

**JACINTO CITY WWTP
IMPROVEMENT ASSESSMENT
ESTIMATED CONSTRUCTION COSTS**

Description	Alternative Cost	Recommended Improvements Cost
LIFT STATION		
1 Influent Manual Bar Screen Replacement		
Self Cleaning Mechanical Screen	752,550	
Bypass	72,800	
Removal of existing screen	2,000	
Mechanical Screen	585,000	
Dumpster pad	5,000	
Electrical	87,750	
Vertical Auger Mechanical Screen	323,713	323,713
Bypass	36,400	
Removal of existing screen	2,000	
Mechanical Screen	243,750	
Dumpster pad	5,000	
Electrical	36,563	
2 Miscellaneous Lift Station Equipment Rehabilitation		
	157,936	157,936
Replace compressor with four diffusers	59,100	
Recoat piping and valves	4,000	
Replace crane/hoist	59,930	
Magnesium hydroxide feed equipment enclosure	20,797	
Electrical	14,109	
Electrical for rehabilitation	12,109	
Add electrical outlets	2,000	
3 Grease Removal Equipment Addition		
Reroute scum to sludge tanks (Also in Clarifier improvements)	100,400	
4-5HP Pumps	70,000	
Piping and Force main	19,900	
Electrical	10,500	
Addition of Product for 20 years	130,000	
Additional cost for Replacement of pumps by chopper pumps instead of scum pumps and mechanical screen	86,382	
Deduct for mechanical screen	-323,713	
Deduct for scum pump system	-100,400	
Bypass	36,400	
2- 15HP 8" pumps	239,616	
2-250HP 12" pumps	172,640	
Electrical	61,838	
Recirculation System	119,066	
4 Emergency Pump Addition		
	432,968	432,968
1-12" Diesel Pumps	337,325	
Piping	45,045	
Electrical	50,599	

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Description	Alternative Cost	Recommended Improvements Cost
GRIT REMOVAL SYSTEM		
1 Grit Removal Equipment Replacement		
Pista-Grit System	569,284	
Removal of existing classifier	5,000	
Structure	29,722	
Grit equipment	438,750	
Gates	30,000	
Electrical	65,813	
Grit-King System	570,000	570,000
Removal of existing classifier	5,000	
Grit-King System equipment	500,000	
Electrical	65,000	
HEADWORKS		
1 Fine Screen Replacement		
Remove existing screen	5,000	
2 Drum screens	393,900	
Electrical	59,085	
2 Screen Compactor Addition		
Compactor	204,750	
Electrical	30,713	
3 Miscellaneous Rehabilitation		
Replace one manual bar screen	15,000	
Replace grating by FRP grating	10,725	
Replace gates (3 units)	62,400	

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Description	Alternative Cost	Recommended Improvements Cost
AERATION BASIN		
1 Aeration Equipment Replacement		
Turbine Aerator	472,790	
Remove existing aerator	10,000	
New Aerator - 2 75 HP and controls	452,790	
Electrical	10,000	
Fine Bubble Diffused Aeration	2,160,375	
Remove existing aerator	10,000	
4-10HP Mixers, fine bubble aeration, 3-150HP blowers, piping, controls	1,852,500	
Blower slab	20,000	
Electrical	277,875	
Floating Turbine Aerator	741,370	
Remove existing aerator	10,000	
Floating turbine aerator 4-50HP mixer, 4-7.5HP blower	464,256	
Access bridge	101,795	
Controls	83,200	
electrical	82,118	
Floating Brush Rotor Aerator	847,311	
Remove existing aerator	10,000	
Floating rotor aerator - 6-30 HP aerators	536,827	
Access bridge	125,237	
Controls	82,368	
Electrical	92,879	
2 Aeration Equipment Addition		
Fine Bubble Diffused Aeration	1,394,138	
Fine bubble aeration, 2-150HP blowers, piping, controls	1,199,250	
Blower slab	15,000	
Electrical	179,888	
Floating Turbine Aerator	338,229	
Floating turbine aerator 2-50HP mixer, 2-7.5HP blower	232,128	
Access bridge	23,442	
Controls	41,600	
Electrical	41,059	
Floating Rotor Aerator	418,656	418,656
Floating rotor aerator - 3-30 HP aerators	268,414	
Access bridge	62,618	
Controls	41,184	
Electrical	46,440	

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Description	Alternative Cost	Recommended Improvements Cost
3 Aerator Area Cover Replacement		
FRP Covers	190,988	
Remove existing covers	8,000	
New covers	182,988	
Aluminum Covers	460,400	460,400
Remove existing covers	8,000	
New covers	452,400	
4 Miscellaneous Rehabilitation		
	93,530	93,530
Replace gates	41,080	
Replace weirs	47,450	
Recoat walkways and piping	5,000	
CLARIFIER		
1 Clarifier Upgrades		
	274,400	274,400
Replace rake, 2 units	208,000	
Replace skimmer, 2 units	62,400	
Adjust inlet well level, 2 units	4,000	
2 Launder Algae Control Addition		
Algae cleaning system, 2 units	78,000	78,000
Launder covers	249,371	249,371
Covers, 2 units	187,075	
Handrails, 2 units	62,296	
3 Reroute scum to sludge tanks		
	100,400	100,400
4 Pumps	70,000	
Piping and Force main	19,900	
Electrical	10,500	

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Description	Alternative Cost	Recommended Improvements Cost
RETURN/WASTE SLUDGE PUMP STATION		
1 RAS/WAS Pump Station Replacement		
Replace Grinder Pumps and Telescopic Valves	253,820	
Pumps	117,000	
Piping and valves	39,000	
Replace telescopic valves	49,920	
Lifting equipment	23,348	
Recoat stairs and grating	3,500	
Electrical and controls	21,052	
Replace Pump Station with Above Ground Centrifugal Pump Station	231,252	231,252
4-Pumps	156,000	
Piping and valves	32,500	
Modify suction line with meters	14,352	
Abandon exist station	5,000	
Electrical and controls	23,400	
Replace Grinder Pumps with Airlift sludge Feed	270,561	
Pumps	117,000	
Piping and valves	39,000	
Airlifts	62,400	
Blowers for airlift air	3,705	
Lifting equipment	23,348	
Recoat stairs and grating	3,500	
Electrical and controls	21,608	
DISINFECTION SYSTEM		
1 Miscellaneous Rehabilitation		
	49,761	49,761
Replace effluent weir	14,000	
Upgrade flow meter	10,300	
Magnesium hydroxide feed equipment enclosure	20,797	
Electrical	4,665	
2 Effluent Common Sampling Basin Addition		
	47,704	47,704
Structure	34,600	
Piping	13,104	
3 Chlorine Feed System Replacement		
	243,766	243,766
Replace chlorine feed system	60,000	
Replace Cl2 cylinder hoist	60,970	
Replace building enclosure	91,000	
Electrical	31,796	
4 NPW System Replacement		
	11,500	11,500
Pumping system	10,000	
Electrical	1,500	

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Description	Alternative Cost	Recommended Improvements Cost
EFFLUENT AND OUTFALL SYSTEM		
1 High Water Pump Station Addition		
High water pump station for combined WWTP/drainage flows	854,463	
Structure	256,000	
Pumps	273,000	
Piping and valves	232,284	
Gates	23,400	
Outfall pipe	14,138	
Sampler for biomonitoring for combined with storm	11,616	
Berm and compensating basin	1,333	
Electrical	42,692	
High water pump station for WWTP flow only	335,342	335,342
Structure (sampling on outfall instead of at CCB will be needed)	65,000	
Pumps	134,160	
Piping and valves	32,500	
Gates	23,400	
18" Outfall force main	46,800	
Sampler for biomonitoring for combined with storm	11,616	
Electrical	21,866	
2 Access to Outfall Discharge Addition		
Access steps on bayou slope	2,250	2,250
SLUDGE TANKS		
1 Structural Improvements		
Seal existing tank cracks	10,000	
Add digester tank	393,000	
2 Blower Improvements		
Centrifugal Blowers	941,850	
Replace existing blowers	614,250	
Add blowers	204,750	
Electrical	122,850	
Positive displacement (PD) Blowers	679,765	679,765
Replace existing blowers	443,325	
Add blowers	147,775	
Electrical	88,665	
3 Air Piping and Diffusers Improvements		
Replace existing diffusers, piping and valves	492,570	
Add piping and valves for new tank	246,285	

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Description	Alternative Cost	Recommended Improvements Cost
MISCELLANEOUS		
1 Monitoring Equipment Addition	143,327	143,327
Influent sampler	11,616	
Influent pH, alkalinity analyzer	16,900	
Aeration influent pH, alkalinity analyzer	16,900	
Aeration effluent pH, alkalinity, DO analyzer	25,350	
Clarifier effluent pH, alkalinity analyzer	16,900	
Chlorine Contact effluent pH, DO, Cl2 analyzer	25,350	
Effluent sampler	11,616	
Electrical	18,695	
2 Building Improvements	630,500	630,500
Rehabilitation of metal storage building	97,500	
Replacement of operation building and demolition of existing building	533,000	
3 Drying Beds Decommissioning except one	33,185	33,185
RECOMMENDED IMPROVEMENTS ESTIMATED COST		\$7,413,154
CONTINGENCY (30%)		\$2,223,946
TOTAL RECOMMENDED IMPROVEMENTS ESTIMATED COST		\$9,637,100