

FY 2014 - 2018 Capital Improvement Program
Water System

Priority	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
1	Fire Protection System Improvements FY 2012 - 2016 (1019)	6,438,056	3,068,056	400,000	1,485,000	1,485,000	0	0
2	Meters and Services FY 2012 - 2016 (1002)	9,454,090	4,454,090	1,000,000	2,000,000	2,000,000	0	0
3	Distribution Mains FY 2012 - 2016 (1001)	15,116,797	6,071,797	3,015,000	3,015,000	3,015,000	0	0
4	Miscellaneous Water System Improvements FY 2012 - 2016 (1006)	1,863,397	863,397	200,000	400,000	400,000	0	0
5	Upgrade Well Pumps, Booster Pumps, Switchgears and Meters FY 2012 - 2016 (1020)	7,682,894	4,382,894	1,200,000	500,000	1,600,000	0	0
6	Well Collector Pipelines (1044)	13,109,718	5,409,718	7,200,000	500,000	0	0	0
7	Arroyo Spreading Basins and Intake Structures (1040)	5,407,568	1,722,870	500,000	2,151,046	1,033,652	0	0
8	Management Information Systems - Water and Power Department FY 2012 - 2016 (1025)	913,672	451,172	150,000	175,000	137,500	0	0
9	Recycled Water (1013)	14,601,588	14,601,588	0	0	0	0	0
10	Reservoir Improvements FY 2012 - 2016 (1037)	6,049,568	4,749,568	0	300,000	1,000,000	0	0
11	Interactive Voice Response System (IVR) (1016)	258,351	220,851	0	0	37,500	0	0
12	Field Service Automation (1012)	318,678	318,678	0	0	0	0	0
13	Geographic Information System - Water and Power Department (1009)	953,903	503,903	200,000	125,000	125,000	0	0
14	Water and Power Warehouse Modernization (1056)	3,120,293	3,120,293	0	0	0	0	0
15	Customer Information System (1011)	3,524,803	2,324,803	0	700,000	500,000	0	0
16	Sunset Perchlorate Treatment Plant (1062)	3,455,898	3,455,898	0	0	0	0	0
17	Monk Hill Perchlorate Treatment Plant (1063)	3,005,148	3,005,148	0	0	0	0	0
18	Customer Driven Meters and Services FY 2012 - 2016 (1003)	5,296,107	2,296,107	1,000,000	1,000,000	1,000,000	0	0
19	Radio Equipment Replacement (1065)	1,052,827	1,052,827	0	0	0	0	0
20	Convert Chlorination Stations to Chloramines (1031)	604,689	604,689	0	0	0	0	0
21	Water Telemetry and On-Line Water Quality Detectors (1034)	454,127	124,127	250,000	80,000	0	0	0
22	Devil's Gate Tunnels (1043)	351,278	351,278	0	0	0	0	0
23	311 Citizen Request Management (1070)	25,000	25,000	0	0	0	0	0

FY 2014 - 2018 Capital Improvement Program
Water System

Priority	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
24	Enterprise Content Management System (1071)	35,000	35,000	0	0	0	0	0
Total		103,093,450	63,213,752	15,115,000	12,431,046	12,333,652	0	0

FY 2014 - 2018 Capital Improvement Program
Water System
Fire Protection System Improvements FY 2012 - 2016
1019

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
1	1019	Fire Protection System Improvements FY 2012 - 2016							
		CIC Funding	2,970,000	0	0	1,485,000	1,485,000	0	0
		Water Bond	3,468,056	3,068,056	400,000	0	0	0	0
		Total	6,438,056	3,068,056	400,000	1,485,000	1,485,000	0	0

Fire Protection System Improvements



DESCRIPTION: This project provides for the installation of both new and replacement water distribution mains as necessary to sustain current fire protection requirements at various locations throughout the City. Work includes installation of new fire hydrants, gate valves, services, and asphalt/concrete patch/resurfacing as required by code. New developments will pay for required new mains. When mains are installed anticipating a future development, special connection charge and/or front footage charges are assessed and collected from property developers as covered under project #1003.

JUSTIFICATION: This project will ensure adequate water for fire protection in accordance with public safety requirements.

SCHEDULE: The goal is to install 3.5 miles of distribution main replacement, including installation of new fire hydrants, gate valves, and asphalt/concrete patch/resurfacing, through both projects #1001 and #1019.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to ensure adequate water for fire protection.

HISTORY: This is an ongoing project that was created before 1980. The project has been segmented into five year increments starting in FY 2012.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Meters and Services FY 2012 - 2016
 1002

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
2	1002	Meters and Services FY 2012 - 2016							
		CIC Funding	9,454,090	4,454,090	1,000,000	2,000,000	2,000,000	0	0
		Total	9,454,090	4,454,090	1,000,000	2,000,000	2,000,000	0	0



DESCRIPTION: This project provides for the installation of new water meters and services as required by customers throughout the City. It also includes the replacement of worn-out meters and services as needed. The goal is to replace all old water meters with new automatic meter readers (AMR) in five years and to replace additional meters on an as-needed basis. AMR meters will provide an efficient method of collection meter data for billing.

JUSTIFICATION: Replacement of old and non-functioning water meters, services, meter vaults, and covers is necessary to meet customer demand and provide a safe and efficient city infrastructure.

SCHEDULE: PWP will continue the large water meter replacement program in FY 2014. Approximately 100 large meters and 500 small meters are expected to be replaced in FY 2014. In addition, occluded services will be replaced and approximately five to ten new meter vault steel plate covers will be installed.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to achieve a high level of maintenance for existing facilities.

HISTORY: This is an ongoing project that was created before 1980 and receives funding each

FY 2014 - 2018 Capital Improvement Program
 Water System
 Distribution Mains FY 2012 - 2016
 1001

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
3	1001	Distribution Mains FY 2012 - 2016							
		CIC Funding	7,537,500	0	1,507,500	3,015,000	3,015,000	0	0
		Water Bond	7,579,297	6,071,797	1,507,500	0	0	0	0
		Total	15,116,797	6,071,797	3,015,000	3,015,000	3,015,000	0	0



DESCRIPTION: This project provides for the installation of both new and replacement water distribution mains at various locations throughout the City. Work includes installation of new gate valves and asphalt patch/resurfacing as required by code. New developments will pay for required new mains. When mains are installed anticipating a future development, special connection charges and/or front footage charges are assessed and collected from property developers as covered under project #1003.

JUSTIFICATION: New and replacement distribution mains are required to fulfill increased service demand, capacity needs, and upgrades to aging infrastructure to ensure system operating efficiency.

SCHEDULE: The goal is to install 3.5 miles of distribution main replacement, including installation of new gate valves and asphalt patch/resurfacing, through both projects #1001 and #1019.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with Public Facilities Element of the General Plan by helping to achieve a high level of maintenance for existing facilities.

HISTORY: This is an ongoing project that was created before 1980. The project has been segmented into five year increments starting in FY 2012.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Miscellaneous Water System Improvements FY 2012 - 2016
 1006

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
4	1006	Miscellaneous Water System Improvements FY 2012 - 2016							
		CIC Funding	1,863,397	863,397	200,000	400,000	400,000	0	0
		Total	1,863,397	863,397	200,000	400,000	400,000	0	0



DESCRIPTION: This project provides for miscellaneous distribution, purification, pumping plant, reservoir, ground water, gravity water, and general plant improvements to the water system at various locations throughout the City.

JUSTIFICATION: This project is necessary to provide ongoing improvements as required to maintain water quality, improve the security and appearance of physical plants and reservoirs, and maintain adequate health standards.

SCHEDULE: Miscellaneous projects will be constructed and equipment purchased as required.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to ensure an adequate supply of safe potable water for consumption and adequate water for fire protection.

HISTORY: This is an ongoing project that was created before 1980 and receives funding each year. The project has been segmented into five year increments starting in FY 2012.

FY 2014 - 2018 Capital Improvement Program
Water System
Upgrade Well Pumps, Booster Pumps, Switchgears and Meters FY 2012 - 2016
1020

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
5	1020	Upgrade Well Pumps, Booster Pumps, Switchgears and Meters FY 2012 - 2016							
		CIC Funding	2,100,000	0	0	500,000	1,600,000	0	0
		Water Bond	5,582,894	4,382,894	1,200,000	0	0	0	0
		Total	7,682,894	4,382,894	1,200,000	500,000	1,600,000	0	0



DESCRIPTION: This project provides for the upgrading or replacing of older and less efficient well and booster pumps, and obsolete and outdated switchgears.

JUSTIFICATION: Some of the existing well and booster pumps and meters are old and inefficient. Some of the switchgears are also old and may not meet current codes. Greater operating reliability and efficiencies will be realized by these upgrades.

SCHEDULE: In FY 2014, Wilson Booster Station upgrades are expected to be completed in addition to the Chapman Well electrical upgrades. The design of Arroyo Booster Station and San Rafael Booster Station upgrades are expected to start in FY 2014. Other well, booster pump, meters, and switchgear will be upgraded as required.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to maintain a high level of service through more efficient operation of our equipment.

HISTORY: This project was created and received initial funding in FY 1994. The project has been segmented into five year increments starting with FY 2012.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Well Collector Pipelines
 1044

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
6	1044	Well Collector Pipelines							
		CIC Funding	500,000	0	0	500,000	0	0	0
		Water Bond	12,609,718	5,409,718	7,200,000	0	0	0	0
		Total	13,109,718	5,409,718	7,200,000	500,000	0	0	0



DESCRIPTION: This project provides for the collection of water from water wells through a pipeline system and piping this water directly to reservoirs. There are two main collector pipelines. The westside collector completed in 1999 conveys water flows from Garfield and Villa wells to Sunset Reservoir. The eastside collector will convey water flows from Jourdan, Chapman, Woodbury, Monte Vista, Craig, Twombly and Wadsworth wells to Jones Reservoir.

JUSTIFICATION: This project will allow the blending of well water in the reservoir to meet current and future water quality regulations. Combining the well water flows will make future water treatment of well water more efficient and less costly. Also, this project will eliminate any entrained-air problems from wells.

SCHEDULE: Phase 1 of the eastside collector is expected to continue in FY 2014. This includes the installation of 2.2 miles of pipeline starting at Jones Reservoir to Chapman, Twombly, and Wadsworth wells. Phase 1 is expected to be completed in FY 2014. Phase 2 of the eastside collector is expected to start in FY 2014 and includes approximately two miles of pipeline from Wadsworth to Monte Vista, and Woodbury wells. It is anticipated to be completed in December 2013, however, any delays in the project may move the completion date to end of FY 2014 or possibly into FY 2015. Construction of the disinfection facility at Jones Reservoir and installation of surge tanks at eastside wellsite is expected to be completed in FY 2014.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to ensure an adequate supply of safe potable water for consumption.

HISTORY: This project was created and received initial funding in FY 1998. The westside collector pipeline was completed in 1999.

FY 2014 - 2018 Capital Improvement Program
Water System
Arroyo Spreading Basins and Intake Structures
1040

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
7	1040	Arroyo Spreading Basins and Intake Structures							
		CIC Funding	1,665,719	948,317	0	330,000	387,402	0	0
		Federal Emergency Management Agency	874,785	346,239	0	528,546	0	0	0
		Proposition 84	2,867,064	428,314	500,000	1,292,500	646,250	0	0
		Total	5,407,568	1,722,870	500,000	2,151,046	1,033,652	0	0



DESCRIPTION: This project provides for increased spreading of water runoff in the Arroyo Seco.

JUSTIFICATION: This project will allow for the capture and spreading of water runoff in the Arroyo Seco. The work allows for the diversion of water to the existing ponds for storage used for groundwater recharge. In addition, it facilitates better management of local water resources and may help to reduce reliance on expensive imported water.

SCHEDULE: Work in FY 2014 will include starting the structural design for the rehabilitation of Bridge 3, adjacent road restoration and proposed public restroom, and removing trash and debris left from storm water runoff after the Station Fire. Also expected to begin in FY 2014 is obtaining the permitting needed for the repair of existing roadways, Bridge 3, habitat restoration, and the Arroyo Seco intake structure. Other work will include completing the required CEQA documentation. Contractor procurement for Bridge 3 will occur in FY 2014, and construction on Bridge 3 is expected to begin in the fourth quarter of FY 2014. Construction of the public restroom may start in FY 2014.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to ensure an adequate supply of safe potable water for consumption and adequate water for fire protection.

HISTORY: This project was created in FY 1995 and received initial funding in FY 2001.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Management Information Systems - Water and Power Department FY 2012 - 2016
 1025

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
8	1025	Management Information Systems - Water and Power Department FY 2012 - 2016							
		Water Fund	913,672	451,172	150,000	175,000	137,500	0	0
		Total	913,672	451,172	150,000	175,000	137,500	0	0

DESCRIPTION: This project provides for the development, upgrade, and maintenance of local area networks (LAN) at each of four departmental worksites; acquisition of equipment to interconnect substations, water facilities, and existing networks; and integration of all information critical to Water and Power (PWP) operations into the same, nonredundant database. It will further:

- Install routers and firewalls in the Department's network structure;
- Convert Water and Power documents and drawings to electronic format and collect/validate field data;
- Procure an Automated Data Collection/Bar Coding system for the Warehouse;
- Convert the existing meter and transformer inventory system currently stored on the HP into a client-server application;
- Clean existing data prior to beginning the conversion process.

JUSTIFICATION: The Department's October 1991 MIS study found that considerable time savings, administrative and operational benefits would accrue if manual procedures were automated and if existing "islands of automation" were integrated. This would eliminate large amounts of data entry and re-entry performed by several groups, resulting in increased productivity and reduced errors. The barcode project will save time and money by automating inventory utilizing hand-held barcode readers and barcodes. These automated systems reduce time and labor required to perform inventory counts and virtually eliminate data entry errors, thus enabling the department to collect inventory accurately and efficiently at a lower cost and with greater integrity. The existing meter and transformer inventory systems are outdated and not serving the department's current needs and they need to be converted to a client-server type application.

SCHEDULE: In FY 2014, work plan includes network workgroup switches upgrade and enhancements; miscellaneous application development; NERC compliance; High Jump upgrade/replacement; SAN enhancement/modules; IT servers, RAM, processors, hardware, and software; and redundant web access.



FY 2014 - 2018 Capital Improvement Program
Water System
Management Information Systems - Water and Power Department FY 2012 - 2016
1025

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to provide a high level of service through more efficient management of resources.

SPECIAL CONSIDERATION: This project is also shown in the Electric System (Project 3119) and Technology Projects (Project 1025 and 3119) Sections and Summary. The appropriated dollar amount is not included in the Category Summary total for the Technology Projects Section to avoid duplication.

HISTORY: This project was created in FY 1991 and received initial funding in FY 1992. The project has been segmented into five year increments starting in FY 2012.

FY 2014 - 2018 Capital Improvement Program
Water System
Recycled Water
1013

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
9	1013	Recycled Water							
		CIC Funding	14,601,588	14,601,588	0	0	0	0	0
		Total	14,601,588	14,601,588	0	0	0	0	0



**RECYCLED
WATER
PROGRAM**

DESCRIPTION: This project will involve an evaluation of potential reclaimed water sources, determination of use base, and design/construction of facilities to provide and distribute reclaimed water. This includes the cost to participate in the expansion of the City of Glendale's reclaimed water system.

JUSTIFICATION: Future water supplies in Southern California are expected to be limited. Reclaimed water can augment fresh water supplies through its use for golf courses, freeway landscaping, parks, schools, large turf areas, and industrial processes.

SCHEDULE: In FY 2014, work will continue on the design and environmental documentation to bring the project to "shovel ready" status. The process is expected to begin for the solicitation of construction bids for Phase 1 of the project in FY 2015. Research on alternative funding sources will continue and the annual payment to the City of Glendale will continue through FY 2017.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the General Plan and would allow the purchase of more economical water for specific use. It will also allow the Department to utilize existing water resources efficiently, and it is consistent with Land Use Element Objective 18 by increasing the efficiency of water use.

HISTORY: This project was created and received initial funding in FY 1993 and fully funded in FY 2013.

FY 2014 - 2018 Capital Improvement Program
Water System
Reservoir Improvements FY 2012 - 2016
1037

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
10	1037	Reservoir Improvements FY 2012 - 2016							
		CIC Funding	1,439,568	139,568	0	300,000	1,000,000	0	0
		Water Bond	4,610,000	4,610,000	0	0	0	0	0
		Total	6,049,568	4,749,568	0	300,000	1,000,000	0	0



DESCRIPTION: This project will provide for major repairs and upgrades to the City's 15 existing water tanks and reservoirs. Most of the tanks and reservoirs are over 60 years old. Examples of the repairs and upgrades may include replacement of reservoir roofing, lining the reservoir floor with hypaton liners, changing old outlet and inlet valves, seismic upgrades, and replacement of structural supports.

JUSTIFICATION: The reservoir repairs will improve overall reservoir integrity, seismic stability, and reduce or eliminate leaks.

SCHEDULE: In FY 2014, Allen hydro-pneumatic zone upgrade is expected to be completed and the design of seismic upgrades for Sunset Reservoirs #1 and #2 are expected to begin. Also, the design of Murray hydro-pneumatic zone upgrade is expected to start.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to achieve a high level of maintenance for existing facilities, and it is also consistent with the Seismic and Safety Element by minimizing losses due to natural disasters.

HISTORY: This project was created and received initial funding in FY 1994. The project has been segmented into five year increments starting in FY 2012.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Interactive Voice Response System (IVR)
 1016

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
11	1016	Interactive Voice Response System (IVR)							
		Water Fund	258,351	220,851	0	0	37,500	0	0
		Total	258,351	220,851	0	0	37,500	0	0

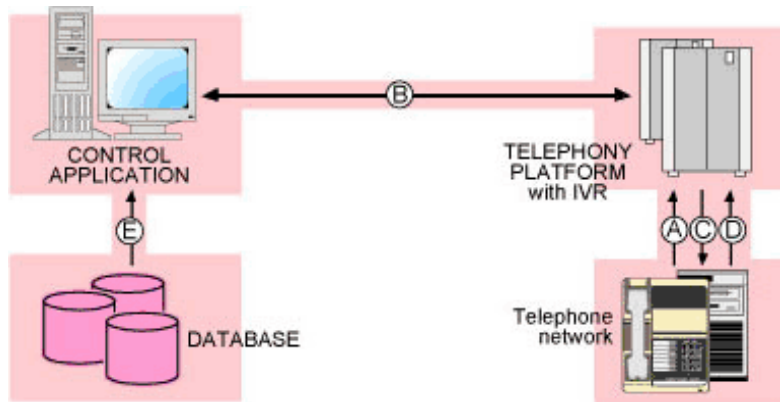
DESCRIPTION: This project will provide for the Water Division's share of the procurement of the Pasadena Water and Power's portion of an Interactive Voice Response/Interactive Web Response (IVR/IWR) system for the City of Pasadena.

JUSTIFICATION: The new IVR/IWR system will expand service to customers by providing immediate alternatives for automated information access and payments as well as personal assistance via telephone or internet. It is an integral part of Pasadena Water and Power's effort to increase customer service levels while reducing operating costs in a deregulated environment. Integration of the IVR/IWR system with Orcom will bring call-back functionality to the system.

SCHEDULE: In FY 2014, work plan includes enhancements and modifications to support the Outage Management System, Electronic Bill Payment and Presentment project and as needed, enhancements and modifications to improve customer experience.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to maintain a high level of public services, efficient management and greater work productivity.

HISTORY: This project was created and received initial funding in FY 1999.



FY 2014 - 2018 Capital Improvement Program
 Water System
 Field Service Automation
 1012

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
12	1012	Field Service Automation							
		Water Fund	318,678	318,678	0	0	0	0	0
		Total	318,678	318,678	0	0	0	0	0

FY 2014 - 2018 Capital Improvement Program

Water System

Field Service Automation

1012



DESCRIPTION: This project provides for the following upgrades for the Customer Service Field Service Group Meter Readers and Reconnect:

- Automatic Meter Reads (AMR) - Radio Frequency Meter Reading Handheld Devices and drive-by meter reading equipment
- Upgrades of Meter Reading Software (MVRS)
- Meter Reading Training Software

This project is expected to help automate to the extent possible, utility meter reading and reconnect processes.

JUSTIFICATION: Upgrades to the Customer Service Meter Reading Operation will reduce the operational costs of meter reading and help improve billing accuracy by enabling the department to obtain accurate reads from the field. AMR water meters are being installed throughout the City. Meter Reading Handheld devices are being upgraded and enabled to read regular water meters and AMR water meters. MVRS Meter Reading Software is being upgraded to accommodate changes in the upload and download of information from the billing system. Meter Reader Training Software will be upgraded to provide meter readers with the latest training tools. Other forms of meter reading such as drive-by and remote reading technology will be investigated for possible pilot programs. Mobile dispatching of service orders will also be investigated for a possible pilot program.

SCHEDULE: This project supports ongoing projects for software and hardware upgrades to Itron MVRS meter reading programs, RouteSmart routing programs, and meter reading devices for both water and electric meters from handheld devices to drive-by meter reading.

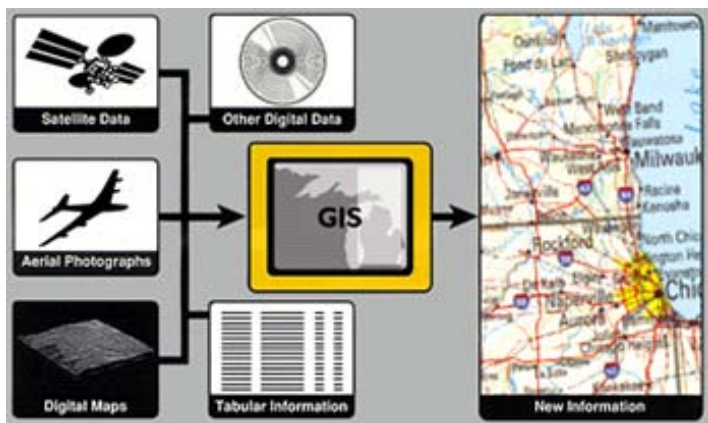
RELATIONSHIP TO THE GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to maintain a high level of public service through expanded services, efficient management and greater work productivity.

SPECIAL CONSIDERATION: This project is also shown in the Technology Projects (Project 3025) Section. The appropriated dollar amount is not included in the Category Summary total for the Technology Projects Section to avoid duplication.

HISTORY: This project was created and received initial funding in FY 2000 and fully funded in FY 2012.

FY 2014 - 2018 Capital Improvement Program
Water System
Geographic Information System - Water and Power Department
1009

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
13	1009	Geographic Information System - Water and Power Department							
		Water Fund	953,903	503,903	200,000	125,000	125,000	0	0
		Total	953,903	503,903	200,000	125,000	125,000	0	0



DESCRIPTION: This project provides for the analysis, development, and procurement of a departmental geographic information system (GIS) for the Water and Power Department. The base map has been completed, followed by application development, hardware procurement and/or procurement of custom, off-the-shelf programs and conversion of utility data.

JUSTIFICATION: The geographic information system will reduce the cost of maintaining manually produced and updated maps and record systems. It will also reduce duplicate record keeping by different sections of the department. In addition, it will provide greater reliability, faster data access, and more efficient processing of information.

SCHEDULE: In FY 2014, work includes City-wide hardware, software and database assessment; implementation of the assessment recommendations; implementation of the GIS strategic plan recommendations; upgrade of the spatial wave maplet and maplibrary; upgrade of GoSync!; Field Mapplet - Water for both hardware and software; interfacing the GoSync! with Field Mapplet; software training for ESRI and ArcFM; fine tuning of Spatial Wave Application; and configuration and design of data warehouse reports.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to maintain a high level of public service through more efficient management and greater work productivity.

SPECIAL CONSIDERATION: This project is also shown in the Electric System (Project 3005) and Technology Projects Sections. The appropriated dollar amount is not included in the Category Summary total for the Technology Projects Section to avoid duplication.

HISTORY: This project was created before FY 1994 and received initial funding in FY 1994.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Water and Power Warehouse Modernization
 1056

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
14	1056	Water and Power Warehouse Modernization							
		Water Fund	3,120,293	3,120,293	0	0	0	0	0
		Total	3,120,293	3,120,293	0	0	0	0	0



DESCRIPTION: This project provides for the modernization of the warehouse including the upgrading of the freight elevator. Included in this plan is the enhancement of the existing fire sprinkler system along with installation of new fire alarms to bring the building up to code. These changes will allow the warehouse to operate with maximum efficiency using a computer inventory tracking system. Racks, shelving, and bin systems will be replaced as needed, or if deemed to be seismically unsafe. Racking and shelving will be a combination of open and closed for maximum space utilization. Grip pallet racks for oversized or heavier-weight items will be installed and current open racks retrofitted for weight-bearing loads. Materials handling equipment including pallet jacks, carts, dollies, basket hampers, coil lifters, etc. will be replaced as needed. Ergonomically correct workstations will also be installed throughout the warehouse.

JUSTIFICATION: The warehouse has not had any significant upgrades in approximately 30 years. Racking systems inside the warehouse are inadequate, undersized, and not properly laid out to provide for efficient storage and retrieval of inventory. Exterior racks in the yards are not up to code for heavy loads and are seismically unsafe.

SCHEDULE: Work on existing warehouse building is scheduled to continue in FY 2014.

RELATIONSHIP TO THE GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to maintain a high level of service through efficient warehouse management and greater work productivity. It also provides a safe and secure working environment for employees.

HISTORY: This project was created in FY 2003 and fully funded in FY 2011.

FY 2014 - 2018 Capital Improvement Program
Water System
Customer Information System
1011

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
15	1011	Customer Information System							
		Water Fund	3,524,803	2,324,803	0	700,000	500,000	0	0
		Total	3,524,803	2,324,803	0	700,000	500,000	0	0

DESCRIPTION: The ECIS (Customer Information System) utility billing system has been in place for 10 years and is not keeping up with technology. ECIS is an aging legacy system that is losing its capability to keep up with newer technologies to improve meter reading, billing, customer payment and collection.

The budget includes purchase and implementation costs to acquire a new Customer Information and Utility Billing System (CIS).

JUSTIFICATION: The ECIS utility billing system is vital to the security and timeliness of customer information, meter reads, billing, customer payment and collection. As the system ages and its capabilities become limited, the system does not deliver the service and information customers expect. Further, the current system is not flexible, which requires vendor support at an hourly rate for any changes needed to be made by the Department.

SCHEDULE: In FY 2014, work includes defining requirements for system upgrade with current vendor. If the current vendor cannot meet the requirements, an RFP for a new utility billing system and new vendor will be necessary.

RELATIONSHIP TO THE GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping maintain a high level of public service through expanded services, efficient management and greater work productivity.

HISTORY: This project was created and received initial funding in FY 2000. One CIS system software upgrade was completed in FY 2003, a second in FY 2007, and a third upgrade completed in FY 2009.



FY 2014 - 2018 Capital Improvement Program
Water System
Sunset Perchlorate Treatment Plant
1062

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
16	1062	Sunset Perchlorate Treatment Plant							
		CIC Funding	3,455,898	3,455,898	0	0	0	0	0
		Total	3,455,898	3,455,898	0	0	0	0	0



DESCRIPTION: This project provides for the design and construction of a perchlorate treatment system, including a disinfection facility, for the Sunset Reservoir wells. Initially the plant will treat Bangham, Copelin and Sunset wells. Garfield and Villa wells may not need treatment depending on State Department of Health Services restrictions on blending and future maximum contaminate level requirements. The Sunset Reservoir wells were shut down in January 2002 when the State lowered its action level for perchlorate. An investigation is being conducted to determine the source of the perchlorate contamination affecting the Sunset Wells.

JUSTIFICATION: Treating the Sunset Reservoir wells is essential to control the spread of the perchlorate contamination plume in the groundwater. With treatment the City can resume using its local water resources.

SCHEDULE: In FY 2014, work will include completing design of the Ion Exchange system (Phase 2) and construction of the disinfection facility for the Sunset wells. Also included will be documenting required CalARP safety guidelines and system operation training. In addition, evaluating and assessing the source of the perchlorate contamination affecting the Sunset wells and strategizing with the technical and legal teams for moving forward.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element Objective 1 by providing a high level of public service at minimum cost. The project is also consistent with Objective 2 by providing a more efficient utilization of public facilities. In addition, the project is consistent with Objective 5 by providing a high level of maintenance of existing facilities.

HISTORY: This project was created in FY 2005 and fully funded in FY 2012.

FY 2014 - 2018 Capital Improvement Program
Water System
Monk Hill Perchlorate Treatment Plant
1063

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
17	1063	Monk Hill Perchlorate Treatment Plant							
		Federal Funds - NASA	3,005,148	3,005,148	0	0	0	0	0
		Total	3,005,148	3,005,148	0	0	0	0	0



DESCRIPTION: This project provides for the design and construction of a perchlorate treatment system for the Monk Hill wells. The plant will treat Arroyo, Well 52, Windsor and Ventura wells. Perchlorate was first detected June 1997, and by January 2002 all four wells were shut down when the State lowered its action level for perchlorate.

JUSTIFICATION: Treating the Monk Hill wells will help control the spread of the perchlorate contamination plume in the groundwater. With treatment, the City can continue using its local water resources instead of relying on expensive imported water supplies. The responsible parties will pay the cost of this groundwater treatment process.

SCHEDULE: Work in FY 2014 will include continuing the assessment and evaluation of the proposed use of Behner Water Treatment Plant for storing and treating utility water from the Monk Hill Treatment Plant and wells. Work will also include the review of preliminary designs and technical studies for the installation of a new well and an environmental review is expected to be completed.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element Objective 1 by providing a high level of public service at minimum cost. The project is also consistent with Objective 2 by providing a more efficient utilization of public facilities. In addition, the project is consistent with Objective 5 by providing a high level of maintenance of existing facilities.

HISTORY: This project was created in FY 2006 and fully funded in FY 2013.

FY 2014 - 2018 Capital Improvement Program
Water System
Customer Driven Meters and Services FY 2012 - 2016
1003

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
18	1003	Customer Driven Meters and Services FY 2012 - 2016							
		Aid to Construction (Water)	5,296,107	2,296,107	1,000,000	1,000,000	1,000,000	0	0
		Total	5,296,107	2,296,107	1,000,000	1,000,000	1,000,000	0	0



DESCRIPTION: This project provides for the installation of new water meters, services, and mains as requested by customers and developers throughout the City. It also includes new fire hydrants and other requirements from the Fire Department for new building/development projects.

JUSTIFICATION: Meeting customer and developer requests for new meters and services is an important priority in providing water service. Work is done in conjunction with the Fire Department requirements.

SCHEDULE: PWP will install mains, meters, and services for customers upon request and at customers' expense.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to provide a high level of service and greater work productivity by using available technology.

HISTORY: This project was created and received initial funding in FY 2007. The project has been segmented into five year increments starting in FY 2012.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Radio Equipment Replacement
 1065

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
19	1065	Radio Equipment Replacement							
		Water Fund	1,052,827	1,052,827	0	0	0	0	0
		Total	1,052,827	1,052,827	0	0	0	0	0



DESCRIPTION: This project provides for the research, analysis, procurement, and implementation of new digital radio equipment for Pasadena Water and Power (PWP) field operations. This project will also look into incorporating mobile data terminal technology or vehicle locator devices for PWP vehicles.

JUSTIFICATION: The existing radio equipment does not conform to the upcoming Federal Communications Commission rule requirements. Therefore, PWP plans to replace existing equipment with digital radio equipment that conforms to the new requirements.

SCHEDULE: In FY 2014, work includes procuring additional radios as needed and modifying channel configurations.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with Objective 4 of the Public Facilities Element of the General Plan by helping to provide a high level of service and greater work productivity by using available technology. This project is also consistent with Public Facilities Objective 2 by providing more efficient development and utilization of public facilities.

HISTORY: This project was created in FY 2007 and fully funded in FY 2012.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Convert Chlorination Stations to Chloramines
 1031

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
20	1031	Convert Chlorination Stations to Chloramines							
		CIC Funding	604,689	604,689	0	0	0	0	0
		Total	604,689	604,689	0	0	0	0	0



DESCRIPTION: This project provides for the design and installation of chloramine disinfection facilities to replace chlorination stations.

JUSTIFICATION: This project is necessitated by the Disinfection By-Products Rule effective in 2002. Using chloramines as the disinfection agent will reduce disinfection by-products.

SCHEDULE: In FY 2014, the remaining construction and installation of equipment associated with the Monk Hill chloramination system will be completed.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to assure a safe supply of potable drinking water for consumption.

HISTORY: This project was created in FY 1994 and fully funded in FY 2012.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Water Telemetry and On-Line Water Quality Detectors
 1034

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
21	1034	Water Telemetry and On-Line Water Quality Detectors							
CIC Funding			454,127	124,127	250,000	80,000	0	0	0
Total			454,127	124,127	250,000	80,000	0	0	0

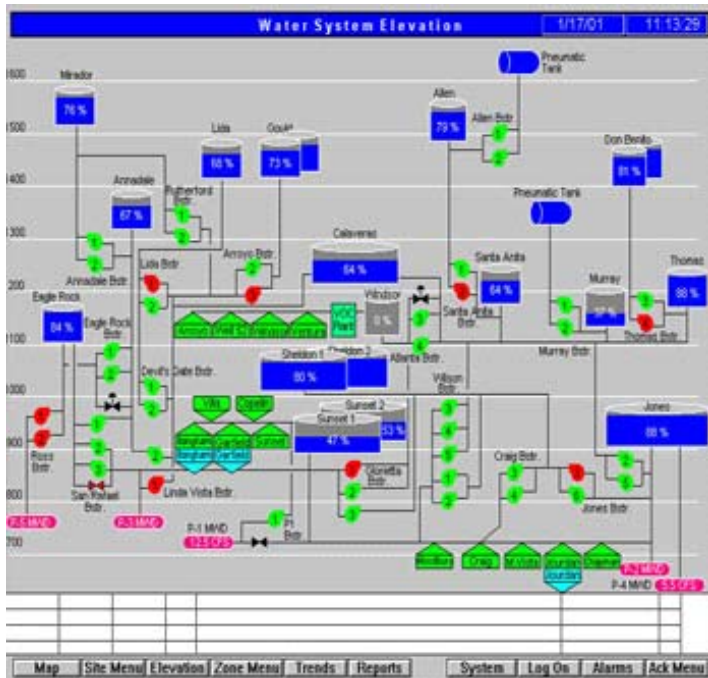
DESCRIPTION: This project provides for upgrading the existing Supervisory Control and Data Acquisition (SCADA) system to make it more reliable under normal and major failure conditions.

JUSTIFICATION: The current SCADA system for the Water Division was implemented in FY 2001. The new system entails computer communication equipment, and instrumentation and controls at remote water division sites. The system provides reliable, accurate, and additional water system data through upgraded telemetry equipment and field instrumentation. It also provides more reliable and expandable service, reduces manual reporting, and allows integration of software programs such as inventory control and maintenance management.

SCHEDULE: In FY 2014, the infrastructure necessary to upgrade the existing SCADA system will be started. Work will include replacing hardware and software necessary to make the system more reliable under normal and major failure conditions.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to ensure an adequate supply of safe potable water for consumption and adequate water for fire protection.

HISTORY: This project was created and received initial funding FY 1994.



FY 2014 - 2018 Capital Improvement Program
 Water System
 Devil's Gate Tunnels
 1043

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
22	1043	Devil's Gate Tunnels							
		CIC Funding	351,278	351,278	0	0	0	0	0
		Total	351,278	351,278	0	0	0	0	0

Water flow from Devil's Gate Tunnel



DESCRIPTION: This project will rehabilitate the Devil's Gate Tunnels, build a new one-million-gallon capacity operational storage reservoir, and upgrade pumping equipment to maximize the use of surface runoff water through Devil's Gate tunnels for irrigation of Brookside Golf Course.

JUSTIFICATION: This water supply is available free to the Department and can be used to replace the purchase of more expensive imported water. The water that is collected in these tunnels can be diverted and used as irrigation water at a lower cost than purchased imported water.

SCHEDULE: Work in FY 2014 will include the installation, testing, and calibration of a new flow meter at Manhole #2. Also, work will continue on the environmental monitoring, mitigation, and reporting associated with obtaining required permits.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by helping to maintain a high level of service through more efficient management of resources. It is also consistent with the Conservation Element by encouraging a more efficient utilization of the City's water resources.

HISTORY: This project was created in FY 1996 and fully funded in FY 2012.

FY 2014 - 2018 Capital Improvement Program
 Water System
 311 Citizen Request Management
 1070

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
23	1070	311 Citizen Request Management							
		Water Fund	25,000	25,000	0	0	0	0	0
		Total	25,000	25,000	0	0	0	0	0

DESCRIPTION: This project provides for the creation of the Water system's portion of a centralized 311 call center, development of a comprehensive knowledge base platform, and implementation of an enterprise Citizen Request Management (CRM) system to track constituent inquiries and requests for service received by the City of Pasadena.

JUSTIFICATION: The Department of Information Technology launched the Citizen Service Center in FY 2010 as part of a pilot project to gauge public acceptance of CRM technologies. To date this "self-service" only application has been well received by the community. However, its reliance on web-based technology has limited its effectiveness and has not resulted in a significant reduction in telephone calls for service across the city. It is anticipated that expansion of the Citizen Service Center to include a 311 Call Center will allow for the more efficient handling of telephone inquiries and requests for service across the organization. Further, the 2011 Wind Storm illuminated the need for a single point of contact for information and services for the City's constituents during a disaster. Implementing a 311 CRM system and creating a centralized Call Center will address the need to coordinate information across all City departments.

SCHEDULE: This project will begin in FY 2014.

RELATIONSHIP TO THE GENERAL PLAN: This project is consistent with Public Facilities Element Policy 202.0 by providing a high level of public service through more efficient management and greater work productivity.

SPECIAL CONSIDERATION: This project is also shown in the Electric System (Project 3203) and Technology Projects Sections. The appropriated dollar amount is not included in the Category Summary total for the Technology Projects Section to avoid duplication.

HISTORY: This project was created and initially funded in FY 2013.

FY 2014 - 2018 Capital Improvement Program
 Water System
 Enterprise Content Management System
 1071

Priority	Project No.	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
24	1071	Enterprise Content Management System							
		Water Fund	35,000	35,000	0	0	0	0	0
		Total	35,000	35,000	0	0	0	0	0

FY 2014 - 2018 Capital Improvement Program
Water System
Enterprise Content Management System
1071

DESCRIPTION: This project provides for the replacement of the document imaging and records management system. The replacement system, an Enterprise Content Management (ECM) system is expected to be used by all departments for document management needs and provide the following core feature functions: document imaging, content management, records management, e-forms, e-signatures, and automated workflow. The project will include the development of a standard taxonomy (document indexing scheme) and updated records retention schedules based on the taxonomy established per department.

JUSTIFICATION: The current imaging and records management system, which is an electronic repository for all official City records, birth certificates, and planning and building permits, requires replacement after nearly ten years in service. In addition, nearly every City department identified document imaging, records management, automated workflow and e-forms as an efficiency and cost savings solution during the development of the Five-Year IT Strategic Plan. Electronic management of documents and other forms of content reduces the need for physical storage space, which reduces office space requirements and storage fees. Staff performing clerical duties such as copying and filing can be redirected to perform higher level functions and paper based processes and routing can be streamlined using automated workflow. Compliance with records and archiving policies will be greatly improved with features that include audit trails, permissions and digital signatures.

SCHEDULE: This project began in FY 2013 with the development of a document/records taxonomy and the issuance of a Request for Proposals. Following the selection of a vendor, roll-out to the City Clerk and Water and Power Departments will occur in FY 2014. Roll-out to other City departments will occur pending identification of funding.

RELATIONSHIP TO THE GENERAL PLAN: This project is consistent with the Public Facilities Element Policy 202.0 by providing a high level of public service through more efficient management and greater work productivity.

SPECIAL CONSIDERATION: This project is also shown in the Electric System (Project 3204) and Technology Projects Sections. The appropriated dollar amount is not included in the Category Summary total for the Technology Projects Section to avoid duplication.

HISTORY: This project was created and fully funded in FY 2013.