



TECHNICAL MEMORANDUM

To: Jeremy Ghent

District Administrator

South San Luis Obispo County Sanitation District

From: Eileen Shields, PE

Vanessa Imani

Date: April 23, 2019

Re: South San Luis Obispo County Sanitation District

Wastewater Treatment Plant Life Expectancy Analysis



1. Introduction

1.1. Objective

The South San Luis Obispo County Sanitation District (SSLOCSD or District) owns and operates the SSLOCSD Wastewater Treatment Plant (WWTP). The District is implementing the WWTP Redundancy Project to meet the Regional Water Quality Control Board's (RWQCB) regulations. The objective of this Technical Memorandum (TM) is to provide a Life Expectancy Analysis in conformance with the Coastal Development Permit (CDP) No 13-16-0233. The purpose of the Life Expectancy Analysis is to evaluate long-term costs of maintaining the plant at its current location with the primary purpose being to help determine when the plant cannot function without substantial investment in new infrastructure and protective measures, and when it might be appropriate to relocate the existing WWTP.

1.2. CDP Requirements

CDP #13-16-0233 was approved on May 10, 2017. Item 5 of the Special Condition (Section III) calls for a Life Expectancy Analysis. The permit stipulates that the Analysis should include an evaluation of annual and long-term costs of maintaining existing plant at its current location, including repairing/maintaining and replacing existing components, upgrading existing components to meet regulatory (RWQCB or other) requirements/specifications, and responding to coastal hazards risk (including flood-proofing existing and new components over time). The Analysis must include the following minimum components:

- Information on each component at the WWTP (e.g., headworks, clarifiers, digesters, etc.)
- Installation date of each component
- Upgraded component dates and the current condition of that equipment
- Major upgrade events
- The expected lifespan and repair/maintenance and replacement costs of each component
- Remaining years for each component and the overall WWTP.
- Costs of anticipated habitat mitigation requirements for impacts from potential flood control projects
- Conclusions regarding the expected point in time when investments in infrastructure (including continued flood protection measures) at the current plant location outweigh investing in a relocated plant at a location safe from flooding and other coastal hazards.

1.3. Previous Studies

The following studies and documents were reviewed during preparation of this report:

- Alternatives for Production of Recycled Water Technical Memorandum No. 7 (Kennedy Jenks, October 2017)
- Evaluation of Wastewater Treatment Plant Site Alternatives and Conceptual Costs for Coastal Development Permit Application (MKN & Associates, September 2016)
- Redundancy Project Opinion of Probable Construction Cost (Kennedy Jenks, April 2019)
- WWTP Equipment Replacement Inventory (updated by District staff in 2018)

2. WWTF Components

2.1. Component Information

The WWTP is a conventional facility with mechanical screens, grit removal, two primary clarifiers, a fixed film reactor (FFR), a secondary clarifier, and a chlorine disinfection system. **Table 3-1** provides information on each existing component at the WWTP.

		Table 3-1: Hi	story of Existing Facility
System	Year	Year(s)	Description of Renovation
Component	Constructed	Renovated	
	1966	1999,	1999: Pump service
Influent		2005	2005: Diesel bypass pump and motor installed
Pumping		2012,	2012: Pump and valve service
Station		2014,	2014: Three VFDs installed
		2015	2015: Fourth VFD installed
Headworks	1966	2017	Mechanical bar screens and washer compactor
Headworks			installed
Grit Removal	2017	NA	Recently installed
System			
	1966	1990,	1990: Second sludge pump installed
Primary		1998,	1998: VFDs installed
Clarifier #1		2012,	2012: Mechanism, drive and bridge refurbished
		2016	2016: Sludge pump #1 replaced
Primary	1990	2016,	2016: Sludge pump VFD installed
Clarifier #2		2017	2017: Sludge pump replaced
	1986	2007,	2007: Blower motors serviced
Fixed Film		2008,	2008: Feed pump VFD serviced
Reactor		2011,	2011: Inlet valve serviced
(FFR)		2012,	2012: Feed pump serviced
(111)		2013,	2013: Feed pumps, and valves serviced
		2014	2014: Feed pump #3, valving, and VFD installed
	1986	1998,	1998: Sludge pump VFD installed
Secondary		2008,	2008: Scum pump #2 installed
Clarifier		2010,	2010: Scum pump #1 installed
		2013	2013: Sludge pump replaced



		Table 3-1: Hi	story of Existing Facility
System	Year	Year(s)	Description of Renovation
Component	Constructed	Renovated	
Chlorine	2004	2005,	VFDs for effluent pumps installed (both years)
Contact		2016	
Chamber			
Outfall	1964	1978	Outfall serviced and Pismo Beach WWTP effluent line
			connected
Sludge	1964	2005	Coating replaced; cleanout, gas train piping, site
Digester #1			glasses, Air Pollution Control District equipment, and
	1000	2000	valves serviced
	1992	2008,	2008: Coating replaced, cleanout installed
Sludge		2009	2009: Gas train piping serviced, site glasses, Air
Digester #2			Pollution Control District equipment, and valves
			installed or replaced
Sludge	1965		
Drying Beds			
	1982	2005,	2005: Chopper pump replacement
		2007,	2007: Heat exchanger serviced, boiler installed
Sludge		2012,	2012: Sludge feed pumps installed, macerator
Heating and		2014,	installed
Mixing		2015,	2014: Boiler serviced
System		2017	2015: Sludge feed pump VFDs installed, macerator
System			serviced
			2017: Hot Water and Sludge recirculation system
			serviced
Centrifuge	1965	2017	New centrifuge and building constructed in 2017

The WWTP currently requires redundant secondary treatment processes to help ensure compliance with water quality requirements. The Redundancy Project is an expansion of the existing WWTP, set to begin construction in 2020. The Project includes aeration basins, a secondary clarifier, sludge thickeners, building with blower and electrical rooms, conveyance/pumping facilities, emergency generator, rehabilitation of the existing secondary clarifier, supporting electrical and instrumentation, yard piping, site improvements, and flood protection.

The District previously developed an inventory of the existing WWTP equipment, including condition, original installation date, replacement date and costs. MKN met with District staff to discuss and update the existing WWTP equipment replacement inventory. The list of equipment was reviewed and the condition, replacement dates, and costs were updated.

An estimate of ongoing costs to maintain the plant in the existing location was developed by combining the District's WWTP Equipment Inventory and the opinion of probable construction cost for the Redundancy Project. Life expectancy for the Redundancy Project components were estimated in order to include anticipated future replacement costs. The cost analysis, shown in Appendix A, estimates the ongoing cost of maintaining the facility at its current location. The analysis includes the current and anticipated WWTP equipment, grouped by major process. The following data are included in the cost analysis (Appendix A):

• **Current Year** – 2018, used for escalating costs



- **WWTP Equipment** Process area or category
- **Item** Specific equipment or material
- Equipment Number (if known) District staff equipment ID
- Replacement Criteria Notes under this column include "Idled" or "Unused" equipment, or equipment that will be rehabilitated/replaced with the "Redundancy Project," or similar. If equipment is idled, or unused replacement years. Estimated next replacement year was forced to 2021 for equipment planned for replacement with redundancy project, or soon after the redundancy project.
- Rplc yrs Replacement Years, the estimated life expectancy or life cycle for equipment
- Original Installation Date
- Last Done/Project The year the equipment/material was last replaced (if applicable) or when it is projected to be replaced if in the future
- Inspected & Deferred Year Column includes the year which equipment is inspected and found to be in good working order so replacement is deferred. For this analysis, it is assumed the 'estimated next replacement year' is the year after 'inspected & deferred year'. The District has shelf spares for critical pieces of equipment.
- \$ at New/Replacement The recorded or estimated cost of the equipment/material the last time it was installed/replaced.
- Current Cost Estimates the current cost based on the 'Cost for new/replacement' and escalation
- **Estimated Next Replacement Year** Calculates the estimated next replacement year based on the "Last Replaced (year)" and the Replacement years

The following assumptions were used in the analysis:

- Life expectancy for materials and equipment is based on industry standards, operator input, and is adjusted by experience or frequency of use
- Current costs are estimated using original installation cost or previous replacement cost and scaled to the current year (updated to 2018) using the US Bureau of Labor Cost of Living Adjustment index.
- Midpoint of construction for the Redundancy Project is 2021
- Costs for operations including power, chemical, staffing, monitoring and reporting were not included, since these costs are not unique to the existing plant site.
- Costs for maintenance and replacement of portable lab or vehicle equipment was not included, since these would be relocated in the case of a new plant site
- The cost analysis begins at approximately 2016, with only a few replacement items tracked as "pre-2016", around the time when Coastal Commission staff requested the District assess relocation of the plant.
- The flood proofing that will be installed as part of the Redundancy Project is designed to meet modeled sea rise levels through 2050 at a minimum. Flood proofing should be reevaluated within the next 30 years and as new information on sea level rise or flood control projects become available.
- No habitat mitigation from flood proofing projects are required at this time. This should be reevaluated in conjunction with any updates to flood proofing, not anticipated for 30 years or more.

Annual costs were calculated by summing the replacement costs for existing components and costs from the Redundancy Project upgrade, plus the ongoing costs for replacement of the improved WWTP. The analysis was run to 2071, approximately 50 years beyond the Redundancy Project Improvements. A graph summarizing the cumulative cost over time in 2018 million dollars is provided in Figure 3-1. By 2071, the cumulative cost is estimated to be approximately \$81 million dollars (2018 dollars).

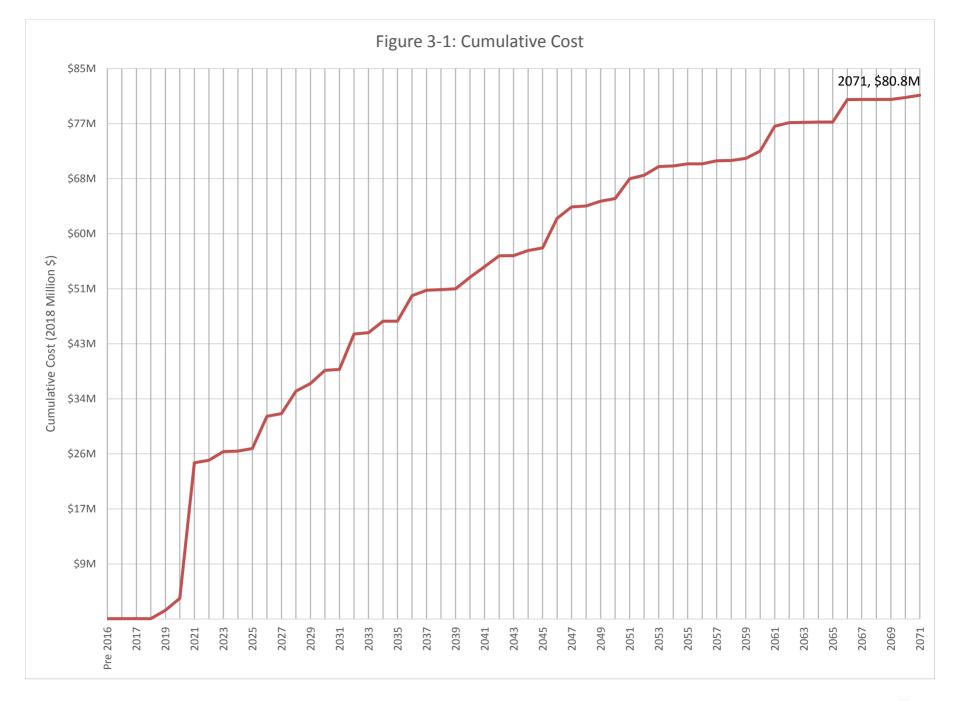
The Technical Memorandum of SSLOCSD WWTP Site Alternatives (MKN, September 2016) identified conceptual costs for a relocated WWTP that meets current effluent requirements and provides a similar level of treatment as the existing facility. The conceptual cost to relocate the WWTP was estimated to be between \$110 and 130 million (2016 dollars, or \$130 to 160 million escalated to 2026, as an assumed midpoint of construction), not



including land use, siting, demolition of the existing WWTP, or institutional constraints. Relocation is anticipated to require seven to 11 years for planning, permitting, design, and construction.

The WWTP Redundancy Project is necessary whether or not the plant is relocated. Therefore, the cost for the Project (\$21M in 2019 dollars), as well as any other plant repair/replacement costs required to keep the plant operating over the seven to 11 years of a plant relocation project, would be required. Assuming planning for a plant relocation began in 2020 and relocation was completed between 2027 and 2031, approximately \$31 to 37 million dollars would be required to maintain the existing plant. Based on these results, maintaining the WWTP at the existing location is the most cost-effective solution at this time.









Equipment	Current Year	2018															
				Rplc -			Inspected &			Estd Nxt							
	Item	Equip #	Replace Criteria	yrs	Orig		Deferred Year	Replaced	Current Cost	Rplcmnt	Pre 2016	2016	2017	2018	2019	2020	2021
Headworks	Structure			60	1966			\$350,000	. , , ,								
	Structure Coating			25				\$30,000	\$41,340								
	Parshall Flume Flow Transmitter			5	1966				\$5,575						\$5,575		
	Influent Slide Gate			55				\$20,000	\$58,720								\$58,720
	Mechanical Bar Screens (2)				2017	2017		\$427,000	\$442,372								
	Washer Compactor				2017			\$150,000	\$155,400								
	Influent Pump #1 (3,500 gpm)	D\A 4 4 (40ll)		20				\$50,000	\$55,750								
	Pump 1 Effluent Valve RW 14 Check Valve	RW 14 (16")		20				\$2,000 \$2,000	\$2,230 \$2,230								
		D\// 12 (16"\		20	1966 1966			\$2,000	\$2,230								
	Pump 2 Influent Valve Influent Pump #2 (3,500 gpm)	RW 13 (16")		20				\$50,000	\$55.250								
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000	\$2,230								
	RW 15 Check Valve	1(1/ 13 (12)			1966			\$2,000	\$2,230								
	RW12 (16-inch)	RW 12 (16")		35				\$2,000	\$2,230								
	Influent Pump #3 (3,500 gpm)	100 12 (10)		20				\$37,000	\$52,762						\$52,762		
	RW 16 14-inch	RW 16 (14")		34				\$2,000	\$2,230						ψ52,702		
	RW 16 Check Valve	100 (14)		34				\$2,000	\$2,230								
	RW 10 16-inch	RW 10 (16")		20				\$2,000	\$2,230			†					
	Influent Pump #4 (3,500 gpm)	1000		20				\$50,000	\$55,750								
	Influent Pump #1 VFD				2014	2014		\$10,000	\$10,970								
	Influent Pump #2 VFD				2014			\$10,000	\$10,970								
	Influent Pump #3 VFD			15				\$10,000	\$10,970								
	Influent Pump #4 VFD			15				\$10,000	\$10,760								
	RW 17 (16-inch)	RW 17 (16")		20				\$2,000	\$2,230	2032							
	RW 17 Check Valve	, , ,		20	1966	2012		\$2,000	\$2,230	2032							
	Diesel Pump Inlet valve	RW 19 (12")		20	1966	2012		\$2,000	\$2,230	2032							
	Diesel Pump			15				\$20,000	\$21,520	2030							
	Diesel Motor			20	2005	2005		\$60,000	\$76,080								
	Hydro ranger			5	1966	2016		\$5,000	\$5,280	2021							\$5,280
Grit Removal	Grit King			20	2017	2017		\$342,000	\$354,312	2 2047							
Grit Removal	Grit Classifier			15				\$150,000	\$155,400								
Splitter Box	Structure			_	1966			\$350,000	\$1,027,600								
Spritter Box	Structure coating			20				\$40,000	\$44,600								
	Effluent Valve to PC#2	RW 21 (24")		20				\$4,700	\$6,951						\$6,951		
	Effluent Valve to PC#1	RW 23 (20")			1966		2010	\$6,000							ψ0,551		
	Effluent Valve to Bypass Primary	RW 22 (20")		20				\$6,000	\$6,810								
	Zindent vare to Dypace i milary	1111 22 (20)			1000	2011		φο,σσσ	φο,στο	2001							
Primary Clar #1	Clarifier #1 Structure			70	1966	1966		\$500,000	\$1,468,000	2036							
, , , ,	Clarifier #1 Coating				1966			\$20,000									
	Clarifier #1 Mechanism			50	1966	2012		\$140,000	\$156,100								
	Clarifier #1 Drive				1966			\$136,195									
	Clarifier #1 Bridge			30	1966	2012		\$77,189	\$86,066	2042							
	Clarifier #1 Sludge Pump #1			5	1966	2018		\$20,000	\$20,000	2023							
	Clarifier #1 Sludge Pump #1 VFD			15	1966			\$5,000									
	Clarifier #1 Sludge Pump #2			5	1966			\$13,000								\$21,281	
	Clarifier #1 Sludge Pump #2 VFD			15			2019	\$5,000								\$7,255	
Primary Clar #2	Clarifier #2 Structure				1990			\$900,000				ļ <u> </u>					
	Clarifier #2 Coating		Redundancy Proje		1990			\$25,000							\$40,925		
	Clarifier #2 Mechanism		Redundancy Proje		1990			\$250,000	\$409,250						\$409,250		
	Clarifier #2 Drive		Redundancy Proje		1990			\$90,500							\$148,149		
	Clarifier #2 Bridge		Redundancy Proje	25	1990							ļļ			\$83,487		A 22 - 2-
	Clarifier #2 Sludge Pump #4			4	1990			\$20,000									\$20,720
	Clarifier #2 Sludge Pump #4 VFD			15	1990			\$5,000	\$5,280			1				Φ04 00 t	
	Clarifier #2 Sludge Pump #6		rarely used	4	1990							 				\$21,281	
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15	1990	1990	2019	\$3,500	\$5,730	2020		 				\$5,730	
EED	FFR #1 Structure			E0	1986	1986		\$1,200,000	\$2,178,000	2036		+					
FFR	ILLU # LOUIDOUNE		I	50	1900	1900		φ1,∠∪∪,∪∪∪	φ∠, 170,000	∠036							



						Last				1							
				Rplc -			Inspected &	\$ at New/		Estd Nxt							
	Item	Equip #	Replace Criteria				Deferred Year		Current Cost		Pre 2016	2016	2017	2018	2019	2020	2021
	FFR #1 Rotary Mechanism		after Redun. Proj	30													
	FFR #1 Media		after Redun. Proj	30													
	FFR Pump 1 Inlet Valve	FF1 (12")	,	20	1986	2013		\$3,000	\$3,315	2033							
	FFR Feed Pump #1	, i		25	1986	2013		\$35,000	\$38,675	2038							
	FFR Feed Pump 1# VFD			15	1986	2013		\$10,000	\$11,050	2028							
	FFR Pump #1 Outlet Valve	FF3 (12")		20	1986	2013		\$3,000	\$3,315	2033							
	FFR Pump #2 Inlet Valve			20	1986	2011		\$3,000	\$3,405	2031							
	FFR Feed Pump #2	FF2 (12")		25	1986	2012		\$35,000	\$39,025	2037							
	FFR Feed Pump #2 VFD			15	1986	2008		\$10,000	\$11,980	2023							
	FFR Pump #2 Outlet Valve			20	1986	2011		\$3,000	\$3,405	2031							
	FFR Pump #3 Inlet Valve			20	2014	2014		\$3,000	\$3,291	2034							
	FFR Feed Pump #3			25	2014	2014		\$35,000	\$38,395	2039							
	FFR Pump #3 VFD			15	2014	2014		\$10,000	\$10,970	2029							
	FFR Pump #3 Outlet Valve			20	2014	2014		\$3,000	\$3,291	2034							
	FFR Blower #1			30	1986	1986	2019	\$3,000	\$5,445	2020						\$5,445	
	FFR Blower #1 Motor			20	1986	2007		\$10,000	\$12,060	2027							
	FFR Blower #2		1	30				\$3,000								\$5,445	
	FFR Blower #2 Motor			20				\$10,000	\$12,060								
																i	
Sec Clar #1	Sec Clarifier #1 Structure			60	1966	1966		\$900,000	\$2,642,400	2026						i	
	Sec Clarifier #1 Coating		Redundancy Proje	60		1986		\$30,000	\$54,450							i	\$54,450
	Sec Clarifier #1 Mechanism		Redundancy Proje	60	_			\$240,000	\$435,600			† †					\$435,600
	Sec Clarifier #1 Drive		Redundancy Proje		1986			\$80,000	\$145,200								\$145,200
	Sec Clarifier #1 Bridge		Redundancy Proje		1986			\$100,000	\$181,500								\$181,500
	Sec Clarifier #1 Sludge Pump		Redundancy Proje		2013			\$8,000									\$8,840
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Proje		_	1998		\$5,000									\$7,255
	Sec Clarifier #1 Scum Pump #1		Redundancy Proje		2010	2010		\$20,000									\$23,160
	Sec Clarifier #1 Scum Pump #2		Redundancy Proje		2008			\$20,000	\$23,960								\$23,960
			1					, ,,,,,,,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								, ,,,,,,,,
Thickener #1	Sludge Thickener #1 Structure		not used	100	1979	1979		\$35,000	\$75,705	2079							
	Sludge Thickener #1 Coating		not used	100				\$25,000	\$54,075								
	Thickener #1 Mechanism		not used	100				\$35,000	\$75,705								
	Thickener #1 Drive		not used	100	_	1979		\$85,000	\$183,855								
	Plant Air System		not used	25		2004		\$60,000	\$78,300								
	, i							. ,									
Digester #1	Digester #1			70	1964	1964		\$480,000	\$1,431,360	2034							
	Digester #1 Coating			15	2005	2018		\$130,000	\$130,000								
	Digester #1 Cleanout			10	_	2017		\$300,000	\$310,800	2027							
	Digester #1 Gas Train Piping			25		2005		\$228,170	\$289,320								
	Site glasses			10		2018		\$16,000	\$16,000	2028							
	APCD Pieces			10	1964		2019			2020						\$50,720	
	Digester #1 Valves				1964			\$25,000									
Digester #2	Digester #2				1992			\$900,000		2042						i	
	Digester #2 Coating				1992	2008	2018	\$100,000	\$119,800	2019					\$119,800		
	Digester #2 Cleanout			10	2008										\$59,900		
	Digester #2 Gas Train Piping				1992	2009		\$228,170		2034							
	Site glasses				2009	2009		\$15,500	\$18,166	2024						i	
	APCD pieces			10	2009	2009		\$40,000	\$46,880	2020						\$46,880	
	Digester #2 Valves			25	2009			\$25,000									
Heating &Mixing	Heating and Mixing Building				1982			\$580,741	\$1,122,572								
	Sludge Recirc Pump #1			30				\$21,000									
	Recirc Pump #1 Motor			30				\$3,500				<u> </u>					
	Vaugn Chopper Pump			20				\$30,000				<u> </u>					
	Boiler			15		2014		\$100,000				I					
	Hot Water Recirc Pump			20				\$21,000									
	Hot Water Recirc Pump Motor			20		2017		\$1,900									
	Heat Exchanger #1			30				\$7,617	\$9,186								
· · · · · · · · · · · · · · · · · · ·	Sludge Feed Pump #1			7	2012	2012	2019	\$20,000	\$22,300	2020	·					\$22,300	



						Last											
				Rplc -			Inspected &			Estd Nxt							
	Item	Equip #	Replace Criteria	yrs			Deferred Year		Current Cost		Pre 2016	2016	2017	2018	2019	2020	2021
	Sludge Feed Pump #1 VFD			15	2015			\$5,000	\$5,380								
	Sludge Feed Pump #2			7	2012	2012	2019	\$20,000	\$22,300							\$22,300	
	Sludge Feed Pump #2 VFD			15	2015	2015		\$5,000	\$5,380								
	Macerator			15	2012	2015		\$20,000	\$21,520	2030							
Reclaim Water Station	Amiad Filters			20	2011	2011		\$10,000	\$11,350	2031							
Flare	Flare			25	1964	2003		\$4,200	\$5,620	2028							
Chemical Feed	Ferric Chloride Tank			15	1992	2007		\$10,000	\$12,060	2022							
	Ferric Chloride Feed Pump			15	1992	2016		\$5,000	\$5,280	2031							
	Sodium Hypochlorite Tank 6K			20	1979	2010		\$10,000	\$11,580	2030							
	Sodium Hypochlorite Tank 3K			20	1979	2010		\$6,000	\$6,948								
	Sodium Hypochlorite Feed Pump			10	1979	2012		\$5,000	\$5,575								
	Sodium Bisulfite Tank			25	1990	1990			\$9,822						\$9,822		
	Sodium Bisulfite Feed Pump			10	1979	2012		\$5,000	\$5,575								
	CCT Chemical System			10	1990	2016		\$30,000	\$31,680								
	Polymer Feed Systems			30	1990	1990		\$12,000	\$19,644			 			$\overline{}$	\$19,644	
				55	.500	1000		Ţ1 <u>2</u> ,000	ψ10,0 1 1	2020		 			$\overline{}$	ψ. 5,5 · ·	
Effluent	Chlorine Contact Chamber			60	2007	2006		\$2,700,000	\$3,364,200	2066							
	Effluent Pump 100HP #1			30	2005	2006		\$45,000	\$56,070			 			+		
	vfd			15	2005	2016		\$10,000	\$10,560						+		
	Effluent Pump 100 HP #2			30	2005	2006		\$45,000	\$56,070								
	vfd			10	2005	2005			\$12,680						\$12,680		
	Ocean Outfall			50		1978		\$1,500,000	\$3,414,000			1			\$12,000		
	Ocean Gulian			30	1304	1970		\$1,500,000	ψ5,414,000	2020					+		
Flow Meters	ISCO 2100 Flow Meter			10	2016	2016		\$5,250	\$5,544	2026		-			\longrightarrow		
Flow Weters	ISCO 2100 Flow Meter			10	2010	2016		\$5,250 \$5,250				-			\longrightarrow		
	15CO 2100 Flow Weter			10	2017	2017		\$ 5,∠50	\$5,439	2027					\longrightarrow		
Calida Handling															\longrightarrow		
Solids Handling	Biosolids slab			40	2018	2018		\$50,000	\$50,000	2058		-			\longrightarrow		
																	
	Centrifuge Building			50	2010	2010		\$1,000,000	\$1,158,000						\longrightarrow		
	Centrifuge			15	2010	2017		\$1,000,000	\$1,036,000						\longrightarrow		
	Centrifuge Macerator			15	2008	2008		\$25,000	\$29,950	2023					\longrightarrow		
					0000	2000		# 000 000	# 700.000	2000					\longrightarrow		
Miscellaneous	Emergency Generator			20				\$600,000	\$703,200						\longrightarrow	A	
	Cogeneration Unit		Idled	10	2009	2009			\$1,500,000						\longrightarrow	\$1,500,000	
	Plant Well Water System			20	1982	2005		\$163,147	\$206,870						\longrightarrow		
	Plant Well Water pump			10	1982	2016		\$5,000	\$5,280								
	Standby Water Well			20				\$4,500	\$6,417						\$6,417		
	Operations Building			50				\$844,161									
	Maintenance Shop			50				\$202,495	\$391,423								
	Maintenance Building			50				\$205,000	\$303,195								
	Facility Asphalt			30	1992	1992		\$20,000	\$31,660								
	Digester #2 sump pump #1			10	1996				\$7,032							\$7,032	
	Digester #2 sump pump #2			10	1996			\$6,000	\$6,000								
	Security System annual maintenance			1	2006			\$1,500	\$1,500			\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
	IT System annual maintenance			1	2016			\$2,000	\$2,000			\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	SCADA System			10	2016			\$100,000	\$105,600								
	Fuel Tank			35		2017		\$5,000	\$5,180								
	Arroyo Grande Pipe Bridge			34				\$90,000	\$300,000								
	MCC/Cogen Building			50		1982		\$400,000	\$773,200								
	MCC Electrical Boxes			40	1982	1982		\$180,000	\$347,940								
	Plant Electrical			30	1966			\$250,000	\$289,500				İ				
REDUNDANCY PROJECT												<u> </u>					
Aeration Tank Feed Pum												<u> </u>			- +		
	Hatch and concrete coating			30	2021	2021			\$156,100	2051							\$156,100
	Gates		1	25		2021			\$184,400			1			-		\$184,400
	IGales																Ţ . G ., 100
	Valves			20		2021			\$17,600						+		\$17,600



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				Rplc -		Last Done/	Inspected &	\$ at New/		Estd Nxt							
	Item	Equip #	Replace Criteria		Oria		Deferred Year		Current Cost		Pre 2016	2016	2017	2018	2019	2020	2021
	Pumps	Equip #	Replace Criteria	yıs 20	2021	2021	Deferred Tear	Replaced	\$235,700		F16 2016	2010	2017	2010	2019	2020	\$235,700
	Flow Meter			10	2021	2021			\$12,800					-			\$12,800
WAS Pumping Station	Flow Meter			10	2021	2021			\$12,000	2031	-						\$12,000
WAS Fullipling Station	Concrete			60	2021	2021			\$9,100	2081	-						\$9,100
	Pumps			20	2021	2021			\$61,100		-						\$61,100
	Valves			20	2021	2021			\$9,700		-						\$9,700
									\$26,800								\$26,800
	Piping and Fittings			30	2021 2021	2021 2021											\$26,800
Activisted Cludes Acretion	Flow Meter			10	2021	2021			\$6,400	2031							\$6,400
Activated Sludge Aeration				00	2024	2024			₾2.005.400	2004							₾2.005.400
	Concrete			60	2021	2021			\$3,885,100								\$3,885,100
	Blowers			30	2021	2021			\$813,600								\$813,600
	Flow Meter			10	2021	2021			\$3,700								\$3,700
	Diffusers			30	2021	2021			\$614,800								\$614,800
	Gates			25		2021			\$458,000								\$458,000
	Valves			20	2021	2021			\$800								\$800
	Piping and Fittings			30	2021	2021			\$426,500	2051							\$426,500
Blower Building																	
	Building CMU			_	2021	2021			\$346,800								\$346,800
	Concrete			60	2021	2021			\$272,000	2081							\$272,000
New Secondary Clarifier																	
	Concrete			60	2021	2021			\$2,642,400								\$2,642,400
	Gates			25	2021	2021			\$639,000	2046							\$639,000
	Pumps			20	2021	2021			\$161,300								\$161,300
	Valves			20	2021	2021			\$39,000	2041							\$39,000
	Piping and Fittings			30	2021	2021			\$160,200	2051							\$160,200
WAS Thickening																	
	Concrete Repair			30	2021	2021			\$5,700	2051							\$5,700
	Gates			25		2021			\$32,200								\$32,200
	Pumps			20	2021	2021			\$862,000	2041							\$862,000
	Piping and Fittings			30	2021	2021			\$86,300								\$86,300
	Valves			20	2021	2021			\$17,900								\$17,900
	Flow Meter			10	2021	2021			\$17,900								\$17,900
									+ ***,****								411,000
Site Improvements				25	2021	2021			\$2,939,700	2046							\$2,939,700
									+ =,==;==								+=,===,===
Instrumentation and Electr	rical			40	2021	2021			\$3,823,000	2061							\$3,823,000
	 			1.0					\$0,020,000								\$5,525,555
Emergency Generator											 						
Emergency Centrator	Generator			20	2021	2021			\$222,200	2041							\$222,200
	Concrete			30	2021	2021			\$38,300								\$38,300
	Control			30	2021	2021			ψ50,500	2031	 						ψ50,500
Flood Mitigation Improven	nants			20	2021	2021			\$338,600	2050	 	-	+	+			\$338,600
i lood wildgallon improven	iciilə			29	ZUZ I	2021			φ330,000	2030	+	-		+			φυυο,000
Total									\$57,798,270		\$47,454	\$6,615	\$10,314	\$3 E00 #	1 207 262	\$1,853,861	\$20,909,849
Cumulative (2018 \$)									φ31,130,210	<u>'</u>	\$47,454 \$47,454	\$54,069	\$64,382			\$3,209,007	\$20,909,849
Cumulative (Escalated 2%											\$47,454 \$47,454	\$54,069 \$54,069				\$3,337,367	
Cumulative (EScalated 2%	pei yeaij		1			l	<u> </u>	l .			φ4 <i>1</i> ,434	φ J4, 009	φυ 4 ,302	φυ1,002 ֆ	1,302,240	ψ3,331,301	φ ∠ J,J0J,307



	ltem	Equip #	Replace Criteria	Rplc -	Oria		Inspected & Deferred Year		Current Cost	Estd Nxt	2022	2023	2024	2025	2026	202
Headworks	Structure		Tropiuse eriteria	60	_			\$350,000		•		2020	2021	2020	\$1.027.600	
	Structure Coating			25				\$30,000							\$41,340	ſ
	Parshall Flume Flow Transmitter			5	1966								\$5,575		, , , , , , , , , , , , , , , , , , , ,	
	Influent Slide Gate			55	1966	1966		\$20,000					, ,			
	Mechanical Bar Screens (2)				2017			\$427,000								
	Washer Compactor				2017			\$150,000	\$155,400							
	Influent Pump #1 (3,500 gpm)				1966			\$50,000								
	Pump 1 Effluent Valve	RW 14 (16")			1966			\$2,000								
	RW 14 Check Valve	,		20				\$2,000	\$2,230	2032						
	Pump 2 Influent Valve	RW 13 (16")		20	1966	2012		\$2,000	\$2,230	2032						
	Influent Pump #2 (3,500 gpm)	Ì		20	1966	2013		\$50,000	\$55,250	2033						
	Pump 2 Effluent Valve	RW 15 (12")		20	1966	2012		\$2,000	\$2,230	2032						
	RW 15 Check Valve			20	1966	2012		\$2,000	\$2,230	2032						
	RW12 (16-inch)	RW 12 (16")		35	1966	2012		\$2,000	\$2,230	2047						ſ
	Influent Pump #3 (3,500 gpm)			20	1966	1999		\$37,000	\$52,762	2 2019						
	RW 16 14-inch	RW 16 (14")		34	_			\$2,000	\$2,230							i
	RW 16 Check Valve	<u> </u>		34				\$2,000								ĺ
	RW 10 16-inch	RW 10 (16")			1966			\$2,000								
	Influent Pump #4 (3,500 gpm)	i i		20				\$50,000	\$55,750	2032						i
	Influent Pump #1 VFD			15	2014	2014		\$10,000	\$10,970	2029						
	Influent Pump #2 VFD			15	2014	2014		\$10,000	\$10,970	2029						
	Influent Pump #3 VFD			15	2014	2014		\$10,000	\$10,970	2029						
	Influent Pump #4 VFD			15	1966	2015		\$10,000	\$10,760	2030						
	RW 17 (16-inch)	RW 17 (16")		20	1966	2012		\$2,000	\$2,230	2032						
	RW 17 Check Valve			20	1966	2012		\$2,000	\$2,230	2032						1
	Diesel Pump Inlet valve	RW 19 (12")		20	1966	2012		\$2,000	\$2,230	2032						1
	Diesel Pump	, , ,		15	2005	2015		\$20,000	\$21,520	2030						
	Diesel Motor			20	2005	2005		\$60,000	\$76,080	2025				\$76,080		ſ
	Hydro ranger			5	1966	2016		\$5,000	\$5,280	2021					\$5,280	ſ
																ſ
Grit Removal	Grit King			30	2017	2017		\$342,000	\$354,312	2 2047						i Total
	Grit Classifier				2017			\$150,000								i
Splitter Box	Structure			60	1966			\$350,000	\$1,027,600						\$1,027,600	1
	Structure coating			20	2012	2012		\$40,000	\$44,600	2032						ĺ
	Effluent Valve to PC#2	RW 21 (24")		20	1966	1996	2018	\$4,700	\$6,951	1 2019						i
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000	\$6,810							i
	Effluent Valve to Bypass Primary	RW 22 (20")		20	1966	2011		\$6,000	\$6,810	2031						i a
																í .
Primary Clar #1	Clarifier #1 Structure			70	1966	1966		\$500,000	\$1,468,000	2036						1
	Clarifier #1 Coating			15	1966	2012		\$20,000	\$22,300	2027						\$22,3
	Clarifier #1 Mechanism				1966			\$140,000								1
	Clarifier #1 Drive				1966			\$136,195				<u> </u>				
	Clarifier #1 Bridge			30	1966			\$77,189								
	Clarifier #1 Sludge Pump #1			5	1966			\$20,000				\$20,000				
	Clarifier #1 Sludge Pump #1 VFD			15	1966			\$5,000								
	Clarifier #1 Sludge Pump #2			5	1966									\$21,281		
	Clarifier #1 Sludge Pump #2 VFD				1966	1998	2019									
Primary Clar #2	Clarifier #2 Structure				1990			\$900,000								
	Clarifier #2 Coating		Redundancy Proje		1990			\$25,000								1
	Clarifier #2 Mechanism		Redundancy Proje		1990			\$250,000								
	Clarifier #2 Drive		Redundancy Proje		1990											
	Clarifier #2 Bridge		Redundancy Proje		1990			\$51,000								
	Clarifier #2 Sludge Pump #4			4	1990	2017		\$20,000						\$20,720		
	Clarifier #2 Sludge Pump #4 VFD			15	1990	2016		\$5,000	\$5,280	2031						
	Clarifier #2 Sludge Pump #6		rarely used	4	1990		2019	\$13,000	\$21,281	1 2020			\$21,281			i
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15												Í
FFR	FFR #1 Structure			50	1986	1986		\$1,200,000	\$2,178,000	2036						i
				-					 						-	



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				Rplc -		Last Done/	Inspected &	\$ at Now/		Estd Nxt						ļ
	Item	Equip #	Replace Criteria				Deferred Year		Current Cost		2022	2023	2024	2025	2026	2027
	FFR #1 Rotary Mechanism	Equip #	after Redun. Proj	30							2022	\$453,750	2024	2023	2020	2021
	FFR #1 Media		after Redun. Proj	30	_			\$450,000	\$816,750			\$816,750				
	FFR Pump 1 Inlet Valve	FF1 (12")	untor reducin r roj	20			2022	\$3,000	\$3,315			φοτο,τοο				
	FFR Feed Pump #1	(/		25				\$35,000	\$38,675							
	FFR Feed Pump 1# VFD			15	+	2013		\$10,000	\$11,050							
	FFR Pump #1 Outlet Valve	FF3 (12")		20	+			\$3,000	\$3,315							
	FFR Pump #2 Inlet Valve			20	_	2011		\$3,000	\$3,405							
	FFR Feed Pump #2	FF2 (12")		25				\$35,000	\$39,025							
	FFR Feed Pump #2 VFD	(/		15	+			\$10,000	\$11,980			\$11,980				
	FFR Pump #2 Outlet Valve			20	_	2011		\$3,000	\$3,405			\$11,000				
	FFR Pump #3 Inlet Valve			20	+	2014		\$3,000	\$3,291							
	FFR Feed Pump #3			25	2014	2014		\$35,000	\$38,395							
	FFR Pump #3 VFD				2014	2014		\$10,000	\$10,970							
	FFR Pump #3 Outlet Valve			20		2014		\$3,000	\$3,291							
	FFR Blower #1			30	_	1986		\$3,000	\$5,445							
	FFR Blower #1 Motor			20				\$10,000	\$12,060							\$12,060
	FFR Blower #2			30	_	1986			\$5,445						<u> </u>	. , , , , , , , , , , , ,
	FFR Blower #2 Motor			20	+	2007		\$10,000	\$12,060							\$12,060
				T				,.,.	. ,							
Sec Clar #1	Sec Clarifier #1 Structure			60	1966	1966		\$900,000	\$2,642,400	2026					\$2,642,400	
	Sec Clarifier #1 Coating		Redundancy Proje		+			\$30,000								-
	Sec Clarifier #1 Mechanism		Redundancy Proje			1986		\$240,000	\$435,600							18
	Sec Clarifier #1 Drive		Redundancy Proje		1986			\$80,000	\$145,200							18
	Sec Clarifier #1 Bridge		Redundancy Proje		1986			\$100,000	\$181,500	2021						18
	Sec Clarifier #1 Sludge Pump		Redundancy Proje	10	2013			\$8,000	\$8,840						Ï	
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Proje		1998	1998	2020	\$5,000	\$7,255	2021						
	Sec Clarifier #1 Scum Pump #1		Redundancy Proje	10	2010	2010	2020	\$20,000	\$23,160	2021					Ï	
	Sec Clarifier #1 Scum Pump #2		Redundancy Proje	10	2008	2008	2020	\$20,000	\$23,960	2021						
																-
Thickener #1	Sludge Thickener #1 Structure		not used	100	1979	1979		\$35,000	\$75,705							
	Sludge Thickener #1 Coating		not used	100	1979	1979		\$25,000	\$54,075	2079						
	Thickener #1 Mechanism		not used	100	1979	1979		\$35,000	\$75,705	2079						
	Thickener #1 Drive		not used	100	1979	1979		\$85,000	\$183,855	2079						
	Plant Air System		not used	25	1979	2004		\$60,000	\$78,300	2029						
Digester #1	Digester #1			70				\$480,000	\$1,431,360							
	Digester #1 Coating			15	2005	2018		\$130,000	\$130,000							
	Digester #1 Cleanout			10		2017		\$300,000	\$310,800							\$310,800
	Digester #1 Gas Train Piping			25		2005		\$228,170	\$289,320							
	Site glasses			10				\$16,000								
	APCD Pieces				1964											
	Digester #1 Valves			25	1964	2005		\$25,000	\$31,700	2030						
							ļ		<u> </u>							
Digester #2	Digester #2			50	1992			\$900,000	\$1,424,700							
	Digester #2 Coating			10	1992				\$119,800							
	Digester #2 Cleanout			10												
	Digester #2 Gas Train Piping			25				\$228,170	\$267,415							
	Site glasses				2009			\$15,500					\$18,166			
	APCD pieces				2009			+ -,	\$46,880							
	Digester #2 Valves			25	2009	2009		\$25,000	\$29,300	2034						
				1	<u> </u>			A ==-								
Heating &Mixing	Heating and Mixing Building				1982	1982		\$580,741	\$1,122,572							
	Sludge Recirc Pump #1			30				\$21,000	\$21,756							
	Recirc Pump #1 Motor			_	1982			\$3,500						***		
	Vaugn Chopper Pump			20		2005		\$30,000	\$38,040					\$38,040		
	Boiler			15		2014		\$100,000								
	Hot Water Recirc Pump				1982	2017		\$21,000								
	Hot Water Recirc Pump Motor		1	20				\$1,900								
	Heat Exchanger #1		1	30				\$7,617	\$9,186							400.05
	Sludge Feed Pump #1	1	1	7	2012	2012	2019	\$20,000	\$22,300	2020						\$22,300



						Last										
				Rplc -			Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria				Deferred Year		Current Cost		2022	2023	2024	2025	2026	2027
	Sludge Feed Pump #1 VFD				2015			\$5,000	\$5,380							
	Sludge Feed Pump #2			7	2012				\$22,300							\$22,300
	Sludge Feed Pump #2 VFD			15	2015	2015		\$5,000	\$5,380							· · ·
	Macerator				2012	2015		\$20,000	\$21,520							1
Reclaim Water Station	Amiad Filters			20	2011	2011		\$10,000	\$11,350	2031						
Flare	Flare			25	1964	2003		\$4,200	\$5,620	2028						
Chemical Feed	Ferric Chloride Tank			15	1992	2007		\$10,000	\$12,060	2022	\$12,060					
	Ferric Chloride Feed Pump			15	1992	2016		\$5,000	\$5,280	2031						
	Sodium Hypochlorite Tank 6K			20	1979	2010		\$10,000	\$11,580	2030						•
	Sodium Hypochlorite Tank 3K			20	1979	2010		\$6,000	\$6,948	2030						
	Sodium Hypochlorite Feed Pump			10	1979	2012		\$5,000	\$5,575	2022	\$5,575					•
	Sodium Bisulfite Tank			25	1990	1990	2018	\$6,000	\$9,822	2019						
	Sodium Bisulfite Feed Pump			10	1979	2012		\$5,000	\$5,575	2022	\$5,575					
	CCT Chemical System			10	1990	2016		\$30,000	\$31,680	2026					\$31,680	
	Polymer Feed Systems			30	1990	1990		\$12,000	\$19,644	2020						
Effluent	Chlorine Contact Chamber			60	2007			\$2,700,000	\$3,364,200							
	Effluent Pump 100HP #1			30	2005	2006		\$45,000	\$56,070	2036						'
	vfd			15	2005	2016		\$10,000	\$10,560	2031						
	Effluent Pump 100 HP #2			30	2005	2006		\$45,000	\$56,070	2036						
	vfd			10		2005	2018	\$10,000	\$12,680	2019						
	Ocean Outfall			50	1964	1978		\$1,500,000	\$3,414,000	2028						
Flow Meters	ISCO 2100 Flow Meter			10	2016	2016		\$5,250	\$5,544	2026					\$5,544	
	ISCO 2100 Flow Meter			10	2017	2017		\$5,250	\$5,439	2027						\$5,439
Solids Handling																
	Biosolids slab			40	2018	2018		\$50,000	\$50,000	2058						
	Centrifuge Building			50	2010	2010		\$1,000,000	\$1,158,000	2060						
	Centrifuge			15	2010	2017		\$1,000,000	\$1,036,000	2032						
	Centrifuge Macerator			15	2008	2008		\$25,000	\$29,950	2023		\$29,950				
Miscellaneous	Emergency Generator			20	2009	2009		\$600,000	\$703,200							
	Cogeneration Unit		Idled	10	-			\$470,000	\$1,500,000							
	Plant Well Water System			20		2005		\$163,147	\$206,870					\$206,870		
	Plant Well Water pump			10	1982	2016		\$5,000	\$5,280						\$5,280	
	Standby Water Well			20				\$4,500								
	Operations Building				1982			\$844,161								
	Maintenance Shop				1982			\$202,495	\$391,423							
	Maintenance Building				1996			\$205,000	\$303,195							
	Facility Asphalt			30				\$20,000	\$31,660		\$31,660					
	Digester #2 sump pump #1			10	-											
	Digester #2 sump pump #2			10	1996			\$6,000	\$6,000							
	Security System annual maintenance			1	2006			\$1,500				\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
	IT System annual maintenance			1	2016	2016		\$2,000	\$2,000		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	SCADA System			10		2016		\$100,000	\$105,600						\$105,600	
	Fuel Tank				1980			\$5,000	\$5,180							
	Arroyo Grande Pipe Bridge				1966			\$90,000	\$300,000							
	MCC/Cogen Building			_	1982			\$400,000	\$773,200		A =					
	MCC Electrical Boxes			40				\$180,000	\$347,940		\$347,940					
DEDUNDANCY DD 0 := 0=	Plant Electrical			30	1966	2010		\$250,000	\$289,500	2040						
REDUNDANCY PROJECT							ļ									
Aeration Tank Feed Pump									*							
	Hatch and concrete coating				2021	2021			\$156,100							
	Gates				2021	2021			\$184,400							
	Valves				2021	2021			\$17,600							
	Piping and Fittings			30	2021	2021	<u> </u>		\$368,100	2051						



						Last										
				Rplc -		Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Oria		Deferred Year		Current Cost		2022	2023	2024	2025	2026	2027
	Pumps	Equip #	Replace Criteria	20		2021	Deletted Teat	Replaceu	\$235,700	2041	2022	2023	2024	2023	2020	2021
	Flow Meter			10		2021			\$12,800							
WAS Pumping Station	I low Meter			10	2021	2021			\$12,000	2031						
WAS I diliping Station	Concrete			60	2021	2021			\$9,100	2081						
	Pumps				2021	2021			\$61,100	2041						
	Valves				2021	2021			\$9,700	2041						
	Piping and Fittings			30		2021			\$26,800	2051						
	Flow Meter			10		2021			\$6,400	2031						
Activated Sludge Aeration				10	2021	2021			ψ0,400	2001						
Activated Gladge Actation	Concrete			60	2021	2021			\$3,885,100	2081						
	Blowers			30		2021			\$813,600	2051						
	Flow Meter				2021	2021			\$3,700	2031						
	Diffusers		+	30		2021	 	 	\$614,800	2051						
	Gates			25		2021			\$458,000	2046						
	Valves			20		2021			\$438,000	2041						
	Piping and Fittings				2021	2021			\$426,500	2051						
Blower Building	Figure and Fittings			30	2021	2021			\$420,300	2031						
Blower Building	Building CMU			F0	2021	2021			\$346,800	2071						
	Concrete			50	2021	2021			\$272,000							
New Secondary Clarifier	Concrete			60	2021	2021			\$272,000	2001						
New Secondary Clariner	Concrete			60	2021	2021			\$2,642,400	2081						
	Concrete			25		2021			\$2,642,400	2046						
	Gates		_	20		2021			\$161,300	2046						
	Pumps Valves		_	20		2021			\$39,000	2041						
			_	30		2021			\$160,200	2051						
WAS Thickening	Piping and Fittings		_	30	2021	2021			\$160,200	2051						
WAS Thickening	Compando Donois			20	2024	2021			ФE 700	2054						
	Concrete Repair				2021 2021				\$5,700 \$32,200	2051						
	Gates					2021				2046						
	Pumps				2021	2021			\$862,000	2041						
	Piping and Fittings			30		2021			\$86,300	2051						
	Valves			20		2021			\$17,900	2041						
	Flow Meter			10	2021	2021			\$17,900	2031						
O't - I				0.5	0004	0004			#0.000.700	0040						
Site Improvements				25	2021	2021			\$2,939,700	2046						
In atmospherical and Float	dia d			40	2021	2024			#2.022.000	2004						
Instrumentation and Elect	ricai T			40	2021	2021			\$3,823,000	2061						
Emergency Generator	Consenter			00	0001	0001	 		Фооо соо	0044						
	Generator				2021	2021	 		\$222,200							
	Concrete		1	30	2021	2021	ļ	-	\$38,300	2051						
					000				#							
Flood Mitigation Improven	nents T			29	2021	2021			\$338,600	2050						
									AFT -00 5==	<u> </u>	A ====	A4 00 = 00 =	A A	40=2 2= :	A4.057.175	A412 ====
Total									\$57,798,270	4	\$411,576		\$75,839		\$4,985,156	\$410,759
Cumulative (2018 \$)											\$24,530,431				\$31,305,428	
Cumulative (Escalated 2%	per year)										\$26,492,866	\$28,452,997	\$29,055,264	\$30,005,110	\$36,314,296	\$37,425,100



	Item	Equip #	Replace Criteria	Rplc - yrs	Orig		Inspected & Deferred Year		Current Cost	Estd Nxt	2028	2029	2030	2031	2032	2033
Headworks	Structure	Equip #	Replace Cificila		196			\$350,000			2020	2029	2030	2031	2032	203
	Structure Coating			25				\$30,000	\$41,340							
	Parshall Flume Flow Transmitter			5	196			\$5,000								
	Influent Slide Gate			55				\$20,000	\$58,720							
	Mechanical Bar Screens (2)				201			\$427,000	\$442,372							
	Washer Compactor			15				\$150,000	\$155,400	2032					\$155,400	
	Influent Pump #1 (3,500 gpm)			_	196			\$50,000	\$55,750						\$55,750	
	Pump 1 Effluent Valve	RW 14 (16")			196			\$2,000	\$2,230						\$2,230	
	RW 14 Check Valve	1(10)		20	_			\$2,000	\$2,230	2032					\$2,230	
	Pump 2 Influent Valve	RW 13 (16")		20	_			\$2,000							\$2,230	
	Influent Pump #2 (3,500 gpm)	KW 13 (10)		20				\$50,000		2032					\$2,230	\$55,25
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000							\$2,230	φυυ,2υ
		KW 13 (12)		20	_			\$2,000							\$2,230	
	RW 15 Check Valve	D)// 40 (40!)													\$2,230	
	RW12 (16-inch)	RW 12 (16")		35				\$2,000	\$2,230	2047						
	Influent Pump #3 (3,500 gpm)	D)A/ 40 /4 4!!\		20				\$37,000	\$52,762							
	RW 16 14-inch	RW 16 (14")		34				\$2,000		2046						
	RW 16 Check Valve	B147 7		34				\$2,000							***	
	RW 10 16-inch	RW 10 (16")		20				\$2,000	\$2,230						\$2,230	
	Influent Pump #4 (3,500 gpm)			20	-			\$50,000	\$55,750						\$55,750	
	Influent Pump #1 VFD				201			\$10,000	\$10,970			\$10,970				
	Influent Pump #2 VFD				201			\$10,000	\$10,970			\$10,970				
	Influent Pump #3 VFD				201			\$10,000	\$10,970			\$10,970				
	Influent Pump #4 VFD			15	196			\$10,000	\$10,760				\$10,760			
	RW 17 (16-inch)	RW 17 (16")		20	196			\$2,000	\$2,230	2032					\$2,230	
	RW 17 Check Valve			20	196	66 2012		\$2,000	\$2,230	2032					\$2,230	
	Diesel Pump Inlet valve	RW 19 (12")		20	196	66 2012		\$2,000	\$2,230	2032					\$2,230	
	Diesel Pump			15	200)5 2015		\$20,000	\$21,520	2030			\$21,520			
	Diesel Motor			20	200)5 2005		\$60,000	\$76,080	2025						
	Hydro ranger			5	196	66 2016		\$5,000	\$5,280	2021						
	,															
Grit Removal	Grit King			30	201	7 2017		\$342,000	\$354,312	2047						
	Grit Classifier				201			\$150,000	\$155,400	2032					\$155,400	
Splitter Box	Structure			60	_			\$350,000	\$1,027,600						\$100,100	
opo.	Structure coating				201			\$40,000	\$44,600						\$44,600	
	Effluent Valve to PC#2	RW 21 (24")		20	_									+	ψ,σσσ	
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000						\$6,810		
	Effluent Valve to Bypass Primary	RW 22 (20")		20				\$6,000						\$6,810		
	Emacine valve to Bypass Filmary	1(1/1/22 (20)		20	100	2011		φο,σσσ	φο,ο το	2001				φο,ο το		
Primary Clar #1	Clarifier #1 Structure			70	196	66 1966		\$500,000	\$1,468,000	2036						
Tilliary Olai #1	Clarifier #1 Coating							A	A							
	Clarifier #1 Goaling Clarifier #1 Mechanism				196 196			\$20,000 \$140,000	\$22,300 \$156,100							
	Clarifier #1 Drive				196			\$140,000								
	Clarifier #1 Bridge Clarifier #1 Sludge Pump #1		-	30	-			\$77,189	\$86,066 \$20,000		ድርር ርርር					
			1	5	196			\$20,000			\$20,000					ФГ 00 /
	Clarifier #1 Sludge Pump #1 VFD			15	196			\$5,000								\$5,000
	Clarifier #1 Sludge Pump #2			5	196											
Dulan	Clarifier #1 Sludge Pump #2 VFD				196			\$5,000								
Primary Clar #2	Clarifier #2 Structure		Destar 1 Dest		199			\$900,000								
	Clarifier #2 Coating		Redundancy Project					\$25,000	\$40,925							
	Clarifier #2 Mechanism		Redundancy Project		199			\$250,000	\$409,250							
	Clarifier #2 Drive		Redundancy Project		199			\$90,500	\$148,149							
	Clarifier #2 Bridge		Redundancy Project	25	199		2018	\$51,000								
	Clarifier #2 Sludge Pump #4			4	199			\$20,000								
	Clarifier #2 Sludge Pump #4 VFD			15				\$5,000	\$5,280					\$5,280		
	Clarifier #2 Sludge Pump #6		rarely used	4	199	1990	2019	\$13,000	\$21,281	2020						
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15	199	1990	2019	\$3,500	\$5,730	2020						
FFR	FFR #1 Structure			50	198	36 1986		\$1,200,000	\$2,178,000	2036						
			•	-		=										



						Last										
				Rplc -	-	Done/	Inspected &	\$ at New/		Estd Nxt						1
	Item	Equip #	Replace Criteria	yrs	Orig	g Projected	Deferred Year	Replaced	Current Cost	Rplcmnt	2028	2029	2030	2031	2032	2033
	FFR #1 Rotary Mechanism		after Redun. Proj	30	19		2022	\$250,000	\$453,750	2023						
	FFR #1 Media		after Redun. Proj	30	_		2022	\$450,000	\$816,750							
	FFR Pump 1 Inlet Valve	FF1 (12")		20				\$3,000	\$3,315							\$3,315
	FFR Feed Pump #1			25				\$35,000	\$38,675							
	FFR Feed Pump 1# VFD			15				\$10,000	\$11,050	2028	\$11,050					
	FFR Pump #1 Outlet Valve	FF3 (12")		20	_			\$3,000		2033						\$3,315
	FFR Pump #2 Inlet Valve			20				\$3,000						\$3,405		
	FFR Feed Pump #2	FF2 (12")		25				\$35,000		2037						├
	FFR Feed Pump #2 VFD			15				\$10,000	\$11,980	2023				DO 105		
	FFR Pump #2 Outlet Valve			20				\$3,000	\$3,405					\$3,405		
	FFR Pump #3 Inlet Valve			20				\$3,000		2034						
	FFR Feed Pump #3 FFR Pump #3 VFD			25	-			\$35,000 \$10,000	\$38,395 \$10,970	2039 2029		\$10,970				
	FFR Pump #3 Outlet Valve			15 20				\$10,000	\$10,970			\$10,970				
				30			2019	. ,	\$5,445							
	FFR Blower #1 FFR Blower #1 Motor			20			2019	\$3,000 \$10,000	\$5,445 \$12,060	2020 2027						—
	FFR Blower #2	+	1	30			2019	\$10,000	\$5,445							—
	FFR Blower #2			20	_		2019	\$3,000	\$5,445 \$12,060	2020						
	I I I DIOWEI #2 IVIOLOI	+		20	19	2007		φ10,000	φ1∠,000	2027						
Sec Clar #1	Sec Clarifier #1 Structure			60	19	1966		\$900,000	\$2,642,400	2026						
σου σιαι <i>π</i> Ι	Sec Clarifier #1 Structure Sec Clarifier #1 Coating		Redundancy Proje		_		2020	\$30,000	\$54,450							
	Sec Clarifier #1 Mechanism		Redundancy Proje		_		2020	\$240,000	\$435,600	2021						
	Sec Clarifier #1 Drive		Redundancy Proje				2020	\$80,000	\$145,200	2021						
	Sec Clarifier #1 Bridge		Redundancy Proje					\$100,000	\$181,500							\vdash
	Sec Clarifier #1 Sludge Pump		Redundancy Proje		20			\$8,000	\$8,840	2021				\$8,840		
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Proje		_		2020	\$5,000		2021				ψ0,040		
	Sec Clarifier #1 Scum Pump #1		Redundancy Proje		20		2020	\$20,000						\$23,160		
	Sec Clarifier #1 Scum Pump #2		Redundancy Proje		_			\$20,000		2021				\$23,960		
	oss sianner in resum ramp in 2		i toddinddinoy i rojo	1		2000		Ψ=0,000	Ψ=0,000					ψ=0,000		
Thickener #1	Sludge Thickener #1 Structure		not used	100	19	79 1979		\$35,000	\$75,705	2079						
	Sludge Thickener #1 Coating		not used	100	_			\$25,000								
	Thickener #1 Mechanism		not used	100	_			\$35,000	\$75,705							
	Thickener #1 Drive		not used	100	_			\$85,000	\$183,855	2079						
	Plant Air System		not used	25	_			\$60,000	\$78,300	2029		\$78,300				
	,															
Digester #1	Digester #1			70	19	64 1964		\$480,000	\$1,431,360	2034						
	Digester #1 Coating			15	20	05 2018		\$130,000	\$130,000	2033						\$130,000
	Digester #1 Cleanout			10	19	64 2017		\$300,000	\$310,800	2027						
	Digester #1 Gas Train Piping			25	19	64 2005		\$228,170	\$289,320	2030			\$289,320			
	Site glasses				19			\$16,000			\$16,000					
	APCD Pieces			10	19		2019	\$40,000					\$50,720			
	Digester #1 Valves			25	19	64 2005		\$25,000	\$31,700	2030			\$31,700			Ĺ
Digester #2	Digester #2				19			\$900,000								
	Digester #2 Coating				19			\$100,000		2019		\$119,800				
	Digester #2 Cleanout			10	_			\$50,000				\$59,900				
	Digester #2 Gas Train Piping			25				\$228,170								
	Site glasses			15				\$15,500	\$18,166				A			
	APCD pieces			10					\$46,880				\$46,880			
	Digester #2 Valves			25	20	009 2009		\$25,000	\$29,300	2034						
Handin ii OM	Harden and P. C. D. C.			 	1	100		#500 = 00	M4 400 ===	222					0.1.100 ===	
Heating &Mixing	Heating and Mixing Building			-	19			\$580,741	\$1,122,572						\$1,122,572	
	Sludge Recirc Pump #1			30				\$21,000								
	Recirc Pump #1 Motor			30				\$3,500								
	Vaugn Chopper Pump			20				\$30,000	\$38,040			¢400.700				
	Boiler			15	_			\$100,000				\$109,700				
	Hot Water Recirc Pump			20				\$21,000								
	Hot Water Recirc Pump Motor		1	20				\$1,900	\$1,968 \$9,186							
	Heat Exchanger #1			30	10	82 2007		\$7,617	ሞስ ላበሶ	2027						



Item	Equip #	Replace Criteria	Rplc -			Inspected &			Estd Nxt						
Item	Fauin #	Poplaco Critoria													
	=quip #	Replace Criteria	yrs	Orig	Projected	Deferred Year	Replaced	Current Cost		2028	2029	2030	2031	2032	203
Sludge Feed Pump #1 VFD			15	2015	2015		\$5,000	\$5,380				\$5,380			
Sludge Feed Pump #2			7				\$20,000	\$22,300	2020						
Sludge Feed Pump #2 VFD			15				\$5,000	\$5,380	2030			\$5,380			
Macerator			15	2012	2015		\$20,000	\$21,520	2030			\$21,520			
Amiad Filters			20	2011	2011		\$10,000	\$11,350	2031				\$11,350		
Flare			25	1964	2003		\$4,200	\$5,620	2028	\$5,620					
Ferric Chloride Tank			15				\$10,000	\$12,060							
Ferric Chloride Feed Pump			15	1992			\$5,000	\$5,280					\$5,280		
Sodium Hypochlorite Tank 6K			20	1979	2010		\$10,000	\$11,580	2030			\$11,580			
Sodium Hypochlorite Tank 3K			20	1979	2010		\$6,000	\$6,948	2030			\$6,948			
Sodium Hypochlorite Feed Pump			10	1979	2012		\$5,000	\$5,575	2022					\$5,575	
Sodium Bisulfite Tank			25	1990	1990	2018	\$6,000	\$9,822	2019						
Sodium Bisulfite Feed Pump			10	1979			\$5,000	\$5,575						\$5,575	
CCT Chemical System			10	1990			\$30,000	\$31,680	2026						
Polymer Feed Systems			30				\$12,000	\$19,644							
Chlorine Contact Chamber			60	2007	2006		\$2,700,000	\$3,364,200	2066						
Effluent Pump 100HP #1							\$45,000	\$56,070	2036						
vfd			15	2005	2016		\$10,000	\$10,560	2031				\$10,560		
Effluent Pump 100 HP #2			30				\$45,000						. ,		
vfd			10				\$10,000	\$12,680	2019		\$12,680				
Ocean Outfall			50				\$1,500,000	\$3,414,000	2028	\$3,414,000	. ,				
							, , , ,	, , ,							
ISCO 2100 Flow Meter			10	2016	2016		\$5,250	\$5.544	2026						
			_												
							***	40,100							
Biosolids slab			40	2018	2018		\$50,000	\$50.000	2058						
			50												
ŭ			_											\$1,036,000	
<u> </u>														\$ 1,000,000	
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Emergency Generator			20	2009	2009		\$600,000	\$703.200	2029		\$703.200				
		Idled	10								, , , , , ,	\$1,500,000			
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			1												\$2,00
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		1										+	+	\$773.200	
		1											+	ψ. 10,200	
Liounida			30	1000	2010		Ψ200,000	Ψ200,000	2040						
Station			1												
			30	2021	2021	 		\$156 100	2051						
i latori ana concrete coating		1													
Gates			った	2024	2021			ቢ1ይ <i>1 ነ</i> ርር	2016						
Gates Valves				2021 2021				\$184,400 \$17,600							
	Sludge Feed Pump #2 Sludge Feed Pump #2 VFD Macerator Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Tank 3K Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System Polymer Feed Systems Chlorine Contact Chamber Effluent Pump 100 HP #1 Vfd Effluent Pump 100 HP #2 Vfd	Sludge Feed Pump #2 Sludge Feed Pump #2 VFD Macerator Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Fank Sodium Bisulfite Feed Pump CCT Chemical System Polymer Feed Systems Chlorine Contact Chamber Effluent Pump 100HP #1 Vrd Effluent Pump 100 HP #2 Vrd Ocean Outfall ISCO 2100 Flow Meter ISCO 2100 Flow Meter ISCO 2100 Flow Meter Emergency Generator Cogeneration Unit Plant Well Water System Plant Well Water Pump Standby Water Well Operations Building Maintenance Shop Maintenance Building Facility Asphalt Digester #2 sump pump #2 Security System Pind Maintenance IT System annual maintenance IT System Arroyo Grande Pipe Bridge MCC/Cogen Building MCC Electrical Boxes Plant Electrical Station	Sludge Feed Pump #2 Sludge Feed Pump #2 VFD Macerator Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Tank Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Feed Pump CCT Chemical System Polymer Feed Systems Chlorine Contact Chamber Effluent Pump 100 HP #2 Vid Ocean Outfall ISCO 2100 Flow Meter Biosolids slab Centrifuge Building Centrifuge Macerator Emergency Generator Cogeneration Unit Plant Well Water System Plant Well Water System Description Studing Maintenance Building Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System Including Including Facility Asphalt Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge MCC Electrical Boxes Plant Electrical Station	Sludge Feed Pump #2 VFD	Sludge Feed Pump #2 VFD	Sludge Feed Pump #2 VFD	Studge Feed Pump #2	Studge Feed Pump #2 VFD	Studge Feed Pump #2 VFD	Studge Feed Pump #2 (PD \$20,000 \$22,300 202	Studge Feed Pump #2 VPTD	Studge Fleed Pump #2 \(\text{FT} \)	Studge Feed Pump v2 FPD	Sudge Freed Pump #2 WTD	Surge Face Purry 87 2012 2012 2010 820,000 822,000 2020 83,000



				1		Last										
				Rplc -		Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2028	2029	2030	2031	2032	2033
	Pumps	Equip #	Replace Officia		202		Deferred rear	Першоса	\$235,700	2041	2020	2023	2000	2001	2002	2000
	Flow Meter				202				\$12,800	2031				\$12,800		
WAS Pumping Station	1 IOW MICLOI			10	202	2021			Ψ12,000	2001				Ψ12,000		
TVAOT uniping otation	Concrete			60	202	21 2021			\$9,100	2081						
	Pumps			-	202				\$61,100	2041						
	Valves				202				\$9,700	2041						
	Piping and Fittings			30					\$26,800	2051						
	Flow Meter			10	_				\$6,400	2031				\$6,400		
Activated Sludge Aeration				10	202	2021			ψ0,+00	2001				ψ0,400		
Activated Gludge Actation	Concrete			60	202	21 2021			\$3,885,100	2081						
	Blowers			30					\$813,600	2051						
	Flow Meter			10	_				\$3,700	2031				\$3,700		
	Diffusers		1	30			 		\$614,800	2051				φ3,100	-	
	Gates		+	25			 		\$458,000	2046	 				-	
	Valves		+		202		 		\$800	2046	 				-	
	Piping and Fittings			30					\$426,500	2051						
Blower Building	Figure and Fittings			30	202	2021			\$420,300	2031						
Blower Building	Building CMU			FO	202	21 2021			\$346,800	2071						
	Concrete			60					\$272,000	2071						
New Secondary Clarifier	Concrete			00	202	2021			\$272,000	2001						
New Secondary Clarifler	Congrete			60	202	21 2021			\$2,642,400	2081						
	Concrete								\$2,642,400	2046						
	Gates			25												
	Pumps			20					\$161,300 \$39,000	2041 2041						
	Valves			20 30						2041						
WAC Thiskspins	Piping and Fittings			30	202	2021			\$160,200	2051						
WAS Thickening	One and a Base size			00	000	14 0004			#5.700	0054						
	Concrete Repair				202	2021			\$5,700	2051						
	Gates				202				\$32,200	2046						
	Pumps			_	202				\$862,000	2041						
	Piping and Fittings			30					\$86,300	2051						
	Valves			20					\$17,900	2041				#47.000		
	Flow Meter			10	202	21 2021			\$17,900	2031				\$17,900		
0				0.5	000				#0.000.700	00.40						
Site Improvements	+			25	202	21 2021			\$2,939,700	2046						
In a town and a time and Elec-	del al			40	000	24 0004			#0.000.000	0004						
Instrumentation and Elec	ctricai T			40	202	21 2021	ļ		\$3,823,000	2061	ļ					
				1	 		 				ļ					
Emergency Generator	Our contra				000	14 000:	ļ		0000000	22	ļ					
	Generator				202				\$222,200	2041	ļ					
	Concrete			30	202	21 2021	ļ		\$38,300	2051	ļ					
P1 1 8852 - 2 - 1	1								000000	22	ļ					
Flood Mitigation Improve	ements			29	202	21 2021			\$338,600	2050	ļ					
					!				AFT		A0 450 451	A4 450 05 1	40.000.000	045000	AF (50 55-1	****
Tota					!				\$57,798,270		\$3,476,170	\$1,170,961	\$2,023,000	\$172,829	\$5,456,578	\$200,380
Cumulative (2018 \$					ļ							\$36,363,317			\$44,015,724	
Cumulative (Escalated 2%	% per year)										\$42,230,827	\$44,363,247	\$47,599,033	\$48,584,524	\$56,340,127	\$57,480,936



	lton	Favia #	Replace Criteria	Rplc -	Orig	Last Done/	Inspected & Deferred Year		Current Cost	Estd Nxt	2034	2035	2036	2037	2038	2039
Headworks	Structure	Equip #	Replace Criteria	yrs 60	_			\$350,000	\$1,027,600		2034	2033	2036	2037	2036	2038
i icauwoi ks	Structure Coating			25				\$30,000	\$41,340							
	Parshall Flume Flow Transmitter			5	196				\$5,575							
	Influent Slide Gate			55				\$20,000	\$58,720	2021						
	Mechanical Bar Screens (2)			20				\$427,000	\$442,372				+	\$442,372		
	Washer Compactor			15	_			\$150,000	\$155,400				+	Ψ442,372		
	Influent Pump #1 (3,500 gpm)			20				\$50,000	\$55,750							
	Pump 1 Effluent Valve	RW 14 (16")		20	_			\$2,000	\$2,230							
	RW 14 Check Valve	1(10)		20				\$2,000	\$2,230	2032			+			
	Pump 2 Influent Valve	RW 13 (16")		20				\$2,000	\$2,230				+			
	Influent Pump #2 (3,500 gpm)	1(10)		20				\$50,000	\$55,250							
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000	\$2,230				+			
	RW 15 Check Valve	1(1/10(12)		20				\$2,000	\$2,230							
	RW12 (16-inch)	RW 12 (16")		35				\$2,000	\$2,230	2032			+			
	Influent Pump #3 (3,500 gpm)	1744 12 (10)		20				\$37,000	\$52,762				 			\$52,762
	RW 16 14-inch	RW 16 (14")		34				\$37,000	\$2,762				 			φυ2,102
	RW 16 Check Valve	NV 10 (14)		34				\$2,000	\$2,230				 	+		
	RW 10 Check Valve	RW 10 (16")		20				\$2,000	\$2,230				 	+		
	Influent Pump #4 (3,500 gpm)	KVV 10 (10)		20				\$2,000	\$2,230 \$55,750				+			
	Influent Pump #1 VFD				_			\$10,000	\$35,730 \$10,970							
	Influent Pump #1 VFD			15				. ,	\$10,970							
	Influent Pump #3 VFD			15	_			\$10,000 \$10,000	\$10,970							
				15	_			\$10,000 \$10,000	\$10,970 \$10,760							
	Influent Pump #4 VFD	RW 17 (16")		15				\$10,000	\$10,760	2030						
	RW 17 (16-inch)	RVV 17 (16°)		20												
	RW 17 Check Valve	D\A/ 40 (40!!)		20				\$2,000	\$2,230							
	Diesel Pump Inlet valve	RW 19 (12")		20				\$2,000	\$2,230							
	Diesel Pump			15				\$20,000	\$21,520							
	Diesel Motor			20				\$60,000	\$76,080	2025						
	Hydro ranger			5	196	66 2016		\$5,000	\$5,280	2021						
	0.110							*	***							
Grit Removal	Grit King			_	201			\$342,000	\$354,312							
	Grit Classifier			15				\$150,000	\$155,400							
Splitter Box	Structure			60				\$350,000	\$1,027,600							
	Structure coating	- 111 - 1 (- 111)		20				\$40,000	\$44,600							
	Effluent Valve to PC#2	RW 21 (24")		20				+ ,	\$6,951							\$6,951
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000	\$6,810							
	Effluent Valve to Bypass Primary	RW 22 (20")		20	196	6 2011		\$6,000	\$6,810	2031						
									_							
Primary Clar #1	Clarifier #1 Structure			70	196	1966	5	\$500,000	\$1,468,000	2036			\$1,468,000			
	Clarifier #1 Coating				196			\$20,000								
	Clarifier #1 Mechanism				196			\$140,000	\$156,100							
	Clarifier #1 Drive			30				\$136,195								
	Clarifier #1 Bridge			30				\$77,189								
	Clarifier #1 Sludge Pump #1			5	196			\$20,000	\$20,000							
	Clarifier #1 Sludge Pump #1 VFD			15				\$5,000	\$5,000							
	Clarifier #1 Sludge Pump #2			5	196				\$21,281							
	Clarifier #1 Sludge Pump #2 VFD			15								\$7,255				
Primary Clar #2	Clarifier #2 Structure			50				\$900,000								
	Clarifier #2 Coating		Redundancy Proje					\$25,000	\$40,925							
	Clarifier #2 Mechanism		Redundancy Proje		199				\$409,250							
	Clarifier #2 Drive		Redundancy Proje		199				\$148,149							
	Clarifier #2 Bridge		Redundancy Proje		199	1990	2018	\$51,000								
	Clarifier #2 Sludge Pump #4			4	199	0 2017	′	\$20,000	\$20,720	2021						
	Clarifier #2 Sludge Pump #4 VFD			15	_			\$5,000	\$5,280							
	Clarifier #2 Sludge Pump #6		rarely used	4	199				\$21,281						ĺ	
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15	199							\$5,730	1		İ	
	<u> </u>		, , , , , , , , , , , , , , , , , , ,	1	T T			,	,			,				
FFR	FFR #1 Structure			50	198	6 1986	si	\$1,200,000	\$2,178,000	2036			\$2,178,000			
	= 1 1 1 1 1 1		ł					, ,,	, ,				. , ,			



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				Rplc -	-		Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria	yrs	Orig	g Projected	Deferred Year	Replaced	Current Cost	Rplcmnt	2034	2035	2036	2037	2038	2039
	FFR #1 Rotary Mechanism		after Redun. Proj	30	19	1986	2022	\$250,000	\$453,750	2023						
	FFR #1 Media		after Redun. Proj	30	19	1986	2022	\$450,000	\$816,750	2023						
	FFR Pump 1 Inlet Valve	FF1 (12")		20				\$3,000	\$3,315							
	FFR Feed Pump #1			25	19			\$35,000	\$38,675	2038					\$38,675	
	FFR Feed Pump 1# VFD			15				\$10,000	\$11,050	2028						
	FFR Pump #1 Outlet Valve	FF3 (12")		20	_			\$3,000	' '	2033						
	FFR Pump #2 Inlet Valve			20	19			\$3,000								
	FFR Feed Pump #2	FF2 (12")		25				\$35,000		2037				\$39,025		
	FFR Feed Pump #2 VFD			15				\$10,000	\$11,980	2023					\$11,980	
	FFR Pump #2 Outlet Valve			20				\$3,000	\$3,405							
	FFR Pump #3 Inlet Valve			20				\$3,000		2034	\$3,291					
	FFR Feed Pump #3			25				\$35,000	\$38,395	2039						\$38,395
	FFR Pump #3 VFD			15				\$10,000	\$10,970	2029						
	FFR Pump #3 Outlet Valve			20	_			\$3,000	\$3,291		\$3,291					
	FFR Blower #1			30			2019	\$3,000	\$5,445							
	FFR Blower #1 Motor			20	_			\$10,000	\$12,060	2027						
	FFR Blower #2			30	_		2019	\$3,000	\$5,445							
	FFR Blower #2 Motor			20	19	86 2007		\$10,000	\$12,060	2027						
Sec Clar #1	Sec Clarifier #1 Structure			60				\$900,000	\$2,642,400							
	Sec Clarifier #1 Coating		Redundancy Proje				2020	\$30,000	\$54,450							
	Sec Clarifier #1 Mechanism		Redundancy Proje				2020	\$240,000	\$435,600	2021						
	Sec Clarifier #1 Drive		Redundancy Proje				2020	\$80,000	\$145,200	2021						
	Sec Clarifier #1 Bridge		Redundancy Proje		19			\$100,000	\$181,500							
	Sec Clarifier #1 Sludge Pump		Redundancy Proje		20			\$8,000	\$8,840	2021						
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Proje				2020	\$5,000					\$7,255			
	Sec Clarifier #1 Scum Pump #1		Redundancy Proje		20		2020	\$20,000								
	Sec Clarifier #1 Scum Pump #2		Redundancy Proje	10	20	008 2008	2020	\$20,000	\$23,960	2021						
Thickener #1	Sludge Thickener #1 Structure		not used		19			\$35,000	\$75,705							
	Sludge Thickener #1 Coating		not used	100				\$25,000								
	Thickener #1 Mechanism		not used	100				\$35,000	\$75,705							
	Thickener #1 Drive		not used	100				\$85,000	\$183,855	2079						
	Plant Air System		not used	25	19	79 2004		\$60,000	\$78,300	2029						
								* 100 000	* 404 000	2221	*					
Digester #1	Digester #1			70	_			\$480,000	\$1,431,360		\$1,431,360					
	Digester #1 Coating			15	_			\$130,000	\$130,000					*		
	Digester #1 Cleanout			10	_			\$300,000	\$310,800	2027				\$310,800		
	Digester #1 Gas Train Piping			25				\$228,170	\$289,320	2030					# 10.000	
	Site glasses				19			\$16,000							\$16,000	
	APCD Pieces				19		2019	\$40,000								
	Digester #1 Valves			25	19	64 2005		\$25,000	\$31,700	2030						
Dimenter #0	Discoston #0			50	10	1000		#000 000	£4.404.700	2042						
Digester #2	Digester #2				19			\$900,000								
	Digester #2 Coating Digester #2 Cleanout				19			\$100,000 \$50,000		2019 2019						
				10							¢267.445					
	Digester #2 Gas Train Piping		<u> </u>	25				\$228,170 \$15,500			\$267,415					¢40.400
	Site glasses APCD pieces			15	_				\$18,166 \$46,880							\$18,166
	Digester #2 Valves			10 25	_			\$40,000			\$29,300					
	Digestel #2 valves			25	20	2009		φ25,000	ა ბ∠ყ,ა00	2034	φ ∠ 9,300					
Heating &Mixing	Heating and Mixing Building			E0	19	1982		\$580,741	\$1,122,572	2032						
ricating awinting	Sludge Recirc Pump #1		+	30	_		 	\$21,000								
	Recirc Pump #1 Motor			30			1	\$21,000								
	Vaugn Chopper Pump			20	_		1	\$30,000	\$3,020	2047						
	Boiler		+	15			 	\$30,000								
	Hot Water Recirc Pump			20	_		1	\$100,000						\$21,756		
	Hot Water Recirc Pump Motor			20	_		1	\$21,000						\$21,756		
	Heat Exchanger #1		+	30	_		 	\$7,900	\$1,900					\$1,966		
						ULI 2007	•	. 07.017	u 5.100	1 203/				0.7.100		ı



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	Item	Equip #	Replace Criteria	yrs	Orig	Projected	Deferred Year	Replaced	Current Cost	Rplcmnt	2034	2035	2036	2037	2038	203
	Sludge Feed Pump #1 VFD			-	201			\$5,000		2030						
	Sludge Feed Pump #2			7	2012		2019		\$22,300	2020						
	Sludge Feed Pump #2 VFD			15	201			\$5,000	\$5,380							
	Macerator			15	_			\$20,000	\$21,520	2030						
								, ,	, ,							
Reclaim Water Station	Amiad Filters			20	201	2011		\$10,000	\$11,350	2031						-
								V 10,000	* * * *,000							
Flare	Flare			25	196	1 2003		\$4,200	\$5,620	2028						
1 101 0	T Idio				100	. 2000		Ψ1,200	ψ0,020	2020	+					
Chemical Feed	Ferric Chloride Tank			15	1992	2 2007		\$10,000	\$12,060	2022				\$12,060		
One mour recu	Ferric Chloride Feed Pump			15	_			\$5,000	\$5,280	2031				Ψ12,000		
	Sodium Hypochlorite Tank 6K			20				\$10,000	\$11,580	2030						-
	Sodium Hypochlorite Tank 3K			20	_			\$6,000								
	Sodium Hypochlorite Feed Pump			10				\$5,000	\$5,575	2022						
	Sodium Bisulfite Tank			25	_				\$9,822	2019						
	Sodium Bisulfite Feed Pump			10					\$5,575							
								\$5,000		2022 2026			#04.000			
	CCT Chemical System			10				\$30,000	\$31,680 \$40,644				\$31,680			
	Polymer Feed Systems			30	1990	1990		\$12,000	\$19,644	2020						
F(()	Oblasia a Castast Obas I				000	7 0000	ļ	40.700.000	#0.004.00	2000		-				
Effluent	Chlorine Contact Chamber			_	200			\$2,700,000	\$3,364,200	2066			450 35			
	Effluent Pump 100HP #1			30				\$45,000	\$56,070	2036			\$56,070			
	vfd			15				\$10,000	\$10,560	2031						
	Effluent Pump 100 HP #2			30				\$45,000	\$56,070	2036			\$56,070			
	vfd			10					\$12,680	2019						
	Ocean Outfall			50	1964	1978		\$1,500,000	\$3,414,000	2028						
Flow Meters	ISCO 2100 Flow Meter			10	2010			\$5,250	\$5,544				\$5,544			
	ISCO 2100 Flow Meter			10	201	2017		\$5,250	\$5,439	2027				\$5,439		
Solids Handling																
	Biosolids slab				2018			\$50,000	\$50,000	2058						
	Centrifuge Building			50	2010	2010		\$1,000,000	\$1,158,000	2060						
	Centrifuge			15	2010	2017		\$1,000,000	\$1,036,000	2032						
	Centrifuge Macerator			15	2008	2008		\$25,000	\$29,950	2023					\$29,950	
Miscellaneous	Emergency Generator			20	2009	2009		\$600,000	\$703,200	2029						
	Cogeneration Unit		Idled		2009		2019	\$470,000	\$1,500,000	2020						
	Plant Well Water System			20	_			\$163,147	\$206,870	2025						
	Plant Well Water pump			10	1982			\$5,000	\$5,280	2026			\$5,280			
	Standby Water Well			20				\$4,500					<i>+-,</i>			\$6,41
	Operations Building				198			\$844,161								
	Maintenance Shop			50			1	\$202,495								
	Maintenance Building			50			1	\$205,000								
	Facility Asphalt			30				\$20,000	\$31,660							
	Digester #2 sump pump #1			10	_											
	Digester #2 sump pump #2			10	1990			\$6,000		2028					\$6,000	
	Security System annual maintenance			10	200			\$1,500			\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,50
	IT System annual maintenance			1 1	2010			\$2,000	\$2,000		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,00
	SCADA System			10	2010			\$100,000	\$105,600		φ ∠ ,000	φ2,000	\$105,600	φ∠,000	φ2,000	φ∠,00
	Fuel Tank				1980			\$5,000					ψ103,000			
	Arroyo Grande Pipe Bridge			34	1			\$90,000	\$3,100	2051						
	MCC/Cogen Building				1982		-	\$400,000	\$773,200							
	MCC Electrical Boxes			i e			-									
				40				\$180,000	\$347,940							
DEDUNDANCY DDO 1505	Plant Electrical			30	196	2010		\$250,000	\$289,500	2040						
REDUNDANCY PROJECT				1	}	1				 						
Aeration Tank Feed Pump	•			-	000	0001			M4E0 100	2051						
	Hatch and concrete coating				202				\$156,100	2051						
	Gates				202				\$184,400	2046						
	Valves				202				\$17,600	2041						
	Piping and Fittings			30	202	2021			\$368,100	2051						



		<u> </u>	<u> </u>			Last	I		1	1						
				Rplc -		Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2034	2035	2036	2037	2038	2039
	Pumps	Ечир #	Replace Officia		202		Deferred Tear	Replaced	\$235,700	2041	2034	2033	2000	2001	2030	2000
	Flow Meter				202				\$12,800	2031						
WAS Pumping Station	1 IOW Micter			10	202	2021			Ψ12,000	2001						
Trice i amping cianon	Concrete			60	202	1 2021			\$9,100	2081						
	Pumps			20					\$61,100	2041						
	Valves				202				\$9,700	2041						
	Piping and Fittings			30					\$26,800	2051						
	Flow Meter			10					\$6,400	2031						
Activated Sludge Aeration									ψο, .σσ	200:						
	Concrete			60	202	1 2021			\$3,885,100	2081						
	Blowers			30					\$813,600	2051						
	Flow Meter			10					\$3,700	2031						
	Diffusers			30					\$614,800	2051						
	Gates				202				\$458,000	2046						
	Valves				202				\$800	2041						
	Piping and Fittings				202				\$426,500	2051						
Blower Building																
	Building CMU			50	202	2021			\$346,800	2071						
	Concrete			60					\$272,000	2081						
New Secondary Clarifier																
_	Concrete			60	202	2021			\$2,642,400	2081						
	Gates			25					\$639,000	2046						
	Pumps			20	202	2021			\$161,300	2041						
	Valves			20	202	2021			\$39,000	2041						
	Piping and Fittings			30	202	2021			\$160,200	2051						
WAS Thickening																
	Concrete Repair			30	202				\$5,700	2051						
	Gates			25					\$32,200	2046						
	Pumps			20	202				\$862,000	2041						
	Piping and Fittings			30					\$86,300	2051						
	Valves			20					\$17,900	2041						
	Flow Meter			10	202	2021			\$17,900	2031						
Site Improvements				25	202	2021			\$2,939,700	2046						
Instrumentation and Elec	trical			40	202	2021			\$3,823,000	2061						
Emergency Generator																
	Generator			20	202				\$222,200	2041						
	Concrete			30	202	2021			\$38,300	2051						
Flood Mitigation Improve	l ments			29	202	2021			\$338,600	2050						
<u> </u>									. , , , , , , , , , , , , , , , , , , ,							
Tota	al								\$57,798,270		\$1,771,297	\$16,485	\$3,916,999	\$846,106	\$106,105	\$126,191
Cumulative (2018 \$	3)										\$45,987,402		\$49,920,885			
Cumulative (Escalated 2%		<u> </u>											\$67,892,404			



	Mana	Favia #	Replace Criteria	Rplc -	Orig		Inspected & Deferred Year		Current Cost	Estd Nxt	2040	2041	2042	2043	2044	204
Headworks	Structure	Equip #	Replace Criteria	yrs 60				\$350,000	\$1,027,600		2040	2041	2042	2043	2044	204
Heauworks	Structure Coating			25				\$30,000	\$41,340					+		
	Parshall Flume Flow Transmitter			<u> </u>	196			\$5,000	\$5,575					+		
	Influent Slide Gate			55	_			\$20,000	\$58,720							
	Mechanical Bar Screens (2)			20	_			\$427,000	\$442,372					+		
	Washer Compactor			15				\$150,000	\$155,400							
	Influent Pump #1 (3,500 gpm)			20				\$50,000	\$55,750							1
	Pump 1 Effluent Valve	RW 14 (16")		20				\$2,000	\$2,230							1
	RW 14 Check Valve	100		20				\$2,000	\$2,230							1
	Pump 2 Influent Valve	RW 13 (16")		20	_			\$2,000	\$2,230							1
	Influent Pump #2 (3,500 gpm)	100 13 (10)		20				\$50,000	\$55,250							
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000	\$2,230							1
	RW 15 Check Valve	100 13 (12)		20				\$2,000	\$2,230							
	RW12 (16-inch)	RW 12 (16")		35	_			\$2,000	\$2,230							
	Influent Pump #3 (3,500 gpm)	100 12 (10)		20	_			\$37,000	\$52,762					+		<u> </u>
	RW 16 14-inch	RW 16 (14")		34				\$2,000	\$2,762				+	+		
	RW 16 14-Inch RW 16 Check Valve	NV 10 (14)		34				\$2,000	\$2,230					+		
	RW 10 Check Valve	RW 10 (16")		20				\$2,000	\$2,230				+	+		
	Influent Pump #4 (3,500 gpm)	VAN 10 (10)		20				\$2,000	\$2,230 \$55,750					+		
	Influent Pump #4 (3,500 gpm)			15				\$50,000	\$55,750 \$10,970					+	\$10,970	
				15				' '	\$10,970						, ,	
	Influent Pump #2 VFD Influent Pump #3 VFD			_				\$10,000 \$10,000	\$10,970						\$10,970 \$10,970	
				15				\$10,000	\$10,970						\$10,970	\$10,76
	Influent Pump #4 VFD	RW 17 (16")		15				\$10,000	\$10,760							\$10,76
	RW 17 (16-inch)	RVV 17 (16°)		20												
	RW 17 Check Valve	D)// 40 (40!l)		20				\$2,000	\$2,230							
	Diesel Pump Inlet valve	RW 19 (12")		20				\$2,000	\$2,230							004.50
	Diesel Pump			15				\$20,000	\$21,520							\$21,52
	Diesel Motor			20				\$60,000	\$76,080							\$76,08
	Hydro ranger			5	196	6 2016		\$5,000	\$5,280	2021						
	0.110				201			***	***							
Grit Removal	Grit King			_	201			\$342,000	\$354,312							
.	Grit Classifier			15				\$150,000	\$155,400							
Splitter Box	Structure			60				\$350,000	\$1,027,600							
	Structure coating	5 144 5 1 (5 10)		20				\$40,000	\$44,600							
	Effluent Valve to PC#2	RW 21 (24")		20				\$4,700	\$6,951							
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000	\$6,810							4
	Effluent Valve to Bypass Primary	RW 22 (20")		20	196	6 2011		\$6,000	\$6,810	2031						4
																4
Primary Clar #1	Clarifier #1 Structure			70	196	6 1966		\$500,000	\$1,468,000	2036						1
	Clarifier #1 Coating				196			\$20,000	\$22,300				\$22,300			1
	Clarifier #1 Mechanism				196			\$140,000	\$156,100							1
	Clarifier #1 Drive			30				\$136,195	\$151,857				\$151,857			1
	Clarifier #1 Bridge			30				\$77,189	\$86,066				\$86,066			4
	Clarifier #1 Sludge Pump #1			5	196			\$20,000	\$20,000							1
	Clarifier #1 Sludge Pump #1 VFD			15				\$5,000	\$5,000							1
	Clarifier #1 Sludge Pump #2			5	196			\$13,000	\$21,281							1
	Clarifier #1 Sludge Pump #2 VFD			15				\$5,000	\$7,255							1
Primary Clar #2	Clarifier #2 Structure			50				\$900,000	\$1,473,300		\$1,473,300					
	Clarifier #2 Coating		Redundancy Proje					\$25,000	\$40,925							
	Clarifier #2 Mechanism		Redundancy Proje		199			\$250,000	\$409,250						\$409,250	
	Clarifier #2 Drive		Redundancy Proje		199			\$90,500	\$148,149						\$148,149	
	Clarifier #2 Bridge		Redundancy Proje	25				\$51,000	\$83,487						\$83,487	
	Clarifier #2 Sludge Pump #4			4	199			\$20,000	\$20,720							
	Clarifier #2 Sludge Pump #4 VFD			15				\$5,000	\$5,280							
	Clarifier #2 Sludge Pump #6		rarely used	4	199			\$13,000	\$21,281							
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15	199	0 1990	2019	\$3,500	\$5,730	2020						
																. —
					198	6 1986			\$2,178,000	2036						



					1	Last					I					
				Rplc -		Last Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year	l '	Current Cost		2040	2041	2042	2043	2044	2045
	FFR #1 Rotary Mechanism		after Redun. Proj	30				\$250,000								
	FFR #1 Media		after Redun. Proj	30				\$450,000								
	FFR Pump 1 Inlet Valve	FF1 (12")	•	20	1986			\$3,000	\$3,315	2033						
	FFR Feed Pump #1			25	1986			\$35,000	\$38,675	2038						
	FFR Feed Pump 1# VFD			15	1986			\$10,000	\$11,050	2028				\$11,050		
	FFR Pump #1 Outlet Valve	FF3 (12")		20	1986			\$3,000	\$3,315							
	FFR Pump #2 Inlet Valve			20	1986			\$3,000	\$3,405							
	FFR Feed Pump #2	FF2 (12")		25	1986			\$35,000	\$39,025	2037						
	FFR Feed Pump #2 VFD			15				\$10,000	. ,	2023						
	FFR Pump #2 Outlet Valve			20				\$3,000								
	FFR Pump #3 Inlet Valve			20				\$3,000	\$3,291							
	FFR Feed Pump #3			25				\$35,000								
	FFR Pump #3 VFD			15	-			\$10,000	. ,						\$10,970	
	FFR Pump #3 Outlet Valve			20				\$3,000	\$3,291							
	FFR Blower #1			30				+ - ,	\$5,445							
	FFR Blower #1 Motor			20				\$10,000	\$12,060							
	FFR Blower #2			30				\$3,000	+-, -							
	FFR Blower #2 Motor			20	1986	2007		\$10,000	\$12,060	2027						
				<u> </u>		ļ	ļ	0.55								
Sec Clar #1	Sec Clarifier #1 Structure				1966			\$900,000								
	Sec Clarifier #1 Coating		Redundancy Proje					\$30,000	\$54,450							
	Sec Clarifier #1 Mechanism		Redundancy Proje					\$240,000								
	Sec Clarifier #1 Drive		Redundancy Proje		1986			\$80,000								
	Sec Clarifier #1 Bridge		Redundancy Proje					\$100,000	\$181,500	2021						
	Sec Clarifier #1 Sludge Pump		Redundancy Proje					\$8,000								
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Proje					\$5,000								
	Sec Clarifier #1 Scum Pump #1		Redundancy Proje		2010			\$20,000								
	Sec Clarifier #1 Scum Pump #2		Redundancy Proje	10	2008	2008	2020	\$20,000	\$23,960	2021						
Thickener #1	Cludge Thickener #1 Ctructure		not upod	100	1070	1070	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	¢25,000	\$75,705	2079						
inickener#i	Sludge Thickener #1 Structure Sludge Thickener #1 Coating		not used not used	100	1979 1979			\$35,000 \$25,000	. ,							
	Thickener #1 Mechanism		not used	100				\$35,000								
	Thickener #1 Drive		not used	100				\$85,000								
	Plant Air System		not used	25				\$60,000	\$78,300							
	Flant All System		not used	23	1978	2004		\$60,000	\$70,300	2029						
Digester #1	Digester #1			70	1964	1964		\$480,000	\$1,431,360	2034						
Digester #1	Digester #1 Coating			15				\$130,000								
	Digester #1 Cleanout			10				\$300,000	\$310,800	2027						
	Digester #1 Gas Train Piping			25	_			\$228,170	\$289,320	2030						
	Site glasses			10				\$16,000								
	APCD Pieces			_	1964			. ,								
	Digester #1 Valves				1964			\$25,000								
	Digodioi ii i vaivoo				100	2000		Ψ20,000	ψο 1,7 σσ	2000						
Digester #2	Digester #2			50	1992	1992		\$900,000	\$1,424,700	2042			\$1,424,700			
2.geote: ::-	Digester #2 Coating			10									ψ.,. <u>=</u> .,.σσ			
	Digester #2 Cleanout			10												
	Digester #2 Gas Train Piping			25				\$228,170								
	Site glasses			15				\$15,500								
	APCD pieces			10				\$40,000								
	Digester #2 Valves			25				\$25,000								
Heating &Mixing	Heating and Mixing Building			50	1982			\$580,741	\$1,122,572							
	Sludge Recirc Pump #1			30				\$21,000								
	Recirc Pump #1 Motor			30		2017	1	\$3,500								
	Vaugn Chopper Pump			20				\$30,000								\$38,040
	Boiler			15				\$100,000							\$109,700	
	Hot Water Recirc Pump			20				\$21,000								
	Hot Water Recirc Pump Motor			20				\$1,900								
	Heat Exchanger #1			30				\$7,617								
	Sludge Feed Pump #1			7	2012	2012	2019	\$20,000	\$22,300	2020						



						Last										
				Rplc -			Inspected &			Estd Nxt						
	Item	Equip #	Replace Criteria	yrs	Orig	Projected	Deferred Year	Replaced	Current Cost	Rplcmnt	2040	2041	2042	2043	2044	204
	Sludge Feed Pump #1 VFD			15	2015	2015		\$5,000		2030						\$5,38
	Sludge Feed Pump #2			7	2012		2019	\$20,000	\$22,300	2020						
	Sludge Feed Pump #2 VFD			15	2015			\$5,000	\$5,380	2030						\$5,380
	Macerator			15	2012	2015		\$20,000	\$21,520	2030						\$21,520
Reclaim Water Station	Amiad Filters			20	2011	2011		\$10,000	\$11,350	2031						
Flare	Flare			25	1964	2003		\$4,200	\$5,620	2028						
Chemical Feed	Ferric Chloride Tank			15	1992			\$10,000	\$12,060	2022						
	Ferric Chloride Feed Pump			15	1992			\$5,000	\$5,280	2031						
	Sodium Hypochlorite Tank 6K			20	1979	2010		\$10,000	\$11,580	2030						
	Sodium Hypochlorite Tank 3K			20	1979	2010		\$6,000	\$6,948	2030						
	Sodium Hypochlorite Feed Pump			10	1979	2012		\$5,000	\$5,575	2022						
	Sodium Bisulfite Tank			25	1990	1990	2018	\$6,000	\$9,822	2019					\$9,822	
	Sodium Bisulfite Feed Pump			10	1979			\$5,000	\$5,575	2022						
	CCT Chemical System			10	1990			\$30,000	\$31,680	2026						
	Polymer Feed Systems			30	1990	1990		\$12,000	\$19,644	2020						
Effluent	Chlorine Contact Chamber			60	2007			\$2,700,000	\$3,364,200	2066						
	Effluent Pump 100HP #1			30	2005	2006		\$45,000	\$56,070	2036						
	vfd			15				\$10,000	\$10,560	2031						
	Effluent Pump 100 HP #2			30	2005	2006		\$45,000	\$56,070	2036						
	vfd			10			2018	\$10,000	\$12,680	2019						
	Ocean Outfall			50				\$1,500,000	\$3,414,000	2028						
Flow Meters	ISCO 2100 Flow Meter			10	2016	2016		\$5,250	\$5,544	2026						
	ISCO 2100 Flow Meter				2017			\$5,250	\$5,439	2027						
								, ,	, ,							
Solids Handling																
-	Biosolids slab			40	2018	2018		\$50,000	\$50,000	2058						
	Centrifuge Building			50				\$1,000,000	\$1,158,000	2060						
	Centrifuge			15				\$1,000,000	\$1,036,000	2032						
	Centrifuge Macerator			15	2008			\$25,000	\$29,950	2023						
	Ŭ							· · · ·	, ,							
Miscellaneous	Emergency Generator			20	2009	2009		\$600,000	\$703,200	2029						
	Cogeneration Unit		Idled		2009		2019	\$470,000	\$1,500,000	2020						
	Plant Well Water System			20				\$163,147	\$206,870	2025						\$206,870
	Plant Well Water pump			10	1982			\$5,000	\$5,280	2026						+,-
	Standby Water Well			20				\$4,500								
	Operations Building			50	1982			\$844,161		2032						
	Maintenance Shop			50				\$202,495		2032						
	Maintenance Building			50				\$205,000		2046						
	Facility Asphalt			30				\$20,000	\$31,660	2022						
	Digester #2 sump pump #1			10			2019			2020		İ	İ			
	Digester #2 sump pump #2			10	1996			\$6,000		2028						
	Security System annual maintenance			1	2006			\$1,500		NA	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
	IT System annual maintenance			1	2016			\$2,000	\$2,000	NA	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	SCADA System			10	2016	2016		\$100,000	\$105,600	2026						. , -
	Fuel Tank				1980			\$5,000				İ				
	Arroyo Grande Pipe Bridge			34				\$90,000	\$300,000	2051		İ				
	MCC/Cogen Building				1982			\$400,000	\$773,200	2032						
	MCC Electrical Boxes			40				\$180,000	\$347,940							
	Plant Electrical			30				\$250,000	\$289,500	2040	\$289,500					
REDUNDANCY PROJECT				1		1		, ,,,,,,,	, 10,000		,					
Aeration Tank Feed Pum				1		1										
	Hatch and concrete coating			30	2021	2021			\$156,100	2051						
	Gates				2021				\$184,400	2046						
									Ţ . C ., . O O	_0.0						
	Valves				2021				\$17,600	2041		\$17,600				



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	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2040	2041	2042	2043	2044	204
	Pumps	Equip #	replace official		202		Deterred rear	replacea	\$235,700	2041	2040	\$235,700	2042	2040	2011	204
	Flow Meter				202				\$12,800	2031		Ψ200,100				
WAS Pumping Station	I low motor					2021			ψ12,000	2001						
The company of the company	Concrete			60	202	1 2021			\$9,100	2081						
	Pumps			20					\$61,100	2041		\$61,100				
	Valves				202				\$9,700	2041		\$9,700				
	Piping and Fittings			30					\$26,800	2051		+-,				
	Flow Meter			10					\$6,400	2031						
Activated Sludge Aeration						_			, , , , , ,							
.	Concrete			60	202	1 2021			\$3,885,100	2081						
	Blowers			30					\$813,600	2051						
	Flow Meter			10					\$3,700	2031						
	Diffusers			30					\$614,800	2051						
	Gates			25	202				\$458,000	2046						
	Valves			20	202				\$800	2041		\$800				
	Piping and Fittings			30	202	1 2021			\$426,500	2051						
Blower Building																
	Building CMU			50	202				\$346,800	2071						
	Concrete			60	202	1 2021			\$272,000	2081						
New Secondary Clarifier																
	Concrete			60	202				\$2,642,400	2081						
	Gates			25					\$639,000	2046						
	Pumps			20	202	1 2021			\$161,300	2041		\$161,300				
	Valves			20					\$39,000	2041		\$39,000				
	Piping and Fittings			30	202	1 2021			\$160,200	2051						
WAS Thickening																
	Concrete Repair				202				\$5,700							
	Gates			25					\$32,200	2046						
	Pumps				202				\$862,000	2041		\$862,000				
	Piping and Fittings			30					\$86,300	2051						
	Valves			20					\$17,900	2041		\$17,900				
	Flow Meter			10	202	1 2021			\$17,900	2031						
Site Improvements				25	202	1 2021			\$2,939,700	2046						
Cite improvemente						2021			Ψ2,000,100	2010						
Instrumentation and Elec	trical			40	202	1 2021			\$3,823,000	2061						
Emergency Generator									+	1						
. 3,	Generator			20	202	1 2021			\$222,200	2041		\$222,200				
	Concrete			30	_				\$38,300	2051		,,_				
									, , , , , ,							
Flood Mitigation Improve	ments			29	202	1 2021			\$338,600	2050						
Tota									\$57,798,270			\$1,630,800			\$807,788	
Cumulative (2018 \$														\$56,099,361		
Cumulative (Escalated 2%	% per year)										\$75,982,446	\$79,418,726	\$83,005,520	\$84,149,041	\$86,498,865	\$88,236,140



	Itom	Equip #	Replace Criteria	Rplc - yrs	Orig		Inspected & Deferred Year		Current Cost	Estd Nxt	2046	2047	2048	2049	2050	2051
Headworks	Item Structure	Equip #	Replace Cificina		196			\$350,000			2046	2047	2046	2049	2030	203
Ticadworks	Structure Coating			25				\$30,000	\$41,340							\$41,340
	Parshall Flume Flow Transmitter			5	196			\$5,000								Ψ11,01
	Influent Slide Gate			55				\$20,000	\$58,720							
	Mechanical Bar Screens (2)				201			\$427,000	\$442,372							
	Washer Compactor			15				\$150,000	\$155,400	2032		\$155,400				
	Influent Pump #1 (3,500 gpm)			-	196			\$50,000	\$55,750			ψ100,100				
	Pump 1 Effluent Valve	RW 14 (16")			196			\$2,000	\$2,230							
	RW 14 Check Valve	100		20				\$2,000	\$2,230	2032						
	Pump 2 Influent Valve	RW 13 (16")		20				\$2,000								
	Influent Pump #2 (3,500 gpm)	10000		20				\$50,000	\$55,250	2033						
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000								
	RW 15 Check Valve	100 (12)		20				\$2,000								
	RW12 (16-inch)	RW 12 (16")		35				\$2,000	\$2,230	2047		\$2,230				
	Influent Pump #3 (3,500 gpm)	100 12 (10)		20				\$37,000	\$52,762			Ψ2,200				
	RW 16 14-inch	RW 16 (14")		34				\$2,000		2019	\$2,230			+	+	
	RW 16 Check Valve	11.00 10 (14)		34				\$2,000			\$2,230					
	RW 10 16-inch	RW 10 (16")		20				\$2,000	\$2,230		Ψ∠,∠30					
	Influent Pump #4 (3,500 gpm)	1(10 (10)		20				\$50,000	\$55,750							
	Influent Pump #1 VFD				201			\$10,000	\$10,970							
	Influent Pump #2 VFD				201			\$10,000	\$10,970							
	Influent Pump #3 VFD				201			\$10,000	\$10,970							
	Influent Pump #4 VFD				196			\$10,000	\$10,970							
	RW 17 (16-inch)	RW 17 (16")		20				\$10,000	\$2,230	2030						
	RW 17 (16-11ICH)	KW 17 (10)			196			\$2,000	\$2,230							
		D\\\ 40 (40")							\$2,230							
	Diesel Pump Inlet valve Diesel Pump	RW 19 (12")		20	196 200			\$2,000 \$20,000	\$2,230							
	Diesel Motor							\$20,000	\$21,520 \$76,080							
				20	200			, ,								
	Hydro ranger			5	196	36 2016		\$5,000	\$5,280	2021						
O-it DI	Oct 16 cm			00	004	17 0047		#0.40.000	\$054.040	0047		COE 4 040				
Grit Removal	Grit King				201			\$342,000	\$354,312	2047		\$354,312				
O 1:44 D	Grit Classifier				201			\$150,000	\$155,400	2032		\$155,400				
Splitter Box	Structure			60				\$350,000	\$1,027,600							
	Structure coating	D144 04 (048)			201			\$40,000	\$44,600	2032						
	Effluent Valve to PC#2	RW 21 (24")		20				+ ,	\$6,951							
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000								\$6,810
	Effluent Valve to Bypass Primary	RW 22 (20")		20	196	66 2011		\$6,000	\$6,810	2031						\$6,810
	0.15							^	*							
Primary Clar #1	Clarifier #1 Structure			70				\$500,000								
	Clarifier #1 Coating				196			\$20,000								
	Clarifier #1 Mechanism				196			\$140,000	\$156,100							
	Clarifier #1 Drive				196			\$136,195								
	Clarifier #1 Bridge			30				\$77,189								
	Clarifier #1 Sludge Pump #1			5	196			\$20,000	\$20,000				4			
	Clarifier #1 Sludge Pump #1 VFD			15	196			\$5,000					\$5,000			
	Clarifier #1 Sludge Pump #2			5	196			\$13,000								
	Clarifier #1 Sludge Pump #2 VFD				196			\$5,000								
Primary Clar #2	Clarifier #2 Structure				199			\$900,000								
	Clarifier #2 Coating		Redundancy Project					\$25,000	\$40,925					\$40,925		
	Clarifier #2 Mechanism		Redundancy Project		199			\$250,000	\$409,250							
	Clarifier #2 Drive		Redundancy Project		199			\$90,500	\$148,149							
	Clarifier #2 Bridge		Redundancy Project	25	199		2018	\$51,000								
	Clarifier #2 Sludge Pump #4			4	199			\$20,000								
	Clarifier #2 Sludge Pump #4 VFD			15				\$5,000	\$5,280		\$5,280					
·	Clarifier #2 Sludge Pump #6		rarely used	4	199			\$13,000	\$21,281							
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15	199	90 1990	2019	\$3,500	\$5,730	2020						
FFR	FFR #1 Structure			50	198	1986		\$1,200,000	\$2,178,000	2036						
						-	-									



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				Rplc -		Last Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria	•	Orig		Deferred Year		Current Cost		2046	2047	2048	2049	2050	2051
	FFR #1 Rotary Mechanism	Equip #	after Redun. Proj		1986		2022	\$250,000	\$453,750	2023	20.0	20	2010	20.0	2000	
	FFR #1 Media		after Redun. Proj		1986		2022	\$450,000	\$816,750	2023						
	FFR Pump 1 Inlet Valve	FF1 (12")	,	20				\$3,000	\$3,315	2033						
	FFR Feed Pump #1	` ′		25	1986	2013		\$35,000	\$38,675	2038						
	FFR Feed Pump 1# VFD			15	1986	2013		\$10,000	\$11,050	2028						
	FFR Pump #1 Outlet Valve	FF3 (12")		20	1986	2013		\$3,000	\$3,315	2033						
	FFR Pump #2 Inlet Valve			20	1986	2011		\$3,000	\$3,405	2031						\$3,405
	FFR Feed Pump #2	FF2 (12")		25	1986			\$35,000	\$39,025	2037						
	FFR Feed Pump #2 VFD			15				\$10,000	\$11,980	2023						
	FFR Pump #2 Outlet Valve			20				\$3,000	\$3,405	2031						\$3,405
	FFR Pump #3 Inlet Valve			20	_			\$3,000	\$3,291	2034						
	FFR Feed Pump #3			25				\$35,000	\$38,395	2039						
	FFR Pump #3 VFD			15				\$10,000	\$10,970	2029						
	FFR Pump #3 Outlet Valve				2014			\$3,000	\$3,291	2034						
	FFR Blower #1			30			2019	\$3,000	\$5,445	2020					\$5,445	
	FFR Blower #1 Motor			20	-			\$10,000	\$12,060	2027		\$12,060			<u> </u>	
	FFR Blower #2		1	30			2019	\$3,000	\$5,445	2020		# 10.555			\$5,445	
	FFR Blower #2 Motor			20	1986	2007		\$10,000	\$12,060	2027		\$12,060				
Coo Class#4	Coo Clarifian #4 Chrostons		1		4000	1000		# 000 000	#0.040.400	2000						
Sec Clar #1	Sec Clarifier #1 Structure		Dodunder av Drain		1966			\$900,000	\$2,642,400	2026						
	Sec Clarifier #1 Coating		Redundancy Project				2020	\$30,000	\$54,450	2021						
	Sec Clarifier #1 Mechanism		Redundancy Project		1986		2020	\$240,000	\$435,600	2021						
	Sec Clarifier #1 Drive Sec Clarifier #1 Bridge		Redundancy Project		1986 1986		2020 2020	\$80,000 \$100,000	\$145,200 \$184,500	2021 2021						
	Sec Clarifier #1 Studge Pump		Redundancy Project		2013		2020	\$100,000	\$181,500 \$8,840	2021						
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Project	15			2020	\$5,000	\$7,255	2021						
	Sec Clarifier #1 Scum Pump #1		Redundancy Project		2010		2020	\$20,000	\$23,160	2021						
	Sec Clarifier #1 Scum Pump #2		Redundancy Project		2008			\$20,000	\$23,160	2021						
	Sec Claimer #1 Scull 1 ump #2		Tredutidaticy i Tojet	10	2000	2000	2020	Ψ20,000	Ψ25,900	2021						
Thickener #1	Sludge Thickener #1 Structure		not used	100	1979	1979		\$35,000	\$75,705	2079						
THIOROTTON III	Sludge Thickener #1 Coating		not used	100				\$25,000	\$54,075	2079						
	Thickener #1 Mechanism		not used	100				\$35,000	\$75,705	2079						
	Thickener #1 Drive		not used	100				\$85,000	\$183,855	2079						
	Plant Air System		not used	25				\$60,000	\$78,300	2029						
	,							, ,								
Digester #1	Digester #1			70	1964	1964		\$480,000	\$1,431,360	2034						
	Digester #1 Coating			15	2005	2018		\$130,000	\$130,000	2033			\$130,000			
	Digester #1 Cleanout			10	1964	2017		\$300,000	\$310,800	2027						
	Digester #1 Gas Train Piping			25	1964			\$228,170	\$289,320	2030						
	Site glasses			10				\$16,000								
	APCD Pieces				1964		2019		\$50,720							
	Digester #1 Valves			25	1964	2005		\$25,000	\$31,700	2030						
Digester #2	Digester #2				1992			\$900,000	\$1,424,700	2042						
	Digester #2 Coating		1	10				\$100,000	\$119,800	2019						
	Digester #2 Cleanout			10	2008		2018		\$59,900	2019						
	Digester #2 Gas Train Piping		ļ		1992			\$228,170	\$267,415							
	Site glasses		1		2009			\$15,500	\$18,166	2024						
	APCD pieces		1	10					\$46,880	2020						
	Digester #2 Valves		+	25	2009	2009		\$25,000	\$29,300	2034						
Heating Philiping	Hosting and Miving Duilding		+	EO	1000	1000		¢500 744	¢4 400 570	2020		-				
Heating &Mixing	Heating and Mixing Building		+	30	1982 1982			\$580,741 \$21,000	\$1,122,572	2032 2047		\$21,756				
	Sludge Recirc Pump #1 Recirc Pump #1 Motor		+	30				\$21,000 \$3,500	\$21,756 \$3,626	2047		\$21,756				
	Vaugn Chopper Pump		+	20				\$3,500	\$3,626		+	φ3,0∠0	+		-	
	Boiler		+	15				\$30,000	\$38,040	2029						
	Hot Water Recirc Pump		+		1982			\$21,000	\$21,756		+	+	+	+	+	
	Hot Water Recirc Pump Motor				1982			\$1,900	\$1,750	2037						
	Heat Exchanger #1			30				\$7,617	\$9,186	2037						
	1. Just Exchange # 1	I	1		1002	2007		Ψ1,017	\$22,300							



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				Rplc -			Inspected &			Estd Nxt						
	Item	Equip #	Replace Criteria				Deferred Year		Current Cost		2046	2047	2048	2049	2050	205
	Sludge Feed Pump #1 VFD			15	2015	2015		\$5,000		2030						
	Sludge Feed Pump #2			7	2012		2019	\$20,000	\$22,300	2020						
	Sludge Feed Pump #2 VFD			15	2015			\$5,000	\$5,380							
	Macerator			15	2012	2015		\$20,000	\$21,520	2030						
Reclaim Water Station	Amiad Filters			20	2011	2011		\$10,000	\$11,350	2031						\$11,35
Flare	Flare			25	1964	2003		\$4,200	\$5,620	2028						
Chemical Feed	Ferric Chloride Tank			15	1992			\$10,000	\$12,060	2022						
	Ferric Chloride Feed Pump			15				\$5,000	\$5,280	2031	\$5,280					
	Sodium Hypochlorite Tank 6K			20	1979			\$10,000	\$11,580	2030					\$11,580	
	Sodium Hypochlorite Tank 3K			20	1979			\$6,000							\$6,948	
	Sodium Hypochlorite Feed Pump			10	1979	2012		\$5,000	\$5,575	2022						
	Sodium Bisulfite Tank			25	1990		2018	\$6,000	\$9,822	2019						
	Sodium Bisulfite Feed Pump			10	1979			\$5,000	\$5,575	2022						
	CCT Chemical System			10	1990			\$30,000	\$31,680	2026						
	Polymer Feed Systems			30	1990	1990		\$12,000	\$19,644	2020					\$19,644	
Effluent	Chlorine Contact Chamber			60	2007			\$2,700,000	\$3,364,200	2066						
	Effluent Pump 100HP #1			30	2005	2006		\$45,000	\$56,070	2036						
	vfd			15				\$10,000	\$10,560	2031	\$10,560					
	Effluent Pump 100 HP #2			30				\$45,000	\$56,070	2036						
	vfd			10			2018	\$10,000	\$12,680	2019						
	Ocean Outfall			50				\$1,500,000	\$3,414,000	2028						
Flow Meters	ISCO 2100 Flow Meter			10	2016	2016		\$5,250	\$5,544	2026						
	ISCO 2100 Flow Meter				2017			\$5,250	\$5,439	2027						
								. ,	, ,							
Solids Handling																
<u> </u>	Biosolids slab			40	2018	2018		\$50,000	\$50,000	2058						
	Centrifuge Building			50				\$1,000,000	\$1,158,000	2060						
	Centrifuge			15				\$1,000,000	\$1,036,000	2032		\$1,036,000				
	Centrifuge Macerator			15				\$25,000	\$29,950	2023		+ 1,000,000				
								+ -,	+ -,							
Miscellaneous	Emergency Generator			20	2009	2009		\$600,000	\$703,200	2029				\$703,200		
	Cogeneration Unit		Idled		2009			\$470,000	\$1,500,000	2020				, ,		
	Plant Well Water System			20				\$163,147	\$206,870	2025						
	Plant Well Water pump			10	1982			\$5,000	\$5,280	2026						
	Standby Water Well			20				\$4,500								
	Operations Building				1982			\$844,161								
	Maintenance Shop			50				\$202,495								
	Maintenance Building			50				\$205,000			\$303,195					
	Facility Asphalt			30				\$20,000	\$31,660		, , , , , , ,					
	Digester #2 sump pump #1			10			2019									
	Digester #2 sump pump #2			10	1996			\$6,000		2028						
	Security System annual maintenance	<u> </u>	1	1	2006			\$1,500			\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,50
	IT System annual maintenance			1	2016			\$2,000	\$2,000		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,00
	SCADA System			10	2016			\$100,000	\$105,600		72,000	72,000	4 =,550	<i>\$</i> 2,000	7 2,000	Ψ=,50
	Fuel Tank				1980			\$5,000								
	Arroyo Grande Pipe Bridge			34				\$90,000	\$300,000	2051						\$300,00
	MCC/Cogen Building				1982			\$400,000	\$773,200							+300,00
	MCC Electrical Boxes			40				\$180,000	\$347,940							
	Plant Electrical			30				\$250,000	\$289,500	2040						
REDUNDANCY PROJECT				- 50	1000	2010		Ψ200,000	Ψ200,000	2040						
Aeration Tank Feed Pum				1						+						
audii rainti doa i ulii	Hatch and concrete coating			30	2021	2021			\$156,100	2051						\$156,10
	Gates		+		2021				\$130,100	2046	\$184,400					ψ100,10
					2021				\$17,600		ψ10 1 , 1 00					
	Valves															



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				Rplc -		Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2046	2047	2048	2049	2050	205
	Pumps			20					\$235,700	2041						
	Flow Meter				202				\$12,800	2031						
WAS Pumping Station									* :=,000							
The state of the s	Concrete			60	202	1 2021			\$9,100	2081						
	Pumps				202				\$61,100	2041						
	Valves				202				\$9,700	2041						
	Piping and Fittings			30	_				\$26,800	2051						\$26.800
	Flow Meter			10					\$6,400	2031						+
Activated Sludge Aeration						-			, , , , ,							
	Concrete			60	202	1 2021			\$3,885,100	2081						
	Blowers			30					\$813,600	2051						\$813,600
	Flow Meter			10					\$3,700	2031						+ , ,
	Diffusers			30					\$614,800	2051						\$614,800
	Gates			25					\$458,000	2046	\$458,000					+ - 1 . , 0 0 0
	Valves			20	202				\$800	2041	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
	Piping and Fittings			30					\$426,500	2051						\$426,500
Blower Building	1 3 4 4 3								+ -,							+ -,
	Building CMU			50	202	1 2021			\$346,800	2071						
	Concrete			60					\$272,000	2081						
New Secondary Clarifier																
, , , , , , , , , , , , , , , , , , ,	Concrete			60	202	1 2021			\$2,642,400	2081						
	Gates			25					\$639,000	2046	\$639,000					
	Pumps			20					\$161,300	2041	4000,000					
	Valves			20					\$39,000	2041						
	Piping and Fittings			30					\$160,200	2051						\$160,200
WAS Thickening																* * * * * * * * * * * * * * * * * * *
g	Concrete Repair			30	202	1 2021			\$5,700	2051						\$5,700
	Gates				202				\$32,200	2046	\$32,200					70,100
	Pumps				202				\$862,000	2041	+,					
	Piping and Fittings			30					\$86,300	2051						\$86,300
	Valves			20					\$17,900	2041						* / /
	Flow Meter			10					\$17,900	2031						
						-			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
Site Improvements				25	202	1 2021			\$2,939,700	2046	\$2,939,700					
						-			+ ,===,==		+ ,,					
Instrumentation and Elec	trical			40	202	1 2021			\$3,823,000	2061						
									+ - , , , ,							
Emergency Generator				1												
	Generator			20	202	1 2021			\$222,200	2041						
	Concrete			30					\$38,300	2051						\$38,300
									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							, ,
Flood Mitigation Improve	ements			29	202	1 2021			\$338,600	2050					\$338,600	
				 	1	1			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						, , , , , , ,	
Tota	al			i –					\$57,798,270		\$4,585.575	\$1,756,344	\$138,500	\$747,625	\$391.162	\$3,073,020
Cumulative (2018 S									+,,,		\$61,881.774	\$63,638.118	\$63,776.618	\$64,524.243	\$64,915,405	\$67,988.425
Cumulative (Escalated 29			1	1							¢06 525 567	\$100 E40 226	\$402 042 E00	\$404 F20 272	\$106 461 264	\$112,860,785



	Item	Equip #	Replace Criteria	Rplc - yrs	Orig		Inspected & Deferred Year		Current Cost	Estd Nxt	2052	2053	2054	2055	2056	2057
Headworks	Structure	Equip #	replace official		196			\$350,000			2032	2000	2034	2000	2030	2031
	Structure Coating			25				\$30,000	\$41,340							
	Parshall Flume Flow Transmitter			5	196											
	Influent Slide Gate			55				\$20,000	\$58,720							
	Mechanical Bar Screens (2)				201			\$427,000	\$442,372							\$442,372
	Washer Compactor			15				\$150,000	\$155,400	2032						ψ.:=,σ::
	Influent Pump #1 (3,500 gpm)			-	196			\$50,000	\$55,750		\$55,750					
	Pump 1 Effluent Valve	RW 14 (16")			196			\$2,000	\$2,230		\$2,230					
	RW 14 Check Valve	1(10)		20	_			\$2,000	\$2,230		\$2,230					
	Pump 2 Influent Valve	RW 13 (16")		20				\$2,000			\$2,230					
	Influent Pump #2 (3,500 gpm)	KW 13 (10)		20				\$50,000		2032	\$2,230	\$55,250			+	
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000	\$2,230		\$2,230	\$33,230			-	
		KW 13 (12)		20	_			\$2,000			\$2,230					
	RW 15 Check Valve	DW 40 (40!)									\$2,230					
	RW12 (16-inch)	RW 12 (16")		35				\$2,000	\$2,230	2047						
	Influent Pump #3 (3,500 gpm)	DIA 40 (4.1")		20				\$37,000	\$52,762							
	RW 16 14-inch	RW 16 (14")		34				\$2,000		2046						
	RW 16 Check Valve	B1		34				\$2,000								
	RW 10 16-inch	RW 10 (16")		20				\$2,000	\$2,230		\$2,230					
	Influent Pump #4 (3,500 gpm)			20				\$50,000	\$55,750		\$55,750					
	Influent Pump #1 VFD				201			\$10,000	\$10,970							
	Influent Pump #2 VFD				201			\$10,000	\$10,970							
	Influent Pump #3 VFD				201			\$10,000	\$10,970							
	Influent Pump #4 VFD			15	196			\$10,000	\$10,760	2030						
	RW 17 (16-inch)	RW 17 (16")		20	196			\$2,000	\$2,230	2032	\$2,230					
	RW 17 Check Valve			20	196	66 2012		\$2,000	\$2,230	2032	\$2,230					
	Diesel Pump Inlet valve	RW 19 (12")		20	196	66 2012		\$2,000	\$2,230	2032	\$2,230					
	Diesel Pump			15	200	05 2015		\$20,000	\$21,520	2030						
	Diesel Motor			20	200	05 2005		\$60,000	\$76,080	2025						
	Hydro ranger			5	196	66 2016		\$5,000	\$5,280	2021						
	, ,															
Grit Removal	Grit King			30	201	17 2017		\$342,000	\$354,312	2047						
	Grit Classifier				201			\$150,000	\$155,400	2032						
Splitter Box	Structure			60	_			\$350,000	\$1,027,600							
	Structure coating				201			\$40,000	\$44,600	2032	\$44,600					
	Effluent Valve to PC#2	RW 21 (24")		20	_				\$6,951		ψ,σσσ					
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000								
	Effluent Valve to Bypass Primary	RW 22 (20")		20				\$6,000								
	Emdent valve to bypass i filmary	1(1/1/22 (20)		20	130	2011		ψ0,000	ψ0,010	2001						
Primary Clar #1	Clarifier #1 Structure			70	196	66 1966		\$500,000	\$1,468,000	2036						
Tilliary Clai #1				— . i											+	
	Clarifier #1 Coating Clarifier #1 Mechanism				196 196			\$20,000 \$140,000	\$22,300 \$156,100						+	
	Clarifier #1 Drive				196			\$140,000								
	Clarifier #1 Bridge			30	-			\$77,189 \$20,000								
	Clarifier #1 Sludge Pump #1			5	196			\$20,000	\$20,000							
	Clarifier #1 Sludge Pump #1 VFD			15	196			\$5,000								
	Clarifier #1 Sludge Pump #2			5	196											
D . O	Clarifier #1 Sludge Pump #2 VFD				196											
Primary Clar #2	Clarifier #2 Structure		D		199			\$900,000								
	Clarifier #2 Coating		Redundancy Project					\$25,000	\$40,925							
	Clarifier #2 Mechanism		Redundancy Project		199				\$409,250							
	Clarifier #2 Drive		Redundancy Project		199			\$90,500	\$148,149							
	Clarifier #2 Bridge		Redundancy Project	25	199		2018									
	Clarifier #2 Sludge Pump #4			4	199			\$20,000								
	Clarifier #2 Sludge Pump #4 VFD			15				\$5,000	\$5,280							
	Clarifier #2 Sludge Pump #6		rarely used	4	199	90 1990	2019	\$13,000	\$21,281	2020						
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15	199	90 1990	2019	\$3,500	\$5,730	2020						
FFR	FFR #1 Structure			50	198	36 1986		\$1,200,000	\$2,178,000	2036						
	5		•		•	-			-		-					



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				Rplc -			Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria	yrs	Orig		Deferred Year	Replaced	Current Cost	Rplcmnt	2052	2053	2054	2055	2056	2057
	FFR #1 Rotary Mechanism		after Redun. Proj	30	198			\$250,000	\$453,750	2023		\$453,750				
	FFR #1 Media		after Redun. Proj	30	198			\$450,000	\$816,750			\$816,750				
	FFR Pump 1 Inlet Valve	FF1 (12")		20				\$3,000	\$3,315	2033		\$3,315				
	FFR Feed Pump #1			25				\$35,000	\$38,675	2038						
	FFR Feed Pump 1# VFD			15				\$10,000	\$11,050	2028						
	FFR Pump #1 Outlet Valve	FF3 (12")		20	198			\$3,000	\$3,315	2033		\$3,315				
	FFR Pump #2 Inlet Valve			20				\$3,000	\$3,405	2031						
	FFR Feed Pump #2	FF2 (12")		25				\$35,000	\$39,025	2037						
	FFR Feed Pump #2 VFD			15				\$10,000	\$11,980	2023						
	FFR Pump #2 Outlet Valve			20				\$3,000	\$3,405	2031						
	FFR Pump #3 Inlet Valve				201			\$3,000	\$3,291	2034			\$3,291			
	FFR Feed Pump #3				201			\$35,000	\$38,395							
	FFR Pump #3 VFD				201			\$10,000	\$10,970	2029						
	FFR Pump #3 Outlet Valve			+	201			\$3,000	\$3,291	2034			\$3,291			
	FFR Blower #1			30			2019	\$3,000	\$5,445	2020						
	FFR Blower #1 Motor			20				\$10,000	\$12,060	2027						
	FFR Blower #2			30				\$3,000	\$5,445	2020						
	FFR Blower #2 Motor			20	198	6 2007		\$10,000	\$12,060	2027						
						_										
Sec Clar #1	Sec Clarifier #1 Structure				196			\$900,000	\$2,642,400	2026						
	Sec Clarifier #1 Coating		Redundancy Proje					\$30,000	\$54,450	2021						
	Sec Clarifier #1 Mechanism		Redundancy Proje	60				\$240,000	\$435,600	2021						
	Sec Clarifier #1 Drive		Redundancy Proje		198		2020	\$80,000	\$145,200	2021	\$145,200					
	Sec Clarifier #1 Bridge		Redundancy Proje		198			\$100,000	\$181,500	2021	\$181,500					
	Sec Clarifier #1 Sludge Pump		Redundancy Proje		201			\$8,000	\$8,840	2021						
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Proje		199			\$5,000	\$7,255							
	Sec Clarifier #1 Scum Pump #1		Redundancy Proje		201		2020	\$20,000	\$23,160	2021						
	Sec Clarifier #1 Scum Pump #2		Redundancy Proje	10	200	8 2008	2020	\$20,000	\$23,960	2021						
-1	01 1 71:1			400	407	1070		#05.000	475 705	0070						
Thickener #1	Sludge Thickener #1 Structure		not used	_	197			\$35,000	\$75,705	2079						
	Sludge Thickener #1 Coating		not used	100				\$25,000	\$54,075	2079						
	Thickener #1 Mechanism		not used	100				\$35,000	\$75,705	2079						
	Thickener #1 Drive		not used	100				\$85,000	\$183,855	2079			^			
	Plant Air System		not used	25	197	9 2004		\$60,000	\$78,300	2029			\$78,300			
D: 4 #4	B: ##			70	400	1001		# 400 000	D4 404 000	2024				-		
Digester #1	Digester #1				196			\$480,000	\$1,431,360	2034						
	Digester #1 Coating			15				\$130,000	\$130,000	2033				-		
	Digester #1 Cleanout			10				\$300,000	\$310,800	2027				#000 000		
	Digester #1 Gas Train Piping			25				\$228,170	\$289,320	2030				\$289,320		
	Site glasses			10				\$16,000		2028						
	APCD Pieces				196									#04.700		
	Digester #1 Valves			25	196	4 2005		\$25,000	\$31,700	2030				\$31,700		
Discotor #2	Digaster #0			F0	100	2 1992		\$900,000	\$1,424,700	2042						
Digester #2	Digester #2 Digester #2 Coating				199 199					2019						
	<u> </u>							\$100,000								
	Digester #2 Cleanout				200 199											
	Digester #2 Gas Train Piping			+				\$228,170								
	Site glasses			15	200 200			\$15,500 \$40,000						 		
	APCD pieces Digester #2 Valves				200			\$40,000 \$25,000						 		
	Digester #2 valves				200	2009	1	φ25,000	φ29,300	2034				+		
Heating &Mixing	Heating and Mixing Building			50	198	2 1982	1	\$580,741	\$1,122,572	2032				+		
ricating awithing	Sludge Recirc Pump #1				198			\$21,000						+	+	
	Recirc Pump #1 Recirc Pump #1 Motor			30				\$21,000						+	+	
	Vaugn Chopper Pump				198			\$3,500						+		
-	Boiler				200			\$30,000						+		
<u> </u>	Hot Water Recirc Pump				198				\$109,700					 		\$21,756
-				20				\$21,000 \$1,000						+		\$21,756
<u> </u>	Host Eyebanger #1				198			\$1,900 \$7,617						 		क्रा, ५७८
	Heat Exchanger #1			30										-		
	Sludge Feed Pump #1		<u> </u>	/	201	2 2012	2019	\$20,000	\$22,300	2020						



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				Rplc -			Inspected &			Estd Nxt						
	Item	Equip #	Replace Criteria	•	Orig		Deferred Year		Current Cost		2052	2053	2054	2055	2056	2057
	Sludge Feed Pump #1 VFD			15				\$5,000								
	Sludge Feed Pump #2			7	201		2019	\$20,000								
	Sludge Feed Pump #2 VFD			15				\$5,000	\$5,380							
	Macerator			15	201	2 2015		\$20,000	\$21,520	2030						
Reclaim Water Station	Amiad Filters			20	201	1 2011		\$10,000	\$11,350	2031						
Flare	Flare			25	196	2003		\$4,200	\$5,620	2028		\$5,620				
Chemical Feed	Ferric Chloride Tank			15	199	2007		\$10,000	\$12,060	2022						
	Ferric Chloride Feed Pump			15	199	2016		\$5,000	\$5,280	2031						
	Sodium Hypochlorite Tank 6K			20	197			\$10,000	\$11,580	2030						
	Sodium Hypochlorite Tank 3K			20	197	79 2010		\$6,000	\$6,948	2030						
	Sodium Hypochlorite Feed Pump			10				\$5,000	\$5,575							
	Sodium Bisulfite Tank			25			2018	\$6,000								
	Sodium Bisulfite Feed Pump			10				\$5,000								
	CCT Chemical System			10				\$30,000	\$31,680							
	Polymer Feed Systems			30	_			\$12,000	\$19,644							-
Efficient	Oblasia Ocalest Obserbas			00	000	27 0000		Ф0 7 00 000	#0.004.000	2000						
Effluent	Chlorine Contact Chamber			60				\$2,700,000	\$3,364,200							
	Effluent Pump 100HP #1			30				\$45,000	\$56,070							
	vfd			15				\$10,000	\$10,560							
	Effluent Pump 100 HP #2			30				\$45,000	\$56,070							
	vfd			10	_00		2018	. ,	\$12,680							
	Ocean Outfall			50	196	1978		\$1,500,000	\$3,414,000	2028						
Flow Meters	ISCO 2100 Flow Meter			10	201	6 2016		\$5,250	\$5,544	2026						
	ISCO 2100 Flow Meter			10	201	7 2017		\$5,250	\$5,439	2027						
Solids Handling																
Johas Hariding	Biosolids slab			40	201	8 2018		\$50,000	\$50,000	2058						
	Centrifuge Building			50				\$1,000,000	\$1,158,000							
	Centrifuge			15				\$1,000,000	\$1,036,000	2032						
	Centrifuge Macerator			15				\$25,000	\$29,950							
Miscellaneous	Emergency Generator			20	200	9 2009		\$600,000	\$703,200	2029						
Wiscenaneous	Cogeneration Unit		Idled	10				\$470,000	\$1,500,000							
	Plant Well Water System		luleu	20	_		2019	\$163,147	\$206,870	2025						
	Plant Well Water pump			10				\$5,000	\$5,280							
	Standby Water Well			20				\$4,500								
	Operations Building				198			\$844,161								
	Maintenance Shop			50				\$202,495								
	Maintenance Snop Maintenance Building							\$202,495								
	Facility Asphalt			50 30							\$31,660					
								\$20,000			φ31,000					
	Digester #2 sump pump #1			10				\$6,000								
<u> </u>	Digester #2 sump pump #2			10				\$6,000 \$1,500			Φ4 F00	Ф4 г оо	Ф4 г оо	Φ4 F00	#4.500	#4 FCC
	Security System annual maintenance			1 1	200			\$1,500			\$1,500	\$1,500 \$2,000	\$1,500	\$1,500	\$1,500 \$2,000	\$1,500
	IT System annual maintenance			1	201			\$2,000			\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	SCADA System			+	201			\$100,000			фE 400					
	Fuel Tank			35				\$5,000	\$5,180		\$5,180					
	Arroyo Grande Pipe Bridge			34				\$90,000								
	MCC/Cogen Building			50				\$400,000	\$773,200							
	MCC Electrical Boxes			40				\$180,000 \$350,000	\$347,940							
DEDUNDANCY DDG 1507	Plant Electrical			30	196	66 2010		\$250,000	\$289,500	2040						
REDUNDANCY PROJECT	Quality					-			-							
Aeration Tank Feed Pump				<u> </u>	222	14			0.450.46							
	Hatch and concrete coating				202				\$156,100							
	Gates			25					\$184,400							
	Valves			_	202				\$17,600							
	Piping and Fittings		<u> </u>	30	202	21 2021]		\$368,100	2051						



						Last										
				Rplc -		Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2052	2053	2054	2055	2056	2057
	Pumps	Equip #	Replace Officia		202		Deferred rear	Керіасса	\$235,700	2041	2032	2033	2004	2000	2030	2037
	Flow Meter				202				\$12,800	2031						
WAS Pumping Station	I IOW MELEI			10	202	2021			\$12,000	2031						
WAS I dilipling Station	Concrete			60	202	21 2021			\$9,100	2081						
	Pumps				202				\$61,100	2041						
	Valves				202				\$9,700	2041						
	Piping and Fittings			30					\$26,800	2051						
	Flow Meter			10	_				\$6,400	2031						
Activated Sludge Aeration				10	202	2021			ψ0,+00	2001						
Activated Gludge Actation	Concrete			60	202	21 2021			\$3,885,100	2081						
	Blowers			30					\$813,600	2051						
	Flow Meter			10	_				\$3,700	2031						
	Diffusers			30					\$614,800	2051						
	Gates			25					\$458,000	2046						
	Valves				202				\$800	2040						
	Piping and Fittings			30					\$426,500	2051						
Blower Building	Fiping and Fittings			30	202	2021			\$420,300	2031						
Blower Building	Building CMU			50	202	21 2021			\$346,800	2071						
	Concrete			60					\$272,000	2081						
New Secondary Clarifier	Concrete			60	202	2021			\$272,000	2001						
New Secondary Clariner	Congrete			60	202	21 2021			\$2,642,400	2081						
	Concrete								\$2,642,400	2046						
	Gates			25												
	Pumps			20					\$161,300 \$39,000	2041 2041						
	Valves Piping and Fittings			20 30					\$160,200	2041						
WAS Thickening	Piping and Fillings			30	202	21 2021			\$160,200	2051						
WAS Thickening	Occupate Dancia			00	000	2004			ΦE 700	0054						
	Concrete Repair				202	2021			\$5,700	2051						
	Gates				202				\$32,200	2046						
	Pumps			+	202				\$862,000	2041						
	Piping and Fittings			30					\$86,300	2051						
	Valves			20					\$17,900	2041						
	Flow Meter			10	202	21 2021			\$17,900	2031						
				0.5	000	2004			#0.000.700	00.40						
Site Improvements				25	202	21 2021			\$2,939,700	2046						
				40	000	2004			#0.000.000	2224						
Instrumentation and Elec	etrical			40	202	21 2021			\$3,823,000	2061						
_																
Emergency Generator					000				0000 000	65						
	Generator				202				\$222,200	2041						
	Concrete			30	202	21 2021			\$38,300	2051						
	1			<u> </u>	L .											
Flood Mitigation Improve	ments			29	202	21 2021			\$338,600	2050						
				ļ							4	<u> </u>			4	
Tota				ļ					\$57,798,270		\$543,210	\$1,341,500	\$88,382	\$324,520	\$3,500	\$469,596
Cumulative (2018 \$				ļ	1						\$68,531,635	\$69,873,134	\$69,961,516	\$70,286,036	\$70,289,536	\$70,759,132
Cumulative (Escalated 2%	% per year)										\$115,133,146	\$118,784,328	\$120,333,808	\$122,297,702	\$123,709,583	\$125,951,2 <u>5</u> 5



	Item	Equip#	Replace Criteria	Rplc - yrs	Orig		Inspected & Deferred Year		Current Cost	Estd Nxt	2058	2059	2060	2061	2062	2063
Headworks	Structure	Equip #	Replace Criteria		196			\$350,000			2038	2039	2000	2001	2002	2003
TIOUGH OTHO	Structure Coating			25				\$30,000	\$41,340							
	Parshall Flume Flow Transmitter			5	196			\$5,000	\$5,575							
	Influent Slide Gate			55				\$20,000	\$58,720	2021						
	Mechanical Bar Screens (2)				201			\$427,000	\$442,372	2037						
	Washer Compactor			15				\$150,000	\$155,400	2032						
	Influent Pump #1 (3,500 gpm)				196			\$50,000	\$55,750	2032						
	Pump 1 Effluent Valve	RW 14 (16")			196			\$2,000	\$2,230	2032						
	RW 14 Check Valve	1(10)		20				\$2,000	\$2,230	2032						
	Pump 2 Influent Valve	RW 13 (16")		20				\$2,000	\$2,230							
	Influent Pump #2 (3,500 gpm)	1(10)		20				\$50,000	\$55,250	2033						
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000	\$2,230	2032						
	RW 15 Check Valve	KW 13 (12)		20				\$2,000	\$2,230	2032						
	RW12 (16-inch)	RW 12 (16")		35				\$2,000	\$2,230	2032						
		KW 12 (10)														
	Influent Pump #3 (3,500 gpm)	D\\\ 46 (4.4"\		20				\$37,000	\$52,762 \$2,220							
	RW 16 14-inch	RW 16 (14")		34				\$2,000	\$2,230	2046						
	RW 16 Check Valve	DW 40 (40")		34				\$2,000	\$2,230	2046						
	RW 10 16-inch	RW 10 (16")		20				\$2,000	\$2,230	2032						
	Influent Pump #4 (3,500 gpm)			20	-			\$50,000	\$55,750	2032						
	Influent Pump #1 VFD				201			\$10,000	\$10,970							
	Influent Pump #2 VFD				201			\$10,000	\$10,970	2029						
	Influent Pump #3 VFD				201			\$10,000	\$10,970							
	Influent Pump #4 VFD				196			\$10,000	\$10,760	2030						
	RW 17 (16-inch)	RW 17 (16")		20				\$2,000	\$2,230	2032						
	RW 17 Check Valve			20	196	66 2012		\$2,000	\$2,230	2032						
	Diesel Pump Inlet valve	RW 19 (12")		20	196			\$2,000	\$2,230	2032						
	Diesel Pump			15	200	05 2015		\$20,000	\$21,520	2030						
	Diesel Motor			20	200	05 2005		\$60,000	\$76,080	2025						
	Hydro ranger			5	196	66 2016		\$5,000	\$5,280	2021						
Grit Removal	Grit King			30	201	17 2017		\$342,000	\$354,312	2047						
	Grit Classifier			15	201	17 2017		\$150,000	\$155,400	2032						
Splitter Box	Structure			60				\$350,000	\$1,027,600	2026						
•	Structure coating			20	201	12 2012		\$40,000	\$44,600	2032						
	Effluent Valve to PC#2	RW 21 (24")		20					\$6,951							
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000	\$6,810	2031						
	Effluent Valve to Bypass Primary	RW 22 (20")		20				\$6,000	\$6,810							
		· · · · · · · · · · · · · · · · · · ·				2011		ψ0,000	ψο,σ.σ							
Primary Clar #1	Clarifier #1 Structure			70	196	66 1966		\$500,000	\$1,468,000	2036						
, , , , , , , , , , , , , , , , , , ,	Clarifier #1 Coating				196			\$20,000	\$22,300							
	Clarifier #1 Mechanism				196			\$140,000	\$156,100						\$156,100	
	Clarifier #1 Drive				196			\$136,195	\$151,857						ψ100,100	
	Clarifier #1 Bridge			30				\$77,189	\$86,066							
	Clarifier #1 Sludge Pump #1		1	50	196			\$20,000	\$20,000	2023						
	Clarifier #1 Sludge Pump #1 VFD		1	15	196			\$5,000	\$5,000		+	+				
			1	13							+					
	Clarifier #1 Sludge Pump #2			3	196 196			\$13,000 \$5,000	\$21,281 \$7,255							
Drimory Clar #2	Clarifier #1 Sludge Pump #2 VFD		-		196				\$7,255 \$1,473,300	2020		<u> </u>				
Primary Clar #2	Clarifier #2 Coating		Podundanav Draia					\$900,000				<u> </u>				
	Clarifier #2 Coating		Redundancy Project					\$25,000	\$40,925					<u> </u>		
	Clarifier #2 Mechanism		Redundancy Project		199			\$250,000	\$409,250							
	Clarifier #2 Drive		Redundancy Project		199			\$90,500	\$148,149							
	Clarifier #2 Bridge		Redundancy Project	25	199		2018	\$51,000	\$83,487							
	Clarifier #2 Sludge Pump #4			4	199			\$20,000	\$20,720							
	Clarifier #2 Sludge Pump #4 VFD			15				\$5,000	\$5,280							
	Clarifier #2 Sludge Pump #6		rarely used	4	199			\$13,000	\$21,281							
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15	199	90 1990	2019	\$3,500	\$5,730	2020						
FFR	FFR #1 Structure			50	198	36 1986		\$1,200,000	\$2,178,000	2036						



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				Rplc -		Last Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2058	2059	2060	2061	2062	2063
	FFR #1 Rotary Mechanism		after Redun. Proj		1986			\$250,000	\$453,750	2023						
	FFR #1 Media		after Redun. Proj		1986		2022	\$450,000	\$816,750	2023						
	FFR Pump 1 Inlet Valve	FF1 (12")		20	1986	2013		\$3,000	\$3,315	2033						
	FFR Feed Pump #1			25	1986			\$35,000	\$38,675	2038						\$38,675
	FFR Feed Pump 1# VFD			15	1986			\$10,000	\$11,050	2028						1
	FFR Pump #1 Outlet Valve	FF3 (12")		20				\$3,000		2033						
	FFR Pump #2 Inlet Valve			20				\$3,000	\$3,405	2031						
	FFR Feed Pump #2	FF2 (12")		25				\$35,000	\$39,025	2037					\$39,025	
	FFR Feed Pump #2 VFD			15				\$10,000	\$11,980	2023						
	FFR Pump #2 Outlet Valve			20				\$3,000		2031						
	FFR Pump #3 Inlet Valve			20	_			\$3,000	\$3,291	2034						
	FFR Feed Pump #3			25				\$35,000	\$38,395	2039						
	FFR Pump #3 VFD			15				\$10,000	\$10,970	2029						
	FFR Pump #3 Outlet Valve				2014			\$3,000	\$3,291	2034						
	FFR Blower #1			30				\$3,000	\$5,445	2020						
	FFR Blower #1 Motor			20				\$10,000	\$12,060	2027						
	FFR Blower #2	_	1	30			2019	\$3,000	\$5,445	2020						
	FFR Blower #2 Motor		+	20	1986	2007	 	\$10,000	\$12,060	2027						
0 01 "4	0 0 15 14 0				4000	1000		#	# 0.040.400	2000						
Sec Clar #1	Sec Clarifier #1 Structure		Dadwade D		1966			\$900,000		2026					+	
	Sec Clarifier #1 Coating		Redundancy Proje				2020	\$30,000	\$54,450	2021					-	
	Sec Clarifier #1 Mechanism		Redundancy Proje		1986		2020	\$240,000	\$435,600	2021					-	
	Sec Clarifier #1 Drive		Redundancy Proje		1986			\$80,000	\$145,200	2021					-	
	Sec Clarifier #1 Bridge		Redundancy Proje		1986			\$100,000	\$181,500	2021						
	Sec Clarifier #1 Sludge Pump		Redundancy Proje		2013 1998			\$8,000	\$8,840	2021						
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Proje	15	2010			\$5,000 \$20,000	\$7,255 \$23,160	2021 2021						
	Sec Clarifier #1 Scum Pump #1 Sec Clarifier #1 Scum Pump #2		Redundancy Proje		2008			\$20,000	\$23,160	2021						
	Sec Clanner #1 Scum Pump #2		Redundancy Proje	10	2006	2006	2020	\$20,000	\$23,960	2021						
Thickener #1	Sludge Thickener #1 Structure		not used	100	1979	1979		\$35,000	\$75,705	2079						
THICKCHEI #1	Sludge Thickener #1 Coating		not used	100				\$25,000	\$54,075	2079						
	Thickener #1 Mechanism		not used	100				\$35,000	\$75,705	2079						
	Thickener #1 Drive		not used	100				\$85,000	\$183,855	2079						
	Plant Air System		not used	25				\$60,000	\$78,300	2029					+	
	r iant in Oyston							φοσίουσ	ψ. ο,σσσ							
Digester #1	Digester #1			70	1964	1964		\$480,000	\$1,431,360	2034						
	Digester #1 Coating			15	2005			\$130,000	\$130,000	2033						
	Digester #1 Cleanout			10				\$300,000	\$310,800	2027						
	Digester #1 Gas Train Piping			25	1964	2005		\$228,170	\$289,320	2030						
	Site glasses			10				\$16,000	\$16,000	2028						
	APCD Pieces			10	1964	2005	2019	\$40,000	\$50,720	2020						
	Digester #1 Valves				1964			\$25,000		2030						
Digester #2	Digester #2			50	1992			\$900,000		2042						
	Digester #2 Coating			10				\$100,000		2019						
	Digester #2 Cleanout			10	2008					2019						
	Digester #2 Gas Train Piping				1992			\$228,170				\$267,415				
	Site glasses			15	2009			\$15,500		2024						
	APCD pieces			10						2020						
	Digester #2 Valves			25	2009	2009		\$25,000	\$29,300	2034		\$29,300				
								4=::								
Heating &Mixing	Heating and Mixing Building				1982			\$580,741		2032						
	Sludge Recirc Pump #1			30				\$21,000	\$21,756							
	Recirc Pump #1 Motor			30				\$3,500	\$3,626	2047						
	Vaugn Chopper Pump			20				\$30,000								
	Boiler Burian Burian Burian	_	1	15				\$100,000		2029						
	Hot Water Recirc Pump				1982			\$21,000								
	Hot Water Recirc Pump Motor				1982			\$1,900	\$1,968	2037					-	
	Heat Exchanger #1			30				\$7,617	\$9,186	2037						
	Sludge Feed Pump #1			/	2012	2012	2019	\$20,000	\$22,300	2020						



Reclaim Water Station Flare Chemical Feed [] [] [] [] [] [] [] [Sludge Feed Pump #1 VFD Sludge Feed Pump #2 Sludge Feed Pump #2 Sludge Feed Pump #2 VFD Macerator Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System Polymer Feed Systems	Equip #	Replace Criteria	15 7 15 15 20 25 15 15 20 25 25	201 201 196 199 199	Projected 5 2015 2 2012 5 2015 2 2015 1 2011 4 2003 2 2007 2 2016	Inspected & Deferred Year 2019	\$5,000 \$20,000 \$5,000 \$20,000 \$10,000 \$4,200	\$5,380 \$22,300 \$5,380 \$21,520 \$11,350 \$5,620	Estd Nxt Rplcmnt 2030 2020 2030 2030 2031 2031	2058	2059	2060	2061	2062	2063
Reclaim Water Station Flare Chemical Feed [] [] [] [] [] [] [] [Sludge Feed Pump #1 VFD Sludge Feed Pump #2 Sludge Feed Pump #2 VFD Macerator Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System	Equip #	Replace Criteria	15 7 15 15 20 25 15 15 20 25 25 20 20 20	201 201 201 201 201 201 196 199 199	5 2015 2 2012 5 2015 2 2015 1 2011 4 2003 2 2007 2 2016	2019	\$5,000 \$20,000 \$5,000 \$20,000 \$10,000 \$4,200	\$5,380 \$22,300 \$5,380 \$21,520 \$11,350	2030 2020 2030 2030 2030 2031	2058	2059	2060	2061	2062	2063
Reclaim Water Station Flare Chemical Feed G G G G G G G G G G G G G	Sludge Feed Pump #2 Sludge Feed Pump #2 VFD Macerator Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			7 15 15 20 25 15 15 20 25 20	201 201 201 201 201 196 199 199	2 2012 5 2015 2 2015 1 2011 4 2003 2 2007 2 2016		\$20,000 \$5,000 \$20,000 \$10,000 \$4,200	\$22,300 \$5,380 \$21,520 \$11,350	2020 2030 2030 2031						
Reclaim Water Station Flare Chemical Feed F G G G G G G G G G G G G	Sludge Feed Pump #2 VFD Macerator Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			15 20 25 15 15 20 20	201 201 201 196 199 199	5 2015 2 2015 1 2011 4 2003 2 2007 2 2016		\$5,000 \$20,000 \$10,000 \$4,200	\$5,380 \$21,520 \$11,350	2030 2030 2031						
Reclaim Water Station Flare Chemical Feed G G G G G G G G G G G G G	Macerator Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			15 20 25 15 15 20 20	201 201 196 199 199	2 2015 1 2011 4 2003 2 2007 2 2016		\$20,000 \$10,000 \$4,200	\$21,520 \$11,350	2030						
Reclaim Water Station Flare Chemical Feed I S S S S S S S S S S S S	Amiad Filters Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			20 25 15 15 20 20	201 196 199 199	1 2011 4 2003 2 2007 2 2016		\$10,000	\$11,350	2031						
Flare F Chemical Feed F S S S S S S S S S S S S S S S S S S S	Flare Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			25 15 15 20 20	196 199 199 197	4 2003 2 2007 2 2016		\$4,200	, ,							
Chemical Feed F	Ferric Chloride Tank Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			15 15 20 20	199 199 197	2 2007 2 2016			\$5,620	2028						
F S S S S S S S S S	Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			15 20 20	199 197	2 2016		4								
F S S S S S S S S S	Ferric Chloride Feed Pump Sodium Hypochlorite Tank 6K Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			15 20 20	199 197	2 2016		\$10,000	\$12,060	2022						-
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			20	197		1	\$5,000	\$5,280	2031						
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Sodium Hypochlorite Tank 3K Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System					ອ ເ ∠ປ10		\$10,000	\$11,580	2030						
() () () () () () () () () ()	Sodium Hypochlorite Feed Pump Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System				197			\$6,000	\$6,948	2030						
() () () () () () () () () ()	Sodium Bisulfite Tank Sodium Bisulfite Feed Pump CCT Chemical System			10				\$5,000	\$5,575	2022						
C F	CCT Chemical System			25			2018	\$6,000	\$9,822	2019						
1				10				\$5,000	\$5,575	2022						
1		1		10	_			\$30,000	\$31,680	2026		İ				
Effluent (30				\$12,000	\$19,644	2020						
Lillaciit	Chlorine Contact Chamber			60	200	7 2006		\$2,700,000	\$3,364,200	2066						
	Effluent Pump 100HP #1			30				\$45,000	\$56,070	2036						
	vfd			15	_			\$10,000	\$10,560	2031						
	Effluent Pump 100 HP #2			30	_			\$45,000	\$56,070	2036						
	vfd			10			2018		\$12,680	2019						
	Ocean Outfall			50			2010	\$1,500,000	\$3,414,000	2028						
	Occur Oction			- 00	100	1070		Ψ1,000,000	ψο, τι τι, σοσ	2020						
	ISCO 2100 Flow Meter				201			\$5,250	\$5,544	2026						
	ISCO 2100 Flow Meter			10	201	7 2017		\$5,250	\$5,439	2027						
Solids Handling																
Ü	Biosolids slab			40	201	8 2018		\$50,000	\$50,000	2058	\$50,000					
	Centrifuge Building			50	_			\$1,000,000	\$1,158,000	2060	¥ 00,000		\$1,158,000			
	Centrifuge			15				\$1,000,000	\$1,036,000	2032			* 1,100,000			
(Centrifuge Macerator			15	200			\$25,000	\$29,950	2023						
Minaglana	F			200	200	0 0000		ФСОО ООО	¢702.000	2020						
	Emergency Generator		Idlad	_	200			\$600,000	\$703,200	2029						
	Cogeneration Unit Plant Well Water System		Idled	10 20			2019	\$470,000 \$163,147	\$1,500,000	2020 2025						
				10				\$163,147	\$206,870 \$5,280	2026						
	Plant Well Water pump Standby Water Well			20				\$4,500	\$6,417	2019						
	Operations Building				198			\$844,161								
	Maintenance Shop			50				\$202,495		2032						
	Maintenance Building				199			\$205,000	\$303,195	2046						
	Facility Asphalt			30				\$20,000	\$31,660	2022						
	Digester #2 sump pump #1				199				\$7,032	2020						
	Digester #2 sump pump #2				199			\$6,000	\$6,000	2028						
	Security System annual maintenance			1	200			\$1,500	\$1,500	NA NA	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
	IT System annual maintenance			1	201			\$2,000	\$2,000	NA NA	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	SCADA System			10	201			\$100,000	\$105,600		+-,000	+=,000	+-,555	+=,000	+-,	+=,000
	Fuel Tank				198			\$5,000	\$5,180	2052						
	Arroyo Grande Pipe Bridge				196			\$90,000	\$300,000	2051						
	MCC/Cogen Building				198			\$400,000	\$773,200	2032						
Γ	MCC Electrical Boxes			40	198	2 1982		\$180,000	\$347,940	2022					\$347,940	
	Plant Electrical			30	196	6 2010		\$250,000	\$289,500	2040						
REDUNDANCY PROJECT	Mad an															
Aeration Tank Feed Pump S				22	000	4 000:			#450.463	2051						
	Hatch and concrete coating		1		202				\$156,100	2051						
	Gates				202				\$184,400	2046						
	Valves Piping and Fittings				202 202				\$17,600 \$368,100	2041 2051						



						Last										
				Rplc -		Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2058	2059	2060	2061	2062	2063
	Pumps	_40	- Replace Citteria		202		20101104 1041		\$235,700	2041						
	Flow Meter				202				\$12,800	2031						
WAS Pumping Station	i ion moto.								ψ. 2,000	200.						
pg caaaca	Concrete			60	202	1 2021			\$9,100	2081						
	Pumps				202				\$61,100	2041						
	Valves				202				\$9,700	2041						
	Piping and Fittings			30					\$26,800	2051						
	Flow Meter			10					\$6,400	2031						
Activated Sludge Aeration									, , , , ,							
3	Concrete			60	202	1 2021			\$3,885,100	2081						
	Blowers			30					\$813,600	2051						
	Flow Meter			10					\$3,700	2031						
	Diffusers			30					\$614,800	2051						
	Gates			25					\$458,000	2046						
	Valves				202				\$800	2041						
	Piping and Fittings			30					\$426,500	2051						
Blower Building	1 3 4 4 5								+ -,							
	Building CMU			50	202	1 2021			\$346,800	2071						
	Concrete			60					\$272,000	2081						
New Secondary Clarifier																
,	Concrete			60	202	1 2021			\$2,642,400	2081						
	Gates			25					\$639,000	2046						
	Pumps			20					\$161,300	2041						
	Valves			20					\$39,000	2041						
	Piping and Fittings			30					\$160,200	2051						
WAS Thickening																
g	Concrete Repair			30	202	1 2021			\$5,700	2051						
	Gates				202				\$32,200	2046						
	Pumps				202				\$862,000	2041						
	Piping and Fittings			30					\$86,300	2051						
	Valves			20					\$17,900	2041						
	Flow Meter			10					\$17,900	2031						
									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
Site Improvements				25	202	1 2021			\$2,939,700	2046						
									+ ,===,==							
Instrumentation and Elec	trical			40	202	1 2021			\$3,823,000	2061				\$3,823,000		
									+ - , , , ,					+-,,-		
Emergency Generator																
	Generator			20	202	1 2021			\$222,200	2041						
	Concrete			30					\$38,300	2051						
				"	† <u></u>				+==,000							
Flood Mitigation Improve	ements			29	202	1 2021			\$338,600	2050						
g				<u> </u>	1				\$555,000							
Tota	al			i e					\$57,798,270		\$53,500	\$300.215	\$1.161.500	\$3,826,500	\$546,565	\$42,175
Cumulative (2018 \$					1				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	 		\$71,112.847	\$72,274.347	\$76,100.847	\$76,647,412	\$76.689.587
Cumulative (Escalated 2%											\$127,462,738	\$120 425 382	\$132 984 799	\$141 547 576	\$144 097 135	\$145,710,216



	Item	Equip #	Replace Criteria	Rplc - yrs	Orig		Inspected & Deferred Year		Current Cost	Estd Nxt	2064	2065	2066	2067	2068	2069
Headworks	Structure	Equip #	rtopiaco cintoria		196			\$350,000			2004	2000	2000	2007	2000	2000
	Structure Coating			25				\$30,000	\$41,340							
	Parshall Flume Flow Transmitter			5	196			\$5,000	\$5,575							
	Influent Slide Gate			55				\$20,000	\$58,720	2021						
	Mechanical Bar Screens (2)				201			\$427,000	\$442,372	2037						
	Washer Compactor			15				\$150,000	\$155,400	2032						
	Influent Pump #1 (3,500 gpm)			-	196			\$50,000	\$55,750	2032						
	Pump 1 Effluent Valve	RW 14 (16")			196			\$2,000	\$2,230	2032						
	RW 14 Check Valve	1111 11 (10)		20	_			\$2,000	\$2,230	2032						
	Pump 2 Influent Valve	RW 13 (16")		20				\$2,000	\$2,230							
	Influent Pump #2 (3,500 gpm)	10000		20				\$50,000	\$55,250	2033						
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000	\$2,230	2032						
	RW 15 Check Valve	1(1/ 10 (12)		20	_			\$2,000	\$2,230	2032						
	RW12 (16-inch)	RW 12 (16")		35	_			\$2,000	\$2,230	2047						
	Influent Pump #3 (3,500 gpm)	100 12 (10)		20	_			\$37,000	\$52,762							
	RW 16 14-inch	RW 16 (14")		34				\$2,000	\$2,230	2046	+	+			+	
	RW 16 Check Valve	1377 10 (14)		34				\$2,000	\$2,230	2046	+	+			+	
	RW 10 16-inch	RW 10 (16")		20				\$2,000	\$2,230	2032	+	+			+	
	Influent Pump #4 (3,500 gpm)	KW 10 (10)		20				\$50,000	\$55,750	2032						
	Influent Pump #1 VFD				201			\$10,000	\$10,970							
										2029						
	Influent Pump #2 VFD				201			\$10,000	\$10,970							
	Influent Pump #3 VFD				201			\$10,000	\$10,970							
	Influent Pump #4 VFD	D\A/ 47 (40!)			196			\$10,000	\$10,760	2030						
	RW 17 (16-inch)	RW 17 (16")		20				\$2,000	\$2,230	2032						
	RW 17 Check Valve	D144 40 (400)			196			\$2,000	\$2,230	2032						
	Diesel Pump Inlet valve	RW 19 (12")		20				\$2,000	\$2,230	2032						
	Diesel Pump				200			\$20,000	\$21,520							
	Diesel Motor			20	200			\$60,000	\$76,080	2025						
	Hydro ranger			5	196	36 2016		\$5,000	\$5,280	2021						
	2.1.10															
Grit Removal	Grit King				201			\$342,000	\$354,312	2047						
	Grit Classifier				201			\$150,000	\$155,400	2032						
Splitter Box	Structure			60				\$350,000	\$1,027,600	2026						
	Structure coating				201			\$40,000	\$44,600	2032						
	Effluent Valve to PC#2	RW 21 (24")		20				+ ,	\$6,951							
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000	\$6,810	2031						
	Effluent Valve to Bypass Primary	RW 22 (20")		20	196	66 2011		\$6,000	\$6,810	2031						
Primary Clar #1	Clarifier #1 Structure			70	196	1966		\$500,000	\$1,468,000	2036						
	Clarifier #1 Coating				196			\$20,000	\$22,300							
	Clarifier #1 Mechanism				196			\$140,000	\$156,100							
	Clarifier #1 Drive			30	196			\$136,195	\$151,857							
	Clarifier #1 Bridge			30	-			\$77,189	\$86,066							
	Clarifier #1 Sludge Pump #1			5	196			\$20,000	\$20,000	2023						
	Clarifier #1 Sludge Pump #1 VFD			15	196			\$5,000	\$5,000							
	Clarifier #1 Sludge Pump #2			5	196				\$21,281							
	Clarifier #1 Sludge Pump #2 VFD				196			\$5,000	\$7,255							
Primary Clar #2	Clarifier #2 Structure				199			\$900,000	\$1,473,300	2040						
	Clarifier #2 Coating		Redundancy Project					\$25,000	\$40,925							
	Clarifier #2 Mechanism		Redundancy Project		199			\$250,000	\$409,250							
	Clarifier #2 Drive		Redundancy Project	25	199	90 1990	2018	\$90,500	\$148,149							
	Clarifier #2 Bridge		Redundancy Project		199		2018	\$51,000	\$83,487							
	Clarifier #2 Sludge Pump #4		, , ,	4	199			\$20,000	\$20,720		1	1				
	Clarifier #2 Sludge Pump #4 VFD			15				\$5,000	\$5,280		1	1				
	Clarifier #2 Sludge Pump #6		rarely used	4	199			\$13,000	\$21,281		<u> </u>					
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15	199			\$3,500	\$5,730							
			. ,			1.500		+-,-30	4 2,100							
FFR	FFR #1 Structure			50	198	36 1986		\$1,200,000	\$2,178,000	2036	1	+		+		
			<u>.</u>	55			ı	ψ., <u>~</u> 00,000	ψ <u>-</u> , 0,000	2000						



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				Rplc -		Last Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2064	2065	2066	2067	2068	2069
	FFR #1 Rotary Mechanism	Equip "	after Redun. Proj		1986			\$250,000	\$453,750	2023	200.	2000	2000	200.	2000	
	FFR #1 Media		after Redun. Proj		1986		2022		\$816,750	2023						
	FFR Pump 1 Inlet Valve	FF1 (12")		20	1986			\$3,000	\$3,315	2033						
	FFR Feed Pump #1			25	1986			\$35,000	\$38,675	2038						
	FFR Feed Pump 1# VFD			15	1986			\$10,000	\$11,050	2028						
	FFR Pump #1 Outlet Valve	FF3 (12")		20				\$3,000		2033						
	FFR Pump #2 Inlet Valve			20				\$3,000	\$3,405	2031						
	FFR Feed Pump #2	FF2 (12")		25				\$35,000	\$39,025	2037						
	FFR Feed Pump #2 VFD			15				\$10,000	\$11,980	2023						
	FFR Pump #2 Outlet Valve			20				\$3,000		2031						
	FFR Pump #3 Inlet Valve			20	_			\$3,000	\$3,291	2034						
	FFR Feed Pump #3			25				\$35,000	\$38,395	2039	\$38,395					
	FFR Pump #3 VFD			15				\$10,000	\$10,970	2029						
	FFR Pump #3 Outlet Valve				2014			\$3,000	\$3,291	2034						
	FFR Blower #1 FFR Blower #1 Motor			30				. ,	\$5,445 \$12,060	2020						
	FFR Blower #1 Motor FFR Blower #2			20 30				\$10,000 \$3.000	\$12,060 \$5,445	2027 2020						
	FFR Blower #2 FFR Blower #2 Motor			20			2019	\$3,000	\$5,445 \$12,060	2020						
-	I I I DIOWGI #4 IVIULUI	+	+	20	1900	2007	 	φ10,000	φ1∠,∪0∪	2021	+	+		-	+	
Sec Clar #1	Sec Clarifier #1 Structure		1	60	1966	1966		\$900,000	\$2,642,400	2026					+	
555 Glai #1	Sec Clarifier #1 Structure Sec Clarifier #1 Coating	+	Redundancy Project				2020	\$30,000	\$54,450	2020						
	Sec Clarifier #1 Mechanism		Redundancy Project		1986		2020	\$240,000	\$435,600	2021						
	Sec Clarifier #1 Drive		Redundancy Project		1986			\$80,000	\$145,200	2021						
	Sec Clarifier #1 Bridge		Redundancy Project		1986			\$100,000	\$181,500	2021						
	Sec Clarifier #1 Sludge Pump		Redundancy Project		2013				\$8,840	2021						
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Project	15				\$5,000	\$7,255	2021						
	Sec Clarifier #1 Scum Pump #1		Redundancy Project	10	2010			\$20,000	\$23,160	2021						
	Sec Clarifier #1 Scum Pump #2		Redundancy Project		2008			\$20,000	\$23,960	2021		Ï				
Thickener #1	Sludge Thickener #1 Structure		not used	100	1979			\$35,000	\$75,705	2079						
	Sludge Thickener #1 Coating		not used	100				\$25,000	\$54,075	2079						
	Thickener #1 Mechanism		not used	100				\$35,000	\$75,705	2079						
	Thickener #1 Drive		not used	100				\$85,000	\$183,855	2079						
	Plant Air System		not used	25	1979	2004		\$60,000	\$78,300	2029						
					100			* * * * * * * * * * * * * * * * * * *	*	2004						
Digester #1	Digester #1				1964			\$480,000	\$1,431,360	2034						
	Digester #1 Coating			15				\$130,000	\$130,000	2033						
	Digester #1 Cleanout Digester #1 Gas Train Piping			10 25				\$300,000 \$228,170	\$310,800 \$289,320	2027 2030						
	Site glasses			10				\$16,000								
	APCD Pieces				1964			· · · · ·	' '							
	Digester #1 Valves				1964			\$25,000		2030						
	Digester #1 Valves			23	130-	2003		Ψ25,000	ψ51,700	2000						
Digester #2	Digester #2			50	1992	1992		\$900,000	\$1,424,700	2042						
3	Digester #2 Coating		1	10						2019		<u> </u>				
	Digester #2 Cleanout			10	2008					2019						
	Digester #2 Gas Train Piping			25	1992			\$228,170								
	Site glasses				2009	2009		\$15,500		2024						
	APCD pieces			10	2009	2009	2019	\$40,000	\$46,880	2020						
	Digester #2 Valves			25	2009	2009		\$25,000	\$29,300	2034						
Heating &Mixing	Heating and Mixing Building				1982			\$580,741		2032						
	Sludge Recirc Pump #1			30				\$21,000	\$21,756							
	Recirc Pump #1 Motor			30				\$3,500	\$3,626	2047						
	Vaugn Chopper Pump			20				\$30,000								
	Boiler			15				\$100,000		2029						
	Hot Water Recirc Pump	-			1982			\$21,000								
	Hot Water Recirc Pump Motor	-	1		1982			\$1,900	\$1,968	2037				CO 400		
	Heat Exchanger #1		1	30				\$7,617	\$9,186	2037				\$9,186		
	Sludge Feed Pump #1		Į	/	2012	2012	2019	\$20,000	\$22,300	2020			ļ			



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	Item	Equip #	Replace Criteria	yrs	Orig	Projected	Deferred Year	Replaced	Current Cost	Rplcmnt	2064	2065	2066	2067	2068	2069
	Sludge Feed Pump #1 VFD			15	2015	2015		\$5,000	\$5,380	2030						
	Sludge Feed Pump #2			7	2012	2012	2019	\$20,000	\$22,300	2020						
	Sludge Feed Pump #2 VFD			15	2015	2015		\$5,000	\$5,380	2030						
	Macerator			15	2012	2015		\$20,000	\$21,520	2030						
Reclaim Water Station	Amiad Filters			20	2011	2011		\$10,000	\$11,350	2031						
Flare	Flare			25	1964	2003		\$4,200	\$5,620	2028						
Chemical Feed	Ferric Chloride Tank			15	1992	2007		\$10,000	\$12,060	2022						
	Ferric Chloride Feed Pump			15	1992	2016		\$5,000	\$5,280	2031						
	Sodium Hypochlorite Tank 6K			20	1979	2010		\$10,000	\$11,580	2030						
	Sodium Hypochlorite Tank 3K			20	1979	2010		\$6,000	\$6,948	2030						
	Sodium Hypochlorite Feed Pump			10	1979	2012		\$5,000	\$5,575	2022						
	Sodium Bisulfite Tank			25	1990	1990	2018	\$6,000	\$9,822	2019						
	Sodium Bisulfite Feed Pump			10	1979			\$5,000	\$5,575	2022					İ	
	CCT Chemical System			10				\$30,000	\$31,680	2026						
	Polymer Feed Systems			30				\$12,000	\$19,644	2020					İ	
									1							
Effluent	Chlorine Contact Chamber			60	2007	2006		\$2,700,000	\$3,364,200	2066			\$3,364,200			
	Effluent Pump 100HP #1			30				\$45,000	\$56,070	2036			\$56,070		İ	
	vfd			15				\$10,000	\$10,560	2031						
	Effluent Pump 100 HP #2			30				\$45,000	\$56,070	2036			\$56,070			
	vfd			10			2018	\$10,000	\$12,680	2019			. ,			
	Ocean Outfall			50	1964			\$1,500,000	\$3,414,000	2028						
								, , ,	, , ,							
Flow Meters	ISCO 2100 Flow Meter			10	2016	2016		\$5,250	\$5,544	2026						
	ISCO 2100 Flow Meter				2017			\$5,250	\$5,439	2027						
						_		* - 7	, , , , ,							
Solids Handling																
-	Biosolids slab			40	2018	2018		\$50,000	\$50,000	2058						
	Centrifuge Building			50				\$1,000,000	\$1,158,000	2060						
	Centrifuge			15				\$1,000,000	\$1,036,000	2032						
	Centrifuge Macerator			15	2008			\$25,000	\$29,950	2023						
								, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,,,,,,,,							
Miscellaneous	Emergency Generator			20	2009	2009		\$600,000	\$703,200	2029						
	Cogeneration Unit		Idled		2009			\$470,000	\$1,500,000	2020						
	Plant Well Water System			20				\$163,147	\$206,870	2025						
	Plant Well Water pump			10	1982			\$5,000	\$5,280	2026						
	Standby Water Well			20				\$4,500								
	Operations Building			50	1982			\$844,161		2032						
	Maintenance Shop			50				\$202,495		2032						
	Maintenance Building			50				\$205,000		2046						
	Facility Asphalt			30				\$20,000	\$31,660	2022						
	Digester #2 sump pump #1			10			2019			2020						
	Digester #2 sump pump #2			10	1996			\$6,000		2028					İ	
	Security System annual maintenance			1	2006			\$1,500		NA	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
	IT System annual maintenance			1	2016	2016		\$2,000	\$2,000	NA	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	SCADA System			10	2016	2016		\$100,000	\$105,600	2026					ĺ	
	Fuel Tank				1980	2017		\$5,000		2052					j	
	Arroyo Grande Pipe Bridge			34		2017		\$90,000	\$300,000	2051						
	MCC/Cogen Building			50	1982			\$400,000	\$773,200	2032					İ	
	MCC Electrical Boxes			40				\$180,000	\$347,940						İ	
	Plant Electrical			30				\$250,000	\$289,500	2040						
REDUNDANCY PROJECT									1							
Aeration Tank Feed Pum																
	Hatch and concrete coating			30	2021	2021			\$156,100	2051						
	Gates				2021				\$184,400	2046						
	Valves				2021				\$17,600	2041						



						Last										
				Rplc -		Done/	Inspected &	\$ at New/		Estd Nxt						
	Item	Equip #	Replace Criteria		Orig		Deferred Year		Current Cost		2064	2065	2066	2067	2068	2069
	Pumps	Equip #	Replace Officia	20			Deferred rear	Першоса	\$235,700	2041	2004	2000	2000	2001	2000	2000
	Flow Meter				202				\$12,800	2031						
WAS Pumping Station	1 ion motor			10		2021			ψ12,000	2001						
Trice rumping cianon	Concrete			60	202	21 2021			\$9,100	2081						
	Pumps				202				\$61,100	2041						
	Valves				202				\$9,700	2041						
	Piping and Fittings			30					\$26,800	2051						
	Flow Meter			10	_				\$6,400	2031						
Activated Sludge Aeration						_			, , , , ,							
	Concrete			60	202	21 2021			\$3,885,100	2081						
	Blowers			30					\$813,600	2051						
	Flow Meter			10	_		1		\$3,700	2031						
	Diffusers			30					\$614,800	2051						
	Gates			25					\$458,000	2046						
	Valves				202				\$800	2041						
	Piping and Fittings			30					\$426,500	2051						
Blower Building																
	Building CMU			50	202	21 2021			\$346,800	2071						
	Concrete			60					\$272,000	2081						
New Secondary Clarifier																
_	Concrete			60	202	21 2021			\$2,642,400	2081						
	Gates			25	202				\$639,000	2046						
	Pumps			20					\$161,300	2041						
	Valves			20	202	21 2021			\$39,000	2041						
	Piping and Fittings			30	202	21 2021			\$160,200	2051						
WAS Thickening																
_	Concrete Repair			30	202	21 2021			\$5,700	2051						
	Gates			25	202				\$32,200	2046						
	Pumps			20	202				\$862,000	2041						
	Piping and Fittings			30					\$86,300	2051						
	Valves			20	202				\$17,900	2041						
	Flow Meter			10	202	21 2021			\$17,900	2031						
Site Improvements				25	202	21 2021			\$2,939,700	2046						
Instrumentation and Elec	trical			40	202	21 2021			\$3,823,000	2061						
Emergency Generator																
	Generator				202				\$222,200	2041						
	Concrete			30	202	21 2021			\$38,300	2051						
Flood Mitigation Improve	ements			29	202	21 2021			\$338,600	2050						
Tota									\$57,798,270		\$41,895	\$3,500	\$3,479,840	\$12,686	\$3,500	\$3,500
Cumulative (2018 \$											\$76,731,482	\$76,734,982	\$80,214,822	\$80,227,508	\$80,231,008	\$80,234,508
Cumulative (Escalated 29	% per year)								1		\$147,324,446	\$148,865,866	\$157,221,052	\$158,850,466	\$160,462,016	\$162,073,7 0 6



Equipment	Current Year	2018 Equip #		Rplc -	Orig	Last Done/ Projected	Inspected & Deferred Year		Current Cost	Estd Nxt Rplcmnt	2070	2071
Headworks	Structure				1966			\$350,000	\$1,027,600	2026		
	Structure Coating			25	1966	2001		\$30,000				
	Parshall Flume Flow Transmitter			5	1966	2012	2018	\$5,000	\$5,575	2019		
	Influent Slide Gate			55	1966	1966		\$20,000	\$58,720	2021		
	Mechanical Bar Screens (2)			20	2017	2017	•	\$427,000	\$442,372	2037		
	Washer Compactor			15	2017			\$150,000				
	Influent Pump #1 (3,500 gpm)			20	1966	2012		\$50,000				
	Pump 1 Effluent Valve	RW 14 (16")		20	1966	2012		\$2,000				
	RW 14 Check Valve			20	1966			\$2,000				
	Pump 2 Influent Valve	RW 13 (16")		20				\$2,000				
	Influent Pump #2 (3,500 gpm)			20				\$50,000				
	Pump 2 Effluent Valve	RW 15 (12")		20				\$2,000				
	RW 15 Check Valve			20				\$2,000				
	RW12 (16-inch)	RW 12 (16")		35				\$2,000				
	Influent Pump #3 (3,500 gpm)			20				\$37,000				
	RW 16 14-inch	RW 16 (14")		34				\$2,000				
	RW 16 Check Valve			34				\$2,000				
	RW 10 16-inch	RW 10 (16")		20				\$2,000				
	Influent Pump #4 (3,500 gpm)			20				\$50,000				
	Influent Pump #1 VFD				2014			\$10,000				
	Influent Pump #2 VFD				2014			\$10,000				
	Influent Pump #3 VFD			15				\$10,000				
	Influent Pump #4 VFD			15				\$10,000				
	RW 17 (16-inch)	RW 17 (16")		20				\$2,000				
	RW 17 Check Valve			20				\$2,000				
	Diesel Pump Inlet valve	RW 19 (12")		20				\$2,000				
	Diesel Pump			15				\$20,000				
	Diesel Motor			20				\$60,000				
	Hydro ranger			5	1966	2016		\$5,000	\$5,280	2021		
Grit Removal	Grit King				2017			\$342,000				
0 1111 0	Grit Classifier			15				\$150,000				
Splitter Box	Structure			60				\$350,000				
	Structure coating	DW 04 (041)		20				\$40,000				
	Effluent Valve to PC#2	RW 21 (24")		20						2019		
	Effluent Valve to PC#1	RW 23 (20")		20				\$6,000				
	Effluent Valve to Bypass Primary	RW 22 (20")		20	1966	2011		\$6,000	\$6,810	2031		
Drimon, Clay #4	Clarifian #4 Chrushina			70	1000	1000	,	\$500,000	¢4 469 000	2026		
Primary Clar #1	Clarifier #1 Structure			70			•	\$500,000	*			
	Clarifier #1 Coating Clarifier #1 Mechanism				1966 1966			\$20,000 \$140,000				
	Clarifier #1 Mechanism Clarifier #1 Drive			30				\$140,000 \$136,195			+	
	Clarifier #1 Drive Clarifier #1 Bridge				1966			\$136,195			+	
-	Clarifier #1 Bridge Clarifier #1 Sludge Pump #1			JU F	1966			\$77,189			+	
	Clarifier #1 Sludge Pump #1 VFD			1F	1966			\$20,000			+	
	Clarifier #1 Sludge Pump #2			CI F	1966						+	
	Clarifier #1 Sludge Pump #2 VFD			15	1966						+	
Primary Clar #2	Clarifier #2 Structure				1990			\$900,000			+	
i ililiai y Olai #2	Clarifier #2 Structure Clarifier #2 Coating		Redundancy Project									
	Clarifier #2 Goding Clarifier #2 Mechanism		Redundancy Project		1990							
	Clarifier #2 Drive		Redundancy Project									
	Clarifier #2 Bridge		Redundancy Project									
	Clarifier #2 Sludge Pump #4		Troduction 1 10jet		1990			\$20,000				
	Clarifier #2 Sludge Pump #4 VFD			15				\$5,000				
	Clarifier #2 Sludge Pump #6		rarely used	13	1990							
	Clarifier #2 Sludge Pump #6 VFD		rarely used	15								
	Statiller in 2 Stadge 1 drip #0 VI D		raioly dood	13	1000	1000	2013	ψ5,500	ψ5,730	2020		
FFR	FFR #1 Structure			50	1986	1986		\$1,200,000	\$2,178,000	2036	+	
	It ii i Ottaotalo		L	- 00	.000	1000	1	Ψ1,200,000	Ψ=, 170,000	2000		



						1	1					
						Last						
		"		Rplc -			Inspected &			Estd Nxt	0070	0074
	Item	Equip #	Replace Criteria				Deferred Year		Current Cost		2070	2071
	FFR #1 Rotary Mechanism		after Redun. Proj	30			2022					
	FFR #1 Media	FF1 (12")	after Redun. Proj	30			2022	\$450,000 \$3,000				
	FFR Pump 1 Inlet Valve FFR Feed Pump #1	FF1 (121)		20 25				\$3,000	\$3,315			
	FFR Feed Pump 1# VFD			25 15				\$35,000	\$36,675			
	FFR Pump #1 Outlet Valve	FF3 (12")		20	1986			\$3,000	\$3,315			
	FFR Pump #2 Inlet Valve	FF3 (12)		20				\$3,000	\$3,405			
	FFR Feed Pump #2	FF2 (12")		25				\$35,000	\$39,025			
	FFR Feed Pump #2 VFD	FF2 (12)		15				\$10,000	\$11,980			
	FFR Pump #2 Outlet Valve			20				\$3,000				
	FFR Pump #3 Inlet Valve			20	2014			\$3,000	\$3,403	2034		
	FFR Feed Pump #3			25				\$35,000	\$38,395			
	FFR Pump #3 VFD			15				\$10,000	\$10,970			
	FFR Pump #3 Outlet Valve			20	2014			\$3,000	\$3,291	2034		
	FFR Blower #1			30			2019		\$5,445			
	FFR Blower #1 Motor			20	1986		2019	\$10,000	\$12,060			
	FFR Blower #2			30			2019		\$5,445			
	FFR Blower #2 FFR Blower #2 Motor			20	1986		2019	\$10,000	\$12,060			
	1 1 1 DIOWOI #Z IVIOLOI			20	1900	2007		ψ10,000	Ψ12,000	2021		
Sec Clar #1	Sec Clarifier #1 Structure			60	1966	1966		\$900,000	\$2,642,400	2026		
	Sec Clarifier #1 Coating		Redundancy Project	60			2020					
	Sec Clarifier #1 Goaling Sec Clarifier #1 Mechanism		Redundancy Project	60			2020		\$435,600			
	Sec Clarifier #1 Mechanism		Redundancy Project		1986		2020					
	Sec Clarifier #1 Bridge		Redundancy Project	31			2020		\$181,500			
	Sec Clarifier #1 Sludge Pump		Redundancy Project	10			2020		\$8,840			
	Sec Clarifier #1 Sludge Pump VFD		Redundancy Project	15			2020		\$7,255			
	Sec Clarifier #1 Scum Pump #1		Redundancy Project	10			2020		\$23,160			
	Sec Clarifier #1 Scum Pump #2		Redundancy Project	10			2020		\$23,960			
	Coo Ciamier #1 Coam 1 amp #2		redundancy i roje	10	2000	2000	2020	Ψ20,000	Ψ20,000	2021		
Thickener #1	Sludge Thickener #1 Structure		not used	100	1979	1979		\$35,000	\$75,705	2079		
	Sludge Thickener #1 Coating		not used	100	1979			\$25,000				
	Thickener #1 Mechanism		not used	100	1979			\$35,000	\$75,705			
	Thickener #1 Drive		not used	100	1979			\$85,000	\$183,855			
	Plant Air System		not used	25	1979			\$60,000	\$78,300			
								+ + + + + + + + + + + + + + + + + + +	. ,			
Digester #1	Digester #1			70	1964	1964		\$480,000	\$1,431,360	2034		
J	Digester #1 Coating			15				\$130,000				
	Digester #1 Cleanout			10				\$300,000				
	Digester #1 Gas Train Piping			25				\$228,170				
	Site glasses			10	1964			\$16,000				
	APCD Pieces				1964		2019					
	Digester #1 Valves				1964			\$25,000				
									·			
Digester #2	Digester #2			50	1992	1992		\$900,000				
_	Digester #2 Coating			10			2018	\$100,000	\$119,800	2019		
	Digester #2 Cleanout			10			2018					
	Digester #2 Gas Train Piping			25				\$228,170	\$267,415			
	Site glasses			15	2009	2009		\$15,500	\$18,166	2024		
	APCD pieces			10	2009		2019		\$46,880	2020		
	Digester #2 Valves			25	2009	2009		\$25,000	\$29,300	2034		
Heating &Mixing	Heating and Mixing Building			50	1982			\$580,741	\$1,122,572	2032		
	Sludge Recirc Pump #1			30				\$21,000				
	Recirc Pump #1 Motor			30				\$3,500				
	Vaugn Chopper Pump			20				\$30,000	\$38,040			
	Boiler			15				\$100,000				
	Hot Water Recirc Pump			20	1982	2017		\$21,000		2037		
	Hot Water Recirc Pump Motor			20				\$1,900				
	Heat Exchanger #1			30	1982	2007		\$7,617	\$9,186			
	Sludge Feed Pump #1				2012	2012	2019	\$20,000	\$22,300	2020		



						Last						
				Rplc - yrs		Done/	Inspected & Deferred Year			Estd Nxt		
	Item	Equip #	Replace Criteria						Current Cost	Rplcmnt	2070	2071
	Sludge Feed Pump #1 VFD			15	2015	2015		\$5,000		2030		
	Sludge Feed Pump #2			7	2012	2012	2019	\$20,000	\$22,300	2020		
	Sludge Feed Pump #2 VFD			15	2015	2015		\$5,000	\$5,380	2030		
	Macerator			15	2012	2015		\$20,000	\$21,520	2030		
Reclaim Water Station	Amiad Filters			20	2011	2011		\$10,000	\$11,350	2031		
Flare	Flare			25	1964	2003		\$4,200	\$5,620	2028		
Chemical Feed	Ferric Chloride Tank			15		2007		\$10,000				
	Ferric Chloride Feed Pump			15	1992	2016		\$5,000		2031		
	Sodium Hypochlorite Tank 6K			20	1979	2010		\$10,000		2030		
	Sodium Hypochlorite Tank 3K			20	1979			\$6,000				
	Sodium Hypochlorite Feed Pump			10	1979	2012		\$5,000				
1	Sodium Bisulfite Tank			25	1990	1990	2018			2019		
1	Sodium Bisulfite Feed Pump			10	1979			\$5,000				
	CCT Chemical System			10	1990	2016		\$30,000		2026		
	Polymer Feed Systems			30	1990	1990		\$12,000	\$19,644	2020		
F	Oblasia a Cantast Obserbas			00	0007	0000		#0. 7 00.000	#0.004.000	0000		
Effluent	Chlorine Contact Chamber			60		2006		\$2,700,000				
	Effluent Pump 100HP #1			30	2005	2006		\$45,000				
	vfd			15	2005	2016		\$10,000		2031		
	Effluent Pump 100 HP #2			30	2005	2006	2012	\$45,000				
	vfd			10	2005	2005	2018			2019		
	Ocean Outfall			50	1964	1978		\$1,500,000	\$3,414,000	2028		
Flow Meters	ISCO 2100 Flow Meter			10	2016	2016		\$5,250	\$5,544	2026		
Tion motors	ISCO 2100 Flow Meter			10	2017	2017		\$5,250		2027		
Solids Handling												
1	Biosolids slab			40	2018	2018		\$50,000		2058		
	Centrifuge Building			50	2010	2010		\$1,000,000		2060		
	Centrifuge			15	2010	2017		\$1,000,000		2032		
	Centrifuge Macerator			15	2008	2008		\$25,000	\$29,950	2023		
Miscellaneous	Emergency Generator			20	2009	2009		\$600,000	\$703,200	2029		
Miscenarieous	Cogeneration Unit		Idled	10	2009	2009	2019			2020		
	Plant Well Water System		lalea	20	1982	2009	2019	\$163,147		2025		
	Plant Well Water pump			10	1982	2005		\$5,000		2026		
	Standby Water Well			20	1964			\$4,500				
	Operations Building			50		1982		\$844,161				
<u> </u>	Maintenance Shop			50	1982	1982		\$202,495				
								\$205,000				
				50	1006	1 1006				2040		
	Maintenance Building			50 30								
	Facility Asphalt			30	1992	1992	2010	\$20,000	\$31,660	2022		
	Facility Asphalt Digester #2 sump pump #1			30 10	1992 1996	1992 2009	2019	\$20,000 \$6,000	\$31,660 \$7,032	2022 2020		
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2			30	1992 1996 1996	1992 2009 2018	2019	\$20,000 \$6,000 \$6,000	\$31,660 \$7,032 \$6,000	2022 2020 2028	\$1.500	¢1 500
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance			30 10	1992 1996 1996 2006	1992 2009 2018 2006	2019	\$20,000 \$6,000 \$6,000 \$1,500	\$31,660 \$7,032 \$6,000 \$1,500	2022 2020 2028 NA	\$1,500 \$2,000	\$1,500 \$2,000
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance			30 10 10 1 1	1992 1996 1996 2006 2016	1992 2009 2018 2006 2016	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000	2022 2020 2028 NA NA	\$1,500 \$2,000	\$1,500 \$2,000
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System			30 10 10 1 1 1	1992 1996 1996 2006 2016	1992 2009 2018 2006 2016 2016	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600	2022 2020 2028 NA NA NA 2026		
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank			30 10 10 1 1 1 10 35	1992 1996 1996 2006 2016 2016 1980	1992 2009 2018 2006 2016 2016 2017	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180	2022 2020 2028 NA NA 2026 2052		
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge			30 10 10 1 1 1 10 35 34	1992 1996 1996 2006 2016 2016 1980 1966	1992 2009 2018 2006 2016 2016 2017 2017	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000 \$90,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180 \$300,000	2022 2020 2028 NA NA 2026 2052 2051		
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge MCC/Cogen Building			30 10 10 1 1 1 10 35 34 50	1992 1996 1996 2006 2016 2016 1980 1966	1992 2009 2018 2006 2016 2016 2017 2017	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000 \$90,000 \$400,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180 \$300,000 \$773,200	2022 2020 2028 NA NA 2026 2052 2051 2032		
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge MCC/Cogen Building MCC Electrical Boxes			30 10 10 1 1 1 10 35 34 50 40	1992 1996 1996 2006 2016 2016 1980 1966 1982	1992 2009 2018 2006 2016 2016 2017 2017 1982 1982	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000 \$90,000 \$400,000 \$180,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180 \$300,000 \$773,200	2022 2020 2028 NA NA 2026 2052 2051 2032 2022	\$2,000	
REDINDANCY PROJECT	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge MCC/Cogen Building MCC Electrical Boxes Plant Electrical			30 10 10 1 1 1 10 35 34 50	1992 1996 1996 2006 2016 2016 1980 1966	1992 2009 2018 2006 2016 2016 2017 2017	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000 \$90,000 \$400,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180 \$300,000 \$773,200	2022 2020 2028 NA NA 2026 2052 2051 2032		
REDUNDANCY PROJECT	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge MCC/Cogen Building MCC Electrical Boxes Plant Electrical			30 10 10 1 1 1 10 35 34 50 40	1992 1996 1996 2006 2016 2016 1980 1966 1982	1992 2009 2018 2006 2016 2016 2017 2017 1982 1982	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000 \$90,000 \$400,000 \$180,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180 \$300,000 \$773,200	2022 2020 2028 NA NA 2026 2052 2051 2032 2022	\$2,000	
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge MCC/Cogen Building MCC Electrical Boxes Plant Electrical			30 10 10 11 1 1 10 35 34 50 40 30	1992 1996 1996 2006 2016 2016 1980 1966 1982 1982	1992 2009 2018 2006 2016 2016 2017 2017 1982 1982 2010	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000 \$90,000 \$400,000 \$180,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180 \$300,000 \$773,200 \$347,940 \$289,500	2022 2020 2028 NA NA 2026 2052 2051 2032 2022 2040	\$2,000	
REDUNDANCY PROJECT Aeration Tank Feed Pump	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge MCC/Cogen Building MCC Electrical Boxes Plant Electrical Station Hatch and concrete coating			30 10 10 11 1 10 35 34 50 40 30	1992 1996 1996 2006 2016 2016 1980 1966 1982 1982 1966	1992 2009 2018 2006 2016 2016 2017 2017 1982 1982 2010	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000 \$90,000 \$400,000 \$180,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180 \$300,000 \$773,200 \$347,940 \$289,500	2022 2020 2028 NA NA 2026 2052 2051 2032 2022 2040	\$2,000	
	Facility Asphalt Digester #2 sump pump #1 Digester #2 sump pump #2 Security System annual maintenance IT System annual maintenance SCADA System Fuel Tank Arroyo Grande Pipe Bridge MCC/Cogen Building MCC Electrical Boxes Plant Electrical			30 10 10 11 1 1 10 35 34 50 40 30	1992 1996 1996 2006 2016 2016 1980 1966 1982 1982 1966	1992 2009 2018 2006 2016 2016 2017 2017 1982 1982 2010	2019	\$20,000 \$6,000 \$6,000 \$1,500 \$2,000 \$100,000 \$5,000 \$90,000 \$400,000 \$180,000	\$31,660 \$7,032 \$6,000 \$1,500 \$2,000 \$105,600 \$5,180 \$300,000 \$773,200 \$347,940 \$289,500	2022 2020 2028 NA NA 2026 2052 2051 2032 2022 2040	\$2,000	



						Last	Inspected &			Estd Nxt		
				Rplc -		Done/		\$ at New/				
	Item	Equip #	Replace Criteria	yrs	Orig		Deferred Year		Current Cost		2070	2071
	Pumps	1		20		2021			\$235,700			_
	Flow Meter			10		2021			\$12,800			
WAS Pumping Station									* ,			
The state of the s	Concrete			60	2021	2021			\$9,100	2081		
	Pumps			20		2021			\$61,100			
	Valves			20		2021			\$9,700			
	Piping and Fittings			30		2021			\$26,800			
	Flow Meter			10		2021			\$6,400			
Activated Sludge Aeration				10	2021	2021			ψ0, 400	2001	1	
Activated Gradge Actation	Concrete			60	2021	2021			\$3,885,100	2081		
	Blowers			30		2021			\$813,600			
	Flow Meter			10		2021			\$3,700			
	Diffusers			30		2021	 		\$614,800			
	Gates			25		2021	 		\$458,000			
	Valves			20		2021			\$800			
	Piping and Fittings			30		2021			\$426,500			
Blower Building	Fibring and Fittings			30	2021	2021			\$420,300	2031		
Blower Building	Building CMU			50	2021	2021			\$346,800	2071		\$346,800
	Concrete			60		2021			\$272,000			\$340,000
New Secondary Clarifier	Concrete			00	2021	2021			\$272,000	2001	1	
New Secondary Clariner	Congrete			60	2021	2021			\$2,642,400	2081		
	Concrete					2021			\$639,000			
	Gates			25								
	Pumps			20 20		2021 2021			\$161,300 \$39,000			
	Valves					2021						
WAO This bearing	Piping and Fittings			30	2021	2021			\$160,200	2051		
WAS Thickening					0004	0004			A5 70 0	0054		
	Concrete Repair			30		2021			\$5,700			
	Gates			25		2021			\$32,200			
	Pumps			20		2021			\$862,000			
	Piping and Fittings			30		2021			\$86,300			
	Valves			20		2021			\$17,900			
	Flow Meter			10	2021	2021		ļ	\$17,900	2031		
0'. 1					000			ļ	# 0 222 = -			
Site Improvements				25	2021	2021	ļ	-	\$2,939,700	2046	5	
1	<u> </u>			40	0004	0004			#0.000.000	000		
Instrumentation and Elect	ricai			40	2021	2021			\$3,823,000	2061		
_												
Emergency Generator												
	Generator			20		2021			\$222,200			
	Concrete			30	2021	2021			\$38,300	2051		
Flood Mitigation Improve	ments			29	2021	2021			\$338,600	2050)	
Tota									\$57,798,270		\$293,000	
Cumulative (2018 \$											\$80,527,508	\$80,877,808
Cumulative (Escalated 2%	per year)					_					\$164,276,117	\$166,608,285

