CIP BUDGET REQUEST SUMMARY

Each year, the Board of Directors, through their committee process, reviews and approves the Capital Improvement Program (CIP) prepared by staff for both sewage collection system projects (collections) and the joint works treatment and disposal system projects.

Many of the District's projects take several years to complete the planning, design and construction cycle. The budget for a construction project covers the life of the project. This budget is reevaluated each year for the purpose of managing annual cash flows. Thus, many of the projects in the CIP Budget for 2008-09 are continuing projects that were approved in prior years.

In October 1999, the District adopted a new Strategic Plan, a planning effort to define District's goals, responsibilities, and requirements over the next twenty years, and including projections through the assumed "build-out" of the District's service area to the year 2050. This effort to update the 1989 30-year "2020 Vision" Master Plan was necessary because many of the assumptions used then have now changed. Critical factors such as population growth, new construction, the volume of wastewater delivered to the plants and viable water conservation and reclamation programs have been reevaluated.

In June 2002, the District completed the Interim Strategic Plan Update (ISPU) which further updated these critical factors and developed revised cost estimates and user fee projections for upgrading the District's level of treatment to secondary standards. On July 17, 2002, after reviewing: (1) the ISPU treatment alternatives, (2) ocean monitoring data, (3) public input, (4) regulatory issues, and (5) financial considerations, the Board of Directors made the decision to upgrade our treatment to meet secondary treatment standards.

The CIP includes 3 projects totaling $631 million to upgrade the District's treatment plants to meet secondary treatment standards. Implementation of secondary treatment standards is scheduled to be completed by December 31, 2012. This schedule was reviewed and determined to be reasonable and achievable by two independent Peer Review Teams.

In conjunction with preparation for the 2008-09 Budget, District staff conducted strategic planning workshops with the Board of Directors to layout a capital program to deliver the levels of service desired by the Board of Directors. These levels of service and resulting capital projects are included in the District's 5-year Strategic Plan. This includes approximately $50 million of new CIP projects over the next 10 years.

In addition, District staff has reviewed each CIP project to ensure that the scope of the project was appropriate, and that the cost estimates were accurate. The validated CIP includes 86 large capital projects and 28 special projects with a 15-year expenditure of $1.47 billion. This total represents a $149 million increase from the 2007-08 CIP estimate. This increase includes $50 million from the District's 5-year Strategic Plan, $28 million in newly identified rehabilitation and renewal needs, and $71 million in project budget revisions for on-going projects.

Planning for water reclamation facilities is an element that has had a significant impact on the District's capital improvement program. The District and the Orange County Water District (OCWD) are currently in the last year of completing a joint project that will be the largest water reclamation project in the nation. When completed, the Groundwater Replenishment System (GWRS) would reclaim approximately 100 million gallons of water each day. The District is matching OCWD funding for this project and has budgeted $248.4 million, with up to $46 million of this budget being off-set by grants.

The proposed 2008-09 CIP budget is organized by treatment process. The funds requested for the current cash flow budget total $373.7 million, an increase of 35 percent from last year's cash flow request of $277.1 million. The current year cash flow is part of an overall total cost of $2.484 billion for active projects.

Following is a chart of the 2008-09 Proposed CIP Cash Flows and the total Project Costs for all proposed projects, by project phase, in millions:

Current Status	2008-09 Cash Flow	Total Project Costs
Future	$0.0	$60.8
Planning	9.2	464.2
Design	25.4	1,630.7
Construction	337.1	312.5
Capital Equipment	2.0	16.0
Total	$373.7	$2,484.2

There are currently 26 projects in the Planning Phase with proposed capital outlay spending in 2008-09. Two of the larger 2008-09 cash flow

projects in the Planning Phase are the Solids Area Cable Tray Improvements at Plant No. 2 and the Oxygen Plant Rehabilitation with current year projected expenditures of $2.72 million and $1.25 million respectively. A total of $464.2 million in capital outlay, currently listed within the Planning Phase, is being projected for future budgets based on the capital improvement needs that are identified through the 2002 Interim Strategic Plan Update and the annual CIP validation effort.

There are currently 19 projects in the Design Phase with proposed capital outlay spending in 2008-09. The two largest projects in the Design Phase are the Sludge Dewatering and Odor Control at Plant 1 Project and the Interplant Gas Line Rehabilitation Project with projected current year expenditures of $7.60 million and $2.96 million respectively.

There are currently 44 projects in the Construction Phase with proposed capital outlay spending in 2008-09. The two most significant projects in the construction phase are the New Secondary Treatment System at Plant No. 1 and the Trickling Filters at Plant No. 2 with a projected current year expenditure of $100.1 million and $73.7 million respectively.

Standard contingency factors have been applied to improve cost estimates. The rates of 20, 20, and 10 percent have been applied respectively to the estimates made during the project development, design, and construction project phases. This reflects standard practice for estimating construction project costs.

Following within this section are individual capital improvement project detail sheets that have been provided to give the reader a brief overview of each project, the budget for the next five years, and the budget for the total project.

Each project went through an extensive validation and prioritization process. Projects have been prioritized based on risk exposure if the project was deferred. Projects that would present a higher risk if they were delayed are given a higher priority.

The Treatment Process:

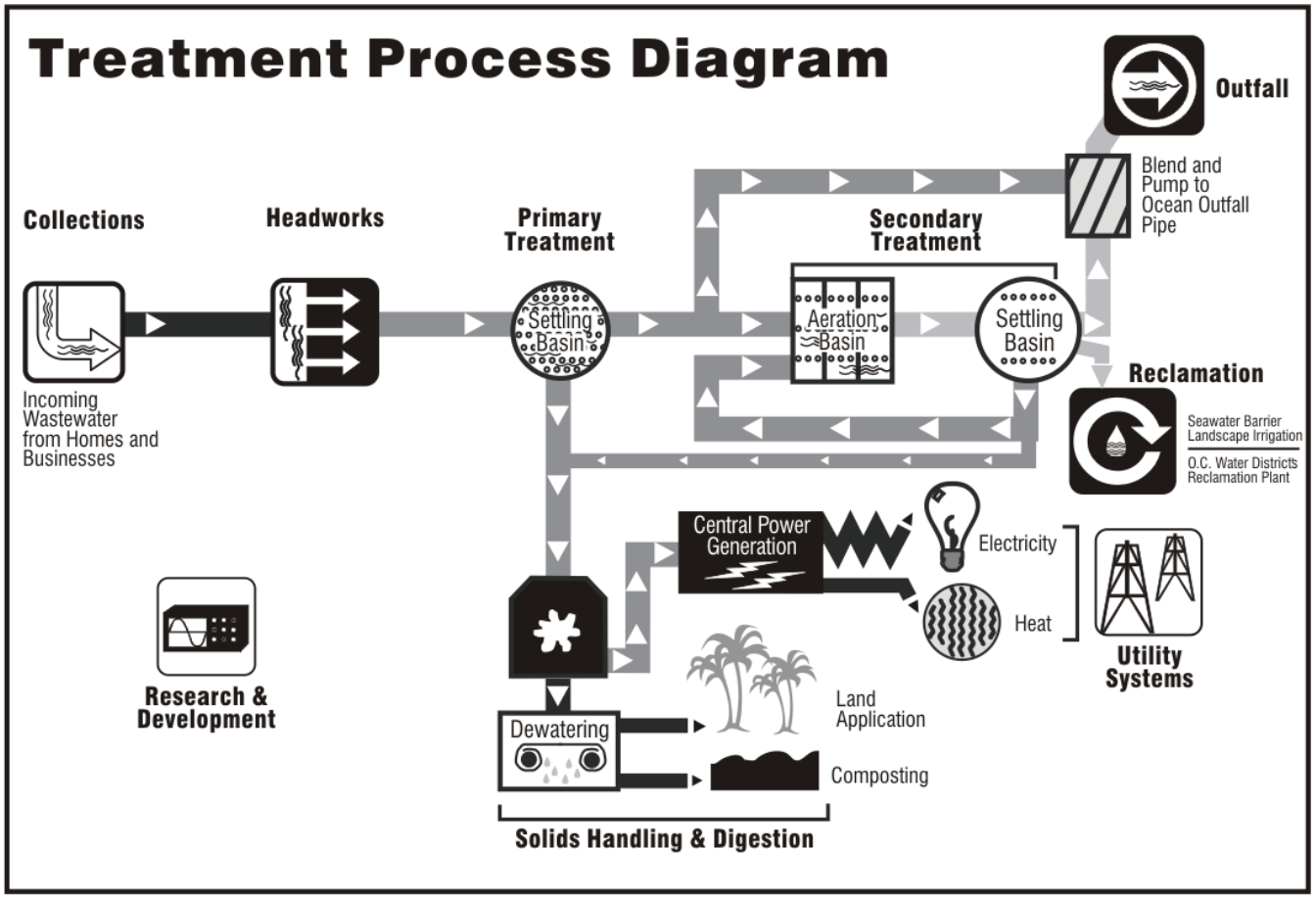
The Treatment Process Diagram (Section 8-Page 3) illustrates the stages of wastewater treatment in relation to the flow of wastewater through the treatment process. The icons in the legend are shown as graphics in the individual CIP Detail Sheets to give the reader insight about where a project correlates to the treatment process.

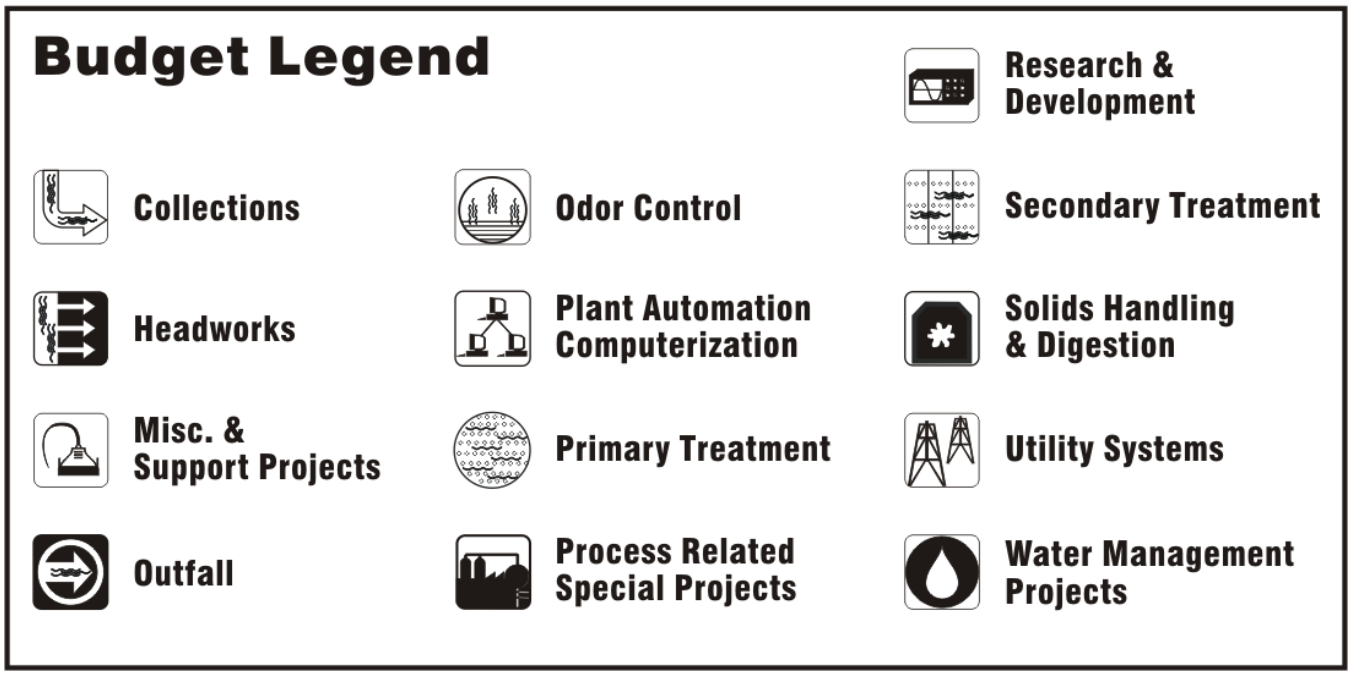
Wastewater is collected from 17 pump stations or gravity sewers in outlying areas that total 471 square miles. Influent wastewater undergoes Preliminary Treatment upon entry to the treatment plants where it is filtered through bar screens and grit chambers. Primary Treatment consists of large clarifying basins where solids are settled out and sent to Solids Processing. Treated wastewater is pumped either to Secondary Treatment where it is aerated and additional solids are settled out, or to advanced primary, a physical-chemical process. The resulting water from these processes is blended to become final effluent.

Methane gas generated during the natural decomposition of the solids in the Digesters is used to fuel the Central Power Generation and produce electricity used to operate both treatment plants.

Solids are dewatered to a 20 percent solids consistency, called biosolids, and recycled for direct land application, composting or landfill.

Approximately 50 to 90 million gallons per day of secondary treated wastewater is sent to Reclamation uses such as groundwater injection or landscape irrigation. The remaining treated wastewater is discharged through the ocean outfall about five miles offshore.


Treatment Process Diagram
Outfall
Blend and Pump to Ocean Outfall Pipe
Collections
Headworks
Primary Treatment
Secondary Treatment
Settling Basin
Aeration Basin
Settling Basin
Reclamation
Seawater Barrier
Landscape Irrigation
O.C. Water Districts Reclamation Plant
Incoming Wastewater from Homes and Businesses
Central Power Generation
Electricity
Heat
Utility Systems
Research & Development
Dewatering
Land Application
Composting
Solids Handling & Digestion

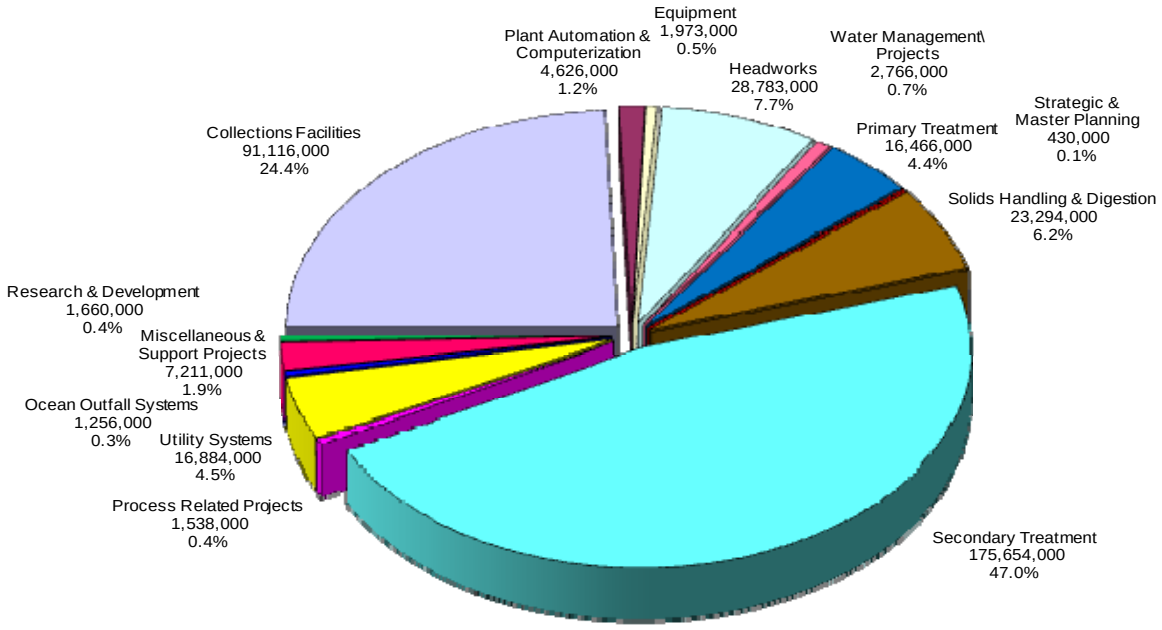

Budget Legend
Research & Development
Collections
Odor Control
Secondary Treatment
Headworks
Plant Automation Computerization
Solids Handling & Digestion
Misc. & Support Projects
Primary Treatment
Utility Systems
Outfall
Process Related Special Projects
Water Management Projects

2008-09 & 2009-10 Budget

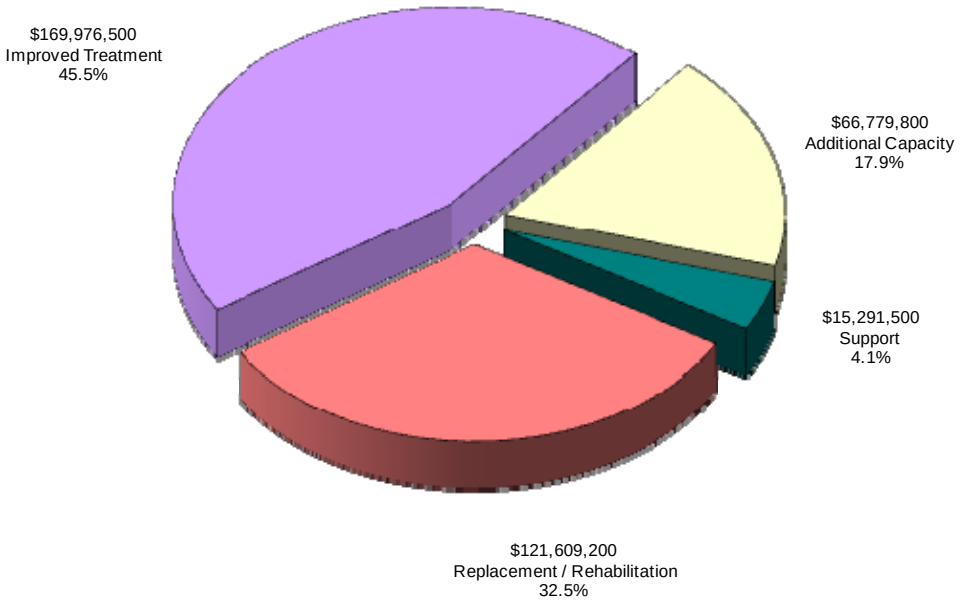
Project Summary FY 2008-09

Item	Replacement/ Rehabilitation	Improved Treatment	Additional Capacity	Support	Total Budget
Collections Facilities	61,768,900	1,281,800	23,049,500	5,015,800	91,116,000
Headworks	21,435,650	6,437,750	909,600	-	28,783,000
Primary Treatment	16,466,000	-	-	-	16,466,000
Secondary Treatment	1,376,000	140,977,500	33,300,500	-	175,654,000
Solids Handling & Digestion	5,489,750	12,862,300	4,941,950	-	23,294,000
Ocean Outfall Systems	669,500	-	586,500	-	1,256,000
Utility Systems	7,722,750	3,567,250	2,575,500	3,018,500	16,884,000
Odor Control Related Projects	-	-	-	-	-
Plant Automation & Computerization	2,063,700	-	457,500	2,104,800	4,626,000
Process Related Special Projects	-	30,000	-	1,508,000	1,538,000
Miscellaneous & Support Projects	3,798,700	661,150	-	2,751,150	7,211,000
Water Management Projects	-	2,766,000	-	-	2,766,000
Strategic & Master Planning	75,000	205,000	75,000	75,000	430,000
Research & Development	250,000	694,500	390,500	325,000	1,660,000
Equipment	493,250	493,250	493,250	493,250	1,973,000
Total	**121,609,200**	**169,976,500**	**66,779,800**	**15,291,500**	**373,657,000**

Summary of Capital Requirements



Total FY 2008-09 Capital Improvement Expenditure by Process - $373,657,000



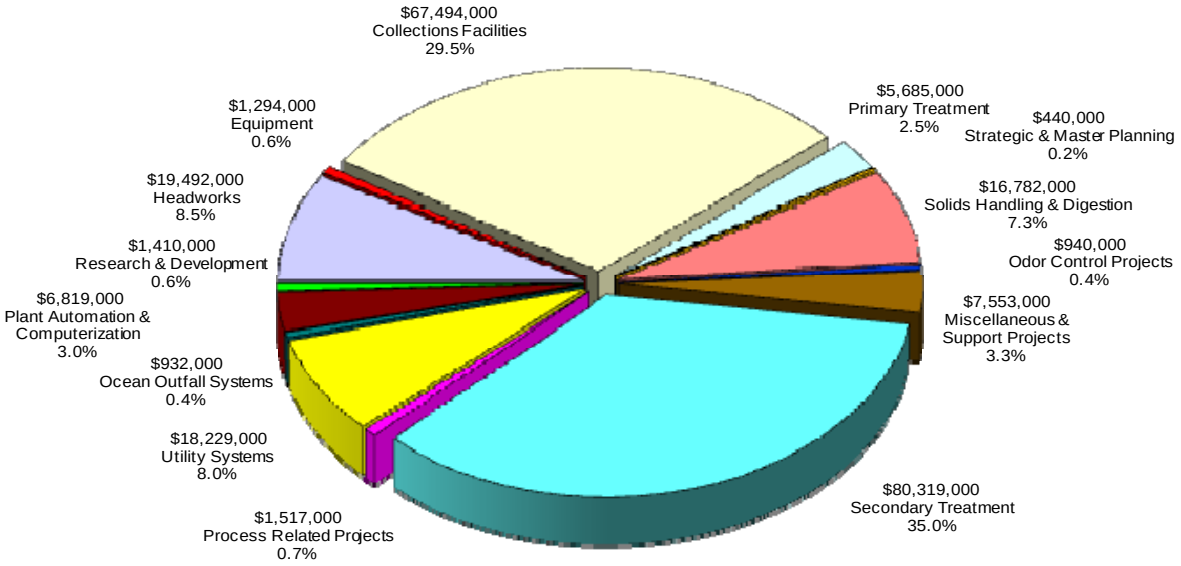
Total FY 2008-09 Capital Improvement Expenditure by Type - $373,657,000

2008-09 & 2009-10 Budget

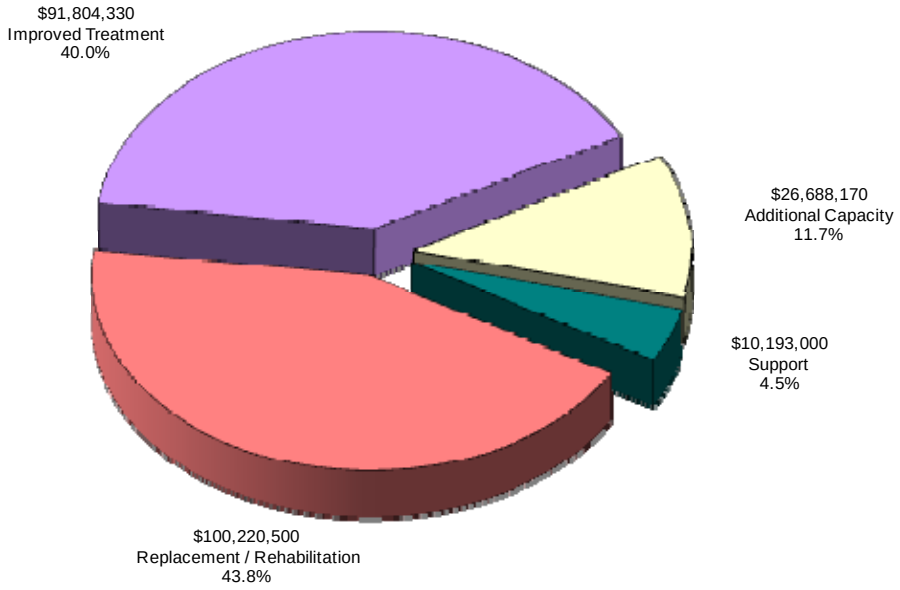
Project Summary FY 2009-10

Item	Replacement/ Rehabilitation	Improved Treatment	Additional Capacity	Support	Total Budget
Collections Facilities	50,898,500	411,300	15,253,400	930,800	67,494,000
Headworks	14,304,400	3,300,000	1,887,600	-	19,492,000
Primary Treatment	5,685,000	-	-	-	5,685,000
Secondary Treatment	1,973,000	71,259,580	7,086,420	-	80,319,000
Solids Handling & Digestion	10,865,000	4,566,950	1,350,050	-	16,782,000
Ocean Outfall Systems	932,000	-	-	-	932,000
Utility Systems	7,818,500	9,699,800	273,200	437,500	18,229,000
Odor Control Related Projects	188,000	752,000	-	-	940,000
Plant Automation & Computerization	3,132,000	-	125,000	3,562,000	6,819,000
Process Related Special Projects	-	30,000	-	1,487,000	1,517,000
Miscellaneous & Support Projects	3,775,600	656,200	-	3,121,200	7,553,000
Water Management Projects	-	-	-	-	-
Strategic & Master Planning	75,000	215,000	75,000	75,000	440,000
Research & Development	250,000	590,000	314,000	256,000	1,410,000
Equipment	323,500	323,500	323,500	323,500	1,294,000
Total	**100,220,500**	**91,804,330**	**26,688,170**	**10,193,000**	**228,906,000**

Summary of Capital Requirements



Total FY 2009-10 Capital Improvement Expenditure by Process - $228,906,000



Total FY 2009-10 Capital Improvement Expenditure by Type - $228,906,000

2008-09 & 2009-10 Budget

Summary of Capital Requirements – Collection System Improvement Projects

	Project Number	Project Phase 7/1/08	Total Project Budget	Est. Cost to Date 6/30/08	2008-09 Cashflow Budget	2009-10 Cashflow Budget	Future Budget	Page Number
Collections								
Raitt and Bristol Street Sewer Extension	01-101	Planning	3,748,000	252,000	639,000	816,000	2,041,000	14
Santa Ana Trunk Sewer Rehab.	01-17	Planning	20,129,000	515,000	1,006,000	1,056,000	17,552,000	15
Carbon Cnyn Sewer and Pump Stn. Abandonment	02-24-1	Design	9,952,000	1,649,000	2,891,000	4,518,000	894,000	16
Santa Ana River Interceptor Realignment and Prot.	02-41	Design	10,382,000	7,363,000	822,000	555,000	1,642,000	17
Santa Ana River Interceptor 2006 Protection Repair	02-41-5	Planning	200,000		200,000		-	18
Taft Branch Improvements	02-49	Planning	1,121,000	13,000			1,108,000	N/A
Euclid Relief Improvements - Reach "A"	02-52	Planning	22,050,000	14,000	229,000	1,069,000	20,738,000	19
Newhope-Placentia & Cypress Trunk Replacements	02-65	Planning	8,623,000	392,000	984,000	1,016,000	6,231,000	20
Rehabilitate District Siphons By Adding Air Jumper	02-68	Design	7,556,000	4,897,000	2,206,000	453,000	-	21
Fullerton-Brea Interceptor Sewer Relief	02-71	Planning	946,000				946,000	N/A
Rehabilitation of the Westside Pump Station	03-52	Design	9,646,000	2,573,000	4,284,000	2,789,000	-	22
Westside Relief Interceptor/ Los Alamitos MH Rehab	03-55	Planning	13,038,000				13,038,000	N/A
Rehabilitation of Magnolia Trunk Sewer	03-58	Planning	28,769,000	1,469,000	1,550,000	6,216,000	19,534,000	23
Miller-Holder Trunk Sewer Relief	03-59	Planning	12,169,000				12,169,000	N/A
Beach Trunk/Knott Interceptor Sewer Relief	03-60	Planning	25,605,000				25,605,000	N/A
Balboa Trunk Sewer Rehabilitation	05-47	Planning	8,514,000	214,000	378,000	540,000	7,382,000	24
Replacement of the Bitter Point Pump Station	05-49	Design	36,547,000	4,026,000	9,183,000	13,100,000	10,238,000	25
Replacement of the Rocky Point Pump Station	05-50	Design	30,952,000	6,563,000	1,749,000	18,024,000	4,616,000	26
Bitter Point Force Main Rehabilitation	05-58	Design	24,947,000	2,552,000	22,395,000			27
Newport Force Main Condition Assessment	05-60	Planning	2,112,000	72,000	590,000	12,000	1,438,000	28
Bayside Drive Improvement	05-61	Planning	3,750,000	697,000	305,000	2,328,000	420,000	29
Dover Drive Trunk Sewer Relief	05-63	Planning	6,351,000	293,000	1,077,000	1,575,000	3,406,000	30
Sewer Access Improv. Big Canyon Nature Park Area	05-64	Planning	765,000		48,000	140,000	577,000	31
District 6 Trunk Sewer Relief	06-17	Planning	2,050,000	4,000			2,046,000	N/A
Fairview Road Trunk Sewer Relief	06-18	Planning	10,029,000				10,029,000	N/A
Southwest Costa Mesa Trunk	06-19	Planning	12,600,000				12,600,000	N/A
Gisler-Redhill System Improvements, Reach B	07-37	Design	9,437,000	1,038,000	91,000	7,100,000	1,208,000	32
Rehabilitation of College Ave. Pump Station	07-47	Planning	9,969,000	2,851,000	6,487,000	631,000	-	33
Browning Subtrunk Sewer Relief	07-60	Planning	3,920,000				3,920,000	N/A
County Island Annexation and CEQA Documentation	07-61	Planning	300,000	200,000	100,000		-	34
Von Karman Trunk Sewer Relief	07-62	Planning	409,000				409,000	N/A
Edinger/Bolsa Chica Trunk Improvements	11-25	Planning	4,411,000				4,411,000	N/A
Coast Trunk Sewer Rehabilitation	11-26	Design	10,830,000	2,230,000	7,890,000	710,000	-	35

Continued

Summary of Capital Requirements – Collection System Improvement Projects

	Project Number	Project Phase 7/1/08	Total Project Budget	Est. Cost to Date 6/30/08	2008-09 Cashflow Budget	2009-10 Cashflow Budget	Future Budget	Page Number
Collections (Continued.)								
North County Collections Yard	15-04	Planning	11,773,000	6,478,000	4,689,000	606,000	-	36
Manhole Rehabilitation and Assessment Program	15-05	Planning	1,540,000		420,000	280,000	840,000	37
Facilities Engineering Projects - Collections	FE-Collect	Planning	7,920,000	2,722,000	1,192,000	1,232,000	2,774,000	38
Replacement of the Ellis Ave. Pump Stn	I-10	Design	77,257,000	56,806,000	17,723,000	2,728,000	-	39
Bushard Trunk Sewer Rehabilitation	I-2-4	Const./Impl.	68,757,000	67,119,000	1,638,000			40
Los Alamitos Blvd. Sewers Condition Assessment	SP-126	Planning	350,000		350,000			41
Total Collections Projects			**519,424,000**	**173,002,000**	**91,116,000**	**67,494,000**	**187,812,000**	

2008-09 & 2009-10 Budget

Summary of Capital Requirements –Treatment System Improvement Projects

	Project Number	Project Phase 7/1/08	Total Project Budget	Est. Cost to Date 6/30/08	2008-09 Cashflow Budget	2009-10 Cashflow Budget	Future Budget	Page Number
Headworks								
Headworks Rehab. and Expansion at Plant No. 1	P1-105	Planning	20,202,000				20,202,000	N/A
Headworks Rehabilitation/Refurbishment	P1-71	Design	11,024,000	1,700,000	3,032,000	6,292,000	-	42
Headworks Improvements at Plant No. 2	P2-66	Const./Impl.	254,498,000	196,134,000	25,751,000	13,200,000	19,413,000	43
Headworks Total			**285,724,000**	**197,834,000**	**28,783,000**	**19,492,000**	**39,615,000**	
Primary Treatment								
Primary Treatment Rehab/Refurb	P2-80	Planning	37,230,000	15,179,000	16,366,000	5,685,000	-	44
Primary Effluent Pump Stations Reliability Study	SP-130	Planning	100,000		100,000			45
Primary Treatment Total			**37,330,000**	**15,179,000**	**16,466,000**	**5,685,000**	**-**	
Secondary Treatment								
New Secondary Treatment System at Plant No. 1	P1-102	Design	265,863,000	113,508,000	100,050,000	21,474,000	30,831,000	46
Activated Sludge Plant Rehabilitation	P1-82	Const./Impl.	46,133,000	44,997,000	1,136,000			47
Rehabilitation of Activated Sludge Plant at Plant 2	P2-74	Design	16,401,000	16,240,000	161,000			48
Trickling Filters at Plant No. 2	P2-90	Design	221,192,000	51,979,000	73,660,000	56,872,000	38,681,000	49
Oxygen Plant Rehabilitation at Plant No. 2	SP-129	Planning	2,500,000		527,000	1,973,000	-	50
Oxygen Plant Rehabilitation	SP-72-1	Planning	150,000	30,000	120,000			51
Secondary Treatment Total			**552,239,000**	**226,754,000**	**175,654,000**	**80,319,000**	**69,512,000**	
Solids Handling & Digestion								
Sludge Digester Rehabilitation at Plant 1	P1-100	Design	60,397,000	5,595,000	1,359,000	8,668,000	44,775,000	52
Sludge Dewatering and Odor control at Plant 1	P1-101	Design	143,547,000	9,013,000	7,603,000	2,077,000	124,854,000	53
Truck Wash and Dewatering Beds at Plant No. 1	P1-106	Planning	3,146,000	2,996,000	150,000			54
Solids Thickening and Processing Upgrades	P2-89	Planning	73,020,000	467,000	1,741,000	1,983,000	68,829,000	55
Plant No. 2 Primary Sludge Feed System Project	P2-91	Const./Impl.	25,766,000	9,527,000	12,441,000	3,798,000	-	56
Digester Rehabilitation at Plant No. 2	P2-91-1	Planning	36,398,000	731,000			35,667,000	57
Sludge Dewatering and Odor Control at Plant 2	P2-92	Planning	51,696,000			256,000	51,440,000	N/A
Replacement of Drying Beds and Truck Wash at Plant	P2-97	Planning	4,443,000	74,000			4,369,000	58
Solids Handling & Digestion Total			**398,413,000**	**28,403,000**	**23,294,000**	**16,782,000**	**329,934,000**	
Ocean Outfall Systems								
Final Effluent Sampler and Building Area Upgrades	J-110	Planning	1,890,000		83,000	932,000	875,000	59
Effluent Pumping Station Annex	J-77	Const./Impl.	60,487,000	59,314,000	1,173,000			60
Ocean Outfall Systems Total			**62,377,000**	**59,314,000**	**1,256,000**	**932,000**	**875,000**	

Summary of Capital Requirements

Summary of Capital Requirements –Treatment System Improvement Projects

	Project Number	Project Phase 7/1/08	Total Project Budget	Est. Cost to Date 6/30/08	2008-09 Cashflow Budget	2009-10 Cashflow Budget	Future Budget	Page Number
Utility Systems								
Interplant Gas Line Rehabilitation	J-106	Design	3,752,000	422,000	2,964,000	366,000	-	61
Cengen Cooling Water System Replacement	J-109	Planning	9,094,000	138,000	708,000	994,000	7,254,000	62
Cengen Emissions Control Project	J-111	Planning	31,000,000			299,000	30,701,000	N/A
Cable Tray Improvements at Plants 1 & 2	J-47	Design	31,744,000	4,557,000	2,000	2,000	27,183,000	63
Air Quality Improvements	J-79	Const./Impl.	9,168,000	7,244,000	136,000	1,788,000	-	64
Central Generation Automation	J-79-1	Design	20,332,000	2,686,000	4,543,000	9,976,000	3,127,000	65
Fire Suppression for Servers and Equip at P1 & P2	J-96	Design	965,000	890,000	75,000			66
Electrical Power Distribution System Improvements	J-98	Planning	8,992,000			244,000	8,748,000	N/A
Power Building 3A Backup Power Reliability Project	P1-111	Planning	502,000		24,000	82,000	396,000	67
Plant Water System Rehabilitation at Plant No.1	P1-112	Planning	3,538,000			160,000	3,378,000	N/A
Plant 1 66kV Substation	P1-97	Design	14,780,000	9,218,000	5,151,000	411,000	-	68
Plant Water System Rehabilitation at Plant No.2	P2-101	Planning	4,108,000		184,000	689,000	3,235,000	69
Flare System Expansion and Upgrades	P2-103	Planning	1,500,000			27,000	1,473,000	N/A
Solids Area Cable Tray Improvements at Plant No. 2	P2-104	Planning	6,156,000		2,729,000	2,959,000	468,000	70
Fuel Cell Feasibility Study	SP-132	Planning	100,000		100,000			71
Fuel Cell Hydrogen Gas Generation Research	SP-134	Planning	500,000		268,000	232,000	-	72
Utility Systems Total			**146,231,000**	**25,155,000**	**16,884,000**	**18,229,000**	**85,963,000**	
Odor Control Related Projects								
Rehabilitation of Odor Control Facilities	J-71-8	Design	38,707,000	6,455,000		940,000	31,312,000	73
Trickling Filter Odor Control at Plant No. 1	P1-113	Planning	4,582,000				4,582,000	N/A
Primary Scrubber Rehabilitation at Plant No.1	P1-114	Planning	4,200,000				4,200,000	N/A
Solids Storage Building Odor Control Project	P2-102	Planning	10,183,000				10,183,000	N/A
Primary Treatment Odor Control Upgrades	P2-98	Planning	28,460,000				28,460,000	N/A
Odor Control Related Projects Total			**86,132,000**	**6,455,000**	**-**	**940,000**	**78,737,000**	
Process Related Special Projects								
Corrosion Management	SP-68-1	Design	4,667,000	1,150,000	1,508,000	1,487,000	522,000	74
Special Projects: Biotrickling Filter (BTF)	SP-90-7	Const./Impl.	1,027,000	907,000	30,000	30,000	60,000	75
Process Related Special Projects Total			**5,694,000**	**2,057,000**	**1,538,000**	**1,517,000**	**582,000**	

Summary of Capital Requirements –Treatment System Improvement Projects

	Project Number	Project Phase 7/1/08	Total Project Budget	Est. Cost to Date 6/30/08	2008-09 Cashflow Budget	2009-10 Cashflow Budget	Future Budget	Page Number
Plant Automation & Computerization								
Power Monitoring and Control Systems	J-33-3	Planning	10,899,000	2,514,000	968,000	5,084,000	2,333,000	76
Strategic Information Architecture (SIA)	SP-03	Const./Impl.	1,995,000	638,000	270,000	270,000	817,000	77
Internet/Intranet Development	SP-09	Const./Impl.	650,000	560,000	41,000	28,000	21,000	78
CMMS System Replacement	SP-100	Const./Impl.	3,789,000	705,000	1,830,000	500,000	754,000	79
PDS2D Software Replacement	SP-103	Planning	250,000				250,000	80
Environmental Compliance Awareness Program	SP-104	Planning	982,000	290,000	465,000	227,000	-	81
Geographic Information System	SP-15	Const./Impl.	4,157,000	1,160,000	270,000	310,000	2,417,000	82
Network Equipment Upgrade	SP-89	Const./Impl.	2,806,000	1,306,000	782,000	400,000	318,000	83
Plant Automation & Computerization Total			**25,528,000**	**7,173,000**	**4,626,000**	**6,819,000**	**6,910,000**	
Miscellaneous & Support Projects								
Facilities Engineering Projects - Joint	FE-J	Planning	22,110,000	2,389,000	1,336,000	1,244,000	17,141,000	84
Facilities Engineering Projects - Plant 1	FE-P1	Planning	19,110,000	6,470,000	1,073,000	1,110,000	10,457,000	85
Facilities Engineering Projects - Plant 2	FE-P2	Planning	19,110,000	4,370,000	732,000	754,000	13,254,000	86
Temporary Upgrades To Plant Security Barriers	J-108	Planning	1,450,000	36,000	309,000	1,105,000	-	87
Laboratory Refurbishment at Plant No. 1	J-97	Planning	417,000	290,000			127,000	88
Regional FOG Control Collection at Plant No. 1	P1-104	Planning	3,150,000	22,000	106,000	456,000	2,566,000	89
Plant No. 2 Landscaping Project	P2-96	Planning	440,000	60,000	190,000	190,000	-	90
Office Space Planning Study	SP-127	Planning	500,000	246,000	254,000			91
Integrated Security Access Control System	SP-128	Planning	450,000		450,000			92
2009 NPDES Permit Renewal	SP-133	Planning	787,000		393,000	394,000	-	93
Small Cap. Equip. Replacement Project	SP-34	Const./Impl.	10,550,000	950,000	1,600,000	1,600,000	6,400,000	94
Asset Management Program	SP-68-2	Design	5,100,000	1,615,000	650,000	650,000	2,185,000	95
Warehouse Reinvention Project	SP-77	Const./Impl.	600,000	390,000	50,000	50,000	110,000	96
Plant 2 Maintenance Building Modifications	SP-98	Design	276,000	208,000	68,000			97
Miscellaneous & Support Projects Total			**84,050,000**	**17,046,000**	**7,211,000**	**7,553,000**	**52,240,000**	
Water Management Projects								
Groundwater Replenishment System	J-36	Const./Impl.	248,400,000	245,634,000	2,766,000			98
Water Management Projects Total			**248,400,000**	**245,634,000**	**2,766,000**	**-**	**-**	

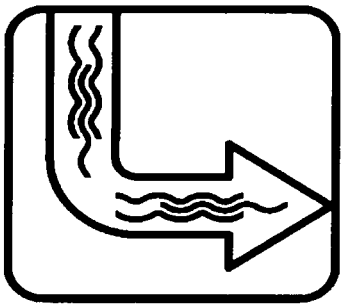
Summary of Capital Requirements –Treatment System Improvement Projects

	Project Number	Project Phase 7/1/08	Total Project Budget	Est. Cost to Date 6/30/08	2008-09 Cashflow Budget	2009-10 Cashflow Budget	Future Budget	Page Number
Strategic & Master Planning								
Treatment Plant Strategic Plan Update	J-102	Planning	4,500,000	3,600,000	300,000	300,000	300,000	99
Orange County Biosolids Production Siting Study	SP-105	Planning	400,000	130,000	130,000	140,000	-	100
Strategic & Master Planning Total			**4,900,000**	**3,730,000**	**430,000**	**440,000**	**300,000**	
Research & Development								
USBR Brine Management Grant Project	SP-116	Planning	230,000	30,000	50,000	100,000	50,000	101
Research Strategic Plan	SP-120	Planning	365,000	265,000	20,000	20,000	60,000	102
Superoxygenation of Primary Influent	SP-121	Planning	850,000	290,000	270,000	290,000	-	103
Digester Optimization	SP-122	Planning	90,000		90,000			104
Digester Pilot Plant Safety and Control System Upg	SP-123	Planning	230,000		230,000			105
Operational Research Projects (annual allocation)	SP-125	Planning	10,040,000	40,000	1,000,000	1,000,000	8,000,000	106
Research & Development Total			**11,805,000**	**625,000**	**1,660,000**	**1,410,000**	**8,110,000**	
Total Treatment and Disposal Projects			**1,948,823,000**	**835,359,000**	**280,568,000**	**160,118,000**	**672,778,000**	
Capital Equipment Purchases			**16,000,000**	**1,200,000**	**1,973,000**	**1,294,000**	**11,533,000**	
Total Collection, Treatment and Disposal Projects			**2,484,247,000**	**1,009,561,000**	**373,657,000**	**228,906,000**	**872,123,000**	

2008-09 & 2009-10 Budget

Project Name & Number	Raitt and Bristol Street Sewer Extension - 01-101		
Project Category	Collections Facilities	Project Status:	Revised

Description
This project will replace 2,360 lineal feet of 21-inch City of Santa Ana sewer with a 24-inch Sanitation District's sewer line and a parallel 8-inch City of Santa Ana sewer line to allow for redirecting all house lateral connections. The sewer line is located along Myrtle street, between Raitt and Bristol Streets in the City of Santa Ana.



Collections Facilities

Justification
The Sanitation District's strategic plan update conducted in 2006 indicated that the Raitt & Bristol Streets Sewer will surcharge under the 2010 wet weather flow conditions, therefore, the existing sewer pipes need to be upsized to eliminate bottlenecks and avoid a potential spill. In addition to the capacity deficiency, this project will transfer ownership of the newly constructed pipeline to the Sanitation District.

The project budget has been decreased from $3,786,571 to $3,747,998 to reflect the revised project cost estimate.

The project's construction cost budget is $1,807,136.

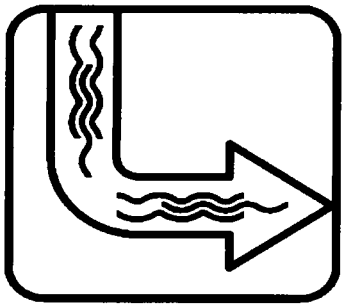
This project will increase operational budgets by $5,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	140,000	140,000						
Preliminary Design	224,000	112,000	112,000					
Design	590,000		527,000	63,000				
Const. & Installation	2,323,000			753,000	1,570,000			
Commission	77,000				77,000			
Close-Out	33,000				5,000	28,000		
Contingency	361,000					361,000		
Total	3,748,000	252,000	639,000	816,000	1,652,000	389,000		

Reimbursable Costs N/A

Project Name & Number	Santa Ana Trunk Sewer Rehab. - 01-17		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
This project will rehabilitate the existing Santa Ana Trunk sewer from the Sanitation District's Reclamation Plant 1 to Bristol Street in the Cities of Fountain Valley and Santa Ana. The scope of the project includes rehabilitation of 33 concrete manholes, and approximately 17,000 feet of 42-inch and 48-inch unlined concrete pipe. It is likely that a liner will be installed in the pipe to protect the concrete from hydrogen sulfide corrosion. The manholes may be coated with a protective liner, or replaced. This project will increase the life expectancy of the trunk sewer by 25-30 years. By rehabilitating the sewer rather than replacing the sewer, community disruption will be kept to a minimum and capital savings will be realized.

Justification
The sewer was originally constructed in 1955, and the estimated life of this type of pipe is 40 to 50 years. During routine cleaning of the sewer, it has been noted that the sewer and manholes are deteriorating due to corrosive sewer gases. These manholes were not originally constructed with protective linings. The project is timed to allow the sewer and access manholes to be repaired and minimize the risks from potential failures.
An inspection of this sewer was performed in 2001. Staff has concluded that a protective liner should be installed in this pipeline by 2010 in order to prevent the corrosion from reaching the reinforcing steel. If corrosion advances to this degree, the method of repair will be significantly more expensive.

The project budget has been increased from $19,716,607 to $20,128,591 to reflect the revised project cost estimate.

The project's construction cost budget is $13,651,875.

This project will not have an impact on operational budgets.

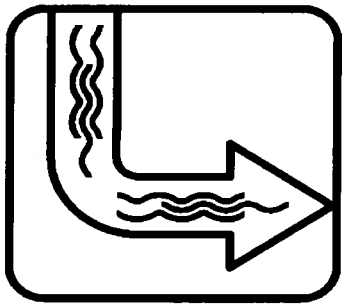
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	180,000	180,000						
Preliminary Design	1,641,000	295,000	1,006,000	340,000				
Design	1,168,000	30,000		716,000	415,000	7,000		
Const. & Installation	14,866,000	7,000				5,184,000	9,339,000	336.000
Commission	158,000	3,000					56,000	99.000
Close-Out	68,000							68.000
Contingency	2,048,000							2.048.000
Total	20,129,000	515,000	1,006,000	1,056,000	415,000	5,191,000	9,395,000	2,551,000

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Carbon Cnyn Sewer and Pump Stn. Abandonment - 02-24-1		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
This project will construct a gravity trunk sewer to replace the existing Carbon Canyon Dam Pump Station and its associated force main near Carbon Canyon Dam in the City of Brea. The existing sewer flow is currently pumped up over the crest of the dam. The project will abandon the existing pump station, and install more than 7,000 feet of new 21-inch or 24-inch gravity sewer line by micro-tunneling under the ridge that surrounds the Carbon Canyon Basin. This project will also abandon the older pumping station and force main after the new gravity sewer is completed.

Justification
The existing pumping station does not comply with current electrical and safety codes and is at capacity. The pumping station would need to be upgraded and expanded to serve new and proposed developments in the City of Brea and the surrounding unincorporated areas of Northern Orange County within two to five years. In lieu of a future pumping station and force main project, this project eliminates the existing pumping station, provides needed capacity via a new sewer, and reduces operating costs. Abandoning this pump station eliminates annual costs of $50,000, and eliminates the need for pump station rehabilitation. Also, the gravity flow system will be more reliable than a pump station.

The project budget has been increased from $9,611,791 to $9,951,607 to reflect the revised project cost estimate.

The project's construction cost budget is $6,000,000.

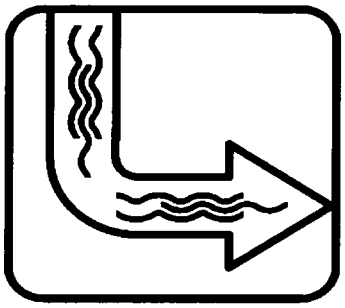
This project will decrease operational budgets by $20,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	13,000	13,000						
Preliminary Design	360,000	360,000						
Design	1,267,000	1,264,000	3,000					
Const. & Installation	7,480,000		2,888,000	4,467,000	125,000			
Commission	74,000	12,000		51,000	11,000			
Close-Out	31,000				31,000			
Contingency	727,000				727,000			
Total	9,952,000	1,649,000	2,891,000	4,518,000	894,000			

Reimbursable Costs N/A

Project Name & Number	Santa Ana River Interceptor Realignment and Prot. - 02-41		
Project Category	Collections Facilities	Project Status:	Continuing



Collections Facilities

Description
This project provides for the protection and relocation of the Santa Ana River Interceptor (SARI), currently located within the floodplain of the Santa Ana River between Weir Canyon Road and the County line. This project is intended to protect approximately 4 miles of pipeline and manholes from failure due to high stormwater releases from Prado Dam in major flood events. The most recent United States Army Corps of Engineers (USACE) study of the project was completed in October 2005. An EIR/EIS is currently being prepared by the USACE. The current budget only reflects funds necessary for OCSD support of the project.

Justification
The existing pipeline has been subjected to continued scour of overlying soil and sediments since it was constructed in the mid 1970's. Hydraulic analyses of the river after the Prado Dam improvements are completed indicated that the pipeline could be washed away during dam releases above 5,000 cubic feet per second. The Prado Dam improvements will allow for releases of up to 30,000 cubic feet per second. If this pipeline reach from Weir Canyon Road to the Orange/San Bernardino County line is not relocated or protected prior to the completion of the Prado Dam improvements, then the line could fail during a flood event.

This project will not have an impact on operational budgets.

Budget Projections

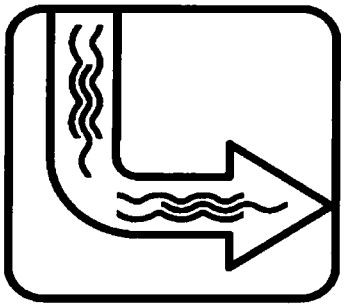
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	184,000	184,000						
Preliminary Design	1,766,000	1,731,000	35,000					
Design	6,206,000	5,122,000	787,000	297,000				
Const. & Installation	1,200,000	90,000		258,000	771,000	81,000		
Commission	500,000	234,000			194,000	72,000		
Close-Out	136,000	2,000				134,000		
Contingency	390,000					390,000		
Total	10,382,000	7,363,000	822,000	555,000	965,000	677,000		

Reimbursable Costs $4,799,000

2008-09 & 2009-10 Budget

Project Name & Number	Santa Ana River Interceptor 2006 Protection Repair - 02-41-5		
Project Category	Collections Facilities	Project Status:	Continuing

Description
This project provides for emergency repairs to the existing Santa Ana River Interceptor (SARI), currently located within the floodplain of the Santa Ana River between Weir Canyon Road and the County Line. This project is intended to conduct emergency repairs to the pipeline and manholes in the event of a failure or if the pipeline becomes exposed due to major storm water releases from Prado Dam.



Collections Facilities

Justification
The existing pipeline has been subjected to continued scour of overlying soil and sediments and could be washed away during high storm releases from Prado Dam. If this pipeline reach from Weir Canyon Road to the Orange/San Bernardino County line is not protected while efforts are being made to relocate SARI, then this line could fail during a major flood event causing a wastewater spill of environmentally disastrous proportions.

This project will not have an impact on operational budgets.

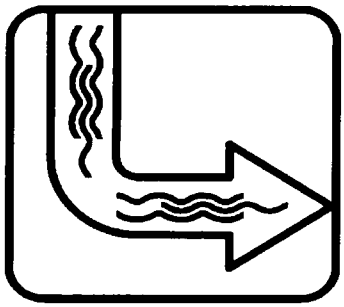
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	100,000		100,000					
Preliminary Design	100,000		100,000					
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	200,000		200,000					

Reimbursable Costs N/A

Project Name & Number	Euclid Relief Improvements - Reach "A" - 02-52		
Project Category	Collections Facilities	Project Status:	Continuing

Description
This project will increase the size of this section of the Euclid Trunk system by diverting more flow to the improved west branch of the Euclid System to provide additional capacity for future flows projected from the central and northern portion of Orange County for developments like the western portion of the proposed Platinum Triangle development. The project includes replacing approximately 13,700 feet of 36-inch to 42-inch pipe with 48-inch to 54-inch diameter pipe within Euclid Avenue in the City of Fountain Valley, beginning at Reclamation Plant No.1 and ending at Edinger Avenue.



Collections Facilities

Justification
This section of the Euclid Trunk system was originally built in 1966. Based on current flow projections and hydraulic modeling, this project needs to be completed by 2013. These improvements will accommodate the projected increase in flow from planned developments and growth and be designed to convey potential wet weather surcharges.

The project's construction cost budget is $14,700,000.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	88,000	14,000	74,000					
Preliminary Design	600,000		155,000	445,000				
Design	1,670,000			624,000	981,000	65,000		
Const. & Installation	16,600,000					2,051,000	9,604,000	4.945.000
Commission	236,000							236.000
Close-Out	56,000							56.000
Contingency	2,800,000							2.800.000
Total	22,050,000	14,000	229,000	1,069,000	981,000	2,116,000	9,604,000	8,037,000

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

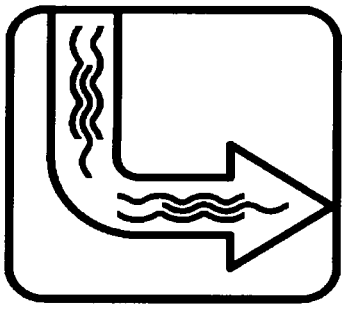
Project Name & Number	**Newhope-Placentia & Cypress Trunk Replacements - 02-65**
Project Category	**Collections Facilities** **Project Status:** **Revised**

Description
This project will increase the size of a section of the Newhope-Placentia Trunk Sewer to provide additional capacity for future flows projected from the Platinum Triangle of the City Anaheim and developments in the hills above the City of Brea.

Justification
This section of the Newhope-Placentia Trunk Sewer was originally built in 1961. Based on current flow projections and hydraulic modeling, this project needs to be completed by 2015. These improvements will accommodate the projected increase in flow from planned developments and growth and be designed to convey potential wet weather surcharges.

The project budget has been increased from $6,622,705 to $8,622,705 to reflect project scope changes and the revised project cost estimate.

The project's construction cost budget is $6,229,644.



Collections Facilities

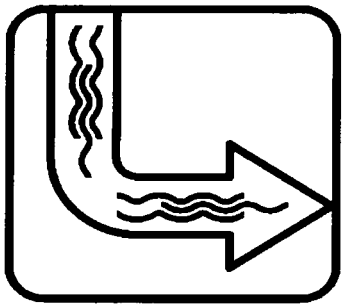
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	2,390,000	390,000	984,000	1,016,000				
Preliminary Design								
Design	2,000	2,000						
Const. & Installation	6,231,000						888,000	5,343,000
Commission								
Close-Out								
Contingency								
Total	8,623,000	392,000	984,000	1,016,000			888,000	5,343,000

Reimbursable Costs N/A

Project Name & Number	Rehabilitate District Siphons By Adding Air Jumper - 02-68		
Project Category	Collections Facilities	Project Status:	Revised

Description
This project installs air jumpers at various siphon locations to provide positive ventillation of sewer gasses which cause odors and corrosion.



Collections Facilities

Justification
In January 2004, the District completed a siphon assessment study including field inspection that was conducted in late 2003. Based on the findings of this study and an understanding of associated air quality issues, decisions were made to rehabilitate eight siphons that were most in need. This project will prevent odor complaints and reduce future corrosion potential at these eight siphons.

The project budget has been decreased from $7,556,343 to $7,555,343 to reflect the revised project cost estimate.

The project's construction cost budget is $4,537,600.

This project will not have an impact on operational budgets.

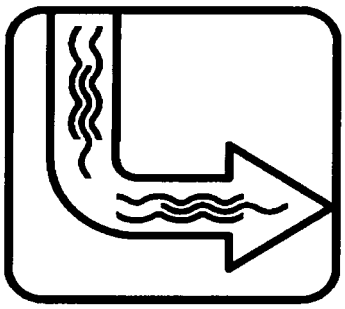
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	48,000	48,000						
Preliminary Design	607,000	607,000						
Design	933,000	933,000						
Const. & Installation	5,515,000	3,309,000	2,206,000					
Commission	119,000			119,000				
Close-Out	84,000			84,000				
Contingency	250,000			250,000				
Total	7,556,000	4,897,000	2,206,000	453,000				

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Rehabilitation of the Westside Pump Station - 03-52		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
This project will rehabilitate the existing Westside Pump Station and increase the station's capacity to meet current and projected peak wet-weather flows. The existing station is located in Roosmoor. The work includes the addition of pumping capacity and bringing the pumping station into compliance with the latest applicable electrical and safety codes. Compliance requires that the electrical facilities be effectively sealed from the lower sections of the pumping station. At the Westside Pumping Station, this requires the construction of a separate access stairwell to the lower section of the pumping station, replacement of the pumps and controls, and modification of ventilation systems.

Justification
The Westside Pump Station was originally constructed in 1970. The existing pumping station does not comply with current electrical and safety codes and is at capacity. The pumping station needs to be upgraded and expanded to serve redevelopment in the City of Seal Beach and the unincorporated area of Orange County known as Rossmoor.

The project budget has been increased from $8,840,315 to $9,646,188 to reflect the revised project cost estimate.

The project's construction cost budget is $5,200,000.

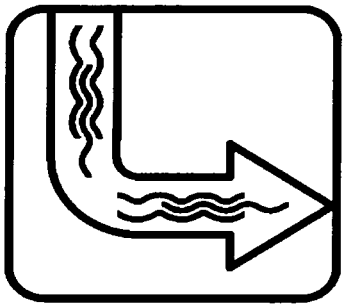
This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	70,000	70,000						
Preliminary Design	814,000	814,000						
Design	1,375,000	1,375,000						
Const. & Installation	6,708,000	314,000	4,284,000	2,110,000				
Commission	184,000			184,000				
Close-Out	131,000			131,000				
Contingency	364,000			364,000				
Total	9,646,000	2,573,000	4,284,000	2,789,000				

Reimbursable Costs N/A

Project Name & Number	Rehabilitation of Magnolia Trunk Sewer - 03-58		
Project Category	Collections Facilities	Project Status:	Continuing



Collections Facilities

Description
This project will perform condition assessment, design and construction to rehabilitate a portion of the existing Magnolia Trunk Sewer, along Bushard and Magnolia Streets and between Ellis Avenue and Westminster Avenue, in the Cities of Fountain Valley, Westminster and Garden Grove. Twelve miles of trunk sewer will be assessed and improvements will be prioritized for design and construction. Based on the District's current understanding of existing conditions, it is anticipated that 2-3 miles of sewer will require rehabilitation or replacement.

Justification
The sewer was originally constructed in 1961, and the estimated life of this type of pipe is 40 to 50 years. During routine cleaning of the sewer, it has been noted that the sewer liner had significant defects and the concrete pipe behind the liner was deteriorating due to corrosive sewer gases. The Magnolia Trunk Sewer was to have been rehabilitated under a previous project, Contract No. 03-35R. When repairs were started under that project, the damage to the liner and pipe was found to be more extensive than anticipated, and the original project was cancelled and restarted under this project with a revised budget.

The project's construction cost budget is $19,500,000.

This project will not have an impact on operational budgets.

Budget Projections

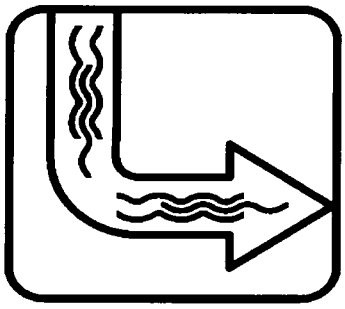
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	1,033,000	1,033,000						
Preliminary Design	557,000	434,000	123,000					
Design	1,650,000	2,000	1,427,000	221,000				
Const. & Installation	21,561,000			5,995,000	10,146,000	5,420,000		
Commission	325,000					325,000		
Close-Out	175,000					175,000		
Contingency	3,468,000						3,468,000	
Total	28,769,000	1,469,000	1,550,000	6,216,000	10,146,000	5,920,000	3,468,000	

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Balboa Trunk Sewer Rehabilitation - 05-47**
Project Category	**Collections Facilities**

Project Status: **Revised**



Collections Facilities

Description
This project will rehabilitate the existing Balboa Trunk Sewer along Newport and Balboa Boulevards between the "A" Street Pump Station and the Lido Pump Station in the City of Newport Beach. The scope of the project includes approximately 12,600 feet of 15-inch and 24-inch pipe.

It is likely that a liner will be installed in the pipe because sections of the pipe have already had joints sealed and manholes rehabilitated to reduce infiltration and inflow (I/I). The manholes may be coated with a protective liner, or replaced. This project will increase the life expectancy of the trunk sewer by 25-30 years. By rehabilitating the sewer rather than replacing the sewer, community disruption will be kept to a minimum and capital savings will be realized.

Justification
The sewer was originally constructed in 1944, and the estimated life of this type of pipe is 40 to 50 years. Several efforts have been employed to limit the amount of I/I including joint repairs and manhole rehabilitations, but the sewer requires more extensive rehabilitation due to its age and current condition. Installing a liner in the pipes will restore the structural integrity of the pipe.

The project budget has been increased from $7,873,290 to $8,514,289 to reflect the revised project cost estimate.

The project's construction cost budget is $5,200,000.

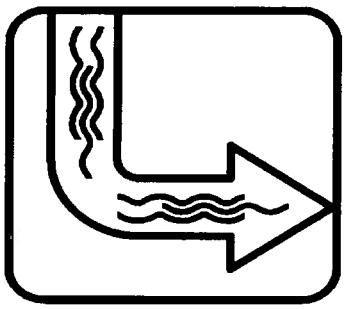
This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	120,000	120,000						
Preliminary Design	330,000	94,000	236,000					
Design	782,000		142,000	540,000	100,000			
Const. & Installation	5,986,000				1,147,000	4,792,000	47,000	
Commission	179,000					179,000		
Close-Out	77,000						77,000	
Contingency	1,040,000						1,040,000	
Total	8,514,000	214,000	378,000	540,000	1,247,000	4,971,000	1,164,000	

Reimbursable Costs N/A

Project Name & Number	Replacement of the Bitter Point Pump Station - 05-49		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
This project will construct a new pump station to replace the existing Bitter Point Pump Station. The new pump station will meet all current national and state codes and District standards. The station will also have the capacity required for the 1999 Strategic Plan projected flows. The station's design will incorporate a new "sound wall" barrier along PCH. The Scope of Work includes demolition of the existing pump station, acquisition of property, construction of specialized excavation, shoring, and dewatering equipment, and the addition of a chemical injection system to combat hydrogen sulfide odors and related corrosion. The Bitter Point Pump Station discharge force mains are also being reconstructed as part of a larger effort to allow for system-wide maintenance of the Newport force main system.

Justification
The Bitter Point Pump Station was originally built in 1937 for the City of Newport Beach. The existing station does not comply with current electrical and safety codes, is at capacity, and is landlocked. The existing site cannot accommodate additional pumping capacity for wet weather peak flows and a separated above ground electrical building to comply with current electrical and safety codes for these facilities. Also, this is one of a series of projects along the Newport Beach coastline that will convert the two independent parallel pumping systems into an interconnected pumping system that will allow the string of coastal pump stations to pump into either force main system during maintenance and repairs.

The project budget has been increased from $34,078,618 to $36,546,566 to reflect the revised project cost estimate.

The project's construction cost budget is $26,900,000.

This project will not have an impact on operational budgets.

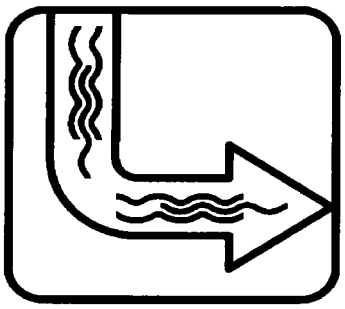
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	42,000	42,000						
Preliminary Design	593,000	593,000						
Design	3,520,000	3,374,000	146,000					
Const. & Installation	29,004,000	15,000	9,037,000	13,100,000	6,852,000			
Commission	584,000	2,000			582,000			
Close-Out	114,000				114,000			
Contingency	2,690,000				2,690,000			
Total	36,547,000	4,026,000	9,183,000	13,100,000	10,238,000			

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Replacement of the Rocky Point Pump Station - 05-50		
Project Category	Collections Facilities	Project Status:	Continuing



Collections Facilities

Description
This project will construct a replacement pumping station to the existing Rocky Point Pump Station in Newport Beach. The existing pumping station is located within the Balboa Bay Club on Pacific Coast Highway. The project includes the acquisition of a new site, the construction of a new and larger station, the reconstruction of a portion of the larger Newport force main system, and the demolition of the existing pump station. Also, the discharge force mains from the facility are being reconstructed as part of a larger effort to allow for system-wide maintenance of the Newport force main system.

Justification
The Rocky Point Pump Station was originally built in 1937 for the City of Newport Beach. The existing station does not comply with current electrical and safety codes, is at capacity, and is landlocked. The station needs additional pumping capacity for existing wet weather peak flows and a separated above ground electrical building to comply with current electrical and safety codes. The existing site cannot accommodate these facilities. This is one of a series of projects that will convert the two independent parallel pumping systems into an interconnected pumping system that allows the string of coastal pumping stations to pump into either force main system during maintenance and repairs.

The project's construction cost budget is $26,900,000.

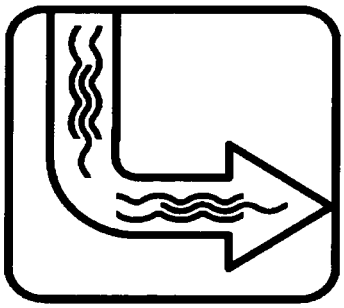
This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	12,000	12,000						
Preliminary Design	2,539,000	2,539,000						
Design	4,323,000	3,998,000	325,000					
Const. & Installation	20,152,000	2,000	1,424,000	18,024,000	702,000			
Commission	529,000				529,000			
Close-Out	92,000	12,000			80,000			
Contingency	3,305,000				3,305,000			
Total	30,952,000	6,563,000	1,749,000	18,024,000	4,616,000			

Reimbursable Costs N/A

Project Name & Number	Bitter Point Force Main Rehabilitation - 05-58		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
The project will construct a new larger 6,500-foot force main for the proposed Bitter Point Pumping Station replacement project in the City of Newport Beach. This is to replace an existing force main that traverses across oilfields and under the Santa Ana River in the western portion of the City. The project will include approximately 1,400 feet of microtunneling under the river with a 96-inch casing steel pipe to install to 36-inch carrier pipes. The project includes construction of the force main pipeline in the existing force main corridor from the proposed replacement pumping station site to the Sanitation District's Treatment Plant No. 2.

Justification
The existing force main to be replaced is undersized and conflicts with the Headworks Replacement Project, Job No. P2-66, at the Sanitation District's Treatment Plant No. 2 in Huntington Beach. As an alternative to rehabilitating the existing force mains, Sanitation District staff evaluated complete replacement with new force mains in Pacific Coast Highway. The current project was found to be the most cost effective alternative. This is one of a series of projects that will convert the two independent parallel pumping systems into two interconnected pumping system that allow the string of coastal pumping stations to pump into either force main system during maintenance and repairs.

The project budget has been increased from $24,392,019 to $24,946,619 to reflect the revised project cost estimate.

The project's construction cost budget is $19,000,000.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	163,000	163,000						
Preliminary Design	805,000	805,000						
Design	1,270,000	1,270,000						
Const. & Installation	20,668,000	314,000	20,354,000					
Commission	226,000		226,000					
Close-Out	145,000		145,000					
Contingency	1,670,000		1,670,000					
Total	24,947,000	2,552,000	22,395,000					

Reimbursable Costs N/A

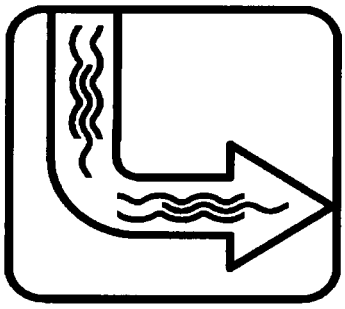
2008-09 & 2009-10 Budget

Project Name & Number	**Newport Force Main Condition Assessment - 05-60**		
Project Category	**Collections Facilities**	**Project Status:**	**Revised**

Description
The project will consist of a 2-phase approach. Phase 1 will be to build inspection/access ports. Phase 2 will include the following: perform condition assessment, evaluate capacity requirements, develop an estimate of rehabilitation or replacement costs, and determine rehabilitation and/or replacement schedule.

Justification
An asset management plan is needed for the whole Newport Beach Forcemain System. The work shall be done according to a rational and systematic plan. This requires a condition assessment of the existing forcemains with an estimate of expected remaining life, an evaluation of criticality, an estimate of asset value, and an estimate of rehabilitation or replacement costs.

This project will not have an impact on operational budgets.



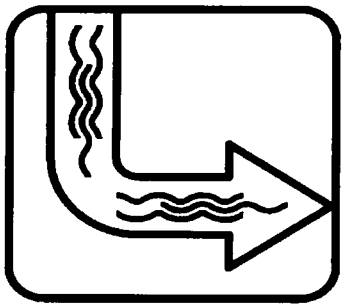
Collections Facilities

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	38,000	38,000						
Preliminary Design	622,000	32,000	590,000					
Design	2,000	2,000						
Const. & Installation	1,450,000			12,000	321,000	870,000	241,000	6,000
Commission								
Close-Out								
Contingency								
Total	2,112,000	72,000	590,000	12,000	321,000	870,000	241,000	6,000

Reimbursable Costs N/A

Project Name & Number	Bayside Drive Improvement - 05-61		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
This project will rehabilitate the existing Bayside Drive Trunk sewer along Bayside Drive between Jamboree Road and El Paseo Dr. in the City of Newport Beach. The scope of the project includes the rehabilitation of approximately 3,500 feet of 24-inch pipe and 5 manholes. It is likely that a liner will be installed in the pipe to protect the ductile iron from internal and external corrosion from hydrogen sulfide corrosion and salinity in the groundwater. This project will increase the life expectancy of the trunk sewer by 25-30 years. By rehabilitating the sewer rather than replacing the sewer, community disruption will be kept to a minimum and capital savings will be realized.

Justification
The sewer was originally constructed in 1979, and the estimated life of this type of pipe is 20 to 50 years. During CCTV monitoring of this pipe, it has been noted that the sewer is deteriorating due to corrosive sewer gases. Also, a recent evaluation found the soils near the pipeline to be corrosive to ductile iron pipe and that there is evidence of external corrosion. Because the Sanitation District has recently been experiencing failures of this type in Newport Beach, the project was initiated immediately after the external corrosion was found on the pipe. Delaying this project increases the potential for corrosion damage. Deteriorated sewers and manholes risk potential collapse and expensive emergency repairs on the sewer and adjacent roadways.

The project budget has been increased from $3,317,869 to $3,750,274 to reflect the revised project cost estimate.

The project's construction cost budget is $1,868,400. This project will not have an impact on operational budgets.

Budget Projections

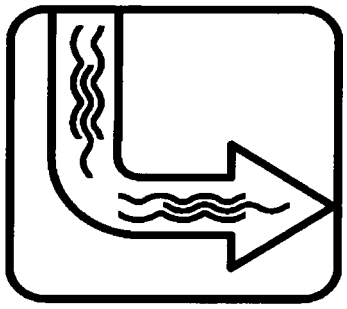
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	232,000	232,000						
Preliminary Design	424,000	424,000						
Design	383,000	41,000	305,000	37,000				
Const. & Installation	2,227,000			2,227,000				
Commission	54,000			54,000				
Close-Out	56,000			10,000	46,000			
Contingency	374,000				374,000			
Total	3,750,000	697,000	305,000	2,328,000	420,000			

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Dover Drive Trunk Sewer Relief - 05-63		
Project Category	Collections Facilities	Project Status:	Revised

Description
This project consists of conducting a feasibility study to increase the hydraulic capacity for 10,200 lineal feet of existing 15-inch through 21-inch sewer line located along Dover Drive between Irvine Avenue and Pacific Coast Highway in the City of Newport Beach. This project allows for the design and construction of a major trunk sewer within a heavily used city street located in a highly residential/commercial area of the city.



Collections Facilities

Justification
The Sanitation District's strategic plan update conducted in 2006 indicated that the Dover Drive Trunk Sewer will surcharge under the 2010 wet weather flow conditions, therefore, the existing sewer pipes need to be upsized to avoid a potential spill. In addition to the capacity deficiency, Sanitation District staff conducted a CCTV inspection and determined that portions of the existing sewer line have deteriorated and may need to be rehabilitated or replaced.

The project budget has been decreased from $6,378,000 to $6,351,040 to reflect the revised project cost estimate.

The project's construction cost budget is $3,242,241.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	190,000	190,000						
Preliminary Design	228,000	103,000	125,000					
Design	1,056,000		952,000	104,000				
Const. & Installation	4,043,000			1,471,000	2,246,000	326,000		
Commission	131,000				131,000			
Close-Out	55,000				27,000	28,000		
Contingency	648,000					648,000		
Total	6,351,000	293,000	1,077,000	1,575,000	2,404,000	1,002,000		

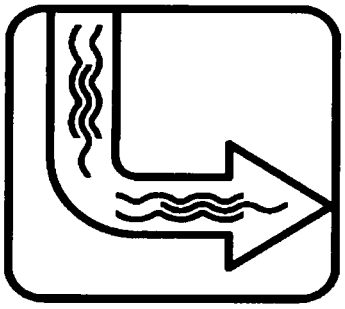
Reimbursable Costs N/A

Project Name & Number	Sewer Access Improv. Big Canyon Nature Park Area - 05-64		
Project Category	Collections Facilities	Project Status:	Continuing

Description
The project consists of providing access improvements for the Big Canyon sewer. The project includes an access road and the extension of a retaining wall near the Big Canyon Creek. The improvements are in the City of Newport Beach and the proposed Big Canyon Creek Restoration area.

Justification
The City of Newport Beach (City) is currently implementing "The Big Canyon Creek Restoration Project" in the area as well. The City staff supports incorporating OCSD's needed access improvements into their project via a reimbursement agreement to ensure that OCSD improvements complement their proposed restoration efforts. Construction will also be performed via the City's contract.

The project's construction cost budget is $442,517.



Collections Facilities

Budget Projections

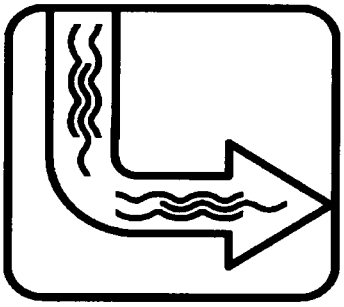
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	26,000		26,000					
Preliminary Design	22,000		22,000					
Design	140,000			140,000				
Const. & Installation	535,000				535,000			
Commission	33,000				33,000			
Close-Out	9,000				9,000			
Contingency								
Total	765,000		48,000	140,000	577,000			

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Gisler-Redhill System Improvements, Reach B - 07-37**
Project Category	**Collections Facilities**

Project Status: **Revised**



Collections Facilities

Description
This project will rehabilitate sewers in the Gisler-Redhill System. This will include providing interties, new diversion settings, and sliplining. The project includes repairs of up to 13,200 feet along Redhill Avenue in the Cities of Tustin and Irvine.

Justification
This section of the Gisler-Redhill System was originally built in the 1960's. Based on condition assessments of the pipes, rehabilitation is needed. To accommodate near-term future flows the project will also reset several diversions to accommodate new flows.

The project budget has been decreased from $16,120,085 to $9,437,427 to reflect the revised project cost estimate.

The project's construction cost budget is $6,000,000.

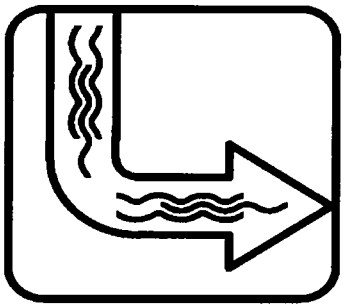
This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	14,000	14,000						
Preliminary Design	292,000	292,000						
Design	827,000	709,000	91,000	27,000				
Const. & Installation	7,376,000	23,000		7,013,000	340,000			
Commission	74,000			60,000	14,000			
Close-Out	24,000				24,000			
Contingency	830,000				830,000			
Total	9,437,000	1,038,000	91,000	7,100,000	1,208,000			

Reimbursable Costs N/A

Project Name & Number	Rehabilitation of College Ave. Pump Station - 07-47		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
This project will rehabilitate the existing College Avenue Pump Station and increase the station's capacity to meet current and projected peak wet-weather flows. The existing station is located in the City of Costa Mesa. The work includes the addition of pumping capacity and bringing the pumping station into compliance with the latest applicable electrical and safety codes. Compliance requires that the electrical facilities be effectively sealed from the lower sections of the pumping station. At the College Avenue Pump Station, this requires the construction of a separate access stairwell to the lower section of the pumping station, replacement of the pumps and controls, and modification of ventilation systems.

Justification
The College Ave. Pump Station was originally constructed in the 1960's. The existing pumping station does not comply with current electrical and safety codes and is at capacity. The pumping station needs to be upgraded and expanded to serve redevelopment in the Cities of Costa Mesa and Santa Ana.

The project budget has been decreased from $11,403,533 to $9,968,698 to reflect the revised project cost estimate.

The project's construction cost budget is $5,800,000.

This project will not have an impact on operational budgets.

Budget Projections

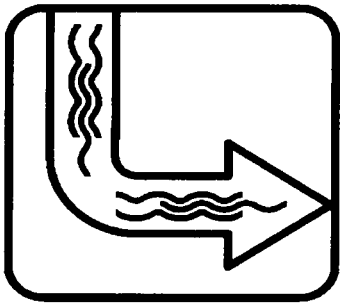
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	56,000	56,000						
Preliminary Design	678,000	678,000						
Design	1,046,000	1,046,000						
Const. & Installation	7,389,000	1,060,000	6,189,000	140,000				
Commission	335,000	11,000	298,000	26,000				
Close-Out	140,000			140,000				
Contingency	325,000			325,000				
Total	9,969,000	2,851,000	6,487,000	631,000				

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**County Island Annexation and CEQA Documentation - 07-61**		
Project Category	**Collections Facilities**	**Project Status:**	**Revised**

Description
This project is to prepare environmental documentation necessary to evaluate and analyze the environmental effects associated with the annexation of 550 land parcels to the Orange County Sanitation District. The parcels are located in unincorporated portions of the County of Orange known as Cowan Heights, Lemon Heights, and Orange Park Acres. The project will address the remaining developed properties on parcels that have not been annexed to the Sanitation District and are presently on septic tanks. These properties are anticipated to connect directly to a public sewer by the year 2015.



Collections Facilities

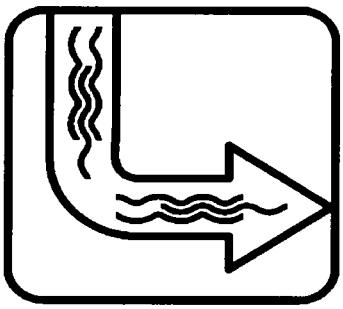
Justification
This project reduces the potential for groundwater contamination in accordance with Sanitation District Resolution 99-05, which supports abandonment of septic tanks and connection to sanitary sewers to protect the public health and the environment. The annexation of 550 parcels to the Sanitation District service area requires preparation of an environmental document to determine if there are any significant impacts from the proposed action in compliance with the California Environmental Quality Act (CEQA). This document will also include the various jurisdictional boundary changes and discretionary approvals (e.g. LAFCO and others) that are required before these properties can be annexed or sewer connections made within the Sanitation District's service area. The completion of the environmental documentation will allow sewer service to extend into these unincorporated areas outside the Sanitation District's current boundary.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	178,000	128,000	50,000					
Preliminary Design	5,000	5,000						
Design	14,000	14,000						
Const. & Installation	103,000	53,000	50,000					
Commission								
Close-Out								
Contingency								
Total	300,000	200,000	100,000					

Reimbursable Costs N/A

Project Name & Number	Coast Trunk Sewer Rehabilitation - 11-26		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
This project will rehabilitate the existing Coast Trunk Sewer along Pacific Coast Highway between Beach Boulevard and Brookhurst Street, in the City of Huntington Beach. The scope of the project includes rehabilitation of approximately 7,000 feet of 54-inch, 300 feet of 72-inch, and 900 feet of 84-inch pipe. The rehabilitation is needed to protect the concrete from hydrogen sulfide corrosion. This project will increase the life expectancy of the trunk sewer by 25-30 years. By rehabilitating the sewer rather than replacing the sewer, community disruption will be kept to a minimum and capital savings will be realized.

Justification
The sewer was originally constructed in 1981, and the estimated life of this type of pipe is 40 to 50 years. During routine cleaning of the sewer, however, it was noted that the sewer was deteriorating at the waterline due to corrosive sewer gases. Video inspection has revealed corrosion of the concrete pipe in the lower portions that are unlined. Video inspection also has limited the scope of work to the lengths of pipe that are being subjected to this corrosive condition.

The project budget has been increased from $10,460,172 to $10,830,315 to reflect the revised project cost estimate.

The project's construction cost budget is $6,820,000.

This project will not have an impact on operational budgets.

Budget Projections

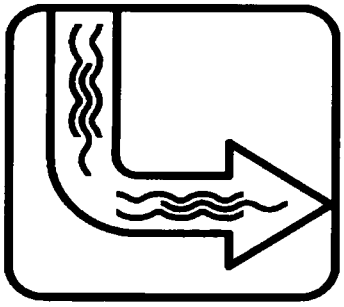
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	92,000	92,000						
Preliminary Design	1,428,000	1,428,000						
Design	770,000	707,000	63,000					
Const. & Installation	7,638,000	3,000	7,635,000					
Commission	144,000		144,000					
Close-Out	78,000		48,000	30,000				
Contingency	680,000			680,000				
Total	10,830,000	2,230,000	7,890,000	710,000				

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**North County Collections Yard - 15-04**		
Project Category	**Collections Facilities**	**Project Status:**	**Continuing**

Description
This project will relocate most of the Collection Facilities O&M Division and some other agency support staff to a new location near the geographic center of the Orange County Sanitation District (Sanitation District). The project includes the purchase of land with an industrial type building, tenant improvements as needed for the structure and its systems, and relocation of all equipment.



Collections Facilities

Justification
Staff are being relocated to the geographic center of the Sanitation District to improve business efficiencies and decrease response times to incidents in the regional and local collection systems. This project will also free up shop and office space for Maintenance Division staff at Treatment Plant No. 2 (Plant No. 2) and the Source Control Division meeting room and office spaces at Reclamation Plant No. 1.

This project will not have an impact on operational budgets.

Budget Projections

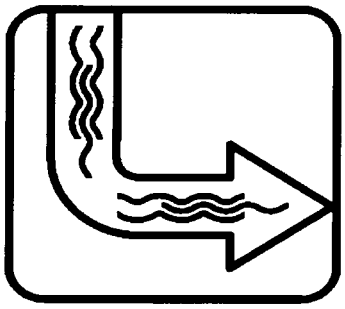
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	6,274,000	6,274,000						
Preliminary Design	583,000	148,000	435,000					
Design	510,000	48,000	462,000					
Const. & Installation	4,066,000	8,000	3,792,000	266,000				
Commission	40,000			40,000				
Close-Out								
Contingency	300,000			300,000				
Total	11,773,000	6,478,000	4,689,000	606,000				

Reimbursable Costs N/A

Project Name & Number	Manhole Rehabilitation and Assessment Program - 15-05		
Project Category	Collections Facilities	Project Status:	Continuing

Description
This project will develop a manhole rehabilitation program for the Orange County Sanitation District. The program will include conducting a preliminary assessment of the condition of manholes throughout the collection system and recommending a programmatic approach to maintaining and repairing manholes.

Justification
This project will optimize the approximately $60 million in repairs that has been estimated in past Capital Improvement Programs and in the Asset Management Plan.



Collections Facilities

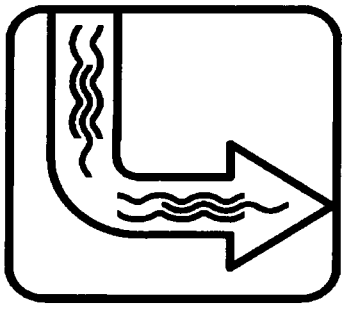
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	1,400,000		280,000	280,000	280,000	280,000	280,000	
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency	140,000		140,000					
Total	1,540,000		420,000	280,000	280,000	280,000	280,000	

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Facilities Engineering Projects - Collections - FE-Collect**		
Project Category	**Collections Facilities**	**Project Status:**	**Revised**



Collections Facilities

Description
This budget provides funds for miscellaneous collection facilities small capital projects. A small capital project is defined as a miscellaneous capital improvement related to plant safety, reliability, or improvements where the professional design consulting services are less than $100,000. This project acts as an annual budget placeholder for numerous small collection facilities projects. This system results in a fast-track process for the procurement and execution of engineering and contractor services for smaller, but vital projects.

Justification
The Collection Facilities Engineering project allows smaller capital projects to extend the life of the existing treatment works and extend the time between major rehabilitations. These smaller, high priority projects are individually tracked within the larger budget for procurement of engineering and contractor services as needed to maintain reliable operations.

The project budget has been increased from $7,650,000 to $7,920,000 to reflect the revised project cost estimate.

The project's construction cost budget is $4,363,923.

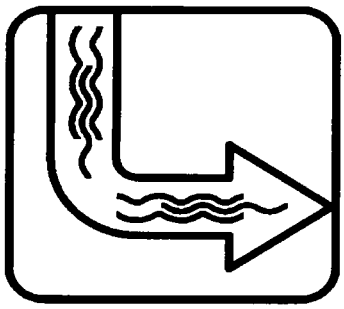
This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	264,000	264,000						
Preliminary Design	30,000	30,000						
Design	2,087,000	948,000	232,000	241,000	110,000	57,000	54,000	445.000
Const. & Installation	5,495,000	1,436,000	960,000	991,000	426,000	204,000	200,000	1.278.000
Commission	24,000	24,000						
Close-Out	20,000	20,000						
Contingency								
Total	7,920,000	2,722,000	1,192,000	1,232,000	536,000	261,000	254,000	1,723,000

Reimbursable Costs N/A

Project Name & Number	Replacement of the Ellis Ave. Pump Stn - I-10		
Project Category	Collections Facilities	Project Status:	Revised



Collections Facilities

Description
This project will construct a new pump station, 66" gravity sewer, and 48" forcemain to replace the existing Ellis Avenue Pump Station and forcemain. The existing station, used to divert flow from upstream of Plant No. 2 to Plant No. 1, is rated for only 10 mgd, receiving flow only from the Magnolia Trunk. The new pump station is to be rated for 50 mgd and will receive flows from the Magnolia and Knott trunk sewers and discharge to the P1 Headworks.

Justification
The increase in diversion flows is necessary to balance flows between Plant No.1 and Plant No. 2. The additional flow will compensate for the diversion of the Santa Ana River Interceptor (SARI) flow from Plant No.1 to Plant No. 2. Diversion of the SARI flow is required due to ongoing reclamation at Orange County Water District's Water Factory 21 to minimize future treatment capital improvements at both plants. Flows from the Magnolia and Knott trunk sewers are required to make up the shortfall from the diversion of the SARI. Thus, a new station and forcemain are required. The pump station will also be used to divert flows during the commissioning of the Headworks Replacement Project at Plant No. 2, Job No. P2-66.

The project budget has been decreased from $78,507,720 to $77,256,577 to reflect the revised project cost estimate.

The project's construction cost budget is $59,930,922.

This project will increase operational budgets by $280,000 annually.

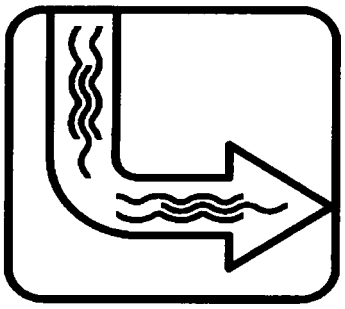
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	152,000	152,000						
Preliminary Design	3,490,000	3,490,000						
Design	3,151,000	3,151,000						
Const. & Installation	67,068,000	49,985,000	17,083,000					
Commission	470,000	14,000	456,000					
Close-Out	252,000	14,000	184,000	54,000				
Contingency	2,674,000			2,674,000				
Total	77,257,000	56,806,000	17,723,000	2,728,000				

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Bushard Trunk Sewer Rehabilitation - I-2-4**		
Project Category	**Collections Facilities**	**Project Status:**	**Revised**



Collections Facilities

Description
This project will replace approximately 21,500 feet of existing 54-inch reinforced concrete pipe (RCP) sewer with 21,500 feet of 108-inch RCP sewer in Bushard Avenue from Ellis Avenue to Plant No. 2. The project will address both structural deficiencies and future capacity requirements.

Justification
This project was identified in the 1999 Strategic Plan to replace and/or rehabilitate the existing 54-inch diameter sewer in Bushard Avenue from Ellis Avenue to Plant No. 2. The existing 54-inch Bushard Trunk has severe deterioration on the interior walls of the previously unlined reinforced concrete sewer pipeline. This pipeline is a main trunk sewer line that flows directly into Treatment Plant No. 2 and can receive flow redirected from other trunk lines. It also receives flow directly from the Magnolia Trunk Sewer, making it a critical facility. The 1999 Strategic Plan also recommends diverting Knott Interceptor flows into this line. These diversions will relieve overloading on the Interplant Trunk Sewer.

The project budget has been increased from $68,395,885 to $68,757,000 to reflect the revised project cost estimate.

The project's construction cost budget is $50,934,495.

This project will not have a net impact on operational budgets.

Budget Projections

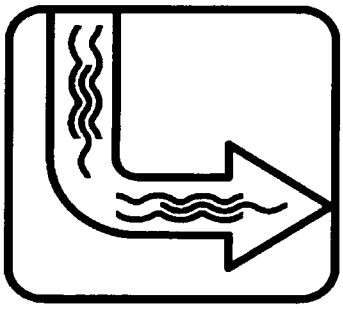
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	74,000	74,000						
Preliminary Design	9,000	9,000						
Design	2,178,000	2,178,000						
Const. & Installation	64,416,000	64,416,000						
Commission	308,000	308,000						
Close-Out	198,000	134,000	64,000					
Contingency	1,574,000		1,574,000					
Total	68,757,000	67,119,000	1,638,000					

Reimbursable Costs $475,000

Project Name & Number	Los Alamitos Blvd. Sewers Condition Assessment - SP-126		
Project Category	Collections Facilities	Project Status:	Continuing

Description
This project will conduct an extensive condition assessment of the three sewers in Los Alamitos Boulevard to determine the extent of the existing damage to the sewers, better estimate the timing for needed repairs, and recommend the most cost effective method of rehabilitation.

Justification
In 2006, closed-circuit television (CCTV) work was conducted on these lines in response to sinkholes forming in Los Alamitos Boulevard. The tapes indicate that groundwater and soil are infiltrating into these pipes.



Collections Facilities

Budget Projections

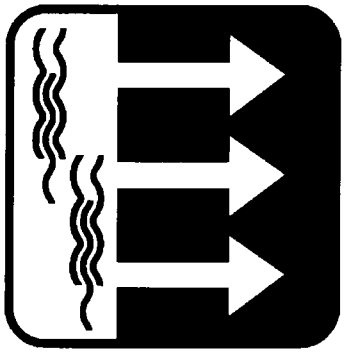
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	350,000		350,000					
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	350,000		350,000					

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Headworks Rehabilitation/Refurbishment - P1-71**
Project Category	**Headworks**

Project Status: **Continuing**



Description
This project replaces the variable frequency drive (VFD) units for the Reclamation Plant No. 1 (Plant No. 1) headworks pumps, which have reached the end of their service life. These units control the speed of the pump motors to accommodate various flow conditions. The items of work include the VFD units, cable tray clean up, new conduit and wiring from the VFDs to the pumps and modifications to Power Building 3A.

Justification
The headworks pumps are critical pieces of equipment. They move wastewater into the plant and prevent flooding in the collection system. The VFD drive units have reached the end of their service life and must be replaced. The vendor has discontinued the manufacture of replacement parts jeopardizing the Sanitation District's ability to keep them operational. Each pump will be out of service at some point during construction, temporarily reducing the plant reliability.

The project budget has been increased from $9,156,399 to $11,024,341 to reflect the revised project cost estimate.

The project's construction cost budget is $6,600,000.

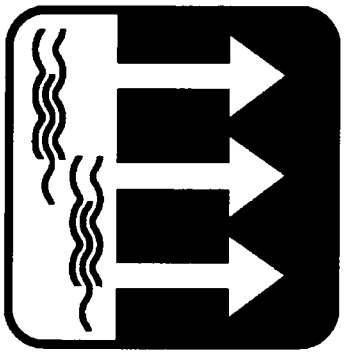
This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	112,000	112,000						
Preliminary Design	481,000	481,000						
Design	1,107,000	1,095,000	12,000					
Const. & Installation	8,386,000	12,000	3,020,000	5,354,000				
Commission	212,000			212,000				
Close-Out	125,000			125,000				
Contingency	601,000			601,000				
Total	11,024,000	1,700,000	3,032,000	6,292,000				

Reimbursable Costs N/A

Project Name & Number	Headworks Improvements at Plant No. 2 - P2-66		
Project Category	Headworks	Project Status:	Revised



Description
This project will replace the existing headworks at Plant No. 2 and will include the following components: influent diversion and metering structure, bar screens, influent pump station, vortex grit chambers, primary influent splitter and metering structure, ferric chloride feed facilities, headworks and trunk line odor control facilities, screenings handling building including Hycor washer/compactors, grit handling building including cyclone classifiers, electrical building and standby power.

Justification
Many key components of the headworks facilities at Plant No. 2 are old and are in need of replacement. Most of the gates are in need of replacement and several have already failed. A metering and diversion structure is necessary to allow calibration and maintenance of the meters. The bar screens and grit chambers are also inefficient and grit screenings are passing into the downstream processes causing increased O&M costs. Space within the existing headworks facility is very limited and modifications for rehabilitation would have been difficult or infeasible to implement.

The project budget has been decreased from $257,761,600 to $254,497,702 to reflect the revised project cost estimate.

The project's construction cost budget is $193,141,700.

This project will not have an impact on operational budgets.

Budget Projections

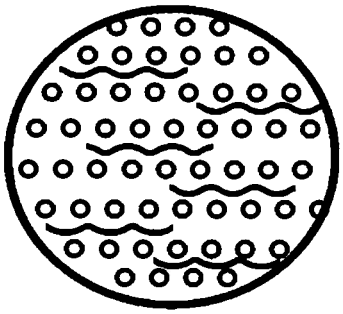
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	64,000	64,000						
Preliminary Design	3,904,000	3,904,000						
Design	14,992,000	14,992,000						
Const. & Installation	219,014,000	177,156,000	25,751,000	9,809,000	5,964,000	334,000		
Commission	8,580,000	16,000		3,391,000	5,173,000			
Close-Out	218,000	2,000			8,000	208,000		
Contingency	7,726,000					7,726,000		
Total	254,498,000	196,134,000	25,751,000	13,200,000	11,145,000	8,268,000		

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Primary Treatment Rehab/Refurb - P2-80		
Project Category	Primary Treatment	Project Status:	Continuing

Description
This project replaces the existing sludge pumps with new sludge pumps and grinders in order to provide a more uniform sludge to the digesters. In addition, this project upgrades the scum system and provides for rehabilitation and refurbishment of the concrete and steel in the primary clarifiers.



Primary Treatment

Justification
The replacement of the sludge pumps with new sludge pumps and grinders is required in order to support the new sludge feed system being installed as part of project P2-91. The installation of this new system will increase reliability of the sludge system. In addition, the upgrade to the scum system and the concrete and steel repairs will provide better operability and reliability of the primary clarifiers.

The project's construction cost budget is $20,712,500.

This project will not have an impact on operational budgets.

Budget Projections

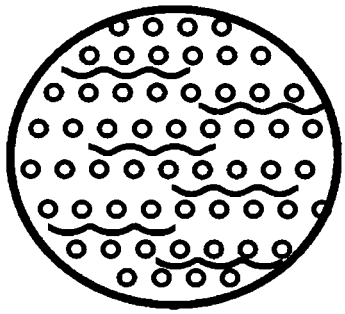
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	148,000	148,000						
Preliminary Design	2,937,000	2,937,000						
Design	5,800,000	5,800,000						
Const. & Installation	25,324,000	6,045,000	15,789,000	3,490,000				
Commission	1,135,000	249,000	577,000	309,000				
Close-Out	104,000			104,000				
Contingency	1,782,000			1,782,000				
Total	37,230,000	15,179,000	16,366,000	5,685,000				

Reimbursable Costs N/A

Project Name & Number	Primary Effluent Pump Stations Reliability Study - SP-130		
Project Category	Primary Treatment	Project Status:	New

Description
This project will evaluate each primary effluent pumping station to determine the most cost effective method to ensure compliance with secondary treatment standards after 2012.

Justification
The existing treatment plants were designed to allow primary effluent discharges to the ocean. After 2012, under secondary treatment standards, these pumping stations must operate constantly and reliably. Specifically, the study will need to address power and electrical systems that can trip offline during power spikes and dips.



Primary Treatment

Budget Projections

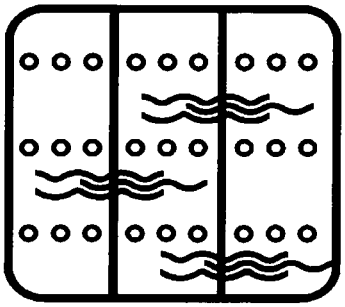
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	100,000		100,000					
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	100,000		100,000					

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	New Secondary Treatment System at Plant No. 1 - P1-102		
Project Category	Secondary Treatment	Project Status:	Revised

Description
This project expands secondary treatment facilities at Reclamation Plant No. 1 (Plant No. 1) to meet secondary treatment standards. This project includes construction of aeration basins, clarifiers, a blower building, and return/waste sludge pumping stations for additional secondary treatment capacity of 60 MGD at Plant No. 1. This project is part of the Secondary Treatment Standards Program. The activated sludge process was chosen as the most cost effective process to achieve secondary standards and allow future reclamation activities at Plant No. 1.



Secondary Treatment

Justification
This project is necessary to support the Sanitation District's July 17, 2002 decision to meet secondary treatment standards. This project will enable Plant No. 1 to meet secondary standards by increasing secondary treatment capacity by 60 MGD. Two Secondary Expansion Consent Decree dates for the project have been established in 2006 and 2012 with penalties of up to $27,000 per day, if the deadlines are not met.

The project budget has been decreased from $266,789,131 to $265,862,859 to reflect the revised project cost estimate.

The project's construction cost budget is $201,904,000.

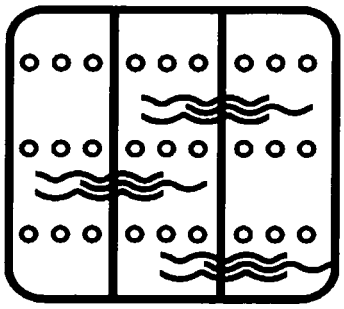
This project will increase operational budgets by $4,000,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	140,000	140,000						
Preliminary Design	5,257,000	5,257,000						
Design	13,047,000	13,047,000						
Const. & Installation	230,605,000	95,064,000	100,050,000	21,474,000	13,027,000	990,000		
Commission	3,235,000				3,039,000	196,000		
Close-Out	430,000					430,000		
Contingency	13,149,000					13,149,000		
Total	265,863,000	113,508,000	100,050,000	21,474,000	16,066,000	14,765,000		

Reimbursable Costs N/A

Project Name & Number	Activated Sludge Plant Rehabilitation - P1-82		
Project Category	Secondary Treatment	Project Status:	Continuing



Description
This project will rehabilitate activated sludge secondary treatment facilities at Plant No. 1, including the following:
1) Rehabilitate Aeration Basin Influent Splitter Box, Step & Plug Flow Feed Gates;
2) Replace aeration piping and diffusers within the Step Feed Channels;
3) Replace RAS piping and improve RAS distribution;
4) Rehabilitate mixed liquor channel aeration piping and valves;
5) Rehabilitate Secondary Clarifiers 1-14 including replacement of chain and flight, cross collectors, drives, and stub shafts;
6) Provide standby power and rehabilitate/upgrade existing power supply to increase reliability/serviceability and to meet new codes and standards;
7) Add two new secondary clarifiers for improved reliability;
8) Incorporate J-42 reinvention ideas applicable to activated sludge; and
9) Incorporate J-25-4 electrical system improvements within process area.

Justification
The purpose of this project is to ensure that the existing activated sludge plant can operate at its design capacity with a high degree of reliability. By replacing equipment that has reached the end of its useful life and by restoring the entire process facility, the District will be able to reliably treat the amount of wastewater required by its permittees and those relying on the supply of secondary treated water.

The project's construction cost budget is $33,623,168.

This project will not have an impact on operational budgets.

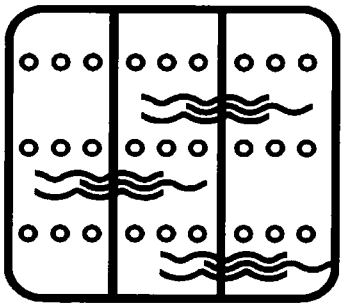
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	82,000	82,000						
Preliminary Design	126,000	126,000						
Design	4,356,000	4,356,000						
Const. & Installation	39,468,000	39,468,000						
Commission	804,000	804,000						
Close-Out	191,000	161,000	30,000					
Contingency	1,106,000		1,106,000					
Total	46,133,000	44,997,000	1,136,000					

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Rehabilitation of Activated Sludge Plant at Plant 2 - P2-74		
Project Category	Secondary Treatment	Project Status:	Revised



Description
This project rehabilitates secondary treatment facilities at Plant No. 2 to provide reliable secondary treatment. This project includes replacement of major mechanical equipment items (gates, valves, operators, impeller blades, piping, etc.) that have begun to fail or are at the end of their useful life, relines the large diameter pipes that convey wastewater to the activated sludge plant, adds odor control to the aeration basin splitter box, installs bleach pipelines and injection points, and replaces and upgrades instrumentation and controls.

Justification
This secondary plant was constructed in 1982. Much of the mechanical equipment has exceeded its useful life and is in need of rehabilitation. The required modifications will increase reliability during operations at secondary treatment standards. This project is also necessary to support the Orange County Sanitation District's July 17, 2002 decision to meet secondary treatment standards. This project will enable Plant No. 2 to meet secondary standards by increasing reliability of the existing activated sludge plant. This project has one Secondary Expansion Consent Decree date for construction completion in 2009 with penalties of up to $27,000 per day if the deadline is not met.

The project budget has been decreased from $17,305,626 to $16,400,525 to reflect the revised project cost estimate.

The project's construction cost budget is $10,300,000.

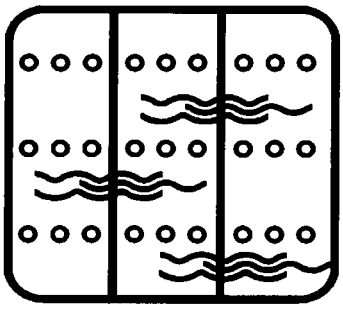
This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	310,000	310,000						
Preliminary Design	208,000	208,000						
Design	2,435,000	2,435,000						
Const. & Installation	12,750,000	12,750,000						
Commission	515,000	515,000						
Close-Out	60,000	22,000	38,000					
Contingency	123,000		123,000					
Total	16,401,000	16,240,000	161,000					

Reimbursable Costs N/A

Project Name & Number	Trickling Filters at Plant No. 2 - P2-90		
Project Category	Secondary Treatment	Project Status:	Continuing



Description
This project expands secondary treatment facilities at Treatment Plant No. 2 to meet secondary treatment standards. This project includes construction of three trickling filters, a solids contact basin, and six clarifiers for additional secondary treatment capacity of 60 MGD at Plant No. 2. This project is part of the Secondary Standards Program. The trickling filter/solids contact process was chosen after preliminary design as the most cost effective process to achieve secondary standards at Plant No. 2.

Justification
This project is necessary to support the Sanitation District's July 17, 2002 decision to meet secondary treatment standards. This project will enable Plant No. 2 to meet secondary standards by increasing secondary treatment capacity by 60 MGD. Two Secondary Expansion Consent Decree dates have been established for this project, in 2007 and 2011, with penalties of up to $27,000 per day, if the deadlines are not met.

The project's construction cost budget is $181,000,000.

This project will increase operational budgets by $3,290,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	294,000	294,000						
Preliminary Design	3,474,000	3,474,000						
Design	8,831,000	8,831,000						
Const. & Installation	198,109,000	39,380,000	73,660,000	56,872,000	28,197,000			
Commission	2,530,000				2,530,000			
Close-Out	732,000				281,000	431,000	20,000	
Contingency	7,222,000						7,222,000	
Total	221,192,000	51,979,000	73,660,000	56,872,000	31,008,000	431,000	7,242,000	

Reimbursable Costs N/A

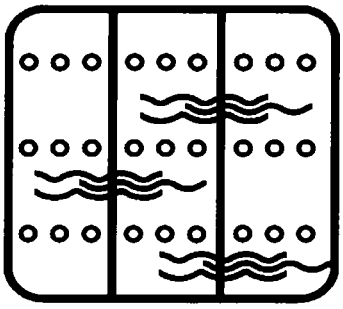
2008-09 & 2009-10 Budget

Project Name & Number	**Oxygen Plant Rehabilitation at Plant No. 2 - SP-129**
Project Category	**Secondary Treatment**

Project Status: **New**

Description
This project will rehabilitate the deteriorating oxygen plant at Plant No. 2. This includes general repairs and upgrades to the instrumentation and controls and the oxygen plant generating equipment.

Justification
O&M recently prepared an evaluation of the oxygen plant in response to repairs needed at the plant. The resulting report identified the scope and magnitude of the needed repairs. Also, these repairs are needed to allow for the next solicitation for services to operate the facility after the existing contract expires.



Secondary Treatment

Budget Projections

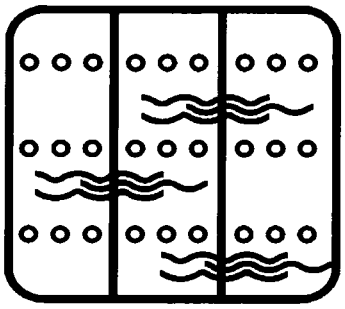
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev								
Preliminary Design	94,000		94,000					
Design	433,000		433,000					
Const. & Installation	1,639,000			1,639,000				
Commission	41,000			41,000				
Close-Out	16,000			16,000				
Contingency	277,000			277,000				
Total	2,500,000		527,000	1,973,000				

Reimbursable Costs N/A

Project Name & Number	Oxygen Plant Rehabilitation - SP-72-1		
Project Category	Secondary Treatment	Project Status:	Continuing

Description
Under this project, an assessment will be conducted to identify the rehabilitation/upgrade needs of the various elements of the cryogenic oxygen plant including the cold box, the main air compressor and the cooling water systems. All necessary upgrades and repairs to the cryogenic plant as identified from this project, will be done as part of CIP project - SP-129.

Justification
In fiscal year 2009-10 when the District's private Operations and Maintenance Agreement with Air Products and Chemicals Inc. expires, the Oxygen Generation Facility will be over 25 years old and many of the major pieces of equipment will have reached the end of their useful life.



Secondary Treatment

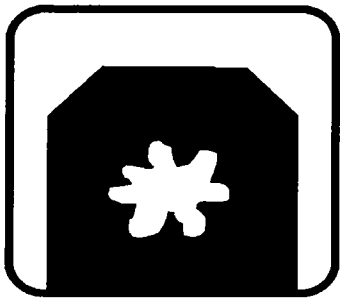
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev								
Preliminary Design								
Design								
Const. & Installation	150,000	30,000	120,000					
Commission								
Close-Out								
Contingency								
Total	150,000	30,000	120,000					

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Sludge Digester Rehabilitation at Plant 1 - P1-100		
Project Category	Solids Handling & Digestion	Project Status:	Revised



Solids Handling & Digestion

Description
The project rehabilitates Digesters No. 5 through No. 16 at Plant No. 1 to replace aging equipment and improve solids handling capacity. The equipment rehabilitation includes sludge pumping, heating, structural systems, mechanical systems, and electrical and control systems.

Justification
This project is needed in order to handle the additional solids produced by the New Secondary Treatment System at Plant No. 1, Job No. P1-102, which is necessary to support the Orange County Sanitation District's July 17, 2002 decision to meet secondary treatment standards. Job No. P1-102 has two Secondary Expansion Consent Decree dates established that could result in penalties and fines of up to $27,000 per day. Thus, this project is considered a vital component of the Sanitation District's Capital Improvement Program. Additional solids handling capacity will be needed at Plant No. 1 to accommodate the increased sludge volumes from expanded secondary treatment operations.

The project budget has been increased from $56,410,258 to $60,397,763 to reflect project scope changes and the revised project cost estimate.

The project's construction cost budget is $42,500,000.

This project will increase operational budgets by $400,000 annually.

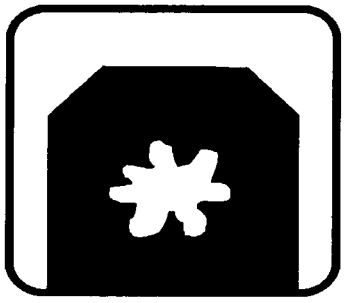
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	218,000	218,000						
Preliminary Design	3,062,000	3,062,000						
Design	3,605,000	2,315,000	1,290,000					
Const. & Installation	48,415,000		69,000	8,668,000	29,660,000	9,877,000	141,000	
Commission	717,000				373,000	344,000		
Close-Out	130,000					43,000	87,000	
Contingency	4,250,000						4,250,000	
Total	60,397,000	5,595,000	1,359,000	8,668,000	30,033,000	10,264,000	4,478,000	

Reimbursable Costs N/A

Project Name & Number	Sludge Dewatering and Odor control at Plant 1 - P1-101		
Project Category	Solids Handling & Digestion	Project Status:	Continuing

Description
This project constructs primary sludge thickening facilities to improve solids handling capacity, replaces sludge dewatering facilities to replace aging equipment and reduce biosolids handling and disposal, rehabilitates solids handling odor control equipment to replace aging equipment, and temporarily expands sludge dewatering facilities to accommodate temporary construction needs.



Solids Handling & Digestion

Justification
This project is needed in order to handle the additional solids produced by the New Secondary Treatment System at Plant No. 1, Job No. P1-102, which is necessary to support the Orange County Sanitation District's July 17, 2002 decision to meet secondary treatment standards. Job No. P1-102 has two Secondary Expansion Consent Decree dates established that could result in penalties and fines of up to $27,000 per day. Thus, this project is considered a vital component of the Sanitation District's Capital Improvement Program.

The project's construction cost budget is $101,903,000.

This project will increase operational budgets by $1,600,000 annually.

Budget Projections

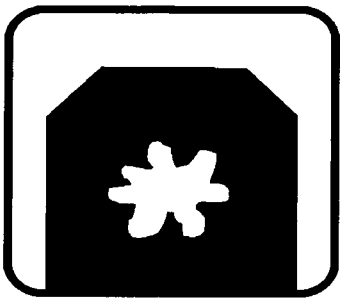
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	399,000	399,000						
Preliminary Design	6,631,000	6,631,000						
Design	11,503,000	1,981,000	7,603,000	1,919,000				
Const. & Installation	113,043,000	2,000		158,000	14,934,000	62,843,000	32,177,000	2.929.000
Commission	1,442,000						998,000	444.000
Close-Out	163,000							163.000
Contingency	10,366,000							10.366.000
Total	143,547,000	9,013,000	7,603,000	2,077,000	14,934,000	62,843,000	33,175,000	13,902,000

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Truck Wash and Dewatering Beds at Plant No. 1 - P1-106		
Project Category	Solids Handling & Digestion	Project Status:	Continuing

Description
This project will relocate the several sludge drying beds that are scheduled to be demolished as the Orange County Sanitation District expands its secondary treatment capacity. The new drying beds will be located south of the existing drying beds. The project will also install a truck washing station to allow the Sanitation District and local sewering agencies to clean their trucks after dumping grit and sand collected from the regional and local sewer systems into the drying beds.



Solids Handling & Digestion

Justification
These facilities are being demolished to make room for the expanded secondary treatment works. They are vital parts of the treatment system, and must be replaced to maintain plant operations. The drying beds are also used by the Sanitation District and local sewering agencies to dewater sand and grit removed from the collection system during cleaning operations. After the material is dewatered, it is transported to a landfill. These beds also store sludge removed from Biosolids hauling trucks that were overloaded or begin leaking during the truck loading process. The truck washing station allows for the cleaning of trucks which have dumped into the drying beds to ensure cleanliness and to reduce odors.

The project's construction cost budget is $1,950,000.

This project will not have an impact on operational budgets.

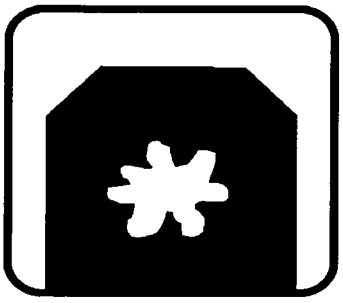
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	76,000	76,000						
Preliminary Design	188,000	188,000						
Design	280,000	280,000						
Const. & Installation	2,405,000	2,395,000	10,000					
Commission	51,000	51,000						
Close-Out	30,000	6,000	24,000					
Contingency	116,000		116,000					
Total	3,146,000	2,996,000	150,000					

Reimbursable Costs N/A

Project Name & Number	Solids Thickening and Processing Upgrades - P2-89		
Project Category	Solids Handling & Digestion	Project Status:	Revised

Description
This project will provide sludge thickening treatment to treat the current Activated Sludge Plant solids as well as the additional solids that will be generated from the new secondary TF/SC process. This project is still in the Project Development phase, and the sludge thickening treatment is yet to be decided. Options include upgrades to the existing Dissolved Air Floatation Thickeners (DAFTs) or construction of new centrifuges. This project will also convert "holding" digesters into "working" digesters to also accommodate the increased production of sludge coming from the new secondary TF/SC process.



Justification
This project is required to accommodate the additional sludge handling that will be generated from the Trickling Filters at Plant No. 2, Job No. P2-90, which is necessary to support the Sanitation District's July 17, 2002 decision to meet secondary treatment standards. This additional sludge volume will exceed the available capacity of the existing operational Dissolved Air Floatation Thickeners (DAFTs) and digesters. Thus, this project is considered a vital component of the Sanitation District's Capital Improvement Program.

The project budget has been increased from $23,143,364 to $73,020,000 to reflect project scope changes and the revised project cost estimate.

The project's construction cost budget is $46,000,000.

The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	164,000	164,000						
Preliminary Design	910,000	303,000	607,000					
Design	3,168,000		1,134,000	1,983,000	51,000			
Const. & Installation	58,835,000				1,000,000	1,000,000	10,369,000	46.466.000
Commission	619,000						333,000	286.000
Close-Out	124,000						18,000	106.000
Contingency	9,200,000							9.200.000
Total	73,020,000	467,000	1,741,000	1,983,000	1,051,000	1,000,000	10,720,000	56,058,000

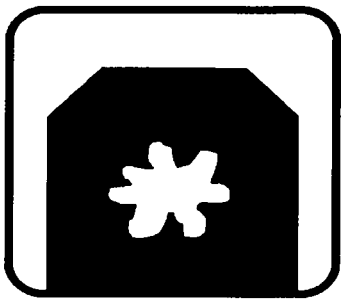
Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Plant No. 2 Primary Sludge Feed System Project - P2-91		
Project Category	Solids Handling & Digestion	Project Status:	Continuing

Description
This project provides piping at Plant No. 2 to interconnect the primary sludge systems and digesters feed system. Also a new sludge blending facility is being constructed to provide more consistent sludge to the digesters.

Justification
At Plant No. 2, there are three groups of clarifiers. Each group, called a "bank" is directly connected to a small group of digesters. Currently, there are no provisions to feed sludge from one bank of clarifiers to the other banks of digesters. Moreover, during maintenance, repairs, and plant upsets the banks limit the amount of treatment plant capacity because the digester banks can become overloaded. This project will install piping to route primary sludge from any clarifier bank to another digester bank.



Solids Handling & Digestion

The project's construction cost budget is $16,314,500.

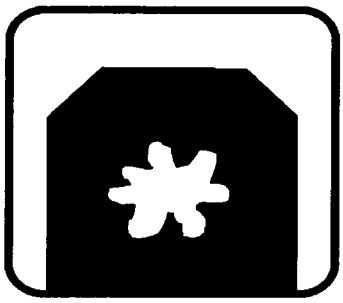
This project will increase operational budgets by $110,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	619,000	619,000						
Preliminary Design	1,606,000	1,606,000						
Design	2,312,000	2,312,000						
Const. & Installation	19,354,000	4,990,000	12,441,000	1,923,000				
Commission	445,000			445,000				
Close-Out	58,000			58,000				
Contingency	1,372,000			1,372,000				
Total	25,766,000	9,527,000	12,441,000	3,798,000				

Reimbursable Costs N/A

Project Name & Number	Digester Rehabilitation at Plant No. 2 - P2-91-1		
Project Category	Solids Handling & Digestion	Project Status:	Revised



Description
This project rehabilitates digester facilities at Plant No. 2 to replace aging equipment, increase operational flexibility, and restore solids handling capacity. This includes Digesters C, D, E, F, G, H, P, Q, R, S and T. The scope includes the following: digester cleaning; lining of the digester walls; replacement of ferric chloride lines, steam system, hot water system, view ports, access covers, and flame arresters; and addition of digester feed flow meters, digester feed piping, in-line grinder pumps, and automated controls. The extent of the components to be rehabilitated, however, will be based on the results of the condition assessment and asset management evaluation completed as part of the P2-91 project.

Justification
This project is needed in order to handle the additional solids produced by the Trickling Filters at Plant No. 2, Job No. P2-90, which is necessary to support the Orange County Sanitation District's July 17, 2002 decision to meet secondary treatment standards. Job No. P2-90 has two Secondary Expansion Consent Decree dates established that could result in penalties and fines of up to $27,000 per day. Thus, this project is considered a vital component of the Sanitation District's Capital Improvement Program. Additional solids handling capacity will be needed at Plant No. 2 to accommodate the increased sludge volumes from expanded secondary treatment operations.

The project budget has been increased from $33,145,995 to $36,398,272 to reflect inflation due to postponement.

The project's construction cost budget is $23,885,277.

This project will not have an impact on operational budgets.

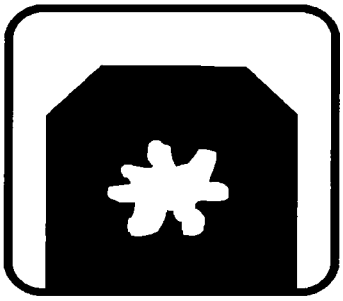
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	729,000	729,000						
Preliminary Design	768,000				52,000	295,000	421,000	
Design	2,555,000	2,000						2.553.000
Const. & Installation	27,179,000							27.179.000
Commission	844,000							844.000
Close-Out	196,000							196.000
Contingency	4,127,000							4.127.000
Total	36,398,000	731,000			52,000	295,000	421,000	34,899,000

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Replacement of Drying Beds and Truck Wash at Plant - P2-97		
Project Category	Solids Handling & Digestion	Project Status:	Revised



Solids Handling & Digestion

Description
This project is to construct two sludge drying beds and a truck washing facility at Plant No. 2. The area will be fenced and any drainage from the drying beds and truck wash will be directed to a nearby plant sewer. The new drying beds will be located near existing Digesters R and S. The project will also install a truck washing station to allow Sanitation District and local agency sewer cleaning crews to clean their trucks after disposing into the drying beds.

Justification
In 2005, the drying beds and truck wash facilities at Plant No. 2 were demolished to make room for the new headworks facility. Since that time, disposal, drying, and cleaning operations at Plant No. 2 have been supported by temporary facilities until new permanent facilities can be built. The drying beds and truck washing facilities are vital parts of the treatment system that must be replaced with permanent facilities to maintain regulatory compliance and plant operations. The drying beds will allow Sanitation District and local agency sewer cleaning crews to dispose of materials collected in the sewer system during cleaning operations.

The project budget has been decreased from $4,651,000 to $4,442,964 to reflect the revised project cost estimate.

The project's construction cost budget is $2,546,775.

This project will not have an impact on operational budgets.

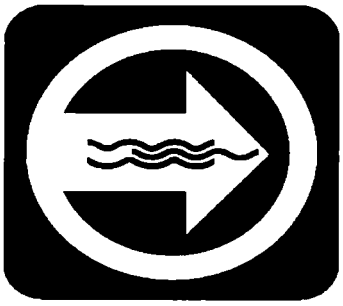
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	74,000	74,000						
Preliminary Design	261,000				58,000	203,000		
Design	389,000					158,000	231,000	
Const. & Installation	3,145,000						86,000	3.059.000
Commission	79,000							79.000
Close-Out	45,000							45.000
Contingency	450,000							450.000
Total	4,443,000	74,000			58,000	361,000	317,000	3,633,000

Reimbursable Costs N/A

Project Name & Number	Final Effluent Sampler and Building Area Upgrades - J-110		
Project Category	Ocean Outfall Systems	Project Status:	New

Description
This project will renovate, replace, or demolish facilities surrounding the final effluent sample trailer. These facilities need significant renovations due to age and exposure to ocean air. This includes replacement of the final effluent sampler pumping and sampling systems, sampling trailer, adjacent unused buildings, and the ocean sample storage building, and landscaping.



Justification
Several repairs and upgrades have been attempted to correct deficient sampling equipment. Similarly, a number of repairs have been made to existing structures. Those past projects have extended the life of the equipment and structures, however, those past repairs are now at the end of their useful lives too. Thus, the buildings and equipment need large-scale renovations and replacement. Also, other structures are not used anymore and have fallen into disrepair, or are unsightly.

This project will not have an impact on operational budgets.

The construction budget for the project is $1,000,000.

Budget Projections

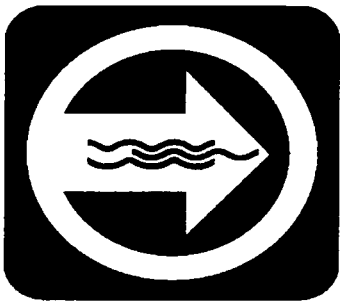
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	16,000		16,000					
Preliminary Design	67,000		67,000					
Design	313,000			313,000				
Const. & Installation	1,238,000			619,000	619,000			
Commission	39,000					39,000		
Close-Out	17,000					17,000		
Contingency	200,000					200,000		
Total	1,890,000		83,000	932,000	619,000	256,000		

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Effluent Pumping Station Annex - J-77		
Project Category	Ocean Outfall Systems	Project Status:	Continuing

Description
This project will construct a new Effluent Pumping Station at Plant No. 2 to replace the existing Foster Pump Station. The project addresses deficiencies in the existing Foster Pump Station and will be designed to meet pumping requirements for peak flow events. The new pump station will be capable of providing back-up to the Ocean Outfall Booster Station (OOBS) and of pumping secondary effluent exclusively through the existing 78-inch outfall during peak flow emergencies. The project is in the construction phase and is expected to be completed by August 2008.



Justification
The existing Foster Pump Station is not capable of serving as standby to the Ocean Outfall Booster Station (OOBS). An analysis was prepared comparing pump station upgrade with replacement. The cost to completely replace the Foster Pump Station was estimated to be within 3% of upgrade costs for this facility. Therefore, a new Effluent Pump Station Annex (EPSA) was designed to replace Foster Pump Station.

The project's construction cost budget is $44,597,334.

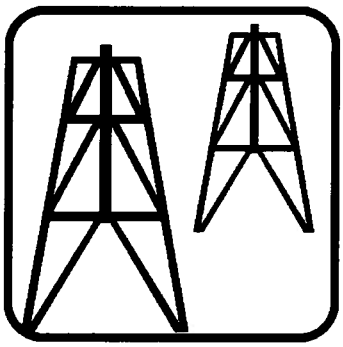
This project will increase operational budgets by $55,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	4,000	4,000						
Preliminary Design	62,000	62,000						
Design	4,588,000	4,588,000						
Const. & Installation	53,871,000	53,871,000						
Commission	685,000	685,000						
Close-Out	208,000	104,000	104,000					
Contingency	1,069,000		1,069,000					
Total	60,487,000	59,314,000	1,173,000					

Reimbursable Costs N/A

Project Name & Number	Interplant Gas Line Rehabilitation - J-106		
Project Category	Utility Systems	Project Status:	Continuing



Description
This project rehabilitates the Interplant Gas Line. The line transports digester gas between Reclamation Plant No. 1 (Plant No. 1) and Treatment Plant No. 2 (Plant No. 2). A liner will be installed within the existing pipe to protect the pipeline from corrosion, and to prevent future pipe failures.

Justification
The interplant gas line has suffered several corrosion related failures, and repairs were made in 2003. This pipeline falls under the requirements of the Department of Transportation (DOT) Office of Pipeline Safety. DOT is requiring that the Sanitation District demonstrate that the pipeline is sound. At this time, a complete inspection or sliplining is necessary to allow Sanitation District to demonstrate the status of the pipe to the DOT. The inspection requires costly mediations to the pipeline in order to determine the wall thickness of the pipe. This pipeline is regularly used to transport gas from Reclamation Plant No. 1 to avoid flaring gas. This is because Treatment Plant No. 2 has a larger electrical load and has more generating capacity than Plant No. 1.

The project's construction cost budget is $2,680,191.

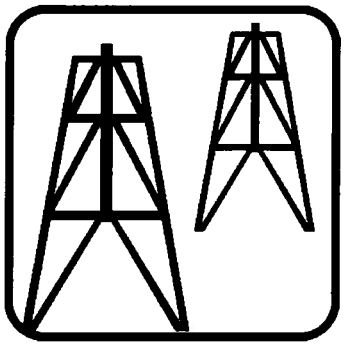
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	64,000	64,000						
Preliminary Design	192,000	192,000						
Design	251,000	165,000	86,000					
Const. & Installation	2,913,000	1,000	2,860,000	52,000				
Commission	26,000		18,000	8,000				
Close-Out	8,000			8,000				
Contingency	298,000			298,000				
Total	3,752,000	422,000	2,964,000	366,000				

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Cengen Cooling Water System Replacement - J-109		
Project Category	Utility Systems	Project Status:	Continuing



Description
This project will improve the efficiency of existing cooling system equipment at both plants. It will improve heat recovery from the Central Generation Engines and reduce water consumption by replacing the existing once-through cooling systems with a more efficient system.

Justification
This project will substantially reduce the amount of water consumed by process equipment/systems, resulting in an estimated savings of $500,000 annually. The district currently buys OCWD reclaimed water to cool mechanical equipment. This water is expensive and contains chemicals that damage equipment. The contract is set to expire in 2012. This project will eliminate the need to purchase reclaimed water due to use of a closed loop system with cooling towers.

The projects construction cost budget is $4,735,000.

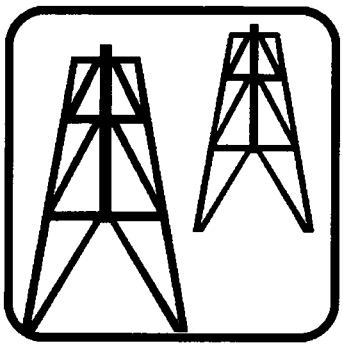
This Project will decrease operational budgets by $500,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	77,000	77,000						
Preliminary Design	320,000	61,000	259,000					
Design	1,480,000		449,000	994,000	37,000			
Const. & Installation	6,009,000				4,691,000	1,318,000		
Commission	184,000				6,000	178,000		
Close-Out	77,000					77,000		
Contingency	947,000					947,000		
Total	9,094,000	138,000	708,000	994,000	4,734,000	2,520,000		

Reimbursable Costs N/A

Project Name & Number	Cable Tray Improvements at Plants 1 & 2 - J-47		
Project Category	Utility Systems	Project Status:	Revised



Description
This project will rehabilitate electrical cable and cable tray systems at Plant Nos. 1 and 2. Cable trays are used to route power and control signal electrical cables between process areas, power buildings, and control centers. This project will bring cable tray systems, which are in urgent need of upgrade, into compliance with code requirements and will improve the operational safety and reliability of these systems. The project will also document power and control cables in the cable trays.

Justification
Treatment Plant Nos. 1 and 2 cable trays installed prior to 1987 do not comply with the current National Electrical Code (NEC). The Sanitation District did not require compliance with the NEC prior to 1987. This project will upgrade the older cable tray systems to comply with both current NEC and OSHA codes. These older cable trays are overloaded and contain wiring that is not designed for cable tray use and, as a result, are at risk for overheating and deteriorating due to environmental conditions. Overloaded trays do not allow heat to properly dissipate representing a fire hazard.

The project budget has been increased from $29,898,693 to $31,744,000 to reflect the revised project cost estimate.

The project's construction cost budget is $22,600,000.

This project will not have an impact on operational budgets.

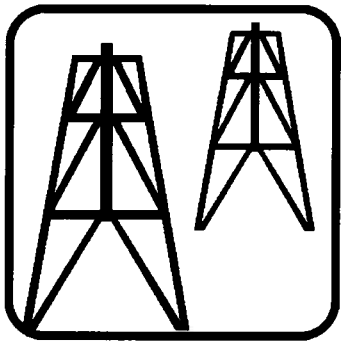
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	32,000	32,000						
Preliminary Design	3,416,000	3,416,000						
Design	285,000	285,000						
Const. & Installation	24,617,000	816,000	2,000	2,000	3,752,000	2,663,000	1,705,000	15.677.000
Commission	353,000	4,000						349.000
Close-Out	97,000	4,000						93.000
Contingency	2,944,000							2.944.000
Total	31,744,000	4,557,000	2,000	2,000	3,752,000	2,663,000	1,705,000	19,063,000

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Air Quality Improvements - J-79**		
Project Category	**Utility Systems**	**Project Status:**	**Continuing**



Description
This project evaluated options for modification of Central Generation Facilities, at Plants 1 & 2, to meet air emission standards. The project scope includes a study to determine the impacts that new air quality regulations have on existing power generation systems and evaluates the cost of upgrades necessary to meet the regulations. The project includes health risk assessments for Plants 1 & 2 for years 2006 and 2012, and eight outlying pump stations for the year 2006. The Consultant will also be conducting combustion and post combustion pilot testing for VOC reduction. The current scope of work includes a post combustion pilot study to evaluate technologies for reducing NOX, CO and VOC.

Justification
This project is necessary to maintain compliance with South Coast Air Quality Management District (SCAQMD) for continued operation of the central generation plants and renewal of the air quality permits for wastewater treatment Plant Nos. 1 & 2.

The project's construction cost budget is $2,338,431.

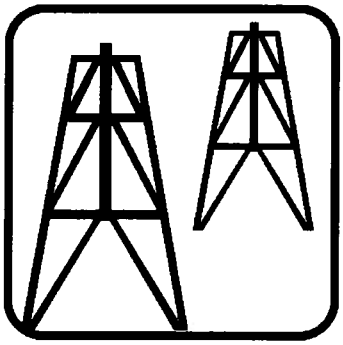
This project will increase operational budgets by $100,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	80,000	80,000						
Preliminary Design	417,000	417,000						
Design	5,521,000	3,794,000	128,000	1,599,000				
Const. & Installation	2,945,000	2,945,000						
Commission	2,000	2,000						
Close-Out	26,000	6,000	8,000	12,000				
Contingency	177,000			177,000				
Total	9,168,000	7,244,000	136,000	1,788,000				

Reimbursable Costs N/A

Project Name & Number	Central Generation Automation - J-79-1		
Project Category	Utility Systems	Project Status:	Revised



Description
The Project will replace the engine control systems (FT-100, FT-210) for the Central Generation Systems at Plant 1 & 2. The project will also provide improved electrical load management, operating communications between Plants 1 & 2, and improved control of exhaust emissions. A sub-project J-79-1A, will provide new CEMS units on each engine at both Plant No.1 and Plant No.2

Justification
The existing engine control systems are no longer manufactured or supported by the original equipment manufacturer and timely replacement of parts is not reliable. The existing controls do not provide emissions monitoring feedback signals to the engines for the control of exhaust emissions. The existing control system does not effectively manage electrical loads. The engines do not start or stop or vary loads automatically and can fail when utility power is lost. The new system will provide automatic load management capability, as well as emissions monitoring feedback signals for exhaust emissions control.

The project budget has been increased from $18,755,180 to $20,331,643 to reflect the revised project cost estimate.

The project's construction cost budget is $12,000,000.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	24,000	24,000						
Preliminary Design	815,000	815,000						
Design	1,589,000	1,589,000						
Const. & Installation	15,630,000	258,000	4,543,000	9,257,000	1,572,000			
Commission	1,042,000			719,000	323,000			
Close-Out	32,000				32,000			
Contingency	1,200,000				1,200,000			
Total	20,332,000	2,686,000	4,543,000	9,976,000	3,127,000			

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

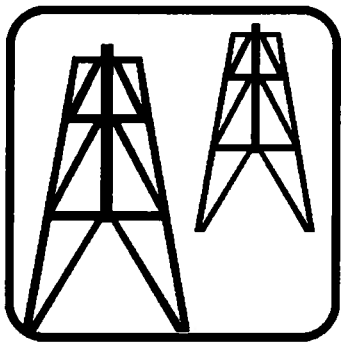
Project Name & Number	**Fire Suppression for Servers and Equip at P1 & P2 - J-96**		
Project Category	**Utility Systems**	**Project Status:**	**Continuing**

Description
This project replaces several wet fire suppression systems with an inert gas fire suppression system in IT critical areas at both Plants 1 & 2.

Justification
In the event of a fire, the currently installed wet-type fire suppression systems may cause significant damage to electronics equipment currently installed in the server, PBX and UPS rooms. If the fire suppression system is activated, damage to hardware and software may result in shutdown of the Sanitation District's electronic communications system with immediate impact to plant monitoring and control systems.

The project's construction cost budget is $609,933.

This project will not have an impact on operational budgets.

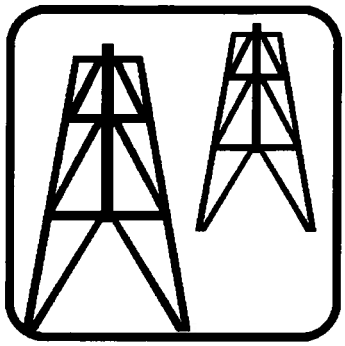


Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev								
Preliminary Design								
Design	265,000	265,000						
Const. & Installation	676,000	625,000	51,000					
Commission								
Close-Out								
Contingency	24,000		24,000					
Total	965,000	890,000	75,000					

Reimbursable Costs N/A

Project Name & Number	Power Building 3A Backup Power Reliability Project - P1-111		
Project Category	Utility Systems	Project Status:	New



Description
This project will ensure adequate standby generator capacity at the Plant No. 1, Power Building 3A (PB-3A). This may consist of installing additional generators, replacing the existing generators with larger generators, bringing in additional generation capacity from another power building, or moving some electrical loads off the existing generators. An initial study effort needs to be conducted to determine the best option, considering cost and reliability.

Justification
This project is needed to provide adequate power supply for a possible SCE power outage. Diesel generators are needed at PB-3A when SCE power is lost, because restoring power from Cengen may not occur quickly enough for the needs at PB-3A. Power from diesel generators can be provided within seconds. The Energy Master Plan has determined that recent increases in the loads connected to PB-3A result in a situation where the generators could be overloaded. Depending on the flow condition, a sewage spill in the collection system could occur within minutes if PB-3A is without power.

This project will not have an impact on operational budgets.

The construction budget for the project is $264,000.

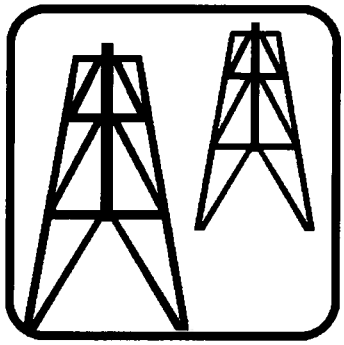
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	5,000		5,000					
Preliminary Design	19,000		19,000					
Design	82,000			82,000				
Const. & Installation	327,000				327,000			
Commission	11,000					11,000		
Close-Out	5,000					5,000		
Contingency	53,000					53,000		
Total	502,000		24,000	82,000	327,000	69,000		

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Plant 1 66kV Substation - P1-97		
Project Category	Utility Systems	Project Status:	Revised



Description
This project will replace the Reclamation Plant No. 1 (Plant No. 1) electrical service main from the Southern California Edison Company (Edison), to increase the capacity and reliability, and minimize costs. The voltage will increase from 12,470 Volts to 66,000 Volts. Edison will be supplying the service lines, metering and connection switches at the Sanitation District's expense.

Justification
This project is required for the New Secondary Treatment System at Plant No. 1, Job No. P1-102, which is necessary to support the Orange County Sanitation District's July 17, 2002 decision to meet secondary treatment standards. Job No. P1-102 has two Secondary Expansion Consent Decree dates established that could result in penalties and fines of up to $27,000 per day. Thus, this project is considered a vital component of the Sanitation District's Capital Improvement Program.

The project budget has been decreased from $15,892,540 to $14,779,987 to reflect the revised project cost estimate.

The project's construction cost budget is $11,945,440.

This project will decrease operational budgets by $750,000 annually.

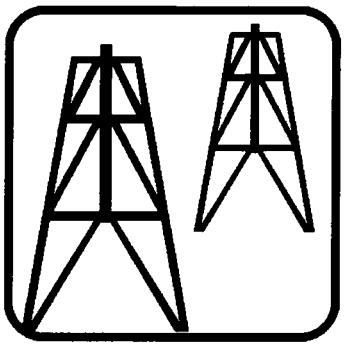
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	116,000	116,000						
Preliminary Design	24,000	24,000						
Design	953,000	953,000						
Const. & Installation	13,018,000	8,125,000	4,893,000					
Commission	241,000		202,000	39,000				
Close-Out	103,000		56,000	47,000				
Contingency	325,000			325,000				
Total	14,780,000	9,218,000	5,151,000	411,000				

Reimbursable Costs N/A

Project Name & Number	Plant Water System Rehabilitation at Plant No.2 - P2-101		
Project Category	Utility Systems	Project Status:	New

Description
This project will rehabilitate or replace deteriorating plant water pipe that is in need of replacement due to corrosion. This includes the valves that have become unserviceable or have exceeded their useful lives. The project will need to install temporary measures to ensure that the treatment plant maintains continuous operations during the repairs.



Justification
O&M recently prepared an evaluation of the plant water systems for each plant in response to an increasing number of emergency repairs to the plant water systems. The resulting report identified the scope and magnitude of the needed repairs. These repairs were packaged into the projects for each plant.

This project will not have an impact on operational budgets.

The construction budget for the project is $2,200,000.

Budget Projections

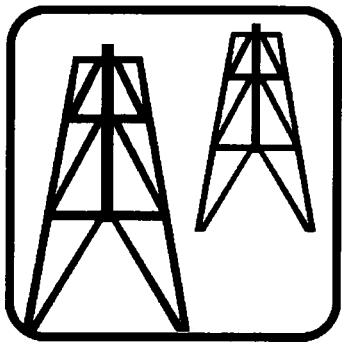
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	36,000		36,000					
Preliminary Design	148,000		148,000					
Design	689,000			689,000				
Const. & Installation	2,685,000				2,685,000			
Commission	75,000					75,000		
Close-Out	35,000					35,000		
Contingency	440,000					440,000		
Total	4,108,000		184,000	689,000	2,685,000	550,000		

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Solids Area Cable Tray Improvements at Plant No. 2 - P2-104**
Project Category	**Utility Systems**

Project Status: **Continuing**



Description
This project will rehabilitate electrical cable and cable tray systems in the solids area of Plant No. 1. This includes bringing the cable tray systems, which are in urgent need of upgrade, into compliance with code requirements and will improve the operational safety and reliability of these systems. The project will also document power and control cables in the cable trays.

Justification
Treatment Plant Nos. 1 and 2 cable trays installed prior to 1987 do not comply with the current National Electrical Code (NEC). The Sanitation District did not require compliance with the NEC prior to 1987. This project will upgrade the older cable tray systems to comply with both current NEC and OSHA codes. These older cable trays are overloaded and contain wiring that is not designed for cable tray use and, as a result, are at risk for overheating and deteriorating due to environmental conditions. Overloaded trays do not allow heat to properly dissipate representing a fire hazard.

The construction budget is $4,500,000.

Budget Projections

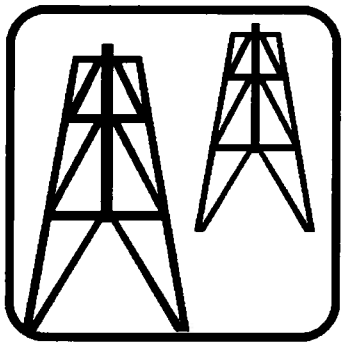
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev								
Preliminary Design								
Design								
Const. & Installation	5,458,000		2,729,000	2,729,000				
Commission	175,000			175,000				
Close-Out	73,000			55,000	18,000			
Contingency	450,000				450,000			
Total	6,156,000		2,729,000	2,959,000	468,000			

Reimbursable Costs N/A

Project Name & Number	Fuel Cell Feasibility Study - SP-132		
Project Category	Utility Systems	Project Status:	New

Description
This project will further develop costing information and layouts for large fuel cell facilities. This will include researching grant funding opportunities, developing lifecycle costs and layouts, defining utility requirements, and evaluating increased efficiency impacts to OCSD facilities. Several options should be developed to look at phased replacements and options that may also comply with existing and proposed air quality regulations affecting the existing Central Generation internal combustions engines.

Justification
Recent grants for multi-megawatt facilities have become available; also several improvements have been made in the technology. Both of these items may allow a future alternative to costly air quality upgrades to the existing internal combustion engines.



Utility Systems

Budget Projections

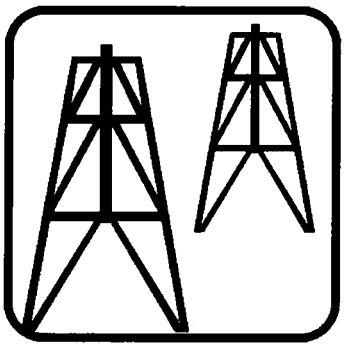
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	100,000		100,000					
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	100,000		100,000					

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Fuel Cell Hydrogen Gas Generation Research - SP-134		
Project Category	Utility Systems	Project Status:	New

Description
This project is a collaborative project between UCI, California Department of Transportation, Air Products, and Fuel Cell Technologies to create hydrogen gas from OCSD's digester gas and provide a mobil hydrogen auto fueling station at Plant No.1. OCSD's portion of the larger project is for the installation of utilities and site preparation for the equipment at Plant No. 1.



Justification
OCSD Staff has indicated to UCI and several partnering technology vendors that a test could be conducted using digester gas at Plant No.1. There is an increased power generation efficiency associated with Fuel Cell technology that is estimated to offset the diversion of digester gas from the Central Generation station. Thus, the scope of this effort is to operate a Fuel Cell to create power and heat for OCSD, but hydrogen gas will be extracted from the unit and used at an onsite hydrogen car fueling station.

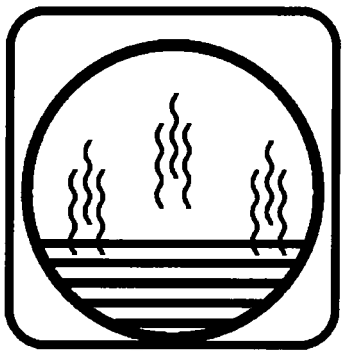
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	4,000		4,000					
Preliminary Design	18,000		18,000					
Design	82,000		82,000					
Const. & Installation	328,000		164,000	164,000				
Commission	11,000			11,000				
Close-Out	4,000			4,000				
Contingency	53,000			53,000				
Total	500,000		268,000	232,000				

Reimbursable Costs N/A

Project Name & Number	Rehabilitation of Odor Control Facilities - J-71-8		
Project Category	Odor Control Related Projects	Project Status:	Revised

Description
This project rehabilitates and upgrades the foul air collection and treatment facilities for the Headworks and Primary treatment areas at Plant No. 1. This includes rehabilitation of existing single-stage scrubbers, systems and appurtenant equipment which serve the primary treatment systems, and replacement of existing scrubbers which serve the headworks facilities.



Justification
This project will rehabilitate existing odor control facilities and will make process improvements to reduce the number of off-site odor impacts. This project is based on the recommendations from the 2002 Odor Control Master Plan and the Orange County Sanitation District's Plant Automation and Reinvention Project.

The project budget has been decreased from $42,807,048 to $38,706,566 to reflect the revised project cost estimate.

The project's construction cost budget is $27,194,172.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	46,000	46,000						
Preliminary Design	1,365,000	1,365,000						
Design	5,844,000	4,900,000		940,000	4,000			
Const. & Installation	28,336,000	164,000			8,324,000	19,572,000	276,000	
Commission	309,000	-20,000					329,000	
Close-Out	87,000						87,000	
Contingency	2,720,000						2,720,000	
Total	38,707,000	6,455,000		940,000	8,328,000	19,572,000	3,412,000	

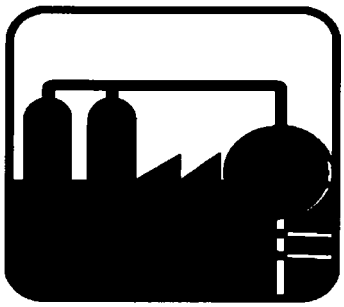
Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Corrosion Management - SP-68-1		
Project Category	**Process Related Special Projects**	**Project Status:**	**Continuing**

Description
The Corrosion Management project consists of a corrosion assessment study of the District's two treatment plants, interplant pipelines, and collections systems, and the establishment of the requirements for implementation of a comprehensive Corrosion Management Program.

Justification
The proposed work is being conducted in order to determine the most cost effective approach for managing the life cycle of the District's facilities while minimizing failures due to corrosion and to develop a plan to implement this new program.



Process Related Special Project

Budget Projections

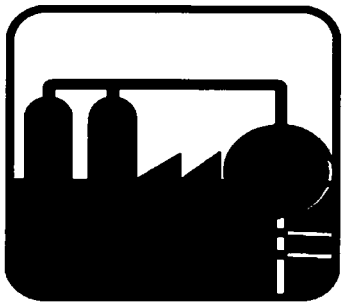
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	231,000	56,000	75,000	74,000	26,000			
Preliminary Design	463,000	111,000	150,000	148,000	54,000			
Design	1,651,000	417,000	529,000	521,000	184,000			
Const. & Installation	2,322,000	566,000	754,000	744,000	258,000			
Commission								
Close-Out								
Contingency								
Total	4,667,000	1,150,000	1,508,000	1,487,000	522,000			

Reimbursable Costs N/A

Project Name & Number	Special Projects: Biotrickling Filter (BTF) - SP-90-7		
Project Category	Process Related Special Projects	Project Status:	Revised

Description
This project investigates converting chemical scrubbers for foul air into biological scrubbers (biotrickling filters). The requirements for successful conversions are determined, and the process conditions for converted scrubbers are optimized to provide effective removal of various odorous substances before the air is discharged from the scrubbing system.

Justification
Biological scrubbers reduce operating costs by eliminating chemical usage for air cleaning and by reducing energy costs for pumping water and chemicals. They also increase safety by eliminating workers' contact with the toxic and corrosive chemicals used in wet chemical scrubbers.



Process Related Special Project

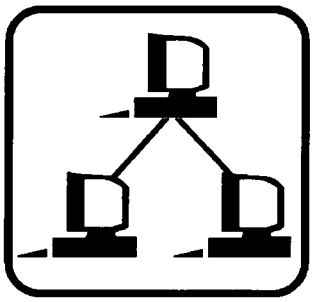
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	1,027,000	907,000	30,000	30,000	30,000	30,000		
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	1,027,000	907,000	30,000	30,000	30,000	30,000		

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Power Monitoring and Control Systems - J-33-3**		
Project Category	**Plant Automation & Computerization**	**Project Status:**	**Revised**



Plant Automation & Computerization

Description
This project installs electrical power monitoring and control equipment at Plant 1, which will protect the plants from power outage problems, and will reduce the recovery time when problems do occur. These systems will continuously evaluate the power supply, and adjust the plant electrical systems to prevent power variations and outages from causing process failures. The new system will allow the operation of critical electrical equipment from a single location at Plant 1.

Justification
The Southern California Edison Company (SCE) supplies electricity to Plant No. 1 at 12,000 volts and Plant No. 2 at 66,000 volts. The plant distribution systems have sophisticated controls to protect workers and equipment from the serious problems that can occur with these high voltages. In the past, Central Generation (Cengen) facilities in the plants typically produced all the plant power, using SCE to cushion demand fluctuations. Due to recent air emissions limitations, however, the Cengen facilities have limited production and the plants now rely on SCE as a primary power source. With future expansion, the plants will be more dependent on SCE and more vulnerable to power variations and outages than previously.

The project budget has been increased from $8,034,790 to $10,899,435 to reflect project scope changes and the revised project cost estimate.

The project's construction cost budget is $5,400,000. This project will decrease operational budgets by $170,000 annually.

Budget Projections

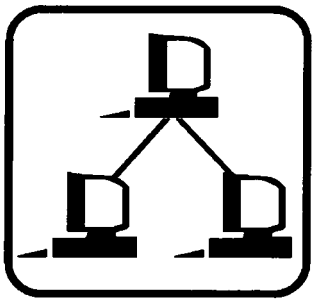
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	192,000	192,000						
Preliminary Design	460,000	460,000						
Design	2,128,000	1,862,000	266,000					
Const. & Installation	7,218,000		702,000	5,084,000	1,432,000			
Commission	160,000				160,000			
Close-Out	28,000				28,000			
Contingency	713,000				713,000			
Total	10,899,000	2,514,000	968,000	5,084,000	2,333,000			

Reimbursable Costs N/A

Project Name & Number	Strategic Information Architecture (SIA) - SP-03		
Project Category	Plant Automation & Computerization	Project Status:	Continuing

Description
The Strategic Information Architecture (SIA) is the bridge between the District's strategic goals, the Strategic Information Plan (SIP) and the implementation of Information Technology projects. The SIA supports the data, process and application architecture changes needed to support the business plan and the needs of the business units.

Justification
Each Department leverages information technology to accomplish its mission. This project supports the alignment of information technology resources with the business.



Plant Automation & Computerization

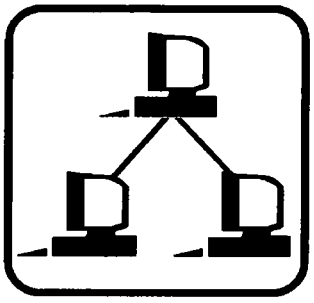
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	338,000	138,000	40,000	40,000	40,000	40,000	40,000	
Preliminary Design								
Design	550,000	200,000	70,000	70,000	70,000	70,000	70,000	
Const. & Installation	1,007,000	300,000	140,000	140,000	140,000	140,000	147,000	
Commission	100,000		20,000	20,000	20,000	20,000	20,000	
Close-Out								
Contingency								
Total	1,995,000	638,000	270,000	270,000	270,000	270,000	277,000	

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Internet/Intranet Development - SP-09		
Project Category	Plant Automation & Computerization	Project Status:	Continuing



Plant Automation & Computerization

Description
This project makes improvements to both the District's public-facing Internet site and the internally used Intranet site.

Justification
The Internet continues to grow in importance as a preferred communications tool. In 2006, the Pew Institute found that 73% of American adults use the Internet and 34% of users now regularly use wireless internet connections. These numbers are expected to keep growing in the coming months and years. As such, it is essential that OCSD continue to reexamine our existing efforts, design, and content. It is essential that our sites be available in the most user-friendly alignment with the needs of our audiences.

The District website is used to provide information to a variety of people and organizations. These include Orange County residents, Board Members, companies seeking to do business with the District, students and other agencies. Furthermore, our waiver requires that certain information be made available and periodically updated through this medium. Additionally, via the intranet, staff will access information on employee benefits, and internal job announcements.

Budget Projections

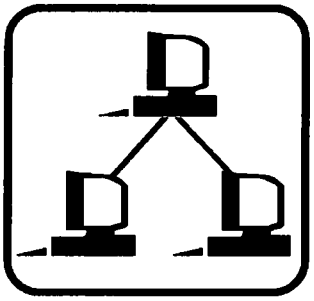
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	42,000	28,000	6,000	4,000	4,000			
Preliminary Design								
Design	143,000	112,000	15,000	9,000	7,000			
Const. & Installation	381,000	336,000	20,000	15,000	10,000			
Commission	56,000	56,000						
Close-Out	28,000	28,000						
Contingency								
Total	650,000	560,000	41,000	28,000	21,000			

Reimbursable Costs N/A

Project Name & Number	CMMS System Replacement - SP-100		
Project Category	Plant Automation & Computerization	Project Status:	Continuing

Description
This project is designed to assist with the needs assessment and requirements definition phase along with the other project needs which include: system purchase, migration of existing data, system configuration and customization, business process re-engineering, technical training, and integration with other District systems (i.e. SCADA, FIS, GIS, and Data Warehouse).

Justification
The District's Asset Management Strategic Plan and Framework Analysis report identified the need to replace the District's existing CMMS. The Asset Management project does not fund the cost of the replacement software or the implementation and training activities.



Plant Automation & Computerization

Budget Projections

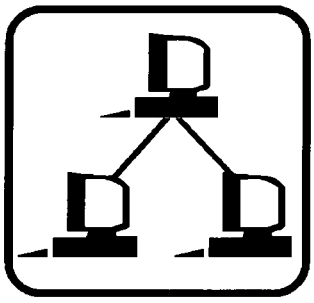
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	683,000	683,000						
Preliminary Design	11,000	11,000						
Design	371,000	5,000	366,000					
Const. & Installation	2,448,000	6,000	1,188,000	500,000	377,000	377,000		
Commission	184,000		184,000					
Close-Out	92,000		92,000					
Contingency								
Total	3,789,000	705,000	1,830,000	500,000	377,000	377,000		

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**PDS2D Software Replacement - SP-103**		
Project Category	**Plant Automation & Computerization**	**Project Status:**	**Continuing**

Description
This project provides a replacement to the Process and Instrumentation Diagram (P&ID) software used at the Sanitation District, which will not be supported by the vendor, and will eventually become inoperable. The software provides for the electronic storage and updating of diagrams which document the configuration of critical processes and equipment at the Sanitation District. The scope includes finding the replacement software, and implementing the new software, including converting data to the new software.



Plant Automation & Computerization

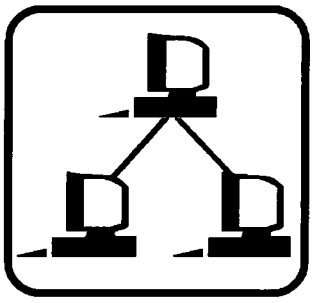
Justification
This software maintains the drawings which document the configuration of critical treatment processes and equipment. These drawings are needed for plant expansion, and are required by the EPA for plant maintenance. An electronic system of this nature is the only feasible system for this purpose. The software will eventually become obsolete and inoperable. A replacement is needed because no update to this software will be provided. The data must be converted to the new software format before the software becomes inoperable.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	250,000							250,000
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	250,000							250,000

Reimbursable Costs N/A

Project Name & Number	Environmental Compliance Awareness Program - SP-104		
Project Category	Plant Automation & Computerization	Project Status:	Continuing



Plant Automation & Computerization

Description
The project is an Environmental Compliance Awareness Program (ECAP). This program will enable staff to determine the status of environmental compliance in an up-to-date, effective, and efficient manner. It is anticipated that the ECAP will consist of using the District's existing Information Systems software (SharePoint) in order to obtain this ability.

Justification
An ECAP needs assessment (Phase I) was completed in June, 2006. The ECAP team (comprised of several staff members from different divisions) recommended an Air Quality pilot test (Phase II) be performed before full implementation. The Air Quality Pilot test was completed March, 2008 and resulted in the decision to move forward to Phase III of ECAP using SharePoint as the software. ECRA and IT will be working closely together to assure the success of ECAP. The ECAP budget has been revised to include ECAP continuation and possible professional services. Phase III will incorporate Biosolids and Underground Storage Tanks. It is anticipated that this will be completed by July this year. We will continue with this tiered approach and incorporate other compliance areas.

Budget Projections

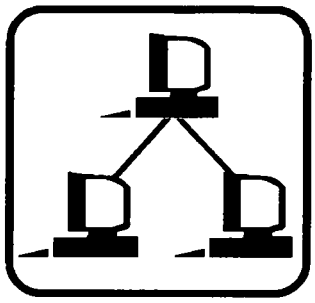
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	286,000	286,000						
Preliminary Design	694,000	2,000	465,000	227,000				
Design								
Const. & Installation	2,000	2,000						
Commission								
Close-Out								
Contingency								
Total	982,000	290,000	465,000	227,000				

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Geographic Information System - SP-15		
Project Category	Plant Automation & Computerization	Project Status:	Continuing

Description
Geographic Information Systems (GIS) can be utilized at the District for any works project such as collections, ocean monitoring, flow studies, rate structure studies or construction. The GIS can be a planning tool for Asset Management, a reporting tool for Permits and Sewer Shed Modeling. Other regional programs that would utilize the GIS are Bacteria Investigations, Air Quality, Special Purpose Discharge Permits, Connection Permits and Source Control Permits. A goal of the project would be to enable Internet access to the District's GIS and Electronic Data Management System (EDMS) by consultants to collect data for projects and to check out and check in drawings. The public would also benefit through Internet access to reports and news about District projects.



Plant Automation & Computerization

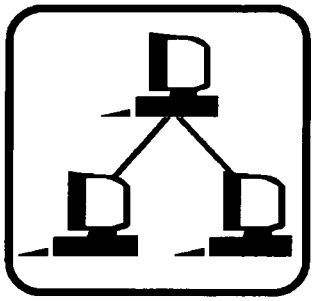
Justification
There is a need and an opportunity for cost savings, spatial data control, and a reporting tool that can graphically display the District's data on maps via the Internet to reporting agencies, the public and across the organization.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	3,062,000	200,000	135,000	310,000	360,000	400,000	430,000	1.227.000
Preliminary Design	10,000		10,000					
Design	320,000	300,000	20,000					
Const. & Installation	755,000	660,000	95,000					
Commission	10,000		10,000					
Close-Out								
Contingency								
Total	4,157,000	1,160,000	270,000	310,000	360,000	400,000	430,000	1,227,000

Reimbursable Costs N/A

Project Name & Number	Network Equipment Upgrade - SP-89		
Project Category	Plant Automation & Computerization	Project Status:	Continuing



Plant Automation & Computerization

Description
This project involves implementing the Sanitation District's Ethernet standards for computer network backbone equipment. This includes the plan, design and upgrade of the computer network equipment. This will ensure that the network equipment is compatible with industry standard networking devices.

Justification
To further expand and automate the OCSD network, a new strategy has to be adopted. The proposed strategy is to incorporate OCSD's Ethernet standard and the ability to proactively manage all devices. This project seeks to produce and document a Network Infrastructure Design that best meets these requirements.

Proposed design goals include:
- A fully redundant and fault tolerant system that can guarantee 100% uptime.
- The ability to expand to meet future size and feature requirements.
- Utilization of technologies based on a stable industry-leading manufacturer with a proven record of accomplishment.
- Utilization of technologies requiring skill sets readily available in the marketplace.
- Maintenance and upgrades able to be performed without downtime.

More specific design goals proposed include:
- More efficient flow of data for the CRISP system.
- Re-architecture of the SCADA system to allow for remote management through existing skill sets in IT.

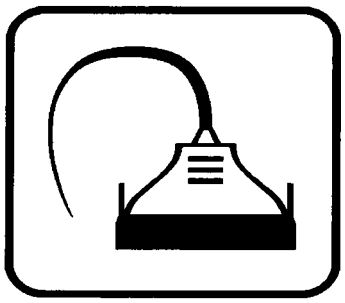
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev								
Preliminary Design								
Design	107,000	50,000	57,000					
Const. & Installation	2,687,000	1,244,000	725,000	400,000	318,000			
Commission	2,000	2,000						
Close-Out	10,000	10,000						
Contingency								
Total	2,806,000	1,306,000	782,000	400,000	318,000			

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Facilities Engineering Projects - Joint - FE-J		
Project Category	Miscellaneous & Support Projects	Project Status:	Revised



Misc. & Support Projects

Description
This budget provides funds for miscellaneous joint facilities small capital projects. A small capital project is defined as a miscellaneous capital improvement related to plant safety, reliability, or improvements where the professional design consulting services are less than $100,000. This project acts as an annual budget placeholder for numerous small joint facilities projects. This system results in a fast-track process for the procurement and execution of engineering and contractor services for smaller, but vital projects.

Justification
The Joint Facilities Engineering project allows smaller capital projects to extend the life of the existing treatment works and extend the time between major rehabilitations. These smaller, high priority projects are individually tracked within the larger budget for procurement of engineering and contractor services as needed to maintain reliable operations.

The project budget has been increased from $21,200,000 to $22,110,000 to reflect the revised project cost estimate.

The project's construction cost budget is $12,361,590.

This project will not have an impact on operational budgets.

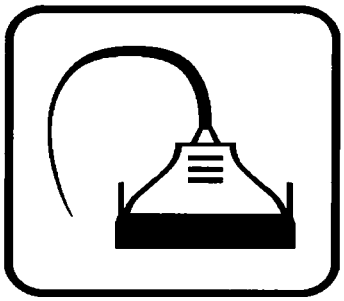
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	10,000	10,000						
Preliminary Design	170,000	170,000						
Design	6,525,000	878,000	279,000	287,000	289,000	275,000	193,000	4.324.000
Const. & Installation	15,330,000	1,256,000	1,057,000	957,000	819,000	810,000	845,000	9.586.000
Commission	55,000	55,000						
Close-Out	20,000	20,000						
Contingency								
Total	22,110,000	2,389,000	1,336,000	1,244,000	1,108,000	1,085,000	1,038,000	13,910,000

Reimbursable Costs N/A

Project Name & Number	Facilities Engineering Projects - Plant 1 - FE-P1		
Project Category	Miscellaneous & Support Projects	Project Status:	Revised

Description
This budget provides funds for miscellaneous Reclamation Plant No. 1 facilities small capital projects. A small capital project is defined as a miscellaneous capital improvement related to plant safety, reliability, or improvements where the professional design consulting services are less than $100,000. This project acts as an annual budget placeholder for numerous small joint facilities projects. This system results in a fast-track process for the procurement and execution of engineering and contractor services for smaller, but vital projects.



Misc. & Support Projects

Justification
The Reclamation Plant No. 1 Facilities Engineering project allows smaller capital projects to extend the life of the existing treatment works and extend the time between major rehabilitations. These smaller, high priority projects are individually tracked within the larger budget for procurement of engineering and contractor services as needed to maintain reliable operations.

The project budget has been increased from $18,200,000 to $19,110,000 to reflect the revised project cost estimate.

The project's construction cost budget is $8,799,612.

This project will not have an impact on operational budgets.

Budget Projections

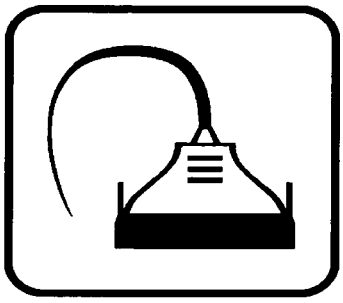
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	15,000	15,000						
Preliminary Design	34,000	34,000						
Design	6,670,000	1,787,000	301,000	311,000	313,000	302,000	247,000	3.409.000
Const. & Installation	12,307,000	4,550,000	772,000	799,000	798,000	794,000	780,000	3.814.000
Commission	40,000	40,000						
Close-Out	44,000	44,000						
Contingency								
Total	19,110,000	6,470,000	1,073,000	1,110,000	1,111,000	1,096,000	1,027,000	7,223,000

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Facilities Engineering Projects - Plant 2 - FE-P2		
Project Category	Miscellaneous & Support Projects	Project Status:	Revised

Description
This budget provides funds for miscellaneous Treatment Plant No. 2 facilities small capital projects. A small capital project is defined as a miscellaneous capital improvement related to plant safety, reliability, or improvements where the professional design consulting services are less than $100,000. This project acts as an annual budget placeholder for numerous small joint facilities projects. This system results in a fast-track process for the procurement and execution of engineering and contractor services for smaller, but vital projects.



Misc. & Support Projects

Justification
The Treatment Plant No. 2 Facilities Engineering project allows smaller capital projects to extend the life of the existing treatment works and extend the time between major rehabilitations. These smaller, high priority projects are individually tracked within the larger budget for procurement of engineering and contractor services as needed to maintain reliable operations.

The project budget has been increased from $18,200,000 to $19,110,000 to reflect the revised project cost estimate.

The project's construction cost budget is $8,449,786.

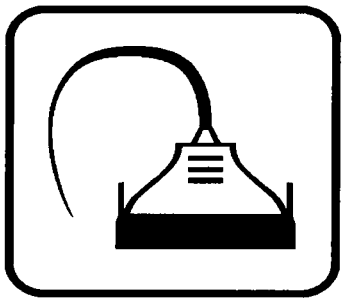
This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	10,000	10,000						
Preliminary Design	24,000	24,000						
Design	6,509,000	905,000	279,000	287,000	287,000	275,000	193,000	4.283.000
Const. & Installation	12,408,000	3,272,000	453,000	467,000	467,000	445,000	309,000	6.995.000
Commission	137,000	137,000						
Close-Out	22,000	22,000						
Contingency								
Total	19,110,000	4,370,000	732,000	754,000	754,000	720,000	502,000	11,278,000

Reimbursable Costs N/A

Project Name & Number	Temporary Upgrades To Plant Security Barriers - J-108		
Project Category	Miscellaneous & Support Projects	Project Status:	Revised



Misc. & Support Projects

Description
This project provides approximately 13,000 feet of perimeter security fencing around each of the treatment plants. The fencing will replace or enhance deficient areas to improve site security at the each of the treatment works. At Reclamation Plant No.1, fencing will be provided on the front and backsides of the plant along Ellis, Ward and Garfield Avenues. Perimeter fencing will also be installed along the Santa Ana River Channel and portions of the Talbert Marsh of Treatment Plant No.2.

Justification
In 2005, OCSD conducted a security assessment survey to determine the District's security vulnerabilities. One of the major recommended security improvements for the District's facilities was a perimeter barrier design at Plant Nos. 1 & 2. An improved barrier will serve as a structural barrier against intruders and protect vital plant infrastructure and District personnel. These temporary measures will allow OCSD to immediately be in compliance with a number of proposed regulations and will be in place until permanent structures can be designed and funded.

The project budget has been increased from $1,350,378 to $1,450,378 to reflect the revised project cost estimate.

The project's construction cost budget is $715,000.

This project will not have an impact on operational budgets.

Budget Projections

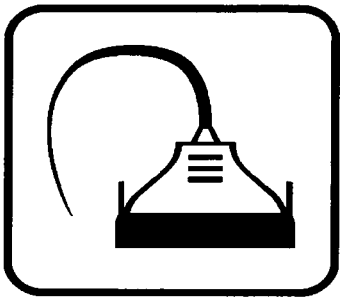
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	12,000	12,000						
Preliminary Design	48,000	24,000	24,000					
Design	323,000		285,000	38,000				
Const. & Installation	884,000			884,000				
Commission	28,000			28,000				
Close-Out	12,000			12,000				
Contingency	143,000			143,000				
Total	1,450,000	36,000	309,000	1,105,000				

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Laboratory Refurbishment at Plant No. 1 - J-97**		
Project Category	**Miscellaneous & Support Projects**	**Project Status:**	**Continuing**

Description
The current project for the laboratory building at Plant No. 1 consists of a feasibility study to determine what modifications and upgrades need to be done in order to bring the building up to current building codes. The City of Fountain Valley requires that the building obtain a permit. Some of the systems that need to evaluated to be in compliance are the HVAC system; Water System & Plumbing; Fire Protection; Electrical; Seismic requirements of Zone 4 earthquake and soils loading for liquefaction requirements. In addition, the feasibility study will determine the cost and feasibility of modifying several rooms within the laboratory, the addition of an odor panel room for evaluating plant nuisance odors; a remodeled lunch room; increased office spaces for new employees; and safe bench space for handling acids.



Misc. & Support Projects

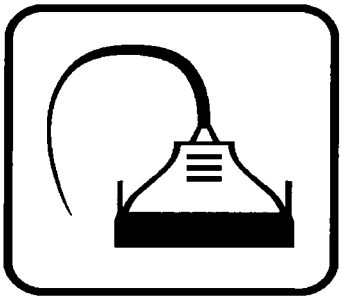
Justification
These upgrades and renovations will increase the office spaces for new employees being added to support the compliance efforts anticipated for secondary treatment operations and increased reclamation. Modifications are also necessary to secure state certifications to allow in-house compliance testing of newly anticipated compounds related to reclamation and secondary treatment standards. The existing safety ventilation systems must also be expanded to support the new and expanded lab facilities. The cost to bring the laboratory building up to current building codes will be determined and this cost figure will then provide input to a decision as to whether a new laboratory is required.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	333,000	256,000				77,000		
Preliminary Design	34,000	34,000						
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency	50,000					50,000		
Total	417,000	290,000				127,000		

Reimbursable Costs N/A

Project Name & Number	Regional FOG Control Collection at Plant No. 1 - P1-104		
Project Category	Miscellaneous & Support Projects	Project Status:	Continuing



Misc. & Support Projects

Description
This project constructs a collection station at Plant No. 1 to accept fat, oil and grease (FOG) wastes collected from restaurants and other industries. The FOG Collection Station would be adjacent to the existing waste hauler collection facility near the main gate, and would convey these high fuel grade wastes directly to the existing digester systems for additional methane gas generation.

Justification
In April 2002 the California Regional Water Quality Control Board issued Order No. R8-2002-0014, General Waste Discharge Requirements, requiring Orange County cities and wastewater treatment agencies to monitor and control sanitary sewer overflows (SSO). This was in response to a Grand Jury Report of April 2002 that stated that fats, oils and grease (FOG) were a major contributors to SSO's. The Order named the Sanitation District as the lead to "facilitate regional compliance" with the order. In 2003, the Sanitation District conducted an evaluation of multiple options for the Sanitation District and the local member agencies. The report's findings recommend that a dedicated collection depot be constructed at Plant No. 1 to the serve the Sanitation District's member agencies.

The project's construction cost budget is $1,650,000.

The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	28,000	22,000	6,000					
Preliminary Design	117,000		100,000	17,000				
Design	543,000			439,000	104,000			
Const. & Installation	2,044,000				194,000	1,502,000	348,000	
Commission	67,000						67,000	
Close-Out	29,000						29,000	
Contingency	322,000						322,000	
Total	3,150,000	22,000	106,000	456,000	298,000	1,502,000	766,000	

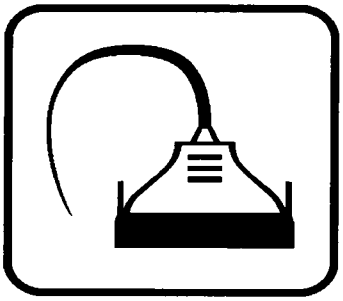
Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Plant No. 2 Landscaping Project - P2-96**		
Project Category	**Miscellaneous & Support Projects**	**Project Status:**	**Revised**

Description
This project will develop conceptual plans for the beautification and visual screening of Plant No. 2 from areas east of the Santa Ana River in Newport Beach and Costa Mesa.

Justification
The visual screening provided by this project is needed in order to mitigate the visual impacts of existing and future expansion at Plant No. 2.



Misc. & Support Projects

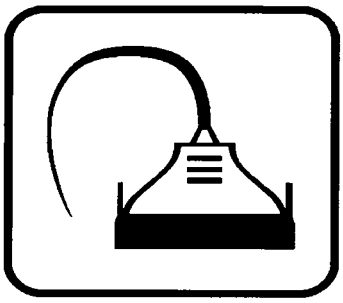
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	440,000	60,000	190,000	190,000				
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	440,000	60,000	190,000	190,000				

Reimbursable Costs N/A

Project Name & Number	Office Space Planning Study - SP-127		
Project Category	Miscellaneous & Support Projects	Project Status:	Continuing

Description
This project is necessary to fulfill the following objectives: Solve long-term space needs and inconsistencies in space usage; provide more efficient work environment for employees offering work group functionality and better circulation; provide permanent offices and adequate training facilities for IT Department, HR and Finance; and provide safe and sufficient parking for staff and visitors.



Misc. & Support Projects

Justification
Upgrades and renovations are needed to balance the need for new employees to support the District's future operations and the ramping down of the secondary treatment upgrades in the Capital Improvement Program. The project will also allow appropriate work groups to be co-located for more efficient use of existing spaces. It is anticipated that additional space needs will be determined, but several alternatives will be developed for future consideration and improvements.

This project will not have an impact on operational budgets

Budget Projections

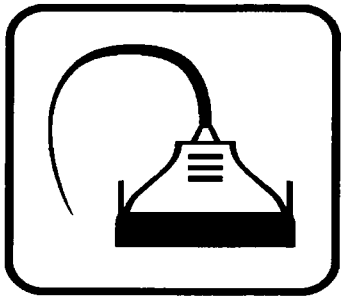
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	138,000	104,000	34,000					
Preliminary Design								
Design								
Const. & Installation	362,000	142,000	220,000					
Commission								
Close-Out								
Contingency								
Total	500,000	246,000	254,000					

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Integrated Security Access Control System - SP-128		
Project Category	Miscellaneous & Support Projects	Project Status:	Continuing

Description
This project will replace the existing access control system. The first phase of this project will be to lay out and design a new system to provide needed security for the treatment works. The design consultant will incorporate new technologies for card reader systems, badge systems, and camera surveillance to ensure that the overall security system is integrated. Also, the existing control center should have access to all security systems for monitoring and security maintenance.



Misc. & Support Projects

Justification
In 2005, the District conducted a security assessment survey to determine the District's security vulnerabilities. The focus of the study was to ensure that the District could comply with proposed regulations for critical infrastructure. One of the major recommendations was to replace the existing security systems to minimize intrusions due to antiquated security technologies. The other recommendation was to provide for a central location where security could be effectively monitored and maintained.

Budget Projections

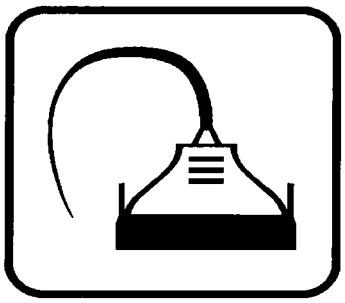
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	450,000		450,000					
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	450,000		450,000					

Reimbursable Costs N/A

Project Name & Number	2009 NPDES Permit Renewal - SP-133		
Project Category	Miscellaneous & Support Projects	Project Status:	New

Description
This project is to prepare the National Pollutant Discharge Elimination System (NPDES) Permit renewal application due in 2009.

Justification
A renewal application is required every five years in order to maintain a NPDES Permit. The NPDES Permit allows the District to discharge effluent through its ocean outfall(s). The NPDES Permit is a regulatory requirement under the Federal Clean Water Act and complies with the requirements of the California Ocean Plan.



Misc. & Support Projects

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	787,000		393,000	394,000				
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	787,000		393,000	394,000				

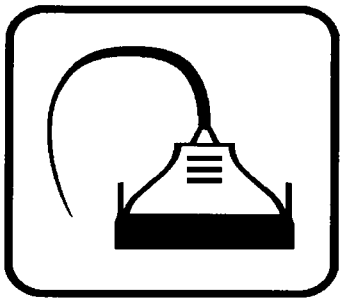
Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Small Cap. Equip. Replacement Project - SP-34		
Project Category	Miscellaneous & Support Projects	Project Status:	Revised

Description
This project will provide for the replacement of various plant process equipment that meets the criteria for capital replacement. The criteria for an equipment replacement to be eligible for capitalization are a value in excess of $5,000 and a useful life of five (5) or more years.

Justification
These funds are needed to replace broken equipment that is replaced when it is beyond economical repair or is at the end of its useful life and is not included or has been cut from an existing capital improvement project. It is also used to replace equipment when parts or services needed for repair can no longer be purchased.



Misc. & Support Projects

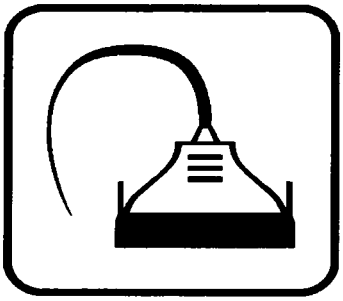
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev								
Preliminary Design								
Design								
Const. & Installation	10,550,000	950,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
Commission								
Close-Out								
Contingency								
Total	10,550,000	950,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000

Reimbursable Costs N/A

Project Name & Number	Asset Management Program - SP-68-2		
Project Category	Miscellaneous & Support Projects	Project Status:	Continuing

Description
This project develops and implements the asset management program for the Sanitation District. This project has developed the goals and objectives of the program, identified major components, charted existing practices, developed proposed processes for each major component of the program and developed a strategic plan. The current phase of the project consists of implementing tools and better decision making processes for each affected Department at the Sanitation District. To date, over $30 million in documented savings have been realized over the past two years.



Misc. & Support Projects

Justification
The Asset Management Program will provide the District with a process to more effectively plan, create, operate, maintain, rehabilitate and/or replace and eventually dispose of capital assets. The program will also provide the policies and procedures for establishing required level of service, performing asset life cycle cost analysis, assessing asset condition, assessing asset performance and analyzing risk-cost tradeoffs. Staff will continue the asset management effort to move the program forward with minimal if any consultant support.

Budget Projections

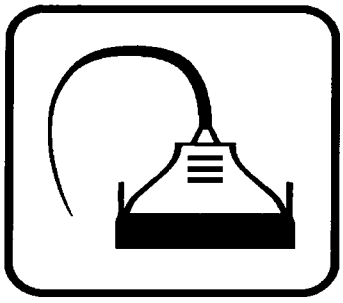
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	165,000	165,000						
Preliminary Design	67,000	67,000						
Design	4,703,000	1,218,000	650,000	650,000	650,000	535,000	500,000	500.000
Const. & Installation	162,000	162,000						
Commission	3,000	3,000						
Close-Out								
Contingency								
Total	5,100,000	1,615,000	650,000	650,000	650,000	535,000	500,000	500,000

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Warehouse Reinvention Project - SP-77**		
Project Category	**Miscellaneous & Support Projects**	**Project Status:**	**Continuing**

Description
As part of this project, all stock in satellite warehouses will be gathered and placed into the warehouse inventory and all dormant and some excess stock will be removed from inventory. Once these changes have been made, the Operations and Maintenance field divisions and the Warehouse and Purchasing Division will implement the picking and staging of equipment and parts for the O&M planning and scheduling program. At the completion of the warehousing modifications, the consolidated purchasing practices will be reviewed and, finally, policies and procedures will be developed to memorialize the changes that have been implemented and to ensure that personnel responsible for the process will have the proper documentation to review as needed.



Misc. & Support Projects

Justification
The warehouse and purchasing reinvention project will reorganize and improve the way Operations and Maintenance field divisions and the Warehouse and Purchasing interface to accomplish tasks. The picking and staging process will improve the labor efficiency of all personnel responsible for completing scheduled maintenance activities.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev								
Preliminary Design								
Design								
Const. & Installation	600,000	390,000	50,000	50,000	50,000	50,000	10,000	
Commission								
Close-Out								
Contingency								
Total	600,000	390,000	50,000	50,000	50,000	50,000	10,000	

Reimbursable Costs N/A

Project Name & Number	Plant 2 Maintenance Building Modifications - SP-98		
Project Category	Miscellaneous & Support Projects	Project Status:	Revised

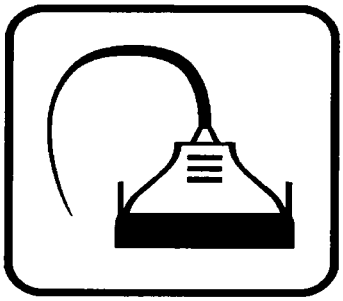
Description
This project will provide site improvements necessary to correct drainage issues around the Plant No. 2 Maintenance Building.

Justification
This building space is subject to flooding during rain events. This presents a safety hazard with regard to water intrusion into electronic devices such as computers and electrical outlets.

The project budget has been decreased from $339,462 to $276,392 to reflect the revised project cost estimate.

The project's construction cost budget is $75,000.

This project will not have an impact on operational budgets.



Misc. & Support Projects

Budget Projections

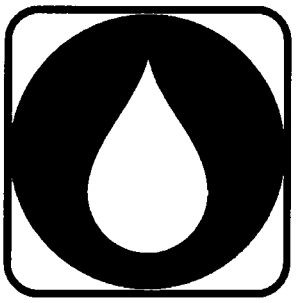
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	6,000	6,000						
Preliminary Design	6,000	6,000						
Design	141,000	141,000						
Const. & Installation	98,000	55,000	43,000					
Commission								
Close-Out								
Contingency	25,000		25,000					
Total	276,000	208,000	68,000					

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Groundwater Replenishment System - J-36**		
Project Category	**Water Management Projects**	**Project Status:**	**Revised**

Description
The Groundwater Replenishment (GWR) System is a joint effort of the Orange County Water District and the Orange County Sanitation District to provide reclaimed water for replenishment of the Orange County Groundwater Basin and to augment the seawater intrusion barrier. The GWR System is planned for three phases: Phase 1 is operational since January 2008 with the capacity to produce an annual average of 72,000 acre-feet per year of recycled water; Phase 2 will increase the total capacity to an estimated 112,000 acre-feet per year; and Phase 3 will increase the total capacity to an estimated 145,600 acre-feet per year. The actual capacity and year of implementation of the future phases depends on water availability. This project budget represents the Sanitation District's 50% share of the total cost of Phase 1. Funding sources for Phases 2 and 3 have not been identified.



Water Management Projects

Justification
By diverting up to 100 million gallons per day of flow from the Sanitation District's effluent during peak winter storms, Phase 1 of the GWR System can help the Sanitation District defer construction of a new ocean outfall, estimated at $170 million (in year 2000 Dollars). The GWR System is part of the Strategic Plan preferred alternative. OCSD anticipates $45,000,000 in grants from the EPA, Bureau of Reclamation and the State Water Bond to offset project costs.

The project budget has been increased from $246,094,037 to $248,400,229 to reflect the revised project cost estimate.

The project's construction cost budget is $206,489,039.

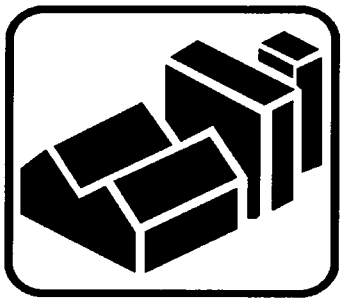
This project will increase operational budgets by $1,000,000 annually.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	10,000	10,000						
Preliminary Design	3,320,000	3,320,000						
Design	15,616,000	15,616,000						
Const. & Installation	224,907,000	224,907,000						
Commission	1,571,000	1,571,000						
Close-Out	256,000	210,000	46,000					
Contingency	2,720,000		2,720,000					
Total	248,400,000	245,634,000	2,766,000					

Reimbursable Costs $44,328,165

Project Name & Number	Treatment Plant Strategic Plan Update - J-102		
Project Category	Strategic & Master Planning	Project Status:	Revised



Strategic & Master Planning

Description
This project will update the District's two recent master planning efforts, the 1999 Strategic Plan and the 2002 Interim Strategic Plan Update. This update will incorporate all the follow-up site planning and special studies resulting from the level of treatment decision made by the Board of Directors in 2002. The result will be a completely updated Strategic Plan which determines future treatment facilities, biosolids management options, water reclamation options, and an implementation plan for constructing these facilities. Two reports will be created under this effort: an Electrical Master Plan and a fully updated Strategic Plan.

Justification
The new Waste Discharger Requirements (WDR) regulations require that the Sanitation District maintain and update its capacity plan for the treatment system. Also, this update will address recent changes in regulations, potential application of new technologies for future secondary treatment needs, odor control, disinfection and solids management to minimize future lifecycle costs for the Sanitation District.

The project budget has been increased from $3,620,000 to $4,520,000 to reflect the revised project cost estimate.

Budget Projections

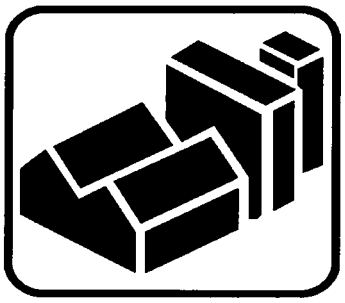
Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	4,500,000	3,600,000	300,000	300,000	300,000			
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	4,500,000	3,600,000	300,000	300,000	300,000			

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Orange County Biosolids Production Siting Study - SP-105		
Project Category	Strategic & Master Planning	Project Status:	Continuing

Description
This study will focus on further identifying and developing in-county reuse sites and backup land filling proposals developed under the Long Range Biosolids Management Plan. This effort will seek out and develop support from participants and potential partners within the County. The ultimate goal would be an economical biosolids production facility within the service area, possibly in the next few years, and definitely within the next 10 to 15 years. Anticipated activities under this effort will include developing business plans, site renderings, presentations to stakeholders, further developing marketing plans, and delivery of sample products to potential end users.



Strategic & Master Planning

Justification
As costs and land application bans limit the District's ability to maintain existing biosolids management options, the District needs to develop other options for managing biosolids. The Board's policy for biosolids encourages local agencies to utilize biosolids based products. To make the products available to the local agencies at a reasonable price, a production facility must be located within the County. In addition, the potential move to an in-county processing facility is an attempt to reduce the overall cost of biosolids management by reducing the hauling costs. Hauling costs currently account for about 70-80% of the management fees for existing Class B options.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	400,000	130,000	130,000	140,000				
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	400,000	130,000	130,000	140,000				

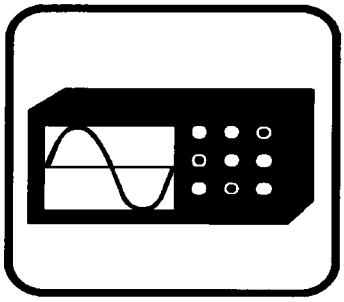
Reimbursable Costs N/A

Project Name & Number	USBR Brine Management Grant Project - SP-116		
Project Category	Research & Development	Project Status:	Revised

Description
This project is part of a regional effort to locate additional sources of water including brackish fresh water requiring treatment, wastewater, and potentially greywater. The project is being supported by the United States Bureau of Reclamation and is investigating the construction of additional brine-only sewers.

Justification
This project may eventually lead to OCSD's managing and/or constructing brine-only sewers in Orange County. At this time, the project budget only includes funds to allow OCSD staff to participate in the on-going regional efforts to ensure OCSD's needs and expectations are incorporated.

The project budget has been increased from $100,000 to $230,000 to reflect the revised project cost estimate.



Research & Development

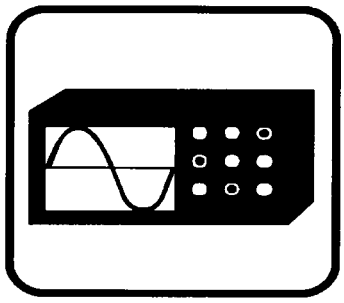
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	230,000	30,000	50,000	100,000	50,000			
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	230,000	30,000	50,000	100,000	50,000			

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Research Strategic Plan - SP-120		
Project Category	Research & Development	Project Status:	Continuing



Research & Development

Description
This project will produce a Research Strategic Plan to define OCSD's overall research direction and serve as a guide for the research projects that will be undertaken. Its preparation will involve both OCSD staff and an experienced outside consultant to ensure that the planning is comprehensive and not limited to specific topics that might be most familiar to OCSD staff, yet is grounded in the realities of OCSD's operations and future activities. The consultant will be familiar with developments and trends in the wastewater industry domestically and internationally and will understand the nature of research, rather than being strictly a traditional engineering & construction firm that just executes established designs for treatment plants. The Plan will identify knowledge gaps in planned capital projects, regulatory directions that might require research input to address, opportunities for improved treatment approaches, and areas for valuable short-range and long-range investigations.

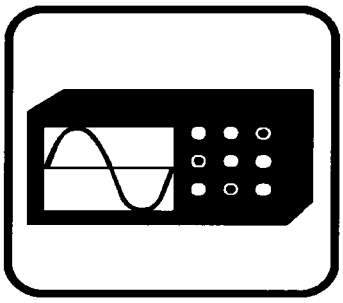
Justification
The research efforts at OCSD historically have not been parts of a coordinated program. That is, there has not been an agreed-upon vision about the needs, goals, and direction for the various projects that are research-oriented. With the realignment of the research efforts to provide a coherent program, a targeted Strategic Plan is needed to define and guide the research program for the upcoming years. This will require contributions from both inside and outside OCSD to ensure the resulting plan is visionary and forward-looking while still being reasonable and specific for OCSD.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	365,000	265,000	20,000	20,000	20,000	20,000	20,000	
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	365,000	265,000	20,000	20,000	20,000	20,000	20,000	

Reimbursable Costs N/A

Project Name & Number	Superoxygenation of Primary Influent - SP-121		
Project Category	Research & Development	Project Status:	Continuing



Research & Development

Description
An innovative technology was tested at the Seal Beach pump station, to force oxygen into wastewater. This project used a high-volume pumping system and an advanced retention tank to dissolve large quantities of pure oxygen into the wastewater flow, which was then released into the force main.

The same technology could be applied to the primary influent in a treatment plant. By placing the system at the grit chamber discharge, oxygen could be forced into the wastewater either to oxidize the odorous compounds that are present or meet the total oxygen demand throughout primary treatment. The best approach would depend on the relative costs of oxygenation and odor scrubbing and could be affected by limitations on the amount of oxygen that could be forced into the water. An engineering feasibility study was started in FY 07-08 to evaluate the technical feasibility and associated costs of applying this technology to either treatment plant.

Justification
Odors produced in the primary clarifiers must be treated before the air is released. This requires electricity for fans and (usually) chemicals for wet scrubbers. If the odor production could be prevented, then operating costs could be reduced and perhaps some capital construction could be avoided. The potential life cycle cost savings from reduced operating costs and avoided capital costs could be millions of dollars annually based on the expenditures that occur now, but quantifying the actual savings will require operating data from a process test.

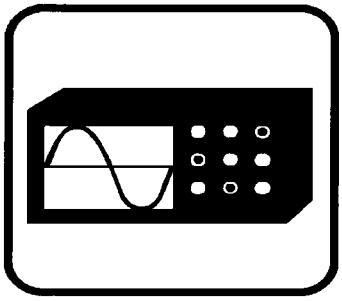
Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	850,000	290,000	270,000	290,000				
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	850,000	290,000	270,000	290,000				

Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	**Digester Optimization - SP-122**		
Project Category	**Research & Development**	**Project Status:**	**Continuing**



Research & Development

Description
Optimizing the operation of OCSD's digesters to improve volatile solids destruction and increase gas production could provide cost savings through reduced natural gas purchases and reduced biosolids disposal costs. Various investigations into the effects of digester operating conditions (such as residence time and feed composition) on gas production have been reported in the literature, but it is not necessarily clear how to apply the results directly to OCSD's operations.

This project would use two digesters as experimental and control units. Lithium tracer tests would be performed to investigate the mixing comparability of the digesters. Flow meters would be installed on the gas lines, and the operating conditions would be varied. The amount of gas produced and various analytical tests would be used to determine whether the digesters' efficiency could be improved by changing the operating conditions in ways that would be consistent with OCSD's operating needs and capabilities.

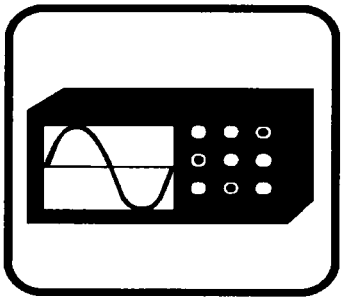
Justification
Offsetting natural gas purchases and reducing the amount of residual solids that must be treated and managed could save millions of dollars annually. The cost for achieving this could be negligible if it only involves changes in operating practices.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	90,000		90,000					
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	90,000		90,000					

Reimbursable Costs N/A

Project Name & Number	Digester Pilot Plant Safety and Control System Upg - SP-123		
Project Category	Research & Development	Project Status:	Continuing



Research & Development

Description
A general purpose digester pilot plant was constructed at Plant 1 several years ago. After this was designed and substantially constructed, OCSD determined that it should be upgraded to meet NFPA 820 requirements and OCSD's design standards for wastewater treatment facilities. Safety-related modifications were done immediately, and other modifications were postponed until an ongoing test project was completed.

This CIP project to complete the modifications that were postponed includes items such as upgrading the electrical system, updating the equipment documentation and asset management information to meet the requirements for maintenance activities, and changing the control system to a PLC-based (or similarly robust) system to eliminate reliability problems that have been experienced with the current equipment and to make the control system more maintainable for the District's maintenance staff.

Justification
This pilot test facility is the only one of its kind at OCSD and provides process evaluation capabilities that cannot be duplicated in the laboratory or with full-scale equipment. (Laboratory-scale tests use batch systems that cannot duplicate actual digester feeding and mixing systems, and full-scale production digesters cannot be removed from service to allow testing that could adversely affect the overall treatment plant's performance.) Potential projects for this facility include tests of digester additives and modified operating practices to improve biosolids dewatering.

The pilot facility was designed to operate for up to 15 years, so Operations agreed with Engineering's request to bring it into compliance with OCSD's design standards. These tests also revealed deficiencies with the control system that made the facility difficult to operate and maintain, which can be corrected by installing controls that are more similar to the ones used in OCSD's treatment plants.

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	230,000		230,000					
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	230,000		230,000					

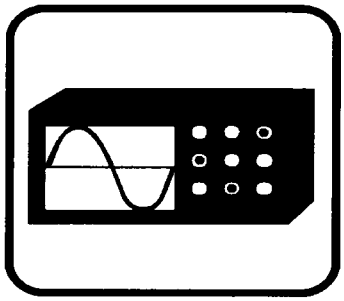
Reimbursable Costs N/A

2008-09 & 2009-10 Budget

Project Name & Number	Operational Research Projects (annual allocation) - SP-125		
Project Category	Research & Development	Project Status:	Continuing

Description
This is a fund for operational research projects that have not yet been identified. As directed by OCSD management, an annual allocation will be made to fund research projects. The Research Strategic Plan developed during 2007-08 will identify projects and topics for research. Specific projects then will be identified and developed to be funded from this budget.

Justification
These funds will be used for various research projects designed to improve operational efficiency, reduce costs, improve safety, or fill important information gaps. The results will support O&M and provide information needed by Engineering for future planning and design work. The projects will be individually budgeted and tracked within the overall line item allocation.



Research & Development

Budget Projections

Budget Phase	Total Project Budget	Cost To-Date	2008-09	2009-10	2010-11	2011-12	2012-13	Thereafter
Project Dev	10,040,000	40,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5.000.000
Preliminary Design								
Design								
Const. & Installation								
Commission								
Close-Out								
Contingency								
Total	10,040,000	40,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000

Reimbursable Costs N/A

Summary by Revenue Program Category

Collection System Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Repl/ Rehab	Imp Treatment	Additional Capacity	Support	Repl/ Rehab	Imp Treatment	Additional Capacity	Support
Collections Facilities									
Raitt and Bristol Street Sewer Extension	3,748,000			100		-	-	3,748,000	-
Santa Ana Trunk Sewer Rehab.	20,129,000	100				20,129,000	-	-	-
Carbon Cnyn Sewer and Pump Stn. Abandonment	9,952,000	50		50		4,976,000	-	4,976,000	-
Santa Ana River Interceptor Realignment and Prot.	10,382,000	100				10,382,000	-	-	-
Santa Ana River Interceptor 2006 Protection Repair	200,000	100				200,000	-	-	-
Taft Branch Improvements	1,121,000	50		50		560,500	-	560,500	-
Euclid Relief Improvements - Reach "A"	22,050,000	50		50		11,025,000	-	11,025,000	-
Newhope-Placentia & Cypress Trunk Replacements	8,623,000	25		75		2,155,750	-	6,467,250	-
Rehabilitate District Siphons By Adding Air Jumper	7,556,000	50	50			3,778,000	3,778,000	-	-
Fullerton-Brea Interceptor Sewer Relief	946,000			100		-	-	946,000	-
Rehabilitation of the Westside Pump Station	9,646,000	100				9,646,000	-	-	-
Westside Relief Interceptor/ Los Alamitos MH Rehab	13,038,000	25		75		3,259,500	-	9,778,500	-
Rehabilitation of Magnolia Trunk Sewer	28,769,000	100				28,769,000	-	-	-
Miller-Holder Trunk Sewer Relief	12,169,000			100		-	-	12,169,000	-
Beach Trunk/Knott Interceptor Sewer Relief	25,605,000			100		-	-	25,605,000	-
Balboa Trunk Sewer Rehabilitation	8,514,000	100				8,514,000	-	-	-
Replacement of the Bitter Point Pump Station	36,547,000	90		10		32,892,300	-	3,654,700	-
Replacement of the Rocky Point Pump Station	30,952,000	90		10		27,856,800	-	3,095,200	-
Bitter Point Force Main Rehabilitation	24,947,000	100				24,947,000	-	-	-
Newport Force Main Condition Assessment	2,112,000	100				2,112,000	-	-	-
Bayside Drive Improvement	3,750,000	100				3,750,000	-	-	-
Dover Drive Trunk Sewer Relief	6,351,000			100		-	-	6,351,000	-
Sewer Access Improv. Big Canyon Nature Park Area	765,000				100	-	-	-	765,000
District 6 Trunk Sewer Relief	2,050,000			100		-	-	2,050,000	-
Fairview Road Trunk Sewer Relief	10,029,000			100		-	-	10,029,000	-
Southwest Costa Mesa Trunk	12,600,000			100		-	-	12,600,000	-
Gisler-Redhill System Improvements, Reach B	9,437,000	50		50		4,718,500	-	4,718,500	-
Rehabilitation of College Ave. Pump Station	9,969,000	70		30		6,978,300	-	2,990,700	-
Browning Subtrunk Sewer Relief	3,920,000			100		-	-	3,920,000	-
County Island Annexation and CEQA Documentation	300,000				100	-	-	-	300,000
Von Karman Trunk Sewer Relief	409,000			100		-	-	409,000	-
Edinger/Bolsa Chica Trunk Improvements	4,411,000	25		75		1,102,750	-	3,308,250	-
Coast Trunk Sewer Rehabilitation	10,830,000	100				10,830,000	-	-	-

Continued

Collection System Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Repl/ Rehab	Imp Treatment	Additional Capacity	Support	Repl/ Rehab	Imp Treatment	Additional Capacity	Support
Collections Facilities (Continued)									
North County Collections Yard	11,773,000				100	-	-	-	11,773,000
Manhole Rehabilitation and Assessment Program	1,540,000	100				1,540,000	-	-	-
Facilities Engineering Projects - Collections	7,920,000	70	15		15	5,544,000	1,188,000	-	1,188,000
Replacement of the Ellis Ave. Pump Stn	77,257,000	10		90		7,725,700	-	69,531,300	-
Bushard Trunk Sewer Rehabilitation	68,757,000	100				68,757,000	-	-	-
Los Alamitos Blvd. Sewers Condition Assessment	350,000	100				350,000	-	-	-
Collections Facilities Improvement Projects Total	**519,424,000**					**302,499,100**	**4,966,000**	**197,932,900**	**14,026,000**

Summary by Revenue Program Category

Treatment & Disposal Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Repl/ Rehab	Imp Treatment	Additional Capacity	Support	Repl/ Rehab	Imp Treatment	Additional Capacity	Support
Headworks									
Headworks Rehab. and Expansion at Plant No. 1	20,202,000	65	5	30		13,131,300	1,010,100	6,060,600	-
Headworks Rehabilitation/Refurbishment	11,024,000	70		30		7,716,800	-	3,307,200	-
Headworks Improvements at Plant No. 2	254,498,000	75	25			190,873,500	63,624,500	-	-
Headworks Projects Total	**285,724,000**					**211,721,600**	**64,634,600**	**9,367,800**	**-**
Primary Treatment									
Primary Treatment Rehab/Refurb	37,230,000	100				37,230,000	-	-	-
Primary Effluent Pump Stations Reliability Study	100,000	100				100,000	-	-	-
Primary Treatment Projects Total	**37,330,000**					**37,330,000**	**-**	**-**	**-**
Secondary Treatment									
New Secondary Treatment System at Plant No. 1	265,863,000		67	33		-	178,128,210	87,734,790	-
Activated Sludge Plant Rehabilitation	46,133,000	50	25	25		23,066,500	11,533,250	11,533,250	-
Rehabilitation of Activated Sludge Plant at Plant 2	16,401,000	100				16,401,000	-	-	-
Trickling Filters at Plant No. 2	221,192,000		100			-	221,192,000	-	-
Oxygen Plant Rehabilitation at Plant No. 2	2,500,000	100				2,500,000	-	-	-
Oxygen Plant Rehabilitation	150,000	100				150,000	-	-	-
Secondary Treatment Projects Total	**552,239,000**					**42,117,500**	**410,853,460**	**99,268,040**	**-**
Solids Handling & Digestion									
Sludge Digester Rehabilitation at Plant 1	60,397,000	100				60,397,000	-	-	-
Sludge Dewatering and Odor control at Plant 1	143,547,000		35	65		-	50,241,450	93,305,550	-
Truck Wash and Dewatering Beds at Plant No. 1	3,146,000	100				3,146,000	-	-	-
Solids Thickening and Processing Upgrades	73,020,000	50	50			36,510,000	36,510,000	-	-
Plant No. 2 Primary Sludge Feed System Project	25,766,000	25	75			6,441,500	19,324,500	-	-
Digester Rehabilitation at Plant No. 2	36,398,000	80	10	10		29,118,400	3,639,800	3,639,800	-
Sludge Dewatering and Odor Control at Plant 2	51,696,000	100				51,696,000	-	-	-
Replacement of Drying Beds and Truck Wash at Plant	4,443,000	100				4,443,000	-	-	-
Solids Handling & Digestion Projects Total	**398,413,000**					**191,751,900**	**109,715,750**	**96,945,350**	**-**
Ocean Outfall Systems									
Final Effluent Sampler and Building Area Upgrades	1,890,000	100				1,890,000	-	-	-
Effluent Pumping Station Annex	60,487,000	50		50		30,243,500	-	30,243,500	-
Ocean Outfall Systems Projects Total	**62,377,000**					**32,133,500**	**-**	**30,243,500**	**-**

Treatment & Disposal Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Repl/ Rehab	Imp Treatment	Additional Capacity	Support	Repl/ Rehab	Imp Treatment	Additional Capacity	Support
Utility Systems									
Interplant Gas Line Rehabilitation	3,752,000	100				3,752,000	-	-	-
Cengen Cooling Water System Replacement	9,094,000	100				9,094,000	-	-	-
Cengen Emissions Control Project	31,000,000		100			-	31,000,000	-	-
Cable Tray Improvements at Plants 1 & 2	31,744,000	100				31,744,000	-	-	-
Air Quality Improvements	9,168,000		100			-	9,168,000	-	-
Central Generation Automation	20,332,000	25	75			5,083,000	15,249,000	-	-
Fire Suppression for Servers and Equip at P1 & P2	965,000				100	-	-	-	965,000
Electrical Power Distribution System Improvements	8,992,000	60	20	20		5,395,200	1,798,400	1,798,400	-
Power Building 3A Backup Power Reliability Project	502,000		100			-	502,000	-	-
Plant Water System Rehabilitation at Plant No.1	3,538,000	100				3,538,000	-	-	-
Plant 1 66kV Substation	14,780,000			50	50	-	-	7,390,000	7,390,000
Plant Water System Rehabilitation at Plant No.2	4,108,000	100				4,108,000	-	-	-
Flare System Expansion and Upgrades	1,500,000	30		70		450,000	-	1,050,000	-
Solids Area Cable Tray Improvements at Plant No. 2	6,156,000	100				6,156,000	-	-	-
Fuel Cell Feasibility Study	100,000				100	-	-	-	100,000
Fuel Cell Hydrogen Gas Generation Research	500,000				100	-	-	-	500,000
Utility Systems Projects Total	**146,231,000**					**69,320,200**	**57,717,400**	**10,238,400**	**8,955,000**
Odor Control Related Projects									
Rehabilitation of Odor Control Facilities	38,707,000	20	80			7,741,400	30,965,600	-	-
Trickling Filter Odor Control at Plant No. 1	4,582,000		100			-	4,582,000	-	-
Primary Scrubber Rehabilitation at Plant No.1	4,200,000	100				4,200,000	-	-	-
Solids Storage Building Odor Control Project	10,183,000		100			-	10,183,000	-	-
Primary Treatment Odor Control Upgrades	28,460,000	50	50			14,230,000	14,230,000	-	-
Odor Control Related Projects Projects Total	**86,132,000**					**26,171,400**	**59,960,600**	**-**	**-**
Process Related Special Projects									
Corrosion Management	4,667,000				100	-	-	-	4,667,000
Special Projects: Biotrickling Filter (BTF)	1,027,000		100			-	1,027,000	-	-
Process Related Special Projects Projects Total	**5,694,000**					**-**	**1,027,000**	**-**	**4,667,000**
Plant Automation & Computerization									
Power Monitoring and Control Systems	10,899,000	50			50	5,449,500	-	-	5,449,500
Strategic Information Architecture (SIA)	1,995,000				100	-	-	-	1,995,000
Internet/Intranet Development	650,000				100	-	-	-	650,000
CMMS System Replacement	3,789,000	50		25	25	1,894,500	-	947,250	947,250
PDS2D Software Replacement	250,000				100	-	-	-	250,000
Environmental Compliance Awareness Program	982,000				100	-	-	-	982,000
Geographic Information System	4,157,000				100	-	-	-	4,157,000
Network Equipment Upgrade	2,806,000	85			15	2,385,100	-	-	420,900
Plant Automation & Computerization Projects Total	**25,528,000**					**9,729,100**	**-**	**947,250**	**14,851,650**

Summary by Revenue Program Category

Treatment & Disposal Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Repl/ Rehab	Imp Treatment	Additional Capacity	Support	Repl/ Rehab	Imp Treatment	Additional Capacity	Support
Miscellaneous & Support Projects									
Facilities Engineering Projects - Joint	22,110,000	70	15		15	15,477,000	3,316,500	-	3,316,500
Facilities Engineering Projects - Plant 1	19,110,000	70	15		15	13,377,000	2,866,500	-	2,866,500
Facilities Engineering Projects - Plant 2	19,110,000	70	15		15	13,377,000	2,866,500	-	2,866,500
Temporary Upgrades To Plant Security Barriers	1,450,000				100	-	-	-	1,450,000
Laboratory Refurbishment at Plant No. 1	417,000	25	25	25	25	104,250	104,250	104,250	104,250
Regional FOG Control Collection at Plant No. 1	3,150,000				100	-	-	-	3,150,000
Plant No. 2 Landscaping Project	440,000		100			-	440,000	-	-
Office Space Planning Study	500,000				100	-	-	-	500,000
Integrated Security Access Control System	450,000				100	-	-	-	450,000
2009 NPDES Permit Renewal	787,000				100	-	-	-	787,000
Small Cap. Equip. Replacement Project	10,550,000	100				10,550,000	-	-	-
Asset Management Program	5,100,000				100	-	-	-	5,100,000
Warehouse Reinvention Project	600,000				100	-	-	-	600,000
Plant 2 Maintenance Building Modifications	276,000				100	-	-	-	276,000
Miscellaneous & Support Projects Projects Total	**84,050,000**					**52,885,250**	**9,593,750**	**104,250**	**21,466,750**
Water Management Projects									
Groundwater Replenishment System	248,400,000		100			-	248,400,000	-	-
Water Management Projects Projects Total	**248,400,000**					**-**	**248,400,000**	**-**	**-**
Strategic & Master Planning									
Treatment Plant Strategic Plan Update	4,500,000	25	25	25	25	1,125,000	1,125,000	1,125,000	1,125,000
Orange County Biosolids Production Siting Study	400,000		100			-	400,000	-	-
Strategic & Master Planning Projects Total	**4,900,000**					**1,125,000**	**1,525,000**	**1,125,000**	**1,125,000**
Research & Development									
USBR Brine Management Grant Project	230,000		100			-	230,000	-	-
Research Strategic Plan	365,000		40	30	30	-	146,000	109,500	109,500
Superoxygenation of Primary Influent	850,000		80	20		-	680,000	170,000	-
Digester Optimization	90,000		100			-	90,000	-	-
Digester Pilot Plant Safety and Control System Upg	230,000		35	35	30	-	80,500	80,500	69,000
Operational Research Projects (annual allocation)	10,040,000	25	25	25	25	2,510,000	2,510,000	2,510,000	2,510,000
Research & Development Projects Total	**11,805,000**					**2,510,000**	**3,736,500**	**2,870,000**	**2,688,500**
Treatment and Disposal Improvement Projects Total	**1,948,823,000**					**676,795,450**	**967,164,060**	**251,109,590**	**53,753,900**
Capital Equipment	**16,000,000**	25	25	25	25	**4,000,000**	**4,000,000**	**4,000,000**	**4,000,000**
Total Capital Improvement Program	**2,484,247,000**					**983,294,550**	**976,130,060**	**453,042,490**	**71,779,900**

Collections System Improvement Projects – Budget By Project Status

Proj. #	Title	Total Budget	New	Continuing	Revised	Future
Collections Facilities						
02-41	Santa Ana River Interceptor Realignment and Prot.	10,382,000		10,382,000		
02-41-5	Santa Ana River Interceptor 2006 Protection Repair	200,000		200,000		
02-52	Euclid Relief Improvements - Reach "A"	22,050,000		22,050,000		
03-58	Rehabilitation of Magnolia Trunk Sewer	28,769,000		28,769,000		
05-50	Replacement of the Rocky Point Pump Station	30,952,000		30,952,000		
05-64	Sewer Access Improv. Big Canyon Nature Park Area	765,000		765,000		
15-04	North County Collections Yard	11,773,000		11,773,000		
15-05	Manhole Rehabilitation and Assessment Program	1,540,000		1,540,000		
SP-126	Los Alamitos Blvd. Sewers Condition Assessment	350,000		350,000		
01-101	Raitt and Bristol Street Sewer Extension	3,748,000			3,748,000	
01-17	Santa Ana Trunk Sewer Rehab.	20,129,000			20,129,000	
02-24-1	Carbon Cnyn Sewer and Pump Stn. Abandonment	9,952,000			9,952,000	
02-65	Newhope-Placentia & Cypress Trunk Replacements	8,623,000			8,623,000	
02-68	Rehabilitate District Siphons By Adding Air Jumper	7,556,000			7,556,000	
03-52	Rehabilitation of the Westside Pump Station	9,646,000			9,646,000	
05-47	Balboa Trunk Sewer Rehabilitation	8,514,000			8,514,000	
05-49	Replacement of the Bitter Point Pump Station	36,547,000			36,547,000	
05-58	Bitter Point Force Main Rehabilitation	24,947,000			24,947,000	
05-60	Newport Force Main Condition Assessment	2,112,000			2,112,000	
05-61	Bayside Drive Improvement	3,750,000			3,750,000	
05-63	Dover Drive Trunk Sewer Relief	6,351,000			6,351,000	
07-37	Gisler-Redhill System Improvements, Reach B	9,437,000			9,437,000	
07-47	Rehabilitation of College Ave. Pump Station	9,969,000			9,969,000	
07-61	County Island Annexation and CEQA Documentation	300,000			300,000	
11-26	Coast Trunk Sewer Rehabilitation	10,830,000			10,830,000	
FE-Collect	Facilities Engineering Projects - Collections	7,920,000			7,920,000	
I-10	Replacement of the Ellis Ave. Pump Stn	77,257,000			77,257,000	
I-2-4	Bushard Trunk Sewer Rehabilitation	68,757,000			68,757,000	
02-49	Taft Branch Improvements	1,121,000				1,121,000
02-71	Fullerton-Brea Interceptor Sewer Relief	946,000				946,000
03-55	Westside Relief Interceptor/ Los Alamitos MH Rehab	13,038,000				13,038,000
03-59	Miller-Holder Trunk Sewer Relief	12,169,000				12,169,000
03-60	Beach Trunk/Knott Interceptor Sewer Relief	25,605,000				25,605,000

Continued

Collections System Improvement Projects – Budget By Project Status

Proj. #	Title	Total Budget	New	Continuing	Revised	Future
Collections Facilities (Continued)						
06-17	District 6 Trunk Sewer Relief	2,050,000				2,050,000
06-18	Fairview Road Trunk Sewer Relief	10,029,000				10,029,000
06-19	Southwest Costa Mesa Trunk	12,600,000				12,600,000
07-60	Browning Subtrunk Sewer Relief	3,920,000				3,920,000
07-62	Von Karman Trunk Sewer Relief	409,000				409,000
11-25	Edinger/Bolsa Chica Trunk Improvements	4,411,000				4,411,000
	Collections Facilities Improvement Projects Total Budget	**519,424,000**	**-**	**106,781,000**	**326,345,000**	**86,298,000**

Treatment & Disposal Projects – Budget By Project Status

Proj. #	Title	Total Budget	New	Continuing	Revised	Future
Headworks						
P1-71	Headworks Rehabilitation/Refurbishment	11,024,000		11,024,000		
P2-66	Headworks Improvements at Plant No. 2	254,498,000			254,498,000	
P1-105	Headworks Rehab. and Expansion at Plant No. 1	20,202,000				20,202,000
	Headworks Total Budget	**285,724,000**	**-**	**11,024,000**	**254,498,000**	**20,202,000**
Primary Treatment						
SP-130	Primary Effluent Pump Stations Reliability Study	100,000	100,000			
P2-80	Primary Treatment Rehab/Refurb	37,230,000		37,230,000		
	Primary Treatment Total Budget	**37,330,000**	**100,000**	**37,230,000**	**-**	**-**
Secondary Treatment						
SP-129	Oxygen Plant Rehabilitation at Plant No. 2	2,500,000	2,500,000			
P1-82	Activated Sludge Plant Rehabilitation	46,133,000		46,133,000		
P2-90	Trickling Filters at Plant No. 2	221,192,000		221,192,000		
SP-72-1	Oxygen Plant Rehabilitation	150,000		150,000		
P1-102	New Secondary Treatment System at Plant No. 1	265,863,000			265,863,000	
P2-74	Rehabilitation of Activated Sludge Plant at Plant 2	16,401,000			16,401,000	
	Secondary Treatment Total Budget	**552,239,000**	**2,500,000**	**267,475,000**	**282,264,000**	**-**
Solids Handling & Digestion						
P1-101	Sludge Dewatering and Odor control at Plant 1	143,547,000		143,547,000		
P1-106	Truck Wash and Dewatering Beds at Plant No. 1	3,146,000		3,146,000		
P2-91	Plant No. 2 Primary Sludge Feed System Project	25,766,000		25,766,000		
P1-100	Sludge Digester Rehabilitation at Plant 1	60,397,000			60,397,000	
P2-89	Solids Thickening and Processing Upgrades	73,020,000			73,020,000	
P2-91-1	Digester Rehabilitation at Plant No. 2	36,398,000			36,398,000	
P2-97	Replacement of Drying Beds and Truck Wash at Plant	4,443,000			4,443,000	
P2-92	Sludge Dewatering and Odor Control at Plant 2	51,696,000				51,696,000
	Solids Handling & Digestion Total Budget	**398,413,000**	**-**	**172,459,000**	**174,258,000**	**51,696,000**
Ocean Outfall Systems						
J-110	Final Effluent Sampler and Building Area Upgrades	1,890,000	1,890,000			
J-77	Effluent Pumping Station Annex	60,487,000		60,487,000		
	Ocean Outfall Systems Total Budget	**62,377,000**	**1,890,000**	**60,487,000**	**-**	**-**

Summary by Project Status

Treatment & Disposal Projects – Budget By Project Status

Proj. #	Title	Total Budget	New	Continuing	Revised	Future
Utility Systems						
P1-111	Power Building 3A Backup Power Reliability Project	502,000	502,000			
P2-101	Plant Water System Rehabilitation at Plant No.2	4,108,000	4,108,000			
SP-132	Fuel Cell Feasibility Study	100,000	100,000			
SP-134	Fuel Cell Hydrogen Gas Generation Research	500,000	500,000			
J-106	Interplant Gas Line Rehabilitation	3,752,000		3,752,000		
J-109	Cengen Cooling Water System Replacement	9,094,000		9,094,000		
J-79	Air Quality Improvements	9,168,000		9,168,000		
J-96	Fire Suppression for Servers and Equip at P1 & P2	965,000		965,000		
P2-104	Solids Area Cable Tray Improvements at Plant No. 2	6,156,000		6,156,000		
J-47	Cable Tray Improvements at Plants 1 & 2	31,744,000			31,744,000	
J-79-1	Central Generation Automation	20,332,000			20,332,000	
P1-97	Plant 1 66kV Substation	14,780,000			14,780,000	
J-111	Cengen Emissions Control Project	31,000,000				31,000,000
J-98	Electrical Power Distribution System Improvements	8,992,000				8,992,000
P1-112	Plant Water System Rehabilitation at Plant No.1	3,538,000				3,538,000
P2-103	Flare System Expansion and Upgrades	1,500,000				1,500,000
	Utility Systems Total Budget	**146,231,000**	**5,210,000**	**29,135,000**	**66,856,000**	**45,030,000**
Odor Control Related Projects						
J-71-8	Rehabilitation of Odor Control Facilities	38,707,000			38,707,000	
P1-113	Trickling Filter Odor Control at Plant No. 1	4,582,000				4,582,000
P1-114	Primary Scrubber Rehabilitation at Plant No.1	4,200,000				4,200,000
P2-102	Solids Storage Building Odor Control Project	10,183,000				10,183,000
P2-98	Primary Treatment Odor Control Upgrades	28,460,000				28,460,000
	Odor Control Related Projects Total Budget	**86,132,000**	**-**	**-**	**38,707,000**	**47,425,000**
Process Related Special Projects						
SP-68-1	Corrosion Management	4,667,000		4,667,000		
SP-90-7	Special Projects: Biotrickling Filter (BTF)	1,027,000			1,027,000	
	Process Related Special Projects Total Budget	**5,694,000**	**-**	**4,667,000**	**1,027,000**	**-**

Treatment & Disposal Projects – Budget By Project Status

Proj. #	Title	Total Budget	New	Continuing	Revised	Future
Plant Automation & Computerization						
SP-03	Strategic Information Architecture (SIA)	1,995,000		1,995,000		
SP-09	Internet/Intranet Development	650,000		650,000		
SP-100	CMMS System Replacement	3,789,000		3,789,000		
SP-103	PDS2D Software Replacement	250,000		250,000		
SP-104	Environmental Compliance Awareness Program	982,000		982,000		
SP-15	Geographic Information System	4,157,000		4,157,000		
SP-89	Network Equipment Upgrade	2,806,000		2,806,000		
J-33-3	Power Monitoring and Control Systems	10,899,000			10,899,000	
	Plant Automation & Computerization Total Budget	**25,528,000**	**-**	**14,629,000**	**10,899,000**	**-**
Miscellaneous & Support Projects						
SP-133	2009 NPDES Permit Renewal	787,000	787,000			
J-97	Laboratory Refurbishment at Plant No. 1	417,000		417,000		
P1-104	Regional FOG Control Collection at Plant No. 1	3,150,000		3,150,000		
SP-127	Office Space Planning Study	500,000		500,000		
SP-128	Integrated Security Access Control System	450,000		450,000		
SP-68-2	Asset Management Program	5,100,000		5,100,000		
SP-77	Warehouse Reinvention Project	600,000		600,000		
FE-J	Facilities Engineering Projects - Joint	22,110,000			22,110,000	
FE-P1	Facilities Engineering Projects - Plant 1	19,110,000			19,110,000	
FE-P2	Facilities Engineering Projects - Plant 2	19,110,000			19,110,000	
J-108	Temporary Upgrades To Plant Security Barriers	1,450,000			1,450,000	
P2-96	Plant No. 2 Landscaping Project	440,000			440,000	
SP-34	Small Cap. Equip. Replacement Project	10,550,000			10,550,000	
SP-98	Plant 2 Maintenance Building Modifications	276,000			276,000	
	Miscellaneous & Support Projects Total Budget	**84,050,000**	**787,000**	**10,217,000**	**73,046,000**	**-**
Water Management Projects						
J-36	Groundwater Replenishment System	248,400,000			248,400,000	
	Water Management Projects Total Budget	**248,400,000**	**-**	**-**	**248,400,000**	**-**

Summary by Project Status

Treatment & Disposal Projects – Budget By Project Status

Proj. #	Title	Total Budget	New	Continuing	Revised	Future
Strategic & Master Planning						
SP-105	Orange County Biosolids Production Siting Study	400,000		400,000		
J-102	Treatment Plant Strategic Plan Update	4,500,000			4,500,000	
	Strategic & Master Planning Total Budget	**4,900,000**	**-**	**400,000**	**4,500,000**	**-**
Research & Development						
SP-120	Research Strategic Plan	365,000		365,000		
SP-121	Superoxygenation of Primary Influent	850,000		850,000		
SP-122	Digester Optimization	90,000		90,000		
SP-123	Digester Pilot Plant Safety and Control System Upg	230,000		230,000		
SP-125	Operational Research Projects (annual allocation)	10,040,000		10,040,000		
SP-116	USBR Brine Management Grant Project	230,000			230,000	
	Research & Development Projects Total Budget	**11,805,000**	**-**	**11,575,000**	**230,000**	**-**
Treatment and Disposal Projects Total Budget		**1,948,823,000**	**10,487,000**	**619,298,000**	**1,154,685,000**	**164,353,000**
Equipment Total Budget		**16,000,000**	**-**	**16,000,000**	**-**	**-**
Total Capital Improvement Program Budget		**2,484,247,000**	**10,487,000**	**742,079,000**	**1,481,030,000**	**250,651,000**

Proposed Equipment Budget
2008-09

Department	Trucks & Vehicles 09410000	Other Mobile Eq 09410001	Machine Eq & Tools 09410002	Comm Equipment 09410003
Information Technology	-	-	-	105,000
Facilities Maintenance & Fleet Services	336,800	227,800	-	-
Environmental Laboratory & Ocean Monitoring	-	-	-	-
Operations & Maintenance Process Engineering	-	-	375,000	-
Plant No. 2 Operations	-	-	-	-
Mechanical, Reliability & Maint. Support Services	-	-	203,500	-
Instrumentation & Electrical Maintenance	-	-	-	35,000
Total Proposed Capital Equipment	336,800	227,800	578,500	140,000

Proposed Equipment Budget Summary

Proposed Equipment Budget
2008-09

Department	Instr / Test Equipment 09410004	Safety & Traffic Eq 09410005	Office Fix & Eq 09410006	Computer Equipment 09410007	2008-09 Proposed Budget
Information Technology	-	40,000	-	225,900	370,900
Facilities Maintenance & Fleet Services	-	-	-	-	564,600
Environmental Laboratory & Ocean Monitoring	113,200	-	36,000	-	149,200
Operations & Maintenance Process Engineering	-	-	-	-	375,000
Plant No. 2 Operations	18,000	-	-	-	18,000
Mechanical, Reliability & Maint. Support Services	-	-	-	-	203,500
Instrumentation & Electrical Maintenance	7,100	250,000	-	-	292,100
Total Proposed Capital Equipment	138,300	290,000	36,000	225,900	1,973,300

Proposed Equipment Budget Detail

Division	Equipment Type	Proposed Equip. Budget
250 - Information Technology		
	Server/Storage/Back-ups	125,000
	Archiving Equipment	5,000
	Storage Equipment	10,000
	SCADA Storage	30,000
	Video Monitoring/Recording Equip.	25,000
	Video Monitoring/Recording Equip.	60,000
	Portable Video Monitoring Equip.	20,000
	Plotters & Scanners	35,900
	Vehicle/License Plate Recognition Equip.	20,000
	Video Monitoring Solution	20,000
	Scanner 11 x 17	10,000
	E Size Plotter	10,000
	Total	370,900
430 - Facilities Maintenance & Fleet Services		
	Electric Carts (4) - Replace #625, 850, 851, 984	36,000
	Sedan - Replace V# 390	22,600
	Twelve-Passenger Van Pool Van - Replace V# 0528	39,800
	Tour Bus with Handicap Access - Replace V# 0292	157,700
	Full Size Pickup Truck - Replace V# 0483	33,800
	Manlift Replacement	130,800
	Wheel Tractor - Replace E# 1029	61,000
	Generator Truck - Replace V# 0217	51,000
	Service Body for Flatbed Truck Purchased in FY 07-08 (Re-budget)	31,900
	Total	564,600
630 - Environmental Laboratory & Ocean Monitoring		
	Samplers (4)	28,700
	Gas Chromatograph Mass Spectrometer (GCMS)	72,500
	Miele Dishwasher	12,000
	Cubicle Spaces (6) for Infaunal Taxonomy Workstations (New Program)	36,000
	Total	149,200
820 - Operations & Maintenance Process Engineering		
	Odor Treatment System (Re-budget)	375,000
840 - Plant No. 2 Operations		
	Hydrogen Sulfide Meter	18,000
850 - Mechanical, Reliability & Maintenance Support Services		
	Gantry Crane and Trolley, 4,000 lb.	7,500
	Electric Grease Pump	8,000
	Air Motor, Reversible with Geared Head Multiplier & 1" Torque Driver Kit	10,000
	Puller Set	22,000
	20" Abrasive Double Mitering Cut-off Saw with Dust Collector	17,000
	Precision Engine Lathe 14x40 with Associated Tooling	20,000
	Rebuild Tool Sets (2)	28,000
	Lubrication Filter Carts (5)	32,000
	Fixturlaser Express Alignment System (XA)	24,000
	SpectraQuest Turnkey Vibration Training System	35,000
	Total	203,500

Proposed Equipment Budget Detail

Proposed Equipment Budget Detail

Division	Equipment Type	Proposed Equip. Budget
860 - Instrumentation & Electrical Maintenance		
	Personal Hazardous Air Monitoring System (45)	250,000
	Portable Generator System	7,100
	Programmable Logic Controller CPUs and Racks Upgraded	35,000
	Total	292,100
	Total Proposed 2008-09 CORF Equipment Budget	**1,973,300**

Proposed Equipment Budget
2009-10

Department	Trucks & Vehicles 09410000	Other Mobile Eq 09410001	Machine Eq & Tools 09410002	Comm Equipment 09410003
Information Technology	-	-	-	65,000
Collection Facilities Operations & Maintenance	-	-	14,500	-
Facilities Maintenance & Fleet Services	544,100	158,100	-	-
Environmental Laboratory & Ocean Monitoring	-	-	-	-
Operations & Maintenance Process Engineering	-	-	-	-
Instrumentation & Electrical Maintenance	-	-	-	57,000
Total Proposed Capital Equipment	544,100	158,100	14,500	122,000

Proposed Equipment Budget Summary

Proposed Equipment Budget
2009-10

Department	Instr / Test Equipment 09410004	Safety & Traffic Eq 09410005	Office Fix & Eq 09410006	Computer Equipment 09410007	2009-10 Proposed Budget
Information Technology	-	20,000	-	132,500	217,500
Collection Facilities Operations & Maintenance	-	-	-	-	14,500
Facilities Maintenance & Fleet Services	-	-	-	-	702,200
Environmental Laboratory & Ocean Monitoring	94,400	-	-	-	94,400
Operations & Maintenance Process Engineering	209,000	-		-	209,000
Instrumentation & Electrical Maintenance	-	-	-	-	57,000
Total Proposed Capital Equipment	303,400	20,000	-	132,500	1,294,600

Proposed Equipment Budget Detail

Division	Equipment Type	Proposed Equip. Budget
250 - Information Technology		
	Agenda Automation Equip.	60,000
	Control Center Video Display	11,600
	Imaging Equipment	15,000
	Video Monitoring/Recording Equip.	25,000
	Video Monitoring/Recording Equip.	40,000
	Remote Capture Equipment	10,000
	Scanner hardware	35,900
	Vehicle/License Plate Recognition Equip.	20,000
	Total	217,500
420 - Collection Facilities Operations & Maintenance		
	Hot/Cold High Pressure Washer; Parts Cleaning Tank & Bead Blaster	8,500
	Washer and Dryer for North County Yard	6,000
	Total	14,500
430 - Facilities Maintenance & Fleet Services		
	Generator Truck - Replace V# 0237	61,000
	Twelve-Passenger Van Pool Van - Replace V# 0525	41,800
	Scissor Lift - Replace E# 0829	27,300
	Manlift - Replace E# 09808	130,800
	Pickup Truck - Replace V# 0425	33,800
	Vactor Jet Rodder - Replace V# 0396	383,900
	Pickup Truck - Replace V# 0452	23,600
	Total	702,200
630 - Environmental Laboratory & Ocean Monitoring		
	Samplers (4)	29,500
	Acoustic Doppler Current Meters (ADCP) (2)	64,900
	Total	94,400
820 - Operations & Maintenance Process Engineering		
	Handheld VOC Meter	9,000
	Electronic Odor Sensing Device (OdoWatch)	200,000
	Total	209,000
860 - Instrumentation & Electrical Maintenance		
	Programmable Logic Controller CPUs and Racks Upgraded	35,000
	Infrared Camera System	22,000
	Total	57,000
	Total Proposed 2009-10 CORF Equipment Budget	**1,294,600**