

## **Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan**

### **INTRODUCTION**

The Truckee Meadows Water Authority's (TMWA's) Ten-Year Capital Improvement Plan (10-Year CIP), describes all the construction and major life extending maintenance of existing TMWA facilities and infrastructure. TMWA prepares a 10-Year CIP while state statute requires at a minimum a 5-Year CIP be prepared. TMWA was formed as a legal entity established pursuant to the provisions of Chapter 277 of the Nevada Revised Statutes. TMWA is a political subdivision of the State of Nevada and is separate from its Members, pursuant to NRS 277.074 and 277.120. A managing board comprised of seven members, three from the City of Reno, two from the City of Sparks, one from the County of Washoe and one at large governs TMWA. Currently the at large seat is filled by a member of the Sparks City Council. After December of 2007, this seat will rotate to a member of the Reno City Council for two years, and then to a member of the Washoe County Commission for two years. The at large position must be an elected official.

The 10-Year CIP constitutes an essential component in the TMWA's continuous cycle of planning, monitoring and managing the activities of purveying water and generating of hydroelectric power. This introduction will outline the projects proposed for fiscal year 2007-2008, including the explanation of the prioritization of projects, the projects/capital outlays, and the financing of projects/capital outlays. TMWA has extended the capital spending planning horizon to ten years. The purpose of extending the planning horizon is to incorporate the current CIP into a broader Ten-Year Funding Plan. This Funding Plan will determine adequate levels and sources of funding for projects contained in the 10-Year CIP.

Overall direction is established by the TMWA's 2005-2025 Water Facility Plan (WFP) and 2005-2025 Water Resource Plan. This 10-Year CIP incorporates essential elements of the WFP. The actual implementation of the TMWA's capital improvements are accomplished through each fiscal year's budget process.

The 10-Year CIP envisions \$576.1 million in spending on new capacity projects and replacement of infrastructure over the next ten years, which includes \$220 million for water rights purchases. For fiscal year 2007-2008, TMWA expects to spend \$105.5 million on nine broad categories of improvements and spending outlays. These nine categories are: Raw Water Supply Improvements, Groundwater Development-Well Development, Treatment Improvements, Distribution Improvements, Storage Improvements, Hydroelectric Improvements, Customer Service, Administrative Improvements, and special projects funded directly by developers, namely acquisition of water rights and the water meter retrofit program. The water rights acquisition and water meter retrofit programs are separated from a presentation standpoint because in the case of water right acquisition, spending is highly variable, and in the future the responsibility for acquisition of new resources may be taken on by a new water agency. With respect to the water meter retrofit project, the completion is expected within three years assuming funding continues from the collection of the water retrofit fee.

**Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan**

***PLEASE REFER TO TABLE E-1 FOR CAPITAL SPENDING BY FUNCTION AND TABLE E-4 FOR CAPITAL SPENDING BY PROJECT***

**Comparative Analysis of Fiscal Year 2008 Capital Spending**

TMWA expects to spend \$105.5 million for fiscal year 2008, the first year of the 2008-2017 10-Year CIP. This amount is \$3.9 million less than the \$ 109.1 million in spending for fiscal year 2008 that was presented in last years 2007-2016 10 Year CIP. The difference is not very significant considering the overall level of spending. Construction timetables are highly variable resulting in reprioritization of some construction projects and spending delays on other projects from fiscal year 2006-2007 into fiscal year 2007-2008. TMWA has deferred, as much as possible, certain new water capacity projects because residential housing growth has slowed significantly over the course of fiscal year 2006-2007. TMWA will continue to move forward with engineering and design of new water system capacity projects and obtain necessary easements and rights of way with the goal of advancing construction once TMWA sees a new development demand for water system capacity. TMWA is still committed to spending on system rehabilitation since these endeavors are considered in the best long term interest of the water system and the community.

Examples of some changes in major construction timelines and deferral of some spending are provided. TMWA will be moving forward with new water system capacity and reliability projects such as the North Virginia/Raleigh Heights water mains and storage tanks since these projects are necessary to meet demands and are funded projects from the Series 2005-A \$40.0 million bond sale. Significant spending on this construction project was expected in fiscal year 2007 but this project construction timeline was shifted into fiscal year 2008 because of the detailed coordination with construction of a sewer line interceptor. The North Virginia/Stead Pump Station which was expected to be under construction in fiscal year 2007 will see most of the construction occur in fiscal year 2008 to match with the related water main projects. The spending on the Verdi water main project has been phased into the latter half of fiscal year 2008 and into fiscal year 2009 because demand for this water system capacity has not materialized, but design engineering and obtaining easements and right of ways will continue so that once demands are identified, the project may proceed timely. Also TMWA has moved the NE Sparks Feeder Main Phase IV into fiscal year 2009 because system demands do not require immediate construction of this segment of feeder mains to serve current development expectations in NE Sparks. Expansion of gravity zone storage has been deferred into fiscal year 2009 because peak water demands are not expected to change much from what was witnessed in previous years thus delaying the need for this storage.

**DESCRIPTION OF PROJECTS**

Total construction spending, acquisition spending, and capital outlays are expected to be \$105,488,000 for the fiscal year 2007-2008. The Truckee Meadows Water Authority has established the following projects for funding for fiscal year 2007-2008:

**Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan**

**Category 1 Raw Water Supply Improvements \$1,500,000:**

- Highland Canal Improvements – \$500,000
- Mogul Bypass Engineering and Easements – \$1,000,000

**Category 2 Groundwater-Development \$2,563,000:**

- Well Development Program – \$830,000
- Well Rehabilitation & Improvements – \$1,733,000

**Category 3 Treatment-Improvements \$8,080,000:**

- Glendale Finished Water Pump Station Expansion/Rebuild– \$5,900,000
- Chalk Bluff Projects - \$1,030,000
- Glendale Projects - \$650,000
- Glendale Diversion Improvements – \$500,000

**Category 4 Distribution-Improvements \$35,346,000:**

- Pressure Regulator Rehabilitation – \$150,000
- Pressure Regulation Improvements/Interties - \$150,000
- Pump Station Rehabilitations– \$750,000
- Standby Generator Replacements - \$75,000
- Stead Pump Station Rehabilitation - \$7,000,000
- D’Andrea, Pump Station-\$1,000,000
- Internal Silver Lake/Stead Main Improvements - \$1,743,000
- Verdi-Mogul-Boomtown Feeder Main Improvements - \$6,438,000
- Valley Road Main Replacement-\$840,000
- North Virginia-Raleigh Heights Main Upgrade – \$12,500,000
- General Distribution Line Oversizing/Extensions - \$200,000
- Street & Highway Main Replacements - \$3,750,000
- Galvanized./Polybutylene Service Replacements – \$750,000

**Category Storage – Improvements \$9,850,000:**

- Tank/Reservoir Fix & Finish– \$300,000
- Tank Oversizing Vista #3, the Ridges – \$100,000
- West Seventh Street Tank Replacement - \$400,000
- Peavine Tank Roof -\$750,000
- Ridgeview Concrete Tank – \$700,000
- Pyramid Steel Storage Tank-\$3,000,000
- Sommersett Storage Tank-\$500,000
- D’Andrea East Sparks Tank – \$750,000
- Raleigh Heights #3 Storage Tank-\$3,000,000

**Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan**

- Vista #3 Steel Tank - \$200,000
- Hunter Creek Concrete/Highland Concrete Storage - \$150,000

**Category Hydroelectric – Improvements \$1,500,000:**

- Fleisch, Washoe Flume Reconstruction– \$1,000,000
- Fleisch Plant Rehabilitation – \$500,000

**Category Customer Service \$951,000:**

- New Business Meters – \$450,000
- Small Meter Replacements less than 3” – \$351,000
- Large Meter Replacements greater than 3” – \$150,000

**Category Administrative \$1,698,000:**

- Geographic Information System Mapping Project – \$ 203,000
- Administrative Personal Computers New & Refresh – \$50,000
- Network Server/Storage Upgrades – \$250,000
- Network Security Upgrades – \$225,000
- Engineering Computers & Software – \$ 50,000
- WLAN VOIP CB/Glendale/Corporate – \$250,000
- Furniture-\$25,000
- Dump Trucks/Backhoes/Trailers-\$135,000
- Light Crew Trucks Cab, Chassis – \$200,000
- Light Crew Truck Improvements – \$ 60,000
- Security-VA/ER – \$250,000

**Special Projects Funded by Development**

- Rule 7 Water Right Purchases - \$40,000,000
- Water Meter Retrofits-\$4,000,000

***PLEASE REFER TO TABLE E-5 FOR AN EXCERPT OF ONLY THOSE PROJECTS THAT REPLACE OR REHABILITATE THE EXISTING WATER SYSTEM.***

**Capital Improvement Program Definitions**

The 10-Year CIP is a planning and budgeting tool, which provides information about TMWA’s infrastructure needs for a ten-year time frame. Each year, the list of projects is reviewed for need, cost, and priority. New projects may be added and other projects delayed or deleted entirely. Since most projects are mandatory or necessary projects deletion of a project would be rare. However, capital spending plans must remain flexible, and it is often necessary to take amendments to the then current fiscal year’s CIP

## Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan

to the Board for adoption. It is likely that the plan for 2007-08 may be amended to meet changing conditions.

Generally, capital improvements/outlays are defined as physical assets, constructed or purchased, that have a useful life of one year or longer and a cost of \$5,000 or more. In addition TMWA includes the Capital Maintenance needs in the 10-Year CIP plan. Capital Maintenance projects are required rehabilitative maintenance projects on TMWA facilities to keep such facilities in sound operating condition and/or extend the life of the existing facilities.

### Definition of Capital Outlays

"Capital Outlays" which are budgeted within TMWA's capital budget include such things as furniture, computer equipment and software, vehicles, and heavy equipment needed to support TMWA's operations. These items are found in the General Administrative category of projects.

### PRIORITIZATION OF PROJECTS/OUTLAYS

TMWA may not have sufficient funding to meet all of its capital needs each year or may divert funding to meet unexpected capital improvements. If such conditions arise, projects are prioritized based on the effect each project has on TMWA's ability to meet customer demands and maintain the water system reliability. As mentioned previously, this CIP has been incorporated into a comprehensive funding plan that will be updated in the fall of calendar year 2008. TMWA's 10-Year Funding Plan is used to analyze overall total spending and identify various funding alternatives.

The priority categories represent a relative degree of need for any particular project and are described below.

- \* **CATEGORY 1 MANDATORY:** These are considered absolutely required, and are the highest priority of all capital projects. Mandatory projects include those already under construction, or those required by legislation, regulation or for protecting public health and safety. These projects are generally found in the first fiscal year of the plan. Water demands or infrastructure conditions are such that if the project is not completed TMWA runs the risk of being unable to provide water to its new and existing customers.
  
- \* **CATEGORY 2 NECESSARY:** A project that is important for providing water service to customers yet timing of construction or spending outlay is not as critical as a mandatory project. These projects are required and are generally found in the next nine years of the plan. External factors such as the pace of new development or the condition of existing infrastructure may delay or accelerate the timing of project construction. When return on investment is a determining factor, projects in this category will have a payback of less than five years. A rate

## Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan

of return may not be applicable to projects whose benefits cannot be easily quantified.

- CATEGORY 3 CONTINGENCY:** These projects or capital outlays are not immediately critical to the operation of the water system. Expenditures in this category generally require a business case study or specific criteria to be met before spending can occur. Generally paybacks are greater than five years. If such criteria are not met then spending cannot be justified. Also some projects are deferrable if spending is required in an area of higher priority. Even though these amounts are in the spending plan, the likelihood that spending will occur may be remote and are based upon future conditions that are difficult to predict.

***PLEASE REFER TO TABLE E-3 FOR PRIORITIZATION OF PROJECTS***

### FUNDING OF CAPITAL SPENDING

#### Revenue Sources

The 10-Year CIP will rely on various funding sources to pay for capital projects/capital outlays. TMWA relies heavily on revenues generated from water sales and developer facility charges to fund many projects directly and also indirectly through debt service payments.

At the time of the acquisition of the water assets of Sierra Pacific Resources, TMWA established a \$40.1 million capital improvement project fund resulting from the issuance of Series 2001-A acquisition bonds. Since inception, TMWA has primarily relied upon operating cash flow, some capital reserves and developer contributions to fund capital projects. However, during fiscal year 2006-07, TMWA was able to utilize a low cost Nevada State Revolving Fund loan and to issue additional bonds to fund various capital improvements. The Series 2005 bond proceeds (totaling \$37.2 million) are scheduled to be drawn down beginning in December, 2005 through September, 2007 in specified amounts each month. TMWA began a tax-exempt commercial paper program in August 2006, initially to fund water right purchases. Moreover, the program provides another resource from which additional funding for capital projects and water rights acquisitions can be drawn. TMWA expects to issue new money bonds sometime in fiscal year 2009 to fund certain construction activities as previous planned in TMWA's Ten Year Funding Plan. Timing of a new money bond sale will be dependent upon the timing of major construction projects and the identified need for proceeds in the updated funding plan to be completed in the fall of 2007.

***PLEASE REFER TO TABLE E-2 SUMMARIZING PROPOSED FUNDING RESPONSIBILITIES FOR PROJECTS***

TMWA looks to the development community for developer contributions in the form of system development charges to fund all capital expenditures related to new growth, including pump station construction or expansions and feeder main extension projects. In

**Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan**

June 2003, the TMWA Board adopted facility charges to pay for new treatment/supply capacity projects and new storage capacity projects. TMWA began collecting these facility charges in January 2004. TMWA's Rule 5 proceeds are used to support new capacity construction and Rule 7 governs the purchase of water rights and reimbursement by developers for issuance of will serve letters for water service. However, because of the timing of certain growth driven capital projects, additional financial resources may be called upon as needed. During fiscal year 2006-2007 the TMWA Board updated the system development charges. These charges were updated primarily because of significant increases in construction costs.

**Bonds and Other Financing Tools**

New money revenue bond issuance will be an integral part of funding construction spending over the next three years. Nearly 50% of all construction spending is expected in the first three years of the 2008-2017-CIP. Collection of water revenues from customer and various developer fees are not expected to be sufficient to pay for construction spending and capital outlays so some reliance on new money debt and continued reliance on commercial paper note sales will be an integral part of the funding for the total capital spending.

There are several projects included in the FY 2008-2017 Capital Improvement Plan which will be funded with existing bond/note proceeds. As a governmental agency, TMWA may issue tax-exempt bonds to finance capital construction. TMWA must rely on revenues from customers and developers to repay bonds. TMWA does not have any taxing authority. In fiscal year 2007-2008, TMWA will fund the N. Virginia/Stead Pump Station, the N. Virginia /Raleigh Heights/Hoge Road water mains and the Raleigh Heights Tank with the remaining proceeds of the \$40 million Series 2005-A Revenue Bond sale. Tax-Exempt Commercial Paper (TECP) note sales totaling \$43 million were used to fund the acquisition of water rights in fiscal year 2005-2006. This funding program relieved pressure on the use of TMWA cash reserves to fund water right acquisitions. TMWA expects to issue additional TECP notes to fund future water rights acquisitions if required in fiscal year 2007-2008 and also retire outstanding TECP notes.

TMWA expects to issue future revenue bonds and TECP notes. Construction projects targeted for debt funding are the Verdi water mains and storage projects, the Glendale Water Treatment Plant finished water pumping project, the Glendale Water Treatment Plant Diversion, the Mogul Bypass Project, the NE Sparks Feeder Main Phase IV, and incremental treated water storage additions at the existing Highland and Hunter Creek treated water reservoirs.

TMWA achieved an important milestone during fiscal year 2005-06. TMWA's creditworthiness was meaningfully improved with water rate and developer fee actions taken by the TMWA Board in February 2005. With TMWA's enhanced credit profile, TMWA initiated a tax-exempt commercial paper program in August 2006 which allows TMWA to have even greater flexibility in making funding decisions for capital spending and for opportunities to acquire water rights when presented. TMWA anticipates that

## **Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan**

purchased water rights will be converted to will serve letters, providing the resource to repay the outstanding commercial paper notes. TMWA has successfully refunded (refinanced) all but \$80.1 million of the original \$448.8 million in Series 2001-A bonds. In the most recent refunding TMWA was awarded a rating upgrade from Standards and Poors from A to A+. Refunding activities have allowed TMWA to save over \$1.1 million per year in interest payments.

### **Rule 5 and Rule 7 Fees**

These fees are derived from the development community, Rule 5 fees are fees paid by developers to TMWA for the construction of new water feeder mains, new treatment/supply capacity, new storage capacity, and for new or rebuilt pump stations to meet demand resulting from new development. Rule 7 Fees are fees that are derived from the sale and dedication of water rights for new development, except for water meter retrofit fees discussed later. All other Rule 7 fees are pass-through costs or administrative costs associated with acquiring and dedicating water rights for a development. TMWA actively purchases water rights on the open market and reserves these rights for will serve letters for new development. TMWA also recovers a modest amount of administrative costs with the sale of each will serve. The title to water rights are retained by and dedicated to TMWA for the perpetual service of customers.

### **Water Meter Retrofit Fees**

TMWA has been retrofitting flat rate water services with setters and meters. The intent is to meter the entire water system in the near future. To accomplish this task TMWA collects \$1,830 for each acre-foot of demand when water rights are dedicated for new or expanded service. Proceeds from the \$1,830 per acre-foot fee finance the water meter retrofit fund for the installation of meter facilities on existing flat-rate services. TMWA expects to complete the water meter retrofit program over the course of the next several years.

### **Capital Contributions from Other Governments**

TMWA is a water wholesaler to other governmental entities namely Washoe County Department of Water Resources and the Sun Valley General Improvement District. From time to time new infrastructure needs to be constructed to service these retail water service providers. TMWA requires reimbursement of infrastructure expenditures from these other water service providers for additional water capacity required by these water purveyors to serve their retail customers.

### **Other Resources**

Methods of generating additional funds for capital improvements include increasing existing fees/charges or adding new fees/charges. However future increases in fees and charges are provisional and will be deferred to the extent possible assuming TMWA is able to meet revenue targets and maintain bond coverage ratios that will secure

**Truckee Meadows Water Authority FY 2008-2017 Capital Improvement Plan**

appropriate financial ratings for TMWA. The Board ultimately decided to forego a scheduled rate increase of 2% in November, 2005 and a proposed scheduled increase of 2% in March 2006 due to strong financial performance of the utility. TMWA will be reviewing the sufficiency of water rates in the fall of calendar year 2008 as part of the planning and funding cycle.