



Madison Water Utility
2011-2025 Capital Improvement Budget

Updated: June 17, 2010

DRAFT

V-3

| | | Annual Totals | | | | | | | | | | | | | | | | | | | | | |
|------|--|----------------|------------------|------------------|------------------|------------------|------------------|----------------|------------------|------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|--|
| | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | |
| Line | Project | | | | | | | | | | | | | | | | | | | | | | |
| | Date/Description/Purpose | | | | | | | | | | | | | | | | | | | | | | |
| | Tasks | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Arbor Hills Supplemental Fire Flow Supply | | | | | | | | | | | | | | | | | | | | | | |
| 2 | A site for the pump station will be selected and procured in 2010 along with completion of project design. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | The pump station will be under construction in 2011 and be finished and in service by 2012. The <u>Arbor Hills Supplemental Fire Flow Supply</u> will correct a significant system deficiency identified by the Water Master Plan. Due to the fact that the area is fed by a single 8-inch main on the Belline Highway frontage road, the area is vulnerable to water outages and there is a significant restriction in fire flow capacity. This project will provide the ability to transfer water from Well 18 in Zone 6. The Project includes a pipeline on the Cannonball Bike Trail that will link the area to the Verona Road Area. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Public Participation Plan | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Property Purchase | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Consultant Design contract for Pump Station | 116,000 | | | | | | | | | | | | | | | | | | | | | |
| 7 | Construction Administration Services | 66,500 | | | | | | | | | | | | | | | | | | | | | |
| 8 | Pipeline Construction | 750,000 | 600,000 | | | | | | | | | | | | | | | | | | | | |
| 9 | Pump Station Construction | 950,000 | | | | | | | | | | | | | | | | | | | | | |
| 10 | Project Total | 116,000 | 1,016,500 | - | 750,000 | 600,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 11 | Zone 4 Fire Flow Supply Augmentation | | | | | | | | | | | | | | | | | | | | | | |
| 12 | A site will be identified and purchased in 2010. The test well and production well are scheduled for 2011 with the Unit well scheduled to start construction in 2012 and be finished and in service in 2013. The <u>Zone 4 Fire Flow Supply Augmentation project</u> will correct a significant system deficiency identified by the Water Master Plan in the southeast corner of the system. Due to significant expansion over the years to the south and east, the existing hydraulics of the system will not adequately serve this area for fire flow supply or system reliability and redundancy. There is also significant development pressure in the southeast and this project will support further development of the area. Adding a second source of supply to the area will improve fire flow capacity and bring the water system level of service for the area up to Utility standards. | | | | | | | | | | | | | | | | | | | | | | |
| 13 | Public Participation Plan | | | | | | | | | | | | | | | | | | | | | | |
| 14 | Additional Water Quality Analysis | 25,000 | | | | | | | | | | | | | | | | | | | | | |
| 15 | Property Purchase | 100,000 | | | | | | | | | | | | | | | | | | | | | |
| 16 | Drill Test Well & Analysis | 130,000 | | | | | | | | | | | | | | | | | | | | | |
| 17 | Production Well and Development | 602,000 | | | | | | | | | | | | | | | | | | | | | |
| 18 | Consultant Design contract for design of Unit Well, Reservoir, Pump Station, and Pipelines | 221,000 | | | | | | | | | | | | | | | | | | | | | |
| 19 | Construct Unit Well | 2,763,000 | | | | | | | | | | | | | | | | | | | | | |
| 20 | Consultant Construction Administration | 166,000 | | | | | | | | | | | | | | | | | | | | | |
| 21 | Pipelines | 1,217,000 | | | | | | | | | | | | | | | | | | | | | |
| 22 | Project Total | 125,000 | 953,000 | 2,929,000 | - | - | 1,217,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 23 | East Side Water Supply Project | | | | | | | | | | | | | | | | | | | | | | |
| 24 | The <u>East Side Water Supply Planning Project</u> is intended to combine four projects into one that will evaluate water demand needs, water quality issues, and long term planning for the near east side of Madison. A replacement for Well 3, water quality issues at Wells 7, 8, and 15, and regional supply needs will be evaluated with regard to current conservation and water use trends. | | | | | | | | | | | | | | | | | | | | | | |
| 25 | Consultant Contract | 550,000 | | | | | | | | | | | | | | | | | | | | | |
| 26 | Other Direct Expenses | 41,000 | | | | | | | | | | | | | | | | | | | | | |
| 27 | Project Total | 591,000 | 41,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 28 | E. Side Phase 2 - Unit Well No. 15 - VOC Mitigation | | | | | | | | | | | | | | | | | | | | | | |
| 29 | <u>East Side Phase 2 - Unit Well No. 15 - VOC Mitigation</u> will address the water quality issues that exist at Well 15 due to rising levels of VOC that are of concern. Unit Well 15 is a critical supply component for the NE corner of the City. The project will benefit the Well 15 service area and improve the quality of the water bringing it up to minimum Utility water quality standards. | | | | | | | | | | | | | | | | | | | | | | |
| 30 | UW 15 - VOC Stripper Design | 208,000 | | | | | | | | | | | | | | | | | | | | | |
| 31 | Construction Admin Services | 139,000 | | | | | | | | | | | | | | | | | | | | | |
| 32 | Construction of Unit Well No. 15 | 2,309,000 | | | | | | | | | | | | | | | | | | | | | |
| 33 | VOC Stripper | 2,448,000 | | | | | | | | | | | | | | | | | | | | | |
| 34 | Project Total | - | 208,000 | 2,448,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 35 | E. Side Phase 1 - Unit Well No. 8 - Fe and Mn Mitigation | | | | | | | | | | | | | | | | | | | | | | |
| 36 | <u>East Side Phase 1 - Unit Well No. 8 - Fe and Mn Mitigation</u> will address the water quality issues that exist at Well 8 due to iron and manganese levels that exceed the EPA secondary standard. Due to the colored water that occurs when the well is run, well operation is limited to summer only. A filter would allow the well to be operational all year long. The project will benefit existing customers in the east Isthmus area and improve the quality of the water pumped from Well 8. | | | | | | | | | | | | | | | | | | | | | | |
| 37 | UW 8 - Filter Design Documents | 358,000 | | | | | | | | | | | | | | | | | | | | | |
| 38 | Construction Admin Services | 239,000 | | | | | | | | | | | | | | | | | | | | | |
| 39 | Well 8 Fe and Mn Filter Construction | 3,978,000 | | | | | | | | | | | | | | | | | | | | | |
| 40 | Pipelines | 500,000 | 500,000 | | | | | | | | | | | | | | | | | | | | |
| 41 | Project Total | - | - | 358,000 | 4,217,000 | - | 500,000 | 500,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 42 | E. Side Phase 3 - Unit Well No. 7 - Fe and Mn Mitigation | | | | | | | | | | | | | | | | | | | | | | |
| 43 | East Side Phase 3 - Unit Well No. 7 - Fe and Mn Mitigation will address the water quality issues that exist at Well 7 due to iron and manganese levels that exceed or approach the EPA secondary standard. Due to the colored water that occurs when the well is run frequent customer complaints are common in the Well 7 service area. A filter would significantly reduce the iron and manganese levels in the water produced by the well. The project will reduce the likelihood of customers experiencing colored water due to water pumped from Well 7. | | | | | | | | | | | | | | | | | | | | | | |
| 44 | UW 7 - Filter Design | 372,000 | | | | | | | | | | | | | | | | | | | | | |
| 45 | Property Purchase | 400,000 | | | | | | | | | | | | | | | | | | | | | |
| 46 | Construction Admin Services | 248,000 | | | | | | | | | | | | | | | | | | | | | |
| 47 | Construction of Unit Well No. 7 | 4,137,000 | | | | | | | | | | | | | | | | | | | | | |
| 48 | Fe and Mn Filter | 500,000 | 500,000 | | | | | | | | | | | | | | | | | | | | |
| 49 | Pipelines | 500,000 | 500,000 | | | | | | | | | | | | | | | | | | | | |
| 50 | Project Total | - | - | 400,000 | 372,000 | 4,385,000 | - | 500,000 | 500,000 | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 51 | E. Side Phase 4 - East Isthmus Unit Well | | | | | | | | | | | | | | | | | | | | | | |
| 52 | Utility Well #3 was abandoned in early 2008 due to elevated levels of Carbon Tetrachloride. This project is intended to replace that lost supply capacity. The <u>East Isthmus Unit Well</u> will also restore lost supply redundancy and reliability to the east Isthmus area. | | | | | | | | | | | | | | | | | | | | | | |
| 53 | Drill test well and analysis | 150,000 | | | | | | | | | | | | | | | | | | | | | |
| 54 | Property Purchase | 250,000 | | | | | | | | | | | | | | | | | | | | | |
| 55 | Drill new E. Isthmus Well | 677,000 | | | | | | | | | | | | | | | | | | | | | |
| 56 | Consultant Design contract | 303,000 | | | | | | | | | | | | | | | | | | | | | |
| 57 | Construction of Res & PS | 3,362,000 | | | | | | | | | | | | | | | | | | | | | |
| 58 | Pipeline Improvements | 1,000,000 | 1,150,000 | | | | | | | | | | | | | | | | | | | | |
| 59 | Construction Administration | 202,000 | | | | | | | | | | | | | | | | | | | | | |
| 60 | Project Total | - | 150,000 | 250,000 | - | - | 677,000 | 303,000 | 3,564,000 | 1,000,000 | 1,150,000 | - | - | - | - | - | - | - | - | - | - | | |
| 61 | Advanced Meter Infrastructure System | | | | | | | | | | | | | | | | | | | | | | |
| 62 | <u>Advanced Meter Infrastructure System</u> will install an automated meter reading system to the Utility's 65,000 accounts. This will allow customers to closely monitor and control water use and thereby conserve water reduce 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 AMI system. | | | | | | | | | | | | | | | | | | | | | | |
| 63 | Consultant Contract | 200,000 | | | | | | | | | | | | | | | | | | | | | |
| 64 | Other Misc Direct Expenses | 30,000 | 35,000 | 40,000 | | | | | | | | | | | | | | | | | | | |
| 65 | Procurement and Installation | 5,794,000 | 6,084,000 | | | | | | | | | | | | | | | | | | | | |
| 66 | Project Total | 230,000 | 5,829,000 | 6,124,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 67 | Lakeview Reservoir Reconstruction | | | | | | | | | | | | | | | | | | | | | | |
| 68 | This project is scheduled to start construction in 2013 and be finished and in service by the end of the year. | | | | | | | | | | | | | | | | | | | | | | |
| 69 | <u>Reconstructing the Lakeview Reservoir</u> will replace an aging storage tank and provide needed additional gravity fed water storage in Zone 6 on the north side of the City. This project is justified in the Water Master Plan and would improve fire fighting capacity within the system. | | | | | | | | | | | | | | | | | | | | | | |
| 70 | Public Participation Plan | 50,000 | | | | | | | | | | | | | | | | | | | | | |
| 71 | Consultant Design contract | 175,000 | | | | | | | | | | | | | | | | | | | | | |
| 72 | Construction Services | 117,000 | | | | | | | | | | | | | | | | | | | | | |
| 73 | Construct Two Zone Lakeview Reservoir | 1,947,000 | | | | | | | | | | | | | | | | | | | | | |
| 74 | Water Main Improvements | 900,000 | | | | | | | | | | | | | | | | | | | | | |
| 75 | Upgrade Booster Pumps @ Res. 113 | 250,000 | | | | | | | | | | | | | | | | | | | | | |
| 76 | Water Main Improvements @ Res 113 | 350,000 | | | | | | | | | | | | | | | | | | | | | |
| 77 | Project Total | - | 50,000 | 175,000 | 2,664,000 | 900,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 78 | Booster Pump Station #106 Reconstruction | | | | | | | | | | | | | | | | | | | | | | |
| 79 | This project is scheduled to start construction in 2013 and be finished and in service by the end of the year. | | | | | | | | | | | | | | | | | | | | | | |
| 80 | The <u>Rebuilt Booster Pump Station #106</u> project is necessary to bring the pump station up to current safety standards and codes and to improve reliability of operation to the station. This facility allow the Utility to transfer water from Zone 6 to Zone 7. | | | | | | | | | | | | | | | | | | | | | | |
| 81 | Public Participation Plan | 50,000 | | | | | | | | | | | | | | | | | | | | | |
| 82 | Consultant Design contract | 120,000 | | | | | | | | | | | | | | | | | | | | | |
| 83 | Construction of Pump Station | 1,200,000 | | | | | | | | | | | | | | | | | | | | | |
| 84 | Construction Contract Administration | 72,000 | | | | | | | | | | | | | | | | | | | | | |
| 85 | Pipeline Improvements | 500,000 | 1,000,000 | | | | | | | | | | | | | | | | | | | | |
| 86 | Project Total | - | 50,000 | 120,000 | 1,772,000 | - | 1,000,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 87 | Paterson Street Building Remodel and Upgrade | | | | | | | | | | | | | | | | | | | | | | |
| 88 | This project is scheduled to start construction in 2014 and be finished and in service in early 2015. The <u>Paterson Street Building Remodel and Upgrade</u> will rebuild the Utility's Operations Center. The existing facility is outdated and cramped and in need of replacement. A new space will make vehicle maintenance operations more efficient and safe for Utility employees. | | | | | | | | | | | | | | | | | | | | | | |
| 89 | Public Participation Plan | 35,000 | | | | | | | | | | | | | | | | | | | | | |
| 90 | Architectural Services/Review | 399,000 | | | | | | | | | | | | | | | | | | | | | |
| 91 | Materials Storage Building | 1,139,000 | | | | | | | | | | | | | | | | | | | | | |
| 92 | Furnishings and Equipment | 300,000 | | | | | | | | | | | | | | | | | | | | | |

