

WATER/SEWER

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 2009-18 budget reflects recommendations from the Red Oak Consulting study completed in 2008.

The combined water/sewer fund (fund 2360) reflects continued funding in FY 2009 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 2009 for the water fund (fund 2400) reflects continued funding of the Cholla Water Treatment Plant telemetry project; replacement and rehabilitation of the water distribution system throughout the city; and the expansion of the Zone 4 Groundwater Treatment Plant that will provide capacity of 10 MGD for the drinking water system.

In FY 2009, the sewer fund (fund 2420) projects include sewer line replacement or 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 Plan 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 2009 - 2018 Capital Improvement Program
Capital Projects By Fund and Project Number**

Fund: Water & Sewer (2360)

Category: Revenue

| Project Name: | Carryover: | FY 08-09: | FY 09-10: | FY 10-11: | FY 11-12: | FY 12-13: | FY 14-18: |
|--|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
| 60000 Utility Billing System Repl. | 2,518,165 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60001 Water Quality Instrument | 334,325 | 147,000 | 0 | 0 | 0 | 0 | 1,057,822 |
| 60002 Addtl. Recharge Capacity | 2,150,101 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60003 West Area WWRP | 1,010,514 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60004 Arrowhead WRF | 187,980 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60006 Sand Filtrs & Dis Sys - AWRF | 1,068,347 | 100,389 | 3,844,919 | 1,800,000 | 0 | 0 | 0 |
| 60007 Arrwhd Wtr Reclam Fac Imps | 2,661,057 | 100,011 | 2,165,300 | 1,800,000 | 0 | 0 | 0 |
| 60008 *WAWRF Phase IV | 0 | 2,000,011 | 6,000,175 | 4,999,710 | 13,000,000 | 16,150,000 | 2,247,700 |
| T2160 Insertion Machine: W & S Fund | 0 | 0 | 0 | 0 | 0 | 0 | 66,000 |
| T2170 Cashier Security Remodel | 0 | 0 | 0 | 0 | 0 | 0 | 81,530 |
| T2250 WAWRF Clarifier Replacement | 0 | 0 | 0 | 0 | 0 | 0 | 271,863 |
| T2270 WAWRF Fine Screen Replacement | 0 | 0 | 0 | 0 | 0 | 0 | 670,250 |
| T2280 WAWRF Odor Control Replacement | 0 | 0 | 0 | 0 | 0 | 0 | 967,560 |
| T2281 *91st Ave WWTP Capacity Increas | 0 | 0 | 0 | 8,120,000 | 9,000,000 | 9,000,000 | 0 |
| Total Water & Sewer Projects: | \$9,930,489 | \$2,347,411 | \$12,010,394 | \$16,719,710 | \$22,000,000 | \$25,150,000 | \$5,362,725 |
| Total FY 08-09 Funding: | \$12,277,900 | | | | | | |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer (2360)

Category: Revenue

Project: 60000 - Utility Billing System Repl.

Funding Source: Water & Sewer Revenues

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

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------|------------|------------|------------|------------|------------|
| Miscellaneous/Other | \$2,518,165 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$2,518,165 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

Project: 60001 - Water Quality Instrument

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: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------|------------------|------------------|------------|------------|------------|------------|--------------------|
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$15,633 |
| Equipment | \$334,325 | \$147,000 | \$0 | \$0 | \$0 | \$0 | \$1,042,189 |
| TOTAL | \$334,325 | \$147,000 | \$0 | \$0 | \$0 | \$0 | \$1,057,822 |

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

| Operating Costs: | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|------------------|------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Supplies/Contr | \$0 | \$25,000 | \$25,750 | \$26,523 | \$27,318 | \$149,387 |
| TOTAL | \$0 | \$25,000 | \$25,750 | \$26,523 | \$27,318 | \$149,387 |

Project: 60002 - Addtl. Recharge Capacity

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 amenities during normal operations.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------|------------|------------|------------|------------|------------|
| Construction | \$1,908,333 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$48,957 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$21,463 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$146,870 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$24,478 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$2,150,101 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer (2360)

Category: Revenue

Project: 60003 - West Area WWRP

Funding Source: Water & Sewer Revenues

Project Description: Expansion of the existing WAWRF from 4.3/7.0 MGD to 10 MGD.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------|------------|------------|------------|------------|------------|
| Land | \$226,706 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Design | \$686,252 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$65,097 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$26,709 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$5,750 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$1,010,514 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

Project: 60004 - Arrowhead WRF

Funding Source: Water & Sewer Revenues

Project Description: The Arrowhead Wastewater Reclamation Plant is being expanded to increase capacity from 2.2 MGD to 5.5 MGD. The plant provides treated effluent for use in landscaped areas in northern Glendale.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------------|------------|------------|------------|------------|------------|------------|
| Construction | \$187,980 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$187,980 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer (2360)

Category: Revenue

Project: 60006 - Sand Filtrs & Dis Sys - AWRF

Funding Source: Water & Sewer Revenues

Project Description:

Replace the aging sand filters and ultra violet light disinfection system at the Arrowhead Ranch Water Reclamation Facility. The current aging system is not providing consistent compliance with regulatory requirements. Funds in the later years will upgrade the SCADA software.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------------|--------------------|--------------------|------------|------------|------------|
| Design | \$177,398 | \$98,600 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$864,168 | \$0 | \$3,400,000 | \$1,600,000 | \$0 | \$0 | \$0 |
| Finance Charges | \$4,833 | \$0 | \$50,000 | \$23,000 | \$0 | \$0 | \$0 |
| Engineering Charges | \$13,249 | \$1,789 | \$61,684 | \$29,028 | \$0 | \$0 | \$0 |
| Arts | \$8,699 | \$0 | \$34,000 | \$16,000 | \$0 | \$0 | \$0 |
| Contingency | \$0 | \$0 | \$299,235 | \$131,972 | \$0 | \$0 | \$0 |
| TOTAL | \$1,068,347 | \$100,389 | \$3,844,919 | \$1,800,000 | \$0 | \$0 | \$0 |

Operating Description:

Electrical power requirements for the new disinfection system are expected to increase due to additional equipment. This new system has not been designed at this time but is expected to be either UV with a secondary Ozone system or a liquid bleach disinfection. Both of these systems require a higher electrical use. The current system is not adequate and regulatory issues have arisen due to incomplete disinfection.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------|------------|------------|-----------------|-----------------|-----------------|------------------|
| Utilities | \$0 | \$0 | \$41,000 | \$82,000 | \$84,000 | \$459,346 |
| Equip. Maint. | \$0 | \$0 | \$0 | \$5,300 | \$5,600 | \$30,623 |
| TOTAL | \$0 | \$0 | \$41,000 | \$87,300 | \$89,600 | \$489,969 |

Project: 60007 - Arrwhd Wtr Reclam Fac Imps

Funding Source: Water & Sewer Revenues

Project Description:

To ensure reliable and safe treatment of wastewater in the Arrowhead area, the treatment plant processes will be upgraded or expanded. This will enable the plant to consistently meet the A+ effluent water quality requirements. This project includes replacement of the mechanical equipment in clarifiers one through four, installing OSHA personal protection equipment, upgrading the waste activated sludge pumps, adding a cover to the sand filters, repairs to the main operations building and upgrading the process control software.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------------|--------------------|--------------------|------------|------------|------------|
| Design | \$956,716 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$1,421,122 | \$96,675 | \$1,900,000 | \$1,600,000 | \$0 | \$0 | \$0 |
| Finance Charges | \$39,457 | \$0 | \$29,750 | \$20,800 | \$0 | \$0 | \$0 |
| Engineering Charges | \$36,120 | \$2,369 | \$46,550 | \$39,200 | \$0 | \$0 | \$0 |
| Arts | \$20,222 | \$967 | \$19,000 | \$16,000 | \$0 | \$0 | \$0 |
| Contingency | \$187,420 | \$0 | \$170,000 | \$124,000 | \$0 | \$0 | \$0 |
| TOTAL | \$2,661,057 | \$100,011 | \$2,165,300 | \$1,800,000 | \$0 | \$0 | \$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:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------|------------|-----------------|-----------------|-----------------|-----------------|
| Supplies/Contr | \$0 | \$0 | \$15,000 | \$15,450 | \$15,914 | \$87,022 |
| TOTAL | \$0 | \$0 | \$15,000 | \$15,450 | \$15,914 | \$87,022 |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer (2360)

Category: Revenue

Project: 60008 - *WAWRF Phase IV

Funding Source: Water & Sewer Revenues

Project Description:

Design and construct additional treatment capacity at the West Area Water Reclamation Facility to treat the increased wastewater flow from the rapidly developing area along the Loop 101 alignment. This expansion is identified in the revised Wastewater Treatment Master Plan completed by Malcolm Purnie. The current treatment capacity will be increased from 11.5 MGD to 17.2 MGD, average daily flow.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|
| Design | \$0 | \$1,795,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$0 | \$0 | \$5,500,000 | \$4,600,000 | \$12,000,000 | \$15,000,000 | \$2,000,000 |
| Finance Charges | \$0 | \$27,000 | \$83,000 | \$65,000 | \$180,000 | \$210,000 | \$20,000 |
| Engineering Charges | \$0 | \$6,911 | \$21,175 | \$17,710 | \$46,200 | \$57,750 | \$7,700 |
| Arts | \$0 | \$0 | \$55,000 | \$46,000 | \$120,000 | \$150,000 | \$20,000 |
| Contingency | \$0 | \$171,100 | \$341,000 | \$271,000 | \$653,800 | \$732,250 | \$200,000 |
| TOTAL | \$0 | \$2,000,011 | \$6,000,175 | \$4,999,710 | \$13,000,000 | \$16,150,000 | \$2,247,700 |

Operating Description:

O and M includes staffing three new plant operators starting FY 2012 (including benefits). Other treatment expenses are prorated with existing facility expenses. Plant capacity will increase 33% resulting in an increase in, supplies (chemicals), utilities and equipment maintenance. No new telephones, PC's or vehicles will be required.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------|------------|------------|------------------|------------------|--------------------|
| Staffing | \$0 | \$0 | \$0 | \$204,000 | \$210,120 | \$1,149,022 |
| Supplies/Contr | \$0 | \$0 | \$0 | \$100,000 | \$103,000 | \$563,246 |
| Utilities | \$0 | \$0 | \$0 | \$300,000 | \$309,000 | \$1,689,739 |
| Equip. Maint. | \$0 | \$0 | \$0 | \$66,000 | \$67,980 | \$371,743 |
| TOTAL | \$0 | \$0 | \$0 | \$670,000 | \$690,100 | \$3,773,750 |

Project: T2160 - Insertion Machine: W & S Fund

Funding Source: Water & Sewer Revenues

Project Description:

Replace current insertion machine (Water and Sewer portion only, other funding sources are the General Fund and Sanitation Fund). It performs insertion for all departments, including Sales Tax, Water and Sewer, Sanitation, Marketing, Human Resources, Council, Landfill and Payroll.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|--------------|------------|------------|------------|------------|------------|------------|-----------------|
| Equipment | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$66,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$66,000 |

Operating Description:

O and M includes adding this piece of equipment into the Technology Replacement Fund. The cost is split 33% to the water and sewer fund, 33% to the general fund and 34% to the sanitation fund. A one-year service Preventative Maintenance Agreement (PMA) is built into the cost.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|------------------------|------------|------------|------------|------------|------------|-----------------|
| Equip. Maint. | \$0 | \$0 | \$0 | \$0 | \$0 | \$33,000 |
| PC/Vehicle Replacement | \$0 | \$0 | \$0 | \$0 | \$0 | \$66,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$99,000 |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer (2360)

Category: Revenue

Project: T2170 - Cashier Security Remodel

Funding Source: Water & Sewer Revenues

Project Description: Bullet-proof security glass and related improvements for cashier area and surrounding exterior. This request will improve the safety of our employees and monetary assets. This area receives the most walk-in traffic and money in the City. Employee safety is important, especially when a water customer is upset due to a service interruption caused by non-payment.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|-----------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$15,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$49,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$7,040 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$490 |
| Miscellaneous/Other | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$81,530 |

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

Project: T2250 - WAWRF Clarifier Replacement

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.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$30,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$227,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$12,593 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,270 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$271,863 |

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

Project: T2270 - WAWRF Fine Screen Replacement

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. Funding moved to FY 2014.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$585,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$29,400 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$5,850 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$670,250 |

Operating Description: No O and M impact is anticipated since this is a replacement of existing equipment.

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water & Sewer (2360)

Category: Revenue

Project: T2280 - WAWRF Odor Control Replacement

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 outgoing years due to wear & tear.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$120,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$800,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$39,560 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$8,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$967,560 |

Operating Description:

No O and M impact is anticipated since this is a replacement of existing equipment.

Project: T2281 - *91st Ave WWTP Capacity Increases

Funding Source: Water & Sewer Revenues

Project Description:

Increase the current Glendale treatment capacity ownership in the Multi-Cities SROG wastewater treatment plant by five million gallons per day, 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 Purnie.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|--------------------|--------------------|--------------------|------------|
| Finance Charges | \$0 | \$0 | \$0 | \$120,000 | \$130,000 | \$130,000 | \$0 |
| Miscellaneous/Other | \$0 | \$0 | \$0 | \$8,000,000 | \$8,870,000 | \$8,870,000 | \$0 |
| TOTAL | \$0 | \$0 | \$0 | \$8,120,000 | \$9,000,000 | \$9,000,000 | \$0 |

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 Avenue 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 Avenue WWTP for disposal.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------|------------|------------|------------------|------------------|--------------------|
| Supplies/Contr | \$0 | \$0 | \$0 | \$900,000 | \$927,000 | \$5,069,216 |
| TOTAL | \$0 | \$0 | \$0 | \$900,000 | \$927,000 | \$5,069,216 |

* New Project

FY 2009 - 2018 Capital Improvement Program Capital Projects By Fund and Project Number

Fund: Water (2400)

Category: Revenue

| <u>Project Name:</u> | <u>Carryover:</u> | <u>FY 08-09:</u> | <u>FY 09-10:</u> | <u>FY 10-11:</u> | <u>FY 11-12:</u> | <u>FY 12-13:</u> | <u>FY 14-18:</u> |
|---------------------------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 61001 Fire Hydrant Replacement | 686,560 | 0 | 0 | 1,501,187 | 913,933 | 1,499,999 | 4,583,541 |
| 61003 Oasis Water Campus | 4,289,763 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61004 CAP Water Purchase | 0 | 0 | 0 | 0 | 0 | 0 | 184,120 |
| 61005 Cholla Telemetry | 1,161,342 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61007 Zone 4 Reservoir Fill Line | 755,548 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61008 Zone 4 WTP to 83rd/Orangewood | 111,590 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61009 Drinking Water Well Head Trmt | 320,381 | 500,039 | 2,700,015 | 0 | 0 | 0 | 0 |
| 61010 Zone 3 Pump Improvements | 115,582 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61012 Irrigation | 0 | 0 | 0 | 0 | 0 | 0 | 909,584 |
| 61013 Line Replacement & Extension | 1,299,537 | 6,700,000 | 2,000,000 | 4,530,677 | 0 | 6,916,430 | 43,952,158 |
| 61015 Outer Loop Effluent Line | 55,000 | 0 | 0 | 0 | 0 | 0 | 3,248,500 |
| 61017 Pyramid Peak Storage | 42,770 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61019 Storage and Recovery Well | 0 | 0 | 0 | 0 | 0 | 0 | 4,737,988 |
| 61020 West Area Reuse Pipelines | 236,601 | 0 | 837,417 | 514,077 | 810,100 | 0 | 3,684,933 |
| 61021 N River/Agua Fria Storage Proj | 878,015 | 0 | 378,015 | 58,845 | 0 | 0 | 0 |
| 61023 Water System Security | 1,124,891 | 2,000,000 | 0 | 0 | 0 | 0 | 0 |
| 61024 Cholla Water Plant Process Imp | 1,258,766 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61027 Water Line Extension | 201,551 | 1,742,386 | 1,516,271 | 1,516,271 | 1,516,271 | 1,516,271 | 2,025,029 |
| 61029 Regional GAC Plant | 0 | 0 | 0 | 0 | 1,088,400 | 951,500 | 0 |
| 61035 83rd Ave Trn Main Orgewd to Gd | 781,043 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61036 Zn4 Groundwater Trtment Plant | 1,579,326 | 25,178,505 | 30,799,512 | 10,000,000 | 0 | 0 | 0 |
| 61038 Loop 101 Water Treatment Fac | 0 | 0 | 0 | 0 | 0 | 0 | 49,668,500 |
| 61039 *Groundwater Availability Study | 0 | 450,000 | 0 | 0 | 0 | 0 | 0 |
| 61040 *Loop 101 Wells & Piping | 0 | 1,922,000 | 0 | 0 | 0 | 0 | 9,469,900 |
| T3470 67th Ave. Wtr Mn Brdly to Utop | 0 | 0 | 0 | 0 | 0 | 0 | 1,139,675 |
| T3480 95th A Wtr Trn Ln Orgewd to G | 0 | 0 | 0 | 0 | 1,464,000 | 0 | 0 |
| T3490 Acoma Rd Trn Mn Zn 2 GrndTrt P | 0 | 0 | 0 | 0 | 0 | 0 | 393,375 |
| T3500 Glendale Ave. Water Trans Mn | 0 | 0 | 0 | 0 | 0 | 0 | 3,536,050 |
| T3510 Orgewood Ave Wtr Trans Mn | 0 | 0 | 0 | 0 | 339,465 | 0 | 2,826,035 |
| T3520 Zn 2 Grndwater Trtmnt Plant | 0 | 0 | 0 | 0 | 0 | 0 | 9,076,000 |
| T3530 Pyramid Pk WTP Train #1 Equip | 0 | 0 | 0 | 0 | 3,327,732 | 3,457,468 | 0 |
| T3540 WTPs Chlorine Gas Elimination | 0 | 0 | 3,482,630 | 4,247,070 | 0 | 0 | 0 |
| T3550 Hillcrest Ranch Booster Rehab | 0 | 0 | 0 | 0 | 0 | 0 | 552,775 |

* New Project

**FY 2009 - 2018 Capital Improvement Program
Capital Projects By Fund and Project Number**

Fund: Water (2400)

Category: Revenue

| <u>Project Name:</u> | <u>Carryover:</u> | <u>FY 08-09:</u> | <u>FY 09-10:</u> | <u>FY 10-11:</u> | <u>FY 11-12:</u> | <u>FY 12-13:</u> | <u>FY 14-18:</u> |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|----------------------|
| T3552 *Additional Water Supply | 0 | 0 | 0 | 0 | 0 | 10,028,200 | 50,141,000 |
| T3553 *Utilities Office Complex | 0 | 0 | 0 | 0 | 0 | 0 | 200,000 |
| T3554 *Zone 3 Transmission Pipelines | 0 | 0 | 0 | 0 | 0 | 0 | 100,000 |
| T3556 *N River/Agua Fria Storage Cap | 0 | 0 | 4,350,000 | 7,000,000 | 0 | 0 | 0 |
| Total Water Projects: | \$14,898,266 | \$38,492,930 | \$46,063,860 | \$29,368,127 | \$9,459,901 | \$24,369,868 | \$190,429,163 |
| Total FY 08-09 Funding: | \$53,391,196 | | | | | | |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61001 - Fire Hydrant Replacement

Funding Source: Water & Sewer Revenues

Project Description: Replacement of approximately 900 old fire hydrants. To date, 285 have been installed. Current design work will replace 330 fire hydrants for Phase II. All hydrants are in excess of 25 years old and do not meet current city design guidelines or AWWA annual inspection recommendations. We are unable to obtain parts and perform routine service.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|------------|--------------------|------------------|--------------------|--------------------|
| Construction | \$515,662 | \$0 | \$0 | \$1,445,000 | \$880,000 | \$1,440,000 | \$4,400,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$20,500 | \$12,200 | \$24,435 | \$74,875 |
| Engineering Charges | \$112,124 | \$0 | \$0 | \$21,237 | \$12,933 | \$21,164 | \$64,666 |
| Arts | \$58,774 | \$0 | \$0 | \$14,450 | \$8,800 | \$14,400 | \$44,000 |
| TOTAL | \$686,560 | \$0 | \$0 | \$1,501,187 | \$913,933 | \$1,499,999 | \$4,583,541 |

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

Project: 61003 - Oasis Water Campus

Funding Source: Water & Sewer Revenues

Project Description: Completion of the construction of a new 10 million gallon per day (MGD) surface water treatment plant to serve mainly western Glendale with fresh drinking water.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------|------------|------------|------------|------------|------------|
| Design | \$4,410 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$2,175,942 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$241,041 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$488,801 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$1,379,569 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$4,289,763 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61004 - CAP Water Purchase

Funding Source: Water & Sewer Revenues

Project Description: In 2000, the Arizona Department of Water Resources submitted its final recommendations for the reallocation of 66,000 acre-feet of Central Arizona Project water to the U.S. Secretary of Interior. It was recommended that Glendale receive 3,053 acre-feet in the reallocation. Glendale is expected to purchase this additional allocation of 3,053 acre-feet per year of Central Arizona Project water, pending final authorization of the Arizona Water Settlements Act.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|------------------|
| Miscellaneous/Other | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$184,120 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$184,120 |

Operating Description: O and M impact is incurred when the additional water is actually allocated and delivered to the city for treatment. Operating impacts are based upon the delivery rates for Central Arizona Project water to the city as approved and published by the Central Arizona Water Conservation District; and the projected treatment costs relating to the additional Central Arizona Project allocation water. Charges are revised annually. Previously approved operational funding for this project has been excluded.

| Operating Costs: | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|------------------|------------|------------|------------|------------|------------|------------------|
| Supplies/Contr | \$0 | \$0 | \$0 | \$0 | \$0 | \$591,717 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$591,717 |

Project: 61005 - Cholla Telemetry

Funding Source: Water & Sewer Revenues

Project Description: The completion of Phase III of the radio telemetry project will add 1.2 GHz microwave radio communication equipment to the Arrowhead Water Reclamation Facility, Cholla Water Treatment Plant, Pyramid Peak Water Treatment Plant, West Area Water Reclamation Facility and the Utilities department at the Field Operations Center.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------|------------|------------|------------|------------|------------|
| Construction | \$398,735 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$2,648 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$759,959 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$1,161,342 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

Project: 61007 - Zone 4 Reservoir Fill Line

Funding Source: Water & Sewer Revenues

Project Description: This water transmission main (24"/20") has been identified in the Black & Veatch Comprehensive Water Facilities Planning and Design report of September 2003, as a key component of the plan to improve water quality in Water Pressure Zone 4.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------|------------------|------------|------------|------------|------------|------------|------------|
| Design | \$362,297 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$381,890 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$11,361 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$755,548 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61008 - Zone 4 WTP to 83rd/Orangewood

Funding Source: Water & Sewer Revenues

Project Description: A 30" water transmission main pipeline intended to convey drinking water from the Water Treatment Plant Zone 4 into Water Pressure Zone 4 as far as 83rd Avenue and Orangewood.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|------------|------------|------------|------------|------------|
| Design | \$35,922 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$9,848 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$25,646 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$12,107 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$19,696 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$8,371 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$111,590 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

Project: 61009 - Drinking Water Well Head Trmt

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: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------------|--------------------|------------|------------|------------|------------|
| Construction | \$202,589 | \$476,500 | \$2,570,000 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$0 | \$7,100 | \$41,350 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$22,768 | \$11,674 | \$62,965 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$10,062 | \$4,765 | \$25,700 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$73,481 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$11,481 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$320,381 | \$500,039 | \$2,700,015 | \$0 | \$0 | \$0 | \$0 |

Operating Description: O and M for additional power, chemical and maintenance costs at the well sites for treatment equipment will be required. Currently the sites are only being used during the summer, with the new construction the sites will operate 24 hours a day 365 days a year. New O and M is based on current cost.

| Operating Costs: | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|------------------|------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Supplies/Contr | \$0 | \$30,900 | \$31,827 | \$32,782 | \$33,899 | \$185,374 |
| Utilities | \$0 | \$12,360 | \$12,731 | \$13,113 | \$13,513 | \$73,895 |
| Equip. Maint. | \$0 | \$15,000 | \$15,450 | \$15,914 | \$16,424 | \$89,813 |
| TOTAL | \$0 | \$58,260 | \$60,008 | \$61,809 | \$63,836 | \$349,082 |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61010 - Zone 3 Pump Improvements

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.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------------|------------|------------|------------|------------|------------|------------|
| Construction | \$115,582 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$115,582 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

Project: 61012 - Irrigation

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.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$18,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$770,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$33,884 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$7,700 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$80,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$909,584 |

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

Project: 61013 - Line Replacement & Extension

Funding Source: Water & Sewer Revenues

Project Description: Replacement and rehabilitation of water lines throughout the City.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|--------------------|--------------------|--------------------|------------|--------------------|---------------------|
| Design | \$250,137 | \$930,000 | \$0 | \$550,000 | \$0 | \$950,000 | \$4,002,000 |
| Construction | \$705,421 | \$5,000,000 | \$1,800,000 | \$3,600,000 | \$0 | \$5,300,000 | \$35,000,000 |
| Finance Charges | \$80,246 | \$75,000 | \$26,000 | \$55,000 | \$0 | \$60,000 | \$650,000 |
| Engineering Charges | \$0 | \$22,830 | \$6,930 | \$15,977 | \$0 | \$24,062 | \$150,158 |
| Arts | \$63,118 | \$50,000 | \$18,000 | \$36,000 | \$0 | \$53,000 | \$350,000 |
| Contingency | \$200,615 | \$622,170 | \$149,070 | \$273,700 | \$0 | \$529,368 | \$3,800,000 |
| TOTAL | \$1,299,537 | \$6,700,000 | \$2,000,000 | \$4,530,677 | \$0 | \$6,916,430 | \$43,952,158 |

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

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61015 - Outer Loop Effluent Line

Funding Source: Water & Sewer Revenues

Project Description: Project to transport, store and recharge effluent reuse water for Arrowhead Ranch and area-wide.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------------|-------------|-------------|-------------|-------------|-------------|--------------------|
| Construction | \$21,023 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,000,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$45,000 |
| Engineering Charges | \$24,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$73,500 |
| Arts | \$3,400 | \$0 | \$0 | \$0 | \$0 | \$0 | \$30,000 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$100,000 |
| Miscellaneous/Other | \$6,577 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$55,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,248,500 |

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

Project: 61017 - Pyramid Peak Storage

Funding Source: Water & Sewer Revenues

Project Description: Installation of a new 10 MG Reservoir, piping changes and related process equipment.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Construction | \$22,348 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$17,193 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$3,229 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$42,770 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61019 - Storage and Recovery Well

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, 2.0 MGD, turbine pump recovery well. The goal is to pump the recovered groundwater to the Arrowhead amenities customers.

| <u>Capital Costs:</u> | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------|------------|------------|------------|------------|------------|--------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$600,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,575,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$77,238 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$35,750 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$400,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,737,988 |

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

| <u>Operating Costs:</u> | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-------------------------|------------|------------|------------|------------|------------|------------------|
| Supplies/Contr | \$0 | \$0 | \$0 | \$0 | \$0 | \$240,000 |
| Equip. Maint. | \$0 | \$0 | \$0 | \$0 | \$0 | \$45,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$285,000 |

Project: 61020 - West Area Reuse Pipelines

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.

| <u>Capital Costs:</u> | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------------|------------|------------------|------------------|------------------|------------|--------------------|
| Design | \$179,358 | \$0 | \$0 | \$0 | \$200,000 | \$0 | \$0 |
| Construction | \$8,552 | \$0 | \$750,000 | \$470,000 | \$570,000 | \$0 | \$3,200,000 |
| Finance Charges | \$8,821 | \$0 | \$0 | \$0 | \$0 | \$0 | \$75,000 |
| Engineering Charges | \$34,169 | \$0 | \$13,367 | \$8,377 | \$13,724 | \$0 | \$57,033 |
| Arts | \$5,701 | \$0 | \$7,500 | \$4,700 | \$5,700 | \$0 | \$32,000 |
| Contingency | \$0 | \$0 | \$66,550 | \$31,000 | \$20,676 | \$0 | \$320,900 |
| TOTAL | \$236,601 | \$0 | \$837,417 | \$514,077 | \$810,100 | \$0 | \$3,684,933 |

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. Cost is based on engineering estimate for cleaning and repair to valves.

| <u>Operating Costs:</u> | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-------------------------|------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Equip. Maint. | \$0 | \$47,000 | \$63,000 | \$64,890 | \$66,837 | \$365,490 |
| TOTAL | \$0 | \$47,000 | \$63,000 | \$64,890 | \$66,837 | \$365,490 |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61021 - N River/Agua Fria Storage Proj

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 accommodate (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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|------------------|-----------------|------------|------------|------------|
| Land | \$760,325 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$117,690 | \$0 | \$378,015 | \$58,845 | \$0 | \$0 | \$0 |
| TOTAL | \$878,015 | \$0 | \$378,015 | \$58,845 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

Project: 61023 - Water System Security

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.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|--------------------|------------|------------|------------|------------|------------|
| Construction | \$397,896 | \$1,850,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$33,914 | \$30,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$9,376 | \$66,600 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$14,491 | \$18,500 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$199,713 | \$34,900 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$469,501 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$1,124,891 | \$2,000,000 | \$0 | \$0 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

Project: 61024 - Cholla Water Plant Process Imp

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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------|------------|------------|------------|------------|------------|
| Design | \$673,194 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$125,565 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$25,616 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$116,005 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$48,982 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$269,404 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$1,258,766 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61027 - Water Line Extension

Funding Source: Water & Sewer Revenues

Project Description: Installation of water line extensions.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Design | \$153,709 | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$200,000 |
| Construction | \$5,235 | \$1,400,000 | \$1,200,000 | \$1,200,000 | \$1,200,000 | \$1,200,000 | \$1,600,000 |
| Finance Charges | \$6,329 | \$22,000 | \$20,000 | \$20,000 | \$20,000 | \$20,000 | \$30,000 |
| Engineering Charges | \$24,977 | \$16,386 | \$14,271 | \$14,271 | \$14,271 | \$14,271 | \$19,029 |
| Arts | \$7,911 | \$14,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$16,000 |
| Contingency | \$0 | \$140,000 | \$120,000 | \$120,000 | \$120,000 | \$120,000 | \$160,000 |
| Miscellaneous/Other | \$3,390 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$201,551 | \$1,742,386 | \$1,516,271 | \$1,516,271 | \$1,516,271 | \$1,516,271 | \$2,025,029 |

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

Project: 61029 - Regional GAC Plant

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 has changed over to GAC filter media.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------------|-------------|-------------|-------------|--------------------|------------------|------------------|
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$30,000 | \$0 | \$0 |
| Miscellaneous/Other | \$0 | \$0 | \$0 | \$0 | \$1,058,400 | \$951,500 | \$0 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$1,088,400 | \$951,500 | \$0 |

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 on going project O and M costs.

Project: 61035 - 83rd Ave Trn Main Orgewd to Gd

Funding Source: Water & Sewer Revenues

Project Description: A 20" water transmission main to convey water from the new Water Zone 4 Transmission Main in Orangewood to the existing Zone 4 Transmission Main on Glendale Avenue.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Design | \$151,722 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$406,295 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$28,124 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$23,859 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$19,418 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$151,625 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$781,043 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61036 - Zn4 Groundwater Trtment Plant

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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|---------------------|---------------------|---------------------|------------|------------|------------|
| Design | \$360,053 | \$1,000,000 | \$1,200,000 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$816,813 | \$20,300,000 | \$27,790,000 | \$9,100,000 | \$0 | \$0 | \$0 |
| Finance Charges | \$32,691 | \$455,000 | \$420,000 | \$15,000 | \$0 | \$0 | \$0 |
| Engineering Charges | \$18,502 | \$82,005 | \$111,612 | \$35,035 | \$0 | \$0 | \$0 |
| Arts | \$24,355 | \$203,000 | \$277,900 | \$91,000 | \$0 | \$0 | \$0 |
| Contingency | \$326,912 | \$3,138,500 | \$1,000,000 | \$758,965 | \$0 | \$0 | \$0 |
| TOTAL | \$1,579,326 | \$25,178,505 | \$30,799,512 | \$10,000,000 | \$0 | \$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 staffing three plant operators, chemicals and utilities. Chemical, utilities and maintenance cost are based on actual cost during a pilot study to treat groundwater.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------|------------|------------------|------------------|------------------|--------------------|
| Staffing | \$0 | \$0 | \$214,500 | \$220,935 | \$227,563 | \$1,244,408 |
| Supplies/Contr | \$0 | \$0 | \$360,600 | \$371,418 | \$382,561 | \$2,091,998 |
| Utilities | \$0 | \$0 | \$54,636 | \$56,275 | \$57,963 | \$316,967 |
| Equip. Maint. | \$0 | \$0 | \$0 | \$50,000 | \$51,500 | \$281,623 |
| Insurance | \$0 | \$0 | \$6,409 | \$6,601 | \$6,799 | \$37,180 |
| TOTAL | \$0 | \$0 | \$636,145 | \$705,229 | \$726,386 | \$3,972,176 |

Project: 61038 - Loop 101 Water Treatment Fac

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. This facility is identified in the revised Utilities Water Master Plan.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|---------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,500,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$43,883,390 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$660,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$186,276 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$438,834 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$49,668,500 |

Operating Description:

No O and M needed at this time, O and M will be determined closer to the start of the project.

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: 61039 - *Groundwater Availability Study

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.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------------|------------|------------|------------|------------|------------|
| Miscellaneous/Other | \$0 | \$450,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$0 | \$450,000 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

Project: 61040 - *Loop 101 Wells & Piping

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.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|--------------------|------------|------------|------------|------------|--------------------|
| Design | \$0 | \$150,000 | \$0 | \$0 | \$0 | \$0 | \$900,000 |
| Construction | \$0 | \$1,709,000 | \$0 | \$0 | \$0 | \$0 | \$8,266,500 |
| Finance Charges | \$0 | \$26,000 | \$0 | \$0 | \$0 | \$0 | \$125,000 |
| Engineering Charges | \$0 | \$19,390 | \$0 | \$0 | \$0 | \$0 | \$95,610 |
| Arts | \$0 | \$17,090 | \$0 | \$0 | \$0 | \$0 | \$82,665 |
| Contingency | \$0 | \$520 | \$0 | \$0 | \$0 | \$0 | \$125 |
| TOTAL | \$0 | \$1,922,000 | \$0 | \$0 | \$0 | \$0 | \$9,469,900 |

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

Project: T3470 - 67th Ave. Wtr Mn Brdly to Utop

Funding Source: Water & Sewer Revenues

Project Description: A new 12" diameter water main which will improve water distribution within Water Pressure Zone 2. This new water main will be located within 67th Avenue from Beardsley Road south to Utopia Road. This will serve as a Zone 2 water line running parallel to the existing 12" main in 67th Avenue that serves Water Pressure Zone 3.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|--------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$100,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$875,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$14,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$41,925 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$8,750 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$100,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,139,675 |

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

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

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

Funding Source: Water & Sewer Revenues

Project Description: Installation of a new 16" 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.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------------|-------------|-------------|-------------|--------------------|-------------|------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$190,000 | \$0 | \$0 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$1,100,000 | \$0 | \$0 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$20,000 | \$0 | \$0 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$43,000 | \$0 | \$0 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$11,000 | \$0 | \$0 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$100,000 | \$0 | \$0 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$1,464,000 | \$0 | \$0 |

Operating Description: Preventative maintenance and future regulations (DMOM, Distribution Management Operation and Maintenance) 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 July 2013.

| Operating Costs: | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Supplies/Contr | \$0 | \$0 | \$0 | \$0 | \$0 | \$35,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$35,000 |

Project: T3490 - Acoma Rd Trn Mn Zn 2 GrndTrt P

Funding Source: Water & Sewer Revenues

Project Description: A new 24" diameter water transmission main which will convey water from the planned Zone 2 Groundwater Treatment Plant into Water Pressure Zone 2. This new water line will generally follow the Acoma Road alignment from approximately 69th Avenue east to 67th Avenue. The source water will be the Zone 2 Groundwater Treatment Plant.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-----------------------|------------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$375,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$18,375 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$393,375 |

Operating Description: Preventative maintenance and future regulations (DMOM, Distribution Management Operation and Maintenance) are the driving factor for the O and M adjustments. Although the project design is for .25 miles of main, it is estimated an additional \$5,000 per year is necessary beginning May 2014. Cost is based on engineering studies.

| Operating Costs: | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Supplies/Contr | \$0 | \$0 | \$0 | \$0 | \$0 | \$28,162 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$28,162 |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: T3500 - Glendale Ave. Water Trans Mn

Funding Source: Water & Sewer Revenues

Project Description: A new 16" diameter water transmission main which will improve water distribution within Water Pressure Zone 4. This new water line will be located within Glendale Avenue from 99th Avenue west to 109th Avenue. The source water will be the Zone 4 Reservoir and Booster Station.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|--------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$800,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,500,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$45,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$61,050 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$105,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,536,050 |

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

Project: T3510 - Orngewood Ave Wtr Trans Mn

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 Orngewood Avenue from 99th Avenue west to 105th Avenue. The source water will be the Oasis Water Campus.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------------|------------|--------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$333,000 | \$0 | \$0 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,500,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$37,500 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$6,465 | \$0 | \$48,535 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$215,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$339,465 | \$0 | \$2,826,035 |

Operating Description: Due to the complexity of the line, additional maintenance costs are necessary in the outfall years. In addition to the preventative maintenance costs, future regulations (DMOM, Distribution Management Operation and Maintenance) 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 July 2014.

| Operating Costs: | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|------------------|------------|------------|------------|------------|------------|-----------------|
| Equip. Maint. | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: T3520 - Zn 2 Grndwater Trtmnt Plant

Funding Source: Water & Sewer Revenues

Project Description:

A new water treatment plant intended to treat 2.5 MGD of groundwater to remove nitrates and other contaminants. This facility will provide needed drinking water when surface water plants are offline.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|--------------------|
| Land | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,000,000 |
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,200,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$6,500,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$115,500 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$92,500 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$65,000 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$103,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$9,076,000 |

Operating Description:

No O and M needed at this time, O and M will be determined closer to the start of the project and won't be need untill after FY 2018.

Project: T3530 - Pyramid Pk WTP Train #1 Equip

Funding Source: Water & Sewer Revenues

Project Description:

Replace and rehab equipment at the Pyramid Peak Water Treatment Plant related to water pathway #1 and other equipment in the original plant, which were installed over 21 years ago. By the existing IGA between Glendale and Peoria, this cost will be split amongst the two Cities, with Peoria responsible for approximately 23% of the project costs.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|--------------------|--------------------|------------|
| Construction | \$0 | \$0 | \$0 | \$0 | \$2,900,000 | \$3,020,000 | \$0 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$42,000 | \$45,000 | \$0 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$58,784 | \$61,216 | \$0 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$29,000 | \$30,200 | \$0 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$297,948 | \$301,052 | \$0 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$3,327,732 | \$3,457,468 | \$0 |

Operating Description:

O and M costs will not be impacted by this project. Overall O and M costs should be lower with this project due to less maintenance on the new equipment and the equipment should be more efficient, lowering the overall operating costs.

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: T3540 - WTPs Chlorine Gas Elimination

Funding Source: Water & Sewer Revenues

Project Description:

This project includes the removal of both 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.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|--------------------|--------------------|------------|------------|------------|
| Design | \$0 | \$0 | \$680,000 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$0 | \$0 | \$2,500,000 | \$3,720,000 | \$0 | \$0 | \$0 |
| Finance Charges | \$0 | \$0 | \$35,000 | \$40,000 | \$0 | \$0 | \$0 |
| Engineering Charges | \$0 | \$0 | \$42,630 | \$49,870 | \$0 | \$0 | \$0 |
| Arts | \$0 | \$0 | \$25,000 | \$37,200 | \$0 | \$0 | \$0 |
| Contingency | \$0 | \$0 | \$200,000 | \$400,000 | \$0 | \$0 | \$0 |
| TOTAL | \$0 | \$0 | \$3,482,630 | \$4,247,070 | \$0 | \$0 | \$0 |

Operating Description:

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

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------|------------|------------|-----------------|-----------------|------------------|
| Supplies/Contr | \$0 | \$0 | \$0 | \$20,000 | \$20,600 | \$112,649 |
| Utilities | \$0 | \$0 | \$0 | \$15,000 | \$15,450 | \$84,487 |
| TOTAL | \$0 | \$0 | \$0 | \$35,000 | \$36,050 | \$197,136 |

Project: T3550 - Hillcrest Ranch Booster Rehab

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 rehabilitated or replaced.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$450,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$23,275 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,500 |
| Miscellaneous/Other | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$552,775 |

Operating Description:

No O and M at this time.

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: T3552 - *Additional Water Supply

Funding Source: Water & Sewer Revenues

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

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|---------------------|---------------------|
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$741,000 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$11,400,000 |
| Miscellaneous/Other | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,028,200 | \$38,000,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,028,200 | \$50,141,000 |

Operating Description: O and M impact is based upon projected delivery and treatment costs relating to the additional water supply.

| Operating Costs: | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|------------------|------------|------------|------------|------------|------------|------------------|
| Supplies/Contr | \$0 | \$0 | \$0 | \$0 | \$0 | \$386,027 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$386,027 |

Project: T3553 - *Utilities Office Complex

Funding Source: Water & Sewer Revenues

Project Description: Complete a design concept report to establish the location and layout of a new utilities office complex. The current complex is over 31 years and will need to be upgraded in the projected time frame, as a consequence to its wear and tear. In addition, the Utilities Department has grown over the years to better serve the community and as such will need additional space to better accommodate employees and the operations on a whole.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$189,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$11,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$200,000 |

Operating Description: No O and M costs needed for study.

Project: T3554 - *Zone 3 Transmission Pipelines

Funding Source: Water & Sewer Revenues

Project Description: Complete a design concept 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: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------|------------|------------|------------------|
| Miscellaneous/Other | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$100,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$100,000 |

Operating Description: No O and M costs needed for study.

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Water (2400)

Category: Revenue

Project: T3556 - *N River/Agua Fria Storage Cap

Funding Source: Water & Sewer Revenues

Project Description:

Purchase of additional recharge capacity at the New River/Agua Fria Underground Storage Project. The additional capacity is needed to ensure the city is able to store projected increases in reclaimed water produced at the city's West Area Water Reclamation Facility.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|--------------------|--------------------|------------|------------|------------|
| Miscellaneous/Other | \$0 | \$0 | \$4,350,000 | \$7,000,000 | \$0 | \$0 | \$0 |
| TOTAL | \$0 | \$0 | \$4,350,000 | \$7,000,000 | \$0 | \$0 | \$0 |

Operating Description:

Additional O and M costs due to purchase of additional capacity. Charges are from approved operating budget for this facility.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Supplies/Contr | \$0 | \$53,460 | \$55,064 | \$56,716 | \$58,417 | \$319,449 |
| TOTAL | \$0 | \$53,460 | \$55,064 | \$56,716 | \$58,417 | \$319,449 |

* New Project

FY 2009 - 2018 Capital Improvement Program Capital Projects By Fund and Project Number

Fund: Sewer (2420)

Category: Revenue

| <u>Project Name:</u> | <u>Carryover:</u> | <u>FY 08-09:</u> | <u>FY 09-10:</u> | <u>FY 10-11:</u> | <u>FY 11-12:</u> | <u>FY 12-13:</u> | <u>FY 14-18:</u> |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|
| 63000 67th-115th, Northern-C'Back | 0 | 0 | 0 | 4,551,205 | 5,102,863 | 0 | 12,365,177 |
| 63003 99th Ave Interceptor Line | 3,897,622 | 306,936 | 403,670 | 1,000,230 | 4,873,418 | 0 | 1,339,745 |
| 63004 Arrowhead Ranch Sewer Odor Con | 657,512 | 0 | 0 | 0 | 0 | 0 | 0 |
| 63005 Sewer System Evaluation | 544,714 | 0 | 0 | 0 | 0 | 0 | 0 |
| 63006 Arrowhead Sewer Lines | 67,422 | 0 | 1,700,000 | 2,071,225 | 0 | 0 | 1,735,750 |
| 63007 Sewer 99th Ave. W. Water Meter | 0 | 0 | 0 | 601,083 | 3,815,788 | 0 | 3,289,729 |
| 63008 Sewers for Areas on Septic Sys | 29,646 | 75,245 | 231,414 | 243,799 | 255,518 | 0 | 1,764,841 |
| 63009 67/Ave Swge Lft Sta. Odor Con. | 955,511 | 0 | 0 | 0 | 0 | 0 | 0 |
| 63010 91st Ave. Construction | 3,302,352 | 9,177,983 | 6,139,378 | 4,366,939 | 4,397,256 | 0 | 10,150,000 |
| 63013 67th Ave. Lift Station | 1,771,733 | 719,100 | 0 | 0 | 0 | 0 | 0 |
| 63014 67th & 83rd Ave SLS Mode | 379,562 | 0 | 0 | 0 | 0 | 0 | 4,579,138 |
| 63015 CMOM Implementation | 385,430 | 0 | 0 | 574,000 | 0 | 0 | 0 |
| 63016 Sewer Line Replacement | 141,421 | 0 | 0 | 1,724,952 | 2,391,260 | 2,581,061 | 15,559,524 |
| 63017 Sewer Line Extension | 357,732 | 275,766 | 287,557 | 301,847 | 317,929 | 0 | 1,763,940 |
| 63018 Camelback Swr Rehab | 1,554,545 | 635,300 | 1,498,650 | 0 | 0 | 0 | 0 |
| 63019 Western Area Odor Control | 4,317 | 0 | 0 | 0 | 0 | 0 | 0 |
| 63020 Security Enhance Wastewtr Ops | 3,778,799 | 0 | 0 | 4,883,927 | 376,641 | 386,831 | 5,881,462 |
| 63021 Sweetwater & 55th Ave SLS | 1,624,059 | 0 | 0 | 0 | 0 | 0 | 0 |
| 63022 95th Ave Sewer Connection | 675,809 | 0 | 0 | 0 | 0 | 0 | 0 |
| 63023 City Wide Sewer Odor Control | 406,760 | 0 | 2,290,667 | 0 | 0 | 0 | 1,763,175 |
| T3610 Bethany Hme Rd Interceptor | 0 | 0 | 325,920 | 0 | 0 | 0 | 3,330,500 |
| T3611 *Glendale Ave 93rd-99th Ave | 0 | 0 | 539,000 | 0 | 0 | 0 | 332,000 |
| Total Sewer Projects: | \$20,534,946 | \$11,190,330 | \$13,416,256 | \$20,319,207 | \$21,530,673 | \$2,967,892 | \$63,854,981 |
| Total FY 08-09 Funding: | | \$31,725,276 | | | | | |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

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

Funding Source: Water & Sewer Revenues

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

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|--------------------|--------------------|------------|---------------------|
| Design | \$0 | \$0 | \$0 | \$400,000 | \$700,000 | \$0 | \$1,000,000 |
| Construction | \$0 | \$0 | \$0 | \$3,650,000 | \$4,012,000 | \$0 | \$9,570,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$40,000 | \$22,000 | \$0 | \$135,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$24,705 | \$28,743 | \$0 | \$64,477 |
| Arts | \$0 | \$0 | \$0 | \$36,500 | \$40,120 | \$0 | \$95,700 |
| Contingency | \$0 | \$0 | \$0 | \$400,000 | \$300,000 | \$0 | \$1,500,000 |
| TOTAL | \$0 | \$0 | \$0 | \$4,551,205 | \$5,102,863 | \$0 | \$12,365,177 |

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

Project: 63003 - 99th Ave Interceptor Line

Funding Source: Water & Sewer Revenues

Project Description: The main sewer line to the Sub-Regional Operating Group (SROG) was inspected by project engineering consultants and determined that it needs to be rehabilitated. Pipe lining will be replaced along with manhole structures that are corroded.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------------|------------------|--------------------|--------------------|------------|--------------------|
| Design | \$242,972 | \$0 | \$0 | \$0 | \$600,000 | \$0 | \$0 |
| Construction | \$3,516,658 | \$300,000 | \$375,000 | \$875,000 | \$3,700,000 | \$0 | \$1,200,000 |
| Finance Charges | \$39,614 | \$0 | \$0 | \$15,000 | \$80,000 | \$0 | \$0 |
| Engineering Charges | \$58,558 | \$3,936 | \$4,920 | \$11,480 | \$56,418 | \$0 | \$15,745 |
| Arts | \$39,820 | \$3,000 | \$3,750 | \$8,750 | \$37,000 | \$0 | \$12,000 |
| Contingency | \$0 | \$0 | \$20,000 | \$90,000 | \$400,000 | \$0 | \$112,000 |
| TOTAL | \$3,897,622 | \$306,936 | \$403,670 | \$1,000,230 | \$4,873,418 | \$0 | \$1,339,745 |

Operating Description: Rehabilitation of the 99th Avenue interceptor is scheduled to begin in 2010. Glendale's share of odor control, interceptor cleaning and operating costs is an ongoing expense estimated at \$336,000 per year. With the increased volume due to greater capacity, expenses are expected to increase by \$440,000 beginning in FY 2011.

| Operating Costs: | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|------------------|------------|------------|------------------|------------------|------------------|--------------------|
| Supplies/Contr | \$0 | \$0 | \$440,000 | \$453,200 | \$466,796 | \$2,552,632 |
| TOTAL | \$0 | \$0 | \$440,000 | \$453,200 | \$466,796 | \$2,552,632 |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63004 - Arrowhead Ranch Sewer Odor Con

Funding Source: Water & Sewer Revenues

Project Description:

Permanent hydrogen peroxide chemical dosing stations will be built along the larger diameter (15" - 42") sewer mains in the Arrowhead Ranch area to control the odor of sewer gases.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|------------|------------|------------|------------|------------|
| Construction | \$630,572 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$21,564 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$5,376 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$657,512 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

Project: 63005 - Sewer System Evaluation

Funding Source: Water & Sewer Revenues

Project Description:

A five-year project, now in its fourth year, to evaluate the condition of the City's sewer system and develop a systematic plan for rehabilitating and replacing deteriorated sewers and manholes.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|--------------|------------------|------------|------------|------------|------------|------------|------------|
| Construction | \$544,714 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$544,714 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

Project: 63006 - Arrowhead Sewer Lines

Funding Source: Water & Sewer Revenues

Project Description:

The rehabilitation or replacement 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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|-----------------|------------|--------------------|--------------------|------------|------------|--------------------|
| Design | \$60,237 | \$0 | \$0 | \$350,000 | \$0 | \$0 | \$0 |
| Construction | \$0 | \$0 | \$1,490,000 | \$1,500,000 | \$0 | \$0 | \$1,500,000 |
| Finance Charges | \$0 | \$0 | \$22,000 | \$22,000 | \$0 | \$0 | \$18,000 |
| Engineering Charges | \$5,499 | \$0 | \$27,565 | \$34,225 | \$0 | \$0 | \$27,750 |
| Arts | \$1,686 | \$0 | \$14,900 | \$15,000 | \$0 | \$0 | \$15,000 |
| Contingency | \$0 | \$0 | \$145,535 | \$150,000 | \$0 | \$0 | \$175,000 |
| TOTAL | \$67,422 | \$0 | \$1,700,000 | \$2,071,225 | \$0 | \$0 | \$1,735,750 |

Operating Description:

No additional O and M needed at this time.

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

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

Funding Source: Water & Sewer Revenues

Project Description:

The multi-cities SROG organization is currently requiring the SROG cities to construct their sewage metering stations equal to the approved design studied by the SROG prototype meter station project in Scottsdale. The metering stations are located on 99th Avenue south of Camelback Road and south of Northern Avenue.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------|------------------|--------------------|------------|--------------------|
| Construction | \$0 | \$0 | \$0 | \$585,000 | \$3,375,000 | \$0 | \$2,900,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$48,000 | \$0 | \$30,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$10,233 | \$59,038 | \$0 | \$50,729 |
| Arts | \$0 | \$0 | \$0 | \$5,850 | \$33,750 | \$0 | \$29,000 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$300,000 | \$0 | \$280,000 |
| TOTAL | \$0 | \$0 | \$0 | \$601,083 | \$3,815,788 | \$0 | \$3,289,729 |

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 telephone are required.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------|------------|------------|------------|-----------------|-----------------|------------------|
| Utilities | \$0 | \$0 | \$0 | \$5,464 | \$5,600 | \$30,623 |
| Equip. Maint. | \$0 | \$0 | \$0 | \$25,000 | \$25,750 | \$140,812 |
| TOTAL | \$0 | \$0 | \$0 | \$30,464 | \$31,350 | \$171,435 |

Project: 63008 - Sewers for Areas on Septic Sys

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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|-----------------|-----------------|------------------|------------------|------------------|------------|--------------------|
| Design | \$28,851 | \$0 | \$0 | \$0 | \$250,000 | \$0 | \$0 |
| Construction | \$0 | \$70,000 | \$200,000 | \$212,000 | \$0 | \$0 | \$1,710,000 |
| Engineering Charges | \$795 | \$1,545 | \$4,414 | \$4,679 | \$5,518 | \$0 | \$37,741 |
| Arts | \$0 | \$700 | \$2,000 | \$2,120 | \$0 | \$0 | \$17,100 |
| Contingency | \$0 | \$3,000 | \$25,000 | \$25,000 | \$0 | \$0 | \$0 |
| TOTAL | \$29,646 | \$75,245 | \$231,414 | \$243,799 | \$255,518 | \$0 | \$1,764,841 |

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:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------|------------|------------|------------|------------|------------------|
| Supplies/Contr | \$0 | \$0 | \$0 | \$0 | \$0 | \$100,000 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$100,000 |

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

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

Funding Source: Water & Sewer Revenues

Project Description: Permanent hydrogen peroxide chemical dosing stations for odor control.

| <u>Capital Costs:</u> | <u>Carryover</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> | <u>2014-2018</u> |
|-----------------------|------------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Design | \$118,769 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$717,615 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$37,920 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$12,550 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$53,456 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$15,201 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$955,511 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

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

Project: 63010 - 91st Ave. Construction

Funding Source: Water & Sewer Revenues

Project Description: To 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.

| <u>Capital Costs:</u> | <u>Carryover</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> | <u>2014-2018</u> |
|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------|---------------------|
| Construction | \$29,921 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$0 | \$135,000 | \$90,000 | \$60,000 | \$60,000 | \$0 | \$150,000 |
| Miscellaneous/Other | \$3,272,431 | \$9,042,983 | \$6,049,378 | \$4,306,939 | \$4,337,256 | \$0 | \$10,000,000 |
| TOTAL | \$3,302,352 | \$9,177,983 | \$6,139,378 | \$4,366,939 | \$4,397,256 | \$0 | \$10,150,000 |

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

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63013 - 67th Ave. Lift Station

Funding Source: Water & Sewer Revenues

Project Description:

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

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------------|------------|------------|------------|------------|------------|
| Design | \$35,463 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$1,549,548 | \$650,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$0 | \$10,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$52,621 | \$39,600 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$14,876 | \$6,500 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$114,048 | \$13,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$5,177 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$1,771,733 | \$719,100 | \$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.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------|------------|------------|-----------------|-----------------|-----------------|------------------|
| Equip. Maint. | \$0 | \$0 | \$28,000 | \$28,840 | \$29,600 | \$161,865 |
| TOTAL | \$0 | \$0 | \$28,000 | \$28,840 | \$29,600 | \$161,865 |

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

Funding Source: Water & Sewer Revenues

Project Description:

This sewage lift station (SLS), located at 67th Avenue 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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|------------|------------|------------|------------|--------------------|
| Design | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$700,000 |
| Construction | \$379,562 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,375,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$45,000 |
| Engineering Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$75,388 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$33,750 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$350,000 |
| TOTAL | \$379,562 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,579,138 |

Operating Description:

No additional O and M needed at this time.

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63015 - CMOM Implementation

Funding Source: Water & Sewer Revenues

Project Description:

The United States Environmental Protection Agency (USEPA) has mandated a new Capacity Management Operations and Maintenance (CMOM) program for the sanitary sewer systems nationwide. The proposed program will assist in protecting the sewer system. Phase III will update the administrative program in FY 2011.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|------------|------------------|------------|------------|------------|
| Design | \$354,230 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$31,200 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous/Other | \$0 | \$0 | \$0 | \$574,000 | \$0 | \$0 | \$0 |
| TOTAL | \$385,430 | \$0 | \$0 | \$574,000 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

Project: 63016 - Sewer Line Replacement

Funding Source: Water & Sewer Revenues

Project Description:

Replacement/Rehabilitation of existing sewer lines as identified by the Sewer Evaluation Study prepared by HDR Engineers and to be completed by CDM Engineers. Projects will be developed as funds are available.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|------------|--------------------|--------------------|--------------------|---------------------|
| Design | \$35,387 | \$0 | \$0 | \$490,000 | \$0 | \$520,000 | \$570,000 |
| Construction | \$57,059 | \$0 | \$0 | \$1,100,000 | \$2,200,000 | \$1,800,000 | \$13,200,000 |
| Finance Charges | \$46,216 | \$0 | \$0 | \$15,000 | \$30,000 | \$27,000 | \$180,000 |
| Engineering Charges | \$254 | \$0 | \$0 | \$9,699 | \$13,420 | \$14,152 | \$83,997 |
| Arts | \$2,505 | \$0 | \$0 | \$11,000 | \$22,000 | \$18,000 | \$132,000 |
| Contingency | \$0 | \$0 | \$0 | \$99,253 | \$125,840 | \$201,909 | \$1,393,527 |
| TOTAL | \$141,421 | \$0 | \$0 | \$1,724,952 | \$2,391,260 | \$2,581,061 | \$15,559,524 |

Operating Description:

No additional O and M needed at this time.

Project: 63017 - Sewer Line Extension

Funding Source: Water & Sewer Revenues

Project Description:

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

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------------|------------------|------------------|------------------|------------|--------------------|
| Design | \$73,919 | \$150,000 | \$0 | \$100,000 | \$50,000 | \$0 | \$140,000 |
| Construction | \$261,263 | \$100,000 | \$260,000 | \$170,000 | \$240,000 | \$0 | \$1,420,000 |
| Finance Charges | \$3,683 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$13,907 | \$4,766 | \$4,957 | \$5,147 | \$5,529 | \$0 | \$29,740 |
| Arts | \$4,960 | \$1,000 | \$2,600 | \$1,700 | \$2,400 | \$0 | \$14,200 |
| Contingency | \$0 | \$20,000 | \$20,000 | \$25,000 | \$20,000 | \$0 | \$160,000 |
| TOTAL | \$357,732 | \$275,766 | \$287,557 | \$301,847 | \$317,929 | \$0 | \$1,763,940 |

Operating Description:

No additional O and M needed at this time.

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63018 - Camelback Swr Rehab

Funding Source: Water & Sewer Revenues

Project Description:

To replace the 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" 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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------------|--------------------|------------|------------|------------|------------|
| Construction | \$1,233,334 | \$550,000 | \$1,275,000 | \$0 | \$0 | \$0 | \$0 |
| Finance Charges | \$29,596 | \$0 | \$20,000 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$123,096 | \$19,800 | \$45,900 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$40,270 | \$5,500 | \$12,750 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$128,249 | \$60,000 | \$145,000 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$1,554,545 | \$635,300 | \$1,498,650 | \$0 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

Project: 63019 - Western Area Odor Control

Funding Source: Water & Sewer Revenues

Project Description:

Hydrogen peroxide chemical dosing stations to control odor of sewer gases.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|--------------|----------------|------------|------------|------------|------------|------------|------------|
| Construction | \$4,317 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$4,317 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

Project: 63020 - Security Enhance Wastewtr Ops

Funding Source: Water & Sewer Revenues

Project Description:

Add various 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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------|------------|--------------------|------------------|------------------|--------------------|
| Design | \$700,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$2,579,181 | \$0 | \$0 | \$4,300,000 | \$330,000 | \$350,000 | \$5,200,000 |
| Finance Charges | \$80,000 | \$0 | \$0 | \$65,000 | \$5,000 | \$5,000 | \$80,000 |
| Engineering Charges | \$61,618 | \$0 | \$0 | \$57,024 | \$4,376 | \$4,641 | \$68,959 |
| Arts | \$58,000 | \$0 | \$0 | \$43,000 | \$3,300 | \$3,500 | \$52,000 |
| Contingency | \$300,000 | \$0 | \$0 | \$418,903 | \$33,965 | \$23,690 | \$480,503 |
| TOTAL | \$3,778,799 | \$0 | \$0 | \$4,883,927 | \$376,641 | \$386,831 | \$5,881,462 |

Operating Description:

No additional O and M needed at this time.

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63021 - Sweetwater & 55th Ave SLS

Funding Source: Water & Sewer Revenues

Project Description:

The material condition of this sewage lift station (SLS) has deteriorated and requires equipment upgrades in order to assure system reliability, adequate capacity and public safety. Station is essential to satisfy Capacity Management Operations and Maintenance (CMOM).

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|--------------------|------------|------------|------------|------------|------------|------------|
| Design | \$135,406 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$1,266,969 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$51,654 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$20,030 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$150,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$1,624,059 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

Project: 63022 - 95th Ave Sewer Connection

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.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|------------|------------|------------|------------|------------|
| Design | \$37,633 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$593,215 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Engineering Charges | \$29,116 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Arts | \$5,942 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$9,903 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | \$675,809 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Operating Description:

No additional O and M needed at this time.

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: 63023 - City Wide Sewer Odor Control

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.

Capital Costs:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------------|------------|--------------------|------------|------------|------------|--------------------|
| Design | \$65,003 | \$0 | \$0 | \$0 | \$0 | \$0 | \$100,000 |
| Construction | \$266,363 | \$0 | \$2,000,000 | \$0 | \$0 | \$0 | \$1,450,000 |
| Finance Charges | \$19,094 | \$0 | \$30,000 | \$0 | \$0 | \$0 | \$20,000 |
| Engineering Charges | \$21,309 | \$0 | \$37,000 | \$0 | \$0 | \$0 | \$28,675 |
| Arts | \$13,366 | \$0 | \$20,000 | \$0 | \$0 | \$0 | \$14,500 |
| Contingency | \$21,625 | \$0 | \$203,667 | \$0 | \$0 | \$0 | \$150,000 |
| TOTAL | \$406,760 | \$0 | \$2,290,667 | \$0 | \$0 | \$0 | \$1,763,175 |

Operating Description:

Three additional dosing stations coming online in FY 2010 will increase the annual usage of the hydrogen peroxide chemical used by the dosing stations and will require additional electricity. Supplies - average yearly chemical cost for a site today is \$176,640. Utilities - average yearly electric utility cost per site today is \$700.

Operating Costs:

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|----------------|------------|------------------|------------------|------------------|------------------|--------------------|
| Supplies/Contr | \$0 | \$529,920 | \$545,818 | \$562,192 | \$579,058 | \$3,166,526 |
| Utilities | \$0 | \$2,100 | \$2,163 | \$2,228 | \$2,295 | \$12,549 |
| TOTAL | \$0 | \$532,020 | \$547,981 | \$564,420 | \$581,353 | \$3,179,075 |

Project: T3610 - Bethany Hme Rd Interceptor

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:

| | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------------|------------|------------|------------|--------------------|
| Design | \$0 | \$0 | \$320,000 | \$0 | \$0 | \$0 | \$0 |
| Construction | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,000,000 |
| Finance Charges | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$45,000 |
| Engineering Charges | \$0 | \$0 | \$5,920 | \$0 | \$0 | \$0 | \$55,500 |
| Arts | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$30,000 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$200,000 |
| TOTAL | \$0 | \$0 | \$325,920 | \$0 | \$0 | \$0 | \$3,330,500 |

Operating Description:

It is estimated that interceptor sewer maintenance will cost approximately \$20,000 per mile per year for 1.5 miles. Additional staffing requirements in the outfall years for routine cleaning and preventative maintenance.

* New Project

FY 2009-2018 Capital Improvement Plan Capital Project Detail

Fund: Sewer (2420)

Category: Revenue

Project: T3611 - *Glendale Ave 93rd-99th Ave

Funding Source: Water & Sewer Revenues

Project Description: Design and construct a new parallel relief sewer on Glendale Avenue from 93rd the 99th Avenue to handle the additional wastewater flows generated by growth near Loop 101. The relief sewer will be installed in two phases. These proposed improvements were identified in the sewer collection study recently completed by CDM.

| Capital Costs: | Carryover | 2009 | 2010 | 2011 | 2012 | 2013 | 2014-2018 |
|---------------------|------------|------------|------------------|------------|------------|------------|------------------|
| Design | \$0 | \$0 | \$80,000 | \$0 | \$0 | \$0 | \$35,000 |
| Construction | \$0 | \$0 | \$429,000 | \$0 | \$0 | \$0 | \$280,000 |
| Engineering Charges | \$0 | \$0 | \$21,887 | \$0 | \$0 | \$0 | \$13,545 |
| Arts | \$0 | \$0 | \$4,290 | \$0 | \$0 | \$0 | \$2,800 |
| Contingency | \$0 | \$0 | \$3,823 | \$0 | \$0 | \$0 | \$655 |
| TOTAL | \$0 | \$0 | \$539,000 | \$0 | \$0 | \$0 | \$332,000 |

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