections	-	-	-	-	-	-	-	-	-	-	
05 -- Maintenance	161,985	168,243	174,748	181,508	188,535	195,842	203,439	211,339	219,553	228,097	
06 -- Laboratory	-	-	-	-	-	-	-	-	-	-	
07 -- Administration	430,961	445,520	460,596	476,206	492,372	509,114	526,455	544,417	563,023	582,299	
08 -- Wastewater Plant	-	-	-	-	-	-	-	-	-	-	
10 -- Finance	429,879	445,200	461,094	477,584	494,695	512,451	530,878	550,003	569,854	590,461	
11 -- Electrical	115,737	119,970	124,367	128,935	133,680	138,610	143,733	149,057	154,589	160,340	
Water Source Alternatives	-	-	283,209	293,582	304,322	315,442	326,956	338,877	351,218	363,996	
Total	2,984,854	3,105,600	3,515,624	3,658,250	3,806,933	3,961,945	4,123,574	4,292,119	4,467,894	4,651,228	
Revenues Less Operating Expenses	2,062,806	2,025,757	1,686,180	1,713,851	1,791,590	1,871,411	1,953,339	2,037,399	2,123,612	2,211,994	
Capital Expenses											
Capital Outlays	322,250	331,918	341,875	352,131	362,695	373,576	384,783	396,327	408,217	420,463	
Debt Service -- Current	232,609	232,470	232,124	231,571	232,540	231,113	230,994	232,512	231,932	223,680	
Debt Service -- Future	-	-	-	-	379,770	379,770	379,770	379,770	379,770	759,540	
Total	554,859	564,388	574,000	583,702	975,005	984,459	995,547	1,008,609	1,019,919	1,403,683	
Total Cost of Service	3,539,712	3,669,988	4,089,623	4,241,952	4,781,938	4,946,404	5,119,121	5,300,728	5,487,813	6,054,911	
Net Revenues for Contingency	1,507,947	1,461,369	1,112,181	1,130,149	816,585	886,952	957,792	1,028,790	1,103,693	808,310	
	29.9%	28 5%	21 4%	21.0%	14.6%	15.2%	15.8%	16.3%	16.7%	11 8%	
Debt Coverage	8 87	8.71	7 26	7 40	2.93	3 06	3.20	3 33	3.47	2.25	

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Forecast Summary
Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

2 WASTEWATER Revenues and Expenses

	Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenues											
WW Rate Revenues	$ 3,254,687	$ 3,437,268	$ 3,720,056	$ 4,138,303	$ 4,601,702	$ 4,921,974	$ 5,167,892	$ 5,424,135	$ 5,691,101	$ 5,969,203	
WW Non-Rate Revenues	197,129	99,428	101,363	103,346	105,381	107,467	109,606	111,801	114,052	116,362	
Total Revenues	3,451,816	3,536,696	3,821,419	4,241,650	4,707,083	5,029,441	5,277,498	5,535,935	5,805,153	6,085,565	
Operating Expenses											
01 -- Water Plant	-	-	-	-	-	-	-	-	-	-	
02 -- Lift Station	435,595	453,496	472,156	491,611	511,897	533,052	555,116	578,131	602,140	627,189	
03 -- Construction/Maintenance	-	-	-	-	-	-	-	-	-	-	
04 -- Collections	405,818	421,988	438,823	456,353	474,610	493,625	513,432	534,066	555,565	577,966	
05 -- Maintenance	161,985	168,243	174,748	181,508	188,536	195,842	203,439	211,339	219,553	228,097	
06 -- Laboratory	224,920	233,256	241,916	250,914	260,265	269,982	280,082	290,581	301,494	312,841	
07 -- Administration	430,961	445,520	460,596	476,206	492,372	509,114	526,455	544,417	563,023	582,299	
08 -- Wastewater Plant	1,320,548	1,382,292	1,446,930	1,514,605	1,585,467	1,659,677	1,737,398	1,818,806	1,904,082	1,993,419	
10 -- Finance	429,879	445,200	461,094	477,584	494,695	512,451	530,878	550,003	569,854	590,461	
11 -- Electrical	115,737	119,970	124,367	128,935	133,680	138,610	143,733	149,057	154,589	160,340	
Water Source Alternatives	-	-	-	-	-	-	-	-	-	-	
Total	3,525,442	3,669,965	3,820,629	3,977,717	4,141,523	4,312,354	4,490,533	4,676,398	4,870,302	5,072,614	
Revenues Less Operating Expenses	(73,626)	(133,269)	790	263,933	565,560	717,087	786,965	859,538	934,851	1,012,952	
Capital Expenses											
Capital Outlays	454,250	467,878	481,914	496,371	511,262	526,600	542,398	558,670	575,430	592,693	
Debt Service -- Current	439,671	439,410	438,756	437,709	439,540	436,843	436,618	439,488	438,392	422,794	
Debt Service -- Future	-	-	-	-	90,815	90,815	90,815	90,815	90,815	181,629	
Total	893,921	907,287	920,669	934,080	1,041,617	1,054,258	1,069,831	1,088,973	1,104,637	1,197,116	
Total Cost of Service	4,419,363	4,577,252	4,741,299	4,911,798	5,183,140	5,366,612	5,560,364	5,765,371	5,974,938	6,269,730	
Net Revenues for Contingency	(967,547)	(1,040,556)	(919,880)	(670,148)	(476,057)	(337,171)	(282,866)	(229,435)	(169,785)	(184,165)	
	-28.0%	-29.4%	-24.1%	-15.8%	-10 1%	-6.7%	-5.4%	-4 1%	-2.9%	-3 0%	
Debt Coverage	(0 17)	(0.30)	0 00	0.60	1.07	1.36	1.49	1.62	1 77	1.68	

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LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Forecast Summary

Scenario: ***2015 02 27 -- Alternative 1 -- PI Reclamation***

3 TOTAL Revenues and Expenses

	Current	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenues										
Water Rate Revenues	$ 4,698,182	$ 4,878,521	$ 4,945,986	$ 5,113,262	$ 5,336,623	$ 5,568,352	$ 5,808,762	$ 6,058,175	$ 6,316,923	$ 6,585,350
Wastewater Rate Revenues	3,254,687	3,437,268	3,720,056	4,138,303	4,601,702	4,921,974	5,167,892	5,424,135	5,691,101	5,969,203
Non-Rate Revenues	546,606	352,263	357,181	362,186	367,281	372,470	377,756	383,143	388,635	394,234
Total Revenues	8,499,475	8,668,053	9,023,223	9,613,751	10,305,606	10,862,797	11,354,411	11,865,453	12,396,659	12,948,787
Operating Expenses										
01 -- Water Plant	1,302,431	1,362,000	1,424,354	1,489,631	1,557,975	1,629,538	1,704,479	1,782,964	1,865,170	1,951,279
02 -- Lift Station	435,595	453,496	472,156	491,611	511,897	533,052	555,116	578,131	602,140	627,189
03 -- Construction/Maintenance	543,862	564,667	587,256	610,804	635,353	660,947	687,634	715,463	744,486	774,755
04 -- Collections	405,818	421,988	438,823	456,353	474,610	493,625	513,432	534,066	555,565	577,966
05 -- Maintenance	323,970	336,487	349,495	363,017	377,072	391,685	406,878	422,677	439,107	456,195
06 -- Laboratory	224,920	233,256	241,916	250,914	260,265	269,982	280,082	290,581	301,494	312,841
07 -- Administration	861,921	891,041	921,192	952,413	984,744	1,018,229	1,052,910	1,088,833	1,126,047	1,164,599
08 -- Wastewater Plant	1,320,548	1,382,292	1,446,930	1,514,605	1,585,467	1,659,677	1,737,398	1,818,806	1,904,082	1,993,419
10 -- Finance	859,757	890,399	922,188	955,169	989,390	1,024,902	1,061,755	1,100,005	1,139,708	1,180,922
11 -- Electrical	231,473	239,940	248,734	257,869	267,360	277,220	287,466	298,113	309,179	320,680
Water Source Alternatives	-	-	283,209	293,582	304,322	315,442	326,956	338,877	351,218	363,996
Total	6,510,295	6,775,565	7,336,253	7,635,967	7,948,455	8,274,299	8,614,107	8,968,517	9,338,196	9,723,842
Revenues Less Operating Expenses	1,989,180	1,892,488	1,686,970	1,977,783	2,357,151	2,588,498	2,740,304	2,896,937	3,058,463	3,224,945
Capital Expenses										
Capital Outlays	776,500	799,795	823,789	848,503	873,958	900,176	927,182	954,997	983,647	1,013,156
Debt Service -- Current	672,280	671,880	670,880	669,280	672,080	667,956	667,612	672,000	670,324	646,474
Debt Service -- Future	-	-	-	-	470,585	470,585	470,585	470,585	470,585	941,169
Total	1,448,780	1,471,675	1,494,669	1,517,783	2,016,622	2,038,717	2,065,378	2,097,582	2,124,556	2,600,800
Total Cost of Service	7,959,075	8,247,240	8,830,922	9,153,750	9,965,077	10,313,016	10,679,485	11,066,098	11,462,751	12,324,642
Net Revenues for Contingency	**540,400**	**420,813**	**192,301**	**460,001**	**340,528**	**549,781**	**674,926**	**799,355**	**933,908**	**624,146**
	6.4%	4.9%	2.1%	4.8%	3.3%	5.1%	5.9%	6.7%	7.5%	4.8%
Debt Coverage	2.96	2.82	2.51	2.96	2.06	2.27	2.41	2.54	2.68	2.03

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Current 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

Input Area -- Rate Recommendations
Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

Water Rates Draft Report

Month of Adjustment (Oct = 1)				4	4	4	4	4	4	4	4	4
Annual Adjustment				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
5/8" Meter				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
1" Meter				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2" Meter				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
4" Meter				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
6" Meter				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
8" Meter				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other				0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
5/8" Meter												
Base Charge		4,000	$ 11.90	$ 11.90	$ 11.90	$ 11.90	$ 12.26	$ 12.62	$ 13.00	$ 13.39	$ 13.80	$ 14.21	$ 14.64
Usage Charge	4,001	10,000	2.40	2.40	2.40	2.40	2.47	2.55	2.62	2.70	2.78	2.87	2.95
	10,001	20,000	3.78	3.78	3.78	3.78	3.89	4.01	4.13	4.25	4.38	4.51	4.65
	20,001	Above	5.39	5.39	5.39	5.39	5.55	5.72	5.89	6.07	6.25	6.44	6.63
1" Meter												
Base Charge		6,000	$ 16.48	$ 23.07	$ 23.07	$ 23.07	$ 23.76	$ 24.47	$ 25.21	$ 25.97	$ 26.74	$ 27.55	$ 28.37
Usage Charge	6,001	20,000	2.52	2.52	2.52	2.52	2.60	2.67	2.75	2.84	2.92	3.01	3.10
	20,001	40,000	3.78	3.78	3.78	3.78	3.89	4.01	4.13	4.25	4.38	4.51	4.65
	40,001	Above	5.32	5.32	5.32	5.32	5.48	5.64	5.81	5.98	6.17	6.35	6.54
2" Meter												
Base Charge		26,000	$ 79.33	$ 111.06	$ 111.06	$ 111.06	$ 114.39	$ 117.82	$ 121.36	$ 125.00	$ 128.75	$ 132.61	$ 136.59
Usage Charge	26,001	100,000	2.63	2.63	2.63	2.63	2.71	2.79	2.87	2.96	3.05	3.14	3.23
	100,001	200,000	3.95	3.95	3.95	3.95	4.07	4.19	4.32	4.45	4.58	4.72	4.86
	200,001	Above	5.90	5.90	5.90	5.90	6.08	6.26	6.45	6.64	6.84	7.04	7.26
4" Meter												
Base Charge		101,000	$ 299.03	$ 418.64	$ 418.64	$ 418.64	$ 431.20	$ 444.14	$ 457.46	$ 471.18	$ 485.32	$ 499.88	$ 514.87
Usage Charge	101,001	500,000	2.76	2.76	2.76	2.76	2.84	2.93	3.02	3.11	3.20	3.30	3.39
	500,001	1,000,000	4.14	4.14	4.14	4.14	4.26	4.39	4.52	4.66	4.80	4.94	5.09
	1,000,001	Above	5.69	5.69	5.69	5.69	5.86	6.04	6.22	6.40	6.60	6.79	7.00
6" Meter												
Base Charge		101,000	$ 560.00	$ 784.00	$ 784.00	$ 784.00	$ 807.52	$ 831.75	$ 856.70	$ 882.40	$ 908.87	$ 936.14	$ 964.22
Usage Charge	101,001	500,000	2.60	2.60	2.60	2.60	2.68	2.76	2.84	2.93	3.01	3.10	3.20
	500,001	1,000,000	3.90	3.90	3.90	3.90	4.02	4.14	4.26	4.39	4.52	4.66	4.80
	1,000,001	Above	5.25	5.25	5.25	5.25	5.41	5.57	5.74	5.91	6.09	6.27	6.46

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area – Rate Recommendations

Scenario: *2015 02 27 – Alternative 1 – PI Reclamation*

			Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
8" Meter													
Base Charge		101,000	$ 560.00	$ 840.00	$ 840.00	$ 840.00	$ 865.20	$ 891.16	$ 917.89	$ 945.43	$ 973.79	$ 1,003.00	$ 1,033.09
Usage Charge	101,001	500,000	2.60	2.60	2.84	2.84	2.93	3.01	3.10	3.20	3.29	3.39	3.49
	500,001	1,000,000	3.90	3.90	4.20	4.20	4.33	4.46	4.59	4.73	4.87	5.02	5.17
	1,000,001	Above	5.25	5.25	5.69	5.69	5.86	6.04	6.22	6.40	6.60	6.79	7.00
Other													
Base Charge		101,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area -- Rate Recommendations

Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

Wastewater Rates			Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
			Draft Rpt										
				9.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Month of Adjustment (Oct = 1)				4	4	4	4	4	4	4	4	4	4
Annual Adjustment				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
5/8" Meter				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
1" Meter				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2" Meter				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
4" Meter				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
6" Meter				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
8" Meter				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other				0.00%	9.00%	9.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%
5/8" Meter													
Base Charge		4,000	$ 12.35	$ 12.35	$ 12.35	$ 13.46	$ 14.67	$ 15.99	$ 16.47	$ 16.97	$ 17.48	$ 18.00	$ 18.54
Usage Charge	4,001	10,000	2.50	2.50	2.50	2.73	2.97	3.24	3.33	3.43	3.54	3.64	3.75
	10,001	20,000	3.88	3.88	3.88	4.23	4.61	5.02	5.18	5.33	5.49	5.66	5.83
	20,001	Above	5.50	5.50	5.50	6.00	6.53	7.12	7.34	7.56	7.78	8.02	8.26
1" Meter													
Base Charge		6,000	$ 15.59	$ 21.83	$ 21.83	$ 23.79	$ 25.94	$ 28.27	$ 29.12	$ 29.99	$ 30.89	$ 31.82	$ 32.77
Usage Charge	6,001	20,000	2.73	2.73	2.73	2.98	3.24	3.54	3.64	3.75	3.86	3.98	4.10
	20,001	40,000	4.10	4.10	4.10	4.47	4.87	5.31	5.47	5.63	5.80	5.98	6.16
	40,001	Above	6.12	6.12	6.12	6.67	7.27	7.93	8.16	8.41	8.66	8.92	9.19
2" Meter													
Base Charge		26,000	$ 106.04	$ 148.46	$ 148.46	$ 161.82	$ 176.39	$ 192.26	$ 198.03	$ 203.97	$ 210.09	$ 216.39	$ 222.88
Usage Charge	26,001	100,000	2.97	2.97	2.97	3.24	3.53	3.85	3.96	4.08	4.20	4.33	4.46
	100,001	200,000	4.46	4.46	4.46	4.86	5.30	5.78	5.95	6.13	6.31	6.50	6.70
	200,001	Above	6.18	6.18	6.18	6.74	7.34	8.00	8.24	8.49	8.75	9.01	9.28
4" Meter													
Base Charge		101,000	$ 243.26	$ 340.56	$ 340.56	$ 371.21	$ 404.62	$ 441.04	$ 454.27	$ 467.89	$ 481.93	$ 496.39	$ 511.28
Usage Charge	101,001	500,000	3.09	3.09	3.09	3.37	3.67	4.00	4.12	4.25	4.37	4.50	4.64
	500,001	1,000,000	4.63	4.63	4.63	5.05	5.50	6.00	6.18	6.36	6.55	6.75	6.95
	1,000,001	Above	6.30	6.30	6.30	6.87	7.49	8.16	8.40	8.66	8.92	9.18	9.46
6" Meter													
Base Charge		101,000	$ 400.00	$ 560.00	$ 560.00	$ 610.40	$ 665.34	$ 725.22	$ 746.97	$ 769.38	$ 792.46	$ 816.24	$ 840.72
Usage Charge	101,001	500,000	2.70	2.70	2.70	2.94	3.21	3.50	3.60	3.71	3.82	3.94	4.05
	500,001	1,000,000	4.05	4.05	4.05	4.41	4.81	5.24	5.40	5.56	5.73	5.90	6.08
	1,000,001	Above	5.40	5.40	5.40	5.89	6.42	6.99	7.20	7.42	7.64	7.87	8.11

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area – Rate Recommendations

Scenario: ***2015 02 27 – Alternative 1 – PI Reclamation***

			Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
8" Meter													
Base Charge		101,000	$ -	$ 896 00	$ 896.00	$ 976.64	$ 1,064.54	$ 1,160 35	$ 1,195.16	$ 1,231.01	$ 1,267.94	$ 1,305.98	$ 1,345.16
Usage Charge	101,001	500,000	-	2.93	2 93	3.19	3 48	3.79	3.91	4.03	4.15	4.27	4.40
	500,001	1,000,000	-	4.42	4.42	4.82	5 25	5.72	5.90	6.07	6.25	6 44	6.64
	1,000,001	Above	-	5.89	5 89	6 42	7.00	7.63	7.86	8.09	8 34	8.59	8.84
Other													
Base Charge		101,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-
Other													
Base Charge		101,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Usage Charge	101,001	500,000	-	-	-	-	-	-	-	-	-	-	-
	500,001	1,000,000	-	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	-	-	-	-	-	-	-	-	-	-	-

Summary of Results – Rate Calculator

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Contingency – Revenues Less Revenue Requirement										
Water	1,507,947	1,461,369	1,112,181	1,130,149	816,585	886,952	957,792	1,028,790	1,103,693	808,310
Wastewater	(967,547)	(1,040,556)	(919,880)	(670,148)	(476,057)	(337,171)	(282,866)	(229,435)	(169,785)	(184,165)
Net Revenues of Contingency	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	6.8%	5.1%	2.2%	5 0%	3.4%	5.2%	6.1%	7 0%	7.8%	5.0%
Debt Coverage	2.96	2.82	2.51	2.96	2.06	2.27	2.41	2.54	2.68	2.03

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area – Rate Recommendations

Scenario: 2015 02 27 – Alternative 1 – PI Reclamation

	Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
WATER Rate Revenues											
5/8" Meter	$ 1,848,025	$ 1,854,786	$ 1,861,539	$ 1,905,649	$ 1,969,895	$ 2,036,272	$ 2,104,849	$ 2,175,699	$ 2,248,896	$ 2,324,517	
1" Meter	835,963	867,370	870,043	890,167	919,673	950,146	981,616	1,014,116	1,047,679	1,082,339	
2" Meter	609,474	655,511	664,342	686,618	716,458	747,451	779,640	813,070	847,785	883,832	
4" Meter	896,333	936,340	960,299	1,003,693	1,058,473	1,115,396	1,174,547	1,236,013	1,299,882	1,366,248	
6" Meter	499,428	554,434	579,683	616,853	661,534	708,179	756,874	807,705	860,761	916,136	
8" Meter	8,961	10,081	10,081	10,282	10,591	10,908	11,236	11,573	11,920	12,277	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Total Water Revenue	$ 4,698,182	$ 4,878,521	$ 4,945,986	$ 5,113,262	$ 5,336,623	$ 5,568,352	$ 5,808,762	$ 6,058,175	$ 6,316,923	$ 6,585,350	
Less Revenues to be Raised from Rates:											
5/8" Meter	$ 1,162,185	$ 1,236,990	$ 1,379,374	$ 1,424,686	$ 1,607,574	$ 1,655,843	$ 1,706,725	$ 1,760,409	$ 1,815,672	$ 2,002,313	
1" Meter	545,288	579,676	645,632	666,070	750,729	772,424	795,310	819,472	844,338	930,206	
2" Meter	355,379	379,890	425,426	441,250	499,960	517,079	535,116	554,140	573,773	635,193	
4" Meter	836,115	902,729	1,020,511	1,067,973	1,220,382	1,272,389	1,326,926	1,384,194	1,443,281	1,608,476	
6" Meter	291,219	317,816	362,805	383,073	441,325	463,596	486,623	511,097	536,091	600,767	
8" Meter	49	52	58	60	67	69	71	73	76	83	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Sub-Total	3,190,235	3,417,153	3,833,805	3,983,113	4,520,037	4,681,400	4,850,971	5,029,385	5,213,230	5,777,039	
Rate Revenue Less RRRR:											
5/8" Meter	685,839	617,796	482,164	480,962	362,321	380,429	398,125	415,291	433,224	322,203	
1" Meter	290,675	287,695	224,411	224,096	168,944	177,721	186,306	194,644	203,341	152,133	
2" Meter	254,095	275,621	238,916	245,368	216,497	230,372	244,524	258,930	274,012	248,639	
4" Meter	60,218	33,610	(60,212)	(64,280)	(161,909)	(156,993)	(152,378)	(148,181)	(143,398)	(242,228)	
6" Meter	208,209	236,618	216,878	233,780	220,209	244,584	270,051	296,608	324,670	315,369	
8" Meter	8,912	10,029	10,023	10,222	10,523	10,839	11,164	11,499	11,844	12,194	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Total	1,507,947	1,461,369	1,112,181	1,130,149	816,585	886,952	957,792	1,028,790	1,103,693	908,310	

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area -- Rate Recommendations
Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

WW Rate Revenues

	Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
WW Rate Revenue											
5/8" Meter	$ 1,318,903	$ 1,326,620	$ 1,414,396	$ 1,550,608	$ 1,699,880	$ 1,793,143	$ 1,857,436	$ 1,923,973	$ 1,992,830	$ 2,064,087	
1" Meter	444,853	467,898	499,022	547,259	600,136	633,265	656,178	679,896	704,446	729,858	
2" Meter	449,738	498,138	539,760	601,128	669,171	716,494	753,050	791,154	830,867	872,251	
4" Meter	752,243	812,708	895,035	1,012,172	1,143,145	1,240,834	1,321,139	1,405,147	1,493,005	1,584,871	
6" Meter	281,781	321,152	360,446	414,713	475,828	524,035	565,459	608,897	654,431	702,150	
8" Meter	7,168	10,752	11,398	12,423	13,541	14,203	14,629	15,068	15,520	15,986	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Total WW Rate Revenues	3,254,687	3,437,268	3,720,056	4,138,303	4,601,702	4,921,974	5,167,892	5,424,135	5,691,101	5,969,203	
Less Revenues to be Raised from Rates:											
5/8" Meter	$ 1,974,043	$ 2,067,131	$ 2,115,629	$ 2,166,171	$ 2,258,354	$ 2,312,360	$ 2,369,856	$ 2,431,139	$ 2,493,428	$ 2,588,608	
1" Meter	657,802	688,719	704,780	721,525	752,927	770,820	789,903	810,280	830,968	863,237	
2" Meter	240,030	255,402	265,491	275,978	292,399	303,703	315,634	328,252	341,165	359,151	
4" Meter	1,116,356	1,208,007	1,275,744	1,346,035	1,447,683	1,523,698	1,603,581	1,687,728	1,774,072	1,889,026	
6" Meter	233,955	258,515	278,240	298,689	326,342	348,507	371,726	396,111	421,191	453,282	
8" Meter	48	50	52	53	55	56	58	59	61	62	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Sub-Total	4,222,234	4,477,824	4,639,936	4,808,451	5,077,759	5,259,145	5,450,758	5,653,570	5,860,886	6,153,368	
Rate Revenue Less RRRR:											
5/8" Meter	(655,139)	(740,512)	(701,233)	(615,563)	(558,473)	(519,217)	(512,420)	(507,166)	(500,598)	(524,521)	
1" Meter	(212,949)	(220,821)	(205,758)	(174,266)	(152,791)	(137,555)	(133,725)	(130,385)	(126,522)	(133,379)	
2" Meter	209,708	242,736	274,269	325,150	376,772	412,791	437,416	462,902	489,702	513,100	
4" Meter	(364,113)	(395,298)	(380,710)	(333,863)	(304,538)	(282,864)	(282,441)	(282,582)	(281,067)	(304,156)	
6" Meter	47,825	62,637	82,206	116,024	149,486	175,528	193,733	212,786	233,240	248,868	
8" Meter	7,120	10,702	11,346	12,370	13,487	14,147	14,572	15,009	15,459	15,924	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	
Rate Revenue Less RRRR	(967,547)	(1,040,556)	(919,880)	(670,148)	(476,057)	(337,171)	(282,866)	(229,435)	(169,785)	(184,165)	

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area -- Rate Recommendations
Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

WATER -- Customer and Usage Data

					Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Net Annual Volume after Minimum:															
5/8" Meter	4,001	10,000	40.0%		133,537,682	133,897,273	134,255,901	134,613,573	134,970,297	135,326,082	135,680,933	136,034,859	136,387,866	136,739,962	
5,993	10,001	20,000	40.0%		133,537,682	133,897,273	134,255,901	134,613,573	134,970,297	135,326,082	135,680,933	136,034,859	136,387,866	136,739,962	
4,000	20,001	Above	20.0%		66,768,841	66,948,636	67,127,950	67,306,786	67,485,149	67,663,041	67,840,466	68,017,429	68,193,933	68,369,981	
			100.0%		333,844,205	334,743,182	335,639,751	336,533,932	337,425,744	338,315,204	339,202,332	340,087,146	340,969,664	341,849,904	
1" Meter	6,001	20,000	40.0%		62,828,072	62,972,173	63,115,946	63,259,391	63,402,512	63,545,310	63,687,788	63,829,949	63,971,793	64,113,323	
12,008	20,001	40,000	40.0%		62,828,072	62,972,173	63,115,946	63,259,391	63,402,512	63,545,310	63,687,788	63,829,949	63,971,793	64,113,323	
6,000	40,001	Above	20.0%		31,414,036	31,486,087	31,557,973	31,629,695	31,701,256	31,772,655	31,843,894	31,914,974	31,985,896	32,056,662	
			100.0%		157,070,181	157,430,434	157,789,864	158,148,477	158,506,279	158,863,275	159,219,471	159,574,872	159,929,482	160,283,309	
2" Meter	26,001	100,000	65.0%		52,206,769	52,652,219	53,093,932	53,532,001	53,966,514	54,397,556	54,825,210	55,249,554	55,670,663	56,088,611	
22,844	100,001	200,000	30.0%		24,095,432	24,301,024	24,504,892	24,707,077	24,907,622	25,106,564	25,303,943	25,499,794	25,694,152	25,887,051	
26,000	200,001	Above	5.0%		4,015,905	4,050,171	4,084,149	4,117,846	4,151,270	4,184,427	4,217,324	4,249,966	4,282,359	4,314,509	
			100.0%		80,318,106	81,003,414	81,682,973	82,356,925	83,025,406	83,688,548	84,346,477	84,999,314	85,647,174	86,290,171	
4" Meter	101,001	500,000	45.0%		89,524,997	91,224,839	92,893,586	94,532,884	96,144,240	97,729,035	99,288,541	100,823,931	102,336,290	103,826,624	
209,857	500,001	1,000,000	40.0%		79,577,775	81,088,745	82,572,076	84,029,230	85,461,547	86,870,254	88,256,481	89,621,272	90,965,591	92,290,333	
101,000	1,000,001	Above	15.0%		29,841,666	30,408,280	30,964,529	31,510,961	32,048,080	32,576,345	33,096,180	33,607,977	34,112,097	34,608,875	
			100.0%		198,944,438	202,721,864	206,430,190	210,073,076	213,653,867	217,175,634	220,641,203	224,053,180	227,413,978	230,725,832	
6" Meter	101,001	500,000	30.0%		16,187,520	16,678,051	17,154,567	17,618,204	18,069,952	18,510,683	18,941,164	19,362,079	19,774,038	20,177,590	
136,259	500,001	1,000,000	30.0%		16,187,520	16,678,051	17,154,567	17,618,204	18,069,952	18,510,683	18,941,164	19,362,079	19,774,038	20,177,590	
101,000	1,000,001	Above	40.0%		21,583,360	22,237,401	22,872,756	23,490,938	24,093,270	24,680,911	25,254,885	25,816,105	26,365,384	26,903,453	
			100.0%		53,958,400	55,593,503	57,181,889	58,727,345	60,233,175	61,702,276	63,137,213	64,540,262	65,913,459	67,258,632	
8" Meter	101,001	500,000	0.0%		-	-	-	-	-	-	-	-	-	-	
8	500,001	1,000,000	0.0%		-	-	-	-	-	-	-	-	-	-	
101,000	1,000,001	Above	100.0%		100	100	100	100	100	100	100	100	100	100	
			100.0%		100	100	100	100	100	100	100	100	100	100	
Other	101,001	500,000	0.0%		-	-	-	-	-	-	-	-	-	-	
-	500,001	1,000,000	0.0%		-	-	-	-	-	-	-	-	-	-	
	1,000,001	Above	100.0%		-	-	-	-	-	-	-	-	-	-	
			100.0%		-	-	-	-	-	-	-	-	-	-	

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area – Rate Recommendations

Scenario: ***2015 02 27 – Alternative 1 – PI Reclamation***

			Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Other	101,001	500,000	0.0%	-	-	-	-	-	-	-	-	-	-
-	500,001	1,000,000	0.0%	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	100.0%	-	-	-	-	-	-	-	-	-	-
			100.0%	-	-	-	-	-	-	-	-	-	-
Other	101,001	500,000	0.0%	-	-	-	-	-	-	-	-	-	-
-	500,001	1,000,000	0.0%	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	100.0%	-	-	-	-	-	-	-	-	-	-
			100.0%	-	-	-	-	-	-	-	-	-	-
Other	101,001	500,000	0.0%	-	-	-	-	-	-	-	-	-	-
-	500,001	1,000,000	0.0%	-	-	-	-	-	-	-	-	-	-
	1,000,001	Above	100.0%	-	-	-	-	-	-	-	-	-	-
			100 0%	-	-	-	-	-	-	-	-	-	-
Total				824,135,429	831,492,496	838,724,767	845,839,855	852,844,571	859,745,038	866,546,796	873,254,874	879,873,858	886,407,948
				824,135,429	831,492,496	838,724,767	845,839,855	852,844,571	859,745,038	866,546,796	873,254,874	879,873,858	886,407,948
				824,135,429	831,492,496	838,724,767	845,839,855	852,844 571	859,745,038	866,546,796	873,254,874	879,873,858	886,407,948

Customer Class Units – Total Bills	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
5/8" Meter	55,704	56,004	56,304	56,604	56,904	57,204	57,504	57,804	58,104	58,404
1" Meter	13,080	13,140	13,200	13,260	13,320	13,380	13,440	13,500	13,560	13,620
2" Meter	3,516	3,576	3,636	3,696	3,756	3,816	3,876	3,936	3,996	4,056
4" Meter	948	984	1,020	1,056	1,092	1,128	1,164	1,200	1,236	1,272
6" Meter	396	420	444	468	492	516	540	564	588	612
8" Meter	12	12	12	12	12	12	12	12	12	12
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Total System	73,656	74,136	74,616	75,096	75,576	76,056	76,536	77,016	77,496	77,976

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area -- Rate Recommendations

Scenario: 2015 02 27 -- Alternative 1 -- PI Reclamation

WASTEWATER ...

				Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Customer Class Units -- Base Annual Usage														
5/8" Meter					218,846,028	220,126,429	221,406,829	222,687,230	223,967,630	225,248,030	226,528,431	227,808,831	229,089,231	230,369,632
1" Meter					76,531,277	77,004,862	77,478,447	77,952,031	78,425,616	78,899,200	79,372,785	79,846,370	80,319,954	80,793,539
2" Meter					28,364,251	29,008,893	29,653,535	30,298,177	30,942,819	31,587,461	32,232,103	32,876,745	33,521,387	34,166,029
4" Meter					137,477,232	143,050,633	148,624,034	154,197,435	159,770,837	165,344,238	170,917,639	176,491,040	182,064,442	187,637,843
6" Meter					28,714,603	30,509,265	32,303,928	34,098,590	35,893,253	37,687,916	39,482,578	41,277,241	43,071,904	44,866,566
8" Meter					75	75	75	75	75	75	75	75	75	75
Other					-	-	-	-	-	-	-	-	-	-
Other					-	-	-	-	-	-	-	-	-	-
Other					-	-	-	-	-	-	-	-	-	-
Other					-	-	-	-	-	-	-	-	-	-
Total Wastewater					489,933,466	499,700,157	509,466,848	519,233,539	529,000,230	538,766,921	548,533,612	558,300,303	568,066,994	577,833,685
Net Annual Volume after Minimum:														
5/8" Meter	4,001	10,000	60.0%		131,307,617	132,075,857	132,844,098	133,612,338	134,380,578	135,148,818	135,917,058	136,685,299	137,453,539	138,221,779
4,268	10,001	20,000	35.0%		76,596,110	77,044,250	77,492,390	77,940,530	78,388,670	78,836,811	79,284,951	79,733,091	80,181,231	80,629,371
4,000	20,001	Above	5.0%		10,942,301	11,006,321	11,070,341	11,134,361	11,198,381	11,262,402	11,326,422	11,390,442	11,454,462	11,518,482
	Total		100.0%		218,846,028	220,126,429	221,406,829	222,687,230	223,967,630	225,248,030	226,528,431	227,808,831	229,089,231	230,369,632
1" Meter	6,001	20,000	65.0%		49,745,330	50,053,160	50,360,990	50,668,820	50,976,650	51,284,480	51,592,310	51,900,140	52,207,970	52,515,800
7,893	20,001	40,000	30.0%		22,959,383	23,101,459	23,243,534	23,385,609	23,527,685	23,669,760	23,811,836	23,953,911	24,095,986	24,238,062
6,000	40,001	Above	5.0%		3,826,564	3,850,243	3,873,922	3,897,602	3,921,281	3,944,960	3,968,639	3,992,318	4,015,998	4,039,677
	Total		100.0%		76,531,277	77,004,862	77,478,447	77,952,031	78,425,616	78,899,200	79,372,785	79,846,370	80,319,954	80,793,539
2" Meter	26,001	100,000	80.0%		22,691,401	23,207,114	23,722,828	24,238,542	24,754,255	25,269,969	25,785,683	26,301,396	26,817,110	27,332,824
10,744	100,001	200,000	15.0%		4,254,638	4,351,334	4,448,030	4,544,727	4,641,423	4,738,119	4,834,815	4,931,512	5,028,208	5,124,904
26,000	200,001	Above	5.0%		1,418,213	1,450,445	1,482,677	1,514,909	1,547,141	1,579,373	1,611,605	1,643,837	1,676,069	1,708,301
	Total		100.0%		28,364,251	29,008,893	29,653,535	30,298,177	30,942,819	31,587,461	32,232,103	32,876,745	33,521,387	34,166,029
4" Meter	101,001	500,000	80.0%		109,981,785	114,440,506	118,899,227	123,357,948	127,816,669	132,275,390	136,734,111	141,192,832	145,651,553	150,110,274
154,817	500,001	1,000,000	15.0%		20,621,585	21,457,595	22,293,605	23,129,615	23,965,625	24,801,636	25,637,646	26,473,656	27,309,666	28,145,676
101,000	1,000,001	Above	5.0%		6,873,862	7,152,532	7,431,202	7,709,872	7,988,542	8,267,212	8,545,882	8,824,552	9,103,222	9,381,892
	Total		100.0%		137,477,232	143,050,633	148,624,034	154,197,435	159,770,837	165,344,238	170,917,639	176,491,040	182,064,442	187,637,843
6" Meter	101,001	500,000	80.0%		22,971,682	24,407,412	25,843,142	27,278,872	28,714,603	30,150,333	31,586,063	33,021,793	34,457,523	35,893,253
74,778	500,001	1,000,000	15.0%		4,307,190	4,576,390	4,845,589	5,114,789	5,383,988	5,653,187	5,922,387	6,191,586	6,460,786	6,729,985
101,000	1,000,001	Above	5.0%		1,435,730	1,525,463	1,615,196	1,704,930	1,794,663	1,884,396	1,974,129	2,063,862	2,153,595	2,243,328
	Total		100.0%		28,714,603	30,509,265	32,303,928	34,098,590	35,893,253	37,687,916	39,482,578	41,277,241	43,071,904	44,866,566
8" Meter	101,001	500,000	0.0%		-	-	-	-	-	-	-	-	-	-
75	500,001	1,000,000	0.0%		-	-	-	-	-	-	-	-	-	-
101,000	1,000,001	Above	100.0%		75	75	75	75	75	75	75	75	75	75
	Total		100.0%		75	75	75	75	75	75	75	75	75	75

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area – Rate Recommendations

Scenario: 2015 02 27 – Alternative 1 – PI Reclamation

			Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Other	101,001	500,000	0.0%	-	-	-	-	-	-	-	-	-	-
-	500,001	1,000,000	0.0%	-	-	-	-	-	-	-	-	-	-
-	1,000,001	Above	100 0%	-	-	-	-	-	-	-	-	-	-
	Total		100.0%	-	-	-	-	-	-	-	-	-	-
Other	101,001	500,000	0.0%	-	-	-	-	-	-	-	-	-	-
-	500,001	1,000,000	0 0%	-	-	-	-	-	-	-	-	-	-
-	1,000,001	Above	100.0%	-	-	-	-	-	-	-	-	-	-
	Total		100 0%	-	-	-	-	-	-	-	-	-	-
Other	101,001	500,000	0 0%	-	-	-	-	-	-	-	-	-	-
-	500,001	1,000,000	0 0%	-	-	-	-	-	-	-	-	-	-
-	1,000,001	Above	100 0%	-	-	-	-	-	-	-	-	-	-
	Total		100 0%	-	-	-	-	-	-	-	-	-	-
Other	101,001	500,000	0 0%	-	-	-	-	-	-	-	-	-	-
-	500,001	1,000,000	0.0%	-	-	-	-	-	-	-	-	-	-
-	1,000,001	Above	100.0%	-	-	-	-	-	-	-	-	-	-
	Total		100 0%	-	-	-	-	-	-	-	-	-	-
Total Wastewater				489,933,466	499,700,157	509,466,848	519,233,539	529,000,230	538,766,921	548,533,612	558,300,303	568,066,994	577,833,685
				489,933,466	499,700,157	509,466,848	519,233,539	529,000,230	538,766,921	548,533,612	558,300,303	568,066,994	577,833,685
				489,933,466	499,700,157	509,466,848	519,233,539	529,000,230	538,766,921	548,533,612	558,300,303	568,066,994	577,833,685
Customer Class Units – Total Bills													
5/8" Meter				51,276	51,576	51,876	52,176	52,476	52,776	53,076	53,376	53,676	53,976
1" Meter				9,696	9,756	9,816	9,876	9,936	9,996	10,056	10,116	10,176	10,236
2" Meter				2,640	2,700	2,760	2,820	2,880	2,940	3,000	3,060	3,120	3,180
4" Meter				888	924	960	996	1,032	1,068	1,104	1,140	1,176	1,212
6" Meter				384	408	432	456	480	504	528	552	576	600
8" Meter				12	12	12	12	12	12	12	12	12	12
Other				-	-	-	-	-	-	-	-	-	-
Other				-	-	-	-	-	-	-	-	-	-
Other				-	-	-	-	-	-	-	-	-	-
Other				-	-	-	-	-	-	-	-	-	-
Total Wastewater				64,896	65,376	65,856	66,336	66,816	67,296	67,776	68,256	68,736	69,216

[redacted] Attachment 2 [redacted]

RICT

5/8" Meters	3/4" Meters	1" Meters	1 1/2" Meters	2" Meters	3" Meters	4" Meters	6" Meters	8" Meters	
Total	Total	Total	Total	Total	Total	Monthly Total			
WATER ACCOUNTS (ADDRESSES)									
4,622	1,027	463	73	30	-	6,215			
4,625	1,026	464	72	30	-	6,217			
4,626	1,026	468	72	30	-	6,222			
4,637	1,030	468	72	30	-	6,237			
4,642	1,031	471	72	30	-	6,246			
4,645	1,035	472	72	30	-	6,254			
4,644	1,041	474	72	30	-	6,261			
4,634	1,045	474	72	30	-	6,255			
4,615	1,049	475	72	30	-	6,241			
4,597	1,051	476	72	30	-	6,226			
4,598	1,055	478	72	30	-	6,233			
4,592	1,057	480	73	30	-	6,232			
4,598	1,057	229	74	30	-	5,988			
4,602	1,057	230	74	30	-	5,993			
4,588	1,057	230	74	30	-	5,979			
4,594	1,056	229	74	30	-	5,983			
4,592	1,059	230	74	30	-	5,985			
4,588	1,062	232	73	30	-	5,985			
4,592	1,062	233	73	30	-	5,990			
4,579	1,064	233	73	30	-	5,979			
4,571	1,064	232	74	30	-	5,971			
4,562	1,065	232	74	30	1	5,964			
4,565	1,068	232	75	30	1	5,971			
4,566	1,070	231	75	30	1	5,973			
4,574	1,072	231	75	30	1	5,983			
4,581	1,073	231	75	30	1	5,991			
4,591	1,073	231	75	30	1	6,001			
4,597	1,071	230	75	30	1	6,004			
4,613	1,070	229	75	30	1	6,018			
4,620	1,071	231	74	30	1	6,027			
4,623	1,072	231	74	30	1	6,031			
4,605	1,071	231	75	30	1	6,013			
4,577	1,069	231	75	30	1	5,983			
4,583	1,069	232	74	30	1	5,989			
4,586	1,066	232	74	30	1	5,989			
4,588	1,069	231	74	30	1	5,993			
4,599	1,073	285	74	31	1	6,063			
4,608	1,073	285	74	31	1	6,072			
4,622	1,072	286	74	31	1	6,086			
4,630	1,072	287	75	31	1	6,096			
4,638	824	288	75	31	1	5,857			
4,639	1,079	289	75	31	1	6,114			
4,646	1,082	289	75	31	1	6,124			
4,627	1,085	289	75	31	1	6,108			

5/8" Meters	3/4" Meters	1" Meters	1 1/2" Meters	2" Meters	3" Meters	4" Meters	6" Meters	8" Meters	
Total	Total	Total	Total	Total	Total	Total	Total	Total	Monthly Total
WATER CONSUMPTION									
28,719,300	11,727,100	8,360,000	13,649,700	3,734,600	-				64,190,700
29,944,500	13,491,300	9,607,100	13,649,300	3,517,500	-				70,209,700
27,504,200	12,399,100	8,154,000	12,304,400	2,641,300	-				63,003,000
29,250,500	13,142,600	8,381,800	14,480,400	2,424,300	-				67,679,600
27,342,200	11,486,200	6,597,300	15,854,500	2,027,400	-				63,307,600
29,659,000	13,547,500	9,175,700	17,788,300	3,190,400	-				73,360,900
34,445,800	15,777,300	10,325,400	17,493,300	3,742,400	-				81,784,200
36,268,000	17,367,700	10,560,100	19,965,000	3,709,900	-				87,870,700
40,473,900	19,610,000	12,733,200	25,695,100	5,422,100	-				103,934,300
37,690,100	19,066,100	12,617,700	27,307,000	6,740,600	-				103,421,500
38,319,600	19,971,700	13,351,900	25,883,700	5,278,200	-				102,805,100
38,493,100	19,356,700	12,650,900	19,880,700	3,791,700	-				94,173,100
34,268,300	16,915,800	6,419,400	16,446,900	3,154,000	-				77,204,400
31,984,800	15,192,500	5,581,200	14,859,000	2,839,300	-				70,456,800
25,582,000	11,973,600	3,773,100	10,848,800	1,857,700	-				54,035,200
26,411,800	11,336,900	4,504,500	12,347,800	1,949,600	-				56,550,600
25,459,600	10,822,200	3,949,900	13,314,300	1,878,600	-				55,424,600
27,186,800	11,522,900	5,704,600	15,976,600	2,877,500	-				63,268,400
32,424,500	14,653,300	6,836,500	16,560,200	3,477,500	-				73,952,000
33,808,200	16,119,500	7,458,300	16,969,600	3,630,600	-				77,986,200
38,503,200	18,776,200	8,313,400	23,987,600	4,477,100	-				94,057,500
35,985,800	18,435,500	8,302,900	27,101,300	5,833,300	47,600				95,706,400
39,475,600	19,847,500	7,702,100	27,388,900	5,075,100	4,000				99,493,200
33,971,400	16,426,800	5,852,300	17,389,500	3,097,200	1,400				76,738,600
27,372,100	13,866,900	5,803,100	13,056,400	2,345,200	1,200				62,444,900
27,110,500	12,940,400	5,228,800	12,713,900	2,241,700	1,400				60,236,700
25,961,400	11,714,800	4,345,000	11,965,000	2,101,500	-				56,087,700
26,509,500	12,465,500	3,716,100	12,672,500	2,284,000	-				57,647,600
26,294,700	12,192,600	5,073,400	14,462,400	2,201,200	-				60,224,300
30,372,000	14,846,800	5,923,500	19,532,700	4,155,100	-				74,830,100
30,978,000	13,684,300	4,778,400	13,746,600	2,776,200	-				65,963,500
28,940,300	13,825,700	4,723,400	15,181,300	2,738,900	-				65,409,600
35,236,300	17,039,600	7,062,100	24,255,000	4,311,700	-				87,904,700
37,091,600	17,839,900	6,498,800	27,377,300	5,330,800	-				94,138,400
35,636,700	17,512,000	6,563,000	26,241,800	5,517,700	-				91,471,200
30,382,000	14,082,400	4,045,700	16,264,800	3,019,500	-				67,794,400
24,462,000	11,083,200	6,337,100	12,311,100	2,292,000	-				56,485,400
24,708,300	11,827,400	6,276,900	12,171,500	2,314,800	100				57,299,000
23,523,200	9,886,200	5,149,500	9,704,700	2,195,600	-				50,459,200
23,289,800	10,952,900	4,686,600	10,919,000	2,161,100	-				52,009,400
22,810,100	10,050,700	4,895,200	12,078,800	2,167,800	-				52,002,600
23,930,900	10,975,300	5,833,900	15,004,800	3,172,300	-				58,917,200
27,464,800	12,305,800	7,055,100	15,832,100	7,344,100	-				70,001,900
29,068,100	13,818,500	7,691,700	14,344,500	5,335,800	-				70,258,600

RICT

5/8" Meters	1" Meters	1-1/2" Meters	2" Meters	3" Meters	4" Meters	6" Meters	Monthly Total
Total	Total	Total	Total	Total	Total		
WATER ACCOUNTS (ADDRESSES)							
4,615	1,082	289	75	31	1		6,093
4,617	1,085	288	76	31	1		6,098
-	-	-	-	-	-		-
-	-	-	-	-	-		-
55,477	12,473	5,663	866	360	-		74,839
54,997	12,741	2,773	887	360	3		71,761
55,138	12,846	2,771	895	360	12		72,022
55,415	12,662	3,338	896	370	12		72,693
4,623	1,039	472	72	30	-		6,237
4,583	1,062	231	74	30	0		5,980
4,595	1,071	231	75	30	1		6,002
4,618	1,055	278	75	31	1		6,058
(40)	22	(241)	2	-	0		(257)
12	9	(0)	1	-	1		22
23	(15)	47	0	1	-		56

5/8" Meters	1" Meters	1-1/2" Meters	2" Meters	3" Meters	4" Meters	6" Meters	Monthly Total
Total	Total	Total	Total	Total	Total		
WATER CONSUMPTION							
32,681,700	16,272,100	9,818,600	22,963,500	7,924,800	-		89,660,700
34,985,200	17,942,600	11,273,600	27,257,300	8,826,700	-		100,285,400
-	-	-	-	-	-		-
-	-	-	-	-	-		-
396,110,200	186,943,300	122,515,100	223,951,400	46,220,400	-		975,740,400
385,062,000	182,022,700	74,398,200	213,190,500	40,147,500	53,000		894,873,900
361,885,100	172,010,900	63,761,300	207,469,700	39,023,500	2,600		844,153,100
332,942,800	156,709,100	79,626,900	195,093,900	52,272,200	100		816,645,000
Monthly Usage Per Account (after Minimum)							
7,140	14,988	21,634	258,604	128,390	-		13,038
7,002	14,286	26,829	240,350	111,521	17,667		12,470
6,563	13,390	23,010	231,810	108,399	217		11,721
6,008	12,376	23,855	217,739	141,276	8		11,234

LAGUNA MADRE WATER DISTRICT
VOLUMETRIC MODEL

	5/8" Meters Total	1" Meters Total	2" Meters Total	4" Meters Total	6" Meters Total	8" Meters Total	Monthly Total
	WASTEWATER ACCOUNTS (ADDRESSES)						
Oct-10	4,297	773	209	70	30	-	5,379
Nov-10	4,299	771	209	69	30	-	5,378
Dec-10	4,300	769	211	69	30	-	5,379
Jan-11	4,311	772	210	69	30	-	5,392
Feb-11	4,317	772	212	69	30	-	5,400
Mar-11	4,319	775	212	69	30	-	5,405
Apr-11	4,316	780	213	69	30	-	5,408
May-11	4,305	784	213	69	30	-	5,401
Jun-11	4,285	787	213	69	30	-	5,384
Jul-11	4,266	788	213	69	30	-	5,366
Aug-11	4,266	790	213	69	30	-	5,368
Sep-11	4,259	790	213	70	30	-	5,362
Oct-11	4,263	789	212	71	30	-	5,365
Nov-11	4,268	789	213	71	30	-	5,371
Dec-11	4,254	789	213	71	30	-	5,357
Jan-12	4,260	787	212	71	30	-	5,360
Feb-12	4,255	790	213	71	30	-	5,359
Mar-12	4,251	793	215	70	30	-	5,359
Apr-12	4,255	793	216	70	30	-	5,364
May-12	4,242	796	216	70	30	-	5,354
Jun-12	4,232	793	215	71	30	-	5,341
Jul-12	4,222	794	215	71	30	1	5,333
Aug-12	4,225	796	215	72	30	1	5,339
Sep-12	4,226	799	214	72	30	1	5,342
Oct-12	4,232	801	214	72	30	1	5,350
Nov-12	4,239	800	214	72	30	1	5,356
Dec-12	4,249	800	214	72	30	1	5,366
Jan-13	4,252	798	213	72	30	1	5,366
Feb-13	4,268	797	212	72	30	1	5,380
Mar-13	4,274	798	214	71	30	1	5,388
Apr-13	4,275	798	214	71	30	1	5,389
May-13	4,258	797	214	72	30	1	5,372
Jun-13	4,229	795	214	72	30	1	5,341
Jul-13	4,233	795	215	71	30	1	5,345
Aug-13	4,234	792	215	71	30	1	5,343
Sep-13	4,235	795	214	71	30	1	5,346
Oct-13	4,246	797	212	71	30	1	5,357
Nov-13	4,255	798	212	71	30	1	5,367
Dec-13	4,267	795	213	71	30	1	5,377
Jan-14	4,275	795	213	71	30	1	5,385
Feb-14	4,281	795	214	71	30	1	5,392
Mar-14	4,280	800	215	71	30	1	5,397
Apr-14	4,286	802	215	71	30	1	5,405
May-14	4,264	803	215	71	30	1	5,384
Jun-14	4,249	800	215	71	30	1	5,366

	5/8" Meters Total	1" Meters Total	2" Meters Total	4" Meters Total	6" Meters Total	8" Meters Total	Monthly Total
	WASTEWATER BILLING UNITS						
Oct-10	23,869,200	7,603,600	4,236,500	12,231,000	3,734,600	-	51,674,900
Nov-10	26,141,600	7,909,300	4,025,100	11,669,800	3,517,500	-	53,263,300
Dec-10	24,193,200	7,427,400	3,182,300	10,856,300	2,641,300	-	48,300,500
Jan-11	26,038,300	8,285,300	3,524,500	13,417,900	2,424,300	-	53,690,300
Feb-11	24,961,100	8,152,900	3,264,000	15,026,600	2,027,400	-	53,432,000
Mar-11	26,516,900	9,223,400	4,851,600	16,649,800	3,190,400	-	60,432,100
Apr-11	30,023,600	9,917,500	4,465,600	15,808,600	3,742,400	-	63,957,700
May-11	31,507,500	10,852,800	4,055,200	17,965,100	3,709,900	-	68,100,500
Jun-11	35,112,700	12,116,000	5,239,200	23,340,000	5,422,100	-	81,230,000
Jul-11	33,075,300	12,475,000	6,026,600	25,165,500	6,740,600	-	83,483,000
Aug-11	33,032,600	12,603,800	5,984,000	23,368,400	5,278,200	-	80,267,000
Sep-11	32,517,800	11,670,900	4,965,100	16,604,900	3,791,700	-	69,550,400
Oct-11	28,702,200	9,850,700	4,266,400	13,477,500	3,154,000	-	59,450,800
Nov-11	26,870,400	8,682,200	3,797,400	12,464,100	2,839,300	-	54,653,400
Dec-11	21,908,600	7,104,300	2,813,200	9,352,200	1,857,700	-	43,036,200
Jan-12	23,527,100	8,098,300	3,465,600	11,865,900	1,949,600	-	48,906,500
Feb-12	22,651,000	7,534,000	3,154,300	12,778,300	1,878,600	-	47,996,200
Mar-12	24,619,800	8,362,500	3,851,200	15,214,600	2,877,500	-	54,925,600
Apr-12	28,488,900	9,470,100	4,195,700	14,995,200	3,477,500	-	60,627,400
May-12	29,436,700	10,193,500	4,585,300	15,145,900	3,630,600	-	62,994,000
Jun-12	33,468,000	12,014,700	5,672,600	21,775,100	4,477,100	-	77,407,500
Jul-12	31,436,200	12,416,400	6,494,200	24,993,800	5,833,300	47,600	81,221,500
Aug-12	34,046,400	12,614,100	4,798,700	24,831,700	5,075,100	4,000	81,370,000
Sep-12	28,588,400	9,327,500	3,354,800	15,033,300	3,097,200	1,400	59,402,600
Oct-12	23,250,100	8,236,000	2,865,400	11,683,300	2,345,200	1,200	48,581,200
Nov-12	23,163,700	7,717,700	3,085,800	10,870,300	2,241,700	1,400	47,080,600
Dec-12	22,237,000	6,955,800	2,774,200	10,457,200	2,101,500	-	44,525,700
Jan-13	23,229,800	8,233,900	2,726,000	11,803,900	2,284,000	-	48,277,600
Feb-13	23,210,700	7,976,000	2,751,500	13,327,400	2,201,200	-	49,466,800
Mar-13	26,526,300	9,903,400	3,964,600	18,146,200	4,155,100	-	62,695,600
Apr-13	26,557,000	8,353,800	2,898,800	12,399,800	2,776,200	-	52,985,600
May-13	25,162,800	8,394,500	2,979,800	14,169,600	2,738,900	-	53,445,600
Jun-13	30,737,000	10,829,700	4,366,400	23,080,400	4,311,700	-	73,325,200
Jul-13	32,053,300	11,745,900	4,781,400	25,790,600	5,330,800	-	79,702,000
Aug-13	30,869,900	11,377,000	4,329,700	24,666,800	5,517,700	-	76,761,100
Sep-13	25,992,200	8,350,500	2,807,600	14,962,800	3,019,500	-	55,132,600
Oct-13	21,705,400	7,279,900	2,434,600	11,199,100	2,199,100	-	44,818,100
Nov-13	21,251,200	7,454,500	2,362,000	11,163,500	2,063,800	100	44,295,100
Dec-13	20,487,300	6,280,500	2,090,100	8,792,700	1,693,300	-	39,343,900
Jan-14	20,719,800	7,715,100	2,373,400	10,205,000	1,880,100	-	42,893,400
Feb-14	20,451,900	6,991,400	2,308,000	11,505,800	1,919,700	-	43,176,800
Mar-14	21,423,300	7,630,400	3,187,800	14,370,800	2,871,000	-	49,483,300
Apr-14	24,319,200	8,152,600	3,175,700	14,209,900	2,892,900	-	52,750,300
May-14	24,764,800	8,537,900	3,111,200	13,133,200	2,914,600	-	52,461,700
Jun-14	28,492,000	10,302,600	4,211,900	20,736,300	4,297,600	-	68,040,400

LAGUNA MADRE WATER DISTRICT
VOLUMETRIC MODEL

	5/8" Meters Total	1" Meters Total	2" Meters Total	4" Meters Total	6" Meters Total	8" Meters Total	Monthly Total
WASTEWATER ACCOUNTS (ADDRESSES)							
Jul-14	4,248	803	215	71	30	1	5,368
Aug-14	-	-	-	-	-	-	-
Sep-14	-	-	-	-	-	-	-
FY 2011	51,540	9,351	2,541	830	360	-	64,622
FY 2012	50,953	9,508	2,569	851	360	3	64,244
FY 2013	50,976	9,566	2,567	859	360	12	64,342
Last 12 Months	51,120	9,575	2,568	852	360	12	64,487
Average Accts							
FY 2011	4,295	779	212	69	30	-	5,385
FY 2012	4,246	792	214	71	30	0	5,354
FY 2013	4,248	797	214	72	30	1	5,362
Last 12 Months	4,260	798	214	71	30	1	5,374
Annual New Accts							
FY 2012	(49)	13	2	2	-	0	(32)
FY 2013	2	5	(0)	1	-	1	8
Last 12 Months	12	1	0	(1)	-	-	12

	5/8" Meters Total	1" Meters Total	2" Meters Total	4" Meters Total	6" Meters Total	8" Meters Total	Monthly Total
WASTEWATER BILLING UNITS							
Jul-14	30,461,600	11,652,600	4,992,300	24,564,600	5,781,800	-	77,452,900
Aug-14	-	-	-	-	-	-	-
Sep-14	-	-	-	-	-	-	-
FY 2011	346,989,800	118,247,900	53,819,700	202,103,900	46,220,400	-	767,381,700
FY 2012	333,745,900	115,668,300	50,449,400	191,927,600	40,147,500	53,000	731,991,700
FY 2013	312,989,800	108,074,200	40,331,200	191,558,300	39,023,500	2,600	691,979,600
Last 12 Months	290,938,600	101,725,000	37,384,300	179,510,500	37,051,100	100	646,609,600

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area -- CIP Funded through WUF, SUF and Debt

Scena 2014 1.0 02 -- Alternative 1 -- Status Quo -- PI Reclamation

		10 Year Forecast 2015-2024	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total CIP Years 1-5	Total CIP Years 6-10
	WATER CIP													
	Water Supply/Transmission													
12	Pipeline Leak Detection & Repair	$ -	$ -	$ 200,000	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 700,000	$ 700,000	$ -
13	River Pump Station Improvements	-	300,000	-	-	-	-	-	-	-	-	300,000	300,000	-
14	Transfer Pump Station to Res #1	-	-	120,000	30,000	-	-	-	-	-	-	150,000	150,000	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	100,000	100,000	100,000	100,000	100,000	500,000	-	500,000
		-	300,000	320,000	530,000	-	100,000	100,000	100,000	100,000	100,000	1,650,000	1,150,000	500,000
	Wastewater Treatment													
1	PI -- 50,000 Gallon Clearwell Rehab	$ 39,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 39,000	$ 39,000	$ -
2	PI -- Clarifier A Replacement	-	-	-	90,000	700,000	-	-	-	-	-	790,000	790,000	-
3	PI -- WP1 Raw Water Pump Station Rehab	-	-	-	116,000	-	-	-	-	-	-	116,000	116,000	-
4	PI -- High Service Pump Station -- Pump Replacement	-	-	51,000	-	-	-	-	-	-	-	51,000	51,000	-
5	PI -- Clear Well Pump Replacement	-	-	45,000	-	-	-	-	-	-	-	45,000	45,000	-
6	PI -- WP1 Vacuum Regulators Replacement	-	12,000	-	-	-	-	-	-	-	-	12,000	12,000	-
7	LV -- Backwash Waste Discharge Pump Station	-	150,000	-	-	-	-	-	-	-	-	150,000	150,000	-
8	LV -- WP2 High Service Pump Station Replace Valves	-	160,000	24,000	-	-	-	-	-	-	-	184,000	184,000	-
9	LV -- New Sludge Lagoon	-	-	300,000	-	-	-	-	-	-	-	300,000	300,000	-
10	LV -- WP2 Raw Water Pump Station Rehabilitation	-	87,000	-	-	-	-	-	-	-	-	87,000	87,000	-
11	LV -- WP2 Vacuum Regulators Replacement	-	12,000	-	-	-	-	-	-	-	-	12,000	12,000	-
	Future Project	-	-	-	-	-	175,000	175,000	175,000	175,000	175,000	875,000	-	875,000
		39,000	421,000	420,000	206,000	700,000 357,200	175,000	175,000	175,000	175,000	175,000	2,861,000	1,786,000	875,000
	Wastewater Collection													
15	Hilsache EST Altitude Valve	$ -	$ 30,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,000	$ 30,000	$ -
16	Laguna Vista Elevated Storage Tank Replacement	-	-	-	-	2,500,000	-	-	-	-	-	2,500,000	2,500,000	-
17	16-inch waterline extension near Andy Bowie	-	50,000	-	-	-	-	-	-	-	-	50,000	50,000	-
18	Waterline Loop -- 4th Street from North Short to Illinois	-	-	-	-	246,000	-	-	-	-	-	246,000	246,000	-
19	Waterline Loop -- Channelview Road	-	-	-	-	97,000	-	-	-	-	-	97,000	97,000	-
20	Waterline Loop -- East side of Park Road 100	-	-	-	-	38,000	-	-	-	-	-	38,000	38,000	-
21	Mesquite Dr. Waterline Upgrade, Laguna Vista	124,000	-	-	-	-	-	-	-	-	-	124,000	124,000	-
22	N. Tamaya St. and E. Maxan St. Port Isabel	-	-	34,000	-	-	-	-	-	-	-	34,000	34,000	-
23	Fernandez St. -- FM 510 to Taylor St.	-	-	60,000	-	-	-	-	-	-	-	60,000	60,000	-
	LMWD Elevated Storage Tank	-	-	-	-	2,500,000	-	-	-	-	-	2,500,000	2,500,000	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	500,000	500,000	500,000	500,000	500,000	2,500,000	-	2,500,000
		124,000	80,000	94,000	-	5,379,000 1,135,400	500,000	500,000	500,000	500,000	500,000	8,177,000	5,677,000	2,500,000
	Summary													
	Dollars													
	Supply/Transmission	$ -	$ 300,000	$ 320,000	$ 530,000	$ -	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 1,650,000	$ 1,150,000	$ 500,000
	Treatment	39,000	421,000	420,000	206,000	700,000	175,000	175,000	175,000	175,000	175,000	2,861,000	1,786,000	875,000
	Distribution	124,000	80,000	94,000	-	5,379,000	500,000	500,000	500,000	500,000	500,000	8,177,000	5,677,000	2,500,000
	Total	163,000	801,000	834,000	736,000	6,079,000	775,000	775,000	775,000	775,000	775,000	12,488,000	8,613,000	3,875,000
	Percent													
	Supply/Transmission	0.0%	37.5%	38.4%	72.0%	0.0%	12.9%	12.9%	12.9%	12.9%	12.9%	13.2%	13.4%	12.9%
	Treatment	23.9%	52.6%	50.4%	28.0%	11.5%	22.6%	22.6%	22.6%	22.6%	22.6%	21.3%	20.7%	22.6%
	Distribution	76.1%	10.0%	11.3%	0.0%	88.5%	64.5%	64.5%	64.5%	64.5%	64.5%	65.5%	65.9%	64.5%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area -- CIP Funded through WUF, SUF and Debt

Scena 2014 10 02 -- Alternative 1 -- Status Quo -- PI Reclamation

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	6 to 10	10 to 20
	WASTEWATER CIP													
	Wastewater Treatment													
24	AB -- Add 1 Blower, Replace Existing Blowers	$ 210,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 210,000	$ 210,000	$ -
25	AB -- Repair Fence	-	30,000	-	-	-	-	-	-	-	-	30,000	30,000	-
26	AB -- Clarifier #1 and #2 Baffle Replacement	10,000	-	-	-	-	-	-	-	-	-	10,000	10,000	-
27	AB -- Clarifier #1 Scum Box Replacement	20,000	-	-	-	-	-	-	-	-	-	20,000	20,000	-
28	AB -- Grit Removal System	-	-	-	50,000	505,000	-	-	-	-	-	555,000	555,000	-
29	AB -- Plant Lift Station Rehabilitation	-	-	-	-	65,000	-	-	-	-	-	65,000	65,000	-
30	IB -- New Headworks for Grit Removal	30,000	-	75,000	725,000	-	-	-	-	-	-	830,000	830,000	-
31	IB -- Upgrade Existing Blowers and Repair Diffuser Pipir	300,000	-	-	-	-	-	-	-	-	-	300,000	300,000	-
32	IB -- Replace Gates -- Aeration Basin	44,000	10,000	-	-	-	-	-	-	-	-	54,000	54,000	-
33	IB -- Clarifier No. 3 Replacement	100,000	-	-	-	-	-	-	-	-	-	100,000	100,000	-
34	IB -- Plant Lift Station Rehab	-	13,000	-	-	-	-	-	-	-	-	13,000	13,000	-
35	IB -- Replace Belt Filter Press	-	-	-	-	345,000	-	-	-	-	-	345,000	345,000	-
	PI -- New Blowers, Electrical System, Diffusers	-	1,900,000	1,900,000	-	-	-	-	-	-	-	3,800,000	3,800,000	-
	PI -- New Headworks, Hydraulic Improvements	-	-	-	-	5,400,000	-	-	-	-	-	5,400,000	5,400,000	-
	PI -- Water Reclamation Facility	767,000	1,505,800	4,543,200	1,135,800	-	-	-	-	-	-	7,951,800	7,951,800	-
	LV -- Security Improvements	1,000	-	-	-	-	-	-	-	-	-	1,000	1,000	-
	LV -- Repair Wind Turbine	20,000	-	-	-	-	-	-	-	-	-	20,000	20,000	-
	LV -- Add Return Line to Cloth Media Filter	-	10,000	-	-	-	-	-	-	-	-	10,000	10,000	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000	-	10,000,000
		1,502,000	3,468,800	6,518,200	1,910,800	6,315,000 3,942,980	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	29,714,800	19,714,800	10,000,000
	Wastewater Collection													
42	LS 14, 15 and 16 Rehab Wet Well with Cement Liner	$ 40,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 40,000	$ 40,000	$ -
43	Epoxy Line LS 19 Receiving Manhole	10,000	-	-	-	-	-	-	-	-	-	10,000	10,000	-
44	Lift Station 17 Relocation (New Wet Well)	-	-	600,000	-	-	-	-	-	-	-	600,000	600,000	-
45	Lift Station 12 Rehabilitation	20,000	-	-	-	-	-	-	-	-	-	20,000	20,000	-
46	Lift Station 10 Pump Replacement	-	-	30,000	-	-	-	-	-	-	-	30,000	30,000	-
47	Replace Portable Pump -- Various Locations	-	65,000	-	-	-	-	-	-	-	-	65,000	65,000	-
48	Lift Station 23 Pump Replacement	-	13,000	-	-	-	-	-	-	-	-	13,000	13,000	-
49	Lift Station 20 Wet Well Rehab	-	-	-	100,000	-	-	-	-	-	-	100,000	100,000	-
50	Lift Station 21 Expansion	-	118,000	500,000	-	-	-	-	-	-	-	618,000	618,000	-
51	Lift Station 1 Expansion	-	-	50,000	910,000	-	-	-	-	-	-	960,000	960,000	-
52	Lift Station 4 Replacement	-	-	-	30,000	534,000	-	-	-	-	-	564,000	564,000	-
53	Lift Station 16 Expansion	-	-	-	45,000	519,000	-	-	-	-	-	564,000	564,000	-
54	Lift Station 36 Expansion	-	-	-	-	546,000	-	-	-	-	-	546,000	546,000	-
55	Lift Station 37 Expansion	-	-	-	-	546,000	-	-	-	-	-	546,000	546,000	-
56	LS 11 Force Main Upgrade	-	-	-	-	500,000	-	-	-	-	-	500,000	500,000	-
57	SPI Manhole Rehabilitation	25,840	-	-	-	-	-	-	-	-	-	25,840	25,840	-
58	Decommission LS 30 Gravity Sewer Extension	-	-	-	34,000	200,000	-	-	-	-	-	234,000	234,000	-
59	Taylor Gravity Sewer Replacement (LV)	144,000	-	-	-	-	-	-	-	-	-	144,000	144,000	-
60	Ebony Gravity Sewer Replacement (LV)	250,000	-	-	-	-	-	-	-	-	-	250,000	250,000	-
61	Flow Monitoring	110,000	-	-	-	-	-	-	-	-	-	110,000	110,000	-
62	LS 21 Area Gravity Sewer Upgrade	-	-	-	-	1,272,000	-	-	-	-	-	1,272,000	1,272,000	-
63	Padre Blvd Gravity Sewer Upgrade AB WWTP	-	-	-	-	258,000	-	-	-	-	-	258,000	258,000	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	-	-	-	-	-	-	-	-
	Future Project	-	-	-	-	-	750,000	750,000	750,000	750,000	750,000	3,750,000	-	3,750,000
		599,840	198,000	1,180,000	1,119,000	4,375,000 1,493,988	750,000	750,000	750,000	750,000	750,000	11,219,840	7,469,840	3,750,000
	Summary													
	Dollars													
	Treatment	$ 1,502,000	$ 3,468,800	$ 6,518,200	$ 1,910,800	$ 6,315,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 29,714,800	$ 19,714,800	$ 10,000,000
	Collection	599,840	198,000	1,180,000	1,119,000	4,375,000	750,000	750,000	750,000	750,000	750,000	11,219,840	7,469,840	3,750,000
	Total	2,101,840	3,664,800	7,698,200	3,029,800	10,690,000	2,750,000	2,750,000	2,750,000	2,750,000	2,750,000	40,934,640	27,184,640	13,750,000
	Percent													
	Treatment	71.5%	94.7%	84.7%	63.1%	59.1%	72.7%	72.7%	72.7%	72.7%	72.7%	72.6%	72.5%	72.7%
	Collection	28.5%	5.3%	15.3%	36.9%	40.9%	27.3%	27.3%	27.3%	27.3%	27.3%	27.4%	27.5%	27.3%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

Input Area -- CIP Funding Scenario
Scenario: ***2014 10 02 -- Alternative 1 -- Status Quo -- PI Reclamation***

1 **Capital Project Funding Summary -- WATER**

Series 2012 Bond Balance			$ 2,491,616									
Unissued Prop 1 Debt			1,290,000									
Beginning Balance			$ 3,781,616	$ 3,694,248	$ 2,967,133	$ 2,192,476	$ 6,100,325	$ 143,332	$ (628,801)	$ (1,416,377)	$ (2,219,705)	$ 1,560,901
Plus Sources of Funds:												
Interest	2.0%	323,503	75,632	73,885	59,343	43,850	122,007	2,867	(12,576)	(28,328)	(44,394)	31,218
Long-Term Debt -- Tax Bonds		-	-	-	-	-	-	-	-	-	-	-
Long-Term Debt - Revenue Bonds		9,200,000	-	-	-	4,600,000	-	-	-	-	4,600,000	-
Capacity Fees		-	-	-	-	-	-	-	-	-	-	-
Total Sources		9,523,503	75,632	73,885	59,343	4,643,850	122,007	2,867	(12,576)	(28,328)	4,555,606	31,218
Less Uses of Funds:												
Capital Improvement Plan			163,000	801,000	834,000	736,000	6,079,000	775,000	775,000	775,000	775,000	775,000
Total Uses of Funds			163,000	801,000	834,000	736,000	6,079,000	775,000	775,000	775,000	775,000	775,000
Ending Balance			3,694,248	2,967,133	2,192,476	6,100,325	143,332	(628,801)	(1,416,377)	(2,219,705)	1,560,901	817,119

2 **Capital Project Funding Summary -- WASTEWATER**

Series 2012 Bond Balance			$ 4,310,815									
Unissued Prop 1 Debt			1,290,000									
Beginning Balance			$ 5,600,815	$ 3,610,991	$ 19,518,411	$ 12,210,579	$ 10,524,991	$ 45,491	$ 9,796,401	$ 7,242,329	$ 4,637,175	$ 3,079,919
Plus Sources of Funds:												
Interest	2.0%	1,525,342	112,016	72,220	390,368	244,212	210,500	910	195,928	144,847	92,744	61,598
Long-Term Debt -- Tax Bonds		32,000,000	-	19,500,000	-	-	-	12,500,000	-	-	-	-
Long-Term Debt -- Revenue Bonds		2,200,000	-	-	-	1,100,000	-	-	-	-	1,100,000	-
Capacity Fees		-	-	-	-	-	-	-	-	-	-	-
Total Sources		35,725,342	112,016	19,572,220	390,368	1,344,212	210,500	12,500,910	195,928	144,847	1,192,744	61,598
Less Uses of Funds:												
Capital Improvement Plan			2,101,840	3,664,800	7,698,200	3,029,800	10,690,000	2,750,000	2,750,000	2,750,000	2,750,000	2,750,000
Total Uses of Funds			2,101,840	3,664,800	7,698,200	3,029,800	10,690,000	2,750,000	2,750,000	2,750,000	2,750,000	2,750,000
Ending Balance			3,610,991	19,518,411	12,210,579	10,524,991	45,491	9,796,401	7,242,329	4,637,175	3,079,919	391,517

LAGUNA MADRE WATER DISTRICT
WATER/WASTEWATER COST OF SERVICE MODEL

10 Year Periods 2014 to 2023		Total Period	2015	2016	2017	2018	2019	2020	2021	2022	2023

Input Area -- CIP Funding Scenario
Scenario: ***2014 10 02 -- Alternative 1 -- Status Quo -- PI Reclamation***

3 Capital Project Funding Summary -- TOTAL

Beginning Balance		$ 9,382,431	$ 7,305,240	$ 22,485,544	$ 14,403,055	$ 16,625,316	$ 188,823	$ 9,167,599	$ 5,825,951	$ 2,417,470	$ 4,640,820
Plus Sources of Funds:											
Interest	2.0%	187,649	146,105	449,711	288,061	332,506	3,776	183,352	116,519	48,349	92,816
Long-Term Debt -- Tax Bonds		-	19,500,000	-	-	-	12,500,000	-	-	-	-
Long-Term Debt - Revenue Bonds		-	-	-	5,700,000	-	-	-	-	5,700,000	-
Capacity Fees		-	-	-	-	-	-	-	-	-	-
Total Sources		187,649	19,646,105	449,711	5,988,061	332,506	12,503,776	183,352	116,519	5,748,349	92,816
Less Uses of Funds:											
Capital Improvement Plan		2,264,840	4,465,800	8,532,200	3,765,800	16,769,000	3,525,000	3,525,000	3,525,000	3,525,000	3,525,000
Total Uses of Funds		2,264,840	4,465,800	8,532,200	3,765,800	16,769,000	3,525,000	3,525,000	3,525,000	3,525,000	3,525,000
Ending Balance		$ 7,305,240	$ 22,485,544	$ 14,403,055	$ 16,625,316	$ 188,823	$ 9,167,599	$ 5,825,951	$ 2,417,470	$ 4,640,820	$ 1,208,636

DOCKET NO. 49154

RATEPAYERS' APPEAL OF THE DECISION BY LAGUNA MADRE WATER DISTRICT TO CHANGE RATES	* * *	PUBIC UTILITY COMMISSION OF TEXAS

****

ORAL DEPOSITION OF

DAN VINCENT JACKSON

NOVEMBER 21, 2019

****

ORAL DEPOSITION OF DAN VINCENT JACKSON, produced as a witness by agreement and duly sworn, was taken in the above-styled and numbered cause on the 21st day of November, 2019 from 8:58 a.m. to 12:31 p.m. before Katherine J. Brookbank, CSR in and for the State of Texas, reported by method of machine shorthand, at the office of Royston, Rayzor, Vickery & Williams, LLP, 55 Cove Circle, Brownsville, Texas, 78521, pursuant to the Texas Rules of Civil Procedure and the provisions stated on the record hereto.

APPEARANCES

FOR THE RATEPAYER(S)
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FOR THE LAGUNA MADRE WATER DISTRICT
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FOR THE PUBLIC UTILITY COMMISSION OF TEXAS
Ms. Kourtnee Jinks (via telephone)
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INDEX

EXHIBITS

DAN VINCENT JACKSON,

having been duly sworn, testified as follows:

E X A M I N A T I O N

Q (BY MR. HUNTER) Would you state your name for the record?

A My name is Dan Vincent Jackson.

Q Mr. Jackson, my name is Jim Hunter and I represent the ratepayer in this appeal of the water rate to the Texas Public Utility Commission. I am going to ask you some questions today. And you understand you are under oath?

A Yes.

Q And I see from your resume your list of testimony history, you have given your deposition or testified in proceedings numerous times. Correct?

A Yes.

Q So I am going to kind of skip over the formalities, except to say if one of my questions is unclear, and might be today -- this is dense stuff for me -- if my question is unclear, ask me to repeat it, rephrase it, and I will be happy to do that. Okay?

A Okay.

Q All right. One thing I think what we -- I would like to do, just to -- I see that you brought your pre-filed testimony with you today?

A Yes, I did.

Q Okay. Did Mr. Houston ever contact you by phone?
A I don't recall.
Q Is it possible he did, you just don't have a recollection?
MR. HANSEN: Objection. Form. Go ahead and answer.
THE WITNESS: Again, I just simply don't recall.
Q (BY MR. HUNTER) Do you remember having conversations with Mr. Houston about the -- separate and apart from a board meeting about the 2018 rate study you were working on or prepared?
A I don't specifically recall any conversations of that nature.
Q Okay. You don't recall, but it's possible you could have had conversations with him?
MR. HANSEN: Objection. Form. Go ahead.
THE WITNESS: I would consider it unlikely.
Q (BY MR. HUNTER) Mr. Houston has never contacted you on your cell phone?
A Not that I recall.
Q As I understand it, there was an initial draft of the 2018 water study prepared, which was transmitted to the district. Correct?
A Yes.
Q Okay. And who reviewed -- who, to your knowledge,

reviewed that draft of the water rate study?

A It would have been reviewed by senior staff.

Q Okay. Do you know whether any of the board members or Herb Houston reviewed a draft of your 2018 water study?

A Of the written study itself, I don't know whether they did or not.

Q Okay. What other study would we be talking about? You specified written.

A There was a board presentation --

Q Okay.

A -- to present the draft results, a PowerPoint presentation.

Q Okay.

A And board meeting where we discussed the results.

Q All right. Did you have any e-mail communications with any board members concerning the 2018 rate study, whether in draft form or final?

A I recall having one conversation with one board member earlier this year, in the January, February time frame, a board member who I did not know personally, had never -- I don't believe I had ever met him. I think he was a new board member. Called me up and asked me a few questions about the rate study.

Q Do you recall which board member that was?

A I don't remember his name.

Q Okay. Was it Herb Houston?

A No. It was not Mr. Houston.

Q All right. Were there any board members who voiced to you any concerns about your draft report that the water -- the raw water rate that you had recommended should be higher than originally recommended by you?

A That topic came up during the presentation of the draft report.

Q Okay. And tell us about the -- tell about that -- tell us about that discussion.

A Yes. It was a board presentation in the June or July time frame of last year. Which is very typical. We complete a draft report and we give an initial presentation to the board. It's not intended to be a final presentation and is intended to get feedback from board members as well as senior staff regarding the draft results and to make any revisions as necessary.

Q Okay.

A In that meeting, I presented a PowerPoint presentation to go over the draft results. The primary focus of the meeting was the discussion as to whether or not to change the method by which the district charges condominiums on the Island.

Q Okay.

A That was what I would characterize as the

overwhelming focus of the study itself.

Q Which is treated water, right? Not --

A Treated water.

Q -- raw water.

A That's correct.

Q Okay.

A Towards the end of the presentation, there was one slide that dealt with the raw water rate.

Q Right.

A And I meant -- and I went through the raw water rate. And there were a couple of questions about the raw water rate.

Q Right.

A I would characterize it as maybe a three- to four-minute discussion. One question that was asked was: Does this represent the cost the district incurs? And I said it did. There was another question: Can we make a profit off of the raw water rate? And my response was: That's not generally how it works. The district is a nonprofit entity. There was a third question that dealt with why the rate wasn't higher than it was. It appeared to be little changed from the 2015 rate, even though the rate study recommended fairly significant increases on all the retail rates. So my recollection is that I told the board I would take another look at the raw water rate.

Q And so at the time of your presentation, what was

your recommendation as to the raw water rate for 2018?

A In the draft presentation the recommendation was somewhere between 80 and 85 cents.

Q Okay. And we know now that the final recommendation was $1.04.

A That's correct.

Q And so what did you do to go about arriving at increasing the rate by another 20 cents between the time of your draft report and the meeting and the time you issued your final report?

A There were two primary changes. The first is that the district gave me an amended budget that increased the total district budget by, I believe, almost a million dollars. So that increased the rates on raw water as well as everybody else. The second was that when I reviewed the raw water rate after the meeting, I noticed in our rate model it was not properly calculating the rate of return. And so I fixed that. And when it properly calculated the rate of return, that added about 15 cents to the rate.

Q Okay. Now, I will get into that in more detail. After you went about doing additional work and finalizing your -- and revising your draft report, did you present, then, a second draft to the board or to administration?

A Yes. I had one more board meeting where I presented the final report and final recommendations under both retail

rate scenarios.

Q Okay. And did you receive questions or comments regarding the increased -- the roughly 20-to-24-cent increase in your raw water rate recommendation?

A I don't remember any specific questions about it at the second meeting. The focus of the meeting was on the condominium rates. That's all virtually everybody wanted to talk about.

Q Okay. And was Mr. Lanning down there at either of those presentations?

A I don't believe so.

Q Okay. And would Mr. -- and I forgot to ask you this. Would Mr. Lanning have -- during the process of preparing the rate study including any revisions, would Mr. Lanning have any direct communications with either district administration or board members?

A He might have had some discussions with staff about getting data.

Q What about board members?

A I would see no reason why he would do that.

Q Okay. You have no personal knowledge as to whether Mr. Lanning had direct communications with district board members?

A I have no personal knowledge of that.

Q Okay. Between the time that you prepared your

initial draft and presented it to the board, did you have any e-mail communications with the district administration or board members?

A E-mail communication is common. I don't specifically recall any, but it wouldn't surprise me if I had.

Q Okay. It wouldn't surprise you if you received e-mail communications from board members?

A Once again, that would be unusual. In my status as a rate consultant, I don't generally get communications from council members or board members.

Q As you sit here today, though, it sounds like you can't recall one way or the other whether you received any e-mail communications --

A No.

Q -- from board members?

A I get a hundred e-mails a day, every day, so I certainly don't remember every e-mail I got.

Q All right. That's fair enough. Fair enough. So in terms of --

A Ninety of those e-mails are spam, by the way.

Q Yep. I get them too. Anyone other than Mr. Lanning assist you in preparing the pre-filed testimony?

A No.

Q Anyone other than Mr. Lanning assist you in preparing the 2018 water rate study?

separate raw water rate for a utility.

Q Numerous public entities and water districts in the Valley have separate rates for raw water, don't they?

A Yes.

Q You are familiar with --

A And many don't, also.

Q Okay. But Laguna Madre Water District does. Is that right?

A That's correct.

Q So are you familiar with the raw water rate -- raw water rates of other municipalities and water utility -- water districts in the Rio Grande Valley?

A I am vaguely familiar with some of them.

Q And based on your vague familiarity, do you know of any municipality or water district in the Rio Grande Valley that charges more than 50 cents per thousand gallon unit?

A I don't know one way or the other.

Q Okay. Would you -- as we sit here today, would you agree that a $1.04 per thousand gallon unit is very high in comparison to the water rates along the Texas border and the Rio Grande Valley?

A No, I wouldn't agree with that at all.

Q Okay. Tell me which municipalities or water districts charge a $1.04 or more for their raw water in the Rio Grande Valley or on the Texas border?

A I haven't researched the issue.
Q Then how can you say that a $1.04 is not an extremely high rate for raw water in the Rio Grande Valley or on the Texas border?
A Because I don't have a basis for comparison. I can't just make a blatant statement about something when I don't have the data sets.
Q Okay.
A There are many cities that border the Rio Grande. And there are 1,200 cities in the state of Texas. I don't know what the raw water rates are for any or all of them.
Q Right.
A So I can't make a blatant conclusion about the relationship of the rate that Laguna Madre charges, and it's not relevant anyway.
Q You talk a lot about comparables in your report. Isn't that correct?
A Comparables to what?
Q Comparables to the treated water rate.
A That tends to be a common question that is asked by board members.
Q But it's actually in your report. Correct?
A Yes.
Q You actually did studies of comparables in treated water rates in the Rio Grande Valley, didn't you?

A Of treated water, yes. That's correct.

Q Right. Why didn't you take -- do a little bit more research and obtain the comparables for raw water rates in the Rio Grande Valley or the Texas border?

A Because the raw water rate is based on the district's cost, as opposed to a rate that is based on a variety of other factors, including cost, which is what typically retail rates are based on. What the district's cost is is what the rate is based on.

Q But the cost is a percentage, at least under your calculations, of the overall costs of the district. Correct?

A That -- it is a reflection of the significant financial and operational challenges the district has in transporting raw water 26 miles from the Rio Grande to the district's borders.

Q Okay.

A A challenge that many of these cities that you are referring to do not have.

Q And some do. Right?

A I don't know of any other cities in the Rio Grande that had a 26-mile transportation system.

Q Many of the communities and water districts in the United -- in the Rio Grande Valley and the Texas border have multiple-mile line transmissions to the -- to their reservoirs. Isn't that correct?

A Well, define multiple mile. Multiple mile can be anything from three miles to 50 miles.

Q Ten miles? Twenty miles?

MR. HANSEN: Objection. Form.

THE WITNESS: I don't know one way or the other.

Q (BY MR. HUNTER) Okay. So you can't really compare the length of the transmission to other water districts or municipalities in the Rio Grande Valley or the Texas border, can you?

A I certainly can look at a map and see where a city is in relation to the Rio Grande, as opposed to where the Laguna Madre Water District is.

Q Okay. But you didn't do that in this case. Right?

A No.

Q Okay.

A Not relevant or necessary.

Q Well, you just told me that the significant cost of a 26-mile line is important to your consideration. So why is it not relevant that other municipalities have a multiple-line (sic) transmission line?

A Because it doesn't matter what the other cities charge for their rates. Just because they have those costs doesn't mean that they are charging a cost-based rate. They can charge whatever they want for raw water. They may have made the managerial decision that they are going to charge 20

cents for raw water because they want to encourage the development of a campus-like environment. So they might have made the managerial decision they are going to charge their raw water rate at less than cost. So what another city charges for raw water rates is, in my opinion, irrelevant to what the district's rate is, and certainly is irrelevant to what the district's costs are.

Q That's your opinion. Right?

A Of course it's my opinion.

Q Okay. All right. Let's go to page 4 of your pre-filed testimony. You stated the purpose of your testimony is to address the reasonableness of the rate for raw water assessed by the Laguna Madre Water District to SPI homeowners, Gulf homeowners, and other raw water customers. You say that you will show that the rate is fair, just, reasonable, and in accordance with rate-making principles and the district's long-standing calculation methodology, which has essentially been unchanged for 23 years, until 2018. Right?

A That's not correct.

Q Why is that not correct?

A Because the methodology had not been changed. It was just not accurately applied in 2014 or early 2018.

Q Okay. But you -- you -- or your company have been -- either you, in the beginning, or your company have been preparing the rate studies for the Laguna Madre Water District

August 9, 2000

Mr. William W. Vaughan III
General Counsel
Landmark National
2817 Crain Highway
Upper Marlboro, Maryland 20774

Dear Mr. Vaughan:

Mr. Eduardo Hernandez asked that I review and respond to your letter dated July 28, 2000, because I calculated both the initial rate specified in the contract and the rate recently adopted by the District. Please allow me to take this opportunity to explain the basis for the recent rate change.

As you noted in your letter and further confirmed by legal counsel for the District, the March 1996 contract between Delos Partners and the District specified an initial rate that was to be in effect for forty-eight months. According to Section 3, after this initial period the rate "may be revised by the District from time to time *in accordance with rate-making policies acceptable to the Texas Natural Resource Conservation Commission* (emphasis added)." The section further states, "the rate ***methodology*** used to calculate the revised rates shall be the same ***methodology*** used to calculate the initial rate specified in Section 2 of this Agreement (emphasis added)".

The term ***methodology*** carries a specific meaning in the field of water ratemaking. The TNRCC and the American Water Works Association recognize two alternative methodologies for the setting of water rates. These methodologies are called the Cash Basis and the Utility Basis. Exhibit C to the contract shows that it was the Utility Basis ***methodology*** that was used to calculate the initial rate.

In order to calculate a rate using the Utility Basis methodology, the District must input five separate but intertwined factors. These factors are the Rate Base, the Rate of Return, Depreciation Expense, O&M expense, and Usage. AWWA and TNRCC precedents allow limited flexibility in calculating these factors under the Utility Basis. In other words, individual factors may be changed while keeping the calculation in accordance with an overall ***methodology***.

You will note that the recent recalculation of the raw water rate resulted in *four of these five factors being revised to the benefit of the raw water customer*. Let us discuss each:

1. **Rate Base** – in both the original and revised calculations, the District limited the rate base only to the actual raw water transportation line itself (and an affiliated pump station). AWWA and TNRCC precedents would allow for the inclusion of some treatment plant assets into the rate base, most notably the raw water reservoirs. Further, to date the District has not included the value of its water rights, which in drought-stricken Texas has skyrocketed in recent years. The exclusion of these elements from the rate base represents an extremely conservative application of the Utility Basis Methodology.

2. **Rate of Return** – utilities typically calculate this factor to include both the cost of debt and a return on equity to compensate current ratepayers for the investment risk of new assets. Thus far the District has included only its current cost of debt in this rate of return, which represents

another conservative interpretation of the Utility Basis methodology. We estimate that including an equity factor would at least double the District's allowable rate of return.

3. **Depreciation Expense** – this is calculated on a straight-line basis over a forty-year useful life. If additional raw-water related assets were included in the rate base, this expense would increase.

4. **Operation and Maintenance Expense** –the revised calculation was based on a cursory review that assumed approximately 10.0% of the District's distribution-related O&M expense was devoted to the transmission line. This is less than the initial 1996 estimate. Given that the line is now in its tenth year of operation, a detailed operations review and analysis would likely result in a finding that significantly more than 10.0% of O&M is devoted to this line, which is the largest and most complex transmission line owned by the District. Also, please note that under the Utility Basis methodology, the District's raw water cost of service does *not* include debt service and reserves.

5. **Usage Factor** – the use of total line capacity as a usage factor is ***not*** in accordance with either the Utility Basis methodology or with ratemaking policies acceptable to the TNRCC and the American Water Works Association. It was both a special set of circumstances, and a desire by the District to ensure that the raw water rate was not unfairly penalizing to raw water users, that led to the 1996 forecast that usage would eventually be equivalent to the line's total capacity.

   When the original rate was calculated, the District had no reliable estimate of the total amount of raw water that would be required by the golf course. While the contract included an estimate of a "maximum" usage level of 750 acre-feet per year, it is common for wholesale customers to exceed their limits (and the District was not prepared to limit the golf course's usage). The District was concerned that using actual 1996 volume for a four-year forecast period without a reliable estimate of golf course usage would result in a usage factor that was too low and consequently a unit rate that was too high. Therefore, to ensure that there was no chance that raw water customers would be inadvertently overcharged, the District initially estimated usage based on total line capacity.

   Since 1996, there have been many changes that have impacted the District's ability to forecast its raw water usage. First, we now have four years of reliable, consistent data on the golf course's usage. Second, proration of water rights due to the ongoing drought have limited the District's ability to pump raw water from the Rio Grande. Third, the District's imposition of an "inverted block" retail water rate has achieved its conservation goal of reducing per meter usage. Fourth, a large water customer has converted to the use of sewer effluent to water its medians, thus further reducing the flow of raw water pumped through the transmission line.

   In summary, while it was reasonable (although quite conservative and beneficial to raw water customers) in 1996 to forecast that usage would eventually approach the line's capacity, events since that time have not borne out that forecast. In maintaining consistency with "rate-making policies acceptable to the TNRCC", the usage factor is estimated based on actual previous year volume, the same standard used to calculate retail water rates.

As you can see, all five of the factors are interactive in the determination of a rate under the Utility Basis. If for any reason any factor is changed, all of the factors should be reconsidered to ensure that a just and reasonable rate is charged to raw water users. This will also ensure that retail ratepayers do not subsidize raw water users.

The result of this calculation is a raw water rate of $0.43 per 1,000 gallons. This rate is significantly less than many other utilities charge for the use of raw water, providing it is even available. The percentage increase is not substantially different from the retail rate increase recently absorbed by the (predominantly low income) retail ratepayers of the District. Additionally, the average water and sewer rate increase across the United States during the 1996-2000 timeframe has been 25%, reflecting the fact that water is becoming an increasingly valuable commodity.

I have been advising the District on it rates for the past ten years and during this time the District has always sought to charge user rates that reflect both its cost of service and TNRCC policies. The predominant rate-related guideline used by the TNRCC is known as "public interest". This rule states that the rates imposed must not be adverse to the "public interest". Given that a) the revised calculation is a conservative interpretation of the Utility Basis methodology; b) the District's raw water rate is lower than that of many other communities in Texas; and c) the recent adjustment was not out of proportion compared to either the national average or other District ratepayers, we are confident that our cost-of-service based raw water rate is in accordance with the "public interest" guideline.

It is our sincere hope that this letter addresses your concern regarding the District's revised raw water rate. If you have any questions regarding the rate methodology, please do not hesitate to call me.

Very Truly Yours,

Dan V. Jackson
Partner

Cc: Eduardo Hernandez
Patrick Lindner, Davidson & Troilo

TABLE III-1 LMWD -- RAW WATER RATE SUMMARY CALCULATION		FY 2001
I. **Invested Rate Base**		
Book Value of Raw Water Line	$	8,250,000
Less Accumulated Depreciation	$	(2,062,500)
Net Book Value of Raw Water Line	$	6,187,500
Other Capitalized Raw Water Assets	$	427,441
Less Accumulated Depreciation		(106,860)
Net Other Costs	$	320,581
Total Invested Rate Base	***$***	***6,508,081***
II **Return Component**		
District Rate of Return		4.96%
Invested Rate Base	$	6,508,081
Total Return Component	***$***	***322,810***
III. **Depreciation Expense**		
Year Placed into Service		1992
Book Value of Raw Water Line	$	8,250,000
Depreciable Lifespan of Raw Water Line		40
Sub-Total	$	206,250
Net Other Capitalized Raw Water Costs	$	427,441
Depreciable Lifespan (Weighted)		40
Sub-Total	$	10,686
Total Depreciation Expense	***$***	***216,936***
IV. **O&M Expense**		
Transmission Line O&M	***$***	***67,436***
Total Revenue Requirement	**$**	**607,183**
V. **Raw Water Pumpage (Ac-ft)**		
Total FY 2000 Raw Water Pumpage		4,330.921
VI. **Calculation of Raw Water Rate**		
Unit Rate per Acre-Foot	**$**	**140.20**
Unit Rate per 1,000 Gal	**$**	**0.43**

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PET00638
SPI 0243 S3

TABLE III-3
LMWD -- RAW WATER RATE
O&M EXPENSE CALCULATION

	Budget FY 2001	Allocable to Raw Water	Raw Water O&M Exp
Allocation Factor			10.00%
Water Plants:			
Total Personnel	$ 404,364	$ 404,364	$ 40,436
Operating Expense:			
System Maintenance	23,000	23,000	2,300
Employee Uniforms	6,000	6,000	600
Vehicle Maintenance	6,000	6,000	600
Chemicals	100,000	-	-
Water Conservation	10,000	10,000	1,000
Safety Supplies	2,000	2,000	200
Supplies	20,000	20,000	2,000
Telephone	1,500	1,500	150
Electricity	185,000	185,000	18,500
Insurance	7,500	7,500	750
Travel & Training	7,000	7,000	700
Permits Tests & Inspections	20,000	-	-
Gas and Garbage	1,500	1,500	150
Misc.	500	500	50
Total Operating	390,000	270,000	27,000
Total Personnel & Operating	$ 794,364	$ 674,364	$ 67,436

10% allocation

PET00639 54
SPI 0244

TABLE III-2
LMWD -- RAW WATER RATE
RATE OF RETURN CALCULATION

Bond	Total Outstanding	FY 2001 Interest	Percent
Series 1992	$ 1,635,000	$ 83,385	5.10%
Series 1993	3,315,000	167,923	5.07%
Series 1994	1,210,000	56,980	4.71%
Series 1997	5,030,000	243,108	4.83%
Series 1999	2,600,000	132,608	5.10%
Weighted Cost of Capital	$ 13,790,000	$ 684,004	4.96%

2000
Weighted
cost of Cap

LAGUNA MADRE WATER DISTRICT
CALCULATION OF RAW WATER RATE
MAY 2000

	Acre-Feet Used
Jan-April 1999	1,225.819
Total 1999	4,175.084
Jan -- April 2000	1,381.656
Total FY 2000	**4,330.921**

Docket No. 49154
SOAH Docket No. 473-19-5677.WS

RATEPAYERS' APPEAL OF THE DECISION BY LAGUNA MADRE WATER DISTRICT TO CHANGE RATES	}	PUBLIC UTILITY COMMISSION OF TEXAS

****

ORAL DEPOSITION OF

CARLOS GALVAN

NOVEMBER 22, 2019

****

ORAL DEPOSITION OF CARLOS GALVAN, produced as a witness at the instance of the Ratepayer South Padre Island Golf Course, and duly sworn, was taken in the above-styled and numbered cause on the 22nd day of November, 2019, from 12:24 p.m. to 2:10 p.m., before Tracie L. Carbajal, CSR in and for the State of Texas, reported by machine shorthand, at the offices of Royston, Rayzor, Vickery & Williams, L.L.P., located at 55 Cove Circle, Brownsville, Texas, pursuant to the Administrative Procedure Act and the provisions attached hereto.

A P P E A R A N C E S

FOR THE RATEPAYER SOUTH PADRE ISLAND GOLF COURSE:

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ALSO PRESENT:

William J. Karr, Ratepayer

INDEX

EXHIBITS

NO. DESCRIPTION PAGE

(No exhibits marked.)

CARLOS GALVAN,

having been first duly sworn, testified as follows:

EXAMINATION

BY MR. HUNTER:

Q. Good afternoon. Can you state your name, please?

A. My name is Carlos Galvan.

Q. Mr. Galvan, my name is Jim Hunter, and I represent SPI Golf, the ratepayer that has appealed the raw water rate increases that the District has assessed over the last couple of years. Do you understand who I am and who I represent?

A. Yes, sir.

Q. Okay. And District counsel is here with you. Before we got started, you told me that you had given a deposition before, correct?

A. Correct.

Q. And so you probably remember what it was like, but let me just kind of go over a few basic ground rules with you. The first is we have a court reporter here typing down my questions and your answers, so try to avoid nods of the head or "uh-huh's" or "huh-uh's" because the court reporter can't take that down.

We had to remind Eddie a couple of times during his deposition when he would give us an "uh-huh" or "huh-uh," and so if I do that, it's -- I don't mean

Q. That's the only one?
A. The others have been appointed. Yes.
Q. Okay. As -- as the General Manager, you're often called upon to speak or address questions during board meetings, correct?
A. Correct.
Q. Okay. Are you also -- do you also go into executive session with the Board?
A. Yes.
Q. Okay. And just for today, has the water rate, in general -- the raw water rate, in general, been discussed in executive session -- any of the executive sessions?
A. Yes, it has.
Q. Okay. And can you recall which executive sessions; which dates?
A. No, I can't recall the dates, but, yes.
Q. Okay. Since you've been with the District -- well, let's just start with -- well, since you've been with the District, who -- how many -- who have been the raw water rate users since you've been with the District?
A. The golf course is one; the City of Port Isabel, and then we had a few other customers that had ranches way passed the golf course, like, on the west side of

the -- the whole area that they've been using raw water.

Q. Okay. So -- but, currently, there's only three users; the golf course, the City of Port Isabel and now -- Mr. Salazar told us about an agricultural use --

A. Yes.

Q. -- user that had just -- just signed up.

A. Just started.

Q. Just started, right?

A. Right. And -- and for that one, we're just transferring water for him because there was an agreement on that part.

Q. Oh, okay. So he won't actually be using the raw water?

A. No. He'll be using the raw water, but it's his own water rights that he has. Yeah. We kind of agreed on an easement where we have a waterline going through his property, and as long as we can convert his water from the Rio Grande and he can pump it out through our lines, we can have that easement there.

Q. Does he get --

A. So that's --

Q. Does this new agricultural use user -- what's his name, or the company's name?

A. I can't remember the name.

Q. Okay. Well, does the new user have to -- does he

pay a reduced rate?

A. I don't -- I don't think he pays anything because he -- we agreed on just transferring the water. He has his own water rights.

Q. So in exchange for the easement, he doesn't have to pay a rate?

A. I believe so.

Q. Okay. Do you know whether the District went about putting a value on the value -- putting a value on the easement that you received from him?

A. I believe the engineer might know that part, yes.

Q. Okay. You don't know off the top of your head?

A. Not that, not off the top of my head.

Q. Okay. You said you have reviewed the 2015 and 2018 water rate studies, right?

A. Yes.

Q. And would you agree with Mr. Jackson's rate study that less than one percent of the District's rate income is from raw water ratepayers?

A. If he said that, I believe it, yes.

Q. Okay. Would you -- do you have an estimate of the total dollar figure generated from raw water users in 2018?

A. No, I don't.

Q. Okay. I want to take you back to -- I want to

Q. Okay. In -- in the time that you've been General Manager, or in administration dealing with the Long Chilton firm or the Carr, Riggs firm, have you ever had any reason to trust their competency to prepare accurate independent audits?

A. No. No, sir.

Q. You trust Carr, Riggs; you trusted Long Chilton?

A. I do, yes.

Q. Okay. I want you to look at -- I'm going to have you look at a portion of Exhibit 1, which is the Carr, Riggs' independent audit of the the District's financial statement for the year ending on September 30, 2018. I see you grimacing.

A. I can't remember on that one.

Q. Well, I'm going to show you -- we're not -- we're not going to go into the detail that we went into with Mr. Salazar, but I do want to talk to you about a few things, okay?

A. (Witness nods head up and down.)

Q. While I'm looking here, is the line -- the 26-mile line from the Rio Grande to the District's reservoir on Highway 100, do you know what the size is? Is it a 42-inch or a 46-inch pipe?

A. From the river to reservoir four, it's a 42-inch waterline, and from reservoir four to the Los Cuates

Pump Station, it's a 36-inch waterline.

Q. Okay. So you're going -- you're going east to west, and I was thinking I was going -- okay. So let's go -- let's go east to west.

A. East to west, okay.

Q. East to west. So at the District's main reservoir -- I'm calling it the main reservoir, the one on Highway 100.

A. Okay.

Q. That -- at that point, it's 42 inches?

A. No, sir.

Q. Okay.

A. At that point, it's a 20-inch coming in, a brand-new 24-inch line coming in --

Q. Right. Let's stop there.

A. Okay.

Q. Let's start from -- let's start from the Rio Grande and let's work our way back west, okay?

A. Okay.

Q. So what's the size of the pipe at the mouth or at the Rio Grande -- the banks of the Rio Grande?

A. It's a 42-inch pipeline.

Q. Forty-two inch?

A. Right. Correct.

Q. And, then, at what point or what station or what

point does it turn into --

A. Okay. All the way from the river to reservoir four?

Q. Yes, which is the reservoir on Highway 100 near --

A. No, sir. That's -- that's a big reservoir that we have storage at --

Q. Olmito?

A. -- Tract Road -- Rice Tract Road. It's on -- they call it Christian City or Christian -- it's off of Highway 100 and 83. There's -- like, Highway 100 coming in from Los Fresnos --

Q. Right.

A. -- west and it hits 83. Well, you go under the overpass and keep going straight, and it turns to Rice Tract Road, and that's where we have the big, large reservoir.

Q. Okay. I think I know where it is. You can see it from the highway?

A. No, you can't. No, sir.

Q. Oh, you can't. So that would be in the vicinity of Olmito, right?

A. No. It's more, like -- no. It's -- Olmito would be more to the south --

Q. Okay.