

WATER/SEWER ENTERPRISE FUNDS

Water and sewer capital projects account for the largest portion of the capital improvement plan. These projects will be funded from water/sewer fund revenues. The FY 2010-19 budget reflects recommendations from the Red Oak Consulting study completed in 2009.

The combined Water/Sewer Fund (2360) reflects continued funding in FY 2010 for the implementation of a new utility billing system and the expansion and enhancement of the city's water reclamation facilities, the West Area Water Reclamation Facility and the Arrowhead Water Reclamation Facility.

FY 2010 for the Water Fund (2400) reflects continued funding for the completion of the Oasis Water Campus, citywide water line replacement and extensions, a water security system and the expansion of the Zone 4 Groundwater Treatment Plant that will provide capacity of 10 million gallons per day (MGD) for the drinking water system.

In FY 2010, the Sewer Fund (2420) projects include sewer line replacement and extension, the repair of the 99th Avenue sewer line that connects to the Phoenix/Sub-Regional Operating Group (SROG); and the continued expansion of the 91st Avenue Wastewater Treatment Plant co-owned by the City of Phoenix and SROG, of which Glendale is a member. This project will expand the facility's treatment capacity from 153 MGD to 250 MGD.



Project Name: Oasis Water Campus
Funding Source: Revenue Bond
Fund #: 2400
Project #: 61003



**FY 2010 - 2019 Capital Improvement Program
Capital Projects By Fund and Project Number**

Fund: Water & Sewer Fund (2360)

Category: Revenue

Project Name:	Carryover:	FY 09-10:	FY 10-11:	FY 11-12:	FY 12-13:	FY 13-14:	FY 14-19:
Existing Assets							
<i>Improvement of Existing Assets</i>							
60002 Addtl. Recharge Capacity	1,764,349	579,911	0	0	0	0	0
60007 Arrwhd Wtr Reclam Fac Imps	1,414,379	0	0	0	2,175,207	1,944,615	0
<i>Replacement of Existing Assets</i>							
60000 Utility Billing System Repl.	1,785,405	0	0	0	0	0	0
60001 Water Quality Instruments	452,615	0	0	0	0	0	1,042,189
60006 Sand Filtrs & Dis Sys - AWRF	984,204	3,261,599	0	509,786	4,234,768	119,951	0
T2160 Insertion Machine	0	0	0	0	0	0	200,000
T2250 WAWRF Clarifier Replacement	0	0	0	0	0	277,770	0
T2270 WAWRF Fine Screen Replacement	0	0	0	0	0	752,950	0
T2280 WAWRF Odor Control Replacement	0	0	0	0	0	1,081,700	0
<i>Sub-Total - Existing Assets</i>	<i>6,400,952</i>	<i>3,841,510</i>	<i>0</i>	<i>509,786</i>	<i>6,409,975</i>	<i>4,176,986</i>	<i>1,242,189</i>
New Assets							
60008 WAWRF Phase IV	1,749,993	976,421	0	0	3,935,205	17,682,750	36,389,350
T2281 91st Ave WWTP Capacity Increas	0	0	5,988,500	4,491,375	4,491,375	4,491,375	6,496,000
<i>Sub-Total - New Assets</i>	<i>1,749,993</i>	<i>976,421</i>	<i>5,988,500</i>	<i>4,491,375</i>	<i>8,426,580</i>	<i>22,174,125</i>	<i>42,885,350</i>
Total Water & Sewer Fund Projects:	\$8,150,945	\$4,817,931	\$5,988,500	\$5,001,161	\$14,836,555	\$26,351,111	\$44,127,539
Total FY 09-10 Funding:	\$12,968,876						

* New Project

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer Fund (2360)

Category: Revenue

Project: 60002 - Addtl. Recharge Capacity (I)

Funding Source: Water & Sewer Revenues

Project Description:

Provide contingency recharge capacity for the Arrowhead Ranch Water Reclamation Facility in order to comply with capacity, management, operation and maintenance and prevent possible sanitary sewer overflows due to loss of discharge pathway to Arrowhead.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Construction	\$468,000	\$0	\$0	\$0	\$0	\$0
Finance Charges	\$6,343	\$0	\$0	\$0	\$0	\$0
Engineering Charges	\$30,888	\$0	\$0	\$0	\$0	\$0
Arts	\$4,680	\$0	\$0	\$0	\$0	\$0
Contingency	\$70,000	\$0	\$0	\$0	\$0	\$0
Carryover	\$1,764,349	\$0	\$0	\$0	\$0	\$0
TOTAL	\$2,344,260	\$0	\$0	\$0	\$0	\$0

Operating Description:

No additional O and M is needed.

Project: 60007 - Arrwhd Wtr Reclam Fac Imps (I)

Funding Source: Water & Sewer Revenues

Project Description:

To ensure reliable and safe treatment of wastewater in the Arrowhead area and meet upcoming regulatory requirements, the treatment plant processes will be upgraded. This project includes replacement of the mechanical equipment in clarifiers one through four, replacing basin tank covers, installing OSHA approved fall protection equipment, upgrading associated pumps and blowers, performing repairs to the main operations building and upgrading the process control software. These activities will enable the plant to consistently meet the A+ effluent water quality requirements and help assure personnel safety by meeting OSHA standards.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Construction	\$0	\$0	\$0	\$1,800,000	\$1,670,000	\$0
Finance Charges	\$0	\$0	\$0	\$43,107	\$8,000	\$0
Engineering Charges	\$0	\$0	\$0	\$44,100	\$40,915	\$0
Arts	\$0	\$0	\$0	\$18,000	\$16,700	\$0
Contingency	\$0	\$0	\$0	\$270,000	\$209,000	\$0
Carryover	\$1,414,379	\$0	\$0	\$0	\$0	\$0
TOTAL	\$1,414,379	\$0	\$0	\$2,175,207	\$1,944,615	\$0

Operating Description:

Due to the upgrade, the amount of waste water bring treated will increase thereby resulting in an increase in chemical costs.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$0	\$90,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$90,000

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer Fund (2360)

Category: Other

Project: 60000 - Utility Billing System Repl. (R)

Funding Source: Water & Sewer Revenues

Project Description: Replacement and implementation of a new utility billing system. The cost includes software, professional services and fees, and annual service and maintenance.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Carryover	\$1,785,405	\$0	\$0	\$0	\$0	\$0
TOTAL	\$1,785,405	\$0	\$0	\$0	\$0	\$0

Operating Description: No additional O and M is needed.

Project: 60001 - Water Quality Instruments (R)

Funding Source: Water & Sewer Revenues

Project Description: Funding a replacement program for the major analytical instrumentation at the city's Water Quality Laboratory. Highly sensitive and precise analytical instrumentation is required for the regulatory analysis of the city's water.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Equipment	\$0	\$0	\$0	\$0	\$0	\$1,042,189
Carryover	\$452,615	\$0	\$0	\$0	\$0	\$0
TOTAL	\$452,615	\$0	\$0	\$0	\$0	\$1,042,189

Operating Description: Replacement of water quality testing instruments with more sensitive detectors results in additional ongoing maintenance costs. Because of the initial warranties on each instrument, these operating impacts are expected to begin the year following instrument replacement.

Operating Costs:	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$0	\$149,387
TOTAL	\$0	\$0	\$0	\$0	\$0	\$149,387

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer Fund (2360)

Category: Revenue

Project: 60006 - Sand Filtrs & Dis Sys - AWRF (R)

Funding Source: Water & Sewer Revenues

Project Description:

This project will replace the aging sand filters and ultra violet light disinfection system at the Arrowhead Ranch Water Reclamation Facility. Effluent from the ARWRF is sent to lakes in the Arrowhead Ranch area parks and golf courses. This effluent is used for irrigation purposes by Arrowhead Amenities. The effluent is also used in recharge wells operated by the city. Membrane Filtration has been selected as it forms a barrier to pathogenic organisms and assures very low turbidity by filtering very small particles that are periodically passing through the existing sand filters. This improved water quality will increase recharge well life cycles and help decrease disinfection costs by removing contaminants. The current Trojan UV disinfection system will be replaced with more cost effective technology.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Construction	\$2,700,000	\$0	\$450,000	\$3,500,000	\$95,000	\$0
Finance Charges	\$64,000	\$0	\$0	\$57,500	\$7,311	\$0
Engineering Charges	\$48,036	\$0	\$8,006	\$62,268	\$1,690	\$0
Arts	\$27,000	\$0	\$4,500	\$35,000	\$950	\$0
Contingency	\$422,563	\$0	\$47,280	\$580,000	\$15,000	\$0
Carryover	\$984,204	\$0	\$0	\$0	\$0	\$0
TOTAL	\$4,245,803	\$0	\$509,786	\$4,234,768	\$119,951	\$0

Operating Description:

Electrical power requirements for the new filtration system are expected to increase due to electrical rate increases. The filter membranes have an expected life span of 7 to 10 years and will require replacement at that time. A liquid bleach disinfection system incorporating de-chlorination will require increased chemical use but decreased electrical cost compared to UV disinfection.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$50,000	\$273,420
Utilities	\$0	\$0	\$0	\$0	\$40,000	\$218,736
Equip. Maint.	\$0	\$0	\$0	\$0	\$0	\$100,000
TOTAL	\$0	\$0	\$0	\$0	\$90,000	\$592,156

Project: T2160 - Insertion Machine (R)

Funding Source: Water & Sewer Revenues

Project Description:

Replace current insertion machine. The machine performs insertion for all departments, including Sales Tax, Water and Sewer, Sanitation, Marketing, Human Resources, Council, Landfill and Payroll.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Equipment	\$0	\$0	\$0	\$0	\$0	\$200,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$200,000

Operating Description:

This piece of equipment will be included in the Technology Replacement Fund with a yearly contribution of \$40,000 per year for five years. The contribution will be split as follows: 33% cost to the Water and Sewer Fund, 33% cost to the General Fund and 34% to the Sanitation Fund. A one year service and preventative maintenance agreement is built into the cost at \$15,000. The yearly contributions will go down to \$20,000 per year in the second five years with the same split between funds.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Equip. Maint.	\$0	\$0	\$0	\$0	\$0	\$100,000
PC/Vehicle Replacement	\$0	\$0	\$0	\$0	\$0	\$200,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$300,000

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer Fund (2360)

Category: Revenue

Project: T2250 - WAWRF Clarifier Replacement (R)

Funding Source: Water & Sewer Revenues

Project Description:

This request is to repair and replace the clarifier mechanical drive units and associated equipment at the West Area Water Reclamation Facility in three of the six clarifiers. These structures are mechanical in nature with equipment that includes heavy drive motors, pulleys, chains, bearings and scrapers, all of which will wear out over time. Funding moved to FY 2014.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$30,000	\$0
Construction	\$0	\$0	\$0	\$0	\$200,000	\$0
Engineering Charges	\$0	\$0	\$0	\$0	\$11,270	\$0
Arts	\$0	\$0	\$0	\$0	\$2,000	\$0
Contingency	\$0	\$0	\$0	\$0	\$34,500	\$0
TOTAL	\$0	\$0	\$0	\$0	\$277,770	\$0

Operating Description:

No additional O and M cost as new equipment will replace aging existing equipment.

Project: T2270 - WAWRF Fine Screen Replacement (R)

Funding Source: Water & Sewer Revenues

Project Description:

The West Area Water Reclamation Facility fine screens are mechanical devices removing solid materials from the West Area Water Reclamation Facility influent flows. These mechanical devices are subject to wear and tear and need to be replaced periodically.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$50,000	\$0
Construction	\$0	\$0	\$0	\$0	\$580,000	\$0
Engineering Charges	\$0	\$0	\$0	\$0	\$29,400	\$0
Arts	\$0	\$0	\$0	\$0	\$5,800	\$0
Contingency	\$0	\$0	\$0	\$0	\$87,750	\$0
TOTAL	\$0	\$0	\$0	\$0	\$752,950	\$0

Operating Description:

No additional O and M cost as new equipment will replace aging existing equipment.

Project: T2280 - WAWRF Odor Control Replacement (R)

Funding Source: Water & Sewer Revenues

Project Description:

The West Area Water Reclamation Facility Odor Control System is required to meet air quality regulatory standards and eliminate odor complaints from nearby property owners. The odor control system will require replacement in the future due to wear and tear.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$100,000	\$0
Construction	\$0	\$0	\$0	\$0	\$800,000	\$0
Engineering Charges	\$0	\$0	\$0	\$0	\$38,700	\$0
Arts	\$0	\$0	\$0	\$0	\$8,000	\$0
Contingency	\$0	\$0	\$0	\$0	\$135,000	\$0
TOTAL	\$0	\$0	\$0	\$0	\$1,081,700	\$0

Operating Description:

No additional O and M cost as new equipment will replace aging existing equipment.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer Fund (2360)

Category: Revenue

Project: 60008 - WAWRF Phase IV (N)

Funding Source: Water & Sewer Revenues

Project Description:

Design and construct additional treatment capacity at the West Area Water Reclamation Facility to treat increasing wastewater flows from the developing area along the Loop 101 alignment and other projected area growth. This expansion is identified in the revised Wastewater Treatment Master Plan completed by Malcolm Pirnie. The current treatment capacity will be increased from 11.5 MGD to a higher capacity that will be determined in a new master plan study to be performed as part of this project.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$832,000	\$0	\$0	\$0	\$0	\$0
Construction	\$12,545	\$0	\$0	\$3,300,000	\$15,000,000	\$31,000,000
Finance Charges	\$0	\$0	\$0	\$49,500	\$225,000	\$460,000
IT/Phone/Security	\$0	\$0	\$0	\$45,000	\$0	\$0
Engineering Charges	\$3,251	\$0	\$0	\$12,705	\$57,750	\$119,350
Arts	\$125	\$0	\$0	\$33,000	\$150,000	\$310,000
Contingency	\$128,500	\$0	\$0	\$495,000	\$2,250,000	\$4,500,000
Carryover	\$1,749,993	\$0	\$0	\$0	\$0	\$0
TOTAL	\$2,726,414	\$0	\$0	\$3,935,205	\$17,682,750	\$36,389,350

Operating Description:

Expanded facility will require two new plant operators and one new plant electrician starting FY 2016 at 68,000 including benefits per year. Other treatment expenses prorated with existing facility expenses. Plant capacity will increase resulting in increases in (1) supplies (chemicals) \$200,000; (2) utilities of \$300,000; (3) equipment maintenance \$66,000. No new telephones, PC's, or vehicles will be required.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Staffing	\$0	\$0	\$0	\$0	\$0	\$816,000
Supplies/Contr	\$0	\$0	\$0	\$0	\$0	\$800,000
Utilities	\$0	\$0	\$0	\$0	\$0	\$1,200,000
Equip. Maint.	\$0	\$0	\$0	\$0	\$0	\$264,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$3,080,000

Project: T2281 - 91st Ave WWTP Capacity Increas (N)

Funding Source: Water & Sewer Revenues

Project Description:

Increase the current Glendale treatment capacity ownership in the Multi-Cities Sub Regional Operating Group wastewater treatment plant by 5 MGD, calculated on an average daily flow basis. This capacity increase is needed in order to meet the wastewater treatment capacity of the city. These improvements are identified in the revised Wastewater Treatment Master Plan completed by Malcolm Pirnie.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Finance Charges	\$0	\$88,500	\$66,375	\$66,375	\$66,375	\$96,000
Miscellaneous/Other	\$0	\$5,900,000	\$4,425,000	\$4,425,000	\$4,425,000	\$6,400,000
TOTAL	\$0	\$5,988,500	\$4,491,375	\$4,491,375	\$4,491,375	\$6,496,000

Operating Description:

Additional professional contract expenses with the Sub-Regional operating group will be required as Glendale's ownership percentage increases due to acquiring additional 91st Ave WWTP capacity. This increase in capacity is driven by growth in the West Area and a projected increase in treated sewer byproducts discharged from the West Area Water Reclamation Facility to 91st Ave WWTP for disposal.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$0	\$4,000,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$4,000,000

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010 - 2019 Capital Improvement Program Capital Projects By Fund and Project Number

Fund: Water (2400)

Category: Revenue

<u>Project Name:</u>	<u>Carryover:</u>	<u>FY 09-10:</u>	<u>FY 10-11:</u>	<u>FY 11-12:</u>	<u>FY 12-13:</u>	<u>FY 13-14:</u>	<u>FY 14-19:</u>
Existing Assets							
<i>Improvement of Existing Assets</i>							
61010 Zone 3 Pump Improvements	99,612	0	0	0	0	0	0
61015 Outer Loop Effluent Line	0	0	0	0	0	60,000	3,600,000
61023 Water System Security	2,748,614	0	0	2,520,000	0	0	0
61024 Cholla Water Plant Process Imp	586,000	0	900,000	0	0	0	0
61036 Zn4 Groundwater Trtment Plant	14,114,058	40,664,699	10,000,000	0	10,037,110	0	0
61039 Groundwater Availability Study	473,390	0	0	0	0	0	0
61040 Loop 101 Wells & Piping	1,922,000	0	0	0	1,927,380	0	9,679,120
T3540 WTPs Chlorine Gas Elimination	0	0	0	0	0	3,477,664	4,244,586
T3552 Additional Water Supply	0	0	0	0	6,597,500	3,581,123	49,988,750
<i>Replacement of Existing Assets</i>							
61001 Fire Hydrant Replacement	553,407	0	299,875	0	0	0	3,925,030
61012 Irrigation	0	0	0	0	0	0	947,584
61013 Line Replacement & Extension	943,260	0	3,000,000	3,150,000	3,300,000	3,450,000	19,096,919
T3530 Pyramid Pk WTP Train #1 Equip	0	0	0	791,670	4,917,950	0	0
T3550 Hillcrest Ranch Booster Rehab	0	0	0	0	0	552,775	0
Sub-Total - Existing Assets	21,440,341	40,664,699	14,199,875	6,461,670	26,779,940	11,121,562	91,481,989
New Assets							
61003 Oasis Water Campus	3,042,289	0	0	0	0	0	0
61005 Cholla Telemetry	209,208	0	0	0	0	0	0
61009 Drinking Water Well Head Trmt	0	0	0	0	0	750,000	750,000
61019 Storage and Recovery Well	0	0	0	0	0	751,940	4,005,475
61020 West Area Reuse Pipelines	162,271	0	0	0	0	0	2,162,500
61021 N River/Agua Fria Storage Proj	879,015	378,015	58,845	0	0	0	0
61027 Water Line Extension	1,944,936	0	1,517,672	1,517,672	1,517,672	0	2,024,134
61029 Regional GAC Plant	0	0	0	0	0	0	2,842,000
61038 Loop 101 Water Treatment	0	864,000	828,000	792,000	756,000	0	30,582,000
61041 *Additional Recharge Capacity	0	1,000,000	3,500,000	3,500,000	3,350,000	0	0
T3480 95th A Wtr Trn Ln Orgewd to G	0	0	0	1,462,100	0	0	0
T3510 Orngewood Ave Wtr Trans Mn	0	0	0	339,701	0	827,137	2,037,211
T3554 Zone 3 Transmission Pipelines	0	0	0	0	0	100,000	0
Sub-Total - New Assets	6,237,719	2,242,015	5,904,517	7,611,473	5,623,672	2,429,077	44,403,320
Total Water Projects:	\$27,678,060	\$42,906,714	\$20,104,392	\$14,073,143	\$32,403,612	\$13,550,639	\$135,885,309
Total FY 09-10 Funding:		\$70,584,774					

* New Project

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Other

Project: 61010 - Zone 3 Pump Improvements (I) **Funding Source:** Water & Sewer Revenues

Project Description: This improvement will provide better water pressure for the area of the city located west of 67th Avenue and north of Deer Valley Road.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Carryover	\$99,612	\$0	\$0	\$0	\$0	\$0
TOTAL	\$99,612	\$0	\$0	\$0	\$0	\$0

Operating Description: No additional O and M is needed.

Project: 61015 - Outer Loop Effluent Line (I) **Funding Source:** Water & Sewer Revenues

Project Description: Project to transport, store and recharge effluent reuse water for the Arrowhead Ranch area. Contingency equals 15% of construction.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$58,910	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$3,000,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$50,000
Engineering Charges	\$0	\$0	\$0	\$0	\$1,090	\$55,500
Arts	\$0	\$0	\$0	\$0	\$0	\$30,000
Contingency	\$0	\$0	\$0	\$0	\$0	\$464,500
TOTAL	\$0	\$0	\$0	\$0	\$60,000	\$3,600,000

Operating Description: No additional O and M is needed at this time.

Project: 61023 - Water System Security (I) **Funding Source:** Water & Sewer Revenues

Project Description: Installation of additional or new equipment to provide greater security to the city's water source supply, treatment plants and distribution system.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$100,000	\$0	\$0	\$0
Construction	\$0	\$0	\$2,000,000	\$0	\$0	\$0
Finance Charges	\$0	\$0	\$30,000	\$0	\$0	\$0
Engineering Charges	\$0	\$0	\$55,000	\$0	\$0	\$0
Arts	\$0	\$0	\$20,000	\$0	\$0	\$0
Contingency	\$0	\$0	\$315,000	\$0	\$0	\$0
Carryover	\$2,748,614	\$0	\$0	\$0	\$0	\$0
TOTAL	\$2,748,614	\$0	\$2,520,000	\$0	\$0	\$0

Operating Description: No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61024 - Cholla Water Plant Process Imp (I)

Funding Source: Water & Sewer Revenues

Project Description:

Improvements to the Cholla WTP to meet water treatment regulations. Work to be performed during the current 10-year CIP will consist mainly of improvements to the existing sand filters and addition of new filters. The new vent will also be added.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Construction	\$0	\$700,000	\$0	\$0	\$0	\$0
Finance Charges	\$0	\$12,000	\$0	\$0	\$0	\$0
Engineering Charges	\$0	\$39,600	\$0	\$0	\$0	\$0
Arts	\$0	\$7,000	\$0	\$0	\$0	\$0
Contingency	\$0	\$141,400	\$0	\$0	\$0	\$0
Carryover	\$586,000	\$0	\$0	\$0	\$0	\$0
TOTAL	\$586,000	\$900,000	\$0	\$0	\$0	\$0

Operating Description:

No additional O and M is needed at this time.

Project: 61036 - Zn4 Groundwater Trtment Plant (I)

Funding Source: Water & Sewer Revenues

Project Description:

An expansion of the Zone 4 Water treatment plant intended to treat 10 MGD of groundwater to remove nitrates and other contaminants. This facility will provide needed drinking water when surface water plants are off line during canal dry-ups.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$1,701,100	\$0	\$0	\$0	\$0	\$0
Construction	\$33,000,000	\$8,500,000	\$0	\$8,600,000	\$0	\$0
Finance Charges	\$500,000	\$107,275	\$0	\$13,000	\$0	\$0
Engineering Charges	\$133,599	\$32,725	\$0	\$33,110	\$0	\$0
Arts	\$330,000	\$85,000	\$0	\$86,000	\$0	\$0
Contingency	\$5,000,000	\$1,275,000	\$0	\$1,305,000	\$0	\$0
Carryover	\$14,114,058	\$0	\$0	\$0	\$0	\$0
TOTAL	\$54,778,757	\$10,000,000	\$0	\$10,037,110	\$0	\$0

Operating Description:

This is an expansion of the Zone 4 Water Treatment Facility to give it the capability to treat groundwater therefore only new costs will be for staff, chemicals, and utilities. Three additional plant operators at \$71,500 per year. Chemical, utilities, and maintenance cost are based on actual cost during a pilot study to treat groundwater.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Staffing	\$0	\$214,500	\$220,935	\$227,563	\$0	\$1,244,408
Supplies/Contr	\$0	\$360,600	\$371,418	\$382,561	\$0	\$2,091,998
Utilities	\$0	\$54,636	\$56,275	\$57,963	\$0	\$316,967
Equip. Maint.	\$0	\$0	\$50,000	\$51,500	\$0	\$281,623
Insurance	\$0	\$6,409	\$6,601	\$6,799	\$0	\$37,180
TOTAL	\$0	\$636,145	\$705,229	\$726,386	\$0	\$3,972,176

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Other

Project: 61039 - Groundwater Availability Study (I)

Funding Source: Water & Sewer Revenues

Project Description: Comprehensive study and development of a groundwater model to assess and determine groundwater availability and aquifer sustainability in support of the city's designation of assured water supply reapplication and water system master plans.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Carryover	\$473,390	\$0	\$0	\$0	\$0	\$0
TOTAL	\$473,390	\$0	\$0	\$0	\$0	\$0

Operating Description: No new O and M costs associated with this project.

Project: 61040 - Loop 101 Wells & Piping (I)

Funding Source: Water & Sewer Revenues

Project Description: Rehabilitate existing wells in Zone 4 to supply raw water to the Loop 101 Ground Water Treatment Plant (GWTP). These improvements are needed in order to meet the growing potable water demand in this area of the city, and also to meet water quality regulations. These improvements are identified in the revised Utilities Water Master Plan completed by Black and Veatch.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$140,000	\$0	\$960,000
Construction	\$0	\$0	\$0	\$1,500,000	\$0	\$7,200,000
Finance Charges	\$0	\$0	\$0	\$22,900	\$0	\$125,100
Engineering Charges	\$0	\$0	\$0	\$15,480	\$0	\$77,020
Arts	\$0	\$0	\$0	\$15,000	\$0	\$72,000
Contingency	\$0	\$0	\$0	\$234,000	\$0	\$1,245,000
Carryover	\$1,922,000	\$0	\$0	\$0	\$0	\$0
TOTAL	\$1,922,000	\$0	\$0	\$1,927,380	\$0	\$9,679,120

Operating Description: No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: T3540 - WTPs Chlorine Gas Elimination (I)

Funding Source: Water & Sewer Revenues

Project Description: This project includes the removal of the on-site storage and use of chlorine gas for the disinfection of the drinking water. The chlorine gas will be replaced with the on-site generation of Sodium Hypochlorite as the disinfection chemical for the two water treatment plants.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$730,000	\$0
Construction	\$0	\$0	\$0	\$0	\$2,200,000	\$3,575,000
Finance Charges	\$0	\$0	\$0	\$0	\$44,000	\$53,000
Engineering Charges	\$0	\$0	\$0	\$0	\$41,664	\$50,836
Arts	\$0	\$0	\$0	\$0	\$22,000	\$35,750
Contingency	\$0	\$0	\$0	\$0	\$440,000	\$530,000
TOTAL	\$0	\$0	\$0	\$0	\$3,477,664	\$4,244,586

Operating Description: Additional annual cost for supplies and electricity are \$20,000 and \$15,000 respectively. Costs are based on engineering studies.

<u>Operating Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$15,000	\$82,026
Utilities	\$0	\$0	\$0	\$0	\$20,000	\$109,368
TOTAL	\$0	\$0	\$0	\$0	\$35,000	\$191,394

Project: T3552 - Additional Water Supply (I)

Funding Source: Water & Sewer Revenues

Project Description: Acquisition and development of renewable water supplies to meet increasing demand for water, maintain city's designation of assured water supply, and to minimize drought impacts on Glendale water system customers.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Finance Charges	\$0	\$0	\$0	\$97,500	\$52,923	\$738,750
Miscellaneous/Other	\$0	\$0	\$0	\$6,500,000	\$3,528,200	\$49,250,000
TOTAL	\$0	\$0	\$0	\$6,597,500	\$3,581,123	\$49,988,750

Operating Description: Operating impacts are based upon projected delivery and treatment costs relating to the additional water supply.

<u>Operating Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$0	\$386,027
TOTAL	\$0	\$0	\$0	\$0	\$0	\$386,027

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61001 - Fire Hydrant Replacement (R)

Funding Source: Water & Sewer Revenues

Project Description:

This project consists of funding a replacement program for approximately 800 existing fire hydrants. To date, 285 fire hydrants have been replaced. In addition, the project will fund the new installation of approximately 40 fire hydrants. The replacement of existing fire hydrants is primarily driven by the inability to obtain parts as the fire hydrant becomes inoperable. The new fire hydrant installations are based on an internal study that identified areas that currently do not meet city and industry spacing guidelines. In FY 2010, 50 new fire hydrant installations will be completed.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Construction	\$0	\$250,000	\$0	\$0	\$0	\$3,740,000
Finance Charges	\$0	\$3,750	\$0	\$0	\$0	\$56,000
Engineering Charges	\$0	\$6,125	\$0	\$0	\$0	\$91,630
Arts	\$0	\$2,500	\$0	\$0	\$0	\$37,400
Contingency	\$0	\$37,500	\$0	\$0	\$0	\$0
Carryover	\$553,407	\$0	\$0	\$0	\$0	\$0
TOTAL	\$553,407	\$299,875	\$0	\$0	\$0	\$3,925,030

Operating Description:

No additional O and M is needed at this time.

Project: 61012 - Irrigation (R)

Funding Source: Water & Sewer Revenues

Project Description:

The downtown flood irrigation system needs rehabilitation or repair. The work will be done in phases. Irrigation pipelines and irrigation structures will be rehabilitated or replaced to stop existing irrigation leaks. Contingency equals 15% of design and construction.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$0	\$18,000
Construction	\$0	\$0	\$0	\$0	\$0	\$770,000
Engineering Charges	\$0	\$0	\$0	\$0	\$0	\$33,884
Arts	\$0	\$0	\$0	\$0	\$0	\$7,700
Contingency	\$0	\$0	\$0	\$0	\$0	\$118,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$947,584

Operating Description:

No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61013 - Line Replacement & Extension (R)

Funding Source: Water & Sewer Revenues

Project Description: Replacement and rehabilitation of water lines throughout the city. Contingency equals 15% of design and construction.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$1,034,000	\$0	\$0	\$0	\$1,500,000
Construction	\$0	\$1,500,000	\$2,670,000	\$2,800,000	\$2,900,000	\$14,700,000
Finance Charges	\$0	\$39,594	\$41,282	\$39,397	\$47,947	\$242,000
Engineering Charges	\$0	\$11,406	\$12,018	\$12,603	\$13,053	\$72,919
Arts	\$0	\$15,000	\$26,700	\$28,000	\$29,000	\$147,000
Contingency	\$0	\$400,000	\$400,000	\$420,000	\$460,000	\$2,435,000
Carryover	\$943,260	\$0	\$0	\$0	\$0	\$0
TOTAL	\$943,260	\$3,000,000	\$3,150,000	\$3,300,000	\$3,450,000	\$19,096,919

Operating Description: No additional O and M is needed at this time.

Project: T3530 - Pyramid Pk WTP Train #1 Equip (R)

Funding Source: Water & Sewer Revenues

Project Description: Replace and rehabilitate equipment at the Pyramid Peak Water Treatment Plant related to water pathway #1 and other equipment in the original plant, which was installed over 21 years ago. Per an existing IGA, the City of Peoria will be responsible for approximately 23% of the projects costs.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Construction	\$0	\$0	\$660,000	\$4,100,000	\$0	\$0
Finance Charges	\$0	\$0	\$9,900	\$61,500	\$0	\$0
Engineering Charges	\$0	\$0	\$16,170	\$100,450	\$0	\$0
Arts	\$0	\$0	\$6,600	\$41,000	\$0	\$0
Contingency	\$0	\$0	\$99,000	\$615,000	\$0	\$0
TOTAL	\$0	\$0	\$791,670	\$4,917,950	\$0	\$0

Operating Description: No additional O and M is needed at this time.

Project: T3550 - Hillcrest Ranch Booster Rehab (R)

Funding Source: Water & Sewer Revenues

Project Description: This drinking water booster station went out of service in 1998 when the drinking water reservoir went online at the Pyramid Peak Water Treatment Plant (PPWTP). To serve as an emergency back up supply of water pressure for the Zone 3 water pressure zone, the pumps and electrical controls will be replaced or rehabilitated if possible.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$25,000	\$0
Construction	\$0	\$0	\$0	\$0	\$450,000	\$0
Engineering Charges	\$0	\$0	\$0	\$0	\$23,275	\$0
Arts	\$0	\$0	\$0	\$0	\$4,500	\$0
Contingency	\$0	\$0	\$0	\$0	\$50,000	\$0
TOTAL	\$0	\$0	\$0	\$0	\$552,775	\$0

Operating Description: No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61003 - Oasis Water Campus (N)

Funding Source: Water & Sewer Revenues

Project Description: Preparation of a "Comprehensive Water Facilities Planning and Design" plan, followed by design and construction of a new 10 MGD surface water treatment plant to serve mainly western Glendale with fresh drinking water.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Carryover	\$3,042,289	\$0	\$0	\$0	\$0	\$0
TOTAL	\$3,042,289	\$0	\$0	\$0	\$0	\$0

Operating Description: No additional O and M is needed.

Project: 61005 - Cholla Telemetry (N)

Funding Source: Water & Sewer Revenues

Project Description: The completion of Phase three of the radio telemetry project will add 1.2 GHz microwave radio communication equipment at the ARWRF, Cholla WTP, PPWTP, WAWRF and the Utilities Department office at the Field Operations Center.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Carryover	\$209,208	\$0	\$0	\$0	\$0	\$0
TOTAL	\$209,208	\$0	\$0	\$0	\$0	\$0

Operating Description: No additional O and M is needed.

Project: 61009 - Drinking Water Well Head Trmt (N)

Funding Source: Water & Sewer Revenues

Project Description: Conduct an engineering study to evaluate the various treatment technologies available to treat nitrates, arsenic and/or radon at various drinking water wells throughout the city. Test leased equipment as pilot projects.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Miscellaneous/Other	\$0	\$0	\$0	\$0	\$750,000	\$750,000
TOTAL	\$0	\$0	\$0	\$0	\$750,000	\$750,000

Operating Description: No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61019 - Storage and Recovery Well (N)

Funding Source: Water & Sewer Revenues

Project Description:

The project is a long term project to install one or more groundwater recharge and recovery wells for the purpose of recharging effluent and/or "recovering" recharge credits by pumping groundwater using a large, 2 MGD, turbine pump recovery well. The goal is to pump the recovered groundwater to the Arrowhead Amenities customers. Contingency is equal to 15% of design and construction.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$630,000	\$0
Construction	\$0	\$0	\$0	\$0	\$10,000	\$3,350,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$60,000
Engineering Charges	\$0	\$0	\$0	\$0	\$11,840	\$61,975
Arts	\$0	\$0	\$0	\$0	\$100	\$33,500
Contingency	\$0	\$0	\$0	\$0	\$100,000	\$500,000
TOTAL	\$0	\$0	\$0	\$0	\$751,940	\$4,005,475

Operating Description:

O and M includes three years of chemicals and equipment maintenance based on pilot studies.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$0	\$140,000
Utilities	\$0	\$0	\$0	\$0	\$0	\$100,000
Equip. Maint.	\$0	\$0	\$0	\$0	\$0	\$45,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$285,000

Project: 61020 - West Area Reuse Pipelines (N)

Funding Source: Water & Sewer Revenues

Project Description:

Malcolm Pirnie prepared a water reuse master plan for the reuse of effluent from the West Area Water Reclamation Facility. This plan was completed in May 2003. Reuse pipelines projects will be developed and scheduled as required. Extensions of the effluent line to serve new lakes are also included.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$0	\$200,000
Construction	\$0	\$0	\$0	\$0	\$0	\$1,600,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$27,000
Engineering Charges	\$0	\$0	\$0	\$0	\$0	\$49,500
Arts	\$0	\$0	\$0	\$0	\$0	\$16,000
Contingency	\$0	\$0	\$0	\$0	\$0	\$270,000
Carryover	\$162,271	\$0	\$0	\$0	\$0	\$0
TOTAL	\$162,271	\$0	\$0	\$0	\$0	\$2,162,500

Operating Description:

Pipeline maintenance will be required on 3.5 miles of existing pipeline, and following the new construction warranty period, annual maintenance will begin on the new pipelines. Annual maintenance includes instrument and control work on the telemetry, mechanical work on the valves and transmission piping, and repair of transmission system in the event of deterioration or breakage. One new WRF Plant Operator will be required to work off-site at lake intake structures, recharge outfall structures and water delivery locations. Cost of operator with benefits is \$75,080 a year for three years.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Staffing	\$0	\$0	\$0	\$0	\$0	\$225,240
TOTAL	\$0	\$0	\$0	\$0	\$0	\$225,240

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61021 - N River/Agua Fria Storage Proj (N)

Funding Source: Water & Sewer Revenues

Project Description:

To acquire a 20% ownership in the New River/Agua Fria Underground Storage Facility administered by the Salt River Project. The city has physically expanded the West Area Water Reclamation Facility and needs additional recharge capacity to store the effluent processed at the expanded facility. The new regional underground storage facility is located in the vicinity of 107th Avenue and Bethany Home Road. The stored effluent will be used to meet Glendale's long-term water demands and maintain compliance with the state groundwater code.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Miscellaneous/Other	\$378,015	\$58,845	\$0	\$0	\$0	\$0
Carryover	\$879,015	\$0	\$0	\$0	\$0	\$0
TOTAL	\$1,257,030	\$58,845	\$0	\$0	\$0	\$0

Operating Description:

No additional O and M is needed at this time.

Project: 61027 - Water Line Extension (N)

Funding Source: Water & Sewer Revenues

Project Description:

Installation of water line extensions.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$150,000	\$150,000	\$150,000	\$0	\$100,000
Construction	\$0	\$1,130,000	\$1,130,000	\$1,130,000	\$0	\$1,600,000
Finance Charges	\$0	\$15,000	\$15,000	\$15,000	\$0	\$29,750
Engineering Charges	\$0	\$21,372	\$21,372	\$21,372	\$0	\$28,384
Arts	\$0	\$11,300	\$11,300	\$11,300	\$0	\$16,000
Contingency	\$0	\$190,000	\$190,000	\$190,000	\$0	\$250,000
Carryover	\$1,944,936	\$0	\$0	\$0	\$0	\$0
TOTAL	\$1,944,936	\$1,517,672	\$1,517,672	\$1,517,672	\$0	\$2,024,134

Operating Description:

No additional O and M is needed at this time.

Project: 61029 - Regional GAC Plant (N)

Funding Source: Water & Sewer Revenues

Project Description:

Co-ownership of a regional Granular Activated Carbon (GAC) regeneration plant and site. Glendale will be a member of the IGA group on this project. The Cholla Water Treatment Plant and the Oasis Water Treatment Plant utilize GAC filter media.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$42,000
Miscellaneous/Other	\$0	\$0	\$0	\$0	\$0	\$2,800,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$2,842,000

Operating Description:

There are no direct O and M costs to the City of Glendale for this project. All O and M costs will be included in the cost of GAC regeneration. Regeneration costs are based on a per pound rate and will include any ongoing project costs.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61038 - Loop 101 Water Treatment (N)

Funding Source: Water & Sewer Revenues

Project Description:

Design and build a 10 MGD Groundwater Treatment Plant and Storage Reservoir in Zone 4. The treatment plant is needed in order to meet the potable water demand of this growing area of the city. The 11.7 acres of land is located at 99th Avenue and Northern. Land was purchased in FY 2009 with one payment in FY 2009 and the remaining payments to be spread over four years. The reservoir booster station will be constructed in the last five years (2015-2019). The treatment plant, reservoir and booster station are proposed for construction in the last five years (2015-2019). This facility is identified in the revised Utilities Water Master Plan.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Land	\$864,000	\$828,000	\$792,000	\$756,000	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$4,500,000
Construction	\$0	\$0	\$0	\$0	\$0	\$22,000,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$340,000
Engineering Charges	\$0	\$0	\$0	\$0	\$0	\$122,000
Arts	\$0	\$0	\$0	\$0	\$0	\$220,000
Contingency	\$0	\$0	\$0	\$0	\$0	\$3,400,000
TOTAL	\$864,000	\$828,000	\$792,000	\$756,000	\$0	\$30,582,000

Operating Description:

O and M will be determined when the project is closer to construction.

Project: 61041* - Additional Recharge Capacity (N)

Funding Source: Water & Sewer Revenues

Project Description:

To purchase or develop additional recharge capacity/options for the underground storage of the city's reclaimed water and surface water supplies. Additional recharge capacity/options are needed to ensure the city is able to store projected increases in reclaimed water produced at the city's West Area Water Reclamation Facility; and to efficiently manage the city's available surface water supplies. This project replaces project 2400-T3556.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Miscellaneous/Other	\$1,000,000	\$3,500,000	\$3,500,000	\$3,350,000	\$0	\$0
TOTAL	\$1,000,000	\$3,500,000	\$3,500,000	\$3,350,000	\$0	\$0

Operating Description:

Additional O and M cost projections for purchased additional capacity. Costs based on existing facilities contract services.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$53,460	\$55,064	\$56,716	\$58,417	\$60,170	\$329,033
TOTAL	\$53,460	\$55,064	\$56,716	\$58,417	\$60,170	\$329,033

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: T3480 - 95th A Wtr Trn Ln Orgewd to G (N)

Funding Source: Water & Sewer Revenues

Project Description: Installation of a new 16 inch diameter water transmission main which will improve water distribution within Water Pressure Zone 4. This new water line will be located within 95th Avenue from Orangewood Avenue south to Glendale Avenue. The source water will come from the Oasis Water Campus.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$100,000	\$0	\$0	\$0
Construction	\$0	\$0	\$1,110,000	\$0	\$0	\$0
Finance Charges	\$0	\$0	\$18,000	\$0	\$0	\$0
Engineering Charges	\$0	\$0	\$43,000	\$0	\$0	\$0
Arts	\$0	\$0	\$11,100	\$0	\$0	\$0
Contingency	\$0	\$0	\$180,000	\$0	\$0	\$0
TOTAL	\$0	\$0	\$1,462,100	\$0	\$0	\$0

Operating Description: Preventative maintenance and future Distribution Management Operation and Maintenance regulations are the driving factor for the O and M adjustments. Although the project design is .5 miles of main it is estimated \$7,000 per year is necessary beginning in FY 2014.

<u>Operating Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$7,000	\$38,279
TOTAL	\$0	\$0	\$0	\$0	\$7,000	\$38,279

Project: T3510 - Orngewood Ave Wtr Trans Mn (N)

Funding Source: Water & Sewer Revenues

Project Description: A new 16" water transmission main which will improve water distribution within Water Pressure Zone 4. This new water line will be located within Orangewood Avenue from 99th Avenue west to 105th Avenue. The source water will be the Oasis Water Campus.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$333,000	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$700,000	\$1,700,000
Finance Charges	\$0	\$0	\$0	\$0	\$1,050	\$26,000
Engineering Charges	\$0	\$0	\$6,701	\$0	\$14,087	\$34,211
Arts	\$0	\$0	\$0	\$0	\$7,000	\$17,000
Contingency	\$0	\$0	\$0	\$0	\$105,000	\$260,000
TOTAL	\$0	\$0	\$339,701	\$0	\$827,137	\$2,037,211

Operating Description: A new 16" water transmission main which will improve water distribution within Water Pressure Zone 4. Due to the complexity of the line, additional maintenance costs are necessary in the out years. In addition to the preventative maintenance costs, future Distribution Management Operation and Maintenance regulations are a driving factor for the increased maintenance costs. Although the project design is for .75 miles of main it is estimated an additional \$10,000 is necessary for maintenance costs beginning in FY 2015.

<u>Operating Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Equip. Maint.	\$0	\$0	\$0	\$0	\$0	\$50,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$50,000

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: T3554 - Zone 3 Transmission Pipelines (N)

Funding Source: Water & Sewer Revenues

Project Description: Complete a study report to determine the alignment and site of one or two transmission mains for Water Zone 3. The line is intended to improve the pressure distribution within this service area.

Capital Costs:	2010	2011	2012	2013	2014	2015-2019
Miscellaneous/Other	\$0	\$0	\$0	\$0	\$100,000	\$0
TOTAL	\$0	\$0	\$0	\$0	\$100,000	\$0

Operating Description: No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

**FY 2010 - 2019 Capital Improvement Program
Capital Projects By Fund and Project Number**

Fund: Sewer (2420)

Category: Revenue

Project Name:	Carryover:	FY 09-10:	FY 10-11:	FY 11-12:	FY 12-13:	FY 13-14:	FY 14-19:
Existing Assets							
<i>Improvement of Existing Assets</i>							
63007 Sewer 99th Ave. W. Water Meter	0	0	0	0	0	0	7,697,250
63009 67/Ave Swge Lft Sta. Odor Con.	934,665	0	0	0	0	0	0
63010 91st Ave. Construction	3,842,005	3,627,625	3,187,100	3,045,100	8,054,000	2,119,000	41,080,000
63014 67th & 83rd Ave SLS Mode	1,011,826	596,046	0	0	0	0	4,856,513
63020 Security Enhance Wastewtr Ops	3,199,414	0	3,089,896	0	4,874,104	0	0
63022 95th Ave Sewer Connection	676,810	0	0	0	0	0	0
63023 City Wide Sewer Odor Control	250,000	0	0	0	0	0	1,863,250
T3611 Glendale Ave 93rd-99th Ave	0	0	0	539,585	0	0	385,245
<i>Replacement of Existing Assets</i>							
63003 99th Ave Interceptor Line	3,030,919	0	0	0	0	0	5,545,700
63006 Arrowhead Sewer Lines	32,395	0	0	0	0	0	3,753,275
63013 67th Ave. Lift Station	2,288,297	906,844	0	0	0	0	0
63016 Sewer Line Replacement	140,523	0	3,000,000	3,150,000	3,300,000	3,450,000	15,300,000
63018 Camelback Swr Rehab	2,039,122	2,834,436	0	0	0	0	0
63021 Sweetwater & 55th Ave SLS	0	0	0	0	4,652,650	0	0
Sub-Total - Existing Assets	17,445,976	7,964,951	9,276,996	6,734,685	20,880,754	5,569,000	80,481,233
New Assets							
63000 67th - 115th, Northern-C'Back	0	0	0	0	0	0	9,715,500
63008 Sewers for Areas on Septic Sys	105,891	0	231,529	240,322	251,788	437,762	1,321,769
63015 CMOM Implementation	0	0	0	0	574,000	0	0
63017 Sewer Line Extension	635,499	0	302,661	318,353	236,928	401,778	1,382,280
T3610 Bethany Hme Rd Interceptor	0	0	0	0	350,550	1,789,750	1,790,750
Sub-Total - New Assets	741,390	0	534,190	558,675	1,413,266	2,629,290	14,210,299
Total Sewer Projects:	\$18,187,366	\$7,964,951	\$9,811,186	\$7,293,360	\$22,294,020	\$8,198,290	\$94,691,532
Total FY 09-10 Funding:	\$26,152,317						

* New Project

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63007 - Sewer 99th Ave. W. Water Meter (I)

Funding Source: Water & Sewer Revenues

Project Description:

In agreement with the multi-cities SROG organization, all the SROG cities will construct or refurbish sewage metering stations in their jurisdiction, to assure accurate monitoring and personnel safety while maintaining these metering structures feeding the jointly owned 91st Avenue WWTP. The metering stations are located on 99th Avenue south of Camelback Road and south of Northern Avenue.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$0	\$200,000
Construction	\$0	\$0	\$0	\$0	\$0	\$6,275,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$97,000
Engineering Charges	\$0	\$0	\$0	\$0	\$0	\$92,500
Arts	\$0	\$0	\$0	\$0	\$0	\$62,750
Contingency	\$0	\$0	\$0	\$0	\$0	\$970,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$7,697,250

Operating Description:

These metering stations will require service and replacement of automatic sampling units, miscellaneous telemetry and flow recording equipment on a periodic basis. No data connectivity or telephones are required.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Utilities	\$0	\$0	\$0	\$0	\$0	\$25,000
Equip. Maint.	\$0	\$0	\$0	\$0	\$0	\$125,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$150,000

Project: 63009 - 67/Ave Swge Lft Sta. Odor Con. (I)

Funding Source: Water & Sewer Revenues

Project Description:

Permanent hydrogen peroxide chemical dosing stations for odor control.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Carryover	\$934,665	\$0	\$0	\$0	\$0	\$0
TOTAL	\$934,665	\$0	\$0	\$0	\$0	\$0

Operating Description:

No additional O and M is needed.

Project: 63010 - 91st Ave. Construction (I)

Funding Source: Water & Sewer Revenues

Project Description:

This project will provide additional funding for the continuing construction/expansion of the 91st Avenue Wastewater Treatment Plant co-owned by the City of Phoenix and the Sub-Regional Operating Group (SROG), of which Glendale is a member. This is an ongoing venture to expand the treatment facility from 153 MGD to 250 MGD.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Finance Charges	\$52,625	\$47,100	\$45,100	\$114,000	\$119,000	\$600,000
Miscellaneous/Other	\$3,575,000	\$3,140,000	\$3,000,000	\$7,940,000	\$2,000,000	\$40,480,000
Carryover	\$3,842,005	\$0	\$0	\$0	\$0	\$0
TOTAL	\$7,469,630	\$3,187,100	\$3,045,100	\$8,054,000	\$2,119,000	\$41,080,000

Operating Description:

No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63014 - 67th & 83rd Ave SLS Mode (I)

Funding Source: Water & Sewer Revenues

Project Description:

This sewage lift station located at 67th Ave and Beardsley Road, will need to be rehabilitated and later expanded to assure system reliability, adequate pumping capacity and regulatory compliance. This redesign will include more efficient odor control and larger capacity pumps.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$0	\$700,000
Construction	\$500,000	\$0	\$0	\$0	\$0	\$3,375,000
Finance Charges	\$6,796	\$0	\$0	\$0	\$0	\$61,125
Engineering Charges	\$9,250	\$0	\$0	\$0	\$0	\$75,388
Arts	\$5,000	\$0	\$0	\$0	\$0	\$33,750
Contingency	\$75,000	\$0	\$0	\$0	\$0	\$611,250
Carryover	\$1,011,826	\$0	\$0	\$0	\$0	\$0
TOTAL	\$1,607,872	\$0	\$0	\$0	\$0	\$4,856,513

Operating Description:

Supplies include two activated carbon replacement cycles for the odor control system at \$5,000 each in three year cycles. Utilities increased by \$2,500 per year due to pump capacity increase.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$0	\$0	\$0	\$0	\$10,000
Utilities	\$0	\$0	\$0	\$0	\$0	\$10,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$20,000

Project: 63020 - Security Enhance Wastewtr Ops (I)

Funding Source: Water & Sewer Revenues

Project Description:

Add security enhancements to the water reclamation facilities, the various effluent recharge facilities and the various sewer lift stations to achieve compliance with the anticipated requirements of the Federal Homeland Security regulations.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$100,000	\$0	\$0	\$0	\$0
Construction	\$0	\$2,500,000	\$0	\$4,100,000	\$0	\$0
Finance Charges	\$0	\$39,000	\$0	\$61,500	\$0	\$0
Engineering Charges	\$0	\$35,896	\$0	\$56,604	\$0	\$0
Arts	\$0	\$25,000	\$0	\$41,000	\$0	\$0
Contingency	\$0	\$390,000	\$0	\$615,000	\$0	\$0
Carryover	\$3,199,414	\$0	\$0	\$0	\$0	\$0
TOTAL	\$3,199,414	\$3,089,896	\$0	\$4,874,104	\$0	\$0

Operating Description:

No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Other

Project: 63022 - 95th Ave Sewer Connection (I)

Funding Source: Water & Sewer Revenues

Project Description: The existing sewer connection at the NE corner of 95th Avenue and Camelback Road will be improved to allow a free flow of wastewater from the 36" sewer line in 95th Avenue entering the 48" sewer line in Camelback Road. Currently the crowns of the two sewer lines match elevations. The top of the 36" line will be raised.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Carryover	\$676,810	\$0	\$0	\$0	\$0	\$0
TOTAL	\$676,810	\$0	\$0	\$0	\$0	\$0

Operating Description: No additional O and M is needed.

Project: 63023 - City Wide Sewer Odor Control (I)

Funding Source: Water & Sewer Revenues

Project Description: This project will add permanent hydrogen peroxide chemical dosing stations to various sewer lines for odor control and control of hydrogen sulfide gas.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$0	\$100,000
Construction	\$0	\$0	\$0	\$0	\$0	\$1,450,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$23,250
Engineering Charges	\$0	\$0	\$0	\$0	\$0	\$43,000
Arts	\$0	\$0	\$0	\$0	\$0	\$14,500
Contingency	\$0	\$0	\$0	\$0	\$0	\$232,500
Carryover	\$250,000	\$0	\$0	\$0	\$0	\$0
TOTAL	\$250,000	\$0	\$0	\$0	\$0	\$1,863,250

Operating Description: No additional O and M is needed at this time.

Project: T3611 - Glendale Ave 93rd-99th Ave (I)

Funding Source: Water & Sewer Revenues

Project Description: Improvements are required in order to handle the additional wastewater flows generated by growth near Loop 101. Improvements include the design and construction of a parallel relief sewer on Glendale Avenue from 93rd the 99th Avenue. The relief sewer will be constructed in two phases. These proposed improvements were identified in the sewer collection study recently completed by Camp, Dresser, and McKee.

<u>Capital Costs:</u>	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$50,000	\$0	\$0	\$35,000
Construction	\$0	\$0	\$395,000	\$0	\$0	\$280,000
Finance Charges	\$0	\$0	\$6,500	\$0	\$0	\$4,900
Engineering Charges	\$0	\$0	\$19,135	\$0	\$0	\$13,545
Arts	\$0	\$0	\$3,950	\$0	\$0	\$2,800
Contingency	\$0	\$0	\$65,000	\$0	\$0	\$49,000
TOTAL	\$0	\$0	\$539,585	\$0	\$0	\$385,245

Operating Description: No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63003 - 99th Ave Interceptor Line (R)

Funding Source: Water & Sewer Revenues

Project Description:

Repair and rehabilitation of Glendale's portion of the 99th Avenue sewer line going to the Sub-Regional Operating Group. Pipe lining will be replaced along with manhole structures that are corroded.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$0	\$600,000
Construction	\$0	\$0	\$0	\$0	\$0	\$4,000,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$74,600
Engineering Charges	\$0	\$0	\$0	\$0	\$0	\$85,100
Arts	\$0	\$0	\$0	\$0	\$0	\$40,000
Contingency	\$0	\$0	\$0	\$0	\$0	\$746,000
Carryover	\$3,030,919	\$0	\$0	\$0	\$0	\$0
TOTAL	\$3,030,919	\$0	\$0	\$0	\$0	\$5,545,700

Operating Description:

Rehabilitation of the 99th Ave interceptor is scheduled to begin in FY 2016. No additional O and M is needed at this time.

Project: 63006 - Arrowhead Sewer Lines (R)

Funding Source: Water & Sewer Revenues

Project Description:

The replacement or rehabilitation of various wastewater collection lines in the Arrowhead Ranch area will improve sewer flow conditions and reduce sewer odors. This work was identified in a report completed by the consulting firm, Damon Williams and Associates. The work will be done in phases.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$0	\$350,000
Construction	\$0	\$0	\$0	\$0	\$0	\$2,800,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$47,000
Engineering Charges	\$0	\$0	\$0	\$0	\$0	\$58,275
Arts	\$0	\$0	\$0	\$0	\$0	\$28,000
Contingency	\$0	\$0	\$0	\$0	\$0	\$470,000
Carryover	\$32,395	\$0	\$0	\$0	\$0	\$0
TOTAL	\$32,395	\$0	\$0	\$0	\$0	\$3,753,275

Operating Description:

No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63013 - 67th Ave. Lift Station (R)

Funding Source: Water & Sewer Revenues

Project Description:

The material condition of this sewage lift station has deteriorated and requires equipment upgrades in order to assure system remains fully functional and does not violate regulations. The station is essential to satisfy Capacity Management Operation and Maintenance requirements.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Construction	\$750,000	\$0	\$0	\$0	\$0	\$0
Finance Charges	\$9,744	\$0	\$0	\$0	\$0	\$0
Engineering Charges	\$39,600	\$0	\$0	\$0	\$0	\$0
Arts	\$7,500	\$0	\$0	\$0	\$0	\$0
Contingency	\$100,000	\$0	\$0	\$0	\$0	\$0
Carryover	\$2,288,297	\$0	\$0	\$0	\$0	\$0
TOTAL	\$3,195,141	\$0	\$0	\$0	\$0	\$0

Operating Description:

Increase in power costs for an odor control system will require additional funding. However, the annual maintenance costs will not experience an increase (except inflation) until 2011 due to the new construction warranty and the new hours for the equipment. Equipment maintenance includes replacement of odor control media and service to pumps and associated valves. Cost is based on historical data.

Project: 63016 - Sewer Line Replacement (R)

Funding Source: Water & Sewer Revenues

Project Description:

Replacement/rehabilitation of existing sanitary sewer lines and manholes as identified by the Sewer Evaluation Study prepared by Hennings, Durham and Richardson Engineers and to be completed by CDM Engineers. Projects will be developed as funds become available.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$300,000	\$0	\$0	\$0	\$1,000,000
Construction	\$0	\$2,260,000	\$2,700,000	\$2,800,000	\$2,900,000	\$12,000,000
Finance Charges	\$0	\$44,365	\$49,252	\$37,743	\$42,000	\$185,000
Engineering Charges	\$0	\$13,035	\$13,748	\$14,257	\$14,766	\$66,194
Arts	\$0	\$22,600	\$27,000	\$28,000	\$29,000	\$120,000
Contingency	\$0	\$360,000	\$360,000	\$420,000	\$464,234	\$1,928,806
Carryover	\$140,523	\$0	\$0	\$0	\$0	\$0
TOTAL	\$140,523	\$3,000,000	\$3,150,000	\$3,300,000	\$3,450,000	\$15,300,000

Operating Description:

No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63018 - Camelback Swr Rehab (R)

Funding Source: Water & Sewer Revenues

Project Description:

To replace the sanitary sewer and concrete structures in this area over the next two fiscal years. Two former meter station structures need to be permanently abandoned and one 24 inch sewer pipe has to be permanently plugged and abandoned. Sewer manholes will be rehabilitated along the Camelback trunk sewer to the 67th Avenue sewer lift station.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Construction	\$2,350,000	\$0	\$0	\$0	\$0	\$0
Finance Charges	\$35,000	\$0	\$0	\$0	\$0	\$0
Engineering Charges	\$72,000	\$0	\$0	\$0	\$0	\$0
Arts	\$23,500	\$0	\$0	\$0	\$0	\$0
Contingency	\$353,936	\$0	\$0	\$0	\$0	\$0
Carryover	\$2,039,122	\$0	\$0	\$0	\$0	\$0
TOTAL	\$4,873,558	\$0	\$0	\$0	\$0	\$0

Operating Description:

No additional O and M is needed.

Project: 63021 - Sweetwater & 55th Ave SLS (R)

Funding Source: Water & Sewer Revenues

Project Description:

The material condition of the sewage lift station has deteriorated and requires equipment upgrades in order to assure system reliability, adequate capacity and public safety. The station is essential to satisfy Capacity Management Operation and Maintenance requirements.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$200,000	\$0	\$0
Construction	\$0	\$0	\$0	\$3,700,000	\$0	\$0
Finance Charges	\$0	\$0	\$0	\$58,500	\$0	\$0
Engineering Charges	\$0	\$0	\$0	\$72,150	\$0	\$0
Arts	\$0	\$0	\$0	\$37,000	\$0	\$0
Contingency	\$0	\$0	\$0	\$585,000	\$0	\$0
TOTAL	\$0	\$0	\$0	\$4,652,650	\$0	\$0

Operating Description:

No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63000 - 67th - 115th, Northern-C'Back (N)

Funding Source: Water & Sewer Revenues

Project Description:

Installation of new sewer lines to relieve existing sewer mains as identified by Hennings, Durham and Richardson Sewer Depth Study of December 2000. These sewers are growth related.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$0	\$0	\$1,200,000
Construction	\$0	\$0	\$0	\$0	\$0	\$7,000,000
Finance Charges	\$0	\$0	\$0	\$0	\$0	\$123,000
Engineering Charges	\$0	\$0	\$0	\$0	\$0	\$92,500
Arts	\$0	\$0	\$0	\$0	\$0	\$70,000
Contingency	\$0	\$0	\$0	\$0	\$0	\$1,230,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$9,715,500

Operating Description:

No additional O and M is needed at this time.

Project: 63008 - Sewers for Areas on Septic Sys (N)

Funding Source: Water & Sewer Revenues

Project Description:

Installation of sewers in areas currently on septic systems. This is a citizen driven program in which citizens must request that their area (subdivision, neighborhood, street, etc.) be served by city sewer. As of September 2007, there are five projects that have been funded through this program. No other areas have officially met the requirements for projects to go forward. The five projects that were funded and are now complete are Cortez Sewer, Hidden Manor, Rancho Del Higo, Orangewood West and Cinnabar.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$50,000	\$0	\$0	\$0	\$0
Construction	\$0	\$142,000	\$200,000	\$210,000	\$365,000	\$1,100,000
Finance Charges	\$0	\$3,000	\$3,000	\$3,100	\$5,400	\$16,500
Engineering Charges	\$0	\$5,109	\$5,322	\$5,588	\$9,712	\$29,269
Arts	\$0	\$1,420	\$2,000	\$2,100	\$3,650	\$11,000
Contingency	\$0	\$30,000	\$30,000	\$31,000	\$54,000	\$165,000
Carryover	\$105,891	\$0	\$0	\$0	\$0	\$0
TOTAL	\$105,891	\$231,529	\$240,322	\$251,788	\$437,762	\$1,321,769

Operating Description:

Sewer maintenance required for sewers installed through this program is estimated at approximately \$10,000 per mile of sewer per year.

Operating Costs:

	2010	2011	2012	2013	2014	2015-2019
Supplies/Contr	\$0	\$10,000	\$20,300	\$30,909	\$41,866	\$350,000
TOTAL	\$0	\$10,000	\$20,300	\$30,909	\$41,866	\$350,000

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset

FY 2010-2019 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63015 - CMOM Implementation (N)

Funding Source: Water & Sewer Revenues

Project Description:

The United States Environmental Protection Agency has mandated a new Capacity Management Operations and Maintenance program for the sanitary sewer systems nationwide. The proposed program will assist in protecting the sanitary sewer system. Phase 3 will update the administrative program in FY 2013.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Miscellaneous/Other	\$0	\$0	\$0	\$574,000	\$0	\$0
TOTAL	\$0	\$0	\$0	\$574,000	\$0	\$0

Operating Description:

Consultants will conduct the GPS survey of the manhole covers. No additional maintenance is expected.

Project: 63017 - Sewer Line Extension (N)

Funding Source: Water & Sewer Revenues

Project Description:

Sewer extensions at various locations are necessary due to growth. These extensions will convey wastewater from new developments.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$24,100	\$0	\$0	\$0	\$118,000
Construction	\$0	\$230,000	\$270,000	\$200,000	\$340,000	\$1,050,000
Engineering Charges	\$0	\$6,261	\$6,653	\$4,928	\$8,378	\$28,780
Arts	\$0	\$2,300	\$2,700	\$2,000	\$3,400	\$10,500
Contingency	\$0	\$40,000	\$39,000	\$30,000	\$50,000	\$175,000
Carryover	\$635,499	\$0	\$0	\$0	\$0	\$0
TOTAL	\$635,499	\$302,661	\$318,353	\$236,928	\$401,778	\$1,382,280

Operating Description:

No additional O and M is needed at this time.

Project: T3610 - Bethany Hme Rd Interceptor (N)

Funding Source: Water & Sewer Revenues

Project Description:

Installation of an interceptor sewer along the Bethany Home Road alignment from 83rd to 95th Avenue. The interceptor is designed to intercept flows from the existing sewers in 83rd & 91st Avenues that had to be altered due to construction of the Bethany Home Outfall.

Capital Costs:

	2010	2011	2012	2013	2014	2015-2019
Design	\$0	\$0	\$0	\$300,000	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
Finance Charges	\$0	\$0	\$0	\$0	\$22,000	\$23,000
Engineering Charges	\$0	\$0	\$0	\$5,550	\$27,750	\$27,750
Arts	\$0	\$0	\$0	\$0	\$15,000	\$15,000
Contingency	\$0	\$0	\$0	\$45,000	\$225,000	\$225,000
TOTAL	\$0	\$0	\$0	\$350,550	\$1,789,750	\$1,790,750

Operating Description:

No additional O and M is needed at this time.

* New Project

N=New Asset, R=Replacement of Existing Asset, I=Improvement of Existing Asset