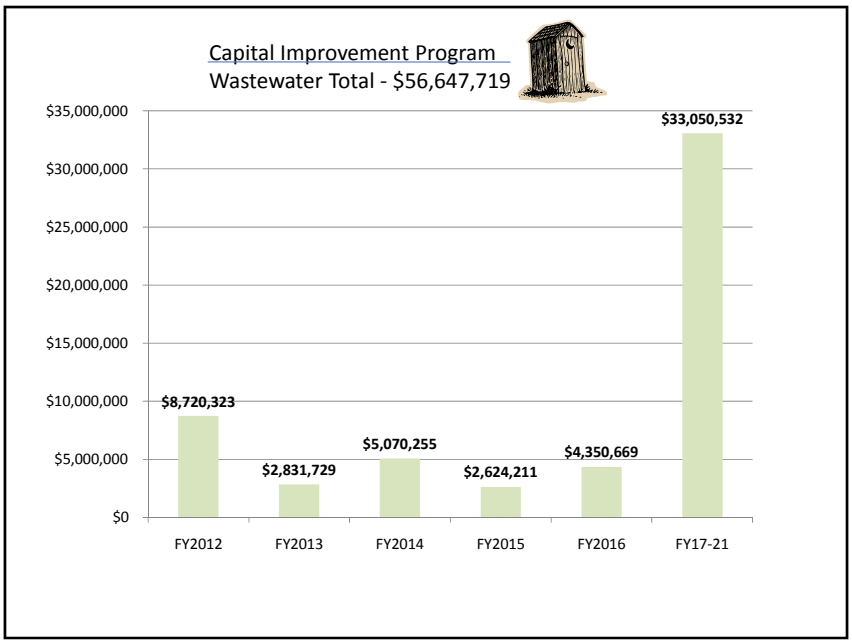
Wastewater

The measure of success when collecting and treating wastewater is when no one so much as wonders how it is done. It takes a complex network of infrastructure to make this operation seamless. In addition to building and operating large water treatment and reclamation facilities, the City of Peoria ensures that infrastructure is in place from an individual residence or commercial establishment, along roadway alignments, to the treatment facility. Facilities within Peoria also can reuse a portion of flows, providing a new, non-potable water resource opportunity.

Wastewater infrastructure is funded primarily through operating revenues from rate payers, as well as revenue bonds and development impact fees. The 10-year program includes funding for a new reclaimed water line on 83rd Avenue, a new sewer line along Lake Pleasant Parkway, and inspection and rehabilitation of trunk sewer lines throughout the city.



Wastewater

Summary by Project

Project Name	Pg#	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 17-21	Total
81st Ave, Reclaimed Waterline, North of Olive Ave	182	$92,000	$0	$0	$0	$0	$0	**$92,000**
83rd Av Reclaimed Water Line	183	$450,000	$0	$0	$0	$0	$0	**$450,000**
85th Avenue Reclaimed Waterline-Mnt View to Grand	184	$0	$0	$1,216,967	$0	$0	$0	**$1,216,967**
Agua Fria Lift Station; Water Campus Land Purchase	185	$0	$0	$0	$200,000	$2,800,000	$0	**$3,000,000**
Beardsley Diversion Structure	186	$0	$376,778	$0	$0	$0	$0	**$376,778**
Beardsley Plant Equipment Upgrade and Expansion	187	$0	$0	$670,000	$450,000	$600,000	$17,530,000	**$19,250,000**
Beardsley WRF 8" WAS Forcemain Rehabilitation	188	$0	$0	$0	$0	$0	$2,840,164	**$2,840,164**
Butler Air Isolation Valves for Membrane System	189	$123,750	$0	$0	$0	$0	$0	**$123,750**
Butler Drive Water Reclamation Facility	190	$168,300	$0	$0	$0	$0	$0	**$168,300**
Butler Drive WRF Expansion to 13 MGD	191	$0	$0	$0	$250,000	$0	$3,500,000	**$3,750,000**
Butler Drive WRF Membrane Replacement	192	$0	$0	$500,000	$500,000	$500,000	$2,000,000	**$3,500,000**
Butler Recharge Well	193	$0	$0	$0	$0	$0	$2,340,566	**$2,340,566**
Butler Reclaimed Water System Expansion Phase II	194	$0	$207,536	$1,261,635	$0	$0	$0	**$1,469,171**
Jomax Plant Modular Rehabilitation & Expansion	195	$0	$0	$0	$0	$0	$2,205,972	**$2,205,972**
Lake Plsnt Pkwy 21/18-inch Sewer; Dynamite-L303	196	$5,199,250	$0	$0	$0	$0	$0	**$5,199,250**
Lift Station Reconditioning	197	$198,000	$200,000	$0	$100,000	$0	$300,000	**$798,000**
Manhole Rehabilitation	198	$123,750	$150,000	$175,000	$200,000	$225,000	$1,750,000	**$2,623,750**
Miscellaneous Local Wastewater Line Improvements	199	$380,386	$100,000	$100,000	$100,000	$100,000	$500,000	**$1,280,386**
Trunk Sewer Rehabilitation	200	$1,982,496	$1,200,000	$500,000	$0	$0	$0	**$3,682,496**
West Agua Fria Wastewater Lines	201	$2,391	$597,415	$646,653	$824,211	$125,669	$83,830	**$2,280,169**
Total - Wastewater		**$8,720,323**	**$2,831,729**	**$5,070,255**	**$2,624,211**	**$4,350,669**	**$33,050,532**	**$56,647,719**

Wastewater

Summary by Funding Source

Fund Number and Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 17-21	Total
2050 - Water	$324,690	$249,846	$2,151,451	$300,000	$1,025,000	$7,342,541	$11,393,528
2161 - Water Expansion	$0	$0	$0	$0	$0	$3,284,904	$3,284,904
2400 - Wastewater	$5,244,583	$1,984,468	$2,272,151	$1,500,000	$1,275,669	$15,452,623	$27,729,494
2510 - Wastewater Expansion	$3,151,050	$597,415	$646,653	$824,211	$2,050,000	$6,970,464	$14,239,793
Total - Wastewater	**$8,720,323**	**$2,831,729**	**$5,070,255**	**$2,624,211**	**$4,350,669**	**$33,050,532**	**$56,647,719**

81st Ave, Reclaimed Waterline, North of Olive Ave

Project Number: UT00318 **Project Location:** 81st Ave North of Olive Avenue

Description:
The project will expand the reclaimed water system in Old Town Peoria by installing of new 4-inch reclaimed waterline on 81st Avenue from Olive Avenue north approx. 550 LF to supply the Round Tree Ranch Park water meter. In the future, this line can be extended further north to supply right-of-way and HOA landscaping areas. This project will also fund the work necessary to convert the Park to reclaimed water, including:

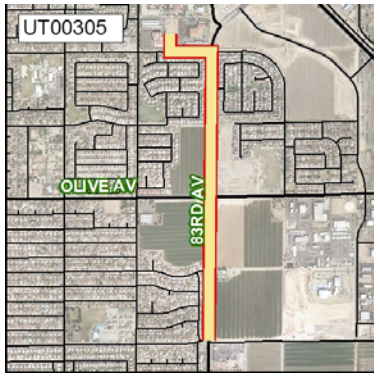
- Installing regulatory signage and new reclaimed valves box lids, etc.
- Installing new reclaimed water meters
- Testing the systems to ensure there are no cross-connections to the potable water system
- Public education and outreach

Justification:
By summer 2011 a new reclaimed waterline will be constructed in Olive Ave to supply reclaimed waster up to the City Hall campus. Installing a service line to supply Round Tree Ranch with reclaimed water is expected to save 5 million gallons of potable water per year along with saving over $10,000 per year in operating cost. This project will fund construction of the reclaimed water service line along with the work necessary to connect and convert the existing park landscape irrigation systems to reclaimed 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
Construction	Wastewater	Base	$23,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$23,000
Construction	Water	Base	$69,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$69,000
		Total Budget	**$92,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$92,000**

83rd Av Reclaimed Water Line

Project Number: UT00305 **Project Location:** 83rd Av; Butler Dr to Mountain View Rd



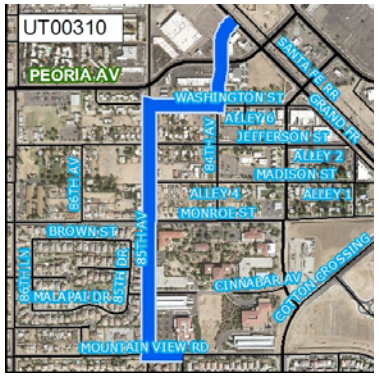
Description:
This project will install a reclaimed waterline on 83rd Avenue. Section C1 will install a 12-inch reclaimed waterline from Community Park No. 2 to Olive Avenue and includes a reclaimed water system booster pump station at Community Park No. 2. Section C2 will continue the 12" reclaimed waterline across Olive Avenue and extend it to the City Campus at Mountain View Road, continuing west to Centennial Park. Connection to the City Campus irrigation system is not included.

Justification:
Installation of the reclaimed waterline on 83rd Avenue will provide necessary infrastructure prior to constrution of the roadway. Extension of the reclaimed waterline to the City Campus allows reclaimed water to be used for irrigation on the City Campus and vicinity, a long-term objective of the Reclaimed Water Master Plan. It will also put a Challenge Grant project, a reclaimed waterline that connects to the Butler Drive Water Reclamation Facility, to immediate use.

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	Wastewater	Carryover	$225,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$225,000
Construction	Water	Carryover	$225,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$225,000
		Total Budget	**$450,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$450,000**

85th Avenue Reclaimed Waterline-Mnt View to Grand

Project Number: UT00310 **Project Location:** 85th Avenue Mountain View to Grand



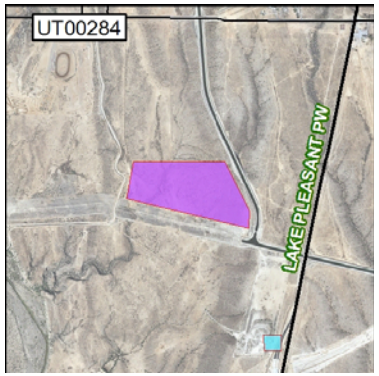
Description:
The project will expand the reclaimed water system in Old Town Peoria by installing approx. 4,170 LF of new 12-inch reclaimed waterline on 85th Avenue from Mountain View Road to Grand Avenue.

Justification:
Installation of new reclaimed waterlines allows for reclaimed water to be used for landscape irrigation in parks, schools, and the City right-of-way. By providing reclaimed water for these customers, the City helps preserve valuable drinking water resources. This new 12-inch reclaimed waterline will expand the reclaimed water system in Old Town Peoria and provide reclaimed water to Osuna Park, as well as other potential customers.

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	$2,890	$0	$0	$0	$0	$0	$0	$0	$2,890
Chargebacks	Wastewater	Base	$0	$0	$12,375	$0	$0	$0	$0	$0	$0	$0	$12,375
Construction	Wastewater	Base	$0	$0	$255,279	$0	$0	$0	$0	$0	$0	$0	$255,279
Design	Wastewater	Base	$0	$0	$33,698	$0	$0	$0	$0	$0	$0	$0	$33,698
Arts	Water	Base	$0	$0	$8,669	$0	$0	$0	$0	$0	$0	$0	$8,669
Chargebacks	Water	Base	$0	$0	$37,125	$0	$0	$0	$0	$0	$0	$0	$37,125
Construction	Water	Base	$0	$0	$765,838	$0	$0	$0	$0	$0	$0	$0	$765,838
Design	Water	Base	$0	$0	$101,093	$0	$0	$0	$0	$0	$0	$0	$101,093
		Total Budget	**$0**	**$0**	**$1,216,967**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,216,967**

Agua Fria Lift Station; Water Campus Land Purchase

Project Number: UT00284 **Project Location:** CAP Canal and Agua Fria River



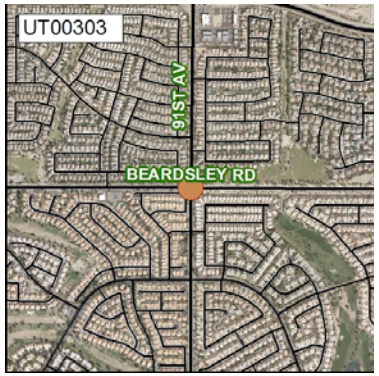
Description:
This project will purchase a 40-acre site for a future a reclamation facility campus. This project site will initially be used for a regional wastewater lift station that will provide service for the portion of the City located north of the Central Arizona Project (CAP) Canal and east of the Agua Fria River.

Justification:
A centrally located campus will increase operational efficiency. Purchasing the site for this campus ahead of need will take advantage of lower land costs.

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
Land	Wastewater	Base	$0	$0	$0	$200,000	$0	$0	$0	$0	$0	$0	$200,000
Land	Wastewater Expansion	Base	$0	$0	$0	$0	$1,850,000	$0	$0	$0	$0	$0	$1,850,000
Study	Wastewater Expansion	Base	$0	$0	$0	$0	$200,000	$0	$0	$0	$0	$0	$200,000
Land	Water	Base	$0	$0	$0	$0	$750,000	$0	$0	$0	$0	$0	$750,000
		Total Budget	**$0**	**$0**	**$0**	**$200,000**	**$2,800,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,000,000**

Beardsley Diversion Structure

Project Number: UT00303 **Project Location:** Beardsley Road and 91st Avenue



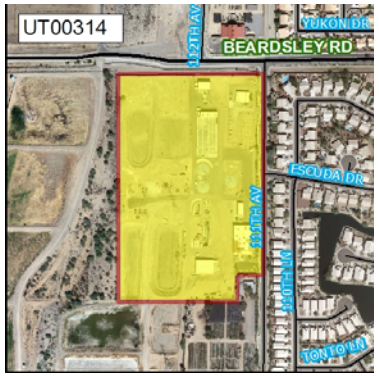
Description:
This project includes the design and construction of a wastewater diversion structure and a flow meter at Beardsley Road and 91st Avenue, where trunk sewers feeding the Beardsley Water Reclamation Facility (WRF) and the Butler Drive WRF intersect. This project includes supervisory control and data acquisition (SCADA) that will allow operators to monitor and control this facility remotely.

Justification:
This project will allow the diversion of up to one million gallons per day of wastewater flows from the Beardsley WRF to the Butler Drive WRF. This will allow deferral of the Beardsley WRF expansion project.

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	$2,724	$0	$0	$0	$0	$0	$0	$0	$0	$2,724
Chargebacks	Wastewater	Base	$0	$7,500	$0	$0	$0	$0	$0	$0	$0	$0	$7,500
Construction	Wastewater	Base	$0	$243,478	$0	$0	$0	$0	$0	$0	$0	$0	$243,478
Design	Wastewater	Base	$0	$28,882	$0	$0	$0	$0	$0	$0	$0	$0	$28,882
Arts	Water	Base	$0	$908	$0	$0	$0	$0	$0	$0	$0	$0	$908
Chargebacks	Water	Base	$0	$2,500	$0	$0	$0	$0	$0	$0	$0	$0	$2,500
Construction	Water	Base	$0	$81,159	$0	$0	$0	$0	$0	$0	$0	$0	$81,159
Design	Water	Base	$0	$9,627	$0	$0	$0	$0	$0	$0	$0	$0	$9,627
		Total Budget	**$0**	**$376,778**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$376,778**

Beardsley Plant Equipment Upgrade and Expansion

Project Number: UT00314 **Project Location:** Beardsley Treatment Plant



Description:
This project will replace and update existing equipment identified as reaching the end of their life cycle during FY13-17. The replacement of this equipment will maintain plant reliability and increase efficiencies. FY18-19 will increase plant treatment capacity from 4 Million Gallons per day to 6 Million Gallons per day. The project will entail expanding plant capacity using the current plant process technology at Beardsley. New basins, clarifiers, pump capacity, filters, disinfection systems, recharge capacity, and back up generator power are the main elements of this project.

Justification:
The August 2010 Beardsley Master Plan identified potential plant equipment needing replacement during the next few years. Plant expansion in the future will address the need to increase treatment capacity, but existing equipment must also be upgraded to maintain reliability of the existing plant. Expected growth in the Northern part of Peoria has identified flow levels increasing to a level that requires expansion of the Beardsley Water Reclamation Facility in these 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
Arts	Wastewater	Base	$0	$0	$0	$0	$0	$0	$0	$11,250	$56,250	$0	$67,500
Construction	Wastewater	Base	$0	$0	$0	$0	$0	$0	$0	$0	$5,568,750	$0	$5,568,750
Design	Wastewater	Base	$0	$0	$0	$0	$0	$0	$0	$1,113,750	$0	$0	$1,113,750
Equipment	Wastewater	Base	$0	$0	$502,500	$337,500	$450,000	$210,000	$562,500	$0	$0	$0	$2,062,500
Arts	Wastewater Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$0	$0	$56,250	$56,250
Construction	Wastewater Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,568,750	$5,568,750
Arts	Water	Base	$0	$0	$0	$0	$0	$0	$0	$3,750	$18,750	$18,750	$41,250
Construction	Water	Base	$0	$0	$0	$0	$0	$0	$0	$0	$1,856,250	$1,856,250	$3,712,500
Design	Water	Base	$0	$0	$0	$0	$0	$0	$0	$371,250	$0	$0	$371,250
Equipment	Water	Base	$0	$0	$167,500	$112,500	$150,000	$70,000	$187,500	$0	$0	$0	$687,500
		Total Budget	**$0**	**$0**	**$670,000**	**$450,000**	**$600,000**	**$280,000**	**$750,000**	**$1,500,000**	**$7,500,000**	**$7,500,000**	**$19,250,000**

Beardsley WRF 8" WAS Forcemain Rehabilitation

Project Number: UT00308 **Project Location:** Beardsley and 91st Ave to 99th Ave

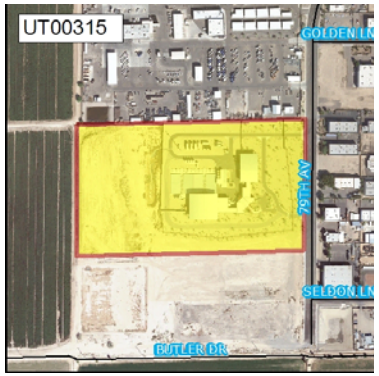
Description:
This project will provide for the design, construction and construction administration for the installation of a new 8" force main which will allow the City to pump waste activated sludge from the existing Beardsley WRF pumping station to the existing manhole at Beardsley and 91st Ave. A new 8" pipeline will be constructed from the Beardsley WRF pumping station to 99th Ave, and the existing 8" pipe line from 99th Ave to the existing manhole at Beardsley Rd and 91st Avenue will be relined. The project will also install a temporary bypass system.

Justification:
The existing ductile iron forcemain has shown signs of deterioration. This will be replaced with new or relined PVC forcemain.

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	$0	$0	$0	$0	$20,826	$0	$0	$0	$20,826
Chargebacks	Wastewater	Base	$0	$0	$0	$0	$0	$0	$26,663	$0	$0	$0	$26,663
Construction	Wastewater	Base	$0	$0	$0	$0	$0	$0	$1,838,818	$0	$0	$0	$1,838,818
Design	Wastewater	Base	$0	$0	$0	$0	$0	$0	$243,816	$0	$0	$0	$243,816
Arts	Water	Base	$0	$0	$0	$0	$0	$0	$6,942	$0	$0	$0	$6,942
Chargebacks	Water	Base	$0	$0	$0	$0	$0	$0	$8,888	$0	$0	$0	$8,888
Construction	Water	Base	$0	$0	$0	$0	$0	$0	$612,939	$0	$0	$0	$612,939
Design	Water	Base	$0	$0	$0	$0	$0	$0	$81,272	$0	$0	$0	$81,272
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$2,840,164**	**$0**	**$0**	**$0**	**$2,840,164**

Butler Air Isolation Valves for Membrane System

Project Number: UT00315 **Project Location:** Butler Treatment Plant



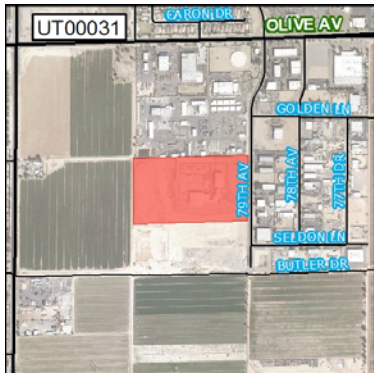
Description:
This project will construct air isolation valves for the Membrane Air Scour system. The valves will allow isolation of each Membrane, facilitating maintenance operations.

Justification:
In order to allow for better maintenance operations, each membrane needs to be isolated independently without having a significant impact on plant operations. Installing these valves will allow for independent operation of each membrane trane.

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	Wastewater	Base	$93,060	$0	$0	$0	$0	$0	$0	$0	$0	$0	$93,060
Construction	Water	Base	$30,690	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,690
		Total Budget	**$123,750**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$123,750**

Butler Drive Water Reclamation Facility

Project Number: UT00031 **Project Location:** 79th Avenue and Butler



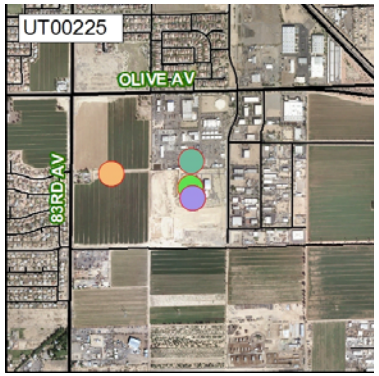
Description:
This project funded the construction of the Butler Drive Water Reclamation Facility, offsite reclaimed water pipelines and an influent pumping station. The plant started operating in July 2008. The remaining funding is needed to close out the project.

Justification:
This plant eliminated the need for the city to have wastewater treated at the Tolleson Wastewater Treatment Plant. It provides treatment capacity that will be required as the southern portion of the City builds out, and treats wastewater for beneficial reuse.

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	Wastewater	Carryover	$168,300	$0	$0	$0	$0	$0	$0	$0	$0	$0	$168,300
		Total Budget	**$168,300**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$168,300**

Butler Drive WRF Expansion to 13 MGD

Project Number: UT00225 **Project Location:** Butler WRF



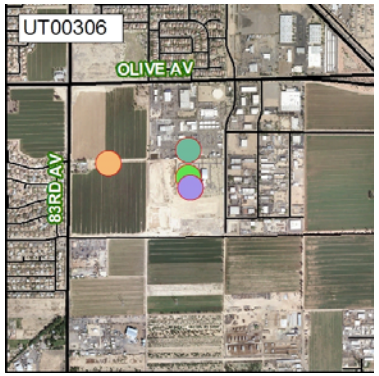
Description:
As growth continues south of Beardsley Road, the Butler Water Reclamation Facility (WRF) treatment capacity will need to be expanded to 13 million gallons per day (MGD). This project will fund the addition of a booster pump at the influent pump station, additional membrane cassettes, one new centrifuge, one new UV module at the WRF, and centrifuge solids building improvements.

Justification:
This expansion is necessary to meet the service requirements anticipated by the Wastewater 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	Wastewater	Base	$0	$0	$0	$1,875	$0	$0	$0	$0	$0	$17,327	$19,202
Construction	Wastewater	Base	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,732,673	$1,732,673
Design	Wastewater	Base	$0	$0	$0	$185,625	$0	$0	$0	$0	$0	$0	$185,625
Arts	Water	Base	$0	$0	$0	$625	$0	$0	$0	$0	$0	$17,327	$17,952
Construction	Water	Base	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,732,673	$1,732,673
Design	Water	Base	$0	$0	$0	$61,875	$0	$0	$0	$0	$0	$0	$61,875
		Total Budget	**$0**	**$0**	**$0**	**$250,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,500,000**	**$3,750,000**

Butler Drive WRF Membrane Replacement

Project Number: UT00306 **Project Location:** Butler Drive Water Reclamation Facility



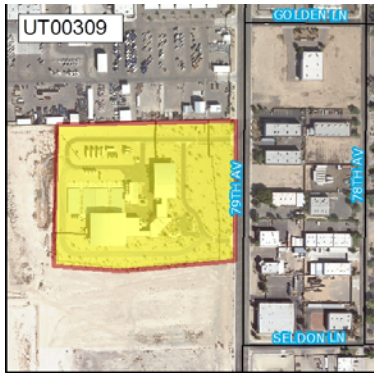
Description:
This project provides for annual contributions to a reserve fund to replace membrane filters at the Butler Drive Water Reclamation Facility (WRF).

Justification:
The Butler Drive Water Reclamation Facility began operation in July 2008. The membrane filters used at this WRF have an expected life of about eight years (although this may vary). Establishing a reserve fund will minimize the impact on the Water and Wastewater operating funds when these filters require replacement.

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	$375,000	$375,000	$375,000	$375,000	$375,000	$375,000	$375,000	$0	$2,625,000
Equipment	Water	Base	$0	$0	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$0	$875,000
		Total Budget	**$0**	**$0**	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$500,000**	**$0**	**$3,500,000**

Butler Recharge Well

Project Number: UT00309 **Project Location:** Butler Water Reclamation Facility



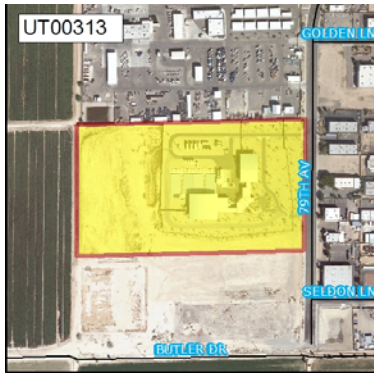
Description:
This project will provide for the study, design, construction and construction administration of a new groundwater recharge well at the Butler Water Reclamation Facility.

Justification:
Drilling and installation of new groundwater recharge wells allows the City to pump treated wastewater from the Butler Water Reclamation Facility back into the groundwater aquifer. Doing so allows the City to gain recharge credits that help maintain the City's 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	Wastewater Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$821	$4,833	$0	$5,654
Chargebacks	Wastewater Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$7,031	$7,031	$0	$14,062
Construction	Wastewater Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$0	$483,339	$0	$483,339
Design	Wastewater Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$82,086	$0	$0	$82,086
Arts	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$2,463	$14,500	$0	$16,963
Chargebacks	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$21,094	$21,094	$0	$42,188
Construction	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$0	$1,450,016	$0	$1,450,016
Design	Water Expansion	Base	$0	$0	$0	$0	$0	$0	$0	$246,258	$0	$0	$246,258
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$359,753**	**$1,980,813**	**$0**	**$2,340,566**

Butler Reclaimed Water System Expansion Phase II

Project Number: UT00313 **Project Location:** Butler Reclamation Facility



Description:
This project will construct a new 100,000 gallon concrete reservoir and booster pump station to support expansion of the reclaimed water system in the Old Town area.

Justification:
As demand continues to grow for reclaimed water in the Old Town area, the reclaimed water system will need to be expanded to accommodate this new demand. Having reclaimed water available for use in landscape irrigation, water features, and other uses enables the City to preserve valuable drinking water resources. The addition of a 100,000 gallon reservoir and associated booster pump station at the Butler Water Reclamation Facility will provide increased quantities of reclaimed water for future customers that would like to connect to the system in the Old Town area.

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	$456	$3,091	$0	$0	$0	$0	$0	$0	$0	$3,547
Chargebacks	Wastewater	Base	$0	$6,300	$6,300	$0	$0	$0	$0	$0	$0	$0	$12,600
Construction	Wastewater	Base	$0	$0	$306,018	$0	$0	$0	$0	$0	$0	$0	$306,018
Design	Wastewater	Base	$0	$45,128	$0	$0	$0	$0	$0	$0	$0	$0	$45,128
Arts	Water	Base	$0	$1,368	$9,273	$0	$0	$0	$0	$0	$0	$0	$10,641
Chargebacks	Water	Base	$0	$18,900	$18,900	$0	$0	$0	$0	$0	$0	$0	$37,800
Construction	Water	Base	$0	$0	$918,053	$0	$0	$0	$0	$0	$0	$0	$918,053
Design	Water	Base	$0	$135,384	$0	$0	$0	$0	$0	$0	$0	$0	$135,384
		Total Budget	**$0**	**$207,536**	**$1,261,635**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,469,171**

Jomax Plant Modular Rehabilitation & Expansion

Project Number: UT00317 **Project Location:** Jomax Treatment Plant

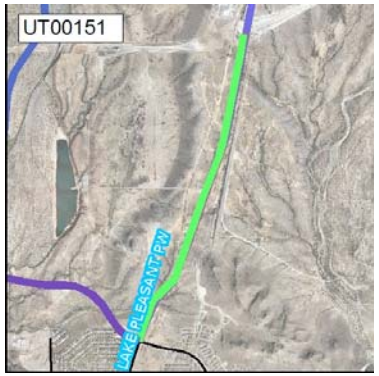
Description:
This project will provide for the rehabilitation and expansion of the existing administration modular building.

Justification:
The existing modular building supports plant personnel in operational and administration functions. This project will allow for rehabilitation of administration space as well as laboratory space. Additional space will also allow for more building versatility to support Northern operations.

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 Expansion	Base	$0	$0	$0	$0	$0	$1,875	$0	$821	$4,833	$0	$7,529
Construction	Wastewater Expansion	Base	$0	$0	$0	$0	$0	$185,625	$0	$0	$483,339	$0	$668,964
Arts	Water Expansion	Base	$0	$0	$0	$0	$0	$625	$0	$2,463	$14,500	$0	$17,588
Construction	Water Expansion	Base	$0	$0	$0	$0	$0	$61,875	$0	$0	$1,450,016	$0	$1,511,891
		Total Budget	**$0**	**$0**	**$0**	**$0**	**$0**	**$250,000**	**$0**	**$3,284**	**$1,952,688**	**$0**	**$2,205,972**

Lake Plsnt Pkwy 21/18-inch Sewer; Dynamite-L303

Project Number: UT00151 **Project Location:** Lake Plsnt Pkwy/Dynamite to Loop 303



Description:
This project includes the construction of two sections of sanitary sewer line (21 and 18 inch) along Lake Pleasant Parkway from Dynamite Road to Loop 303. This sewer will be required to provide service along the Lake Pleasant Parkway corridor and northern areas of the City located east of the Agua Fria River. Construction will be coordinated with construction of Lake Pleasant Parkway from Dynamite Road to Loop 303.

Justification:
Major collection pipelines and lift stations are required to convey and deliver wastewater to the appropriate treatment facility. These sewer lines are citywide facilities that carry large volumes of wastewater for several miles. This sewer line has been identified as needed in the Wastewater 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
Construction	Wastewater	Base	$2,050,591	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,050,591
Construction	Wastewater Expansion	Base	$3,075,887	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,075,887
Design	Wastewater Expansion	Carryover	$72,772	$0	$0	$0	$0	$0	$0	$0	$0	$0	$72,772
		Total Budget	**$5,199,250**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$5,199,250**

Total Operating Impacts	**$0**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$18,000**

Lift Station Reconditioning

Project Number: UT00116 **Project Location:** Various Locations

Description:
The initial phase of this project will evaluate and construct an odor and corrosion control system at the Butler Influent Pump Station and will address ongoing replacement needs for Lift stations throughout the city.

Justification:
Wastewater Lift Stations operate in a very harsh environment. This environment is very corrosive and conducive to the generation of odors. The initial phase of the project will address these issues at the Butler Influent Pump Station and will also address similar issues at other sites as well as the replacement of equipment that fails in this harsh environment.

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	$2,000	$0	$1,000	$0	$1,000	$0	$1,000	$0	$1,000	$6,000
Construction	Wastewater	Base	$198,000	$198,000	$0	$99,000	$0	$99,000	$0	$99,000	$0	$99,000	$792,000
		Total Budget	**$198,000**	**$200,000**	**$0**	**$100,000**	**$0**	**$100,000**	**$0**	**$100,000**	**$0**	**$100,000**	**$798,000**

Total Operating Impacts	**$0**	**$20,000**	**$45,000**	**$45,000**	**$45,000**	**$45,000**	**$45,000**	**$45,000**	**$45,000**	**$45,000**	**$45,000**	**$380,000**

Manhole Rehabilitation

Project Number: UT00307 **Project Location:** Various

Description:
This project will repair and rehabilitate manholes throughout the City's wastewater collection system. The City currently has over 14,000 manholes with an expected life of 30 to 50 years. This project will progressively increase the number of rehabilitations over the next ten years as the infrastructure ages.

Justification:
As the City's wastewater collection system ages, capital repairs and maintenance are necessary to ensure continuous and reliable service. Rehabilitation restores the structural integrity of manholes, stops water infiltration and exfiltration, and protects manholes from deterioration from exposure to corrosive gases present in the sewer system. Proactive rehabilitation projects help ensure these assets reach their maximum useful life and minimizes system failures.

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	$1,500	$1,750	$2,000	$2,250	$2,500	$3,000	$3,500	$4,000	$4,500	$25,000
Construction	Wastewater	Base	$123,750	$148,500	$173,250	$198,000	$222,750	$247,500	$297,000	$346,500	$396,000	$445,500	$2,598,750
		Total Budget	**$123,750**	**$150,000**	**$175,000**	**$200,000**	**$225,000**	**$250,000**	**$300,000**	**$350,000**	**$400,000**	**$450,000**	**$2,623,750**

Miscellaneous Local Wastewater Line Improvements

Project Number: UT00191 **Project Location:** Various Locations

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

Justification:
The City's wastewater collection system requires continual upgrading to ensure uninterrupted operation. Sewer stubs 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	Wastewater	Base	$0	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$9,000
Construction	Wastewater	Base	$99,000	$99,000	$99,000	$99,000	$99,000	$99,000	$99,000	$99,000	$99,000	$99,000	$990,000
Construction	Wastewater	Carryover	$281,386	$0	$0	$0	$0	$0	$0	$0	$0	$0	$281,386
		Total Budget	**$380,386**	**$100,000**	**$100,000**	**$100,000**	**$100,000**	**$100,000**	**$100,000**	**$100,000**	**$100,000**	**$100,000**	**$1,280,386**

Trunk Sewer Rehabilitation

Project Number: UT00296 **Project Location:** Citywide

Description:
This project will repair and rehabilitate sewer lines 15 inches and larger within the City's wastewater collection system. These lines are classified as trunk sewers, which collect the wastewater from multiple areas. This project will correct deficiencies identified by the Trunk Sewer Inspection project (UT00295).

Justification:
As the City's wastewater collection system ages, capital repairs and maintenance are necessary to ensure continuous and reliable 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	$11,856	$4,940	$0	$0	$0	$0	$0	$0	$0	$16,796
Chargebacks	Wastewater	Base	$0	$14,400	$6,000	$0	$0	$0	$0	$0	$0	$0	$20,400
Construction	Wastewater	Base	$782,496	$1,173,744	$489,060	$0	$0	$0	$0	$0	$0	$0	$2,445,300
Construction	Wastewater	Carryover	$1,200,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,200,000
		Total Budget	**$1,982,496**	**$1,200,000**	**$500,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,682,496**

West Agua Fria Wastewater Lines

Project Number: UT00171 **Project Location:** Vistancia Development

Description:
This project will provide additional wastewater collection capacity throughout the Vistancia community. The Vistancia Utilities Master Plan identified the wastewater trunk sewers that are needed to support the Vistancia wastewater system. The City is funding over sizing of selected wastewater trunk sewers to provide collection system capacity for new development in surrounding areas.

Justification:
This project provides for additional collection capacity in the wastewater system in the Vistancia area. These lines are part of the Wastewater Master Plan and will be used to convey wastewater to the appropriate treatment 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	Wastewater	Base	$0	$0	$0	$0	$1,244	$0	$0	$0	$0	$0	$1,244
Construction	Wastewater	Base	$0	$0	$0	$0	$124,425	$0	$0	$0	$0	$0	$124,425
Arts	Wastewater Expansion	Base	$0	$5,915	$6,403	$8,161	$0	$450	$380	$0	$0	$0	$21,309
Construction	Wastewater Expansion	Base	$2,391	$591,500	$640,250	$816,050	$0	$45,000	$38,000	$0	$0	$0	$2,133,191
		Total Budget	**$2,391**	**$597,415**	**$646,653**	**$824,211**	**$125,669**	**$45,450**	**$38,380**	**$0**	**$0**	**$0**	**$2,280,169**