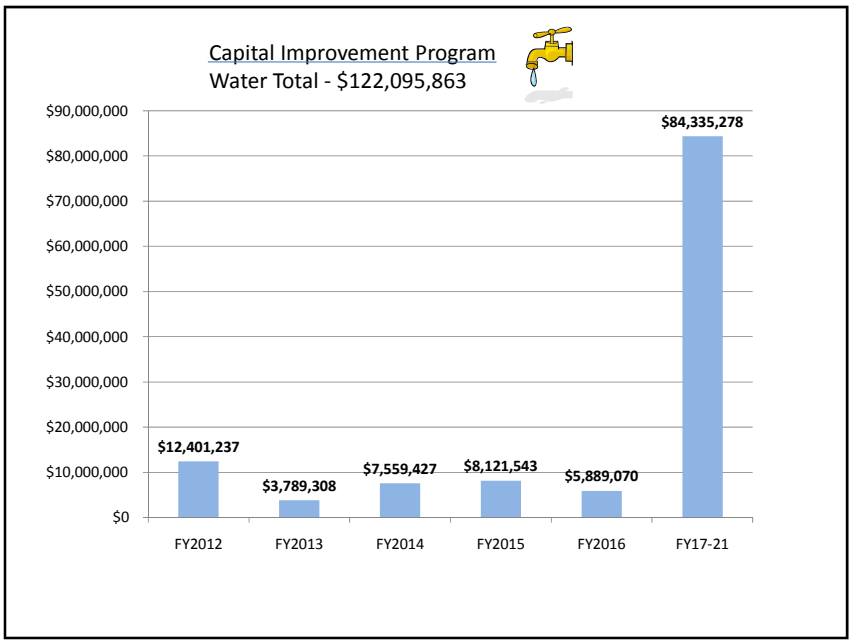
Water

Water operations are considerably more complex than one might imagine. Acquisition of the water itself is only the first step, whether it comes from renewable sources like the Colorado River or the city's own well sites. A successful water operation depends upon large treatment facilities, as well as a network of infrastructure to distribute water to the facilities for treatment and then ultimately to the users.

Like wastewater projects, water infrastructure is funded primarily through operating revenues from user fees, revenue bonds, and development impact fees. The 10-year program includes funding for new water lines along Lake Pleasant Parkway and Lone Mountain Road, upgrades to the Pyramid Peak Water Treatment Plant, bromate mitigation at the Greenway Water Treatment Plant, the reconditioning of various water facilities, and the construction of new wells.



Water

Summary by Project

Project Name	Pg#	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 17-21	Total
75 Av 16-inch Waterline, Thunderbird and Cholla	207	$193,283	$0	$0	$44,400	$0	$365,660	**$603,343**
91st Av 24-inch Waterline; Union Hills-Greenway	208	$0	$0	$0	$0	$0	$5,967,600	**$5,967,600**
Agua Fria Booster/PRV Phase I and II	209	$0	$0	$649,254	$3,737,738	$0	$0	**$4,386,992**
Condition Assessment of Remote Sites	210	$300,000	$0	$0	$0	$0	$300,000	**$600,000**
Data Network for Remote Utility Facilities	211	$0	$0	$0	$227,250	$227,250	$0	**$454,500**
Desert Harbor-Peoria Sports Complex Well Mixing	212	$0	$0	$0	$0	$177,501	$1,385,326	**$1,562,827**
Fire Hydrant Infill	213	$49,505	$0	$50,000	$0	$50,000	$100,000	**$249,505**
Greenway Plant Equipment Upgrade	214	$100,000	$0	$0	$100,000	$0	$100,000	**$300,000**
Greenway Rd 24-inch Waterline; 91st-79th Av	215	$0	$0	$0	$0	$0	$9,664,780	**$9,664,780**
Greenway Water Treatment Plant Bromate Mitigation	216	$596,837	$0	$0	$0	$0	$0	**$596,837**
Greenway WTP 24 MGD Expansion	217	$0	$0	$0	$0	$0	$31,697,233	**$31,697,233**
Greenway WTP Fiber Optic Connection	218	$0	$300,000	$0	$0	$0	$0	**$300,000**
Integrated Utility Master Plan	219	$75,200	$300,000	$120,000	$0	$0	$500,000	**$995,200**
Jomax In-Line Booster Station Upgrades	220	$0	$0	$1,283,062	$0	$0	$0	**$1,283,062**
Lake Pleasant WTP Turnout Station	221	$0	$0	$0	$0	$0	$1,190,050	**$1,190,050**
Lake Plsnt Pkwy 24-inch Waterline; Dynamite-L303	222	$4,307,615	$0	$0	$0	$0	$0	**$4,307,615**
Lake Plsnt Pkwy 24-inch Waterline; Loop 303- LPWTP	223	$0	$0	$0	$0	$0	$9,056,497	**$9,056,497**
Lone Mtn Pkwy 24-inch Waterline; El Mirage to L303	224	$2,838,845	$0	$0	$0	$0	$0	**$2,838,845**
Miscellaneous Local Waterline Improvements	225	$283,381	$151,500	$151,500	$151,500	$151,500	$757,500	**$1,646,881**
New River Agua Fria Underground Storage Project	226	$297,000	$0	$0	$0	$0	$0	**$297,000**
Northern Av - 16-inch Waterline, 107 Av - 103 Av	227	$0	$0	$0	$0	$123,100	$1,078,500	**$1,201,600**
Pyramid Peak Water Treatment Plant - Upgrades	228	$22,770	$23,000	$23,000	$34,500	$517,500	$690,000	**$1,310,770**
SCADA Control Optimization	229	$0	$0	$700,000	$700,000	$0	$0	**$1,400,000**
SCADA Equipment Replacement	230	$500,000	$500,000	$500,000	$500,000	$500,000	$1,500,000	**$4,000,000**
Technology and Security Master Plan	231	$0	$300,000	$0	$0	$0	$300,000	**$600,000**
Utility Billing System	232	$0	$0	$0	$0	$0	$2,000,000	**$2,000,000**
Utility Security Upgrades	233	$481,440	$0	$250,000	$0	$0	$0	**$731,440**

Water

Summary by Project

Project Name	Pg#	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 17-21	Total
Water & Wastewater Rate Study	234	$90,000	$0	$90,000	$0	$90,000	$180,000	**$450,000**
Water Facility Reconditioning	235	$971,910	$505,000	$505,000	$505,000	$505,000	$2,525,000	**$5,516,910**
Water/Wastewater/Solid Waste Expansion Fee Update	236	$60,000	$0	$60,000	$0	$60,000	$120,000	**$300,000**
Well Head Water Quality Mitigation (W202-W203)	237	$0	$330,020	$3,144,006	$0	$0	$0	**$3,474,026**
Wells - New Construction	238	$831,429	$1,379,788	$0	$0	$752,482	$3,512,058	**$6,475,757**
West Agua Fria Water Lines	239	$401,231	$0	$33,605	$700,200	$2,379,498	$503,698	**$4,018,232**
White Mountain Apache Tribe Water Rights Purchase	240	$0	$0	$0	$1,420,955	$355,239	$1,065,717	**$2,841,911**
Zone 2/3 Booster - Pressure Reducing Valve Station	241	$791	$0	$0	$0	$0	$3,621,000	**$3,621,791**
Zone 5/6 E - Reservoir, Booster, PRV Site - Phase 1	242	$0	$0	$0	$0	$0	$5,049,759	**$5,049,759**
Zone 5/6E Reservoir/Booster/PRV Site	243	$0	$0	$0	$0	$0	$1,104,900	**$1,104,900**
Total - Water		**$12,401,237**	**$3,789,308**	**$7,559,427**	**$8,121,543**	**$5,889,070**	**$84,335,278**	**$122,095,863**

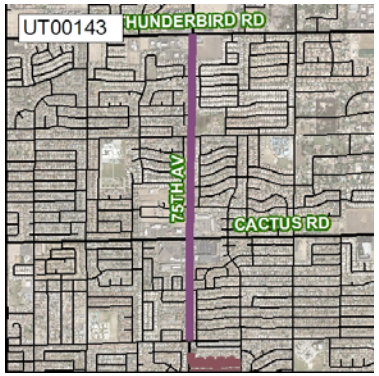
Water

Summary by Funding Source

Fund Number and Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 17-21	Total
2050 - Water	$4,794,732	$1,811,520	$6,376,068	$3,392,318	$4,219,004	$27,769,229	$48,362,871
2161 - Water Expansion	$6,849,473	$1,627,788	$735,859	$2,790,600	$1,356,441	$16,394,436	$29,754,597
2224 - WIFA Bonds DW-038-2009	$0	$0	$0	$0	$0	$38,421,613	$38,421,613
2400 - Wastewater	$727,032	$275,000	$417,500	$532,725	$227,166	$1,365,000	$3,544,423
2510 - Wastewater Expansion	$30,000	$75,000	$30,000	$405,900	$86,459	$385,000	$1,012,359
4810 - Capital Projects-Outside Srces	$0	$0	$0	$1,000,000	$0	$0	$1,000,000
Total - Water	**$12,401,237**	**$3,789,308**	**$7,559,427**	**$8,121,543**	**$5,889,070**	**$84,335,278**	**$122,095,863**

75 Av 16-inch Waterline, Thunderbird and Cholla

Project Number: UT00143 **Project Location:** 75th Ave, Thunderbird and Cholla Intersections



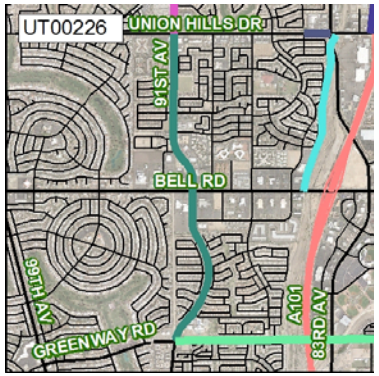
Description:
This project will construct a 16-inch waterline along 75th Avenue at the intersections with Thunderbird Road and Cactus Road prior to intersection construction to avoid disturbing these intersections when the full 16-inch waterline from Thunderbird to Cholla is constructed.

Justification:
Major water transmission pipelines and booster stations are required to convey and deliver surface water. These pipelines will connect the water treatment plant to the local water distribution system. This pipeline was recommended by the Water Infrastructure Master Plan.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$400	$0	$3,561	$0	$0	$0	$0	$3,961
Chargebacks	Water	Base	$0	$0	$0	$4,000	$0	$6,000	$0	$0	$0	$0	$10,000
Construction	Water	Base	$173,283	$0	$0	$0	$0	$356,099	$0	$0	$0	$0	$529,382
Design	Water	Base	$0	$0	$0	$40,000	$0	$0	$0	$0	$0	$0	$40,000
Design	Water	Carryover	$20,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$20,000
		Total Budget	**$193,283**	**$0**	**$0**	**$44,400**	**$0**	**$365,660**	**$0**	**$0**	**$0**	**$0**	**$603,343**

91st Av 24-inch Waterline; Union Hills-Greenway

Project Number: UT00226 **Project Location:** 91st Ave, Union Hills Dr to Greenway Rd



Description:
This project includes design and construction of a 24-inch waterline in 91st Avenue from Union Hills Drive to Greenway Road. This waterline will be part of a major north/south transmission pipeline.

Justification:
Major water transmission pipelines and booster stations are required to deliver large volumes of water citywide. This waterline has been identified as a system need in the Water System Master Plan.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$0	$5,300	$52,300	$0	$0	$0	$57,600
Chargebacks	Water	Base	$0	$0	$0	$0	$0	$60,000	$90,000	$0	$0	$0	$150,000
Construction	Water	Base	$0	$0	$0	$0	$0	$0	$5,230,000	$0	$0	$0	$5,230,000
Design	Water	Base	$0	$0	$0	$0	$0	$530,000	$0	$0	$0	$0	$530,000
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$595,300**	**$5,372,300**	**$0**	**$0**	**$0**	**$5,967,600**

Total Operating Impacts	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$500**	**$500**	**$500**	**$1,500**

Agua Fria Booster/PRV Phase I and II

Project Number: UT00245 **Project Location:** North Peoria

Description:
This project will provide a pressure reducing valve and booster station to move water to and from pressure zone 4E to both zones 5E and 5W.

Justification:
The facility will be needed when the Lone Mountain Parkway waterline is constructed and when the Lake Pleasant Parkway waterline is constructed.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Construction	Outside Sources	Base	$0	$0	$0	$1,000,000	$0	$0	$0	$0	$0	$0	$1,000,000
Arts	Water	Base	$0	$0	$0	$7,122	$0	$0	$0	$0	$0	$0	$7,122
Chargebacks	Water	Base	$0	$0	$0	$25,515	$0	$0	$0	$0	$0	$0	$25,515
Construction	Water	Base	$0	$0	$0	$705,101	$0	$0	$0	$0	$0	$0	$705,101
Arts	Water Expansion	Base	$0	$0	$6,493	$19,310	$0	$0	$0	$0	$0	$0	$25,803
Chargebacks	Water Expansion	Base	$0	$0	$0	$68,985	$0	$0	$0	$0	$0	$0	$68,985
Construction	Water Expansion	Base	$0	$0	$0	$1,911,705	$0	$0	$0	$0	$0	$0	$1,911,705
Design	Water Expansion	Base	$0	$0	$642,761	$0	$0	$0	$0	$0	$0	$0	$642,761
		Total Budget	**$0**	**$0**	**$649,254**	**$3,737,738**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,386,992**

Condition Assessment of Remote Sites

Project Number: UT00256 **Project Location:** Citywide

Description:
This project will assess the condition of all water, wastewater and reuse water infrastructure (excluding treatment plants). This work will be completed in the first year of the Integrated Master Plan and will be used to enhance the accuracy of this master plan.

Justification:
This project will provide an overall condition assessment of all utility infrastructure that will be used for project costs and timing in the Integrated Master Plan, improving the accuracy and usefulness of this plan.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Study	Wastewater	Base	$150,000	$0	$0	$0	$0	$150,000	$0	$0	$0	$0	$300,000
Study	Water	Base	$150,000	$0	$0	$0	$0	$150,000	$0	$0	$0	$0	$300,000
		Total Budget	**$300,000**	**$0**	**$0**	**$0**	**$0**	**$300,000**	**$0**	**$0**	**$0**	**$0**	**$600,000**

Data Network for Remote Utility Facilities

Project Number: UT00215 **Project Location:** Various locations

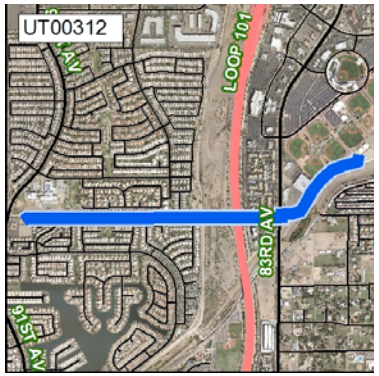
Description:
This project will upgrade the Utilities Supervisory Control and Data Acquisition (SCADA) network. The SCADA system links control rooms at the water and wastewater treatment plants to unmanned remote sites to monitor and operate these sites. In fiscal years 2009 and 2010, a significant upgrade to the radio system was completed. In fiscal years 2015 and 2016, equipment will be upgraded to current technology.

Justification:
This project will provide centralized network services to ensure the SCADA system functions reliably and efficiently.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Equipment	Wastewater	Base	$0	$0	$0	$57,725	$57,166	$0	$0	$0	$0	$0	$114,891
Equipment	Wastewater Expansion	Base	$0	$0	$0	$55,900	$56,459	$0	$0	$0	$0	$0	$112,359
Equipment	Water	Base	$0	$0	$0	$57,725	$57,166	$0	$0	$0	$0	$0	$114,891
Equipment	Water Expansion	Base	$0	$0	$0	$55,900	$56,459	$0	$0	$0	$0	$0	$112,359
		Total Budget	**$0**	**$0**	**$0**	**$227,250**	**$227,250**	**$0**	**$0**	**$0**	**$0**	**$0**	**$454,500**

Desert Harbor-Peoria Sports Complex Well Mixing

Project Number: UT00312 **Project Location:** 91st Ave and Greenway to Sports Complex Reservoir



Description:
This project will install a waterline to directly connect the Desert Harbor and Arrowhead Shores Wells to the Peoria Sports Complex Reservoir in order to facilitate mixing or the water sources. Permits to cross New River and Loop 101 will be obtained. Easements and Right-of-way exist, however private improvements will need to be restored after construction of the waterline.

Justification:
The City wells may not meet upcoming DBP rules. This project will allow the blending of Desert Harbor, Arrowhead Shores, Sports Complex and treated water from the Greenway WTP. The reservoir system at the Peoria Sports Complex is arranged so that it can be easily isolated for the purposes of blending the various water resources. There is ample room at the site for arsenic treatment should it be needed in the future.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$1,670	$13,603	$0	$0	$0	$0	$15,273
Chargebacks	Water	Base	$0	$0	$0	$0	$10,550	$25,000	$0	$0	$0	$0	$35,550
Construction	Water	Base	$0	$0	$0	$0	$0	$1,346,723	$0	$0	$0	$0	$1,346,723
Design	Water	Base	$0	$0	$0	$0	$165,281	$0	$0	$0	$0	$0	$165,281
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$177,501**	**$1,385,326**	**$0**	**$0**	**$0**	**$0**	**$1,562,827**

Fire Hydrant Infill

Project Number: UT00204 **Project Location:** City Wide

Description:
This is an ongoing program to install fire hydrants in areas of the City where fire hydrant spacing exceeds City Infrastructure Guidelines.

Justification:
Identification of the need for additional hydrants is ongoing to ensure compliance with Fire Code standards.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$495	$0	$495	$0	$495	$0	$495	$0	$1,980
Construction	Water	Base	$49,505	$0	$49,505	$0	$49,505	$0	$49,505	$0	$49,505	$0	$247,525
		Total Budget	**$49,505**	**$0**	**$50,000**	**$0**	**$50,000**	**$0**	**$50,000**	**$0**	**$50,000**	**$0**	**$249,505**

Greenway Plant Equipment Upgrade

Project Number: UT00316 **Project Location:** Greenway Water Treatment Plant

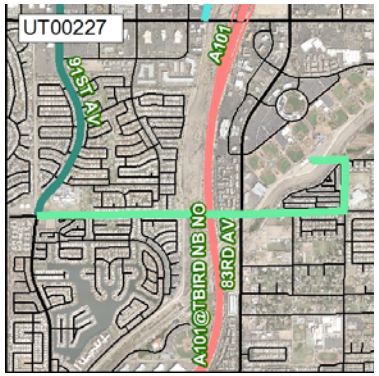
Description:
FY12 will upgrade existing plant equipment and SCADA equipment. This project will also address the need for providing proper personnel access to several plant basins. The main elements of this project are: upgrades to the ozone disinfection system, replacing existing programmable Logic Controllers, and installing access equipment for plant basins. FY15 & FY18 will address ongoing replacement of plant equipment and systems.

Justification:
FY12: These improvements will ensure the continued reliability and water quality of the plant by addressing needed upgrades of the disinfection system and plant equipment controls. This project will also assure personnel safety when accessing the various basins. FY15 & FY18: As the plant ages, equipment reaches the end of its life cycle. These funds will allow for ongoing evaluation and replacement of plant equipment to allow for continued reliability and increased efficiency.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Equipment	Water	Base	$100,000	$0	$0	$100,000	$0	$0	$100,000	$0	$0	$0	$300,000
		Total Budget	**$100,000**	**$0**	**$0**	**$100,000**	**$0**	**$0**	**$100,000**	**$0**	**$0**	**$0**	**$300,000**

Greenway Rd 24-inch Waterline; 91st-79th Av

Project Number: UT00227 **Project Location:** Greenway Road



Description:
This project includes design and construction of a 24-inch waterline along the Greenway Road alignment from 91st Avenue to 79th Avenue, crossing Loop 101. This waterline will be a section of a major north-south transmission pipeline.

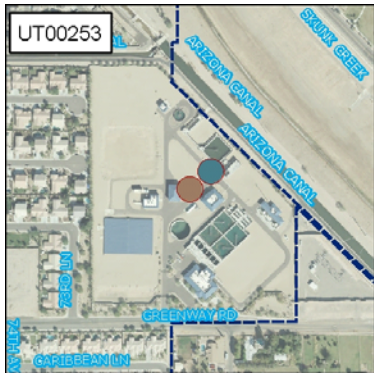
Justification:
Major transmission pipelines and booster stations are required to convey and deliver drinking water. Transmission pipelines are citywide facilities that carry large volumes of water for several miles. This waterline has been identified as needed in the Water System Master Plan.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$0	$0	$8,400	$19,683	$0	$0	$28,083
Chargebacks	Water	Base	$0	$0	$0	$0	$0	$0	$92,000	$31,740	$0	$0	$123,740
Design	Water	Base	$0	$0	$0	$0	$0	$0	$840,000	$1,948,577	$0	$0	$2,788,577
Arts	WIFA Bonds DW-038-2	Base	$0	$0	$0	$0	$0	$0	$0	$66,181	$0	$0	$66,181
Chargebacks	WIFA Bonds DW-038-2	Base	$0	$0	$0	$0	$0	$0	$0	$106,260	$0	$0	$106,260
Construction	WIFA Bonds DW-038-2	Base	$0	$0	$0	$0	$0	$0	$0	$6,551,939	$0	$0	$6,551,939
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$940,400**	**$8,724,380**	**$0**	**$0**	**$9,664,780**

Total Operating Impacts	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$500**	**$500**	**$1,000**

Greenway Water Treatment Plant Bromate Mitigation

Project Number: UT00253 **Project Location:** Greenway Water Treatment Plant



Description:
This project will install equipment at the Greenway Water Treatment Plant (WTP) to more efficiently treat Bromide in source water. This will allow the plant to increase the amount of ozone used to disinfect water, which in turn will reduce the formation of disinfection by-products (DBPs) that will be regulated more strictly beginning in 2012. This project will allow the Greenway WTP to comply with Stage 2 Disinfection By-Product Rules.

Justification:
This process enhancement is required for the Greenway WTP to ensure that the City can meet the new water quality requirements as outlined in the upcoming Stage 2 Disinfection By-Product Rule.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Construction	Water	Base	$546,837	$0	$0	$0	$0	$0	$0	$0	$0	$0	$546,837
Design	Water	Carryover	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,000
		Total Budget	**$596,837**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$596,837**

Greenway WTP 24 MGD Expansion

Project Number: UT00311 **Project Location:** Greenway WTP

Description:
This project provides for expansion of the Greenway WTP from 16 MGD to 24 MGD, however the plant was master planned to be expanded to 32 MGD. This project includes sizing some major unit processes an additional 16 MGD for a total capacity of 32 MGD. The plant was planned such that these unit process could only be expanded to 32 MGD. The following unit process were sized for 8 MGD providing a total capacity of 24 MGD: Flocculation basin, final sedimentation basin, filters, chlorination equipment, and ozone production equipment.

Justification:
Increase water supply quantity by adding capacity to an existing facility.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	WIFA Bonds DW-038-2	Base	$0	$0	$0	$0	$0	$0	$0	$0	$35,572	$279,901	$315,473
Chargebacks	WIFA Bonds DW-038-2	Base	$0	$0	$0	$0	$0	$0	$0	$0	$50,000	$100,000	$150,000
Construction	WIFA Bonds DW-038-2	Base	$0	$0	$0	$0	$0	$0	$0	$0	$0	$27,710,176	$27,710,176
Design	WIFA Bonds DW-038-2	Base	$0	$0	$0	$0	$0	$0	$0	$0	$3,521,584	$0	$3,521,584
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,607,156**	**$28,090,077**	**$31,697,233**

Greenway WTP Fiber Optic Connection

Project Number: UT00301 **Project Location:** Greenway Rd from 75th Ave to the Greenway WTP

Description:
This project will install fiber optic cable from the corner of 75th Avenue and Greenway Road east on Greenway Road to connect the Greenway Water Treatment Plant (WTP) to the City's fiber optic network.

Justification:
This project will improve system reliability, security and efficiency by connecting the Greenway WTP to the City's fiber optic network. The Greenway WTP is one of the City's major network communication hubs and is also the primary communication site for the Supervisory Control and Data Acquisition (SCADA) system and the Police/Government Radio System.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$3,000	$0	$0	$0	$0	$0	$0	$0	$0	$3,000
Construction	Water	Base	$0	$297,000	$0	$0	$0	$0	$0	$0	$0	$0	$297,000
		Total Budget	**$0**	**$300,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$300,000**

Integrated Utility Master Plan

Project Number: UT00271 **Project Location:** Citywide

Description:
This project will update water, wastewater and reuse master plans. The Integrated Utility Master Plan will identify the amount of potable and reuse water required, the water resources available, and the amount of wastewater generated at build-out. These requirements must be identified to determine future water resource, production, distribution, collection and treatment facility requirements. Because it is so broad in scope, this project will require two years to complete.

Justification:
In the past, separate master plans were prepared for water resources, water reuse, water system and wastewater. These plans were updated individually every five years, requiring a significant amount of staff time and reducing timeliness. Preparing an integrated report will make better use of resources and result in a more comprehensive and coordinated plan.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
CB-Chargebac	Wastewater	Base	$0	$9,000	$3,600	$0	$0	$0	$2,400	$9,000	$3,600	$0	$27,600
Study	Wastewater	Base	$37,600	$141,000	$56,400	$0	$0	$0	$37,600	$141,000	$56,400	$0	$470,000
CB-Chargebac	Water	Base	$0	$9,000	$3,600	$0	$0	$0	$2,400	$9,000	$3,600	$0	$27,600
Study	Water	Base	$37,600	$141,000	$56,400	$0	$0	$0	$37,600	$141,000	$56,400	$0	$470,000
		Total Budget	**$75,200**	**$300,000**	**$120,000**	**$0**	**$0**	**$0**	**$80,000**	**$300,000**	**$120,000**	**$0**	**$995,200**

Jomax In-Line Booster Station Upgrades

Project Number: UT00285 **Project Location:** Jomax Road and Terramar Blvd

Description:
This project includes upgrading the existing Jomax Booster Station from 12 to 18 million gallons per day (MGD) firm capacity. This will involve upgrading pumps 1 and 2 to 100 hp each to match pumps 3 and 4. The project will require a new emergency generator rated at 450 KW. The two 75 KW VFD drives will be replaced with 100 KW constant speed soft start motor controls. A section of the 16" watermain near the turnout will be replaced with 24" pipe and a new 24" MAG meter installed.

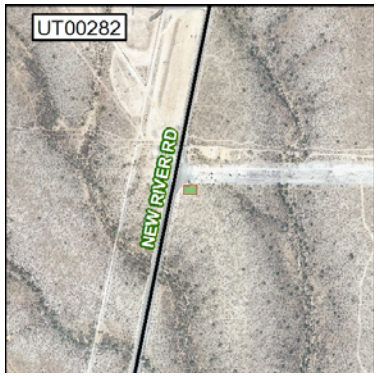
Justification:
Increase water supply quantity from Pyramid Peak WTP by adding capacity to an existing facility.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$12,258	$0	$0	$0	$0	$0	$0	$0	$12,258
Chargebacks	Water	Base	$0	$0	$45,000	$0	$0	$0	$0	$0	$0	$0	$45,000
Construction	Water	Base	$0	$0	$1,096,602	$0	$0	$0	$0	$0	$0	$0	$1,096,602
Design	Water	Base	$0	$0	$129,202	$0	$0	$0	$0	$0	$0	$0	$129,202
		Total Budget	**$0**	**$0**	**$1,283,062**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,283,062**

Total Operating Impacts	**$0**	**$0**	**$0**	**$20,100**	**$20,100**	**$20,100**	**$20,100**	**$20,100**	**$20,100**	**$20,100**	**$140,700**

Lake Pleasant WTP Turnout Station

Project Number: UT00282 **Project Location:** Lake Pleasant Pkwy near the Lake Pleasant WTP



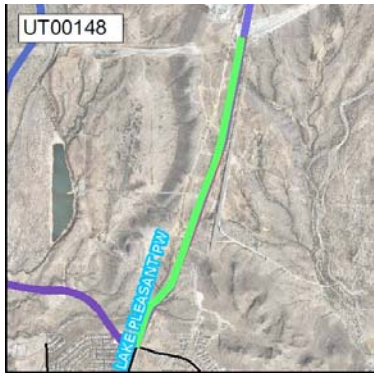
Description:
This project includes connection to a City of Phoenix transmission main from the Lake Pleasant Water Treatment Plant (WTP) and an underground take-out metering station, including a vault, a water meter and supervisory control and data acquisition (SCADA) equipment. The budget also includes land acquisition of a one-acre site for a future booster station to serve the northern part of the City.

Justification:
The City requires new water treatment capacity as it continues to grow. By connecting to the Lake Pleasant WTP, the City of Peoria can have the City of Phoenix treat a portion of its Central Arizona Project water allotment. This project will provide an additional source of drinking water for the northern part of the City, allowing construction of an additional water treatment plant to be deferred.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$0	$0	$0	$10,050	$0	$0	$10,050
Chargebacks	Water	Base	$0	$0	$0	$0	$0	$0	$0	$25,000	$0	$0	$25,000
Construction	Water	Base	$0	$0	$0	$0	$0	$0	$0	$898,704	$0	$0	$898,704
Design	Water	Base	$0	$0	$0	$0	$0	$0	$0	$106,296	$0	$0	$106,296
Land	Water	Base	$0	$0	$0	$0	$0	$0	$0	$150,000	$0	$0	$150,000
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,190,050**	**$0**	**$0**	**$1,190,050**

Lake Plsnt Pkwy 24-inch Waterline; Dynamite-L303

Project Number: UT00148 **Project Location:** Lake Pleasant Pkwy, Dynamite Road to Loop 303



Description:
This project includes design and construction of a 24-inch waterline along Lake Pleasant Parkway from Dynamite Road to Loop 303. This waterline will be required to provide service to the Lake Pleasant Parkway corridor and the northern areas of the City located east of the Agua Fria River. This waterline will function as a transmission and distribution main. Construction will be coordinated with construction of Lake Pleasant Parkway from Dynamite Road to Loop 303.

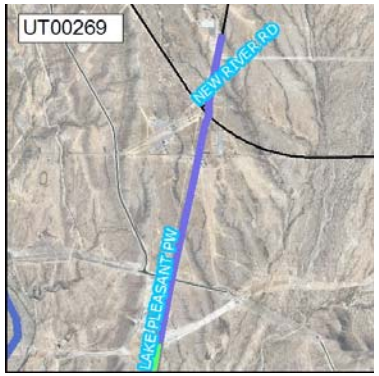
Justification:
Major transmission pipelines and booster stations are required to convey and deliver drinking water. Transmission pipelines are citywide facilities that carry large volumes of water for several miles. This waterline has been identified as needed in the Water System Master Plan. This waterline will provide water service for future development along Lake Pleasant Parkway near the Loop 303.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Construction	Water	Base	$1,620,208	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,620,208
Construction	Water Expansion	Base	$2,553,635	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,553,635
Design	Water Expansion	Carryover	$133,772	$0	$0	$0	$0	$0	$0	$0	$0	$0	$133,772
		Total Budget	**$4,307,615**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,307,615**

Total Operating Impacts	**$0**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$4,500**

Lake Plsnt Pkwy 24-inch Waterline; Loop 303- LPWTP

Project Number: UT00269 **Project Location:** Lake Plsnt Pkwy 24-inch Waterline, Loop 303 - LPWTP



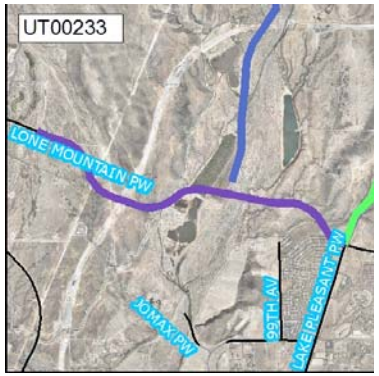
Description:
This project includes design and construction of a 24-inch waterline along Lake Pleasant Parkway from Loop 303 to the City of Phoenix Lake Pleasant Water Treatment Plant (WTP). This waterline will serve the northern-most zones within the City and tie into the Lake Pleasant Water Treatment Plant. It will be constructed along the Lake Pleasant Parkway alignment and within the roadway right-of-way and will be coordinated with Lake Pleasant Parkway construction.

Justification:
Major water transmission pipelines and booster stations are required to convey and deliver surface water. The transmission pipelines are City-wide facilities and will carry large volumes of water for several miles. Transmission pipelines are required in the northern portions of Peoria where groundwater is not available. The water service in this area is dependent on a centralized surface water treatment plant. This is a modification to the approved Water System Master Plan.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$0	$0	$6,500	$2,500	$0	$0	$9,000
Chargebacks	Water	Base	$0	$0	$0	$0	$0	$0	$72,000	$0	$0	$0	$72,000
Construction	Water	Base	$0	$0	$0	$0	$0	$0	$650,000	$247,500	$0	$0	$897,500
Design	Water	Base	$0	$0	$0	$0	$0	$0	$650,000	$0	$0	$0	$650,000
Land	Water	Base	$0	$0	$0	$0	$0	$0	$1,145,317	$0	$0	$0	$1,145,317
Arts	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$61,747	$0	$0	$61,747
Chargebacks	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$108,000	$0	$0	$108,000
Construction	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$6,112,933	$0	$0	$6,112,933
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$2,523,817**	**$6,532,680**	**$0**	**$0**	**$9,056,497**

Lone Mtn Pkwy 24-inch Waterline; El Mirage to L303

Project Number: UT00233 **Project Location:** Lone Mountain Pkwy, El Mirage Road to Loop 303



Description:
This project will install a 24" waterline in Lone Mountain Parkway from the crossing of the Loop 303 Freeway to the existing waterline at El Mirage Road in accordance with the Water Master Plan. Permits to cross several washes and to enter Loop 303 ROW will be obtained. Easements and Right-of-way are expected to be provided by the road project.

Justification:
The City Water Master Plan identifies a water transmission main along Lone Mountain Parkway as part of the overall water system. This water transmission facility was planned to be constructed to respond to growth and demand in Vistancia. This waterline provides additional benefits by connecting the Vistancia system with the primary City water distribution system, allowing large amounts of water to be transferred in either direction.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Design	Water	Carryover	$260,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$260,000
Construction	Water Expansion	Base	$2,578,845	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,578,845
		Total Budget	**$2,838,845**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$2,838,845**

Total Operating Impacts	**$0**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$500**	**$4,500**

Miscellaneous Local Waterline Improvements

Project Number: UT00203 **Project Location:** Various Locations

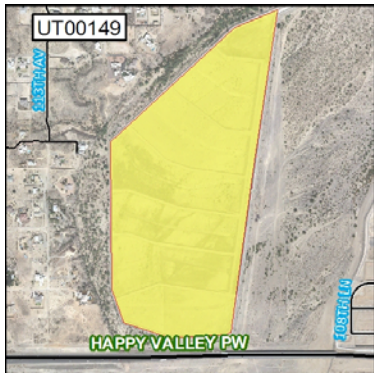
Description:
This project provides funding to upgrade the City's existing water distribution system to ensure its continued operation. These funds may also be used to construct water extensions in coordination with street improvement projects. The selection of these projects is coordinated with Utility Operations and City Engineering.

Justification:
The existing City water distribution system needs continual upgrading to ensure uninterrupted operation. Waterline extensions may also need to be constructed ahead of new street improvements to avoid cutting newly-constructed pavement.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$13,500
Construction	Water	Base	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$1,500,000
Construction	Water	Carryover	$133,381	$0	$0	$0	$0	$0	$0	$0	$0	$0	$133,381
		Total Budget	**$283,381**	**$151,500**	**$151,500**	**$151,500**	**$151,500**	**$151,500**	**$151,500**	**$151,500**	**$151,500**	**$151,500**	**$1,646,881**

New River Agua Fria Underground Storage Project

Project Number: UT00149 **Project Location:** NAUSP



Description:
This project funds the construction of recharge basin number seven at the New River Agua Fria Underground Storage Project (NAUSP). The facility is being constructed by Salt River Project (SRP) and Peoria has purchased capacity to recharge the effluent from the Butler Drive Water Reclamation Facility at this facility.

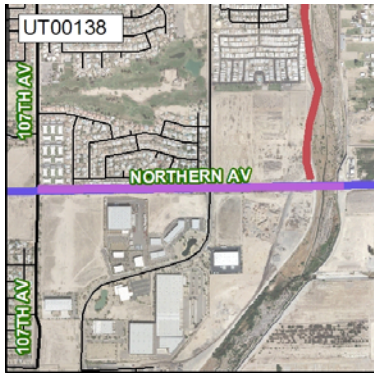
Justification:
This first phase of this facility has been constructed by SRP. This is the site where the Butler Drive Water Reclamation Facility effluent is recharged.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Construction	Water Expansion	Carryover	$297,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$297,000
		Total Budget	**$297,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$297,000**

Total Operating Impacts	**$68,000**	**$68,000**	**$68,000**	**$68,000**	**$68,000**	**$68,000**	**$68,000**	**$68,000**	**$68,000**	**$68,000**	**$68,000**	**$680,000**

Northern Av - 16-inch Waterline, 107 Av - 103 Av

Project Number: UT00138 **Project Location:** Northern Avenue, 107th Avenue to 103rd Avenue



Description:
This project includes the design and construction of a 16-inch waterline along Northern Avenue from 107th Avenue to 103rd Avenue. This waterline is required to provide service to the southern areas of the City located east of the Agua Fria River.

Justification:
Major transmission pipelines and booster stations are required to convey and deliver drinking water. Transmission pipelines are citywide facilities that carry large volumes of water for several miles. This waterline has been identified as needed in the Water System Master Plan.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$1,100	$10,500	$0	$0	$0	$0	$11,600
Chargebacks	Water	Base	$0	$0	$0	$0	$12,000	$18,000	$0	$0	$0	$0	$30,000
Construction	Water	Base	$0	$0	$0	$0	$0	$1,050,000	$0	$0	$0	$0	$1,050,000
Design	Water	Base	$0	$0	$0	$0	$110,000	$0	$0	$0	$0	$0	$110,000
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$123,100**	**$1,078,500**	**$0**	**$0**	**$0**	**$0**	**$1,201,600**

Total Operating Impacts	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$500**	**$500**	**$500**	**$500**	**$2,000**

Pyramid Peak Water Treatment Plant - Upgrades

Project Number: UT00037 **Project Location:** 67th Avenue and Jomax Road

Description:
This project is the City of Peoria's share of upgrades to the City of Glendale Pyramid Peak Water Treatment Plant (WTP). Glendale is converting the plant from a chlorine gas disinfection system to onsite generation of chlorine for disinfection and is upgrading part of the original plant equipment. Peoria owns 23% of the Pyramid Peak WTP and is responsible for 23% of the cost of plant improvements.

Justification:
The Pyramid Peak WTP treats approximately 11 million gallons of drinking water for the City of Peoria per day and is a vital component of the City's drinking water supply.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water Expansion	Base	$0	$230	$230	$345	$5,175	$6,900	$0	$0	$0	$0	$12,880
Construction	Water Expansion	Base	$22,770	$22,770	$22,770	$34,155	$512,325	$683,100	$0	$0	$0	$0	$1,297,890
		Total Budget	**$22,770**	**$23,000**	**$23,000**	**$34,500**	**$517,500**	**$690,000**	**$0**	**$0**	**$0**	**$0**	**$1,310,770**

Total Operating Impacts	**$0**	**$0**	**$4,025**	**$4,025**	**$4,025**	**$4,025**	**$4,025**	**$4,025**	**$4,025**	**$4,025**	**$4,025**	**$32,200**

SCADA Control Optimization

Project Number: UT00252 **Project Location:** Various

Description:
This project will fund the design and implementation of a system to automate the Utilities Department supervisory control and data acquisition (SCADA) system.

Justification:
This increases the reliability and the efficiency of the system. The system is currently supervised by staff. Due to the complexity of the system, it is not optimizing package/software and hardware.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Equipment	Wastewater	Base	$0	$0	$0	$350,000	$0	$0	$0	$0	$0	$0	$350,000
Equipment	Wastewater Expansion	Base	$0	$0	$0	$350,000	$0	$0	$0	$0	$0	$0	$350,000
Equipment	Water	Base	$0	$0	$700,000	$0	$0	$0	$0	$0	$0	$0	$700,000
		Total Budget	**$0**	**$0**	**$700,000**	**$700,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,400,000**

SCADA Equipment Replacement

Project Number: UT00266 **Project Location:** Citywide

Description:
This project will replace and upgrade supervisory control and data acquisition (SCADA) equipment at utility sites within the City. As the equipment ages and becomes obsolete, new equipment is needed to maintain the same level of information and service.

Justification:
As current equipment ages and becomes obsolete, new equipment is required to ensure reliable levels of service for the City's water distribution, wastewater collection and treatment plant systems.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Equipment	Wastewater	Base	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$0	$0	$1,000,000
Equipment	Water	Base	$375,000	$375,000	$375,000	$375,000	$375,000	$375,000	$375,000	$375,000	$0	$0	$3,000,000
		Total Budget	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$0**	**$0**	**$4,000,000**

Technology and Security Master Plan

Project Number: UT00304 **Project Location:** Various

Description:
This project merges three previous master plans into a consolidated plan, linking planning efforts for technology--including Supervisory Control and Data Acquisition (SCADA)--and security into a single master plan.

Justification:
The integration of technology and security into utility operating systems is a best management practice in the water and wastewater industry and allows the City to improve performance and security of its systems. To maximize the use of technology, it is critical to have a system-wide master plan to ensure a long term, system-wide approach is developed.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Study	Wastewater Expansion	Base	$0	$75,000	$0	$0	$0	$0	$75,000	$0	$0	$0	$150,000
Study	Water Expansion	Base	$0	$225,000	$0	$0	$0	$0	$225,000	$0	$0	$0	$450,000
		Total Budget	**$0**	**$300,000**	**$0**	**$0**	**$0**	**$0**	**$300,000**	**$0**	**$0**	**$0**	**$600,000**

Utility Billing System

Project Number: UT00160 **Project Location:** City of Peoria

Description:
This project will replace the existing utility billing system with a new customer information system (CIS) for utility billing and revenue collection. This system will interface with other City information systems, such as meter reading, fixed asset accounting, financial accounting and e-government software. The current utility billing system needs to be replaced to handle new accounts as the number of customers increases.

Justification:
The current utility billing system is several years old. The current system's performance will likely begin to degrade as the number of utility accounts increases, and the vendor may soon stop providing support for this version of its product. A new system will enhance functionality for utility customers and provide a stable, supported platform for this critical system that will accommodate the City's system requirements for several more years.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Equipment	Wastewater	Base	$0	$0	$0	$0	$0	$0	$500,000	$0	$0	$0	$500,000
Equipment	Wastewater Expansion	Base	$0	$0	$0	$0	$0	$0	$250,000	$0	$0	$0	$250,000
Equipment	Water	Base	$0	$0	$0	$0	$0	$0	$1,000,000	$0	$0	$0	$1,000,000
Equipment	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$250,000	$0	$0	$0	$250,000
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$2,000,000**	**$0**	**$0**	**$0**	**$2,000,000**

Utility Security Upgrades

Project Number: UT00262 **Project Location:** Various

Description:
This project will implement security enhancements at water and wastewater facilities. These security enhancements will include technological improvements, procedural changes, and physical barriers.

Justification:
Security breaches can disrupt the operation of water treatment and distribution and sewer collection and treatment systems. These security improvements will address security threats and will help maintain uninterrupted water and wastewater service.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Wastewater	Base	$0	$0	$1,856	$0	$0	$0	$0	$0	$0	$0	$1,856
Construction	Wastewater	Base	$185,644	$0	$185,644	$0	$0	$0	$0	$0	$0	$0	$371,288
Construction	Wastewater	Carryover	$183,788	$0	$0	$0	$0	$0	$0	$0	$0	$0	$183,788
Arts	Water	Base	$0	$0	$618	$0	$0	$0	$0	$0	$0	$0	$618
Construction	Water	Base	$61,882	$0	$61,882	$0	$0	$0	$0	$0	$0	$0	$123,764
Construction	Water	Carryover	$50,126	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,126
		Total Budget	**$481,440**	**$0**	**$250,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$731,440**

Water & Wastewater Rate Study

Project Number: UT00298 **Project Location:** Citywide

Description:
This study will update the City's water, wastewater and solid waste rates. These rates are updated every two years to ensure they cover the cost of operating, maintaining and upgrading the City's water, wastewater and solid waste systems. This study will be coordinated with the Finance Department and the Solid Waste Division.

Justification:
These rates are updated every two years to ensure that they are adequate to operate, maintain and upgrade the City's water, wastewater and solid waste systems in a financially sound and sustainable manner.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Study	Wastewater	Base	$45,000	$0	$45,000	$0	$45,000	$0	$45,000	$0	$45,000	$0	$225,000
Study	Water	Base	$45,000	$0	$45,000	$0	$45,000	$0	$45,000	$0	$45,000	$0	$225,000
		Total Budget	**$90,000**	**$0**	**$90,000**	**$0**	**$90,000**	**$0**	**$90,000**	**$0**	**$90,000**	**$0**	**$450,000**

Water Facility Reconditioning

Project Number: UT00206 **Project Location:** City Wide

Description:
This project will upgrade and recondition existing water distribution and production facilities. Utilities staff prioritizes projects to be included in this program based on operational needs and facility conditions.

Justification:
This project will upgrade existing distribution and production sites to address reliability issues as these facilities age. This project will also upgrade sites with new technologies as appropriate. These upgrades allow the system to continue to operate with reliability and efficiency.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$45,000
Construction	Water	Base	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$5,000,000
Construction	Water	Carryover	$471,910	$0	$0	$0	$0	$0	$0	$0	$0	$0	$471,910
		Total Budget	**$971,910**	**$505,000**	**$505,000**	**$505,000**	**$505,000**	**$505,000**	**$505,000**	**$505,000**	**$505,000**	**$505,000**	**$5,516,910**

Water / Wastewater / Solid Waste Expansion Fee Update

Project Number: UT00070 **Project Location:** City of Peoria

Description:
This study will update water, wastewater and solid waste expansion fees. These fees are required to be updated every two years to ensure that they accurately recover the cost of constructing infrastructure required by new development. The project will be coordinated with the Finance Department and the Solid Waste Division.

Justification:
Expansion fees are updated every two years to ensure the fees cover the cost of infrastructure required by new development.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Study	Wastewater Expansion	Base	$30,000	$0	$30,000	$0	$30,000	$0	$30,000	$0	$30,000	$0	$150,000
Study	Water Expansion	Base	$30,000	$0	$30,000	$0	$30,000	$0	$30,000	$0	$30,000	$0	$150,000
		Total Budget	**$60,000**	**$0**	**$60,000**	**$0**	**$60,000**	**$0**	**$60,000**	**$0**	**$60,000**	**$0**	**$300,000**

Well Head Water Quality Mitigation (W202-W203)

Project Number: UT00272 **Project Location:** Citywide

Description:
Connect the existing two water wells (Country Club and 89th and Union Hills) with 12" diameter ductile iron pipe, including valves and fittings. The water from each well will be discharged into the tank at the Country Club Well site for mixing and arsenic treatment to meet 2010 water quality requirements. Mill and re-surface one lane on 89th Ave, Country Club Lane, and Union Hills Rd. between Country Club PW& 89th Ave.

Justification:
Improve Water Supply quantity by increasing efficiency and utilization of existing ground water resources.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$2,911	$31,129	$0	$0	$0	$0	$0	$0	$0	$34,040
Chargebacks	Water	Base	$0	$36,000	$0	$0	$0	$0	$0	$0	$0	$0	$36,000
Construction	Water	Base	$0	$0	$3,112,877	$0	$0	$0	$0	$0	$0	$0	$3,112,877
Design	Water	Base	$0	$291,109	$0	$0	$0	$0	$0	$0	$0	$0	$291,109
		Total Budget	**$0**	**$330,020**	**$3,144,006**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,474,026**

Wells - New Construction

Project Number: UT00117 **Project Location:** Various Locations

Description:
The City uses surface water, a renewable water source, as its primary water supply. However, it is still necessary to drill and equip new wells to meet future water demand. These wells will be "recovery wells" that will recover water available to the City through credits for water reclaimed and recharged to the aquifer at the Butler Drive Water Reclamation Facility and the Beardsley Water Reclamation Facility.

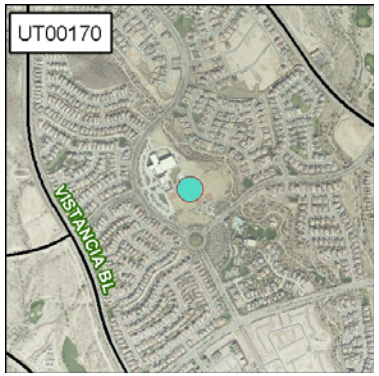
Justification:
Surface water supplies may be interrupted during periods of extreme drought or if there is a failure in the canal delivery system. In addition, the Central Arizona Project and the Salt River Project canal systems are shut down periodically for maintenance and repairs, requiring back-up sources of water.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water Expansion	Base	$0	$13,452	$0	$0	$7,164	$13,452	$0	$0	$7,164	$13,452	$54,684
Chargebacks	Water Expansion	Base	$0	$21,111	$0	$0	$28,889	$21,111	$0	$0	$28,889	$21,111	$121,111
Construction	Water Expansion	Base	$566,429	$1,345,225	$0	$0	$566,429	$1,345,225	$0	$0	$566,429	$1,345,225	$5,734,962
Construction	Water Expansion	Carryover	$115,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$115,000
Design	Water Expansion	Base	$150,000	$0	$0	$0	$150,000	$0	$0	$0	$150,000	$0	$450,000
		Total Budget	**$831,429**	**$1,379,788**	**$0**	**$0**	**$752,482**	**$1,379,788**	**$0**	**$0**	**$752,482**	**$1,379,788**	**$6,475,757**

Total Operating Impacts	**$0**	**$0**	**$68,000**	**$68,000**	**$136,000**	**$136,000**	**$204,000**	**$204,000**	**$272,000**	**$91,000**	**$1,179,000**

West Agua Fria Water Lines

Project Number: UT00170 **Project Location:** Vistancia Development



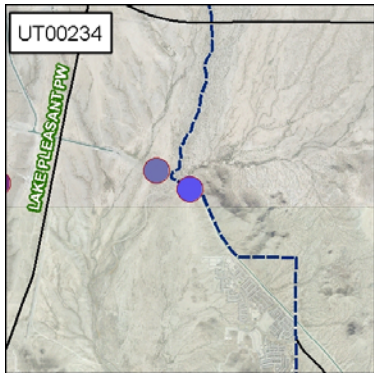
Description:
This project provides for additional transmission capacity in the water system throughout the Vistancia community. The Vistancia Utilities Master Plan identifies the water transmission mains that are needed to supply the Vistancia community. The City is funding the over sizing of selected transmission mains to provide water distribution capacity for new development in surrounding areas.

Justification:
This project provides for additional transmission capacity in the water system in the Vistancia area. These lines are part of the Water System Master Plan and will be used to convey water from the water treatment plants and connect to local distribution lines.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$23,795	$0	$0	$0	$0	$0	$23,795
Construction	Water	Base	$0	$0	$0	$0	$2,355,703	$0	$0	$0	$0	$0	$2,355,703
Arts	Water Expansion	Base	$0	$0	$336	$7,002	$0	$3,022	$2,015	$0	$0	$0	$12,375
Construction	Water Expansion	Base	$401,231	$0	$33,269	$693,198	$0	$299,176	$199,485	$0	$0	$0	$1,626,359
		Total Budget	**$401,231**	**$0**	**$33,605**	**$700,200**	**$2,379,498**	**$302,198**	**$201,500**	**$0**	**$0**	**$0**	**$4,018,232**

White Mountain Apache Tribe Water Rights Purchase

Project Number: UT00234 **Project Location:** Northern Peoria



Description:
This project addresses a future shortage of renewable water resources as identified in the Water Resource Master Plan. This project will purchase additional Central Arizona Project (CAP) water rights from the White Mountain Apache Tribe (WMAT).

Justification:
These water rights will help the City to maintain its designation as an Assured Water Supplier by the Arizona Department of Water Resources.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Other	Water	Base	$0	$0	$0	$1,420,955	$355,239	$355,239	$355,239	$355,239	$0	$0	$2,841,911
		Total Budget	**$0**	**$0**	**$0**	**$1,420,955**	**$355,239**	**$355,239**	**$355,239**	**$355,239**	**$0**	**$0**	**$2,841,911**

Total Operating Impacts	**$0**	**$0**	**$0**	**$0**	**$133,000**	**$133,000**	**$133,000**	**$133,000**	**$133,000**	**$205,000**	**$870,000**

Zone 2 / 3 Booster - Pressure Reducing Valve Station

Project Number: UT00136 **Project Location:** Greenway and 91st Ave

Description:
This project includes land acquisition, design and construction of the Zone 2/3 Booster-Pressure Reducing Valve Station. The site is located adjacent to the Desert Harbor Well site at Greenway Road and 91st Avenue. This project will coincide with the completion of a 24-inch waterline on 91st Avenue (UT00226) and across Greenway Road (UT00227). This station and the new transmission lines will allow the City to efficiently move large volumes of water into our system to meet the demands of growth and provide redundancy.

Justification:
This booster and pressure reducing station and the related transmission lines will allow the City to provide water to meet the demands in Zone 3. It will also enhance the capability to move water from Zone 3 to Zone 2.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$3,300	$31,700	$0	$35,000
Chargebacks	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$36,000	$50,000	$0	$86,000
Construction	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$0	$3,170,000	$0	$3,170,000
Design	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$330,000	$0	$0	$330,000
Land	Water Expansion	Carryover	$791	$0	$0	$0	$0	$0	$0	$0	$0	$0	$791
		Total Budget	**$791**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$369,300**	**$3,251,700**	**$0**	**$3,621,791**

Total Operating Impacts	**$0**	**$0**	**$0**	**$0**	**$0**	**$76,100**	**$76,100**	**$76,100**	**$76,100**	**$76,100**	**$380,500**

Zone 5/6 E - Reservoir, Booster, PRV Site -Phase 1

Project Number: UT00268 **Project Location:** Lake Pleasant Parkway and Loop 303

Description:
This project will serve Zone 5E and 6E and includes construction of a pressure reducing valve (PRV), a four million gallon per day booster pump station and a one million gallon reservoir.

Justification:
The project cost estimate includes purchase of land and construction of Phase 1 components. As the area near Loop 303 develops, this facility will be necessary to provide water service to the area. It will need to be timed to meet the needs of future development. This project will also be necessary when the water main on Lake Pleasant Parkway north of Loop 303 is constructed.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$0	$0	$0	$5,193	$30,128	$0	$35,321
Chargebacks	Water	Base	$0	$0	$0	$0	$0	$0	$0	$30,000	$40,000	$0	$70,000
Construction	Water	Base	$0	$0	$0	$0	$0	$0	$0	$0	$2,982,685	$0	$2,982,685
Design	Water	Base	$0	$0	$0	$0	$0	$0	$0	$519,253	$0	$0	$519,253
Land	Water	Base	$0	$0	$0	$0	$0	$0	$0	$192,500	$0	$0	$192,500
Arts	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$0	$12,500	$0	$12,500
Construction	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$0	$1,237,500	$0	$1,237,500
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$746,946**	**$4,302,813**	**$0**	**$5,049,759**

Zone 5 / 6E Reservoir / Booster / PRV Site

Project Number: UT00286 **Project Location:** Loop 303 and Lake Pleasant Pkwy

Description:
This project includes land purchase and construction of an above-ground pressure reducing valve (PRV) station at the Pressure Zone 5E/6E boundary near Loop 303 on Lake Pleasant Parkway. This PRV will be in line with the 24-inch water main that will connect to the City of Phoenix Lake Pleasant Water Treatment Plant to the north. It will allow service to Zone 5E south of Loop 303. The site will be used for a future reservoir booster station to serve Zone 6E.

Justification:
Construction of this project and the associated projects will provide an additional source of water to northern Peoria, allowing construction of a new water treatment plant to be deferred.

Category	Funding Source	Carryover / Base	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Arts	Water	Base	$0	$0	$0	$0	$0	$0	$0	$9,900	$0	$0	$9,900
Chargebacks	Water	Base	$0	$0	$0	$0	$0	$0	$0	$30,000	$0	$0	$30,000
Construction	Water	Base	$0	$0	$0	$0	$0	$0	$0	$890,000	$0	$0	$890,000
Design	Water	Base	$0	$0	$0	$0	$0	$0	$0	$100,000	$0	$0	$100,000
Land	Water	Base	$0	$0	$0	$0	$0	$0	$0	$75,000	$0	$0	$75,000
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,104,900**	**$0**	**$0**	**$1,104,900**