


AGENDA

**ENGINEERING COMMITTEE MEETING
LEUCADIA WASTEWATER DISTRICT**

Tuesday, May 2, 2023 – 8:30 a.m.
1960 La Costa Avenue, Carlsbad, CA 92009

1. **Call to Order**
2. **Roll Call**
3. **Public Comment**
4. **New Business**
 - A. Receive and file the 2023 Asset Management Plan completed by Dexter Wilson Engineering Incorporated. (Pages 2 - 13)
5. **Information Items**
 - A. Village Park No. 7 Pump Station Replacement Project Update (Verbal)
6. **Directors' Comments**
7. **General Manager's Comments**
8. **Adjournment**

MEMORANDUM

DATE: April 26, 2023
TO: Engineering Committee
FROM: Paul J. Bushee, General Manager 
SUBJECT: 2023 Update of the Asset Management Plan

RECOMMENDATION:

Staff requests that the Engineering Committee recommend that the Board of Directors:

1. Adopt the Leucadia Wastewater District's (LWD) 2023 Asset Management Plan Update.

Tactical Goal: Infrastructure and Technology / Asset Management Plan Update

BACKGROUND:

The Asset Management Plan (AMP) is one of three District cornerstone documents and is typically updated every 5 years. One of the primary functions of the AMP is to identify those Capital Improvement Program (CIP) projects that will be needed to keep LWD's infrastructure in good working order with the overall goal of replacing infrastructure before a failure occurs. The AMP develops both a 5 Year CIP and 20 Year CIP along with the projected costs of those projects. These costs are then incorporated in the LWD's Financial Plan where they are inflated and used to develop projections for future rate increases.

LWD's last AMP Update occurred in 2018 and resulted in either the completion or implementation of 16 CIP projects. Key infrastructure projects over this timeframe included:

- Leucadia Pump Station Rehabilitation Project
- Encinitas Pump Station Replacement Project
- Village Park No.7 Pump Station Replacement Project
- La Costa Golf Course Gravity Line Realignment
- FY20 Gravity Pipeline Rehabilitation Project
- FY21 Gravity Pipeline Rehabilitation Project
- FY22 Gravity Pipeline Rehabilitation Project
- Batiquitos Pump Station Emergency Basin Inspection
- Hazard Mitigation Plan Update

DISCUSSION:

In July 2022, LWD executed an agreement with Dexter Wilson Engineering Incorporated (DWEI) to begin the 2023 AMP Update. Staff has been working with DWEI since that time and the final draft is presented here for your review. The 2023 AMP update organizes the District's wastewater assets into five distinct categories: 1) gravity lines & manholes; 2) pump stations; 3) force mains; 4) jointly-owned facilities; and 5) recycled water facilities. Additionally, the AMP incorporates LWD's share of Encina Wastewater Authority's projected CIP expenditures.

The 2023 AMP documents LWD's continued focus on television inspection of gravity lines and manhole inspections. This information is used to populate the Repair Priority List and develop CIP projects for these facilities. Additionally, the AMP methodically addresses future rehabilitation and/or replacement of force mains and pump stations based on staff's field observations, pump station and forcemain inspections and the estimated life cycles of pump station components. The AMP then develops: 1) recommendations for the effective management of District's assets by category; 2) 5 Year CIP expenditures; and 3) 20 Year CIP expenditures.

The 2023 Update also includes an evaluation of the LWD's Equivalent Dwelling Units (EDU) and project buildout flows. LWD's current average generation rate is 128 gallons per day per EDU which is lower than the 133 gallons per day per EDU rate utilized in the 2018 AMP. The reduced generation rate can be attributed to the impacts of water conservation throughout LWD's service area. Despite the slightly lower flow per capita, it was determined to keep projected buildout flow unchanged from the 2018 AMP at 4.7 million gallons per day (MGD). For a historical comparison, LWD's 1999 Wastewater Master Plan assumed a flow factor of 215 gallons per day per EDU with an associated buildout flow of 6.87 MGD.

Attached is the Executive Summary for your review. A copy of the AMP is available upon request. It is important to keep in mind that the AMP is a working plan that will be modified over time as it is implemented and new data is collected. Natalie Fraschetti, of DWEI, will present an overview of the 2023 Asset Management Plan.

rym:PJB

Attachment

EXECUTIVE SUMMARY

The Leucadia Wastewater District (District) covers a total service area of 10,200 acres (16 square miles) which includes southern portions of the City of Carlsbad (Carlsbad) and northern portions of the City of Encinitas (Encinitas). The District provides wastewater collection, treatment, disposal and service to a population of approximately 61,000.

The District presently serves 28,774 equivalent dwelling units (EDUs), at 90% of buildout, with a buildout projection of 31,974 EDUs. This is an increase to the prior (1999) buildout projection, with a significant portion due to the potential for accessory dwelling units on single-family residential parcels, particularly in the City of Encinitas.

At present, wastewater flows are approximately 3.6 mgd, a slight decrease from the 2018 Asset Management Plan. The current wastewater generation rate is 128 gpd/EDU on average across the District. The generation rate has declined in recent years. In comparison, existing flows at the time of the 1999 Master Plan were approximately 4.0 mgd; which equates to a generation rate of 185 gpd/EDU at that time. The present per capita wastewater generation rate in the District is approximately 51 gpd (wet weather flows are included in this average).

The buildout flow projection for the District remains the same from the 2018 Asset Management Plan at 4.7 mgd (based on 133 gpd/EDU and a 10% safety factor). In comparison, the 1985 Planning Study projected 9.6 mgd (based on 238 gpd/EDU) and the 1999 Master Plan projected 6.5 mgd (based on 215 gpd/EDU) for buildout flows. Long-term pipeline model capacity evaluations are based on measured flows and attenuated pump flows to better model actual conditions. Based on these conditions, there are no pipeline capacity projects recommended.

The District's existing wastewater system encompasses approximately 200 miles of gravity sewer pipeline, 5,000 manholes, 10 pump stations, and approximately 11 miles of force mains. The District is one of six owners of the Encina Water Pollution Control Facility (WPCF) which is operated and administered by the Encina Wastewater Authority (EWA). Additionally, the District pumps secondary treated wastewater from the Encina WPCF to its Gafner Water Reclamation Plant (WRP) for tertiary treatment and then distributes the recycled water to the South La Costa Golf Course.

The District prepares its asset management plans (AMP) on a 5-year cycle in order to: (1) capture the District's progress in the management of its wastewater and recycled water assets, (2) provide recommendations for operation and assessment/replacement cycle improvements to each of the asset classes, and (3) develop the recommended 5-Year and 20-Year capital improvement program (CIP) based on District and EWA projects.

The following sections summarize the recommendations of this AMP by asset category highlighting operation and maintenance recommendations (where appropriate) and providing short-term expenditures of capital funds (i.e., 5-Year Capital Improvement Program projects). Long-term (20 year) estimates of expenditures are also provided. Note that no growth-related capital improvement projects are recommended for the District at this time based on (1) the District approaching the estimated number of buildout EDUs and (2) the quantity of wastewater per EDU on a District-wide basis has not increased.

GRAVITY SEWER PIPELINES AND MANHOLES: 5-YEAR AND 20-YEAR COSTS

- FY23 Gravity Pipeline Rehabilitation Project - \$682,000
- FY23 SCADA Upgrade - \$85,600
- Annual Gravity Pipeline Rehabilitation Projection (or CIP) - \$790,000 per year
- Annual Miscellaneous Pipeline/Manhole/Pump Station Repair - \$205,000 per year
- Annual Lateral Replacement/Backflow Preventer Program - \$100,000 per year
- Annual Estimate of Headquarters Buildings Expenses - \$32,333 per year

GRAVITY SEWER PIPELINES AND MANHOLES: SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

- Identify and track locations of lined manholes.
- Identify and track locations of inflow domes.
- Continue submetering in areas of known or suspected inflow and infiltration.
- Maintain a current GIS layer of the Repair Priority List.

- Populate “Yes/No” column in Repair Priority List to indicate whether the line has previously been repaired and add reference to prior project/work order as appropriate.
- Track Repair Priority List Completions, Miscellaneous Line Repairs, and Capital Improvement Projects in GIS/Inframap
- When lining a pipeline in an area with chronic root issues, the lateral joints should be addressed, via either a top hat, T-liner, or other means.
- When possible, spot repairs of pipelines should be addressed by lining the entire pipe segment, particularly on pipes greater than 40 years in age.
- Aggregate manhole linings into a stand-alone project to take advantage of economies of scale.

PUMP STATIONS: 5-YEAR AND 20-YEAR COSTS

The following replacement-based capital improvement projects are recommended or are planned by the District and are included in the District’s 5-Year CIP.

- Batiquitos Emergency/Overflow Basin Inspection
- Batiquitos Pump Station Upgrade Project (includes the Emergency Basin Lining and Pump Installation)
- Diana Pump Station Upgrade Project
- Rancho Verde Pump Station Improvement Project
- Village Park 7 Pump Station Rehabilitation Project
- Pump Station Condition Assessment
- Annual Cathodic Protection Assessment

The following replacement-based capital improvement projects are recommended or are planned by the District and are included in the District’s 20-Year CIP.

- Avocado Pump Station Upgrade Project
- La Costa Pump Station Replacement Project
- For financial planning purposes, in years when significant pump station or force main capital replacement projects are not occurring, expenses are anticipated based on the forecasted General Pump Station Replacement costs.

**PUMP STATIONS:
SUMMARY OF RECOMMENDATIONS**

- Evaluate pump size at each station based on actual flow generation rates and anticipated peak buildout flows when pump replacement dictates.
- Further evaluate bypassing the Batiquitos Pump Station (for a portion of the District's flow) by pumping directly from the Leucadia Pump Station into one of the Batiquitos force mains.
- Beyond FY24, determine future pump station inspection efforts based on the previous inspection, age of the asset, needs identified by the District, and the projected date of project implementation.
- Consider the preparation of a detailed checklist of inspection components for each station. The basis for this would be prior inspection reports by IEC (and others) with additions by staff as appropriate.
- Consider the maintenance of a pump station component tracking database. This would be used to track improvements and associated costs to better project future spending. This would combine the efforts already occurring as part of the Sewer System Management Plan (SSMP) audit process as well as the financial tracking done for capital asset depreciation.
- Continue efforts to reduce inflow and infiltration via inflow domes in manholes, smoke testing, and lining projects with lateral top hats.

**FORCE MAINS:
5-YEAR COSTS, 20-YEAR COSTS, AND RECOMMENDATIONS**

- The following replacement-based capital improvement projects are recommended or are planned by the District and are included in the District's 5-Year CIP.
 - L1 Destructive Testing
 - L1 Internal Condition Inspection
 - B3 Destructive Testing
- The following replacement-based capital improvement projects are recommended or are planned to be included in the District's 20-Year CIP:
 - B3 Internal Condition Inspection
 - L1 Final Replacement/Lining
 - B3 Final Replacement/Lining
- Include \$15,000 in annual long-term capital expenses related to cathodic protection repairs and improvements.
- Update composite figures for each force main based on record drawings of recent improvements.

**JOINTLY-OWNED GRAVITY SEWERS
5-YEAR COSTS AND 20-YEAR COSTS**

There are no specific capital improvement projects included in the District's 5-Year or 20-Year CIP for jointly-owned gravity sewer facilities. For financial planning purposes, annual estimates of capital expenditures are provided for the Lanikai and Occidental Sewers.

**ENCINA WASTEWATER AUTHORITY
5-YEAR COSTS, 20-YEAR COSTS, AND RECOMMENDATIONS**

- For long-term financial planning purposes, the District's share of Encina capital costs is estimated to be approximately \$84,000,000 over the next 20 years (approximately \$4.2 million per year) and is based on a review of historical actual Encina capital costs to the District.

- Consider Encina Wastewater Authority long-term water reuse plans in the long-term financial planning once cost estimates have been prepared.

RECYCLED WATER 5-YEAR AND 20-YEAR COSTS

- Recycled water projects included in the 5-Year CIP include:
 - FY23 SCADA upgrade
- Recycled water projects included in the 20-Year CIP include:
 - Encina Secondary Effluent Pump Station Rehabilitation Project
 - General Pump Station Improvements (based on long-term spending needs minus planned projects)
 - B1 Force Main – La Costa Replacement
 - Gafner AWT Phase 2 Improvements
- Long-term capital replacement expenditures for the secondary effluent pump station and force main and Gafner WRF are expected to total \$12,000,000 over the next 20 years

RECYCLED WATER: SUMMARY OF RECOMMENDATIONS

- The District should inspect portions of the Encina Secondary Effluent Pump Station as part of the overall FY24 pump station condition assessment to confirm the project scope.
- Continue coordinating with other North County agencies on the North San Diego Water Reuse Coalition (NSDWRC) Regional Recycled Water Project.
- For long-term financial planning, District recycled water expenditures for pumpback facilities at Encina are estimated to total \$5,036,000 over the next 20 years. The Gafner Water Reclamation Plant expenses are expected to total \$6,680,000 over the next 20 years.

DISTRICT 5-YEAR CIP

Table ES-1 presents the District's recommended 5-Year CIP as a culmination of all CIP projects discussed throughout the report.

DISTRICT 20-YEAR CIP

Table ES-2 and Table ES-3 present a summary of the estimated wastewater and recycled water program expenditures by asset class, respectively, over the next 20 years (through FY2042). Table ES-4 presents the 20-Year CIP.

TABLE ES-1 LEUCADIA WASTEWATER DISTRICT 5-YEAR CIP						
Location Code	Project Name	FY2023	FY2024	FY2025	FY2026	FY2027
WASTEWATER PROGRAMS						
Gravity Pipelines and Manholes						
<i>Specific Pipeline and Manhole Replacement/Rehabilitation Projects</i>						
0382	FY23 Gravity Pipeline Rehab Project	\$682,000	-	-	-	-
-	FY24 Gravity Pipeline Rehab Project	-	\$790,000	-	-	-
-	FY25 Gravity Pipeline Rehab Project	-	-	\$790,000	-	-
-	FY26 Gravity Pipeline Rehab Project	-	-	-	\$790,000	-
-	FY27 Gravity Pipeline Rehab Project	-	-	-	-	\$790,000
-	Buildout-Capacity Based Projects	-	-	-	-	-
<i>Subtotal Specific Pipeline and Manhole Replacement/Rehabilitation Projects</i>		\$682,000	\$790,000	\$790,000	\$790,000	\$790,000
<i>General Pipeline and Manhole Replacement Projects</i>		\$0	\$0	\$0	\$0	\$0
<i>Additional Pipeline and Manhole Projects</i>						
0077	Misc. Pipeline/Manhole Rehab.	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000
-	Headquarters Building	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333
-	FY23 SCADA Upgrades	\$70,000	-	-	-	-
-	Future SCADA Upgrades	\$0	\$0	\$0	\$0	\$0
0368	Asset Management Plan Update	\$150,000	-	-	-	-
0323	Lateral Repl./Backflow Preventer Prog.	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Total Gravity Pipelines and Manholes		\$1,239,333	\$1,127,333	\$1,127,333	\$1,127,333	\$1,127,333
Pump Stations and Force Mains						
<i>Specific Pump Station Improvement Projects</i>						
0381	Village Park No. 7 PS Replacement Project	\$917,000	-	-	-	-
0383	Rancho Verde Improvements	\$419,000	\$828,400	-	-	-
-	Pump Station Condition Assessment	-	\$50,000	-	-	-
0372	Diana PS Upgrade Project	-	\$236,250	\$708,750	-	-
0384	Batiquitos Emergency/Overflow Basin	\$34,500	-	-	-	-
-	Batiquitos Pump Station Rehabilitation	-	\$338,000	\$2,807,500	\$2,119,500	-
-	La Costa Pump Station Replacement	-	-	-	-	-
-	Avocado Pump Station Upgrade	-	-	-	-	-
<i>Subtotal Specific Pump Station Projects</i>		<i>\$1,370,500</i>	<i>\$1,452,650</i>	<i>\$3,516,250</i>	<i>\$2,119,500</i>	<i>\$0</i>
Force Mains						
-	L1 Destructive Testing	-	\$300,000	-	-	-
-	L1 Condition Inspection	-	-	-	\$500,000	-
-	L1 Final Replacement/Lining	-	-	-	-	-
-	B3 Destructive Testing	-	-	-	-	\$300,000
-	B3 Condition Inspection	-	-	-	-	-
-	B3 Rehab/Replace Project - Phase 2	-	-	-	-	-
-	Batiquitos Partial Bypass	-	-	-	-	-
O+M	Annual Cathodic Protection	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500
-	Anode Replacement	-	-	\$30,000	-	-
<i>Subtotal Specific Force Main Projects</i>		<i>\$4,500</i>	<i>\$304,500</i>	<i>\$34,500</i>	<i>\$504,500</i>	<i>\$304,500</i>
Subtotal of Specific Pump + Force Main Replacement Projects		\$1,375,000	\$1,757,150	\$3,550,750	\$2,624,000	\$304,500
<i>General Pump Station Projects</i>		<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
Total Pump Stations and Force Mains		\$1,375,000	\$1,757,150	\$3,550,750	\$2,624,000	\$304,500
2021 Hazard Mitigation Plan Improvements						
-	Batiquitos Flood Proofing (Part of Upgrade Project)	-	-	-	-	-
-	Saxony Flood Protection	-	-	-	-	-
-	Batiquitos and Saxony PS Flood Response and Contingency Plans	-	-	-	-	-
-	Batiquitos Long-Term Flood Proofing	-	-	-	-	-
-	Saxony, La Costa and Leucadia Long-Term Sea Level Rise	-	-	-	-	-
-	Bridge Crossing Analysis (L2 Flex Coupling)	-	-	-	-	-
Jointly-Owned Gravity Sewers						
0361	Poinsettia Station Gravity Pipeline Project (Lanikai)	\$0	-	-	-	-
-	General Lanikai Replacement (District Share)	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
-	General Occidental Replacement (District Share)	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450
Subtotal HMP+ Jointly-Owned Gravity Sewers		\$53,450	\$53,450	\$53,450	\$53,450	\$53,450
Subtotal Wastewater Program (No Encina)		\$2,667,783	\$2,937,933	\$4,731,533	\$3,804,783	\$1,485,283
Encina						
0072	District Share of Encina CIP	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695
-	IPR Evaluation	-	-	-	-	-
-	IPR Implementation	-	-	-	-	-
Total Wastewater Program		\$6,872,478	\$7,142,628	\$8,936,228	\$8,009,478	\$5,689,978
RECYCLED WATER PROGRAM						
-	FY23 SCADA Upgrades	\$3,000	-	-	-	-
-	SCADA Upgrades	-	-	-	-	-
-	Encina Secondary Effluent PS Rehab Project	-	-	-	-	-
-	General Encina Secondary Improvements (less FM)	-	-	-	-	-
0367	B1 Force Main - North Section Replacement	\$728,000	-	-	-	-
-	B1 Force Main - La Costa Replacement	-	-	-	-	-
-	Gafner AWT Improvements (Phase 2)	-	-	-	-	-
-	General Gafner Improvements	-	-	-	-	-
Total Recycled Water Program		\$731,000	\$0	\$0	\$0	\$0
DISTRICT TOTAL CIP EXPENSES		\$7,603,478	\$7,142,628	\$8,936,228	\$8,009,478	\$5,689,978

TABLE ES-2 20-YEAR SUMMARY OF WASTEWATER CIP EXPENDITURES	
Asset Category	Expenditures over 20 Years
Gravity Sewer Pipelines and Manholes	\$ 23,363,660
Pump Stations and Force Mains	\$ 47,846,335
Jointly-Owned Gravity Sewers	\$ 1,069,000
Encina Wastewater Authority Projects	\$ 84,093,900
TOTAL	\$ 156,372,895

TABLE ES-3 20-YEAR SUMMARY OF RECYCLED WATER CIP EXPENDITURES	
Asset Category	Expenditures over 20 Years
Recycled Water Pump Station and Force Main	\$ 5,018,000
Gafner Water Reclamation Plant	\$ 6,698,000
North County Regional Recycled Water Project	\$ 0
TOTAL	\$ 11,716,000

TABLE E-4 LEUCADIA WASTEWATER DISTRICT CAPITAL IMPROVEMENT PROGRAM - FINANCIAL ANALYSIS																								
Location Code	Project Name	Project Cost	20 Year Costs	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041	FY2042	
WASTEWATER PROGRAMS																								
Gravity Pipelines and Manholes																								
Specific Pipeline and Manhole Replacement/Rehabilitation Projects																								
0382	FY23 Gravity Pipeline Rehab Project	\$682,000	\$682,000	\$682,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	FY24 Gravity Pipeline Rehab Project	\$790,000	\$790,000	-	\$790,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	FY25 Gravity Pipeline Rehab Project	\$790,000	\$790,000	-	-	\$790,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	FY26 Gravity Pipeline Rehab Project	\$790,000	\$790,000	-	-	-	\$790,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	FY27 Gravity Pipeline Rehab Project	\$790,000	\$790,000	-	-	-	-	\$790,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Buildout-Capacity Based Projects	\$0	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal Specific Pipeline and Manhole Replacement/Rehabilitation Projects			\$3,992,000	\$3,842,000	\$682,000	\$790,000	\$790,000	\$790,000	\$790,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
General Pipeline and Manhole Replacement Projects			\$790,000	\$11,850,000	\$0	\$0	\$0	\$0	\$0	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000	
Additional Pipeline and Manhole Projects																								
0077	Misc. Pipeline/Manhole Rehab.	\$205,000	\$4,100,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	
-	Headquarters Building	\$32,333	\$646,660	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	\$32,333	
-	FY23 SCADA Upgrades	\$70,000	\$70,000	\$70,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Future SCADA Upgrades	\$85,000	\$255,000	\$0	\$0	\$0	\$0	\$0	\$85,000	\$0	\$0	\$0	\$0	\$85,000	\$0	\$0	\$0	\$0	\$85,000	\$0	\$0	\$0	\$0	
0368	Asset Management Plan Update	\$150,000	\$600,000	\$150,000	-	-	-	-	\$150,000	-	-	-	-	\$150,000	-	-	-	-	\$150,000	-	-	-	-	
0323	Lateral Repl./Backflow Preventer Prog.	\$100,000	\$2,000,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	
Total Gravity Pipelines and Manholes			\$5,424,333	\$23,363,660	\$1,239,333	\$1,127,333	\$1,127,333	\$1,127,333	\$1,127,333	\$1,362,333	\$1,127,333	\$1,127,333	\$1,127,333	\$1,127,333	\$1,362,333	\$1,127,333	\$1,127,333	\$1,127,333	\$1,127,333	\$1,362,333	\$1,127,333	\$1,127,333	\$1,127,333	\$1,127,333
Pump Stations and Force Mains																								
Specific Pump Station Improvement Projects																								
0381	Village Park No. 7 PS Replacement Project	\$917,000	\$917,000	\$917,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0383	Rancho Verde Improvements	\$1,247,400	\$1,247,400	\$419,000	\$828,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Pump Station Condition Assessment	\$50,000	\$50,000	-	\$50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0372	Diana PS Upgrade Project	\$945,000	\$945,000	-	\$236,250	\$708,750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0384	Batiquitos Emergency/Overflow Basin	\$34,500	\$34,500	\$34,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Batiquitos Pump Station Rehabilitation	\$5,265,000	\$5,265,000	-	\$338,000	\$2,807,500	\$2,119,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	La Costa Pump Station Replacement	\$3,310,000	\$3,310,000	-	-	-	-	-	\$3,310,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Avocado Pump Station Upgrade	\$816,750	\$816,750	-	-	-	-	-	-	\$816,750	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal Specific Pump Station Projects			\$12,585,650	\$12,585,650	\$1,370,500	\$1,452,650	\$3,516,250	\$2,119,500	\$0	\$3,310,000	\$0	\$816,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Force Mains																								
-	L1 Destructive Testing	\$300,000	\$300,000	-	\$300,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	L1 Condition Inspection	\$500,000	\$500,000	-	-	-	\$500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	L1 Final Replacement/Lining	\$3,360,000	\$3,360,000	-	-	-	-	-	-	-	-	\$1,680,000	\$1,680,000	-	-	-	-	-	-	-	-	-	-	
-	B3 Destructive Testing	\$300,000	\$300,000	-	-	-	-	\$300,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	B3 Condition Inspection	\$500,000	\$500,000	-	-	-	-	-	\$500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	B3 Rehab/Replace Project - Phase 2	\$4,650,000	\$4,650,000	-	-	-	-	-	-	-	-	-	-	-	\$2,325,000	\$2,325,000	-	-	-	-	-	-		
-	Batiquitos Partial Bypass	TBD	\$0	-	-	-	-	-	-	-	-	-	-	-	\$2,325,000	\$2,325,000	-	-	-	-	-	-		
-	Annual Cathodic Protection	Misc.	\$47,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	-	-	-	-	-	-	-	-	-		
-	Anode Replacement	\$30,000	\$180,000	-	-	\$30,000	-	-	\$30,000	-	\$30,000	-	-	\$30,000	-	-	-	\$30,000	-	-	\$30,000	-	-	
Subtotal Specific Force Main Projects			\$9,880,000	\$9,837,500	\$4,500	\$304,500	\$34,500	\$504,500	\$304,500	\$35,000	\$505,000	\$5,000	\$1,715,000	\$1,685,000	\$2,325,000	\$2,355,000	\$0	\$0	\$30,000	\$0	\$0	\$30,000	\$0	
Subtotal of Specific Pump + Force Main Replacement Projects			\$22,423,150	\$1,375,000	\$1,757,150	\$3,550,750	\$2,624,000	\$304,500	\$3,345,000	\$505,000	\$821,750	\$1,715,000	\$1,685,000	\$2,325,000	\$2,355,000	\$0	\$0	\$30,000	\$0	\$0	\$30,000	\$0	\$0	
General Pump Station Projects			\$750,000	\$25,423,185	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,514,400	\$2,953,125	\$2,923,125	\$2,953,125	\$2,953,125	\$2,953,125	\$2,923,125	\$3,116,580	
Total Pump Stations and Force Mains			\$23,215,650	\$47,846,335	\$1,375,000	\$1,757,150	\$3,550,750	\$2,624,000	\$304,500	\$3,345,000	\$505,000	\$821,750	\$1,715,000	\$1,685,000	\$2,325,000	\$2,355,000	\$4,514,400	\$2,953,125	\$2,953,125	\$2,953,125	\$2,953,125	\$2,923,125	\$3,116,580	
2021 Hazard Mitigation Plan Improvements																								
-	Batiquitos Flood Proofing (Part of Upgrade Project)	\$250,000	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Saxony Flood Protection	TBD	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Batiquitos and Saxony PS Flood Response and Cont	TBD	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Batiquitos Long-Term Flood Proofing	TBD	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Saxony, La Costa and Leucadia Long-Term Sea Level	TBD	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	Bridge Crossing Analysis (L2 Flex Coupling)	\$100,000	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Jointly-Owned Gravity Sewers																								
0361	Poinsettia Station Gravity Pipeline Project (Lanikai)	\$0	\$0	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	General Lanikai Replacement (District Share)	\$12,000	\$240,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	
-	General Occidental Replacement (District Share)	\$41,450	\$829,000	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	\$41,450	
Subtotal HMP+ Jointly-Owned Gravity Sewers			\$403,450	\$1,069,000	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	\$53,450	
Subtotal Wastewater Program (No Encina)			\$29,043,433	\$72,278,995	\$2,667,783	\$2,937,933	\$4,731,533	\$3,804,783	\$1,485,283	\$4,760,783	\$1,685,783	\$2,002,533	\$2,895,783	\$2,865,783	\$3,740,783	\$3,535,783	\$5,695,183	\$4,133,908	\$4,133,908	\$4,368,908	\$4,133,908	\$4,133,908	\$4,297,363	
Encina																								
0072	District Share of Encina CIP	\$4,204,695	\$84,093,900	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	\$4,204,695	
-	IPR Evaluation	TBD	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	IPR Implementation	TBD	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Wastewater Program			\$29,043,433	\$156,372,895	\$6,872,478	\$7,142,628	\$8,936,228	\$8,009,478	\$5,689,978	\$8,965,478	\$5,890,478	\$6,207,228	\$7,100,478	\$7,070,478	\$7,945,478	\$7,740,478	\$9,899,878	\$8,338,603	\$8,338,603	\$8,573,603	\$8,338,603	\$8,338,603	\$8,502,058	
RECYCLED WATER PROGRAM																								
-	FY23 SCADA Upgrades	\$3,000	\$3,000	\$3,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	SCADA Upgrades	\$5,000	\$15,000	-</																				