

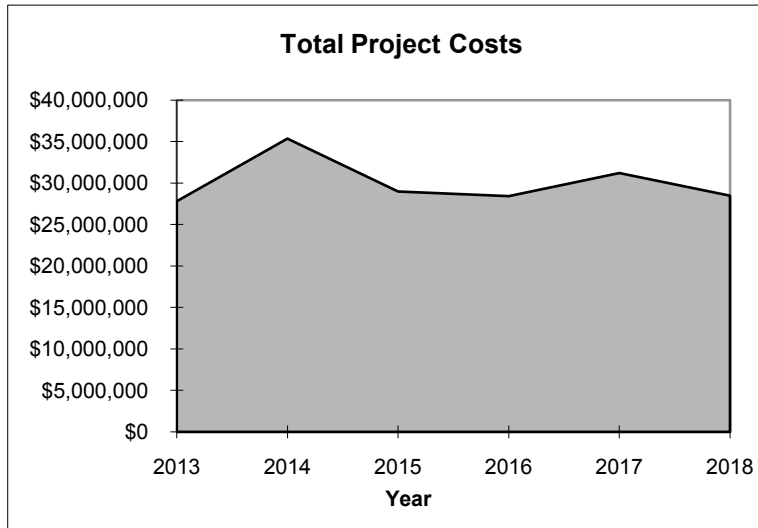
**2013  
Capital Budget  
Capital Improvement Program**

**Agency Name: Water Utility**

**Agency Number: 64**

Project Name	Future Year Estimates					
	Capital Budget 2013	2014	2015	2016	2017	2018
1 Meter Program	\$ 0	\$ 30,000	\$ 31,000	\$ 32,000	\$ 33,000	\$ 34,000
2 Water Mains - Replacement/Rehab	7,500,000	8,210,000	8,883,000	9,535,000	10,244,000	11,013,000
3 Water Mains - New	840,000	966,000	1,795,000	1,962,000	2,145,000	2,346,000
4 SCADA System	72,000	34,000	35,000	250,000	263,000	40,000
5 Zone 4 Fire Flow Supply Augment	1,289,000	4,958,000	1,142,000	0	0	0
6 Arbor Hills Supp. Fire Flow Supply	0	642,000	0	0	0	0
7 East Side-Well 15 VOC Mitigation	2,061,000	0	0	0	0	0
8 East Side-Well 8 Fe&Mn Mitigation	541,000	6,341,000	825,000	981,000	0	0
9 East Side-Well 7 Fe&Mn Filtration	6,340,000	616,000	952,000	0	0	0
10 East Side Replacement Well	0	261,000	378,000	1,155,000	7,374,000	694,000
11 Pressure Zone 9 Storage	0	55,000	553,000	2,692,000	0	0
12 Zones 7 & 8 Supplemental Supply	130,000	372,000	1,122,000	5,894,000	893,000	0
13 Pump Station 220 - Raymond Road	0	0	0	58,000	126,000	1,674,000
14 Lakeview Reservoir - Reconstruct	291,000	2,841,000	1,956,000	0	0	0
15 Booster Pump Station 114	0	0	565,000	2,855,000	1,020,000	0
16 Northeast Side Supplemental Supply	0	0	0	0	0	61,000
17 Security Upgrades	100,000	104,000	108,000	112,000	116,000	121,000
18 System Wide Miscellaneous Projects	957,000	926,000	1,080,000	1,118,000	1,253,000	1,405,000
19 Paterson St. Building Remodel	508,000	6,140,000	400,000	0	0	0
20 Advanced Metering/Project H2O	4,000,000	0	0	0	0	0
21 Booster Station 106 Rebuild	1,698,000	616,000	1,269,000	0	0	0
22 Zone 11 Blackhawk Elev. Reservoir	0	216,000	2,668,000	743,000	1,020,000	0
23 Misc. Pump Station/PRV/Facility Proj.	1,037,000	1,624,000	616,000	585,000	1,245,000	6,010,000
24 Booster Pump Station 129 Reconstr.	0	0	56,000	121,000	2,884,000	0
25 Iron & Manganese Filter at Well 19	0	344,000	3,350,000	0	0	0
26 Iron & Manganese Filter at Well 30	0	0	0	0	380,000	3,774,000
27 Near West Side Water Supply Proj.	0	0	0	0	60,000	589,000
28 Well 29 Filter Capacity Expansion	446,000	0	0	0	0	0
29 Well 12 Conversion to Two Zone Well	0	64,000	1,201,000	0	0	0

Project Name	Capital Budget	Future Year Estimates				
	2013	2014	2015	2016	2017	2018
30 Booster Pump Station 109	0	0	0	332,000	2,154,000	657,000
31 Zone 10 Far West Elevated Reservoir	0	0	0	0	0	61,000
<b>Total</b>	<b>\$27,810,000</b>	<b>\$35,360,000</b>	<b>\$28,985,000</b>	<b>\$28,425,000</b>	<b>\$31,210,000</b>	<b>\$28,479,000</b>



**2013  
Capital Budget  
Expenditure Categories and Funding Sources**

Agency Name: **Water Utility**

Agency No.: 64

All Projects	Capital Budget	Future Year Estimates				
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures:</b>						
Purchased Services	\$ 2,476,000	\$ 790,000	\$ 863,000	\$ 834,000	\$ 566,000	\$ 122,000
Materials & Supplies	0	0	0	0	0	0
Inter-Agency Charges	0	0	0	0	0	0
Loans	0	0	0	0	0	0
Professional Fees	950,000	1,032,000	492,000	705,000	761,000	966,000
Land & Land Improve	8,590,000	12,564,000	18,007,000	15,076,000	18,372,000	15,148,000
Building & Bldg Improve	9,795,000	19,254,000	6,940,000	9,865,000	8,832,000	5,385,000
Equipment and Vehicles	5,999,000	1,720,000	2,683,000	1,945,000	2,679,000	6,858,000
Other	0	0	0	0	0	0
<b>Total Project Costs</b>	<u>\$ 27,810,000</u>	<u>\$ 35,360,000</u>	<u>\$ 28,985,000</u>	<u>\$ 28,425,000</u>	<u>\$ 31,210,000</u>	<u>\$ 28,479,000</u>
<b>Funding Sources:</b>						
Federal Sources	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
State Sources	0	0	0	0	0	0
Impact Fees	0	0	0	0	0	0
Private Contributions	0	0	0	0	0	0
Revenue Bonds	27,810,000	35,360,000	28,985,000	28,425,000	31,210,000	28,479,000
Special Assessments	0	0	0	0	0	0
TIF Cash	0	0	0	0	0	0
Carry-Forward Applied	0	0	0	0	0	0
Reserves Applied	0	0	0	0	0	0
Other	0	0	0	0	0	0
<b>Total Other Sources</b>	<u>\$ 27,810,000</u>	<u>\$ 35,360,000</u>	<u>\$ 28,985,000</u>	<u>\$ 28,425,000</u>	<u>\$ 31,210,000</u>	<u>\$ 28,479,000</u>
G.O. General Fund	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
G.O. Non-General Fund	0	0	0	0	0	0
<b>Total G.O. Debt</b>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>
<b>Estimated Annual Debt Service</b>						
G.O. General Fund	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
G.O. Non-General Fund	0	0	0	0	0	0

## Capital Budget

### Water Utility

#### Meter Program

Project No. 1 Acct. No. 810454

GO \$ 0  
Other 0  
\$ 0

This project is for the purchase and installation of new meters for residential customers. Following completion of the Advanced Metering Infrastructure/Project H<sub>2</sub>O in year 2013, periodic replacement and testing of water meters ranging in size from 5/8" to 10" takes place starting in 2014 in accordance with Public Service Commission of Wisconsin rules.

#### Water Mains - Replacement/Rehab

Project No. 2 Acct. No. 810455

GO \$ 0  
Other 7,500,000  
\$ 7,500,000

Madison Water Utility has a planned system replacement and upgrade program that provides for annual main replacement and rehabilitation. The Utility needs to replace or rehabilitate over 400 miles of pipe in approximately the next 40 years to renew and maintain the system. A planned annual increase in spending to accomplish this goal by the year 2050 will be continued.

#### Water Mains - New

Project No. 3 Acct. No. 810455

GO \$ 0  
Other 840,000  
\$ 840,000

This project installs new water mains to help strengthen the existing distribution system, improve pressures, improve fire protection, allow transfer of water from pressure zone to pressure zone, and serve the growing Madison area. Mains installed within this project will implement recommended hydraulic improvements from the Utility's Master Plan that was adopted in year 2006. The Capital Improvement Program proposes to significantly increase pipeline investment for hydraulic needs beginning in year 2015, and then increase this portion of the budget over the next 15 years to meet Master Plan recommendations.

#### SCADA System

Project No. 4 Acct. No. 810459

GO \$ 0  
Other 72,000  
\$ 72,000

The SCADA (Supervisory Control and Data Acquisition) System is a key component to system operation. This system allows the Utility to remotely control and monitor its wells, booster stations and reservoirs from a central station. The computer system requires regular and routine upgrades to maintain effectiveness.

#### Zone 4 Fire Flow Supply Augment

Project No. 5 Acct. No. 810517

GO \$ 0  
Other 1,289,000  
\$ 1,289,000

Two test wells were constructed in year 2012 and the production well is scheduled to be drilled in 2013. Well 31 is scheduled to be designed and construction to start in late 2013. The well is to be finished and in service in 2014. Pipeline work also is scheduled for 2014. Other funding includes \$1,023,000 in reauthorized revenue bonds from 2012.

#### Arbor Hills Supp. Fire Flow Supply

Project No. 6 Acct. No. 810516

GO \$ 0  
Other 0  
\$ 0

Booster pump station #118 was constructed and put into service in 2012. Pipeline improvements also were constructed in 2012, and the last phase of the project, Phase 4 of the "Cannonball Pipeline," will be constructed in year 2014.

**East Side-Well 15 VOC Mitigation** Project No. 7 Acct. No. 810459

GO \$ 0  
Other 2,061,000  
\$ 2,061,000

East Side Phase 1 - Well 15 VOC (volatile organic compounds) Mitigation will address water quality issues that exist at Well 15 due to rising levels of VOC, specifically Perchloroethylene (PCE). There is concern that the VOC levels could exceed current regulatory standards. Well 15 is a critical supply component for the northeast corner of the City. Construction started in the fall of 2012 and will be completed by June 2013. Other funding is reauthorized revenue bonds from 2012.

**East Side-Well 8 Fe&Mn Mitigation** Project No. 8 Acct. No. 810459

GO \$ 0  
Other 541,000  
\$ 541,000

East Side Phase 2 - Well 8 Fe (iron) and Mn (manganese) Mitigation will address current water quality issues at Well 8 resulting from iron and manganese levels that exceed the Environmental Protection Agency's (EPA) secondary standards. Due to the colored water resulting from iron and manganese, well operation is currently limited to summer only and a total production of 100 million gallons per year. The need for this project was verified by the East Side Water Supply project. Initially, this project was scheduled for construction in year 2013. Due to concerns about the nearby Madison Kipp contamination and neighborhood concerns about the facility in the park, the project has been delayed by a year. Installation of a filter would allow the well to be operational all year long and produce significantly greater quantities of water. Other funding includes \$441,000 in reauthorized revenue bonds from 2012.

**East Side-Well 7 Fe&Mn Filtration** Project No. 9 Acct. No. 810459

GO \$ 0  
Other 6,340,000  
\$ 6,340,000

The East Side Water Supply project verified the need for a filter at Well 7. The public engagement process is proceeding and the project has been moved up to be constructed in year 2013 and fully operational in 2014. Construction of a filter at Well 7 will address water quality issues that exist due to iron and manganese levels that exceed or approach the EPA secondary standard. A filter would significantly reduce iron and manganese levels in the water pumped from the facility, thereby reducing the likelihood of customers experiencing colored water. This project also will allow the Utility to increase its use of Well 7. The new facility will require the purchase of additional property. Other funding includes \$275,000 in reauthorized revenue bonds from 2012.

**East Side Replacement Well** Project No. 10 Acct. No. 810517

GO \$ 0  
Other 0  
\$ 0

Well 3 was abandoned early in year 2008 due to elevated levels of Carbon Tetrachloride. This project is intended to replace that lost supply capacity in Pressure Zone 6E, the east Isthmus area. The need for a replacement well was verified by the East Side Water Supply project. It is expected that the well will need a filter for iron and manganese removal and this is included in the budget. There also is the possibility that VOC contamination will be present due to long term industrial land use on the Isthmus. This well will be designed with the intention of adding treatment, if necessary. If the test well indicates that iron and manganese filtration is not needed, the capital cost will be significantly reduced.

**Pressure Zone 9 Storage** Project No. 11 Acct. No. 0

GO \$ 0  
Other 0  
\$ 0

This project will construct a 750,000 gallon elevated reservoir to serve Pressure Zone 9 in the southwest corner of the City. The public participation process will begin in 2014, with property purchase and design anticipated in 2015, followed by construction in 2016. The reservoir will be complete and in operation by 2017.

**Zones 7 & 8 Supplemental Supply** Project No. **12** Acct. No. 810517

GO \$ 0  
Other 130,000  
\$ 130,000

The well, pump station and reservoir on the near west side (Whitney Way) will provide a new source of water supply to improve service levels, system redundancy and reliability to Pressure Zones 7 and 8. The public participation process began in 2009. Property purchase and the drilling of a test well are scheduled in 2014, with a production well to be drilled in 2015. Design of the pump house is scheduled in 2015, with construction of the well, pump house and reservoir in 2016. The project will be fully operational in 2017. Other funding is reauthorized revenue bonds from 2012.

**Pump Station 220 - Raymond Road** Project No. **13** Acct. No. 0

GO \$ 0  
Other 0  
\$ 0

This project will construct a dual zone booster pump station on the west side that will transfer water between Pressure Zones 7, 9 and 10, and back again through a pressure reducing valve. This will provide operational flexibility and reduce the need for expanded supply capacity. The project is scheduled to begin in 2016 and be completed in 2018.

**Lakeview Reservoir - Reconstruct** Project No. **14** Acct. No. 810458

GO \$ 0  
Other 291,000  
\$ 291,000

This project will construct a two zone water storage reservoir to provide needed additional storage capacity for peak demand and fire flow reserves in Pressure Zones 5 and 6. This facility will also replace an aging elevated water reservoir in Pressure Zone 5. Improvements to the existing pump station feeding Zone 5 also are included in this project. The public participation process will begin in 2013, with design also in 2013. Construction of the reservoir will begin in 2014, and be finished and in service in 2015, with water main improvements also in 2015.

**Booster Pump Station 114** Project No. **15** Acct. No. 0

GO \$ 0  
Other 0  
\$ 0

This project will construct a dual zone pump station that will transfer water from Pressure Zone 6W to Pressure Zone 8 and back again. This will improve operational flexibility of the west side supply system and fully utilize existing Utility facilities. This project is scheduled to begin in 2015, and be completed and in service in 2017.

**Northeast Side Supplemental Supply** Project No. **16** Acct. No. 0

GO \$ 0  
Other 0  
\$ 0

This project will construct a well, reservoir and pump station to provide additional drinking water supply to Pressure Zones 3 and 6E. This well would tentatively be located in the northeast corner of the system. While no specific site has been identified at this point, the Utility owns property for this purpose on Hoepker Road. The public participation process, expected to be used to site the well and develop the details of this project, is scheduled to begin in 2018.

**Security Upgrades** Project No. **17** Acct. No. 810458

GO \$ 0  
Other 100,000  
\$ 100,000

These miscellaneous projects improve security and monitoring of the Utility's remote facilities. These projects include but are not necessarily limited to video camera surveillance, improved doors, improved hatches, fencing, alarm systems and other online monitoring devices.

**System Wide Miscellaneous Projects** Project No. **18** Acct. No. 810458

GO \$ 0  
Other 957,000  
\$ 957,000

These miscellaneous projects repair, rehabilitate and improve Utility facilities. These projects include but are not necessarily limited to lighting, roofing, painting and other upgrades to the Utility's 32 remote sites and to the administration and operations centers.

**Paterson St. Building Remodel** Project No. **19** Acct. No. 810703

GO \$ 0  
Other 508,000  
\$ 508,000

This project funds major renovation of the Water Utility field operations center at 110 S. Paterson Street, including the demolition and rebuilding of the vehicle maintenance facility. This project is scheduled to begin construction in 2014, and be finished and in service in early 2015. Other options for site location will continue to be explored as identified in the Long-Range Facilities Planning report.

**Advanced Metering/Project H2O** Project No. **20** Acct. No. 810664

GO \$ 0  
Other 4,000,000  
\$ 4,000,000

This project retrofits all existing water meters with a device that will allow the collection of meter readings via a fixed network system. Project H<sub>2</sub>O was started in year 2012 and will continue into 2013. The automated meter reading system that will be installed will involve the Utility's 65,000 customer accounts. This will allow customers to closely monitor and control their own water use and conserve water, thereby reducing system demands. The Utility will be able to implement conservation water rates, monitor the system for leaks, evaluate and optimize system operation, and improve customer service as a result of the Project H<sub>2</sub>O system. Other funding includes \$400,000 in reauthorized revenue bonds from 2012.

**Booster Station 106 Rebuild** Project No. **21** Acct. No. 810516

GO \$ 0  
Other 1,698,000  
\$ 1,698,000

This project will replace the 80 year old booster pump station at Glenway. The booster station moves water from Pressure Zone 6 to Pressure Zone 7 and provides a necessary source of water to the northeast corner of Pressure Zone 7. With the pump station upgrade, some pipeline replacement will be necessary to increase hydraulic capacity. Construction is scheduled to start in 2013, with the facility completed and in service in early 2014. Pipeline improvements continue in year 2015. Other funding includes \$115,000 in reauthorized revenue bonds from 2012.

**Zone 11 Blackhawk Elev. Reservoir** Project No. **22** Acct. No. 0

GO \$ 0  
Other 0  
\$ 0

This project will construct a one million gallon elevated storage reservoir on the far west side of the service area to serve developing areas and provide fire protection to Pressure Zone 11. This project is projected to begin in year 2014 and be completed in 2015. The Utility currently owns property on the far west side for the purpose of siting a reservoir.

**Misc. Pump Station/PRV/Facility Proj.** Project No. **23** Acct. No. 810458

GO \$ 0  
Other 1,037,000  
\$ 1,037,000

This project includes various pump station, pressure reducing valve (PRV) stations, and well improvement and upgrade projects recommended by the Water Utility Master Plan. Projects scheduled for 2013 include upgrading the booster pumps at Well 20, installing a PRV station on Vondron Road and installing a generator at Well 26. Other funding includes \$711,000 in reauthorized revenue bonds from 2012.

**Booster Pump Station 129 Reconstr.** Project No. **24** Fund No. **0**

GO \$ 0  
Other 0  
\$ 0

Construction of a new and upgraded booster pump station 129 is scheduled for year 2017. This project will replace the temporary pump station constructed on the Well 29 site back in 1990. Pump station 129 will continue to transfer water from Pressure Zone 6E to Zone 3 and back again through a pressure reducing valve. The operation will provide supply and fire flow capability to the far east side of the system. It will benefit customers through increased reliability and flexibility of operations.

**Iron & Manganese Filter at Well 19** Project No. **25** Acct. No. **0**

GO \$ 0  
Other 0  
\$ 0

Construction of an Iron and Manganese Filter at Well 19 will address the water quality issues and resulting customer complaints about colored water due to elevated levels of iron and manganese that exist at Well 19. The budget anticipates construction of a filter in 2015, following a significant public participation process and evaluation beginning in 2014. The facility should be fully operational in 2016.

**Iron & Manganese Filter at Well 30** Project No. **26** Fund No. **0**

GO \$ 0  
Other 0  
\$ 0

Construction of an Iron and Manganese Filter at Well 30 will address the water quality issues and resulting customer complaints about colored water due to elevated levels of iron and manganese that exist at Well 30. The budget anticipates construction of a filter in year 2018, following a significant public participation process and evaluation beginning in 2017.

**Near West Side Water Supply Proj.** Project No. **27** Acct. No. **0**

GO \$ 0  
Other 0  
\$ 0

Construction of an additional well is scheduled for 2021. The Water Master Plan has identified this well project to mitigate a supply deficiency in Pressure Zones 6 and 7. The project will provide additional water supply capacity to both Zones 6 and 7. The final location of the proposed well will be determined following a significant public participation process and evaluation period beginning in 2017.

**Well 29 Filter Capacity Expansion** Project No. **28** Acct. No. **810564**

GO \$ 0  
Other 446,000  
\$ 446,000

The filter system at Well 29 was constructed with a capacity of 1,100 gallons per minute (gpm) due to a concern with contaminants under the Sycamore Landfill. A sentry well was installed between the landfill and the well to monitor water quality. At this time, based on pumping and water quality data, there is no indication of a problem with the Sycamore Landfill with regard to Well 29, so this project will increase the capacity of the filtration system to 2,200 gpm. This will provide the Utility with improved flexibility and supply capacity on the east side of Pressure Zone 6.

**Well 12 Conversion to Two Zone Well** Project No. **29** Acct. No. **0**

GO \$ 0  
Other 0  
\$ 0

The 2006 Water Utility Master Plan recommended that Well 12 be converted to a two zone well. This conversion will provide operational flexibility and reliability to the west side supply system. Pumps and a pressure reducing valve will be added to the Well 12 facility to move water from Pressure Zone 7 to Pressure Zone 8 and vice versa.



**Booster Pump Station 109**Project No. **30** Acct. No. **0**

GO \$ 0  
 Other 0  
\$ 0

Booster Pump Station 109 will provide operational functionality to the east side and improve reliability to the water supply system. The pump station will move water from Pressure Zone 4 to Pressure Zone 6E and a pressure reducing valve will allow water to move from Pressure Zone 6E to Pressure Zone 4.

**Zone 10 Far West Elevated Reservoir**Project No. **31** Acct. No. **0**

GO \$ 0  
 Other 0  
\$ 0

Construction of the Zone 10 Far West Side 750,000 gallon elevated reservoir is scheduled for 2020, and will follow a public engagement process and evaluation. The completed project will provide additional gravity fed water storage capacity within Pressure Zone 10. As Pressure Zone 10 has developed not only with residential, but commercial and institutional facilities, the existing 250,000 gallon elevated tank on High Point Road no longer provides sufficient emergency reserve capacity. Providing minimum fire flow requirements to this area of the distribution system is necessary to meet minimum Utility standards. This project is identified in the 2006 Water Utility Master Plan.

All funding is from Water Utility resources.

**2013  
Capital Budget  
Summary**

Agency Name: **Water Utility**

Agency Number: 64

Project Name	Agency Request	Executive	Adopted		
			G.O. Debt	Other Funding	Total
1 Meter Program	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2 Water Mains - Replacement/Rehab	7,500,000	7,500,000	0	7,500,000	7,500,000
3 Water Mains - New	840,000	840,000	0	840,000	840,000
4 SCADA System	72,000	72,000	0	72,000	72,000
5 Zone 4 Fire Flow Supply Augment	6,103,000	1,289,000	0	1,289,000	1,289,000
6 Arbor Hills Supp. Fire Flow Supply	0	0	0	0	0
7 East Side-Well 15 VOC Mitigation	2,061,000	2,061,000	0	2,061,000	2,061,000
8 East Side-Well 8 Fe&Mn Mitigation	541,000	541,000	0	541,000	541,000
9 East Side-Well 7 Fe&Mn Filtration	6,340,000	6,340,000	0	6,340,000	6,340,000
10 East Side Replacement Well	265,000	0	0	0	0
11 Pressure Zone 9 Storage	0	0	0	0	0
12 Zones 7 & 8 Supplemental Supply	130,000	130,000	0	130,000	130,000
13 Pump Station 220 - Raymond Road	0	0	0	0	0
14 Lakeview Reservoir - Reconstruct	291,000	291,000	0	291,000	291,000
15 Booster Pump Station 114	0	0	0	0	0
16 Northeast Side Supplemental Supply	0	0	0	0	0
17 Security Upgrades	100,000	100,000	0	100,000	100,000
18 System Wide Miscellaneous Projects	957,000	957,000	0	957,000	957,000
19 Paterson St. Building Remodel	508,000	508,000	0	508,000	508,000
20 Advanced Metering/Project H2O	4,000,000	4,000,000	0	4,000,000	4,000,000
21 Booster Station 106 Rebuild	1,698,000	1,698,000	0	1,698,000	1,698,000
22 Zone 11 Blackhawk Elev. Reservoir	0	0	0	0	0
23 Misc. Pump Station/PRV/Facility Proj.	1,037,000	1,037,000	0	1,037,000	1,037,000
24 Booster Pump Station 129 Reconstr.	0	0	0	0	0
25 Iron & Manganese Filter at Well 19	0	0	0	0	0
26 Iron & Manganese Filter at Well 30	0	0	0	0	0
27 Near West Side Water Supply Proj.	0	0	0	0	0
28 Well 29 Filter Capacity Expansion	446,000	446,000	0	446,000	446,000
29 Well 12 Conversion to Two Zone Well	0	0	0	0	0
30 Booster Pump Station 109	0	0	0	0	0
31 Zone 10 Far West Elevated Reservoir	0	0	0	0	0
<b>Total</b>	<b>\$ 32,889,000</b>	<b>\$ 27,810,000</b>	<b>\$ 0</b>	<b>\$ 27,810,000</b>	<b>\$ 27,810,000</b>