

**SEWER AUTHORITY MID-COASTSIDE
WASTE WATER TREATMENT FACILITY**



Executive Summary
Project Overview

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<u>Cost of Project</u>	
Total Project Cost	\$129,981
Less Rebates and Incentives	\$(9,919)
Net Cost of Project	\$120,062
<u>Annual Operating Savings</u>	
Energy Savings	\$45,413
Maintenance Savings	\$4,087
Total Annual Operating Savings	\$49,500
<u>Operating Savings Over 10 Years</u>	
Energy Savings	\$454,130
Maintenance Savings	\$40,870
Total Operating Savings Over 10 Years	\$495,000
Payback Period (years)	2.6

Energy Usage and Costs

Lighting Wattage Comparison – Exterior

Existing Fixture Type	Qty	Watts Per Fixture	Total Watts	Lighting Solution	Qty	Watts Per Fixture	Total Watts	Scheduled Hours
400w MH/HPS	8	496	3,968	150w LED Fixture	8	150	1,200	4,100
250w MH/HPS	22	302	6,644	42w LED Fixture	22	42	924	4,100
200w MH/HPS	13	240	3,120	42w LED Fixture	13	42	546	4,100
175w MH/HPS	1	210	210	28w LED Fixture	1	28	28	4,100
150w MH/HPS	38	173	6,574	60w LED Retrofit Kit	38	60	2,280	4,100
34W T12 2-lamp	15	80	1,200	50w LED Fixture	15	50	750	4,100
26w CFL	11	27	297	8.5w LED Fixture	11	8.5	93.5	4,100

Energy Usage and Costs

Lighting Wattage Comparison – Interior

Existing Fixture Type	Qty	Watts Per Fixture	Total Watts	Lighting Solution	Qty	Watts Per Fixture	Total Watts	Scheduled Hours
34w T12 2-lamp	120	80	9,600	50w LED Fixture	120	50	6,000	8,760
32w T8 4-lamp	12	140	1,680	42w LED Fixture	12	42	504	8,760
32w T8 3-lamp	23	85	1,955	25w LED Fixture	23	25	575	8,760
32w T8 2-lamp	46	70	3,220	42w LED Fixture	46	42	1,932	8,760
96w T12 2-lamp	8	138	1,104	67w LED Fixture	8	67	536	8,760
250w MH	12	285	3,420	50w LED Fixture	12	50	600	8,760
400w MH	16	458	7,328	100w LED Fixture	16	100	1,600	8,760
40w T12 2-lamp	70	94	6,580	50w LED Fixture	70	50	3,500	8,760
26w CFL 2-lamp	39	51	1,989	8.5 LED Fixture	39	8.5	331.5	8,760

PG&E Rebate Incentives

Part Number Description	Incentive Description	Est. Receipt Date	Amount
100w High Bay		Immediate	\$400.00
12w 8in can light		Immediate	\$635.00
25w 2x4 Troffer Retrofit Kit		Immediate	\$572.00
42w LED Wrap		Immediate	\$2,150.00
46w 4ft Strip		Immediate	\$75.00
50w 4ft Strip		Immediate	\$4,600.00
50w 4ft Vapor Tight		Immediate	\$1,000.00
67w 8ft Strip		Immediate	\$300.00
8.5/13.5/21w 6in can		Immediate	\$186.00
Total			\$9,919.00

Lighting Project Benefits

Annual Energy Usage Reduction

Current Usage (kWh)	Projected Usage (kWh)	Reduction (kWh)	Reduction
460,065	207,770	252,295	55%

- 55% Overall Energy Reduction
- Higher Light Quality & Acuity
- Elimination of Maintenance & Safer Working Conditions
- Continuity of Lumen Output & Color Consistency Throughout Facility
- 2.6 Years Payback
- Total Operational Savings Over 10 years = \$495,000



Sewer Authority Mid-Coastside

Energy & Cost Savings Achievements

- 2018 Lighting Project with On-Bill Financing
 - **252,295 annual kWh saved. \$45,413 annual costs savings**
- 2017 VFD Project
 - **74,729 annual kWh saved. \$13,451 annual cost savings**
- 2019 Projects in development
 - **Aeration blowers and gravity thickener**

