

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Highland Canal - Upgrades
Category: Raw Water Supply Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2007 through 2011

Project(s) Description

TMWA, with the assistance of Shaw Engineering, has completed a comprehensive hydraulic analysis of the Highland Canal/Mogul Bypass System. The Highland Canal is the primary source of raw water to the 90 MGD Chalk Bluff Treatment Facility. Presently the Highland Canal has a maximum capacity of 55MGD with the Orr Ditch Pump Station providing the balance of raw water to meet peak demands requiring treatment at the Chalk Bluff Treatment Plant. TMWA will continue to maximize the capacity and improve the reliability/flow characteristics of the Highland Canal Raw Water Delivery system over the next ten years. For fiscal year 2006-07 TMWA plans to rebuild the Highland headgates on the Washoe canal and mortar-line the siphon from the Washoe/Highland River Diversion. In later years, TMWA will complete the concrete lining of the canal, reconstruct spillways, armoring the ditch section between the Union Pacific railroad tracks and rebuild of siphons that cross the Chalk Bluff Canyon. Prioritization of annual projects will vary depending on access, immediate need, and obtaining necessary permits. Completion of identified canal upgrades will result in a raw water delivery system capable of delivering up to 100 percent of Chalk Bluff's current treatment capacity by gravity flow, which will result in significant O&M cost savings; increase reliability of the raw water supply; and reduce raw water leakage and losses.

Cost/Funding Sources

Funding Source: Customer water rates/Developer facility charges for expanded capacity

Cost:

Project Cost: \$8,472,000

Funding Timetable:

Funding FY 06/07 Project Cost \$1,289,000

Funding FY 07/08 Project Cost \$2,162,000

Funding FY 08/09 Project Cost \$1,540,000

Funding FY 09/10 Project Cost \$1,299,000

Funding FY 10/11 Project Cost \$2,182,000.

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Mogul Bypass Siphon
Category: Raw Water Supply Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2011

Project Description

The construction of the Mogul Bypass Siphon was placed in the plan as a necessary project with timing of construction dependent on whether TWMA can secure federal funding assistance. The purpose of the new siphon is to eliminate the canal and flume section around the periphery of the Mogul Meadows Residential Area and to conserve water by reducing exfiltration losses. The project includes two transition hydraulic structures from open canal to submerged pipe. Timing of the project will depend upon the future condition and structural integrity of the existing flume and canal structures. Advancing the construction timetable may occur if federal funding becomes available for a portion of the project. The bypass will be sized to meet the hydraulic capacity of the Highland Canal.

Cost-Funding Sources

Funding Source: Customer water rates/Developer facility charges for expanded capacity/
Possible federal funding assistance

Cost:	Funding Timetable:												
Project Cost: \$6,016,000	<table border="0"> <tr> <td>Funding FY 06/07</td> <td>Project Cost</td> <td>\$0</td> </tr> <tr> <td>Funding FY 06/07</td> <td>Project Cost</td> <td>\$0</td> </tr> <tr> <td>Funding FY 07/08</td> <td>Project Cost</td> <td>\$0</td> </tr> <tr> <td>Funding FY 08/09</td> <td>Project Cost</td> <td>\$6,016,000</td> </tr> </table>	Funding FY 06/07	Project Cost	\$0	Funding FY 06/07	Project Cost	\$0	Funding FY 07/08	Project Cost	\$0	Funding FY 08/09	Project Cost	\$6,016,000
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Funding FY 07/08	Project Cost	\$0											
Funding FY 08/09	Project Cost	\$6,016,000											

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Highland/Washoe Ditch Headgates
Category: Raw Water Supply Improvement
Ranking: Priority 1-Mandatory
Fiscal Year: 2007

Project Description

The Highland Washoe Head gates divert the Truckee River into the Highland Canal and Washoe Ditch and Flume complex. The Highland Canal is the primary raw water feed for the Chalk Bluff Treatment Plant while the Washoe Ditch/Flume provides water for hydroelectric generation at the Washoe Hydroelectric Plant. These head gates will be reconstructed to safely improve diversions from the river.

Cost/Funding Source

Funding Source: Customer water rates/ Developer facility charges for expanded capacity/Possible federal funding

Cost:

Project Cost: \$650,000

Funding Timetable:

Funding FY 06/07 Project Cost \$650,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Highland/Washoe Ditch Diversion
Category: Raw Water Supply Improvement
Ranking: Priority 1-Mandatory
Fiscal Year: 2007

Project Description

TMWA, with the assistance of Shaw Engineering, has completed a comprehensive hydraulic analysis of the Highland Canal/Mogul Bypass System. The Highland Canal is the primary source of raw water to the 90 MGD Chalk Bluff Treatment Facility. Presently the Highland Canal has a maximum capacity of 55MGD with the Orr Ditch Pump Station providing the balance of raw water to meet peak demands requiring treatment at the Chalk Bluff Treatment Plant. TMWA will continue to maximize the capacity and improve the reliability/flow characteristics of the Highland Canal Raw Water Delivery system over the next ten years.

Cost/Funding Source

Funding Source: Customer water rates/ Developer facility charges for expanded capacity/Possible federal funding

Cost:

Project Cost: \$150,000

Funding Timetable:

Funding FY 06/07 Project Cost \$150,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Well Development Program
Category: Ground Water Development
Ranking: Priority 1-Mandatory
Fiscal Year: 2007; 2008; 2014; 2015

Project Description

To meet the demands of growth, TMWA will have to develop the rest of its groundwater resources over the course of the next ten years. As discussed on page 87 of TMWA's Water Resource Plan, 65.9 MGD of groundwater resources will be required by fiscal year 2014 to meet projected retail water demand. Over the course of the next five years, TMWA can increase groundwater capacity through equipping several recently drilled and constructed wells located at Reed High School, Hawkings Court and Woodland Drive. In future years TMWA will equip two additional wells in South Reno.

Cost/Funding Source

Funding Source: Developer Facility Charges-Treatment/Supply

Cost:	Funding Timetable:
Project Cost: \$3,200,000	Funding FY 06/07 Project Cost \$900,000
	Funding FY 07/08 Project Cost \$500,000
	Funding FY 07/08 Project Cost \$0
	Funding FY 08/09 Project Cost \$0
	Funding FY 09/10 Project Cost \$0
	Funding FY 10/11 Project Cost \$0
	Funding FY 11/12 Project Cost \$0
	Funding FY 12/13 Project Cost \$0
	Funding FY 13/14 Project Cost \$900,000
	Funding FY 14/15 Project Cost \$900,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Well Development/Treatment East Sparks
Category: Ground Water Development
Ranking: Priority 1 Mandatory; Priority 2 Necessary
Fiscal Year: 2007; 2010 through 2013

Project Description

To meet the demands of growth, TMWA will have to develop the rest of its groundwater resources over the course of the next ten years. As discussed on page 87 of TMWA's Water Resource Plan, 65.9 MGD of groundwater resources will be required by fiscal year 2014-2015 to meet projected retail demand for water. Development of good quality groundwater sources in sufficient quantities has become increasingly difficult. In order to provide an adequate supply during drought years and to provide additional peaking supplies in normal years, it will be necessary to develop poor quality groundwater and provide treatment. In December 2003 TMWA had an engineering firm prepare a Sparks Water Resource Plan to optimize the final development of water resources in East Sparks. The development of remaining groundwater water resources requires the construction of a facility to treat high production wells in East Sparks which contain certain levels of arsenic, iron and manganese that will require treatment. In 2005, TMWA performed due diligence and acquired property for the treatment plant site. In the 2006; TMWA developed two supply wells and completed field testing to identify the preferred treatment process to reduce arsenic, iron and manganese concentrations to acceptable levels in the future. For FY 2007, TMWA will complete a preliminary site plan design, secure the property with fencing and provide perimeter landscaping for visual screening.

Cost/Funding Source

Funding Source: Developer Facility Charges-Treatment/Supply

Cost:

Project Cost: \$35,500,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$250,000
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$1,800,000
Funding FY 10/11	Project Cost	\$12,000,000
Funding FY 11/12	Project Cost	\$12,000,000
Funding FY 12/13	Project Cost	\$9,500,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Well Rehabilitation & Improvements
Category: Supply Improvements-Well Development
Ranking: Priority 1-Mandatory
Fiscal Year: 2007 through 2016

Project Description

Funding is available to rehabilitate TMWA production wells as required. Activities included but not limited to, pump and column pipe replacements, electrical upgrades, telemetry upgrades, rehabilitation of well casing, wellhead protection and other enhancements to maintain well capacities. TMWA has over thirty water production wells operating throughout the system. TMWA relies on these wells to meet peak demands on the water system.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$7,299,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$1,733,000
Funding FY 07/08	Project Cost	\$1,733,000
Funding FY 08/09	Project Cost	\$1,733,000
Funding FY 09/10	Project Cost	\$300,000
Funding FY 10/11	Project Cost	\$300,000
Funding FY 11/12	Project Cost	\$300,000
Funding FY 12/13	Project Cost	\$300,000
Funding FY 13/14	Project Cost	\$300,000
Funding FY 14/15	Project Cost	\$300,000
Funding FY 15/16	Project Cost	\$300,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Treatment Plants Fix and Finish
Category: Treatment-Improvements
Ranking: Priority 2 - Necessary
Fiscal Year: 2007 through 2016

Project Description

TMWA operates surface water treatment plants at Chalk Bluff and Glendale. These facilities are in very good condition. The Chalk Bluff Treatment Plant is over ten years old and the Glendale treatment plant is over 30 years old with an upgrade that is ten years old as a result of the improvements made for compliance with the Safe Drinking Water Act. Each plant requires a certain amount of rehabilitation and improvements now and in the future. Starting in fiscal year 2007 TMWA continue to invest in the implementation of maintenance software to better manage maintenance records and work flow. Other projects include filter improvements at Glendale, Glendale operating software upgrades, Orr Ditch Pump Station overhaul, A VFD for Hunter Creek Reservoir and valve actuators for Chalk Bluff and Glendale.

In the future the Chalk Bluff plant will require finished water storage facilities, chlorine contact chamber curtain replacements, finished water pump replacements, filter media change out, improvement to solids handling, filter valve and actuator replacements, instrumentation upgrades and roof rehabilitation replacement. The Glendale Treatment Plant will require the addition of standby generation, replacement of turbidity meters, instrumentation upgrades, filter valve and actuator replacements, programming improvements for filter operation, replacement of raw water and finished water pumps, filter media change out and building improvements. The annual provision for these improvements will maintain plant conditions. Both the Chalk Bluff and the Glendale sites are undergoing pavement management planning. The raw water basins and water recovery basins at Chalk Bluff will all have paving repairs made in the fiscal year 2006-07.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Funding Timetable:

Project Cost: \$11,300,000

Funding FY 06/07	Project Cost	\$800,000
Funding FY 07/08	Project Cost	\$1,000,000
Funding FY 08/09	Project Cost	\$1,000,000
Funding FY 09/10	Project Cost	\$1,000,000
Funding FY 10/11	Project Cost	\$1,250,000
Funding FY 11/12	Project Cost	\$1,250,000
Funding FY 12/13	Project Cost	\$1,250,000
Funding FY 13/14	Project Cost	\$1,250,000
Funding FY 14/15	Project Cost	\$1,250,000
Funding FY 15/16	Project Cost	\$1,250,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Glendale Raw Water/Finished Water Pump Rebuild
Category: Treatment-Improvements
Ranking: Priority 2-Necessary
Fiscal Year: 2007 through 2009

Project Description

The Glendale Plant's raw water/finished water pumps that deliver water to the distribution system will be in need of replacement/upgrade over the next four years. TMWA has awarded a contract for final design of these facilities to Carollo Engineers. Treatment plant capacity is not fully utilized because of finished water pumping constraints as well as other raw water capacity constraints. Currently the Glendale Plant can deliver a maximum of 31 MGD if discharge pressures are low in the distribution system, otherwise the plant can discharge a maximum of up to 29 MGD. Ultimate raw water capacity is expected to be 37.5 MGD while finished water pumping capacity will be 45 MGD. The difference is the arsenic water delivered to the treatment plant from various production wells (refer to arsenic mitigation project). This will allow TMWA to utilize Glendale Treatment Plant capacity in an efficient manner. In fiscal year 2007 TMWA will begin work on the raw water improvements completing the finished water improvements in FY 2008 & 2009

Cost/Funding Source

Funding Source: Customer water rates – 76%
 Developer Facility Charges-Treatment/Supply – 24%

Cost:

Project Cost: \$12,780,000

Funding Timetable:

Funding FY 06/07 Project Cost \$3,460,000

Funding FY 07/08 Project Cost \$5,030,000

Funding FY 08/09 Project Cost \$4,290,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Glendale Diversion Improvements
Category: Treatment-Improvements
Ranking: Priority-2 Necessary
Fiscal Year: 2007 through 2009

Project Description

The present Glendale Diversion works allows significant bypass flows when diverting river water into the Glendale Treatment Plant. The present facility, a rubble weir structure is in disrepair and requires rebuilding. The current structure has been damaged extensively during previous floods, is not water tight and does not provide the means to efficiently capture TMWA's privately owned stored water (POSW) during drought releases from TMWA reservoirs. The new structure will allow for maximum capture of POSW, permit passage of indigenous and endangered species of fish and invertebrates, allow for boat passage, and minimize sedimentation behind the diversion works.

Cost/Funding Source

Funding Source: Customer Water Rates- 76%
Developer Facility Charges-Treatment/Supply – 24%
Possible federal funding

Cost:

Project Cost: \$7,000,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$500,000
Funding FY 07/08	Project Cost	\$3,250,000
Funding FY 08/09	Project Cost	\$3,250,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Chalk Bluff Projects
Category: Treatment-Improvements
Ranking: Priority-2 Necessary
Fiscal Year: 2007 through 2008

Project Description

In addition to the more generic ‘fix and finish’ projects that are on-going at both plants, specific improvements that are needed in the next two fiscal years include work on the raw water basins, paving the water recovery basins, rebuilding the dredges, installing some new valves and actuators, building and roof repairs, and turbidity meter replacements.

Cost/Funding Source

Funding Source: Customer Water Rates- 76%
Developer Facility Charges-Treatment/Supply – 24%
Possible federal funding

Cost:

Project Cost: \$1,215,000

Funding Timetable:

Funding FY 06/07 Project Cost \$615,000

Funding FY 07/08 Project Cost \$600,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Glendale Projects
Category: Treatment-Improvements
Ranking: Priority-2 Necessary
Fiscal Year: 2007 through 2008

Project Description

In addition to the on-going “fix and finish” work that is needed annually at both treatment plants, specific improvements that are needed in the upcoming fiscal year include replacing the backwash pump, some valves and actuators, replacing turbidity meters, road and paving repairs, some building rehabilitation and some flood prevention measures.

Cost/Funding Source

Funding Source: Customer Water Rates- 76%
Developer Facility Charges-Treatment/Supply – 24%
Possible federal funding

Cost:

Project Cost: \$900,000

Funding Timetable:

Funding FY 06/07 Project Cost \$900,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Pressure Regulator Rehabilitation
Category: Distribution Improvements-Pressure
Ranking: Priority-2 Necessary
Fiscal Year: 2007 through 2016

Project Description

Provision is made in the annual budget for complete reconstruction of three pressure regulators in the distribution system. TMWA has evaluated nearly 100 pressure regulator stations currently in service and has identified a number of pressure regulator stations requiring a certain amount of rehabilitation over the next several years. TMWA is projecting the refurbishment of at least two to three pressure regulator stations a year if required. Some of the rehabilitation projects will also require piping improvements which can improve pressures in certain pressure zones.

Cost/Funding Source

Funding Source: Customer water rates

Cost:	Funding Timetable:
Project Cost: \$1,500,000	Funding FY 06/07 Project Cost \$150,000
	Funding FY 07/08 Project Cost \$150,000
	Funding FY 08/09 Project Cost \$150,000
	Funding FY 09/10 Project Cost \$150,000
	Funding FY 10/11 Project Cost \$150,000
	Funding FY 11/12 Project Cost \$150,000
	Funding FY 12/13 Project Cost \$150,000
	Funding FY 13/14 Project Cost \$150,000
	Funding FY 14/15 Project Cost \$150,000
	Funding FY 15/16 Project Cost \$150,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Pressure Improvements/Interties
Category: Distribution Improvements-Pressure
Ranking: Priority-2 Necessary
Fiscal Year: 2007 through 2016

Project Description

An amount is budgeted annually for pressure improvements and interties to mitigate any potential system pressure and/or fire flow deficiencies. Some interties are required for new development which is paid by a specific project. If pressure problems exist in the current distribution system then a limited amount of system rehab takes place. Amounts are spent on an as needed basis. During fiscal year 2007, projects in the Lakeridge, Skyline and Hunter Lake systems are scheduled.

Cost/Funding Sources

Funding Source: Developer Charges – 50%
Customer water rates – 50%

Cost:	Funding Timetable:
Project Cost: \$1,500,000	Funding FY 06/07 Project Cost \$150,000
	Funding FY 07/08 Project Cost \$150,000
	Funding FY 08/09 Project Cost \$150,000
	Funding FY 09/10 Project Cost \$150,000
	Funding FY 10/11 Project Cost \$150,000
	Funding FY 11/12 Project Cost \$150,000
	Funding FY 12/13 Project Cost \$150,000
	Funding FY 13/14 Project Cost \$150,000
	Funding FY 14/15 Project Cost \$150,000
	Funding FY 15/16 Project Cost \$150,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Existing Pump Station (PS) Rebuilds
Category: Distribution Improvements-Pressure
Ranking: Priority-1 Mandatory
Fiscal Year: 2007 through 2016

Project Description

TMWA has over 100 pump stations in service. An amount is budgeted annually for rehabilitation of TMWA's older pump stations. For fiscal year 2007, TMWA will complete the replacement of equipment, piping and valves in the Vista #2, Vista #3 and Tappen Pump Stations. These efforts will improve water delivery capacity and pressures in these areas. Other pump stations identified for reconstruction over the next ten years include the Holcomb PS, Valley Road #1, Daniel Webster, Driscoll PS, Folsom PS, Sagittarius PS, Hunter Lake and Yuma. Improvements will be required in other older pump stations.

Cost/Funding Sources

Funding Source: Customer water rates

Cost:	Funding Timetable:
Project Cost: \$6,850,000	Funding FY 06/07 Project Cost \$750,000
	Funding FY 07/08 Project Cost \$750,000
	Funding FY 08/09 Project Cost \$750,000
	Funding FY 09/10 Project Cost \$300,000
	Funding FY 10/11 Project Cost \$750,000
	Funding FY 11/12 Project Cost \$750,000
	Funding FY 12/13 Project Cost \$1,150,000
	Funding FY 13/14 Project Cost \$650,000
	Funding FY 14/15 Project Cost \$500,000
	Funding FY 15/16 Project Cost \$500,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Standby Generator Replacement
Category: Distribution Improvements-Pressure
Ranking: Priority-2; Necessary
Fiscal Year: 2008; 2010; 2012-2014

Project Description

A number of TMWA pumps stations have backup generation in case of power failures. TMWA incorporates a contingency for replacement of a generator in case of failure or if the Washoe County Health Department requires additional backup generation at a particular site. No spending will occur unless necessary. This spending does not include backup generation for new pump stations required by and paid for by growth. In fiscal year 2013 the Sutro Standby Power improvement will be required as defined in TMWA's 20-Year Facility Plan. Socrates Pump Station #2 standby power improvements are to be constructed in fiscal year 2014.

Cost/Funding Sources

Funding Source: Customer water rates

Cost:

Project Cost: \$875,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$75,000
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$75,000
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$75,000
Funding FY 12/13	Project Cost	\$500,000
Funding FY 13/14	Project Cost	\$150,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Stead #1 Pump Station Rebuild
Category: Distribution Improvements-Pressure
Ranking: Priority 2-Necessary
Fiscal Year: 2007 and 2008

Project Description

The Stead #1 Pump Station located at the Highland reservoir is the first in a series of three pump stations that provide water to the Stead-Silver Lake service area. The Stead #1 Pump station was first constructed in the early 1950's to serve the Stead Airbase and is in a debilitated condition requiring a significant amount of annual maintenance. The North Virginia pumping system is a separate parallel pumping system consisting of a series of five pump stations that serve the North Virginia corridor between Highland reservoir and Raleigh Heights. Since the adjacent North Virginia system is almost out of capacity, it is proposed that the Stead pump system be replaced with a combined North Valleys pump system which will also serve the North Virginia system. Spending in fiscal years 2006-2007 will fund design work and start construction. Construction will be completed in the following year. Development in the North Virginia, Golden Valley and Raleigh Heights areas is accelerating this project.

Cost/Funding Source

Funding Source: Customer water rates fund 54% / Developer Facility Charges fund 46%

Cost:

Project Cost: \$5,900,000

Funding Timetable:

Funding FY 06/07 Project Cost \$2,950,000

Funding FY 07/08 Project Cost \$2,950,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Sun Valley General Improvements
Category: Distribution Improvements-Pressure
Ranking: Priority 2-Necessary
Fiscal Year: 2007

Project Description

Improvements are slated for the Dandini Blvd. Mains and Regulator stations to provide additional reliable water supply to TMWA service territory adjacent to the Sun Valley General Improvement District, (SVGID) and for additional demands required by growth. These improvements have been outlined in TMWA's 20-Year Facility Plan and these improvements will occur concurrently with replacement of the Community College Tank.

Cost/Funding Source

Funding Source: Customer Water Rates 60%
Developer Funded 40%

Cost:

Project Cost: \$943,000

Funding Timetable:

Funding FY 06/07 Project Cost \$943,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Orr Ditch Pump Station/Diversion
Category: Distribution Improvements-Pressure
Ranking: Priority 1- Mandatory
Fiscal Year: 2007

Project Description

Improvements are needed overhaul the pump station itself, and the diversion, which gathered a great deal of debris and needs clean up and repair as a result of the flood in December, 2005.

Cost/Funding Source

Funding Source: Customer Water Rates 100%

Cost:

Project Cost: \$300,000

Funding Timetable:

Funding FY 06/07 Project Cost \$303,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: New Capacity Pump Stations
Category: Distribution Improvements-Pressure
Ranking: Priority 2-Necessary
Fiscal Year: 2007; 2009; 2010; 2014

Project Description

Provisions are made in the ten year budget and plan for new pump stations to serve growth. A developer may be required to pay for the construction of a new pump station to serve a particular subdivision, or the cost of the pump station may be allocated to multiple developments. Expenditures on these pump stations are immediately refunded by developers or incorporated in facility charges in certain service areas. New pump station capacity to be constructed include the Vista #4 and Ridgeview #3 Pump Stations in fiscal year 2007, The Ridges at Hunter Creek, Vista #5, Truckee River Highlands #1 and #2 Pump Stations, Verdi #1 Pump Station and Sky Ridge In-Line Pump Station in fiscal year 2009, US 40 PS expansion, Verdi #2, Sommersett #3 and #4 Pump Stations, Ventana Pt #1 PS in fiscal year 2010; Ventana Pt. #2 and Longley Lane capacity increase in 2014. Pace of development will dictate when these pump stations are built.

Cost/Funding Source

Funding Source: Developer Funded 100%- Rule 5

Cost:

Project Cost: \$7,000,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$600,000
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$2,450,000
Funding FY 09/10	Project Cost	\$2,800,000
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$1,150,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: East Sparks, Vista, Copper Canon Pump Stations
Category: Distribution Improvements-Pressure Improvements
Ranking: Priority-2-Necessary
Fiscal Year: 2014; 2015

Project Description

In fiscal years 2014 and 2015 a number of pump stations will be required in the Vista Area and Copper Canyon Development. Timing of construction is dependent upon when these projects begin, which may be sooner than expected in the 20 Year Facility Plan. These pump stations will be built to serve growth.

Cost/Funding Source

Funding Source: Developer Funded 100%-Rule 5

Cost:

Project Cost: \$4,550,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$2,300,000
Funding FY 14/15	Project Cost	\$2,250,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Beaumont Pump Stations
Category: Distribution Improvements-Pressure Improvements
Ranking: Priority 2 -Necessary
Fiscal Year: 2014; 2015

Project Description

A number of pump stations will be required in the Beaumont and Somerset Development areas. A total of three pump stations are expected to be required. The timing of construction may be sooner if build out rates accelerate.

Cost/Funding Source

Funding Source: Developer Funded 100% -Rule 5

Cost:

Project Cost: \$2,250,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$1,500,000
Funding FY 14/15	Project Cost	\$750,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Pyramid Pump Station #2 Rebuild
Category: Distribution Improvements-Pressure Improvements
Ranking: Priority 1-Mandatory
Fiscal Year: 2007

Project Description:

Reconstruction of the Pyramid Pump Station # 2 is required to increase pumping capacity to accommodate new growth in Spanish Springs and certain areas within TMWA's service territory, as well as wholesale service to Washoe County. The pump station will also be constructed so that the Point View Pump station can be abandoned. If it were not abandoned, Point View would require replacement.

Cost/Funding Source

Funding Source: Developer Funded through Facility Charges (including Washoe County)
63%/ Customer Water Rates 37%

Cost:

Project Cost: \$1,750,000

Funding Timetable:

Funding FY 06/07 Project Cost \$1,750,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Disc Drive Low Head Pump Station
Category: Distribution Improvements-Pressure Improvements
Ranking: Priority 2 - Necessary
Fiscal Year: 2007

Project Description:

By about 2015 TMWA anticipates that continued growth in Spanish Springs will result in less than adequate peak hour pressures in the Northeast Sparks area. The proposed Disc Drive pump station will boost peak hour pressures in the distribution system to maintain adequate service levels and will maintain suction pressure for the Spanish Springs #2 and Vista #1 pump stations so that pumping capacity at these stations is not negatively impacted. Analyses have indicated that it is much more cost effective to implement the Disc Drive pump station than it is to increase the size of the Sparks feeder mains.

Cost/Funding Source

Funding Source: Developer Funded through Facility Charges 100%

Cost:

Project Cost: \$900,000

Funding Timetable:

Funding FY 14/15 Project Cost \$1,750,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Idlewild Pump Station Improvements
Category: Distribution Improvements-Pressure Improvements
Ranking: Priority 2 - Necessary
Fiscal Year: 2007

Project Description:

The Idlewild pump station originally delivered finished water from the Idelwild Water Treatment Plant into the distribution system. When the Idlewild Plant was retired, the pumping facilities were kept in service to provide the very important capability of being able to transfer water back and forth between the Hunter Creek and Highland gravity zones. The most recent use of this facility was when the Hunter Creek reservoir had to be taken out of service for emergency repairs in 2003-04. The existing building is in disrepair and needs refurbishment. In addition, a condominium project is currently being constructed around the pump station building and the existing exposed 4160 volt electrical service is an attractive nuisance that needs to be replaced with modern pad mounted equipment. This electrical upgrade needs to be extended to the existing pump motor starters inside the building. The existing Highland zone equipment is no longer needed and should be removed; and the existing Hunter Creek pumps need their impellers trimmed.

NEED PROJECT DESCRIPTION

Cost/Funding Source

Funding Source: Customer Rates - 100%

Cost:

Project Cost: \$100,000

Funding Timetable:

Funding FY 06/07 Project Cost \$100,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Stead-Silver Lake Main Improvements
Category: Distribution Improvements-Mains
Ranking: Priority 2 -Necessary
Fiscal Year: 2008; 2009

Project Description

These improvements will be required to provide recharge capacity to provide peak demand supply. The improvements consist of 10,000 feet of 12-inch main on North Hills Blvd and Sky Vista Parkway in 2007-08; various minor improvements and rezoning in 2007; about 850 feet of main in various locations in 2010; and about 2,700 feet of 14-inch pipe in 2015 as identified in the Stead Area Water Facility Plan Addendum.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees Area 10

Cost:

Project Cost: \$3,047,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$440,000
Funding FY 07/08	Project Cost	\$1,743,000
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$184,000
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$0
Funding FY 14/15	Project Cost	\$680,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Verdi Feeder Main Improvements
Category: Distribution Improvements -Mains
Ranking: Priority-2 Necessary
Fiscal Year: 2008; 2009;2014

Project Description

These projects will be necessary to provide water service to development that will occur in the Verdi area covered by the settlement agreement (Mortenson et al). Timing of construction will be dependent upon pace of growth in Verdi. The facility requirements and the cost of facilities is subject to change depending on how much local groundwater peaking capacity can be developed in Verdi and the magnitude of the wholesale demand to be requested by Washoe County to serve areas outside of the settlement agreement area. Spending in FY 2006-07 involves oversizing of an applicant installed main for Somersett and installation of 3200 feet of 18” main in a frontage road in the vicinity of Mogul associated with new development. Work in FY 07-08 involves installation of about 35,000 feet of 14” and 18” pipe from Mae Anne to Boomtown including a feeder main to a proposed Verdi lower zone tank site and installation of a new 24” river crossing at Mayberry. Work in FY 08-09 includes a feeder main to a second Boomtown storage tank including a jack and bore under I-80. Since water must be delivered all the way to storage in the Verdi area there is very little opportunity to construct the facilities in phases, unless requests for water service are several years into the future.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees to be calculated

Cost:	Funding Timetable:
Project Cost: \$14,270,000	Funding FY 06/07 Project Cost \$800,000
	Funding FY 07/08 Project Cost \$12,122,000
	Funding FY 08/09 Project Cost \$1,348,000
	Funding FY 09/10 Project Cost \$0
	Funding FY 10/11 Project Cost \$0
	Funding FY 11/12 Project Cost \$0

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Sparks Feeder Mains Phase IV -Glendale WTP to Prater Way
Category: Distribution Improvements-Mains
Ranking: Priority 2-Necessary
Fiscal Year: 2008

Project Description

The fourth phase of main construction planned to serve new retail water demand. Timing of this project is dependent upon the pace of development in Sparks. The project anticipates installation of 5,900 ft of 36" main. This project will create new capacity for growth.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees-Areas 2,2A, and 4

Cost:

Project Cost: \$3,891,000

Funding Timetable:

Funding FY 06/07 Project Cost \$0

Funding FY 07/08 Project Cost \$3,891,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Valley Road Main Replacement
Category: Distribution Improvements-Mains
Ranking: Priority 2 Necessary
Fiscal Year: 2009

Project Description

This project will replace a 50 year old water main and increase main capacity. Project will require boring under the railroad right-of-way. This project's scope includes the installation of 3,300 feet of 14 inch main. Construction of this project may be accelerated by growth and/or the timing of road reconstruction projects.

Cost/Funding Source

Funding Source: Customer Water rates 50%, Developer Fees 50%

Cost:

Project Cost: \$843,000

Funding Timetable:

Funding FY 06/07 Project Cost \$0

Funding FY 07/08 Project Cost \$0

Funding FY 08/09 Project Cost \$843,000

(The need for the majority of this main may go away if we can implement the preferred alternative (supply Socrates and Valley Road systems from the existing Sierra pump station) in a timely manner (need new N. Virginia-Stead pumping system in operation) – if the new plan is implemented, the length of main that must be replaced is reduced to 550 feet at a cost of about \$150,000)

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: SE Sparks Feeder Main Phase 1
Category: Distribution Improvements-Mains
Ranking: Priority 2 Necessary
Fiscal Year: 2009

Project Description

This project will provide additional capacity to support growth in East Sparks. This project will require installation of 7,900 feet of 24 inch main on Greg St. from 21st St. to Stanford. This project represents a significant upgrade of the original SE Sparks Phase 1 project due to increased anticipated demand from the Butler Ranch and Copper Canyon developments.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees 100%

Cost:

Project Cost: \$3,263,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$3,263,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Hoge Rd Feeder Main, Parr Main and Talus Main
Category: Distribution Improvements-Mains
Ranking: Priority 2-Necessary
Fiscal Year: 2008; 2015; 2020

Project Description

This work will involve the installation of 2,300 feet of 12 inch main in the Hoge area, 2,000 feet of 12 inch main in the Parr Blvd area, and 1,300 feet of 12 inch main in the Talus Road area. These mains are required to integrate existing distribution facilities with the new North Valleys pumping system and will provide necessary capacity for residential/commercial growth in North Reno while eliminating the need for new or upgraded pumping facilities. Timing of Construction will be dependent upon the rate of growth in this area.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees Area 8

Cost:

Project Cost: \$2,132,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$1,750,000
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$0
Funding FY 14/15	Project Cost	\$382,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: NE Sparks Feeder Mains-Phase V
Category: Distribution Improvements-Mains
Ranking: Priority 2 Necessary
Fiscal Year: 2010

Project Description

The fifth phase of main construction planned to serve new retail water demand in Northeast Sparks. Project timing is dependent upon growth rate in Sparks. The project anticipates installation of 1000 feet of 30 inch main and 3,300 feet of 18 inch main in the Disc Dr., Sparks Avenue, Los Altos and Vista Blvd areas.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees

Cost:

Project Cost: \$1,177,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$1,177,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: NE Sparks Feeder Mains-Phase VI
Category: Distribution Improvements-Mains
Ranking: Priority 2 Necessary
Fiscal Year: 2012

Project Description

The sixth phase of main construction planned to serve new retail water demand. Project timing is dependent upon growth rate in Sparks. The project anticipates installation of 8,200 feet of 36 inch main to serve growth in NE Sparks. Main will be installed from Prater to Pyramid across 19th, F, 15th, Rock Blvd. and Greenbrae Lane.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees

Cost:

Project Cost: \$5,058,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$5,058,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: NE Sparks Feeder Mains-Phase VII
Category: Distribution Improvements-Mains
Ranking: Priority 2 Necessary
Fiscal Year: 2012

Project Description

The sixth phase of main construction planned to serve new retail water demand. Project timing is dependent upon growth rate in Sparks. The project anticipates installation of 8,200 feet of 36 inch main to serve growth in NE Sparks. Main will be installed from Prater to Pyramid across 19th, F, 15th, Rock Blvd. and Greenbrae Lane.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees

Cost:

Project Cost: \$1,668,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$1,668,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Vista, D'Andrea, Vista Tank Main Tie and GWTP Dist Improvements
Category: Distribution Improvements-Mains
Ranking: Priority 2 Necessary
Fiscal Year: 2007; 2013; 2015

Project Description

These new mains and pressure improvements will serve growth in NE Sparks Projects include improvements in the Vista Pump Zone requiring 850 feet of 10 inch main in 2006-07 and 400 feet of 14 inch parallel main in Vista Blvd on the discharge side of the Spanish Springs #2 pump station in 2015. When the Sparks Ground water Treatment Plant is placed into service, 1,300 feet of 20 inch main will need to be installed in fiscal year 2013 to integrate the new source of supply into the Sparks Feeder Main system.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees 100%

Cost:

Project Cost: \$802,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$170,000
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$520,000
Funding FY 13/14	Project Cost	\$0
Funding FY 14/15	Project Cost	\$112,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: South Virginia Improvements
Category: Distribution Improvements-Mains
Ranking: Priority 2 Necessary
Fiscal Year: 2010

Project Description

These main improvements involve the installation of 2,400 feet of 8 inch main and 4,100 feet of 14 inch main in the Longley Pump zone and in Len Circle and South Virginia to improve fire flows and new water service for commercial and residential growth.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees and Rule 5 Fees.

Cost:

Project Cost: \$1,057,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$1,057,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: General Distribution Line Oversizing
Category: Distribution Improvement -Mains
Ranking: Priority 2 -Necessary
Fiscal Year: 2007 through 2016

Project Description

Provision is made each year in the capital improvement plan to partner with a developer installed distribution mains. By oversizing such mains, TMWA can provide for additional future distribution capacity without having to place expensive parallel mains for future development.

Cost/Funding Source

Funding Source: Developer Feeder Main Fees

Cost:

Project Cost: \$2,000,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$200,000
Funding FY 07/08	Project Cost	\$200,000
Funding FY 08/09	Project Cost	\$200,000
Funding FY 09/10	Project Cost	\$200,000
Funding FY 10/11	Project Cost	\$200,000
Funding FY 11/12	Project Cost	\$200,000
Funding FY 12/13	Project Cost	\$200,000
Funding FY 13/14	Project Cost	\$200,000
Funding FY 14/15	Project Cost	\$200,000
Funding FY 15/16	Project Cost	\$200,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Lakeridge-Skyline, Outlook, Huffaker Main Improvements
Category: Distribution Improvement -Mains
Ranking: Priority 2 -Necessary
Fiscal Year: 2007

Project Description

Certain Improvements will have to be made in areas of SW Reno to improve fire flow deficiencies and improve peak hour water pressures. Project include installation of 3,100 feet of 8 inch main and pressure regulating stations on Meuller and Eva Adams, Hunter Lake pressure zone conversion, and replacement of an existing four inch main with 8 inch main on Outlook Dr..

Cost/Funding Source

Funding Source: Customer Water Rates

Cost:

Project Cost: \$983,000

Funding Timetable:

Funding FY 06/07 Project Cost \$983,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Scheduled Main Replacements
Category: Distribution-Improvements-Mains
Ranking: Priority 1-Mandatory
Fiscal Year: 2007 through 2016

Project Description

Provision is made each year for water main replacements in conjunction with repaving efforts by the City of Reno, City of Sparks, and RTC. In addition to repaving projects, TMWA was informed that the City of Reno and possibly the City of Sparks may be stepping up sewer main replacements in future years in areas where TMWA also has old water lines. TMWA is coordinating with the cities to identify areas where sewer main replacements will occur and whether this provides opportunities for water main replacements. This planning work will provide for greater accuracy for measuring future costs for water main replacements. At this time TMWA has planned for about \$3.7 million in main replacement per year in community neighborhoods which is consistent with historical outlays over the past several years. At the time of preparing the Capital Improvement Plan, information about which streets water main replacements would take place was still being determined.

The water main replacement program can be expected to nearly double over the course of the next few years depending on sewer main replacement activity as well as repaving activity in the cities. Again TMWA is closely coordinating with the cities and RTC as to future levels of street/sewer rehabilitation activities that will take place in the future.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$37,500,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$3,750,000
Funding FY 07/08	Project Cost	\$3,750,000
Funding FY 08/09	Project Cost	\$3,750,000
Funding FY 09/10	Project Cost	\$3,750,000
Funding FY 10/11	Project Cost	\$3,750,000
Funding FY 11/12	Project Cost	\$3,750,000
Funding FY 12/13	Project Cost	\$3,750,000
Funding FY 13/14	Project Cost	\$3,750,000
Funding FY 14/15	Project Cost	\$3,750,000
Funding FY 15/16	Project Cost	\$3,750,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: North Virginia Raleigh -Stead Main Replacement Project
Category: Distribution Improvements-Mains
Ranking: Priority 2-Necessary
Fiscal Year: 2007-2009; 2013

Project Description

Work must begin on the design and construction of the N. Virginia Raleigh Heights Main Replacement that will not only provide necessary capacity for residential and commercial growth but provide needed redundancy for existing customers and reduce significant water losses in the northern section of the Stead Main.

The Stead Main was originally constructed to serve the Stead Air force Base in the 1950's. This main is constructed of concrete lined steel which in places has severely corroded or was subject to cavitation, especially where the pipe is joined together. Recent repairs have indicated that TMWA is losing significant amounts of finished water through this main. The age of the main will be approaching 60 years of life and is in need of rehabilitation.

Work in 2006 and 2007 will be focusing on design and obtaining permits to construct, with main replacement anticipated to be completed in two phases. Further analysis will be required to determine the optimum construction timetable based upon operational and financial constraints. If the capacity is expanded then part of the cost will be borne by future development.

Cost/Funding Source

Funding Source: Customer Water Rates 51% /Developer Fees 49%

Cost:

Project Cost: \$21,046,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$10,260,000
Funding FY 07/08	Project Cost	\$5,000,000
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$5,786,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Service Line Replacements
Category: Distribution Improvements-Service Lines
Ranking: Priority-1 Mandatory
Fiscal Year: 2007 through 2016

Project Description

In the past two years TMWA has shifted from just repairing service lines from the street main to the curb valve or meter box to completely replacing service lines that are galvanized steel or polybutylene. These two materials are responsible for many after-hours call outs which escalate overtime expenses to repair leaks in the street because the galvanized lines are corroded, and polybutylene once thought very durable, becomes brittle and cracks or splits very easily. Just repairing these lines does not prevent them from leaking in the near future, escalating repair costs while further damaging city streets. Complete replacement, provides a permanent repair in a cost effective manner and prevents further system losses. When distribution mains are replaced in the main replacement program, service lines are also replaced. It has been estimated that 50% to 60% of distribution crew call outs are due to service line galvanized./poly service line breaks.

Cost/Funding Source

Funding Source: Customer rates

Cost:

Funding Timetable:

Project Cost: \$7,500,000	Funding FY 06/07	Project Cost	\$750,000
	Funding FY 07/08	Project Cost	\$750,000
	Funding FY 08/09	Project Cost	\$750,000
	Funding FY 09/10	Project Cost	\$750,000
	Funding FY 10/11	Project Cost	\$750,000
	Funding FY 11/12	Project Cost	\$750,000
	Funding FY 12/13	Project Cost	\$750,000
	Funding FY 13/14	Project Cost	\$750,000
	Funding FY 14/15	Project Cost	\$750,000
	Funding FY 15/16	Project Cost	\$750,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Fire Hydrant Maintenance Program
Category: Distribution Improvements
Ranking: Priority 2- Necessary
Fiscal Year: 2007 through 2016

Project Description

TMWA will begin transferring fire hydrant maintenance from the cities to TMWA beginning in fiscal year 2007. These efforts will be coordinated with the valve exercising/maintenance program. In the first year of transferring this responsibility TMWA will budget \$250,000 for startup expenses related to inventorying all hydrants and setting up a maintenance program schedule for ISO reporting. TMWA will be responsible for measuring dynamic and static pressures at the hydrant and reporting this information to the proper fire agency. Capital spending will focus on a systematic replacement of older hydrants in the system, if conditions warrant. An evaluation of hydrant conditions will provide better information for projecting capital spending. At this time a general acknowledgement of certain improvements is in the budget and plan.

Cost/Funding Source

Funding Source: Customer Rates

Cost:

Project Cost: \$2,500,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$250,000
Funding FY 07/08	Project Cost	\$250,000
Funding FY 08/09	Project Cost	\$250,000
Funding FY 09/10	Project Cost	\$250,000
Funding FY 10/11	Project Cost	\$250,000
Funding FY 11/12	Project Cost	\$250,000
Funding FY 12/13	Project Cost	\$250,000
Funding FY 13/14	Project Cost	\$250,000
Funding FY 14/15	Project Cost	\$250,000
Funding FY 15/16	Project Cost	\$250,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Highland Reservoir Liner/Floating Cover Replacement
Category: Storage Improvements
Ranking: Priority 2- Necessary
Fiscal Year: 2012

Project Description

The Highland Reservoir is a 20 million gallon storage facility located next to Rancho San Rafael Park. This facility is one of the primary feeds of water into TMWA's gravity distribution system. The original liner put into service in the mid 1990's is expected to be replaced in approximately seven years. The existing liner is constructed of high density polyethylene (HDPE) and the cover is constructed of polypropylene. Recent experience has proven that polypropylene and Hypalon perform much better as respective liner and cover materials.

Cost/Funding Source

Funding Source: Customer rates

Cost:

Project Cost: \$1,400,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$1,400,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Tank/Reservoir Fix and Finish
Category: Storage Improvements
Ranking: Priority 2 -Necessary
Fiscal Year: 2007 through 2016

Project Description

TMWA has a very proactive tank reservoir maintenance program whereby 20% of all tanks are inspected annually on a rotating basis. Based upon these inspection observations, a determination is made as to whether interior tank coatings (for steel tanks) or other fix and finish work is required. TMWA has 34 storage tanks in service, with combined storage of nearly 60 million gallons. Interior coating/liners are generally replaced every 15 years resulting in about two tanks per year having this work performed. The budget and plan also plans for exterior painting of steel tanks and any replacement of any interior components that may be corroded. In Fiscal Year 2006 in addition to regular tank recoating, TMWA will be making repairs to the Caughlin Tank.

Cost/Funding Sources

Funding Source: Customer Rates

Cost:

Project Cost: \$3,000,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$300,000
Funding FY 07/08	Project Cost	\$300,000
Funding FY 08/09	Project Cost	\$300,000
Funding FY 09/10	Project Cost	\$300,000
Funding FY 10/11	Project Cost	\$300,000
Funding FY 11/12	Project Cost	\$300,000
Funding FY 12/13	Project Cost	\$300,000
Funding FY 13/14	Project Cost	\$300,000
Funding FY 14/15	Project Cost	\$300,000
Funding FY 15/16	Project Cost	\$300,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Tank Oversizing
Category: Storage -Improvements
Ranking: Priority 1 Mandatory- 2006; Priority 2- Necessary thereafter
Fiscal Year: 2007 through 2016

Project Description

Several new developments will require treated water storage facilities which will be developer design-build-dedicate projects. Some of these new storage tanks will be capable of providing gravity storage to future TMWA customers, or to existing TMWA customers that are currently not served by gravity storage. In these cases it is cost effective for TMWA to pay for the incremental cost to increase the size of the developer’s storage tank to correct the storage deficiency for existing or future customers. Developer tanks that will be oversized by TMWA in the near future include D’Andrea, Vista #3, and The Ridges at Hunter Creek. Going forward, a certain amount will be budgeted on an annual basis to provide for future oversizing opportunities when they occur.

Cost/Funding Source

Funding Source: Customer water rates – 50%, Developer contributions – 50%

Cost:

Project Cost: \$3,000,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$300,000
Funding FY 07/08	Project Cost	\$300,000
Funding FY 08/09	Project Cost	\$300,000
Funding FY 09/10	Project Cost	\$300,000
Funding FY 10/11	Project Cost	\$300,000
Funding FY 11/12	Project Cost	\$300,000
Funding FY 12/13	Project Cost	\$300,000
Funding FY 13/14	Project Cost	\$300,000
Funding FY 14/15	Project Cost	\$300,000
Funding FY 15/16	Project Cost	\$300,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: West Seventh Street Concrete Tank Replacement
Category: Storage -Improvements
Ranking: Priority 2- Necessary
Fiscal Year: 2007; 2011; 2012

Project Description

The West Seventh Concrete Tank was constructed in 1963. This tank has some operational problems and requires an interior liner insert to maintain water tightness. The tank may require replacement in the next ten years. The tank’s capacity is 2.0 million gallons and serves NW Reno area. Improvements planned in FY 06/07 include a thorough evaluation of the tank’s physical condition and investigation of repair alternatives and replacement of the existing liner.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$3,200,000

Funding Timetable:

Funding FY 06/07 Project Cost \$400,000

Funding FY 07/08 Project Cost \$0

Funding FY 08/09 Project Cost \$0

Funding FY 09/10 Project Cost \$0

Funding FY 10/11 Project Cost \$2,350,000

Funding FY 11/12 Project Cost \$450,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Peavine Concrete Tank Roof
Category: Storage -Improvements
Ranking: Priority 2- Necessary
Fiscal Year: 2008

Project Description

The Peavine Tank located in the Stead service area may require the roof to be replaced. TMWA will conduct a structural analysis of the roof to determine if replacement is required. For planning purposes, the roof replacement has been scheduled for fiscal year 2007 pending the results of the structural analysis.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$750,000

Funding Timetable:

Funding FY 06/07 Project Cost \$0

Funding FY 07/08 Project Cost \$750,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Community College Steel Tank
Category: Storage -Improvements
Ranking: Priority 2- Necessary
Fiscal Year: 2007-2008

Project Description

This 1.5 million gallon steel tank will expand storage in the TMWA service area to correct storage deficiencies. In addition the Community College Tank will increase reliability of service to the Sun Valley General Improvement District (SVGID) as well as provide additional capacity for growth/increased demands in the Sullivan Lane/Sun Valley portion of TMWA's service area.

Cost/Funding Source

Funding Source: Customer water rates 67%, Developer Funded 33%

Cost:

Project Cost: \$2,000,000

Funding Timetable:

Funding FY 06/07 Project Cost \$1,500,000

Funding FY 07/08 Project Cost \$500,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Ridgeview Concrete Tank
Category: Storage Improvements
Ranking: Priority 1-Mandatory
Fiscal Year: 2007

Project Description

The Ridgeview tank is required to make up storage deficiencies in Southwest Reno. The tank will have capacity of 1.5 million gallons. Ability to acquire a suitable construction site and easements has delayed this project for several years. Tank design calls for a prestressed concrete structure that will be partially buried. The tank will be constructed primarily to correct storage deficiencies/fire flow deficiencies in the Lakeridge/Plumas pumping system in Southwest Reno. Some capacity will be reserved for growth in that area.

Cost/Funding Source

Funding Source: Customer Water Rates - 89%
Developer Storage Facility Charge - 11%

Cost:

Project Cost: \$3,000,000

Funding Timetable:

Funding FY 06/07 Project Cost \$3,000,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Pyramid Steel Tank
Category: Storage -Improvements
Ranking: Priority 1-Mandatory
Fiscal Year: 2007

Project Description

The Pyramid tank will be required to provide additional storage on the east side of the Spanish Springs Valley in North Sparks. The planned tank capacity will be 4.0 million gallons. The addition of this tank should meet the needs of all future growth in the TMWA service area in Spanish Springs.

Cost/Funding Source

Funding Source: Developer Storage Facility Fees about 89%
Washoe County Department of Water Resources – about 11%

Cost:

Project Cost: \$4,520,000

Funding Timetable:

Funding FY 06/07 Project Cost \$3,720,000

Funding FY 07/08 Project Cost \$800,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Somerset #3 Steel Tank
Category: Storage - Improvements
Ranking: Priority 2- Necessary
Fiscal Year: 2008;2009

Project Description

The Somerset #3 tank will primarily serve the Somerset development project in Northwest Reno. Planned tank capacity is expected at nearly 0.5 million gallons. Timing of the construction will depend on the build out rate of the Somerset Development.

Cost/Funding Source

Funding Source: Developer Build and Dedicate 100%-Project Specific

Cost:

Project Cost: \$1,000,000

Funding Timetable:

Funding FY 06/07 Project Cost \$0

Funding FY 07/08 Project Cost \$500,000

Funding FY 08/09 Project Cost \$500,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: D'Andrea Tank East Sparks
Category: Storage -Improvements
Ranking: Priority 2-Necessary
Fiscal Year: 2007; 2008

Project Description

The planned 1.25 million gallon D'Andrea Tank will be required in fiscal years 2007 and 2008 to provide storage for new capacity and also provide storage for existing customers. Spending in fiscal year 2007 is to secure a construction site with construction to occur in fiscal year 2008. The project will provide storage capacity for growth in Sparks as well as provide storage to existing customers.

Cost/Funding Source

Funding Source: Developer Facility Charges-Storage-79%
Customer water rates-21%

Cost:

Project Cost: \$1,875,000

Funding Timetable:

Funding FY 06/07 Project Cost \$1,125,000

Funding FY 07/08 Project Cost \$750,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Raleigh Heights #3 Steel Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Year: 2008; 2009

Project Description

The Raleigh Heights #3 tank will be a 2.5 million gallon storage tank to serve areas in the North Virginia/US 395 area. The project construction timetable may be advanced if development proceeds in these areas earlier than expected.

Cost/Funding

Funding Source: Developer Facility Fees-Storage

Cost:

Project Cost: \$3,700,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$3,000,000
Funding FY 08/09	Project Cost	\$700,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Vista #2 Tank
Category: Storage Improvements
Ranking: Priority 1-Mandatory
Fiscal Year: 2007

Project Description

The Vista #2 Tank which is planned as a 1.5 million gallon steel tank to be located next to the Vista #1 Tank will provide new capacity to development in northeast Sparks that is experiencing rapid growth and also to provide additional storage (making up for a storage deficit) for existing customers.

Cost/Funding Source

Funding Source: Developer Facility Fees-Storage 27%
Customer Water Rates 73%

Cost:

Project Cost: \$1,900,000

Funding Timetable:

Funding FY 06/07 Project Cost \$1,900,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Vista #3 Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Year: 2007; 2008

Project Description

The Vista #3 Tank which will be located in Northeast Sparks south of Wingfield Springs will provide new capacity to development in these areas that are experiencing rapid growth. In addition part of the capacity to be built will improve storage for existing customers in the Wingfield Hills pump zone.

Cost/Funding Source

Funding Source: Developer Facility Fees-Storage 74%/Customer Water Rates 26%

Cost:

Project Cost: \$1,125,000

Funding Timetable:

Funding FY 05/06	Project Cost	\$0
Funding FY 06/07	Project Cost	\$925,000
Funding FY 07/08	Project Cost	\$250,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Highland /Hunter Creek Reservoirs-Additional Storage
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Year: 2008; 2009; 2010

Project Description

Within the next ten years TMWA anticipates that additional 10 million gallons of gravity zone storage will be required to provide additional capacity for growth in the Reno-Sparks Metropolitan and outlying areas. The present reservoirs are the primary storage feed to TMWA's gravity zones. These zones are the source of supply for pump station systems that provide water to residential and commercial customers at higher elevations as well as expanded demand within the TMWA gravity zones. It is anticipated that the Washoe County Health Department will condition that future reservoir construction be built with concrete. The expanded storage will also benefit existing customers (improving reliability/providing redundancy) consequently these projects are allocated between growth and development. Timing of construction will depend upon the need for this additional storage.

Cost/Funding Source

Funding Source: Customer Water Rates - 72%
 Developer Facility Fees-Storage - 28%

Cost:

Project Cost: \$13,300,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$3,200,000
Funding FY 07/08	Project Cost	\$4,500,000
Funding FY 08/09	Project Cost	\$5,600,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Caughlin #2 Steel Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2008

Project Description

The existing Caughlin #5 pump zone is served by continuous pumping with a standby generator. Development of The Pines residential project above the Caughlin #5 zone will trigger the requirement for a water storage tank. Due to the elevations of The Pines, it has been determined to be more cost effective to construct a water tank to serve the Caughlin #5 zone directly instead of oversizing a Pines tank.

Cost/Funding Source

Funding Source: Customer Water Rates - 72%
Developer Facility Fees-Storage - 28%

Cost:

Project Cost: \$1,500,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$1,500,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: The Ridges Steel Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2007

Project Description

Within the next ten years TMWA anticipates that additional storage will be required to provide additional capacity for growth in the Reno-Sparks Metropolitan and outlying areas. A number of future projects are planned on the periphery of the cities of Reno and Sparks. Many of these projects are development specific lending them to be designed by TMWA; built by developers and dedicated to TMWA. Per TMWA Rules of Service TMWA will be reimbursed for design costs. TMWA Rules of Service allow the build and dedicate option for the development community.

Cost/Funding Source

Funding Source: Developer Storage Fees 100%

Cost:

Project Cost: \$1,500,000

Funding Timetable:

Funding FY 06/07 Project Cost \$0

Funding FY 07/08 Project Cost \$1,500,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: The Pines Steel Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2009

Project Description

Within the next ten years TMWA anticipates that additional storage will be required to provide additional capacity for growth in the Reno-Sparks Metropolitan and outlying areas. A number of future projects are planned on the periphery of the cities of Reno and Sparks. Many of these projects are development specific lending them to be designed by TMWA; built by developers and dedicated to TMWA. Per TMWA Rules of Service TMWA will be reimbursed for design costs. TMWA Rules of Service allow the build and dedicate option for the development community.

Cost/Funding Source

Funding Source: Developer Build and Dedicate 100%

Cost:

Project Cost: \$1,750,000

Funding Timetable:

Funding FY 06/07 Project Cost \$0

Funding FY 07/08 Project Cost \$0

Funding FY 08/09 Project Cost \$1,750,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Copper Canyon #1 Steel Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2011; 2012

Project Description

Within the next ten years TMWA anticipates that additional storage will be required to provide additional capacity for growth in the Sparks Metropolitan area. Many of these projects are development specific lending them to be designed by TMWA; built by developers and dedicated to TMWA. Per TMWA Rules of Service TMWA will be reimbursed for design costs. TMWA Rules of Service allow the build and dedicate option for the development community. This project envisions construction of a 1.0 million gallon steel tank to serve growth.

Cost/Funding Source

Funding Source: Developer Build and Dedicate 100%

Cost:	Funding Timetable:																		
Project Cost: \$1,450,000	<table border="0"> <tr> <td>Funding FY 06/07</td> <td>Project Cost</td> <td>\$0</td> </tr> <tr> <td>Funding FY 07/08</td> <td>Project Cost</td> <td>\$0</td> </tr> <tr> <td>Funding FY 08/09</td> <td>Project Cost</td> <td>\$0</td> </tr> <tr> <td>Funding FY 09/10</td> <td>Project Cost</td> <td>\$0</td> </tr> <tr> <td>Funding FY 10/11</td> <td>Project Cost</td> <td>\$1,000,000</td> </tr> <tr> <td>Funding FY 11/12</td> <td>Project Cost</td> <td>\$450,000</td> </tr> </table>	Funding FY 06/07	Project Cost	\$0	Funding FY 07/08	Project Cost	\$0	Funding FY 08/09	Project Cost	\$0	Funding FY 09/10	Project Cost	\$0	Funding FY 10/11	Project Cost	\$1,000,000	Funding FY 11/12	Project Cost	\$450,000
Funding FY 06/07	Project Cost	\$0																	
Funding FY 07/08	Project Cost	\$0																	
Funding FY 08/09	Project Cost	\$0																	
Funding FY 09/10	Project Cost	\$0																	
Funding FY 10/11	Project Cost	\$1,000,000																	
Funding FY 11/12	Project Cost	\$450,000																	

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Northgate #4 Steel Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2010; 2011

Project Description

Within the next ten years TMWA anticipates that additional storage will be required to provide additional capacity for growth in the NW Reno area. Many of these projects are development specific lending them to be designed by TMWA; built by developers and dedicated to TMWA. Per TMWA Rules of Service TMWA will be reimbursed for design costs. TMWA Rules of Service allow the build and dedicate option for the development community. This project envisions construction of a 0.75 million gallon steel tank to serve growth. This tank would be oversized by TMWA if necessary to correct any storage deficiencies in lower zones.

Cost/Funding Source

Funding Source: Developer Build and Dedicate 100%

Cost:

Project Cost: \$1,375,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$1,000,000
Funding FY 10/11	Project Cost	\$375,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Beaumont #2 Steel Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2015

Project Description

Within the next ten years TMWA anticipates that additional storage will be required to provide additional capacity for growth in the NW Reno area. Many of these projects are development specific lending them to be designed by TMWA; built by developers and dedicated to TMWA. Per TMWA Rules of Service TMWA will be reimbursed for design costs. TMWA Rules of Service allow the build and dedicate option for the development community. This project envisions construction of a 0.5 million gallon steel tank to serve growth. This tank would be oversized by TMWA if necessary to correct any storage deficiencies in lower zones.

Cost/Funding Source

Funding Source: Developer Build and Dedicate 100%

Cost:

Project Cost: \$1,300,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$0
Funding FY 14/15	Project Cost	\$1,300,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Stead Steel Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2012;2013

Project Description

Within the next ten years TMWA anticipates that additional storage will be required to provide additional capacity for growth in the Stead-Silver Lake area. Many of these storage projects are development specific lending them to be built by developers and dedicated to TMWA. TMWA Rules of Service allow the build and dedicate option for the development community. This project envisions construction of a 2.0 million gallon steel tank to serve growth.

Cost/Funding Source

Funding Source: Developer Storage Facility Fees 100%

Cost:

Project Cost: \$2,400,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$1,800,000
Funding FY 12/13	Project Cost	\$600,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Lower Verdi Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2012;2013

Project Description

Within the next ten years TMWA anticipates that additional storage will be required to provide additional capacity for growth in the Reno-Sparks Metropolitan and outlying areas. A number of future projects are planned on the periphery of the cities of Reno and Sparks. Many of these projects are development specific lending them to be designed by TMWA; built by developers and dedicated to TMWA. Per TMWA Rules of Service TMWA will be reimbursed for design costs. TMWA Rules of Service allow the build and dedicate option for the development community.

Cost/Funding Source

Funding Source: Developer Storage Facility Fees 100%

Cost:	Funding Timetable:
Project Cost: \$2,912,000	Funding FY 06/07 Project Cost \$0
	Funding FY 07/08 Project Cost \$0
	Funding FY 08/09 Project Cost \$2,912,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Boomtown Tank
Category: Storage Improvements
Ranking: Priority 2-Necessary
Fiscal Years: 2012;2010

Project Description

Within the next ten years TMWA anticipates that additional storage will be required to provide additional capacity for growth in the Reno-Sparks Metropolitan and outlying areas. A number of future projects are planned on the periphery of the cities of Reno and Sparks. Many of these projects are development specific lending them to be designed by TMWA; built by developers and dedicated to TMWA. Per TMWA Rules of Service TMWA will be reimbursed for design costs. TMWA Rules of Service allow the build and dedicate option for the development community.

Cost/Funding Source

Funding Source: Developer Storage Facility Fees 100%

Cost:

Project Cost: \$3,223,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 08/09	Project Cost	\$3,223,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Acquisition of Verdi, Washoe and Fleisch Hydros
Category: Hydroelectric Plant & Flume-Improvements
Ranking: Priority 1 - Mandatory
Fiscal Year: 2007;2008

Project Description

Pursuant to the Assets Purchase Agreement TMWA was to purchase the four run of river hydroelectric plants when regulatory approval was secured in California and Sierra Pacific Resources completes the reconstruction of the Farad dam and flume. TMWA will purchase three of the hydroelectric plants in early fiscal year 2005/06 since California regulatory approval was secured and title work is being completed prior to transfer of the hydroelectric plants. The purchase the Farad Plant will be consummated upon completion of reconstruction efforts by Sierra Pacific Resources.

Cost/Funding Source

Funding Source: Part of bond proceeds from TMWA Series 2001 A and 2001 B bonds

Cost:

Project Cost: \$8,000,000

Funding Timetable:

Funding FY 06/07 Project Cost \$6,000,000

Funding FY 07/08 Project Cost \$2,000,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Flume Reconstruction
Category: Hydroelectric Flume-Improvements
Ranking: Priority 2 -Necessary
Fiscal Year: 2007 through 2016

Project Description

Provision is made each year for hydroelectric flume reconstruction from unexpected rock falls, ice expansion damage, and penstock reconstruction. Operation of hydroelectric facilities provides power generation revenue, which offset the power costs of TMWA. TMWA’s three operating hydroelectric facilities have nearly 12,150 feet of flume and 13,125 feet of canal combined. TMWA average service life for flume structures is 35 years using treated timbers, at an average replacement cost of \$1,000 per lineal foot of flume. The present cost to replace a linear foot of flume depends on the location and height of the flume structure. If money is not spent in a particular year it will be carried over to future years and valued based upon the scope of a flume replacement project.

Cost/Funding

Funding Source: Hydroelectric revenues

Cost:	Funding Timetable:																														
Project Cost: \$4,000,000	<table border="0"> <tr> <td>Funding FY 06/07</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 07/08</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 08/09</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 09/10</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 10/11</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 11/12</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 12/13</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 13/14</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 14/15</td> <td>Project Cost</td> <td>\$400,000</td> </tr> <tr> <td>Funding FY 15/16</td> <td>Project Cost</td> <td>\$400,000</td> </tr> </table>	Funding FY 06/07	Project Cost	\$400,000	Funding FY 07/08	Project Cost	\$400,000	Funding FY 08/09	Project Cost	\$400,000	Funding FY 09/10	Project Cost	\$400,000	Funding FY 10/11	Project Cost	\$400,000	Funding FY 11/12	Project Cost	\$400,000	Funding FY 12/13	Project Cost	\$400,000	Funding FY 13/14	Project Cost	\$400,000	Funding FY 14/15	Project Cost	\$400,000	Funding FY 15/16	Project Cost	\$400,000
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Funding FY 14/15	Project Cost	\$400,000																													
Funding FY 15/16	Project Cost	\$400,000																													

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Plant & Turbines
Category: Hydroelectric Plant Contingency
Ranking: Priority-3 Discretionary
Fiscal Year: 2007 through 2016

Project Description

Provision is made each year to provide expenditure authority for emergency replacements or betterments to hydroelectric plants and turbines. If no unscheduled replacements are required, spending will not occur. In fiscal year 2005, the motor turbine shaft at the Verdi Plant sheared. The contingency is justified considering the age of the plants.

Cost/Funding Source

Funding Source: Hydroelectric revenues

Cost:

Project Cost: \$5,000,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$500,000
Funding FY 07/08	Project Cost	\$500,000
Funding FY 08/09	Project Cost	\$500,000
Funding FY 09/10	Project Cost	\$500,000
Funding FY 10/11	Project Cost	\$500,000
Funding FY 11/12	Project Cost	\$500,000
Funding FY 12/13	Project Cost	\$500,000
Funding FY 13/14	Project Cost	\$500,000
Funding FY 14/15	Project Cost	\$500,000
Funding FY15/16	Project Cost	\$500,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Rule 7 Water Rights Purchase
Category: Water Resources & Planning
Ranking: Priority 2 - Necessary
Fiscal Year: 2007 through 2016

Project Description

TMWA purchases water rights in the open market. The water rights are retained by TMWA and will-serves commitments are sold to developers with a modest administrative charge to cover TMWA administrative costs. The provision for water right purchases was increased to \$5.0 million to acquire 700 acre feet of water rights. TMWA is committed to purchasing water rights and providing will-serves to developers.

Cost/Funding Source

Funding Source: Developers purchase will-serves from TMWA

Cost:

Project Cost: \$400,000,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$40,000,000
Funding FY 07/08	Project Cost	\$40,000,000
Funding FY 08/09	Project Cost	\$40,000,000
Funding FY 09/10	Project Cost	\$40,000,000
Funding FY 10/11	Project Cost	\$40,000,000
Funding FY 11/12	Project Cost	\$40,000,000
Funding FY 12/13	Project Cost	\$40,000,000
Funding FY 13/14	Project Cost	\$40,000,000
Funding FY 14/15	Project Cost	\$40,000,000
Funding FY 15/16	Project Cost	\$40,000,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Meter Reading Equipment
Category: Customer Service
Ranking: Priority 2 Necessary
Fiscal Year: 2008; 2011; 2014

Project Description

TMWA currently contracts with Sierra Pacific Power Company (SPPCo) for meter reading services. TMWA has taken over 64% of meter reading, reading over 60,000 meters a month with one employee. This equipment allows TMWA to reduce the cost of meter reading charges from SPPCo to TMWA. If TMWA did not continue to automate meter reading, TMWA's meter reading bill from SPPCo would be over \$38,000/month or \$456,000 annually. Currently, SPPCo bills less than \$8,500 per month. In the future, TMWA will be looking towards fixed locations for meter reading which can significantly reduce field time for reading meters on move-in/move-outs and for final bill reads for individuals leaving the Reno-Sparks area. Meter reading equipment will be replaced on an as needed basis.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$120,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$40,000
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$40,000
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$40,000
Funding FY 14/15	Project Cost	\$0

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Water Meter Retrofits
Category: Customer Service
Ranking: Priority 2 - Necessary
Fiscal Year: 2007;2008;2009

Impact:

TMWA has been systematically retrofitting water services with meter facilities for a number of years. By June 30, 2005 it is expected that all single family residents will have a meter installed. The process of retrofitting will continue for about two more years (to complete metering on multifamily premises) based upon present pay-as-you-go funding. During the summer of 2005, TMWA will evaluate each service remaining to be retrofitted, (approximately 5,500 services) and develop a final cost estimate, and a program for the final metering of the water system.

Cost/Funding Source

Funding Source: Developer Retrofit Fees at \$1,830 per acre foot of water right dedication

Cost:

Project Cost: \$12,000,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$3,000,000
Funding FY 07/08	Project Cost	\$3,000,000
Funding FY 08/09	Project Cost	\$3,000,000
Funding FY 09/10	Project Cost	\$3,000,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: New Business Meters
Category: Customer Service
Ranking: Priority 1-Mandatory
Fiscal Year: 2007 through 2016

Project Description

All new water services are required to be metered. Meters are purchased by TMWA and installed for new development. New business fees pay for these installations.

Cost/Funding Source

Funding Source: New business revenue – Meter installs-Developer Funded

Cost:

Project Cost: \$3,575,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$650,000
Funding FY 07/08	Project Cost	\$450,000
Funding FY 08/09	Project Cost	\$400,000
Funding FY 09/10	Project Cost	\$375,000
Funding FY 10/11	Project Cost	\$350,000
Funding FY 11/12	Project Cost	\$350,000
Funding FY 12/13	Project Cost	\$250,000
Funding FY 13/14	Project Cost	\$250,000
Funding FY 14/15	Project Cost	\$250,000
Funding FY 15/16	Project Cost	\$250,000

**TRUCKEE MEADOWS WATER AUTHORITY
FISCAL YEARS 2007-2016 TEN YEAR CAPITAL IMPROVEMENT PLAN**

Project Summary

Title/Description: Business Process Management Tool
Category: Customer Service
Ranking: Priority 1-Mandatory
Fiscal Year: 2007

Project Description

Business Process Management (BPM) is an application that is used to build, analyze, monitor and execute business process. The Stellent BPM product is able to provide business process support that replaces a custom developed application, WOTS, with a commercial off the shelf product. It was Oracle's recommendation that TMWA either rewrite the WOTS program using the latest version of the development tools or purchase an off the shelf software package to replace it.

Cost/Funding Source

Funding Source: Customer rates – 100%

Cost:

Funding Timetable:

Project Cost: \$150,000

Funding FY 06/07 Project Cost \$150,000

Project Summary

Title/Description: Small Service Meter Replacements, less than 3"
Category: Customer Service
Ranking: Priority 1-Mandatory
Fiscal Year: 2007 through 2016

Project Description

Meter replacements are required annually for approximately 7% of TMWA's metered services. Meters have an expected service life of 15 years. To protect TMWA's revenues and to insure that current and future water rate studies are prepared with accurate water usage data, TMWA has budgeted and planned for future meter replacements consistent with the expected service life of the meter. Meters less than 3" in size are primarily for small commercial and residential premises. Also TMWA performs annual demand studies for engineering design and operational purposes, also requiring accurate meter reading.

Cost/Funding Source

Funding Source: Customer water rates

**TRUCKEE MEADOWS WATER AUTHORITY
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Cost:

Project Cost: \$10,451,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$1,300,000
Funding FY 07/08	Project Cost	\$351,000
Funding FY 08/09	Project Cost	\$200,000
Funding FY 09/10	Project Cost	\$200,000
Funding FY 10/11	Project Cost	\$1,400,000
Funding FY 11/12	Project Cost	\$1,400,000
Funding FY 12/13	Project Cost	\$1,400,000
Funding FY 13/14	Project Cost	\$1,400,000
Funding FY 14/15	Project Cost	\$1,400,000
Funding FY 15/16	Project Cost	\$1,400,000

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Project Summary

Title/Description: Large Meter Replacements, greater than or equal to 3"
Category: Customer Service
Ranking: Priority 1- Mandatory
Fiscal Year: 2007 through 2016

Project Description

As with smaller water meters, large commercial water meters have a finite life expectancy of typically ten to fifteen years. All commercial services are metered. TMWA and local governments risk significant revenue losses if meters are not replaced in a systematic fashion. TMWA is replacing large meters on a systematic basis based upon expected service lives of the meters.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$1,760,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$150,000
Funding FY 07/08	Project Cost	\$150,000
Funding FY 08/09	Project Cost	\$165,000
Funding FY 09/10	Project Cost	\$170,000
Funding FY 10/11	Project Cost	\$175,000
Funding FY 11/12	Project Cost	\$180,000
Funding FY 12/13	Project Cost	\$185,000
Funding FY 13/14	Project Cost	\$190,000
Funding FY 14/15	Project Cost	\$195,000
Funding FY 15/16	Project Cost	\$200,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: GIS System Mapping Project
Category: Administrative
Ranking: Priority 1-Mandatory
Fiscal Year: 2007 through 2016

Project Description

TMWA is committed to fully use GIS technology to improve field crew productivity, engineering design productivity, and participation in the Regional Base Map Committee. TMWA made significant inroads in mapping the system in fiscal year 2004. TMWA envisions at least two and one half years to complete the map system infrastructure including valve locations and fire hydrant locations, in total over 250,000 location attributes. This allows TMWA to not rely on institutional knowledge of facility locations and will assist in valve exercising programs, location of paved over valves, and fire hydrant maintenance.

Cost/Funding Source

Funding Source: Customer water rates

Cost:	Funding Timetable:
Project Cost: \$873,000	Funding FY 06/07 Project Cost \$300,000
	Funding FY 07/08 Project Cost \$173,000
	Funding FY 08/09 Project Cost \$50,000
	Funding FY 09/10 Project Cost \$50,000
	Funding FY 10/11 Project Cost \$50,000
	Funding FY 11/12 Project Cost \$50,000
	Funding FY 12/13 Project Cost \$50,000
	Funding FY 13/14 Project Cost \$50,000
	Funding FY 14/15 Project Cost \$50,000
	Funding FY 15/16 Project Cost \$50,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Desktop Computer Upgrades
Category: Administrative
Ranking: Priority 2-Necessary
Fiscal Year: 2007 through 2016

Project Description

TMWA utilizes a personal computer (PC) refresh program similar to the local governments. TMWA has over 130 PC's in service with approximately ¼, or 33, to be changed out each year dependent upon warranty arrangements. Spending would be determined on an as needed basis. TMWA has completed a full inventory of all IT equipment. The computer replacements will be computers that are networked which is less expensive than stand alone PCs, as all files are saved to the network.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$500,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$50,000
Funding FY 07/08	Project Cost	\$50,000
Funding FY 08/09	Project Cost	\$50,000
Funding FY 09/10	Project Cost	\$50,000
Funding FY 10/11	Project Cost	\$50,000
Funding FY 11/12	Project Cost	\$50,000
Funding FY 12/13	Project Cost	\$50,000
Funding FY 13/14	Project Cost	\$50,000
Funding FY 14/15	Project Cost	\$50,000
Funding FY 15/16	Project Cost	\$50,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Network Server/Software/Storage Upgrades
Category: Administrative
Ranking: Priority 2-Necessary
Fiscal Year: 2007 through 2016

Project Description

TMWA currently has 37 network servers hosting a variety of software applications. TWWA has moved forward with its digital library for document retention. These servers normally come with three year warranties and would eventually require replacement on a three to four year cycle. TMWA will seek out extended warranties if cost effective, rather than replace servers. Spending is only on an as needed basis. TMWA will take advantage of new software technology called VMware to reduce hardware requirements which is virtual creation of more server capacity. TMWA will also look to new technologies that cost effectively reduces overall hardware requirements.

Cost/Funding Source

Funding Source: Customer Water Rates/Developer Facility Charges (overhead to capital projects)

Cost:	Funding Timetable:																														
Project Cost: \$2,000,000	<table border="0"> <tr> <td>Funding FY 06/07</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 07/08</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 08/09</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 09/10</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 10/11</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 11/12</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 12/13</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 13/14</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 14/15</td> <td>Project Cost</td> <td>\$200,000</td> </tr> <tr> <td>Funding FY 15/16</td> <td>Project Cost</td> <td>\$200,000</td> </tr> </table>	Funding FY 06/07	Project Cost	\$200,000	Funding FY 07/08	Project Cost	\$200,000	Funding FY 08/09	Project Cost	\$200,000	Funding FY 09/10	Project Cost	\$200,000	Funding FY 10/11	Project Cost	\$200,000	Funding FY 11/12	Project Cost	\$200,000	Funding FY 12/13	Project Cost	\$200,000	Funding FY 13/14	Project Cost	\$200,000	Funding FY 14/15	Project Cost	\$200,000	Funding FY 15/16	Project Cost	\$200,000
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Funding FY 15/16	Project Cost	\$200,000																													

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Network Security Upgrades
Category: Administrative
Ranking: Priority 2-Necessary
Fiscal Year: 2007;2011;2015

Project Description

TMWA is very internet dependent. TMWA's website hosts a variety of web pages that are user friendly and provide a great detail of information without customers having to call TMWA personnel with routine questions. TMWA also hosts its construction standards for builders. TMWA uses the internet to allow customers access to their account information. By virtue of using productivity enhancements such as the internet, it also creates a variety of security challenges. TMWA is scanned and is attacked by a network crippling events on average, every 15 seconds. TMWA's network is subject to over 10,000 internet scans a day. TMWA uses various hardware and software applications in a configuration called depth in defense security to protect the network. Spending is allowed on an as needed basis with economic justifications.

Cost/Funding Source

Funding Source: Customer Water Rates/Developer Facility Charges (overhead to capital projects)

Cost:

Project Cost: \$675,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$225,000
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$225,000
Funding FY 11/12	Project Cost	\$0
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$0
Funding FY 14/15	Project Cost	\$225,000
Funding FY 15/16	Project Cost	\$0

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Engineering Computer/Software Upgrades
Category: Administrative
Ranking: Priority 2- Necessary
Fiscal Year: 2007 through 2016

Project Description

TMWA performs a significant amount of design functions for various construction projects whether infrastructure rehabilitation projects or new capacity projects. TMWA uses various hardware and software for engineering design, hydraulic modeling, to serve various customers. Computers that are replaced in engineering are trickled down to other users.

Cost/Funding Source

Funding Source: Customer water rates/Developer Facility Charges (overhead to capital projects)

Cost:

Project Cost: \$500,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$50,000
Funding FY 07/08	Project Cost	\$50,000
Funding FY 08/09	Project Cost	\$50,000
Funding FY 09/10	Project Cost	\$50,000
Funding FY 10/11	Project Cost	\$50,000
Funding FY 11/12	Project Cost	\$50,000
Funding FY 12/13	Project Cost	\$50,000
Funding FY 13/14	Project Cost	\$50,000
Funding FY 14/15	Project Cost	\$50,000
Funding FY 15/16	Project Cost	\$50,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: WLAN Chalk Bluff/Glendale/Corporate
Category: Administrative
Ranking: Priority 2-Necessary
Fiscal Year: 2007 through 2016

Project Description

The local area network connects the Chalk Bluff Treatment Plant to the Glendale Treatment Plant with the Operations Center at Corporate Blvd. This network allows backup of any one location with computer resources at the other two locations. Upgrades are planned on an annual basis to maintain this system.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$750,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$75,000
Funding FY 07/08	Project Cost	\$75,000
Funding FY 08/09	Project Cost	\$75,000
Funding FY 09/10	Project Cost	\$75,000
Funding FY 10/11	Project Cost	\$75,000
Funding FY 11/12	Project Cost	\$75,000
Funding FY 12/13	Project Cost	\$75,000
Funding FY 13/14	Project Cost	\$75,000
Funding FY 14/15	Project Cost	\$75,000
Funding FY 15/16	Project Cost	\$75,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Dump Trucks 12.5 yd
Category: Administrative
Ranking: Priority 1 Mandatory
Fiscal Year: 2009;2012;2015

Project Description

TMWA employs dump trucks to move backhoes to water main leak sites, meter retrofit sites and other tasks. Dump truck/backhoe equipment configurations are essential for efficient field tasks. TMWA does require a new dump truck in fiscal year 2006 since service hours and availability has been reduced. Future replacements will be made on an as needed basis.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$420,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$140,000
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$140,000
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$0
Funding FY 14/15	Project Cost	\$140,000
Funding FY 15/16	Project Cost	\$0

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Backhoe Trailers
Category: Administrative
Ranking: Priority-2 Necessary
Fiscal Year: 2008; 2012

Project (Outlay) Description

In addition to new dump trucks, backhoe trailers are required for backhoe transportation. This reduces travel time and excessive wear of backhoes. TMWA expects to be replacing backhoe trailers in later fiscal years. Replacements will be only on an as needed basis.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$30,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$15,000
Funding FY 08/09	Project Cost	\$0
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$15,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Light Crew Trucks Cab & Chassis
Category: Administrative
Ranking: Priority 1-Mandatory
Fiscal Year: 2007 through 2017

Project (Outlay) Description

One light crew cabs and chassis will be purchased in fiscal year 2006. TMWA plans to cycle the light crew fleet over a period of seven to ten years. Spending is determined annually depending on vehicle availabilities and other factors. Spending only occurs if justified. TMWA's fleet cycles older vehicles to the treatment plants prior to disposal at auction.

Cost/Funding Sources

Funding Source: Customer water rates

Cost:

Project Cost: \$2,265,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$220,451
Funding FY 07/08	Project Cost	\$200,000
Funding FY 08/09	Project Cost	\$200,000
Funding FY 09/10	Project Cost	\$225,000
Funding FY 10/11	Project Cost	\$225,000
Funding FY 11/12	Project Cost	\$225,000
Funding FY 12/13	Project Cost	\$230,000
Funding FY 13/14	Project Cost	\$240,000
Funding FY 14/15	Project Cost	\$250,000
Funding FY 15/16	Project Cost	\$250,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Light Crew Truck Improvements
Category: Administrative
Ranking: Priority 1-Mandatory
Fiscal Year: 2007 through 2016

Project (Outlay) Description

Light crew trucks will require improvements such as heavy utility boxes, parts storage and compressors. The maximum amount of improvements for each new light crew vehicle is expected to be \$30k each. TMWA makes every effort to transfer such equipment from chassis to chassis. Expenditures are made only on an as needed basis. Purchases of backhoes are included here since timing of purchases is dependent upon vehicle wear and salvage values which can be substantial. Backhoe lives are in excess of five years.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$1,405,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$54,549
Funding FY 07/08	Project Cost	\$150,000
Funding FY 08/09	Project Cost	\$150,000
Funding FY 09/10	Project Cost	\$150,000
Funding FY 10/11	Project Cost	\$150,000
Funding FY 11/12	Project Cost	\$150,000
Funding FY 12/13	Project Cost	\$150,000
Funding FY 13/14	Project Cost	\$150,000
Funding FY 14/15	Project Cost	\$150,000
Funding FY 15/16	Project Cost	\$150,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Heavy Crew Trucks Cab & Chassis
Category: Administration
Ranking: Priority 1- Mandatory
Fiscal Years: 2009;2012;2015

Project (Outlay) Description

TMWA has evaluated its need for additional heavy crew vehicles and has determined that additional vehicles will be planned in fiscal years 2009, 2012, 2015. Annual evaluations re made to determine if heavy crew vehicles need to be replaced and are only replaced if conditions warrant a replacement.

Cost/Funding

Funding Source: Customer water rates

Cost:

Project Cost: \$182,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$57,000
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$60,000
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$0
Funding FY 14/15	Project Cost	\$65,000
Funding FY 15/16	Project Cost	\$0

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: Heavy Crew Truck Improvements
Category: Administrative
Ranking: Priority 1-Mandatory
Fiscal Year: 2009;2012;2015

Project (Outlay) Description

TMWA has evaluated its need for additional heavy crew vehicles and has determined that additional vehicle improvements will be required in fiscal years 2009; 2012; and 2015. For planning purposes TMWA expects to replace a heavy crew truck with improvements every few years. Improvements can be transferred from vehicle to vehicle if chassis sizes allow for transfer.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Project Cost: \$153,000

Funding Timetable:

Funding FY 06/07	Project Cost	\$0
Funding FY 07/08	Project Cost	\$0
Funding FY 08/09	Project Cost	\$48,000
Funding FY 09/10	Project Cost	\$0
Funding FY 10/11	Project Cost	\$0
Funding FY 11/12	Project Cost	\$50,000
Funding FY 12/13	Project Cost	\$0
Funding FY 13/14	Project Cost	\$0
Funding FY 14/15	Project Cost	\$55,000
Funding FY 15/16	Project Cost	\$0

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Project Summary

Title/Description: Security Vulnerability Assessment Project
Category: Administrative
Ranking: Priority 1 - Mandatory
Fiscal Year: 2007

Project Description

TMWA performed a vulnerability assessment with grant support from the Department of Environmental Protection. This assessment outlined various security improvements that TMWA will move forward with at TMWA locations. Security improvements at the Highland Reservoir have been completed as well as security improvements at the Hunter Creek Reservoir. In fiscal year 2006, TMWA is focusing on improvements at the Glendale Treatment Facility. Work will continue on the recommended improvements as outlined in the vulnerability assessment.

Cost/Funding Source

Funding Source: Customer water rates

Cost:

Funding Timetable:

Project Cost: \$2,675,000	Funding FY 06/07	Project Cost	\$425,000
	Funding FY 07/08	Project Cost	\$250,000
	Funding FY 08/09	Project Cost	\$250,000
	Funding FY 09/10	Project Cost	\$250,000
	Funding FY 10/11	Project Cost	\$250,000
	Funding FY 11/12	Project Cost	\$250,000
	Funding FY 12/13	Project Cost	\$250,000
	Funding FY 13/14	Project Cost	\$250,000
	Funding FY 14/15	Project Cost	\$250,000
	Funding FY 15/16	Project Cost	\$250,000

**TRUCKEE MEADOWS WATER AUTHORITY
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Project Summary

Title/Description: VoIP Telephone System
Category: Administrative
Ranking: Priority 1-Mandatory
Fiscal Year: 2008

Project Description

Voice over Internet Protocol (VoIP) allows voice information to be converted into digital packets and sent over the Internet or company Intranet, and then converted back into analog signals before reaching the phone receiver at the other end. TMWA will enjoy reduced operating costs, the ability to customize telephone features, unified messaging (the ability to answer phones on the computer) and convergence (telephone and computer essentially merging into the same device).

Cost/Funding

Funding Source: Customer rates

Cost:

Project Cost: \$175,000

Funding Timetable:

Funding FY 06/07 Project Cost \$0

Funding FY 07/08 Project Cost \$175,000

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