Truckee Meadows Water Authority

Quality. Delivered.

Photo: Nighttime Pump Rebuild - Mae Anne & McCarran Booster Pump Station
Photo By: Dillon Hansen, Maintenance Mechanic Specialist

Five Year Capital Improvement Plan

Fiscal Year 2025-2029

Truckee Meadows Water Authority is a not-for-profit, community-owned water utility, overseen by elected officials and citizens from Reno, Sparks and Washoe County

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INTRODUCTION

The Truckee Meadows Water Authority's (TMWA's) Five-Year Capital Improvement Plan 2025-2029 (CIP), describes all infrastructure construction and major capital outlays that will take place between July 1, 2024 and June 30, 2029. Guidance for identifying and scheduling projects in the CIP is provided by TMWA's 2020-2040 Water Facility Plan (WFP) and the 2020-2040 Water Resource Plan (WRP).

TMWA is a joint powers authority formed in November 2000, pursuant to a Cooperative Agreement (as amended and restated as of February 3, 2010, the "Cooperative Agreement") among the City of Reno, Nevada ("Reno"), the City of Sparks, Nevada ("Sparks") and Washoe County, Nevada (the "County"). The Authority owns and operates a water system (the "Water System") and develops, manages and maintains supplies of water for the benefit of the Truckee Meadows communities. On January 1, 2015, TMWA, the Washoe County Water Utility (WCWU) and South Truckee Meadows General Improvement District (STMGID) consolidated to create a regional water system under TMWA. TMWA has a total of 171 square miles of service area, which includes the cities of Reno and Sparks and other surrounding populated areas of the County (except certain areas in the vicinity of Lake Tahoe and other small areas bordering California). TMWA has no authority to provide water service outside of its service area; however, may provide service in the future to developments that are annexed into its service area.

The CIP incorporates a comprehensive compilation of water system improvements for TMWA. A major feature of the CIP is the construction of several projects that will expand the conjunctive use of the region's water resources. The philosophy behind conjunctive use of local water resources is to maximize the use of surface water while preserving the integrity of groundwater resources which are drawn upon during periods of persistently dry weather. Another aspect of the CIP is to expand the Aquifer Storage and Recovery Program (ASR Program) which is the recharge of groundwater basins with treated surface water, and explore the possibilities related to Advanced Purified Water (APW). In addition, this CIP includes several major projects to extend full conjunctive use water service to the Verdi area, made possible by approved development and cost effective oversizing. The estimated costs of the new backbone water facilities is $20.0 million and is being borne largely by regional developments in the area.

The CIP constitutes an essential component in TMWA's system of planning, monitoring and managing the activities of purveying water and generating hydroelectric power. The CIP is incorporated into a broader, constantly-updated Five-Year Funding Plan ("Funding Plan") for a comparable period. This Funding Plan will determine adequate levels and sources of funding for projects contained in the CIP.

The 2024-2028 Funding Plan indicates a nominal funding gap in each year, however, due to adequate treasury and ongoing revenues from various sources, TMWA can fund the CIP.

Water Conservation TMWA is a steward of the region's water resources and promotes the efficient use of water in drought and non-drought years. Due to TMWA's ongoing conservation programs, among other factors, municipal residential per capita demand has decreased by 30% since the early 2000s, helping to offset total water use as TMWA's customer base has grown by approximately 30%. Capital spending represents a key aspect of TMWA's conservation program. Projects such as meter replacements, conjunctive use and recently the Advanced Purified Water Facility at American Flat represent projects which help to ensure TMWA has the appropriate infrastructure in place to allow for efficient water use. Specifically, projects included in the CIP having significant conservation impacts are as follows: Advanced Purified Water Facility at American Flat ($212.0 million), Automated Meter Infrastructure ($13.3 million), Well Head TTHM Mitigation ($1.5 million), Lazy 5 Pump Station ($3.0 million) and STMGID Tank 4 Booster Pump Station/Transmission Line ($0.7 million).

The CIP includes total spending of $632.3 million with approximately 48.0% or $303.4 million dedicated to upgrades or replacement of existing infrastructure, and approximately 44.8% or $283.3 million allocated to construction of new water system capacity projects, conjunctive use construction projects, retrofit of remaining unmetered services, and potential opportunistic acquisition of water rights. Of the total projected spending over the next five years 5.7% or $35.8 million is considered contingency spending which is dependent on certain events occurring to trigger spending. The $632.3 million in projected spending is grouped into broad categories of improvements and spending outlays. These categories are described below with detailed project descriptions to be found in the Project Description Section.

Raw Water Supply Improvements contains 35.5% or approximately $224.4 million of total spending in the CIP. Comprising nearly all of the spending in this category is the construction of an Advanced Purified Water (APW) Facility at American Flat which will be built as a follow up to the OneWater NV advanced purified water feasibility study, and will be a joint effort with other agencies. Through an interlocal agreement, TMWA has partnered with City of Reno who will reimburse TMWA for 70% of the construction costs. There will be immediate benefit to City of Reno resulting from increased capacity at the Reno Stead Water Reclamation Facility. Other projects in this category include improvements to the Highland Canal/Siphon raw water conveyance infrastructure, upstream storage improvements for Donner Lakes where TMWA stores Privately-Owned Stored Water (POSW) and expenses associated with the storage and implementation of the Truckee River Operating Agreement (TROA).

Ground Water Supply Improvements contains 6.0% or approximately $37.8 million of total spending in the CIP. These projects focus on preserving existing well capacities, drilling and equipping of new wells and at times complete replacement of existing wells.

Treatment Plant Improvements contains 11.7% or approximately $73.8 million of total spending in the CIP. The Orr Ditch pump station/Hydro Facility project will increase redundancy and reliability by enhancing the Truckee River source of supply to the Chalk Bluff Water Treatment Plant and directly offset power costs. Other spending in this category targets fix and finish projects with the primary focus on the Chalk Bluff and Glendale Surface Water Treatment

Plants located on the Truckee River. Other improvements include installation of a new disinfection process at two wells historically treated by the Longley Lane ground water treatment plant and a complete upgrade of the Supervisory Control and Data Acquisition (SCADA) system which provides centralized automated system control and data storage for the distribution system and treatment plants.

Distribution System Pressure Improvements contains 11.7% or approximately $73.8 million of total spending. This spending primarily includes pump and pressure regulating station rebuilds and new construction, correction of pressure or fire flow deficiencies, as well as reconstruction of pressure regulating valves.

Water Main Distribution & Service Line Improvements contains 10.7% or approximately $67.7 million of total spending in the CIP. These improvements include replacement of aged water mains reaching end of service life, installation of new mains for new and expanded service, water main oversizing and extensions, off-river supply improvements, and conjunctive use projects to extend surface water supplies to the areas that rely heavily on year round groundwater pumping. This last set of projects furthers the conjunctive use philosophy of water resource management and includes the Boomtown water system improvements.

Potable Water Storage Improvements contains 11.0% or approximately $69.6 million of total spending in the CIP. These projects are comprised mainly of new treated water storage tank to increase system redundancy and reliability (Sun Valley 2 Tank and Caughlin 2 Tanks) and construction to serve new and expanded service (STMGID Tank East Zone 11 Tank), some replacement of existing treated water tank capacity as well as systematic recoating of treated water tank interiors and exteriors to extend service life of these facilities.

Hydroelectric Improvements contains 3.9% or approximately $24.7 million of total spending in the CIP. These improvement center on the three run-of-river hydroelectric facilities currently owned by TMWA. Efforts on these facilities focus primarily on plant, flume, forebay, diversion and canal improvements as well as equipment upgrades.

Customer Service Outlays contains 2.5% or approximately $15.7 million of total spending in the CIP. The majority of spending in this category is for Automated Meter Infrastructure (AMI) meter replacements, providing more accurate and real time usage information which can be leveraged for billing, conservation and cost efficiencies. Also, in this category is a spending provision for new business meters which is funded by development.

Administrative Outlays contains 4.3% or approximately $27.3 million of total spending in the CIP. These outlays are primarily for the purchase of heavy and light vehicles, excavation equipment and fleet upgrades. Other spending in this category are for facilities expansions, as well as an Emergency Operations Center. Also, in this category is spending for security improvements such as fencing, intrusion detection, security cameras, lighting.

Special Programs Funded by Development include outlays for opportunistic water rights purchases. They are separated from a presentation standpoint because in the case of water right acquisitions, spending is currently driven by pricing opportunity. This comprises 2.8% or approximately $17.5 million of total spending in the CIP.

Photo: Chalk Bluff Clearwell Walkthrough before Disinfection
Photo By: Craig Moyle, Water Equipment Specialist

DEFINITIONS

Capital Improvement Program Definitions

The Five-Year CIP is a planning and budgeting tool, which provides information about TMWA's infrastructure needs for a five-year time frame. Each year, the list of projects is reviewed for cost and priority. New projects may be added and other projects delayed or deleted entirely. Since most projects are mandatory or necessary, deletion of a project would be rare with the exception of contingency spending. However, capital spending plans must remain flexible, and from time to time it is necessary to take revisions to the approved fiscal year's CIP back to the TMWA Board for approval. If construction or outlays can be deferred, TMWA will defer spending in order to preserve cash reserves, regardless whether or not there are difficult economic times. These decisions are made on a case by case basis.

Definition of Capital Outlays

"Capital Outlays," which are in TMWA's capital budget, include construction projects that improve the life of current TMWA infrastructure or are new additions to TMWA infrastructure. Other outlays include computer equipment and software, vehicles, and heavy equipment which are generally found in the Administrative category of projects. Outlays for meter installations and related infrastructure and equipment are generally included in the Customer Service category.

PRIORITIZATION OF PROJECTS/OUTLAYS

TMWA may not have sufficient funding to meet all 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 demand and maintain water system reliability. TMWA's Funding Plan is used to analyze total spending, identify various funding alternatives, and determine whether or not water rate adjustments will be required.

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

* **PRIORITY 1 MANDATORY:** These are considered absolutely required, and are the highest priority of all capital projects. Mandatory projects include those in final design or already under construction, or those required by legislation or regulation for protection of public health and safety. These projects are generally found in the first fiscal year of the CIP. Based on current water demands and infrastructure conditions, if the project is not completed, there is risk of eventually being unable to reliably provide water service to its existing customers and/or new and expanded service, or incur extended outages.

* **PRIORITY 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 last four years of the CIP. External factors such as the pace of new development or the condition of existing infrastructure may delay or accelerate the timing of project construction.

* **PRIORITY 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. If such criteria are not met, then spending may or may not be justified. Also, some projects can be deferred if spending is required in an area of higher priority. Even though these projects and outlays are in the CIP, the likelihood that spending will occur may be remote and is based upon future conditions that are difficult to predict.

FUNDING OF CAPITAL SPENDING

Funding Sources

The CIP will rely on various funding sources to pay for capital projects/capital outlays. TMWA relies heavily on revenues generated from water sales, hydroelectric, and other operating sales to fund the majority of projects. Developer contributions have historically been an important funding source for certain construction projects for new and expanded water system capacity. Investment income is also available to augment other revenue sources but is minor in relation to other funding sources. Funding from developer contributions can vary year to year and is dependent on the local economy and pace of new construction in TMWA's service territory. For this reason, TMWA does not rely on these fees to fund operations or fund annual principal and interest payments on TMWA's outstanding debt. TMWA may rely on the issuance of debt to fund large levels of capital spending in a particular period. Generally, TMWA does not issue new debt to fund capital projects. However, if there is an opportunity to issue debt at discounted rates, or with accompanying principal forgiveness, TMWA would consider this option.

Developer Contributions

TMWA looks to the development community for developer contributions in the form of system development charges or direct reimbursements to fund capital expenditures related to new or expanded water service, including pump station construction or expansions and feeder main extension projects. In 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. Under TMWA's Rule 5 these proceeds are used to support new capacity construction. Rule 7 governs the purchase of water rights and reimbursement by developers for issuance of will-serve commitments for water service. However, because of the timing of certain growth driven capital projects, additional financial resources may be called upon as needed. The most recent update to the water system facility charges, which updated area fees, supply and treatment fees, as well as storage unit costs are scheduled for approval by the TMWA Board in May, 2024 with an effective date of July, 2024. These fees are subject to periodic review for funding adequacy.

Financing Background

Revenue bond issuance has been an integral part of funding construction spending. TMWA has historically taken advantage of lower rate, subordinated debt financing obtained through the Drinking Water State Revolving Loan Fund (DWSRF) and a tax-exempt commercial paper program (TECP) due to lower cost of capital and repayment subordination features of these funding vehicles. Federal and State Grants and loan forgiveness programs have also been identified in the past to fund projects. In the event customer water sales and developer funding is not sufficient to cover immediate infrastructure needs, TMWA maintains the ability to access the

credit market and issue debt. TMWA has been able to reduce debt by over $90.8 million, and 21% during the last 5 years.

Rule 5 and Rule 7 Fees

These fees are collected from the development community. Rule 5 fees are 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 and expanded service. Rule 7 Fees are derived from will-serve sales to development. TMWA historically purchased water rights on the open market and reserves these rights for will-serve letters to be sold to development. TMWA also recovers the applicable administrative and financing costs with the sale of each will-serve. The title to water rights are retained by and dedicated to TMWA. TMWA has sufficient inventory of water rights to meet the demands for new and expanded service for the foreseeable future.

Water Resource Sustainability Fund Fees

Resolution 272, passed by the Board of Directors on January 16, 2019, broadened the purpose of the Water Meter Retrofit Fee to support projects such as expanded conjunctive use, aquifer storage and recovery, demonstration and validation of advanced purified water treatment processes, future water resource identification and acquisition, and other projects that enhance water resource sustainability and drought resiliency. The fee is $1,600 for each acre-foot of demand when will-serve commitments based on surface water right dedications are issued for new or expanded service.

Capital Contributions from Other Governments

TMWA and the City of Reno entered into an Interlocal Agreement (ILA) effective December 7, 2021, which outlined cost sharing responsibilities for construction of the Advanced Purified Water Facility at American Flat. As discussed in more detail on page 23, the City of Reno will be funding 70% of the construction costs through contributions to TMWA, who will be the ultimate owner of the asset.

TMWA is a water wholesaler to the Sun Valley General Improvement District (SVGID). From time to time, new infrastructure must be constructed to service this retail water-service provider. There are no expectations of any need for reimbursement from this source in the CIP although historically SVGID has made contributions to TMWA.

Reserves from the Water Utility Consolidation

TMWA, the WCWU and STMGID consolidated on January 1, 2015. As a result of the consolidation, the respective treasuries of the WCWU and STMGID were transferred to TMWA.

The WCWU treasury that was transferred to TMWA amounted to approximately $43.4 million while the STMGID treasury transferred to TMWA was approximately $15.7 million of which zero remains. These cash and investment reserves will continue to be used to make necessary improvements in the former water utility service areas including conjunctive use enhancements.

Other Resources

One method of generating additional funds for capital improvements is to increase existing fees/ charges or to add new fees/charges. However, future increases are expected to be nominal if TMWA is able to meet revenue requirements and maintain bond coverage ratios that will suffice to maintain strong investment-grade credit ratings. TMWA has obtained many benefits of Aa2 from Moodys, AA+ from S&P, and AAA from Fitch. The Board approved a five-year customer water rate plan in February 2024 which included a 4.5%, 4.0% and a 3.5% over the next three years, followed by annual increases, maximum of 4.5% and minimum of 1.0% tied to the Consumer Price Index for all Urban Consumers (CPI-U) for the Western Region. The rate adjustments will be reviewed and evaluated by the Board each year with the ability for the Board to defer or modify the increase prior to implementation date. Water rate increases are essential for TMWA to maintain sound credit ratings and to preserve access to opportunities in the capital markets.

FISCAL YEAR 2025 CAPITAL SPENDING-THE CAPITAL BUDGET

TMWA expects to spend $111.2 million in fiscal year 2025, the first year of the FY 2025-2029 CIP. Of this total, $71.5 million will be funded by customer rates for water system rehabilitation, pressure system improvements, water main distribution service line improvements, and administrative and customer service outlays. Another $36.8 million will be funded by developer fees for water system expansion, limited opportunistic acquisition of water rights. Hydroelectric operations will fund $2.0 million in improvements. The sustainability fund will pay for $0.9 million in projects.

SUMMARY OF PROJECTS FOR THE FISCAL YEAR 2025 BUDGET

TMWA has established the following projects for the capital budget in fiscal year 2025 (Amounts presented in thousands of dollars):

Summary of Projects for FY 2025	Amount
Raw Water Supply Improvements	
Highland Canal-Upgrades-Downstream	225
Highland Canal-Upgrades-Diversion to Chalk Bluff	1,200
TROA Drought Storage / Implementation	100
Advanced Purified Water Facility at American Flat	8,000
South Truckee Meadows Recharge Valve	250
Washoe Lake System Improvements	250
Independence Lake Communication Improvements	100
Total Raw Water Supply	**10,125**
Ground Water Supply Improvements	
Well Rehabilitation Improvements	200
Well Fix and Finish	350
Brush Well Replacement	1,200
Well Head TTHM Mitigation	500
Spring Creek Well 10 - Donovan	1,500
Fish Springs Ranch TDS Monitoring Wells	250
Fish Springs Ranch Geophysics/Drilling Project	300
Spring Creek Well 9 (Spring Creek 4 Replacement)	1,700
STMGID Well 1 Re-Drill and Equipping	1,200
Total Ground Water Supply	**7,200**
Treatment Plant Improvements	
Chalk Bluff Treatment Plant Improvements	360
Chalk Bluff Clearwell 1 Rehabilitation	300

Summary of Projects for FY 2025 (continued)	Amount
Chalk Bluff Clearwell 2 Rehabilitation	200
Chalk Bluff HVAC Improvements	75
Chalk Bluff 25K Power Reliability and Safety Improvements	100
Chalk Bluff Soda Ash Reliability Upgrade	50
Glendale Treatment Plant Improvements	375
Glendale HVAC Improvements	250
Mt Rose Treatment Plant Efficiency Improvements	450
Chalk Bluff Filter Underdrains	1,200
Orr Ditch Pump Station Rehabilitation and Hydro Facility	11,000
Truckee Canyon Water Treatment Improvements	20
Lightning W Treatment Improvements	10
SCADA Rehabilitation / Plant Operating Software	1,000
Spanish Springs Nitrate Treatment Facility	500
Glendale Sand Yard Improvements	430
Chalk Bluff Effluent Reservoir Outlet Repairs	100
Chalk Bluff Screening Facility Rehabilitation and Upgrades	200
Total Treatment Plant	**16,620**
Pressure Improvements	
Pressure Regulators Rehabilitation	2,000
Land Acquisitions	150
Pump Station Oversizing	250
Pump Station Rebuilds, Rehabilitations	150
Standby Generator Improvements	100
PSOM Standby Generator Additions	1,100
South-West Pump Zone Consolidation Phase 1	400
Lazy 5 Low Head Pump Station and Mains	2,500
South Hills Booster Pump Station Replacement	70
7th Street High and Low Booster Pump Station Replacement	3,000
Verdi 1 Booster Pump Station	2,500
Santerra Quilici 1 Booster Pump Station	3,700
Ascente Booster Pump Station	2,500
Talus Valley Booster Pump Station	2,900
Caughlin Train A Improvements	1,000
Idlewild Irrigation Pump Station Improvements and Repair	170
Total Pressure Improvements	**22,490**
Water Main-Distribution-Service Line Improvements	
Street and Highway Main Replacements	4,000
Golden Parkway Main and Check Valve Tie	40
Yori and E. University Main Replacement	2,200

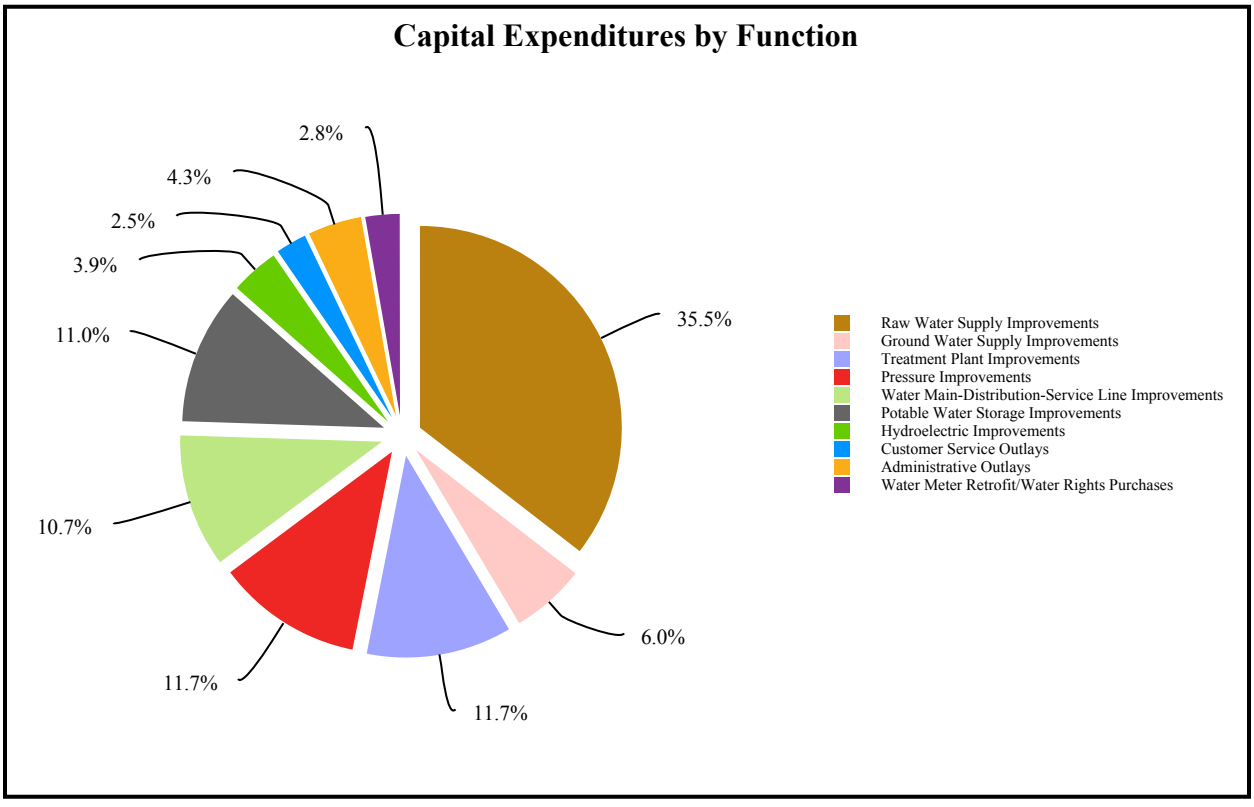
Summary of Projects for FY 2025 (continued)	Amount
Kate Smith Water Main Replacement Phase 1-3	1,900
Kate Smith Sparks Feeder Main-36"	100
Thomas Jefferson Area Main Replacements	1,800
South Virginia Rapid Transit Main Replacement	2,000
North-East Sparks Feeder Main Phase 8	10
Goldenrod Main	1,800
Boomtown Water System Improvements	1,500
Montreux High Pressure ACP Replacement	100
Somersett 6 Main Tie and Pressure Regulating Station	280
South Truckee Meadows Capacity Improvements	800
West 4th Street Main Replacement	2,100
Total Water Main-Distribution-Service Line	**18,630**
Potable Water Storage Improvements	
Sun Valley 2 Tank	420
Storage Tank Rehabilitation and Improvements	10,100
Boomtown System Improvements Phase 4 - Boomtown Tank	1,000
Caughlin 2 Tanks	500
US 40 Tank and Feeder Main	3,500
Lemmon Valley Tank 1 Replacement and Patrician Pressure Regulating Station	1,500
Hidden Valley Tank 4 Outage Improvements	250
Hunter Creek Reservoir Rehabilitation	75
Terminal Tank CO2 Delivery Road Improvements	100
STMGID 6 New Tank	20
Total Potable Water Storage	**17,465**
Hydroelectric Improvements	
Forebay, Diversion, and Canal Improvements	100
Flume Rehabilitation	150
Verdi Sandgate Improvements	500
Verdi Bypass Valve Improvements	850
Washoe Plant Improvements	400
Total Hydroelectric	**2,000**
Customer Service Outlays	
Meter Reading Equipment	75
New Business Meters	100
Mueller Pit Replacements former Washoe County	125
Galvanized / Poly Service Line Replacements	250
Automated Meter Infrastructure (AMI)	2,650
Total Customer Service Outlays	**3,200**

Summary of Projects for FY 2025 (continued)	Amount
Administrative Outlays	
GIS / GPS System Mapping Equipment	20
IT Server Hardware and Equipment	240
IT Network Security Upgrades	210
IT Physical Access Security Upgrades	15
IT Firewall Infrastructure Enhancements	100
Printer / Scanner Replacement	10
Crew Trucks / Vehicles	1,500
Replacement HCM System	1,000
Corporate Office Expansion	5,000
Glendale Office Expansion	500
Corporate HVAC Improvements	100
Emergency Management Projects	50
Physical Site Security Improvements	1,250
Total Administrative Outlays	**9,995**
Special Projects Funded by Development	
Water Right Purchases	3,500
Total Special Projects	**3,500**
Total Capital Spend for FY 2025	**111,225**

Detailed project descriptions are provided for all projects in the CIP. These descriptions cover the fiscal year 2025 capital budget and the years 2026-2029.

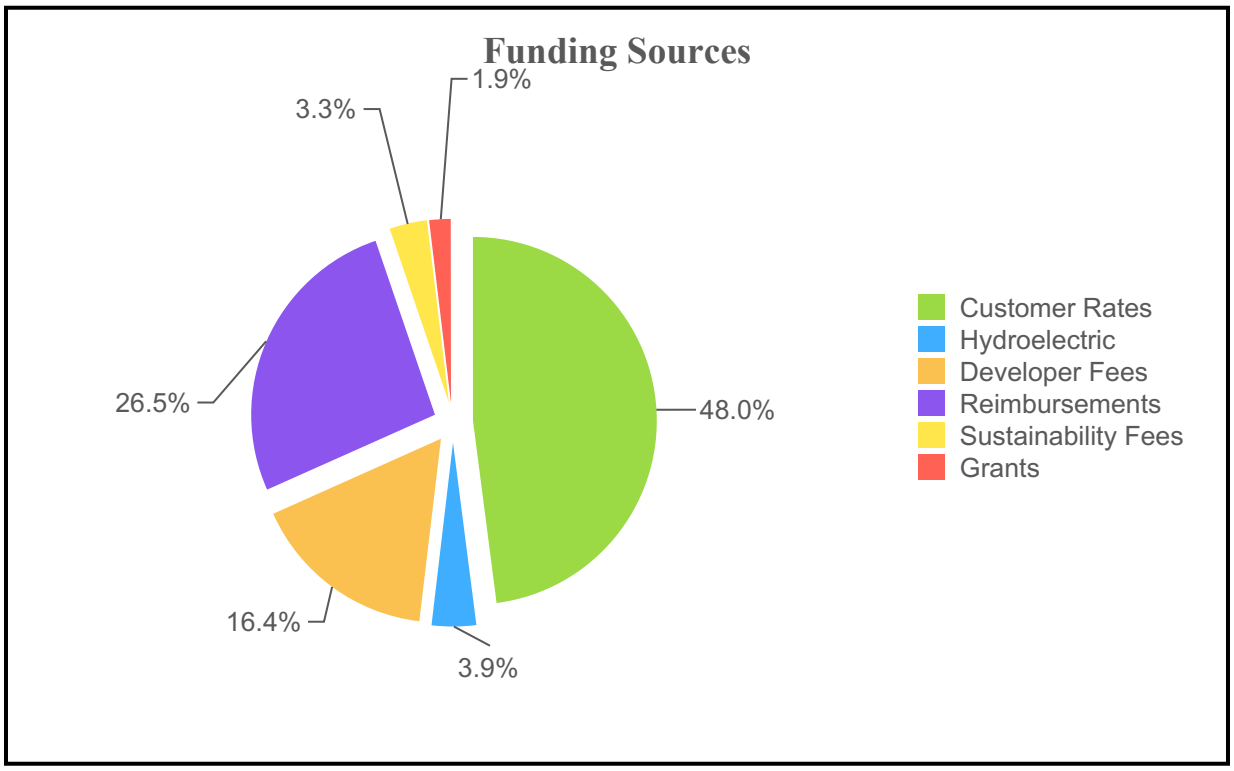
CAPITAL EXPENDITURES BY FUNCTION
(Amounts in thousands of dollars)

Summary of Capital Expenditures by Function	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
Raw Water Supply Improvements	10,125	86,275	88,675	38,675	675	224,425
Ground Water Supply Improvements	7,200	4,850	7,750	7,200	10,780	37,780
Treatment Plant Improvements	16,620	7,795	22,000	19,065	8,355	73,835
Distribution System Pressure Improvements	22,490	13,950	8,750	14,580	14,050	73,820
Water Main Distribution Service Line Improvements	18,630	18,585	11,880	9,150	9,450	67,695
Potable Water Storage Improvements	17,465	13,170	15,750	11,540	11,660	69,585
Hydroelectric Improvements	2,000	11,865	10,275	290	300	24,730
Customer Service Outlays	3,200	3,125	3,125	3,125	3,125	15,700
Administrative Outlays	9,995	7,220	4,345	4,295	1,420	27,275
Water Meter Retrofit / Water Rights Purchases	3,500	3,500	3,500	3,500	3,500	17,500
Total Projected Capital Spending	**111,225**	**170,335**	**176,050**	**111,420**	**63,315**	**632,345**



PRELIMINARY FUNDING PLAN
FUNDING SOURCES
(Amounts in thousands of dollars)

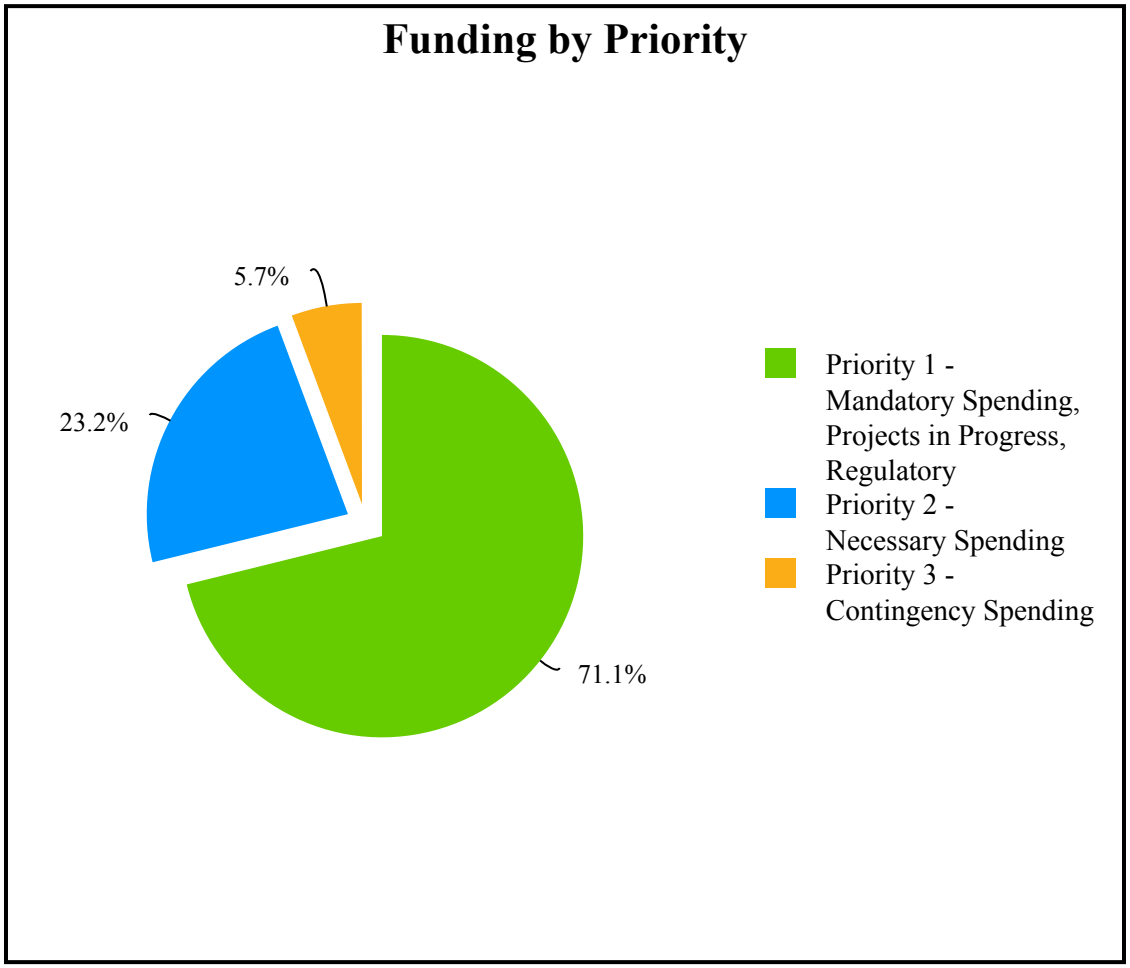
Summary of Funding Sources	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
Customer Rates	71,532	60,367	62,695	62,150	46,609	303,353
Hydroelectric	2,000	11,865	10,275	290	300	24,730
Developer Fees	14,353	27,491	31,189	14,747	16,156	103,936
Reimbursements	16,460	62,240	59,700	28,900	—	167,300
Sustainability Fees	880	7,872	8,410	3,552	250	20,964
Grants	6,000	500	3,781	1,781	—	12,062
Total Projected Capital Spending	**111,225**	**170,335**	**176,050**	**111,420**	**63,315**	**632,345**



FUNDING BY PRIORITY
(Amounts in thousands of dollars)

Summary of Funding by Priority	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
Priority 1 - Mandatory Spending, Projects in Progress, Regulatory	97,975	141,125	119,925	63,990	26,880	449,895
Priority 2 - Necessary Spending	8,450	23,875	41,285	42,280	30,730	146,620
Priority 3 - Contingency Spending	4,800	5,335	14,840	5,150	5,705	35,830
Total Projected Capital Spending	**111,225**	**170,335**	**176,050**	**111,420**	**63,315**	**632,345**

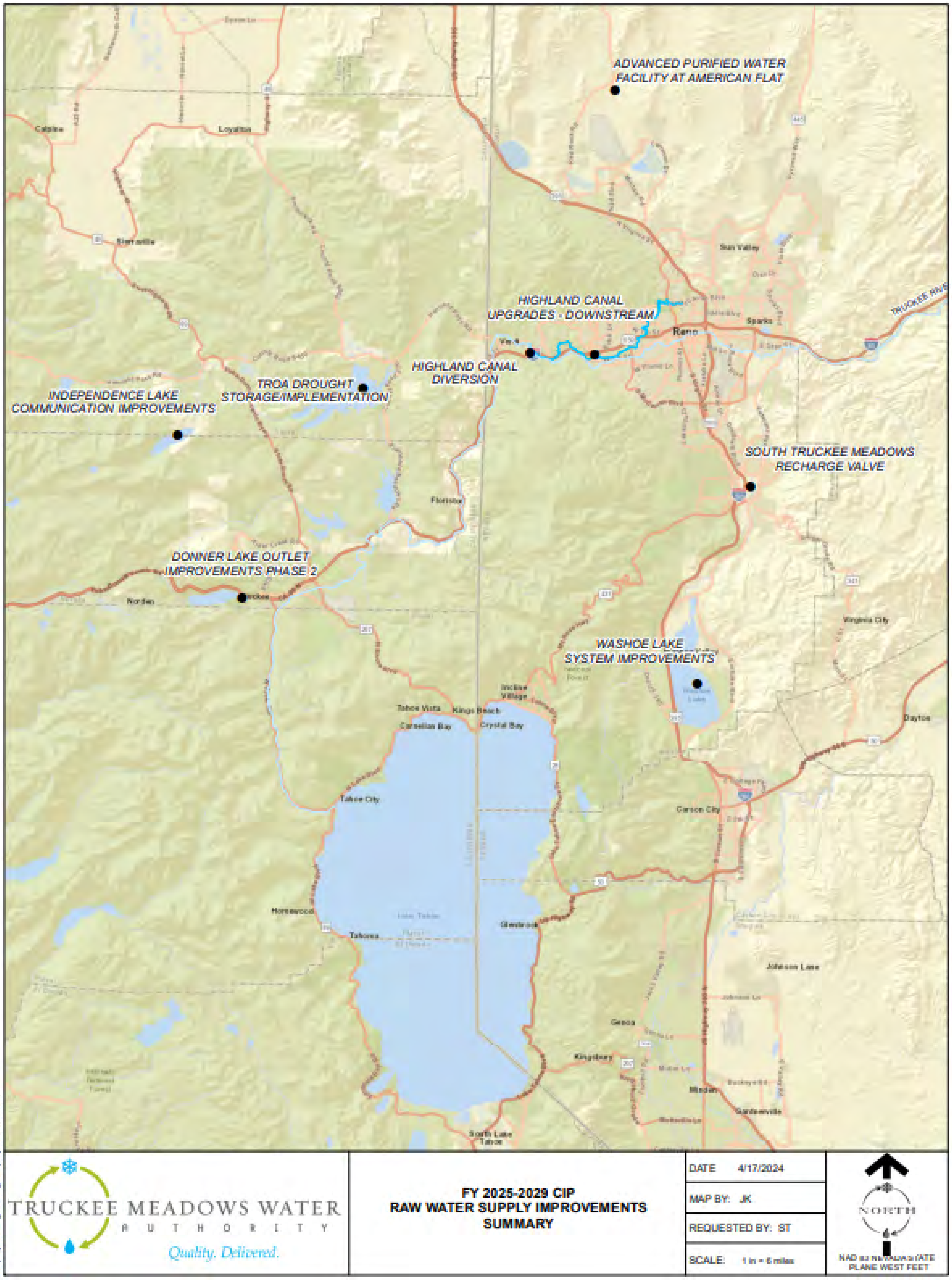
For additional information about how TMWA classifies its projects, see Prioritization of Projects/Outlays on Page 6.



PROJECT FUNCTIONS AND DESCRIPTIONS
RAW WATER SUPPLY IMPROVEMENTS
Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Highland Canal-Upgrades-Downstream	225	225	225	225	225	1,125
1	Customer Rates	Highland Canal-Upgrades-Diversion to Chalk Bluff	1,200	3,400	3,100	1,100	100	8,900
3	Customer Rates	TROA Drought Storage / Implementation	100	100	100	100	100	500
2	Customer Rates	Donner Lake Outlet Improvements Phase 2	—	300	—	—	—	300
1	Developer Fees / Sustainability Fees / Grants/ Reimbursements	Advanced Purified Water Facility at American Flat	8,000	82,000	85,000	37,000	—	212,000
1	Customer Rates	South Truckee Meadows Recharge Valve	250	—	—	—	—	250
3	Customer Rates	Washoe Lake System Improvements	250	250	250	250	250	1,250
1	Customer Rates	Independence Lake Communication Improvements	100	—	—	—	—	100
Subtotal Raw Water Supply			**10,125**	**86,275**	**88,675**	**38,675**	**675**	**224,425**

Project Locations: Map of all *Raw Water Supply Improvements* projects are highlighted in the following map.


ADVANCED PURIFIED WATER FACILITY AT AMERICAN FLAT
HIGHLAND CANAL UPGRADES - DOWNSTREAM
HIGHLAND CANAL DIVERSION
TROA DROUGHT STORAGE/IMPLEMENTATION
INDEPENDENCE LAKE COMMUNICATION IMPROVEMENTS
SOUTH TRUCKEE MEADOWS RECHARGE VALVE
DONNER LAKE OUTLET IMPROVEMENTS PHASE 2
WASHOE LAKE SYSTEM IMPROVEMENTS
TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
RAW WATER SUPPLY IMPROVEMENTS SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 6 miles
NORTH

Raw Water Supply Improvements
Highland Canal-Upgrades-Downstream

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Highland Canal-Upgrades-Downstream	225	225	225	225	225	1,125

PROJECT DESCRIPTION: The improvements reflected in this capital project item are for improvements along the canal downstream of the Chalk Bluff Water Treatment Plant to the Rancho San Rafael Park. Approximately 2,000 feet of "smart ditch" (a molded plastic trapezoidal channel section) has been installed downstream of Chalk Bluff in recent years. This product reduces leakage and maintenance and it is planned to continue to extend the installation in the future. Other efforts are rehabilitative in nature and may address access and security concerns.

SCHEDULE: Projects are identified and prioritized on an annual basis.

Raw Water Supply Improvements
Highland Canal – Upgrades – Diversion to Chalk Bluff

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Highland Canal-Upgrades-Diversion to Chalk Bluff	1,200	3,400	3,100	1,100	100	8,900

PROJECT DESCRIPTION: These improvements are for the stretch of canal between the diversion on the Truckee River and Chalk Bluff Water Treatment Plant. The proposed spending is to secure the canal from trespass, enhance public safety, and prevent encroachment on TMWA property. TMWA will also complete fencing along the canal for public safety, install security cameras, and access barriers. The proposed budget is for the replacement of the existing 54-inch siphon pipe under the Truckee River just downstream of the diversion, which was installed in 1954. Additionally, replacement of the access bridge across the Truckee River from old Hwy 40 to the Highland intake, and a feasibility study will be conducted for replacing sections of the flume that are showing signs of failure.

SCHEDULE: Projects are identified and prioritized on an annual basis.

Raw Water Supply Improvements
TROA Drought Storage/Implementation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	TROA Drought Storage / Implementation	100	100	100	100	100	500

PROJECT DESCRIPTION: TROA became effective and TMWA began implementation officially on December 1, 2015.

SCHEDULE: Ongoing budget under TROA implementation is for additional stream gauges in new locations as required, as well as improving the monitoring capabilities of existing gauges as needed on an annual basis. Other smaller capital improvements are related to the operation of reservoir sites.

Raw Water Supply Improvements
Donner Lake Outlet Improvements Phase 2

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Donner Lake Outlet Improvements Phase 2	—	300	—	—	—	300

PROJECT DESCRIPTION: Dredging of a portion of the Donner Lake outlet channel was completed in FY 2019. The project was scaled back to fit within the California Environmental Quality Act emergency permitting requirements. Additional work is required to extend and improve the outlet channel further into the lake, including possible bank stabilization improvements to minimize future dredging requirements.

SCHEDULE: Permitting and preliminary design will be conducted in FY 2026.

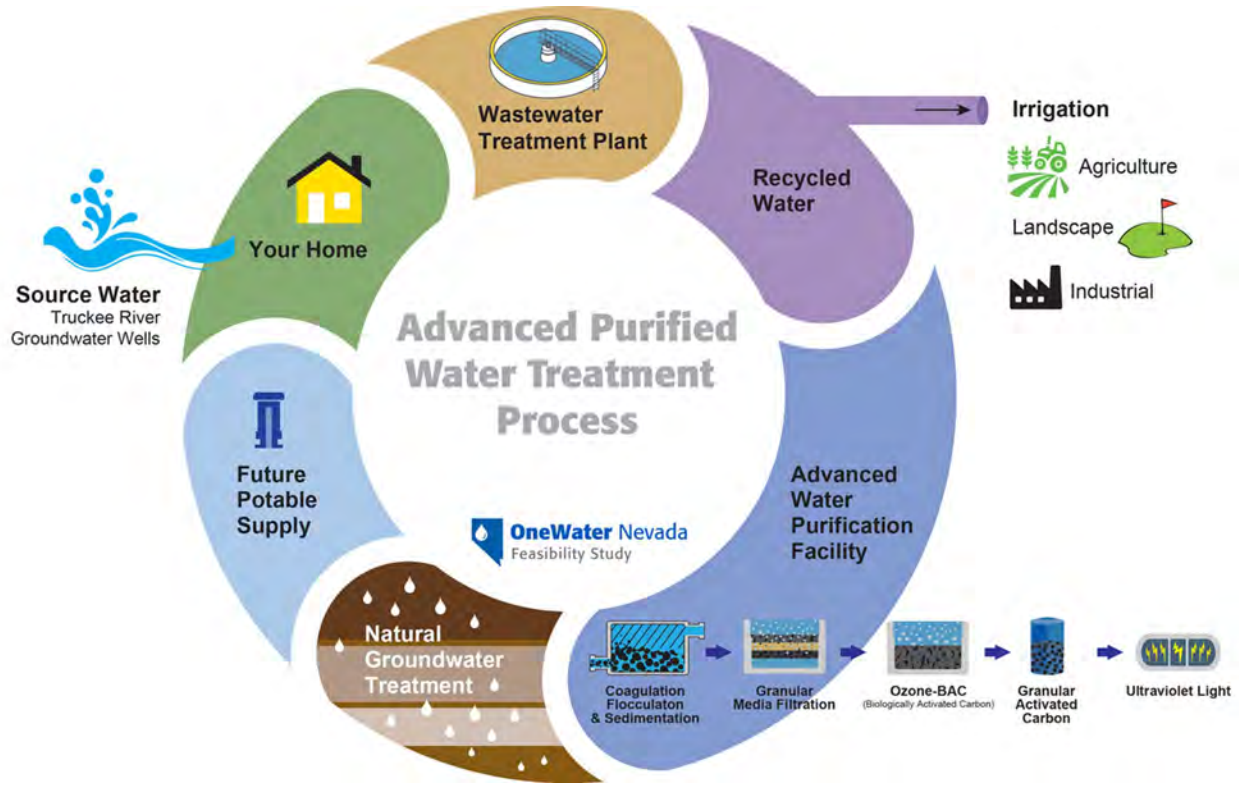
Raw Water Supply Improvements
Advanced Purified Water Facility at American Flat

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Developer Fees / Sustainability Fees / Grants/ Reimbursements	Advanced Purified Water Facility at American Flat	8,000	82,000	85,000	37,000	—	212,000

PROJECT DESCRIPTION: The Advanced Purified Water Facility at American Flat will be Nevada's first Advanced Purified Water project achieving category A+ reclaimed water quality. Category A+ reclaimed water is suitable for all Nevada water recycling practices, including augmenting groundwater aquifers. The Project's core element is a 2 million gallons per day (MGD) advanced purified water facility (APWF) producing 2,000 acre-feet (AF) of water annually for groundwater augmentation to provide a sustainable regional drought proof supply and crucially enhance the region's water supply resiliency to help address future climate change impacts. TMWA is partnering with City of Reno who will be reimbursing TMWA for 70% of the total construction costs of the project.

SCHEDULE: Construction will continue through FY 2028.



Raw Water Supply Improvements
South Truckee Meadows Recharge Valve

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	South Truckee Meadows Recharge Valve	250	—	—	—	—	250

PROJECT DESCRIPTION: Install two down hole recharge valves on two existing wells in the South Truckee Meadows system.

SCHEDULE: Installation planned for FY 2025 based on priority.

Raw Water Supply Improvements
Washoe Lake System Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Washoe Lake System Improvements	250	250	250	250	250	1,250

PROJECT DESCRIPTION: Improvements as necessary to Washoe Lake Dam and related infrastructure to monitor, capture, store and deliver raw water as necessary to meet regional water supply objectives.

SCHEDULE: Projects are identified and prioritized on an annual basis.

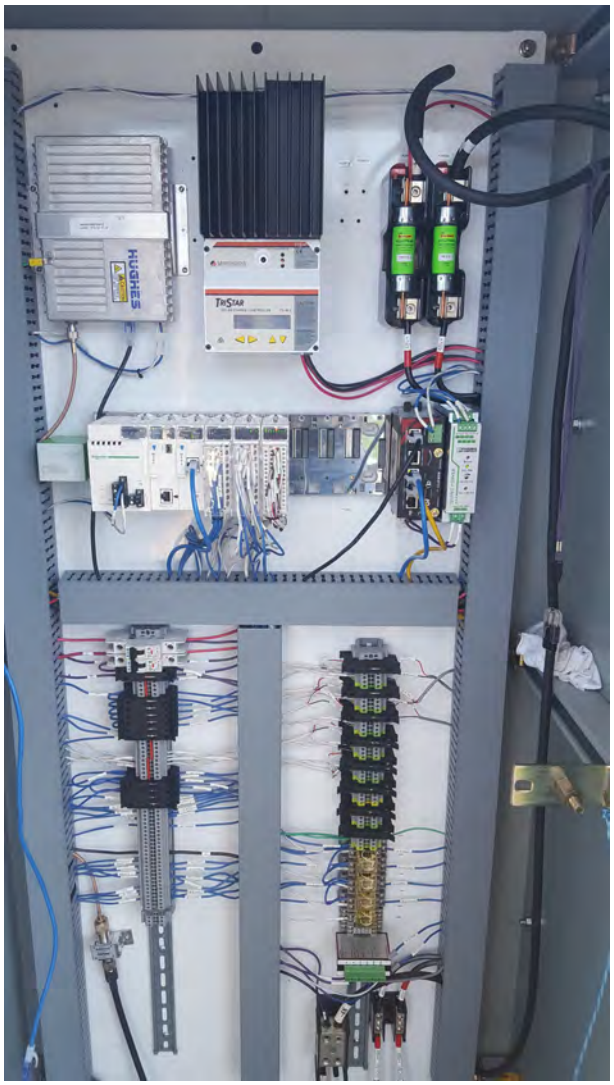
Raw Water Supply Improvements
Independence Lake Communication Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Independence Lake Communication Improvements	100	—	—	—	—	100

PROJECT DESCRIPTION: Upgrade the communications connection to TMWA SCADA system to improve reliability and security.

SCHEDULE: Improvements are scheduled for FY 2025.



GROUND WATER SUPPLY IMPROVEMENTS
Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Well Rehabilitation Improvements	200	200	200	200	200	1,000
2	Developer Fees	Double Diamond 5 and Equipping	—	—	—	—	80	80
2	Developer Fees	Callamont Well South Equipping	—	—	—	100	1,900	2,000
2	Customer Rates	Air Guard Well Replacement Equipping	—	—	—	—	2,000	2,000
2	Customer Rates	Lemmon Valley Well 8 Replacement	—	800	2,500	—	—	3,300
2	Customer Rates	Well Fix and Finish	350	350	350	350	350	1,750
1	Customer Rates	Brush Well Replacement	1,200	—	—	—	—	1,200
2	Customer Rates	Spring Creek 8 Well Equipping	—	—	—	1,000	1,000	2,000
2	Customer Rates / Sustainability Fees	Well Head TTHM Mitigation	500	—	500	—	500	1,500
2	Developer Fees	Callamont Well North Equipping	—	—	100	1,900	—	2,000
1	Developer Fees	Spring Creek Well 10 - Donovan	1,500	1,000	—	—	—	2,500
1	Customer Rates	Fish Springs Ranch TDS Monitoring Wells	250	—	—	—	—	250
2	Customer Rates/ Reimbursements	Fish Springs Ranch Geophysics/Drilling Project	300	—	—	—	—	300
1	Customer Rates	Spring Creek Well 9 (Spring Creek 4 Replacement)	1,700	1,500	1,000	—	—	4,200
1	Customer Rates	STMGID Well 1 Re-Drill and Equipping	1,200	500	1,500	500	—	3,700
1	Customer Rates	Boomtown 13 Well	—	500	—	2,000	—	2,500
1	Customer Rates	Spring Creek 2 Re-drill	—	—	800	—	2,000	2,800
1	Customer Rates	Lightning W 2 Re-drill	—	—	800	—	2,000	2,800

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Desert Springs 5 Production Well	—	—	—	800	—	800
1	Customer Rates	Desert Springs 6 Exploration Well and Testing	—	—	—	350	750	1,100
Subtotal Ground Water Supply			**7,200**	**4,850**	**7,750**	**7,200**	**10,780**	**37,780**

Project Locations: Map of all *Ground Water Supply Improvements* projects are highlighted in the following map.


AIR GUARD WELL
LEMMON VALLEY 8 WELL
SPRING CREEK 10 WELL - DONOVAN
DESERT SPRINGS 5 WELL
SPRING CREEK 2 WELL
BRUSH WELL
DESERT SPRINGS 6 WELL
SPRING CREEK 8 WELL
FISH SPRINGS RANCH WELLS A - F LOCATION
WELL REHABILITATION IMPROVEMENTS
WELL REHABILITATION IMPROVEMENTS
WELL HEAD TTHM MITIGATION
BOOMTOWN 13 WELL
DOUBLE DIAMOND 5 WELL
STMGID 1 WELL
CALLAMONT WELL NORTH
CALLAMONT WELL SOUTH
LIGHTNING W 2 WELL
Sun Valley
Reno
Sparks
Verdi
Virginia City
Washoe Valley
Incline Village
Dayton
TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
GROUND WATER SUPPLY IMPROVEMENTS
SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 4 miles
NORTH

Ground Water Supply Improvements
Well Rehabilitation Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Well Rehabilitation Improvements	200	200	200	200	200	1,000

PROJECT DESCRIPTION: Funds are budgeted to rehabilitate TMWA production wells as required. Typically for subgrade rehabilitation efforts, five to six wells are inspected, tested and evaluated every year to determine if rehabilitation is required. Typical subgrade rehab activities include but are not limited to pump and pump column pipe replacements; rehabilitation of well casing and screen; and other enhancements to maintain well function and capacities. Spending in fiscal years 2025-2029 will include improvements at several wells to provide general above grade well equipment and building and/or electrical upgrades. Some of the spending will go towards converting an oil lubed shaft vertical turbine to water lubed and eliminate any standing oil in the well. TMWA has over 90 production wells operating throughout the water system. TMWA relies on these wells to provide drought and emergency supply and as a supplemental source to meet peak demands on the water system.

SCHEDULE: Wells targeted for rehabilitation improvements in FY 2025 include 4th Street Well, Lakeside Well and STMGID 6 Well.

Ground Water Supply Improvements
Double Diamond 5 and Equipping

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Double Diamond 5 and Equipping	—	—	—	—	80	80

PROJECT DESCRIPTION: Construct pumping facilities for the existing Double Diamond Well 5 including the pump house building, electrical power, pump/motor and valves and piping to provide an additional 1,200 gallons per minute of peak period supply to the Double Diamond area. The project also includes construction of a blending main between Double Diamond Wells 4 and 5.

SCHEDULE: Based on current growth rates, it is anticipated that the additional capacity from the new well will be needed in the summer of FY 2029.

Ground Water Supply Improvements
Callamont Well South Equipping

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Callamont Well South Equipping	—	—	—	100	1,900	2,000

PROJECT DESCRIPTION: Construct pumping facilities for one of the existing Callamont wells in the Mt. Rose system including the pump house building, electrical power, pump/motor and valves and piping to provide an additional 500 gallons per minute of peak period supply to the area.

SCHEDULE: This project is currently scheduled for construction in FY 2029, but may be constructed sooner (or later) depending on the actual schedule for the proposed 210 unit Callamont residential development.

Ground Water Supply Improvements
Air Guard Well Replacement Equipping

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Air Guard Well Replacement Equipping	—	—	—	—	2,000	2,000

PROJECT DESCRIPTION: Replacement of the Air Guard Well in Stead was necessary to reduce sanding and provide additional capacity to the Stead system. The new/replacement well was drilled and constructed in FY 2016. Test pumping indicates the new well will have a capacity of about 2,500 gallons per minute which is twice the capacity of the old well. The budget for FY 2029 is for constructing the pumping facilities including the well building, pump and motor, valves and piping, electrical and controls, etc.

SCHEDULE: The pumping facilities are scheduled for construction in FY 2029.

Ground Water Supply Improvements
Lemmon Valley Well 8 Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Lemmon Valley Well 8 Replacement	—	800	2,500	—	—	3,300

PROJECT DESCRIPTION: The existing Lemmon Valley 8 Well has been in service since 1974, making it one of the older wells in the East Lemmon Valley system. The existing well casing and screens show signs of significant corrosion. With the potential for a well casing failure, TMWA intends to drill and equip a replacement well on the existing well property. In addition, the replacement well is expected to have similar construction while producing at least 20 percent more capacity than the original Lemmon Valley 8 Well. The additional capacity will provide supply to support base load supplied from the Fish Springs groundwater system.

SCHEDULE: Well drilling will occur in FY 2026 and well equipping in FY 2027.

Ground Water Supply Improvements
Well Fix & Finish

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Well Fix and Finish	350	350	350	350	350	1,750

PROJECT DESCRIPTION: Equipment improvements are expected to bring existing wells up to modern standards, including antiquated equipment replacements and improvements for water quality purposes. This project includes improvements to sodium hypochlorite rooms, pump to waste lines and drainage improvements. It also includes well retrofit for recharge where needed.

SCHEDULE: Projects are identified and prioritized on an annual basis.

Ground Water Supply Improvements
Brush Well Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Brush Well Replacement	1,200	—	—	—	—	1,200

PROJECT DESCRIPTION: The Brush Well was replaced in FY 2019. Well equipping is currently underway, but due to long lead times for certain electrical gear, completion and startup of the well are now expected in the summer of 2024.

SCHEDULE: Equipping is scheduled to be completed in FY 2025.

Ground Water Supply Improvements
Spring Creek 8 Well Equipping

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Spring Creek 8 Well Equipping	—	—	—	1,000	1,000	2,000

PROJECT DESCRIPTION: The Spring Creek 8 production well was replaced in FY 2019. The next phase for this site involves equipping the well for production, which is scheduled to take place in FY 2028.

SCHEDULE: Well equipping is scheduled to begin in FY 2028.

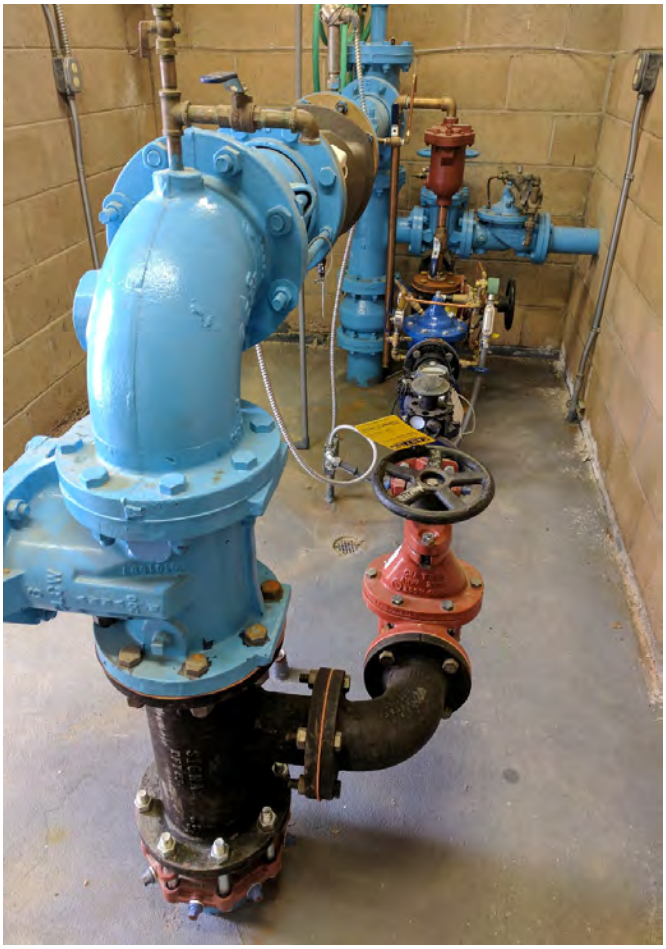
Ground Water Supply Improvements
Well Head TTHM Mitigation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates / Sustainability Fees	Well Head TTHM Mitigation	500	—	500	—	500	1,500

PROJECT DESCRIPTION: Planning, permitting and implementation of tank mixers and ventilation equipment technologies to reduce disinfection byproduct (DBP) formation in recharged water and receiving groundwater.

SCHEDULE: Other technologies will be implemented at key recharge well sites in subsequent years based on priority.



Ground Water Supply Improvements
Callamont Well North Equipping

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Callamont Well North Equipping	—	—	100	1,900	—	2,000

PROJECT DESCRIPTION: Construct pumping facilities for the remaining existing Callamont well in the Mt. Rose system including the pump house building, electrical power, pump/motor and valves and piping to provide an additional 500 gallons per minute of peak period supply to the area.

SCHEDULE: This project is currently scheduled for construction in FY 2028, but may be constructed sooner (or later) depending on the actual schedule for the proposed 210 unit Callamont residential development.

Ground Water Supply Improvements
Spring Creek Well 10 - Donovan

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Developer Fees	Spring Creek Well 10 - Donovan	1,500	1,000	—	—	—	2,500

PROJECT DESCRIPTION: The project involves construction and equipping of a new production well located just south of Indian Sage Court in Spanish Springs Valley. TMWA owns a 6,000 square feet parcel at this location where a test well was previously constructed but will need access and pipeline/utility easements. It is anticipated that the new well will produce up to 500 gallons per minute of new supply for the area.

SCHEDULE: This project schedule assumes the new well is drilled and constructed in FY 2025 and the pumping facilities are constructed in FY 2026.

Ground Water Supply Improvements
Fish Springs Ranch TDS Monitoring Wells

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Fish Springs Ranch TDS Monitoring Wells	250	—	—	—	—	250

PROJECT DESCRIPTION: This project involves installing a network of wells that will monitor TDS concentrations and vertical gradients near the Fish Springs Ranch production wellfield in Honey Lake Valley. These monitoring locations will provide critical water quality information associated with increased groundwater production at Fish Springs Ranch. Allocated funds will be utilized to drill and construct three nested monitoring wells completed to approximately 450-feet below land surface.

SCHEDULE: Design and construction for the project is scheduled to be completed in FY 2025.

Ground Water Supply Improvements
Fish Springs Ranch Geophysics/Drilling Project

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates/ Reimbursements	Fish Springs Ranch Geophysics/Drilling Project	300	—	—	—	—	300

PROJECT DESCRIPTION: An airborne geophysical survey and subsequent drilling program will be conducted to confirm and/or refine hydraulic characteristics in Honey Lake Valley. The results from the airborne survey will be utilized to identify locations for new monitoring wells, which will validate the aquifer materials identified by the survey. This information will then be used to validate and refine aquifer parameters in the groundwater model that TMWA uses to manage resources in Honey Lake Valley.

SCHEDULE: This work will be conducted in FY 2025.

Ground Water Supply Improvements
Spring Creek 9 (Spring Creek 4 Replacement)

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Spring Creek Well 9 (Spring Creek 4 Replacement)	1,700	1,500	1,000	—	—	4,200

PROJECT DESCRIPTION: The project involves redrilling and equipping of a new production well in Spanish Springs Valley, located north of the intersection of La Posada Dr. and La Posada Ct (pending land approvals). The well will be a dual purpose ASR/Production Well and it is anticipated that the new well will produce up to 1,500 GPM with about one third of the capacity bringing new supply to the area.

SCHEDULE: Drilling and installation will being in FY 2025 and equipping completed in FY 2027.

Ground Water Supply Improvements
STMGID Well 1 Re-Drill and Equipping

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	STMGID Well 1 Re-Drill and Equipping	1,200	500	1,500	500	—	3,700

PROJECT DESCRIPTION: This project involves the complete replacement of STMGID well 1. Recent rehabilitation work on the production well indicated the screens have deteriorated enough to allow sediment and gravel pack to pass through. The well is a critical groundwater supply asset as it currently accounts for approximately 24% of the max day demand in STMGID Tank Zone 1.

SCHEDULE: The well is estimated to be drilled in FY 2025 and constructed in FY's 2026-2028.

Ground Water Supply Improvements
Boomtown 13 Well

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Boomtown 13 Well	—	500	—	2,000	—	2,500

PROJECT DESCRIPTION: The project involves the drilling and equipping of a new production well in Verdi, located adjacent the Boomtown billboard. This well is anticipated to support the peak day demand for future development in the area.

SCHEDULE: The well is estimated to be drilled in FY 2026 and constructed in FY 2028.

Ground Water Supply Improvements
Spring Creek 2 Re-drill

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Spring Creek 2 Re-drill	—	—	800	—	2,000	2,800

PROJECT DESCRIPTION: The casing material for the existing Spring Creek 2 Production well was recently found to be compromised during well rehabilitation activities. A new well will be re-drilled and constructed with superior materials and a better design to allow for future maintenance and better well rehabilitations. This will provide well longevity and additional groundwater redundancy for the Spanish Springs system.

SCHEDULE: The re-drill is currently scheduled for FY 2027. Prioritization for this well will be analyzed each FY moving forward.

Ground Water Supply Improvements
Lightning W 2 Re-drill

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Lightning W 2 Re-drill	—	—	800	—	2,000	2,800

PROJECT DESCRIPTION: The existing production well Lightning W2 was poorly designed and constructed. The current condition of the well does not allow for proper maintenance and rehabilitation of the production well due to a shallow, small diameter sleeve that was permanently installed. A new well will be re-drilled and constructed with superior materials and a better design to facilitate future maintenance and better well rehabilitations. This will ensure well longevity and provide additional groundwater redundancy for the Lightning W system.

SCHEDULE: The re-drill is currently scheduled for FY 2027. Prioritization for this well will be analyzed each FY moving forward.

Ground Water Supply Improvements
Desert Springs 5 Production Well

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Desert Springs 5 Production Well	—	—	—	800	—	800

PROJECT DESCRIPTION: An exploration well drilled and tested on the west side of Pyramid Highway in 2023 found a sufficient quantity and quality of groundwater to supply the planned Nitrate Treatment Plant. A large-diameter production well will be drilled, tested, and equipped to replace aging wells and augment supplies in Spanish Springs Valley.

SCHEDULE: This work is scheduled for FY 2028.

Ground Water Supply Improvements
Desert Springs 6 Exploration Well and Testing

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Desert Springs 6 Exploration Well and Testing	—	—	—	350	750	1,100

PROJECT DESCRIPTION: This project will investigate a possible production well location on the east side of Pyramid Highway to supply water for the planned Nitrate Treatment Plant. An exploratory drilling program, featuring a small-diameter boring and exploration well, will characterize aquifer geology and water quality before drilling a large-diameter production well to replace aging wells and augment supplies in Spanish Springs Valley.

SCHEDULE: This work is scheduled for FY 2028 with a possible equipping in 2029.

TREATMENT PLANT IMPROVEMENTS
Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff Treatment Plant Improvements	360	350	525	425	425	2,085
2	Customer Rates	Chalk Bluff Sedimentation Rehabilitation	—	—	700	—	—	700
1	Customer Rates	Chalk Bluff Clearwell 1 Rehabilitation	300	—	—	—	—	300
1	Customer Rates	Chalk Bluff Clearwell 2 Rehabilitation	200	1,500	—	—	—	1,700
1	Customer Rates	Chalk Bluff HVAC Improvements	75	1,000	—	—	—	1,075
1	Customer Rates	Chalk Bluff 25K Power Reliability and Safety Improvements	100	650	—	—	—	750
2	Customer Rates	Chalk Bluff Soda Ash Reliability Upgrade	50	—	350	—	—	400
1	Customer Rates	Glendale Treatment Plant Improvements	375	325	405	360	455	1,920
1	Customer Rates	Glendale HVAC Improvements	250	—	—	—	—	250
2	Customer Rates	Mt Rose Treatment Plant Efficiency Improvements	450	—	—	—	—	450
1	Customer Rates	Chalk Bluff Filter Underdrains	1,200	—	—	—	—	1,200
2	Customer Rates	Glendale Filter Underdrains	—	500	3,500	—	—	4,000
1	Customer Rates	Orr Ditch Pump Station Rehabilitation and Hydro Facility	11,000	—	—	—	—	11,000
1	Customer Rates	Truckee Canyon Water Treatment Improvements	20	10	10	20	60	120
1	Customer Rates	Lightning W Treatment Improvements	10	10	10	10	165	205
1	Customer Rates	SCADA Rehabilitation / Plant Operating Software	1,000	1,000	750	750	750	4,250
2	Customer Rates	Longley Water Treatment Plant Retrofit	—	250	500	3,500	1,500	5,750

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates/Grants	Spanish Springs Nitrate Treatment Facility	500	500	15,000	14,000	5,000	35,000
2	Customer Rates	Glendale Sand Yard Improvements	430	—	—	—	—	430
1	Customer Rates	Chalk Bluff Effluent Reservoir Outlet Repairs	100	700	—	—	—	800
1	Customer Rates	Chalk Bluff Screening Facility Rehabilitation and Upgrades	200	1,000	—	—	—	1,200
1	Customer Rates	Chalk Bluff Electrical System Upgrades	—	—	250	—	—	250
Subtotal Treatment Improvements			**16,620**	**7,795**	**22,000**	**19,065**	**8,355**	**73,835**

Project Locations: Map of all *Treatment Plant Improvements* projects are highlighted in the following map.


SPANISH SPRINGS NITRATE TREATMENT FACILITY
Sun Valley
SCADA REHAB / PLANT OPERATING SOFTWARE
CHALK BLUFF TREATMENT PLANT
Reno
GLENDALE TREATMENT PLANT
TRUCKEE CANYON TREATMENT PLANT
Verdi
ORR DITCH PUMP STATION
LONGLEY TREATMENT PLANT
MT ROSE TREATMENT PLANT
Virginia City
Washoe Valley
Incline Village
Crystal Bay
LIGHTNING W
Dayton
TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
TREATMENT PLANT IMPROVEMENTS
SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 4 miles
NORTH
NAD 83 NEVADA STATE PLANE WEST FEET

Treatment Plant Improvements
Chalk Bluff Treatment Plant Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff Treatment Plant Improvements	360	350	525	425	425	2,085

PROJECT DESCRIPTION: The Chalk Bluff Water Treatment Plant is over 30 years old and requires ongoing rehabilitation work to remain fully operational. This spending is classified as necessary due to the criticality of maintaining plant operations during rehabilitation work. Plant improvements include, but are not limited to: plate settler inspections, valve and instrument replacement, filter media replacement, UPS upgrades, water treatment solids removal improvements, influent water treatment train improvements, additional finished water isolation valves, flow meter improvements and safety improvements.

SCHEDULE: Major projects and timelines include flow meter, actuator and pump replacements as necessary when older equipment is no longer supported, implementing redundant chemical feed process improvements, replacing antiquated instruments and analyzers to ensure treated water quality, improving finished water clearwell isolation valves to maintain treatment plant production during maintenance activities, enhancing uninterruptible power supply electrical feeds to maintain treatment during power events, incorporating improved rapid mixer solutions to ensure proper water treatment and making improvements to the pre-settling basins to better manage treatment plant raw water solids.

Treatment Plant Improvements
Chalk Bluff Sedimentation Rehabilitation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Chalk Bluff Sedimentation Rehabilitation	—	—	700	—	—	700

PROJECT DESCRIPTION: This project involves replacing all 6 solids collection system mechanisms with upgraded units to enhance the reliability of the sedimentation system at the Chalk Bluff Water Treatment Plant.

SCHEDULE: Improvements are scheduled for FY 2027.

Treatment Plant Improvements
Chalk Bluff Clearwell 1 Rehabilitation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff Clearwell 1 Rehabilitation	300	—	—	—	—	300

PROJECT DESCRIPTION: In FY 2024, inside of Clearwell 1 was rehabilitated. The outside roof lining has reached its lifespan and will be replaced.

SCHEDULE: The improvements are scheduled for FY 2025.

Treatment Plant Improvements
Chalk Bluff Clearwell 2 Rehabilitation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff Clearwell 2 Rehabilitation	200	1,500	—	—	—	1,700

PROJECT DESCRIPTION: This project includes inspection of the Clearwell in FY 2025 and anticipated rehab in winter of FY 2026. Rehab will include epoxy coating concrete support columns, caulk joint replacement & improvement for all expansion joints, vertical extension of the concrete baffle wall, full replacement of the baffle wall curtains, roof curb repair as needed, and other misc. incidental repairs.

SCHEDULE: The improvements are scheduled for FY 2026.

Treatment Plant Improvements
Chalk Bluff HVAC Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff HVAC Improvements	75	1,000	—	—	—	1,075

PROJECT DESCRIPTION: The HVAC equipment at Chalk Bluff's main operations building is nearing it's useful life and needs to be replaced. Other equipment throughout the facility will need Controls upgrades due to outdated hardware.

SCHEDULE: Design is anticipated for FY 2025 and construction in FY 2026.

Treatment Plant Improvements
Chalk Bluff 25K Power Reliability and Safety Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff 25K Power Reliability and Safety Improvements	100	650	—	—	—	750

PROJECT DESCRIPTION: The Chalk Bluff 25K power loop is protected with fused disconnect junctions throughout the facility. In a recent outage, we discovered that the type of fuses used on this system is no longer supported and has limited availability with unreasonable lead times. This project will include upgrading those connections with the relatively new industry standard. Additionally, this project will involve adding protection relays to the electrical system to lower the arc-flash safety risk of the equipment.

SCHEDULE: This project is in design and is anticipated to go to construction in FY 2025.

Treatment Plant Improvements
Chalk Bluff Soda Ash Reliability Upgrade

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Chalk Bluff Soda Ash Reliability Upgrade	50	—	350	—	—	400

PROJECT DESCRIPTION: This project includes adding redundancy and reliability to the soda ash system at Chalk Bluff. Soda ash is critical to the process and the maintenance of this system has continued to group over the past few years.

SCHEDULE: Preliminary Design Report Scheduled for FY 2025 with modifications scheduled for FY 2027. Cost for FY 2027 will be updated once the Preliminary Design Report identifies the full scope of the project.

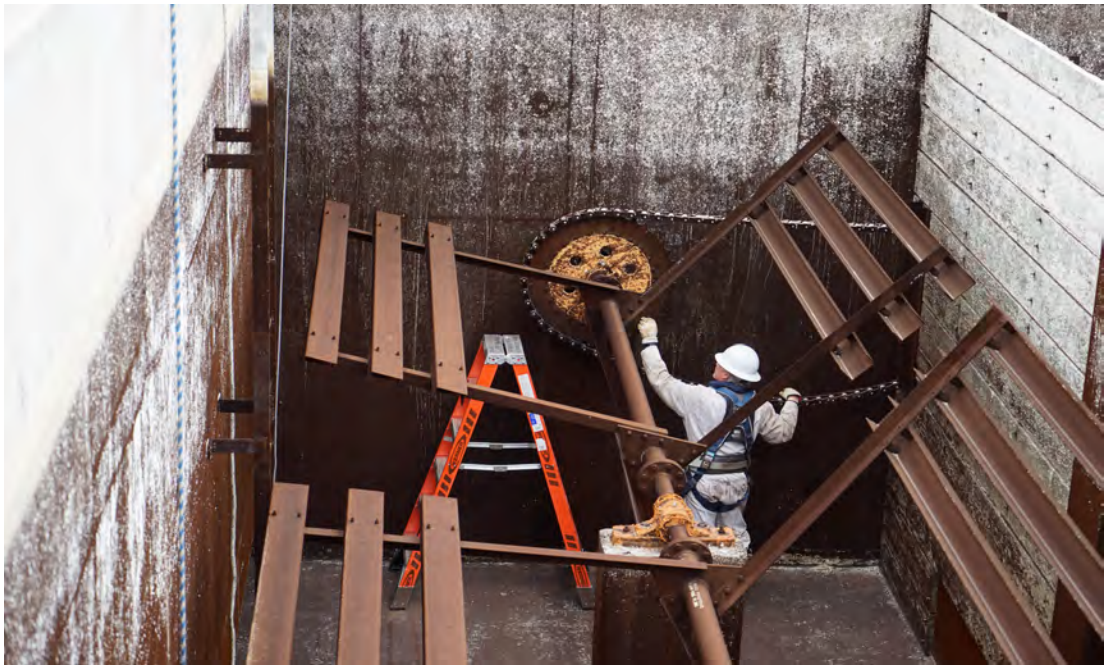
Treatment Plant Improvements
Glendale Treatment Plant Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Glendale Treatment Plant Improvements	375	325	405	360	455	1,920

PROJECT DESCRIPTION: The Glendale Water Treatment Plant is over 40 years old and remains a significant piece of the water supply portfolio by operating 24/7 typically during the months of April through October. Glendale plays an important role due to its availability to treat off-river water supplies, such as groundwater wells that cannot pump straight to the distribution system. This spending is classified as necessary due to the criticality of maintaining plant operations. Plant improvements include, but are not limited to, plate settler inspections, valve and instrument replacement, Trac-Vac improvements, flow meter improvements, treatment chemical upgrades and maintenance storage/shop upgrades.

SCHEDULE: Instrumentation upgrades will continue within the next five years as obsolete instruments are no longer supported by suppliers. Filter media replacement will occur when yearly filter media evaluation indicates that replacement will soon be necessary. Since the Glendale plant is used seasonally, most work will continue over the course of the five-year CIP and during the periods that the plant is not operating.



Treatment Plant Improvements
Glendale HVAC Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Glendale HVAC Improvements	250	—	—	—	—	250

PROJECT DESCRIPTION: The HVAC equipment at Glendale is outdated and beginning to fail. The two basement air handler units (AHUs), the AHU in the Chemical Storage Building, and the Lab HVAC systems require replacement and control upgrades due to outdated hardware.

SCHEDULE: Design and construction are scheduled for FY 2025.

Treatment Plant Improvements
Mt Rose Treatment Plant Efficiency Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Mt Rose Treatment Plant Efficiency Improvements	450	—	—	—	—	450

PROJECT DESCRIPTION: This project contains several efficiency and remote operations improvements identified during startup and testing of the Mt. Rose Water Treatment Plant (MRWTP). One larger task is adding a permanent air compressor to the creek diversion backwash cycle to support remote operations, use less power and disturb less wildlife by using air for scour instead of pumping water through the screens for backwash. The other improvements include various flow measurement and process control improvements to make remote operations more feasible by reducing on site operations labor hours and reducing downtime.

SCHEDULE: Improvements are scheduled for FY 2025.

Treatment Plant Improvements
Chalk Bluff Filter Underdrains

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff Filter Underdrains	1,200	—	—	—	—	1,200

PROJECT DESCRIPTION: The dual media filters at Chalk Bluff are nearing the end of its useful life and maintenance and/or repairs are needed on filters that have experienced recent underdrain performance issues. An engineering evaluation of the filters has been completed and an entire replacement of one or more filter underdrains is recommended.

SCHEDULE: Replacements of the underdrains are scheduled for FY 2025.

Treatment Plant Improvements
Glendale Filter Underdrains

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Glendale Filter Underdrains	—	500	3,500	—	—	4,000

PROJECT DESCRIPTION: The dual media filters at Glendale are nearing the end of its useful life and maintenance and/or repairs are needed on filters that have experienced recent underdrain performance issues. An engineering evaluation of the filters has been completed and an entire replacement of one or more filter underdrains is recommended.

SCHEDULE: Due to cost and operational complexities associated with taking a filter out of service, this will be a multi-year effort beginning with design and bidding in FY 2026 and replacements taking place in FY 2027.

Treatment Plant Improvements
Orr Ditch Pump Station Rehabilitation and Hydro Facility

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Orr Ditch Pump Station Rehabilitation and Hydro Facility	11,000	—	—	—	—	11,000

PROJECT DESCRIPTION: This project will increase redundancy and reliability by enhancing the Truckee River source of supply to the Chalk Bluff Water Treatment Plant. Currently, there are very limited options to facilitate repairs or conduct preventative maintenance due to the location and arrangement of the intake structure and wet well. The project design will include modifying the existing proprietary wet well submersible pump design into a pedestal-style vertical turbine pump arrangement with non-submerged motors, the construction of a building over the top of the wet well to increase security and allow a safer means of performing maintenance activities, and incorporate a system to eliminate silting issues within the intake structure. During periods of low demand, the Highland Canal has available capacity to bring water to the Chalk Bluff Facility. An existing pipeline brings water from the river via the Orr Ditch Pump Station up to Chalk Bluff. During winter months, excess water from the Highland Canal can be sent down the hill to the pump station to generate hydroelectric power that can be used at the facility to offset power costs during those months.

SCHEDULE: Construction commenced in FY 2024 and is scheduled to be completed in FY 2025.

Treatment Plant Improvements
Truckee Canyon Water Treatment Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Truckee Canyon Water Treatment Improvements	20	10	10	20	60	120

PROJECT DESCRIPTION: The current treatment system which removes arsenic, iron, and manganese consists of a greensand filter system and an evaporation pond for backwash water with a total capacity of about 100 gallons per minute. Scheduled improvements may include the addition of a polymer feed system to improve filter performance, fine tuning of the treatment process to reflect chemical changes in the raw water and replacement of miscellaneous components and control upgrades.

SCHEDULE: Expenditures in FY's 2025-2029 are contingent spending related to treatment efficiency and for chemical changes in the raw water.

Treatment Plant Improvements
Lightning W Treatment Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Lightning W Treatment Improvements	10	10	10	10	165	205

PROJECT DESCRIPTION: The existing treatment process consists of two ion exchange resin pressure vessels to remove uranium. Previous work included change out/replacement of the filter media, disposal of the spent media. The remaining work includes miscellaneous improvements to the building that houses the treatment equipment.

SCHEDULE: The FY 2029 work includes media exchange.

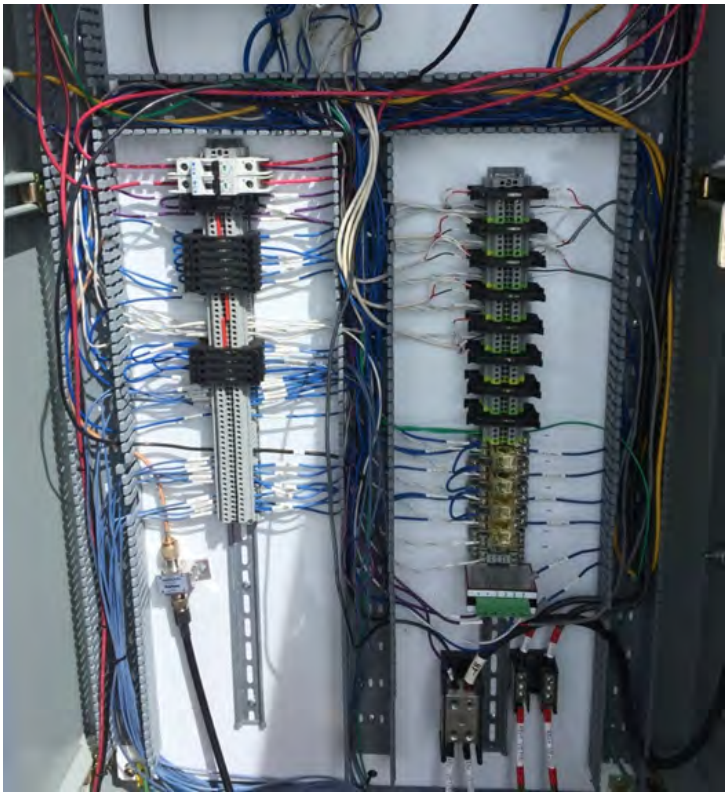
Treatment Plant Improvements
SCADA Rehab/Plant Operating Software

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	SCADA Rehabilitation / Plant Operating Software	1,000	1,000	750	750	750	4,250

PROJECT DESCRIPTION: SCADA (Supervisory Control and Data Acquisition) is the system by which TMWA monitors, records and controls the water system inputs, outputs, flows and pressures. Data acquired by these system controls are primarily monitored at the treatment plants, but the system equipment and technology are spread throughout the water system infrastructure. Much of the technology is approaching obsolescence and needs to be replaced with emphasis on standardization of programmable logic controllers (PLC) and other equipment. Therefore, TMWA decided on a systematic approach to updating the equipment and operating software starting in fiscal year 2015 with telemetry improvement in the ensuing four years to convert to wireless transmission of data feeds where possible.

SCHEDULE: The improvements and replacements of the equipment and operating software will continue through FY 2029.



Treatment Plant Improvements
Longley Water Treatment Plant Retrofit

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Longley Water Treatment Plant Retrofit	—	250	500	3,500	1,500	5,750

PROJECT DESCRIPTION: This project will include the determination of what improvements and costs would be needed to convert the existing Longley Lane Water Treatment Plant from a micro filtration process to a greensand arsenic/iron/manganese treatment process.

SCHEDULE: Planning and permitting to be completed in FY 2026. Design is scheduled for FY 2027 and construction is scheduled to begin in FY 2028 completing in FY 2029.

Treatment Plant Improvements
Spanish Springs Nitrate Treatment Facility

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates/ Grants	Spanish Springs Nitrate Treatment Facility	500	500	15,000	14,000	5,000	35,000

PROJECT DESCRIPTION: Initiation of planning, permitting, site acquisition and design for a 3 MGD biological water treatment process to treat several groundwater wells in Spanish Springs that are out of service due to elevated nitrate and arsenic. Treatment is required to maintain and restore the service capacity of the wells.

TMWA completed the operation and testing of a 5 GPM pilot treatment plant in 2018. Biological treatment of nitrate in potable water is currently not permitted in Nevada. TMWA, working with Carollo Engineers, UNR and WaterStart, has evaluated this innovative technology and determined it to be a cost-effective treatment solution compared to traditional, high cost alternatives such as ion exchange.

SCHEDULE: Planning, permitting, site acquisition and design was conducted in FY 2023 continuing through FY 2026 with construction scheduled to begin in FY2027.

Treatment Plant Improvements
Glendale Sand Yard Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Glendale Sand Yard Improvements	430	—	—	—	—	430

PROJECT DESCRIPTION: This Project is for adding a metal three sided building over the trench materials bins at Glendale. This will ensure the material stays in a usable conditions during emergency leak repairs. The project also includes improvements to the site drainage and security of the facility.

SCHEDULE: This project is currently in design and construction is scheduled for FY 2025.

Treatment Plant Improvements
Chalk Bluff Effluent Reservoir Outlet Repairs

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff Effluent Reservoir Outlet Repairs	100	700	—	—	—	800

PROJECT DESCRIPTION: A few years ago, the 72" effluent pipe out of the Clearwell at Chalk Bluff experienced a significant leak, prompting TMWA maintenance to perform an emergency repair to restore treatment operations. This project involves installing a permanent fix using a 72" flexible fitting.

SCHEDULE: Design is underway and the repair is scheduled for FY2026.

Treatment Plant Improvements
Chalk Bluff Screening Facility Rehabilitation and Upgrades

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff Screening Facility Rehabilitation and Upgrades	200	1,000	—	—	—	1,200

PROJECT DESCRIPTION: This project involves replacing all the isolation slide gates in the screening facility, which have failed due to corrosion and wear. It also includes replacing mechanical bar screen #2, which has reached its useful lifespan, as well as installing a pipe to enable bypassing the screening facility in emergency operation scenario.

SCHEDULE: Design is underway and Construction is scheduled for FY 2025.

Treatment Plant Improvements
Chalk Bluff Electrical System Upgrades

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Chalk Bluff Electrical System Upgrades	—	—	250	—	—	250

PROJECT DESCRIPTION: Evaluation of the existing electrical system at the Chalk Bluff Treatment Plant to identify the cause of main breaker power disruption when electrical faults occur in auxiliary plant equipment.

SCHEDULE: Electrical System upgrades are scheduled to be completed in FY 2027.

DISTRIBUTION SYSTEM PRESSURE IMPROVEMENTS
Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Pressure Regulators Rehabilitation	2,000	1,200	750	750	750	5,450
2	Customer Rates	Land Acquisitions	150	150	150	250	250	950
2	Customer Rates	Desert Fox Standby Generator	—	—	150	—	—	150
2	Developer Fees	Longley Booster Pump Station / Double R Capacity Increase	—	250	1,500	—	—	1,750
3	Customer Rates	Pump Station Oversizing	250	250	250	250	250	1,250
3	Customer Rates	Pump Station Rebuilds, Rehabilitations	150	150	150	250	250	950
2	Customer Rates / Developer Fees	Sullivan 2 Booster Pump Station Replacement	—	—	250	2,750	—	3,000
3	Customer Rates	Mount Rose Well 3 Pump Station Improvements	—	—	—	250	800	1,050
3	Customer Rates	Standby Generator Improvements	100	100	100	150	150	600
1	Customer Rates	PSOM Standby Generator Additions	1,100	2,100	1,000	—	—	4,200
1	Customer Rates	Idlewild Booster Pump Station Improvements	—	—	400	1,200	1,800	3,400
2	Developer Fees	Raleigh to Fish Springs Booster Pump Station	—	—	—	300	2,750	3,050
2	Customer Rates / Developer Fees	South-West Pump Zone Consolidation Phase 1	400	—	—	330	3,660	4,390
2	Developer Fees	STMGID Tank 4 Booster Pump Station / Transmission Line	—	250	100	250	100	700
2	Developer Fees	Wildwood 2 Pressure Regulating Station SCADA Control	—	100	—	—	—	100
2	Customer Rates / Developer Fees	South-West Pump Zone Consolidation Phase 2	—	—	—	50	990	1,040
2	Customer Rates	Sierra Summit-Kohl's Zone Consolidation	—	—	400	400	—	800
2	Customer Rates	Wild Mustang Regulated Pressure Zone	—	—	50	400	—	450
2	Customer Rates	Thomas Creek 4 Pressure Regulating Station	—	300	—	—	—	300

Priority	Funding Source	Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	CIP Total
2	Customer Rates	Kings Row 2 Booster Pump Station	—	—	200	500	2,300	3,000
2	Developer Fees	Spring Creek Tanks 3 and 4 Booster Pump Station Modifications	—	300	1,000	—	—	1,300
1	Developer Fees	Lazy 5 Low Head Pump Station and Mains	2,500	500	—	—	—	3,000
1	Customer Rates	South Hills Booster Pump Station Replacement	70	2,750	1,500	—	—	4,320
2	Customer Rates	Sierra Highlands Pressure Regulating Station	—	250	—	—	—	250
1	Customer Rates	7th Street High and Low Booster Pump Station Replacement	3,000	—	—	—	—	3,000
1	Customer Rates	STMGID NAC Deficiencies - Upper Toll	—	—	600	2,500	—	3,100
1	Reimbursements	Verdi 1 Booster Pump Station	2,500	500	—	—	—	3,000
1	Reimbursements	Santerra Quilici 1 Booster Pump Station	3,700	—	—	—	—	3,700
1	Reimbursements	Santerra Quilici 2 Booster Pump Station	—	—	200	3,000	—	3,200
1	Reimbursements	Silver Hills Booster Pump Station	—	3,000	—	—	—	3,000
1	Reimbursements	Ascente Booster Pump Station	2,500	—	—	—	—	2,500
1	Reimbursements	Talus Valley Booster Pump Station	2,900	800	—	—	—	3,700
2	Customer Rates	Tappan 2 Pressure Regulating Station	—	300	—	—	—	300
1	Customer Rates	Caughlin Train A Improvements	1,000	—	—	—	—	1,000
1	Reimbursements	Idlewild Irrigation Pump Station Improvements and Repair	170	200	—	—	—	370

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Off River Supply Redundancy Improvements STM and NVS	—	500	—	1,000	—	1,500
Sub-Total Pressure Improvements			**22,490**	**13,950**	**8,750**	**14,580**	**14,050**	**73,820**

Project Locations: Map of all *Distribution System Pressure Improvements* projects are highlighted in the following map.


SILVER HILLS BPS
OFF RIVER SUPPLY REDUNDANCY IMPROVEMENTS NVS
RALEIGH TO FISH SPRINGS BPS
SPRING CREEK 3 AND 4 TANKS
DESERT FOX STANDBY GENERATOR
LAZY 5 LOW HEAD PUMP STATION & MAINS
Sun Valley
SULLIVAN 2 BPS
TAPPAN 2 PRS
KINGS ROW 2 BPS
SIERRA HIGHLANDS PRS
Sparks
Reno
7TH STREET HIGH & LOW BPS REPLACEMENT
IDLEWILD BPS & IRRIGATION PUMP STATION
VERDI 1 BPS
SANTERRA QUILICI 2 BPS
SANTERRA QUILICI 1 BPS
CAUGHLIN TRAIN A
TALUS VALLEY BPS
LONGLEY BPS / DOUBLE R CAPACITY INCREASE
SOUTH HILLS BPS
OFF RIVER SUPPLY REDUNDANCY IMPROVEMENTS STM
SOUTHWEST PUMP ZONE CONSOLIDATION PHASE 1 & 2
THOMAS CREEK 4 PRS
SIERRA SUMMIT - KOHL'S ZONE CONSOLIDATION
STMGID NAC DEFICIENCIES - UPPER TOLL
STMGID 4 TANK BPS / TRANSMISSION LINE
WILD MUSTANG REGULATED PRESSURE ZONE
WILDWOOD 2 PRS
MT ROSE 3 WELL
ASCENTE BPS
TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
DISTRIBUTION SYSTEM IMPROVEMENTS - PRESSURE IMPROVEMENTS SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 3 miles
NORTH
NAD 83 NEVADA STATE PLANE WEST FEET

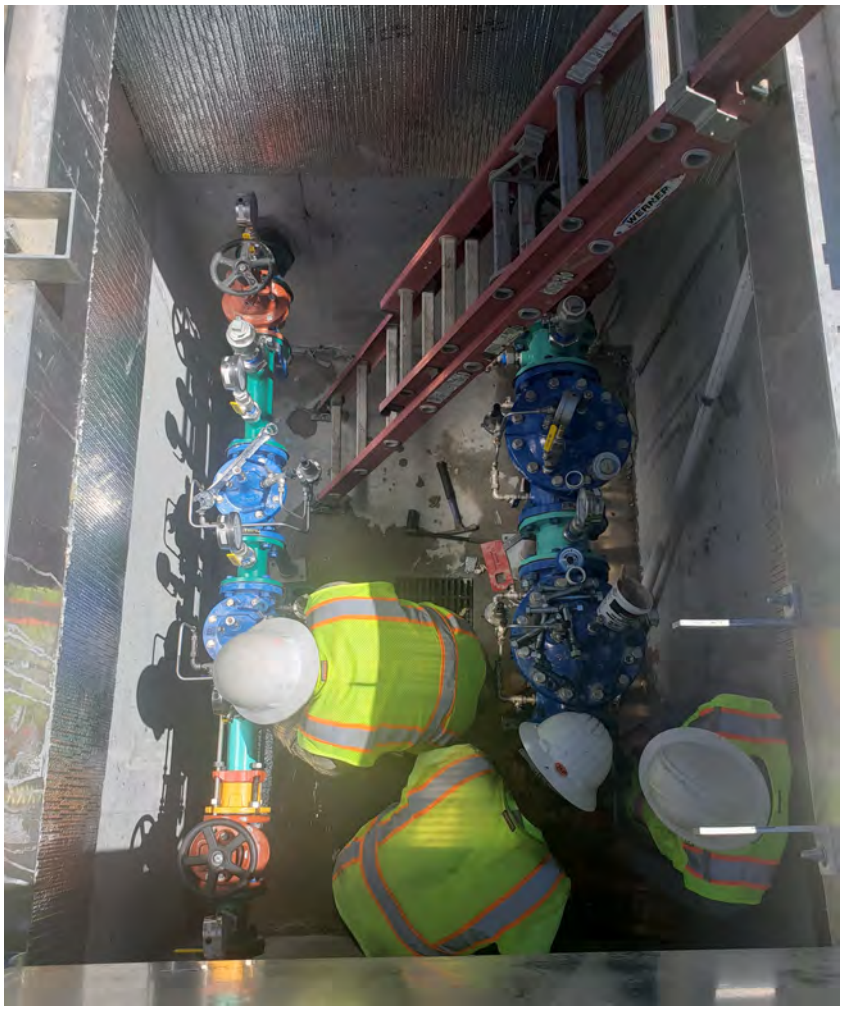
Distribution System Pressure Improvements
Pressure Regulators Rehabilitation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Pressure Regulators Rehabilitation	2,000	1,200	750	750	750	5,450

PROJECT DESCRIPTION: Provision is made in the annual budget for major rehabilitation or complete reconstruction of several pressure regulators in the distribution system. TMWA has evaluated nearly 130 pressure regulator stations currently in service and has identified a number of pressure regulator stations requiring a certain amount of rehabilitation on an annual basis.

SCHEDULE: This is an ongoing rehabilitation project with about 130 individual stations identified as requiring rehabilitation or replacement over the next fifteen years.



Distribution System Pressure Improvements
Land Acquisitions

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Land Acquisitions	150	150	150	250	250	950

PROJECT DESCRIPTION: TMWA has over 120 pump stations in service. Many of these pump stations have 480 volt electrical services and are underground (below grade) in locations that allows for water infiltration. Many underground pump stations will be reaching the end of their service life, which will require replacement of the underground vault. Rather than replace the stations in place TMWA is planning to acquire other sites so these stations can be rebuilt above grade improving access and safety. Acquisition of sites may be time consuming and may not be purchased in a particular year.

SCHEDULE: This is an ongoing project with funding to allow purchase of 3-4 sites per year depending on location and market conditions.

Distribution System Pressure Improvements
Desert Fox Standby Generator

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Desert Fox Standby Generator	—	—	150	—	—	150

PROJECT DESCRIPTION: This project involves furnishing and installing a new standby generator and ATS to power one 50 Hp pump at the existing Desert Fox booster pump station. This alternative pumping capacity is needed when the existing 0.5 MG Spring Creek 5A Tank is out of service for recoating or other maintenance or if an extended power outage occurs in the area.

SCHEDULE: The installation of the generator is scheduled in FY 2027.

Distribution System Pressure Improvements
Longley Booster Pump Station/Double R Capacity Increase

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Longley Booster Pump Station / Double R Capacity Increase	—	250	1,500	—	—	1,750

PROJECT DESCRIPTION: Increase pumping capacity at the existing Longley Lane Booster Pump Station and make improvements at the Double R Intertie to provide additional peak supply to the Double Diamond area. The improvements at the Longley pump station will consist of replacing one of the existing pumps/motors with a new higher capacity unit along with electrical and motor starter upgrades. Certain components of the Double R Intertie will be replaced to provide the additional capacity without excessive friction losses.

SCHEDULE: The improvements are scheduled for FY's 2026-2027. The improvements are necessary when supply through the Double R Intertie must exceed 5,400 gallons per minute.

Distribution System Pressure Improvements
Pump Station Oversizing

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Pump Station Oversizing	250	250	250	250	250	1,250

PROJECT DESCRIPTION: The project may consist of cash contributions towards construction of a new above ground booster pump stations. From time to time, TMWA may provide oversizing to certain booster stations that are development driven. Each is reviewed on a case by case basis.

SCHEDULE: The improvements are ongoing, but the schedule is subject to change based on development & operational needs.

Distribution System Pressure Improvements
Pump Station Rebuilds, Rehabilitations

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Pump Station Rebuilds, Rehabilitations	150	150	150	250	250	950

PROJECT DESCRIPTION: TMWA has over 120 pump stations in service. An amount is budgeted annually for rehabilitation of TMWA's older pump stations. Other pump stations may require pump, motor, and electrical upgrades. Budget for future years will allow TMWA to complete up to one above ground replacement project per year if suitable sites can be acquired. Otherwise, normal rehabilitation work will be performed per the priorities established by the study at a lower overall annual cost.

SCHEDULE: In FY 2025, TMWA will continue conducting condition assessments on our existing Booster Pump Stations (BPS) and preparing to reconstruct several booster stations above ground. Depending on land acquisition timing and rehabilitation priorities, we may replace the Scottsdale BPS, Kings Row 2 Pump Station, or other priority BPS identified in this year's evaluation.

Distribution System Pressure Improvements
Sullivan 2 Booster Pump Station Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates / Developer Fees	Sullivan 2 Booster Pump Station Replacement	—	—	250	2,750	—	3,000

PROJECT DESCRIPTION: The project involves construction of a new above grade pump station at the site of the existing Sullivan Tank on El Rancho. The new pump station will pump to the proposed Sun Valley 2 Tank tentatively located off of Dandini Drive near the TMCC/DRI complex. Completion of these facilities should allow the retirement of the existing Sun Valley 1 pump station.

SCHEDULE: Construction is scheduled to begin in FY 2028 to reflect delays in obtaining a tank site due to unknowns with the US 395 Connector Project.

Distribution System Pressure Improvements
Mount Rose Well 3 Pump Station Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Mount Rose Well 3 Pump Station Improvements	—	—	—	250	800	1,050

PROJECT DESCRIPTION: The project involves rehab of the building, removal of pipe and valves that will no longer be necessary following completion of the Mt. Rose Well 3 improvements and upgrades to electrical and control systems.

SCHEDULE: Construction is scheduled to begin in FY 2028.

Distribution System Pressure Improvements
Standby Generator Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Standby Generator Improvements	100	100	100	150	150	600

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 District requires 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.

SCHEDULE: No single project has been identified for the current 5-year CIP and no funds will be expended unless necessary.

Distribution System Pressure Improvements
PSOM Standby Generator Additions

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	PSOM Standby Generator Additions	1,100	2,100	1,000	—	—	4,200

PROJECT DESCRIPTION: In 2021, NV Energy began their efforts to de-risk their infrastructure during periods of high fire risk (high winds, low humidity). Those efforts culminated in the "Public Safety Outage Management" or "PSOM" events where NV Energy proactively de-energizes their grid for up to 72 hours per event. TMWA has initially responded by renting several large trailer mounted generators and modified various facilities to accept the electrical connections from these generators. This project will procure and install permanent generators for these sites: Caughlin 2 BPS, Caughlin 3 BPS, Caughlin 4 BPS, Mt. Rose 5 BPS and Well, US 40 BPS, Mae Anne 1 BPS, and Mt. Rose Tank 1 BPS.

SCHEDULE: TMWA will prioritize the Mae Anne, US 40, and Mt. Rose BPS' in FY 2025 and the balance of the stations in FY's 2026-2027. Due to land availability restrictions the Caughlin BPS' will be pushed. A review of the financial viability of continuing to rent the trailer mounted generators will occur prior to procurement.

Distribution System Pressure Improvements
Idlewild Booster Pump Station Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Idlewild Booster Pump Station Improvements	—	—	400	1,200	1,800	3,400

PROJECT DESCRIPTION: The project will replace existing pumps and motors at the Idlewild BPS Transfer Station to insure adequate and reliable emergency capacity. It is the only booster station that is capable of transferring water from the Highland Reservoir Zone to the Hunter Creek Reservoir Zone. The station was originally constructed as part of the Idlewild WTP, and was never designed specifically for the purpose that it is used for today. Improvements identified in the project include: Properly sizing new pumps and motors for today's application, upgrading antiquated electrical systems and HVAC systems and bringing building up to modern construction codes. Evaluations by TMWA indicated this was the most cost effective alternative to provide a redundant supply for the zone and allowed retirement of the old 24-inch transmission pipeline on Plumb Lane to the Hunter Creek Reservoir.

SCHEDULE: Design is scheduled for FY 2027 with construction scheduled to begin in FY 2028.

Distribution System Pressure Improvements
Raleigh to Fish Springs Booster Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Raleigh to Fish Springs Booster Pump Station	—	—	—	300	2,750	3,050

PROJECT DESCRIPTION: The project involves construction of a new pump station to pump water from the Raleigh Heights zone to the Fish Springs terminal tank when the Fish Springs Wells are off-line or if a main break occurs on the Fish Springs transmission line. In the future, there will be a number of customers served directly from the Fish Springs terminal tank; therefore, it is necessary to provide a secondary supply to maintain continuous water service.

SCHEDULE: Implementation will begin in FY 2028 and construction in FY 2029.

Distribution System Pressure Improvements
South-West Reno Pump Zone Consolidation Phase 1

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates / Developer Fees	South-West Pump Zone Consolidation Phase 1	400	—	—	330	3,660	4,390

PROJECT DESCRIPTION: The project includes a new high head booster pump station located on Lakeridge golf course property adjacent to Plumas; a new 12-inch suction pipeline from Lakeside Dr.; a high pressure transmission pipeline from the pump station across golf course property to Greensboro and McCarran Blvd.; and another 12-inch pipeline tie to the Ridgeview 1 pump zone. The completion of Phase 1 will allow the retirement of four existing below ground pump stations (Lakeside, Lakeridge, Plumas, Ridgeview 1).

SCHEDULE: Design of the improvements is scheduled to begin in FY 2025. Construction is scheduled for FY's 2028 - 2029.

Distribution System Pressure Improvements
STMGID Tank 4 Booster Pump Station / Transmission Line

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	STMGID Tank 4 Booster Pump Station / Transmission Line	—	250	100	250	100	700

PROJECT DESCRIPTION: The project includes a new booster pump station located near the STMGID Tank 4/5 site and approximately 6,000 feet of 12-inch discharge main to the Mt Rose Water Treatment Plant (WTP). The facilities will provide a supplemental source to the Mt Rose WTP that will back up plant production on the maximum day during drought and will also provide another source of supply for implementing conjunctive use in the area.

SCHEDULE: Design and construction of the pipeline and pressure regulating station will begin in FY 2026 and construction will continue in FY 2027. The design and construction of the pump station will begin in FY 2027 with final design and construction following in FY 2028. The need for the pump station may elevate based on an extended drought and source supply to the Mt. Rose WTP.

Distribution System Pressure Improvements
Wildwood Pressure Regulating Station/SCADA Control

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Wildwood 2 Pressure Regulating Station SCADA Control	—	100	—	—	—	100

PROJECT DESCRIPTION: The project involves retrofitting an existing pressure regulating station to SCADA (remote) control to provide additional transfer capacity into the Mt Rose Tank 2 zone. It will be necessary to obtain electrical service to the existing vault; install a new PLC; and to equip the existing pressure regulating valve with solenoid control to allow the valve to be remotely operated from the Glendale control room.

SCHEDULE: The project is scheduled for FY 2026 but may be delayed or accelerated depending on the timing of growth and the need for the additional tank fill capacity.

Distribution System Pressure Improvements
South-West Pump Zone Consolidation Phase 2

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates / Developer Fees	South-West Pump Zone Consolidation Phase 2	—	—	—	50	990	1,040

PROJECT DESCRIPTION: The project is a continuation of Phase 1 and involves construction of additional water main to further integrate the new South-West Reno pump station and allow the retirement of one more existing underground pump station plus provide backup to two other pump zones.

SCHEDULE: Design of the facilities is scheduled to begin in FY 2028. Construction is scheduled to start in FY 2029.

Distribution System Pressure Improvements
Sierra Summit-Kohl's Zone Consolidation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Sierra Summit-Kohl's Zone Consolidation	—	—	400	400	—	800

PROJECT DESCRIPTION: The project involves construction of a new pressure regulating station (PRS) at Old Virginia and Sutherland; a short main tie between the former STMGID Well 9 site and the distribution system; and about 950 feet of 8-inch main in Sutherland from the PRS to Sage Hill Road. The improvements will convert an area with very high distribution system pressures to the existing Kohl's Regulated Zone and would expand the regulated zone by consolidating the Kohl's, Walmart and Old Virginia 2 regulated pressure zones.

SCHEDULE: The project is scheduled for construction to begin in FY 2027.

Distribution System Pressure Improvements
Wild Mustang Regulated Pressure Zone

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Wild Mustang Regulated Pressure Zone	—	—	50	400	—	450

PROJECT DESCRIPTION: The project involves construction of a new pressure regulator station and approximately 750 linear feet of water main to create a new pressure zone in the Geiger Grade area of the South Truckee Meadows to reduce distribution system pressures in the area.

SCHEDULE: Design of the construction is scheduled to begin in FY 2027 followed by construction in FY 2028.

Distribution System Pressure Improvements
Thomas Creek 4 Pressure Regulating Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Thomas Creek 4 Pressure Regulating Station	—	300	—	—	—	300

PROJECT DESCRIPTION: The project involves construction of a new pressure regulator station and approximately 160 liner feet of water main to increase capacity to the Moonrise pressure zone. The increase in capacity will help with replenishing storage in the STMGID Tank and increase fire flow within the zone.

SCHEDULE: The project is scheduled for FY 2026.

Distribution System Pressure Improvements
Kings Row 2 Booster Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Kings Row 2 Booster Pump Station	—	—	200	500	2,300	3,000

PROJECT DESCRIPTION: This project will replace the existing underground Kings Row 1 pump station with a new above ground pump station on TMWA property. The project is part of annual booster pump station rehabilitation/replacement program focused on reconstructing existing pump stations above grade.

SCHEDULE: Planning and design will occur in FY's 2027-2028 with construction scheduled in FY 2029.

Distribution System Pressure Improvements
Spring Creek Tanks 3 and 4 Booster Pump Station Modifications

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Spring Creek Tanks 3 and 4 Booster Pump Station Modifications	—	300	1,000	—	—	1,300

PROJECT DESCRIPTION: This project will replace an existing 200 GPM pump with a new pump/motor rated for 1,800 GPM at the existing Spring Creek 3/4 Tanks site in Spanish Springs Valley. The existing regulated bypass will also be equipped for SCADA control. The improvements will provide redundant supply to the Desert Springs 3 and Spring Creek 6 tank zones.

SCHEDULE: Planning and design will occur in FY 2026 with construction scheduled in FY 2027.

Distribution System Pressure Improvements
Lazy 5 Low Head Pump Station & Mains

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Developer Fees	Lazy 5 Low Head Pump Station and Mains	2,500	500	—	—	—	3,000

PROJECT DESCRIPTION: The project involves construction of a new low head pump station located near the existing Lazy 5 Intertie in NE Sparks/Spanish Springs Valley along with suction and discharge mains. TMWA will need to acquire a parcel of land and pipeline easements out to the Pyramid Hwy. The project will increase TMWA's ability to transfer surface water to the Spanish Springs Valley and may defer more costly groundwater treatment options to increase capacity for growth.

SCHEDULE: Construction scheduled to begin in FY 2025 with the project completing in FY 2026.

Distribution System Pressure Improvements
South Hills Booster Pump Station Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	South Hills Booster Pump Station Replacement	70	2,750	1,500	—	—	4,320

PROJECT DESCRIPTION: The project involves construction of a new, above grade booster pump station with genset; 3,700 liner feet of l6-inch main, 250 liner feet of l4-inch main and 2,300 linear feet of l2-inch main on Broken Hills Rd, Foothill Rd and Broili; a new Caribou pressure regulator station; and 9 each individual PRV'S on customer service lines.

SCHEDULE: Planning and design is scheduled to begin in FY 2025 and construction is scheduled to begin in FY 2026 with the project completing in FY 2027.

Distribution System Pressure Improvements
Sierra Highlands Pressure Regulating Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Sierra Highlands Pressure Regulating Station	—	250	—	—	—	250

PROJECT DESCRIPTION: The project involves construction of a new pressure regulator station located near the intersection of Sierra Highlands Drive and North McCarran Blvd. to provide a secondary/supplemental supply from the Mae Anne-McCarran zone to the Chalk Bluff zone.

SCHEDULE: Construction for the project is scheduled for FY 2026.

Distribution System Pressure Improvements
7th Street High & Low Booster Pump Station Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	7th Street High and Low Booster Pump Station Replacement	3,000	—	—	—	—	3,000

PROJECT DESCRIPTION: The project will replace 2 underground booster pump stations in the intersection of Keystone Avenue and 7th Street in Northwest Reno. The booster pump stations need rehabilitation and accessing them for maintenance is unsafe and requires major traffic control in the highly traveled intersection. TMWA has been in discussions with NDOT for purchasing a remnant parcel on 7th street east of Keystone Avenue and West of Vine Street.

SCHEDULE: Construction for the project is scheduled for FY 2025.

Distribution System Pressure Improvements
STMGID NAC Deficiencies - Upper Toll

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	STMGID NAC Deficiencies - Upper Toll	—	—	600	2,500	—	3,100

PROJECT DESCRIPTION: The project consists of main ties, hydrant installations and individual booster pump systems to be constructed in multiple locations in former STMGID service areas to correct NAC pressure and fire flow deficiencies. In order to correct deficiencies in the upper Toll Road area, it will be necessary to create a new higher pressure zone by constructing a new tank, booster pump station and approximately 6,300 linear feet of 12-inch main.

SCHEDULE: The new pressure zone on upper Toll Road will be constructed in FY 2028 subject to acquisition of the tank site property which may be private or on BLM property.

Distribution System Pressure Improvements
Verdi 1 Booster Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Reimbursements	Verdi 1 Booster Pump Station	2,500	500	—	—	—	3,000

PROJECT DESCRIPTION: This booster pump station is part of the 'backbone facilities' necessary to bring more surface water to the Verdi area and meet planned/approved growth via various housing projects underway. The planned capacity is 3,500 gpm.

SCHEDULE: Construction is scheduled to begin in FY 2025.

Distribution System Pressure Improvements
Santerra Quillici 1 Booster Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Reimbursements	Santerra Quilici 1 Booster Pump Station	3,700	—	—	—	—	3,700

PROJECT DESCRIPTION: This booster pump station will be located next to the Boomtown Tanks to provide service to the portions of Santerra Quillici project located higher in elevation than can be served by existing infrastructure. The planned capacity is 1,000 gpm.

SCHEDULE: Construction is scheduled for FY 2025.

Distribution System Pressure Improvements
Santerra Quillici 2 Booster Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Reimbursements	Santerra Quilici 2 Booster Pump Station	—	—	200	3,000	—	3,200

PROJECT DESCRIPTION: This pump station will be located next to the Boomtown Tanks to provide service to the portions of Santerra Quillici project located higher in elevation than can be served by existing infrastructure. The planned capacity is 415 gpm.

SCHEDULE: Design and construction will occur in FY 2027 with construction in FY 2028.

Distribution System Pressure Improvements
Silver Hills Booster Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Reimbursements	Silver Hills Booster Pump Station	—	3,000	—	—	—	3,000

PROJECT DESCRIPTION: The booster pump station will be located next to the Army Air well at the Reno Stead Airport to provide service to the Silver Hills project located to the west of the Airport and on either side of Red Rock Road. The planned capacity is 2,000 gpm.

SCHEDULE: Construction is scheduled for FY 2026.

Distribution System Pressure Improvements
Ascente Booster Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Reimbursements	Ascente Booster Pump Station	2,500	—	—	—	—	2,500

PROJECT DESCRIPTION: The Ascente Pump Station will be located within the Ascente development in South Truckee Meadows. It will pump from the existing Mt. Rose 2 tank to the new Ascente Tank. The planned capacity will be 250 gpm but will also have fire pump capacity in the event of a tank outage. The pump station is located in a NV Energy PSOM (preventative maintenance outage management) area and will require a backup generator.

SCHEDULE: Design and Construction is scheduled for FY 2025.

Distribution System Pressure Improvements
Talus Valley Booster Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Reimbursements	Talus Valley Booster Pump Station	2,900	800	—	—	—	3,700

PROJECT DESCRIPTION: The Talus Valley Development is the driver for this project. This booster pump station will add an additional 1,500 GPM supply to the Double Diamond pressure zone from the Sparks Gravity zone. This development needs 900 GPM and TMWA is upsizing the capacity to 4,000 GPM. No off-site improvements are included in this project.

SCHEDULE: Final Design and the start of Construction will take place in FY 2025 with an anticipated completion in FY 2026.

Distribution System Pressure Improvements
Tappan 2 Pressure Regulator System

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Tappan 2 Pressure Regulating Station	—	300	—	—	—	300

PROJECT DESCRIPTION: The project will provide the Tappan Reg zone with more redundancy and a second source of supply. The location is approximate and subject to easement acquisition and timing.

SCHEDULE: Planned for design/construction in FY 2026 if land acquisition timing allows.

Distribution System Pressure Improvements
Caughlin Train A Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Caughlin Train A Improvements	1,000	—	—	—	—	1,000

PROJECT DESCRIPTION: To enhance redundancy and reliability in this critical system, the A-train pumps and motors within Caughlin booster pump stations 2, 3, and 4 will be upsized. Additionally, improvements to address corrosion issues in these pump stations will be made.

SCHEDULE: Design and procurement is underway with the completion anticipated in FY 2025.

Distribution System Pressure Improvements
Idlewild Irrigation Pump Station Improvements and Repair

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Reimbursements	Idlewild Irrigation Pump Station Improvements and Repair	170	200	—	—	—	370

PROJECT DESCRIPTION: The Idlewild Irrigation Pump Station site along the Truckee River requires repair due to a retaining wall failure along the riverside. Additionally, the City of Reno is conducting a lining project for the Idlewild Park ponds, and TMWA is collaborating with the City to install an intake from the ponds to the pump station. If successful, this intake will eliminate the costly sanding issue the pump station encounters when operating from the current Truckee River intake.

SCHEDULE: Improvements are scheduled to begin in FY2025 and the full project is anticipated to continue into 2026.

Distribution System Pressure Improvements
Off River Supply Redundancy Improvements STM and NVS

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Off River Supply Redundancy Improvements STM and NVS	—	500	—	1,000	—	1,500

PROJECT DESCRIPTION: This project will connect the Fish Spring System in the North Valleys though a series of regulation stations into the Highland gravity zone.

SCHEDULE: This is in the planning phase and will likely be a phased design to begin in FY 2026 followed by construction in FY 2028.

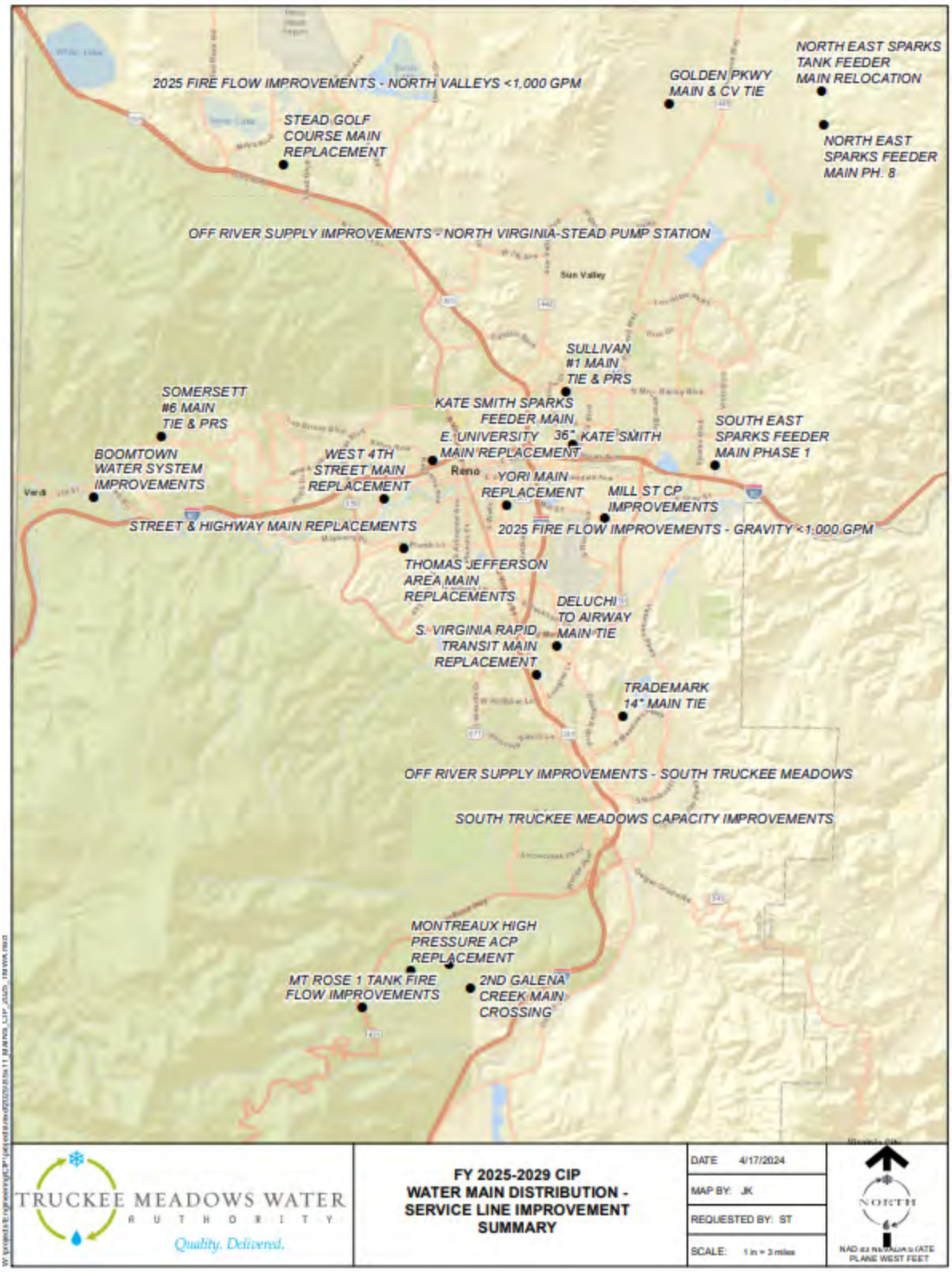
WATER MAIN DISTRIBUTION & SERVICE LINE IMPROVEMENTS

Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Street and Highway Main Replacements	4,000	5,000	5,000	5,000	5,000	24,000
1	Customer Rates	Golden Parkway Main and Check Valve Tie	40	150	—	—	—	190
1	Customer Rates	Yori and E. University Main Replacement	2,200	—	—	—	—	2,200
1	Customer Rates	Kate Smith Water Main Replacement Phase 1-3	1,900	2,800	200	—	—	4,900
1	Customer Rates	Kate Smith Sparks Feeder Main-36"	100	3,800	—	—	—	3,900
1	Customer Rates	Thomas Jefferson Area Main Replacements	1,800	2,000	—	—	—	3,800
1	Customer Rates	South Virginia Rapid Transit Main Replacement	2,000	—	—	—	—	2,000
2	Developer Fees	North-East Sparks Tank Feeder Main Relocation	—	975	—	—	—	975
2	Developer Fees	Trademark 14" Main Tie	—	470	—	—	—	470
2	Customer Rates	Mount Rose Tank 1 Fire Flow Improvements	—	400	570	—	—	970
2	Customer Rates / Developer Fees	Stead Golf Course Main Replacement	—	—	200	2,400	—	2,600
1	Developer Fees	North-East Sparks Feeder Main Phase 8	10	50	2,050	—	—	2,110
2	Developer Fees	Goldenrod Main	1,800	—	—	—	—	1,800
1	Developer Fees	Boomtown Water System Improvements	1,500	1,500	—	—	—	3,000
2	Customer Rates / Developer Fees	Sullivan 1 Main Tie and Pressure Regulating Station	—	—	100	650	—	750
2	Customer Rates	Montreux High Pressure ACP Replacement	100	1,000	1,200	—	—	2,300
2	Customer Rates	2nd Galena Creek Main Crossing		40	560	—	—	600
2	Customer Rates	Off-River Supply Improvements - South Truckee Meadows	—	—	50	1,050	—	1,100
2	Customer Rates	Off-River Supply Improvements - North Virginia-Stead Pump Station	—	400	—	—	—	400
2	Customer Rates	Somersett 6 Main Tie and Pressure Regulating Station	280	—	—	—	—	280
1	Customer Rates	2025 Fire Flow Improvements - Gravity <1,000 GPM	—	—	550	—	—	550
1	Customer Rates	2025 Fire Flow Improvements - North Valleys <1,000 GPM	—	—	950	—	—	950

Priority	Funding Source	Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	CIP Total
2	Developer Fees	Deluchi to Airway Main Tie	—	—	450	—	—	450
1	Developer Fees	South-East Sparks Feeder Main Phase 1	—	—	—	50	4,450	4,500
1	Developer Fees	South Truckee Meadows Capacity Improvements	800	—	—	—	—	800
1	Customer Rates	West 4th Street Main Replacement	2,100	—	—	—	—	2,100
Subtotal Water Main Distribution Improvements			**18,630**	**18,585**	**11,880**	**9,150**	**9,450**	**67,695**

Project Locations: Map of all *Water Main Distribution Service Line Improvements* projects are highlighted in the following map.


2025 FIRE FLOW IMPROVEMENTS - NORTH VALLEYS <1,000 GPM
GOLDEN PKWY MAIN & CV TIE
NORTH EAST SPARKS TANK FEEDER MAIN RELOCATION
STEAD GOLF COURSE MAIN REPLACEMENT
NORTH EAST SPARKS FEEDER MAIN PH. 8
OFF RIVER SUPPLY IMPROVEMENTS - NORTH VIRGINIA-STEAD PUMP STATION
Sun Valley
SULLIVAN #1 MAIN TIE & PRS
SOMERSETT #6 MAIN TIE & PRS
KATE SMITH SPARKS FEEDER MAIN
E. UNIVERSITY 36" KATE SMITH MAIN REPLACEMENT
SOUTH EAST SPARKS FEEDER MAIN PHASE 1
BOOMTOWN WATER SYSTEM IMPROVEMENTS
WEST 4TH STREET MAIN REPLACEMENT
Reno
YORI MAIN REPLACEMENT
MILL ST CP IMPROVEMENTS
Verdi
STREET & HIGHWAY MAIN REPLACEMENTS
2025 FIRE FLOW IMPROVEMENTS - GRAVITY <1,000 GPM
THOMAS JEFFERSON AREA MAIN REPLACEMENTS
DELUCHI TO AIRWAY MAIN TIE
S. VIRGINIA RAPID TRANSIT MAIN REPLACEMENT
TRADEMARK 14" MAIN TIE
OFF RIVER SUPPLY IMPROVEMENTS - SOUTH TRUCKEE MEADOWS
SOUTH TRUCKEE MEADOWS CAPACITY IMPROVEMENTS
MONTREAUX HIGH PRESSURE ACP REPLACEMENT
MT ROSE 1 TANK FIRE FLOW IMPROVEMENTS
2ND GALENA CREEK MAIN CROSSING
TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
WATER MAIN DISTRIBUTION -
SERVICE LINE IMPROVEMENT
SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 3 miles
NORTH

Water Main-Distribution Service Line Improvements
Street and Highway Main Replacements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Street and Highway Main Replacements	4,000	5,000	5,000	5,000	5,000	24,000

PROJECT DESCRIPTION: Provision is made each year for water main replacements in conjunction with repaving efforts by the City of Reno, City of Sparks, Washoe County and RTC. In addition to repaving projects, TMWA coordinates water main replacements with sewer main replacements in areas where TMWA also has older water lines. TMWA plans for up to $5.0 million annually for these efforts, so that TMWA can capitalize on repaving projects planned by other entities. Anticipated spending in the out years is reflective of historical activity. Levels of spending can vary year to year and are difficult to predict.

SCHEDULE: Projects are identified and prioritized on an annual basis.

Water Main-Distribution Service Line Improvements
Golden Parkway Main and Check Valve Tie

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Golden Parkway Main and Check Valve Tie	40	150	—	—	—	190

PROJECT DESCRIPTION: This project will establish water system redundancy in the Spanish Springs area and includes the construction of 350 linear feet of 8-inch diameter main and an associated check valve adjacent to the Eagle Canyon Pressure Reducing Station (PRS).

SCHEDULE: Construction is scheduled for FY 2025.

Water Main-Distribution Service Line Improvements
Yori and E. University Main Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Yori and E. University Main Replacement	2,200	—	—	—	—	2,200

PROJECT DESCRIPTION: The project involves replacing approximately 5,000 linear feet of older cast iron pipe ahead of 2025 City of Reno street rehabilitation work. Includes railroad crossing at 8th and Record Street.

SCHEDULE: Construction is scheduled for FY 2025.

Water Main-Distribution Service Line Improvements
Kate Smith Water Main Replacement Phase 1-3

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Kate Smith Water Main Replacement Phase 1-3	1,900	2,800	200	—	—	4,900

PROJECT DESCRIPTION: This is a multi-phased project to replace the mains around the Kate Smith residential area ahead of the City of Sparks Kate Smith Road Rehab project. This includes main abandonment and service tie overs with minimal residential outages.

SCHEDULE: Design and construction is scheduled for FY's 2025-2027.

Water Main-Distribution Service Line Improvements
Kate Smith Sparks Feeder Main-36"

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Kate Smith Sparks Feeder Main-36"	100	3,800	—	—	—	3,900

PROJECT DESCRIPTION: Installation of approximately 1,500 linear feet of 36-inch ductile iron pipe on F Street from Rock Blvd to 19th Street and 19th Street from Prater Way to F Street. This work is in coordination with the City of Sparks Kate Smith School Area street reconstruction projects.

SCHEDULE: Construction is scheduled for FY 2026.

Water Main-Distribution Service Line Improvements
Thomas Jefferson Area Main Replacements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Thomas Jefferson Area Main Replacements	1,800	2,000	—	—	—	3,800

PROJECT DESCRIPTION: Replacement of approximately 8,500 liner feet of older 4-inch, 6-inch and 8-inch cast iron mains. This work is in coordination with the City of Reno Thomas Jefferson, California and Sharon/Marsh road reconstruction projects.

SCHEDULE: Planning and design will be completed in FY 2025. Construction will be completed in FY 2026.

Water Main-Distribution Service Line Improvements
South Virginia Rapid Transit Main Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	South Virginia Rapid Transit Main Replacement	2,000	—	—	—	—	2,000

PROJECT DESCRIPTION: Replacement of a minimum 2,000 linear feet to a maximum of 5,100 linear feet of older 6-inch, 8-inch and 12-inch cast iron main. Final scope to be determined. This work is in coordination with RTC's Rapid Transit Project on South Virginia Street from Moana Lane to Plumb Lane.

SCHEDULE: Construction is scheduled for FY 2025.

Water Main-Distribution Service Line Improvements
North-East Sparks Tank Feeder Main Relocation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	North-East Sparks Tank Feeder Main Relocation	—	975	—	—	—	975

PROJECT DESCRIPTION: The North-East Sparks Tank Feeder Main was constructed in 1988 within private easements several years prior to the construction of South Los Altos Parkway. The final alignment selected for South Los Altos Parkway does not follow the alignment of the tank feeder main. As a result, the tank feeder main now runs through developed properties next to buildings, under parking areas and at considerable depth in some locations. This situation presents potential problems for access to the pipe for maintenance and repair of the critical pipeline. This project will relocate approximately 3,000 linear feet of the 18-inch tank feeder main out into the public right-of-way in South Los Altos Parkway.

SCHEDULE: Design and the improvements are scheduled for FY 2026.

Water Main-Distribution Service Line Improvements
Trademark 14" Main Tie

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Trademark 14" Main Tie	—	470	—	—	—	470

PROJECT DESCRIPTION: This project involves construction of approximately 350 linear feet of 14-inch water main from Trademark to South Meadows Parkway, including crossing of an existing major drainage channel. The project will increase transmission capacity in the Double Diamond system to meet the needs of growth.

SCHEDULE: Construction is scheduled to be completed in FY 2026.

Water Main-Distribution Service Line Improvements
Mount Rose Tank 1 Fire Flow Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Mount Rose Tank 1 Fire Flow Improvements	—	400	570	—	—	970

PROJECT DESCRIPTION: The project involves reconstruction of an existing pressure regulator station at Mt. Rose Tank 1, a new pressure regulator station on Blue Spruce and approximately 3,100 linear feet of 10-inch water main on Blue Spruce and Douglas Fir to increase system pressure and fire flow capacity to existing customers in Galena Forest Estates. Existing fire flows are currently less than 1,000 GPM in the area.

SCHEDULE: Planning and design will be completed in FY 2026. Construction will occur in FY's 2026-2027.

Water Main-Distribution Service Line Improvements
Stead Golf Course Main Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates / Developer Fees	Stead Golf Course Main Replacement	—	—	200	2,400	—	2,600

PROJECT DESCRIPTION: The project consists of replacement of about 10,000 linear feet of 14-inch steel pipe installed around 1945. The pipe provides an important hydraulic tie between the Stead tanks and the northeast extremities of the Stead distribution system. The pipeline may also be useful to alleviate an existing bottleneck between the Stead wells and the distribution system.

SCHEDULE: The project is scheduled for construction to be completed in FY 2028.

Water Main-Distribution Service Line Improvements
North-East Sparks Feeder Main Phase 8

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Developer Fees	North-East Sparks Feeder Main Phase 8	10	50	2,050	—	—	2,110

PROJECT DESCRIPTION: The project involves construction of approximately 6,400 linear feet of 14-inch water main on Satellite Drive from Vista Blvd to Sparks Blvd to increase capacity for growth in Spanish Springs and maintain adequate suction pressure at the Satellite Hills booster pump station.

SCHEDULE: Design is scheduled for FY's 2025-2026 and the improvements will be constructed in FY 2027.

Water Main-Distribution Service Line Improvements
Goldenrod Main

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Goldenrod Main	1,800	—	—	—	—	1,800

PROJECT DESCRIPTION: The project involves construction of approximately 4,500 linear feet of 12-inch water main from the Tessa West Well to the intersection of Goldenrod and Mountain Meadows Lane. This project will provide additional capacity between the Arrowcreek and Mt. Rose systems for Mt. Rose 2 tank fills and for on-peak supply from the Mt. Rose Water Treatment Plant.

SCHEDULE: Construction is planned in FY 2025.

Water Main-Distribution Service Line Improvements
Boomtown Water System Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Developer Fees	Boomtown Water System Improvements	1,500	1,500	—	—	—	3,000

PROJECT DESCRIPTION: The Boomtown system requires several high priority improvements to bring the system into compliance with NAC 445A regulations and TMWA standards and to allow efficient operation and maintenance of the water facilities. The improvements consist of upgrades to three existing wells (pump to waste facilities, SCADA, new pumps, new motors, new starters and arc flash analyses), tank site improvements (grading, drainage, overflow, fencing, paving, sampling vault, SCADA) and tank access improvements.

SCHEDULE: The improvements will be designed and constructed in FY's 2025-2026.

Water Main-Distribution Service Line Improvements
Sullivan 1 Main Tie and Pressure Regulating Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates / Developer Fees	Sullivan 1 Main Tie and Pressure Regulating Station	—	—	100	650	—	750

PROJECT DESCRIPTION: The project involves construction of about 1,300 linear feet of 10-inch main on El Rancho and a new pressure regulator station to supply the Sullivan 1 zone. The project timeline assumes that the proposed Sun Valley 2 Tank and Sullivan 2 pump station are in service.

SCHEDULE: Planning and design is scheduled to begin in FY 2027 with construction scheduled in FY 2028.

Water Main-Distribution Service Line Improvements
Montreux High Pressure ACP Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Montreux High Pressure ACP Replacement	100	1,000	1,200	—	—	2,300

PROJECT DESCRIPTION: The project involves replacement of approximately 6,500 linear feet of existing 10-inch transite water main between Mt Rose Well 5 and Joy Lake Road. The existing ACP pipe installed in the 1970's is currently operated at pressures between 120-250 psi.

SCHEDULE: Planning and design will occur in FY 2025 with construction to be completed in FY 2027.

Water Main-Distribution Service Line Improvements
2nd Galena Creek Main Crossing

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	2nd Galena Creek Main Crossing		40	560	—	—	600

PROJECT DESCRIPTION: The project involves construction of approximately 2,200 linear feet of 10-inch ductile iron water main between Breithorn Cir. and Piney Creek Parklet including a crossing of Galena Creek. The existing 10" ACP pipe that crosses Galena Creek is currently the only tie between well sources and storage tanks.

SCHEDULE: Design will occur in FY 2026 with construction to be completed in FY 2027.

Water Main-Distribution Service Line Improvements
Off-River Supply Improvements - South Truckee Meadows

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Off-River Supply Improvements - South Truckee Meadows	—	—	50	1,050	—	1,100

PROJECT DESCRIPTION: The project involves construction of four SCADA controlled, pressure reducing bypass stations in strategic locations in the South Truckee Meadows to allow excess well capacity and excess Mt. Rose Water Treatment Plant capacity to be provided to the Highland gravity zone in case of loss supply from the Truckee River. Two additional bypasses (Arrowcreek BPS & future Veteran's BPS) will be constructed separately under the budget for those facilities.

SCHEDULE: Planning and design will occur in FY 2027 with construction to be completed in FY 2028.

Water Main-Distribution Service Line Improvements
Off-River Supply Improvements - North Virginia-Stead Pump Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Off-River Supply Improvements - North Virginia-Stead Pump Station	—	400	—	—	—	400

PROJECT DESCRIPTION: The project involves construction of a SCADA controlled, pressure reducing bypass station at the North Virginia-Stead booster pump station to allow excess Fish Springs well capacity to be provided to the Highland gravity zone in case of loss supply from the Truckee River.

SCHEDULE: Project implementation and construction will occur in FY 2026.

Water Main-Distribution Service Line Improvements
Somersett 6 Main Tie and Pressure Regulating Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Somersett 6 Main Tie and Pressure Regulating Station	280	—	—	—	—	280

PROJECT DESCRIPTION: The project involves construction of about 600 linear feet of 10-inch main within improved paved pathway and a new pressure regulator station to provide a secondary source to Somersett Village 6.

SCHEDULE: Project implementation and construction will occur in FY 2025.

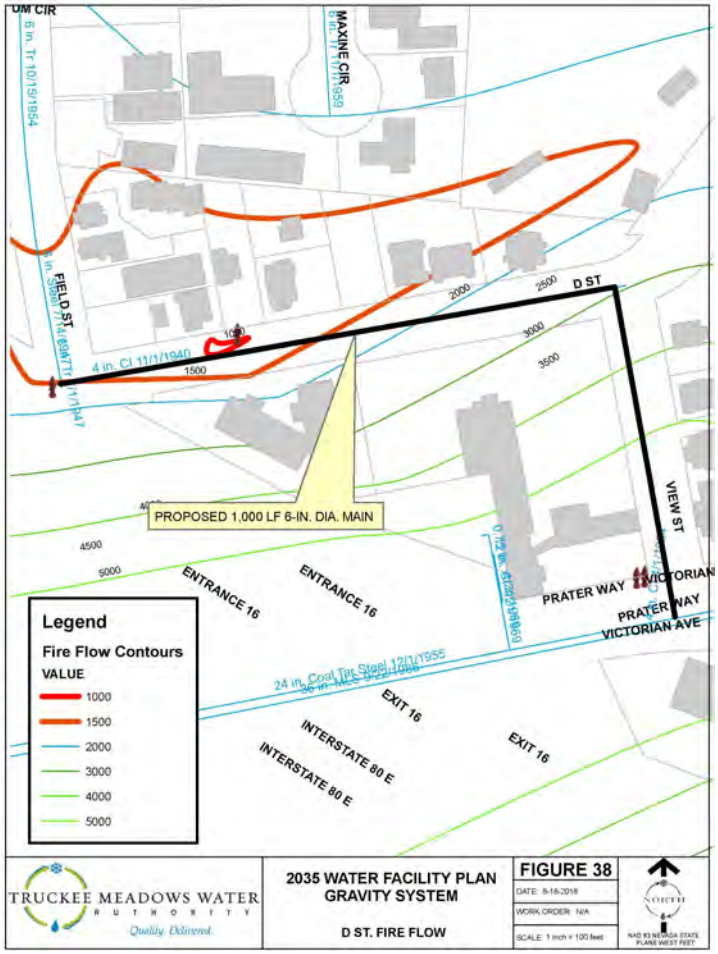
Water Main-Distribution Service Line Improvements
2025 Fire Flow Improvements - Gravity <1,000 GPM

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	2025 Fire Flow Improvements - Gravity <1,000 GPM	—	—	550	—	—	550

PROJECT DESCRIPTION: The project involves improvements at five separate locations in the gravity zone that have an available fire flow of less than 1,000 GPM. Reference Pages 20-22 of the 2035 WFP – Items 14,18,20,25,31 (also Figures 38,42,44,49,55). Construction consists of approximately 1,900 linear feet of new 6-inch and 8-inch main including new hydrant taps and laterals.

SCHEDULE: The improvements are scheduled for construction in FY 2027.



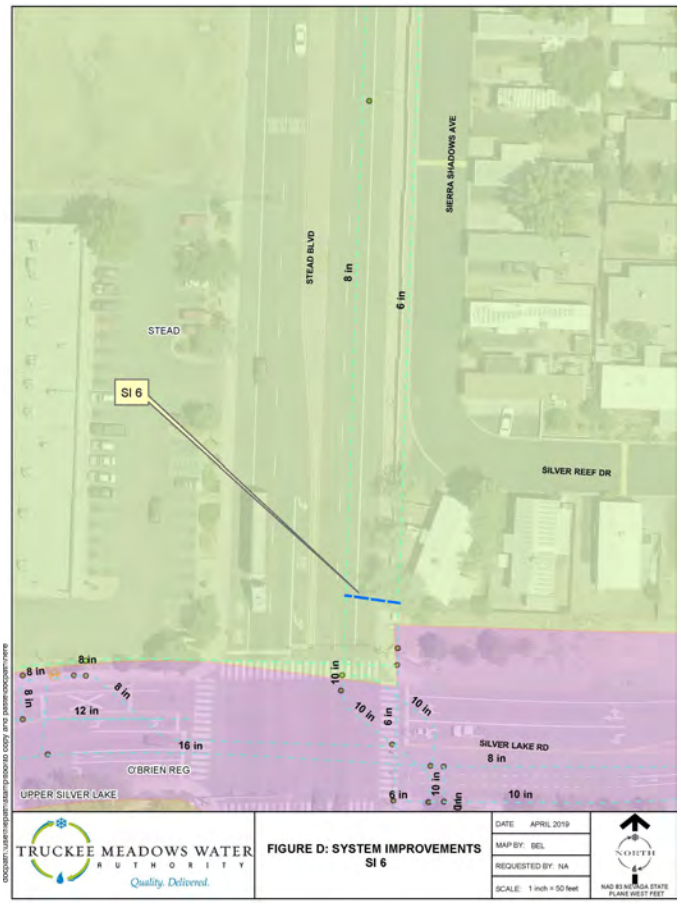
Water Main-Distribution Service Line Improvements
2025 Fire Flow Improvements - North Valleys <1,000 GPM

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	2025 Fire Flow Improvements - North Valleys <1,000 GPM	—	—	950	—	—	950

PROJECT DESCRIPTION: This project involves improvements at two separate locations that have an available fire flow of less than 1,000 GPM. Reference Items SI6 and SI7 on pages 6-7 of the North Valleys section of the 2035 Water Facilities Plan (also Figures D and E). Construction of approximately 3,500 linear feet of new 6-inch and 8-inch main and new high pressure Regulating Station.

SCHEDULE: The improvements are scheduled for construction in FY 2027.



Water Main-Distribution Service Line Improvements
Deluchi to Airway Main Tie

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Deluchi to Airway Main Tie	—	—	450	—	—	450

PROJECT DESCRIPTION: The project involves construction of approximately 1,200 linear feet of l4-inch main from Deluchi to Airway including crossing a major storm drainage channel. The project promotes looping of the distribution system and provides additional North to South peak period capacity.

SCHEDULE: The project is scheduled for construction in FY 2027.

Water Main-Distribution Service Line Improvements
South-East Sparks Feeder Main Phase 1

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Developer Fees	South-East Sparks Feeder Main Phase 1	—	—	—	50	4,450	4,500

PROJECT DESCRIPTION: The project involves construction of approximately 9,700 linear feet of 24-inch main on Greg Street between 21st Street and Stanford to provide additional capacity for future growth and to lower peak period pressure in the area.

SCHEDULE: Planning and design are scheduled to begin in FY 2028 and construction is scheduled to begin in FY 2029.

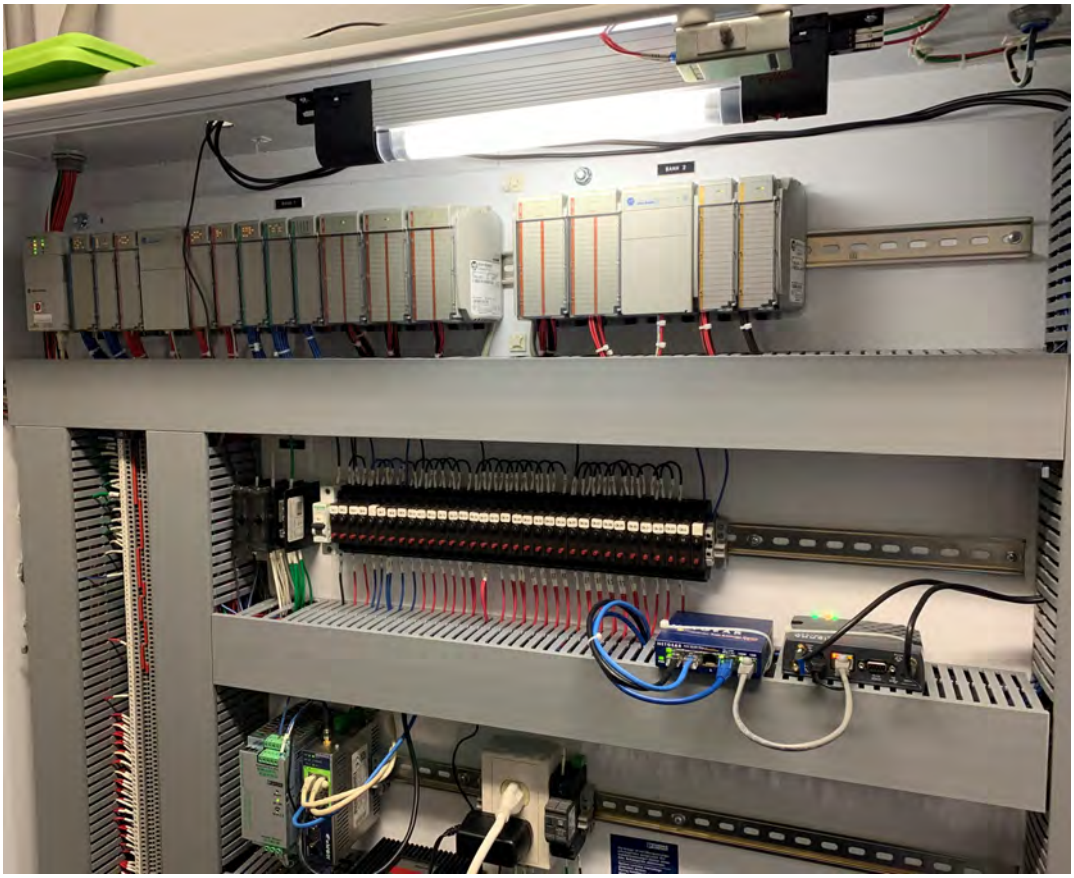
Water Main-Distribution Service Line Improvements
South Truckee Meadows Capacity Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Developer Fees	South Truckee Meadows Capacity Improvements	800	—	—	—	—	800

PROJECT DESCRIPTION: The project involves construction of approximately 1,500 linear feet of l4-inch main on Offenhauser and Gateway with a SCADA controlled valve installed in an underground vault to provide an intertie between the Longley and Double Diamond systems. Also included is a short 8-inch main tie at Bluestone and Portman.The improvements increase capacity to the South Truckee Meadows system.

SCHEDULE: Construction is scheduled for FY 2025.



Water Main-Distribution Service Line Improvements
West 4th Street Main Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	West 4th Street Main Replacement	2,100	—	—	—	—	2,100

PROJECT DESCRIPTION: Replacement of approx. 3,400 linear feet of 6-inch cast iron with 8-inch ductile iron. The limits are on W. 4th St. from 500' W/O Stoker Ave. to 400' W/O Keystone Ave.

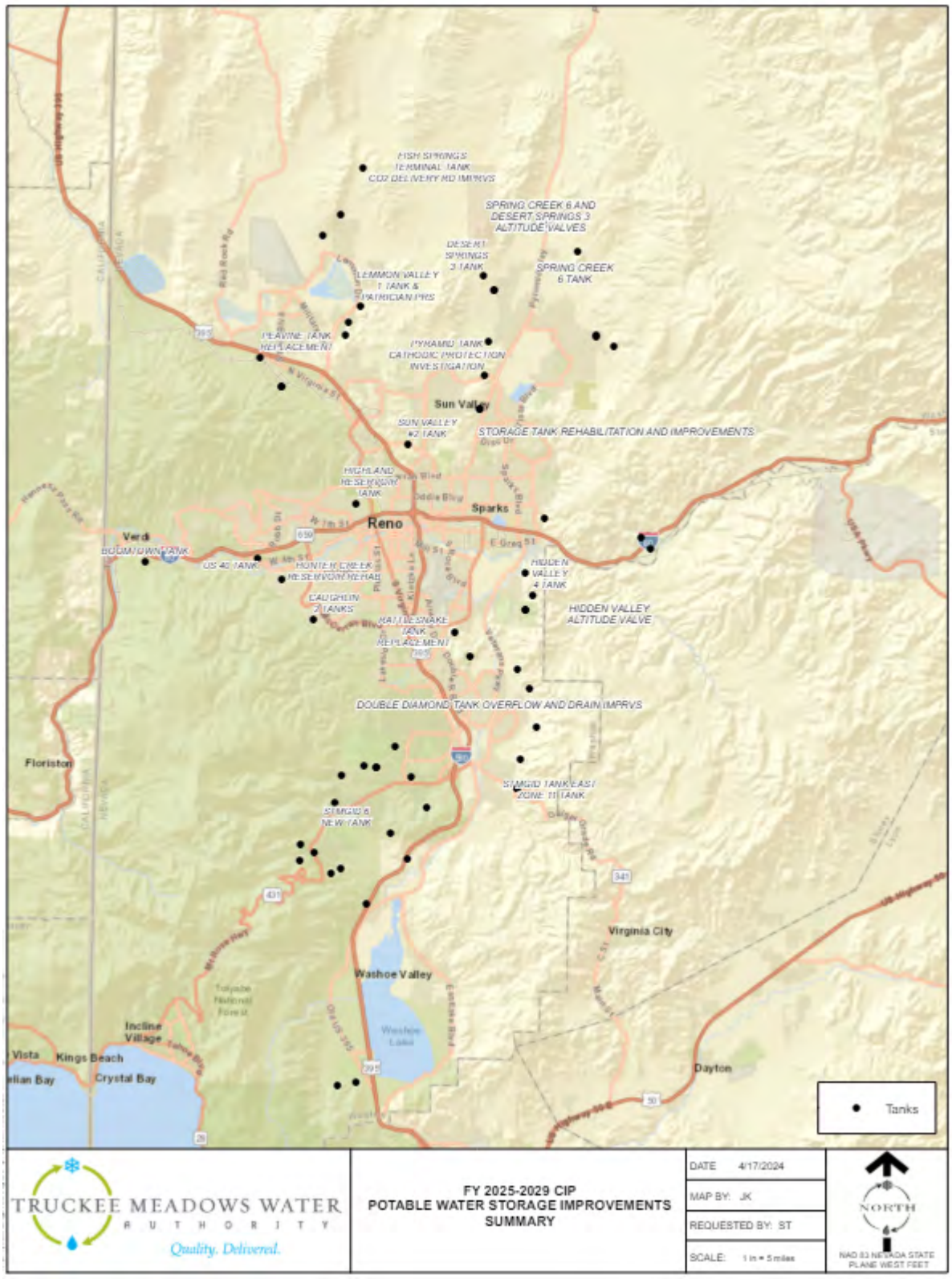
SCHEDULE: Work will take place in FY 2025 ahead of the RTC W. 4th St. Safety project.

POTABLE WATER STORAGE IMPROVEMENTS
Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates / Developer Fees	Sun Valley 2 Tank	420	2,980	—	—	—	3,400
2	Developer Fees	Fish Springs Terminal Tank 2	—	—	—	40	2,160	2,200
1	Customer Rates	Storage Tank Rehabilitation and Improvements	10,100	4,500	5,000	5,000	5,000	29,600
1	Customer Rates / Developer Fees	Boomtown System Improvements Phase 4 - Boomtown Tank	1,000	—	—	—	—	1,000
1	Customer Rates	Caughlin 2 Tanks	500	1,000	1,500	—	—	3,000
2	Customer Rates / Developer Fees	Highland Reservoir Tank	—	2,000	5,000	—	—	7,000
1	Customer Rates / Developer Fees	STMGID Tank East Zone 11 Tank	—	175	2,900	—	—	3,075
1	Customer Rates / Reimbursements / Developer Fees	US 40 Tank and Feeder Main	3,500	1,000	—	—	—	4,500
2	Customer Rates / Developer Fees	Spanish Springs Altitude Valves (SC6 and DS3)	—	—	300	—	—	300
2	Customer Rates	Hidden Valley Tank Altitude Valve	—	—	350	—	—	350
1	Customer Rates	Lemmon Valley Tank 1 Replacement and Patrician Pressure Regulating Station	1,500	—	—	—	—	1,500
1	Customer Rates	Hidden Valley Tank 4 Outage Improvements	250	1,500	—	—	—	1,750
2	Customer Rates	Reservoir Rehabilitation	75	—	100	3,000	1,500	4,675
1	Customer Rates	Terminal Tank CO2 Delivery Road Improvements	100	—	—	—	—	100
2	Customer Rates	STMGID 6 New Tank	20	—	—	400	—	420
2	Customer Rates	Rattle Snake Tank Replacement	—	—	500	3,000	3,000	6,500

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Pyramid Tank Cathodic Protection Investigation	—	15	—	100	—	115
3	Customer Rates	Double Diamond Tank Overflow and Drain Improvements	—	—	100	—	—	100
Subtotal Storage Improvements			**17,465**	**13,170**	**15,750**	**11,540**	**11,660**	**69,585**

Project Locations: Map of all *Potable Water Storage Improvements* projects are highlighted in the following map.


FISH SPRINGS TERMINAL TANK CO2 DELIVERY RD IMPRVS
SPRING CREEK 6 AND DESERT SPRINGS 3 ALTITUDE VALVES
DESERT SPRINGS 3 TANK
SPRING CREEK 6 TANK
LEMMON VALLEY 1 TANK & PATRICIAN PRS
PEAVINE TANK REPLACEMENT
PYRAMID TANK CATHODIC PROTECTION INVESTIGATION
Sun Valley
SUN VALLEY #2 TANK
STORAGE TANK REHABILITATION AND IMPROVEMENTS
HIGHLAND RESERVOIR TANK
Sparks
Reno
Verdi
BUDA/DAWN TANK
US 40 TANK
HUNTER CREEK RESERVOIR REHAB
CAUGHLIN 2 TANKS
RATTLESNAKE TANK REPLACEMENT
HIDDEN VALLEY 4 TANK
HIDDEN VALLEY ALTITUDE VALVE
DOUBLE DIAMOND TANK OVERFLOW AND DRAIN IMPRVS
Floriston
SUMGID TANK EAST ZONE 11 TANK
SUMGID 6 NEW TANK
Virginia City
Washoe Valley
Incline Village
Vista
Kings Beach
Crystal Bay
Dayton
Tanks
TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
POTABLE WATER STORAGE IMPROVEMENTS
SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 5 miles
NORTH
NAD 83 NEVADA STATE PLANE WEST FEET

Potable Water Storage Improvements
Sun Valley 2 Tank

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates / Developer Fees	Sun Valley 2 Tank	420	2,980	—	—	—	3,400

PROJECT DESCRIPTION: TMWA continues to analyze opportunities to consolidate pump zones to eliminate future pump station replacement costs and to increase reliability to continuous pumping zones. Several years ago, TMWA consolidated the Sutro 1 pump zone with the Sun Valley/Sullivan pump zone, placing additional capacity requirements on the Sun Valley zone. This tank is needed to provide the required emergency storage capacity to the expanded zone and will also provide the capacity for the Sun Valley zone to reach build-out.

SCHEDULE: The project is scheduled for construction in FY 2026 subject to successful acquisition of a suitable tank site which is elevation sensitive and is complicated by the US 395 Connector project alignment.

Potable Water Storage Improvements
Fish Springs Terminal Tank 2

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	Fish Springs Terminal Tank 2	—	—	—	40	2,160	2,200

PROJECT DESCRIPTION: This project involves a second 2.5 MG storage tank that is needed at the terminus of the Fish Springs pipeline at the north end of Lemmon Valley to equalize demand and supply during peak use periods.

SCHEDULE: The project is currently scheduled for design in FY 2028 with construction scheduled in FY 2029. The actual schedule will be dependent upon the rate of growth in the North Valleys.

Potable Water Storage Improvements
Storage Tank Rehabilitation and Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Storage Tank Rehabilitation and Improvements	10,100	4,500	5,000	5,000	5,000	29,600

PROJECT DESCRIPTION: TMWA has a very proactive tank reservoir maintenance program where 20% of all tanks are inspected annually on a rotating basis. Based on 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 97 storage tanks in service, with combined storage of approximately 123 million gallons. Interior coating/liners are generally replaced every 20 years resulting in the need to recoat several tanks per year to maintain the rehabilitation cycle. The budget and plan also includes exterior painting of steel tanks and any replacement of any interior components that may be corroded.

SCHEDULE: This is an ongoing annual project. It is anticipated that several tanks will need to be recoated every year.

Water Main-Distribution Service Line Improvements
Boomtown System Improvements Phase 4 - Boomtown Tank

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates / Developer Fees	Boomtown System Improvements Phase 4 - Boomtown Tank	1,000	—	—	—	—	1,000

PROJECT DESCRIPTION: Boomtown 1 tank (500,000 gallons), which was originally constructed in 1986, was acquired by TMWA from the Boomtown Water System. As part of the acquisition, TMWA made provisions to bring the tank up to current NAC And TMWA standards, thus, this project will make these improvements. Improvements may also include replacement of any corroded structural components. Additionally, the tank will be used to provide suction to the proposed Santerra Quilici 1 BPS; therefore, piping and other modifications will be made to accommodate this future use. Finally, the tank will receive full interior and exterior blasting and recoat.

SCHEDULE: The improvements are scheduled for FY 2025.

Distribution System Pressure Improvements
Caughlin 2 Tanks

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Caughlin 2 Tanks	500	1,000	1,500	—	—	3,000

PROJECT DESCRIPTION: The project involves the proposed Caughlin 2 tanks that will provide redundancy for an existing continuous pumping zone and will expand emergency storage for the entire southwest area. The tanks will also provide a greater level of redundancy to a fire prone area by relying less on pumping and power, and more on elevated storage.

SCHEDULE: Construction for the project is scheduled to begin in FY 2026.

Potable Water Storage Improvements
Highland Reservoir Tank

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates / Developer Fees	Highland Reservoir Tank	—	2,000	5,000	—	—	7,000

PROJECT DESCRIPTION: TMWA has two large finished water storage reservoirs, one at Hunter Creek and one at the Highland site just west of the intersection of Washington and College Drive. These reservoirs are lined and covered with flexible polyethylene or hypalon membranes. As such, they are more maintenance intensive and susceptible to damage than a conventional steel or concrete tank. To provide reliability during repairs or during extended outages for inspection and cleaning, it is proposed to construct a conventional 4 million gallon water storage tank at the reservoir site. Due to topography and proximity to residential areas the tank may need to be a buried pre-stressed concrete tank, which is reflected in the project budget. The tank will also provide additional storage capacity to meet future system requirements as required by the NAC regulations.

SCHEDULE: The tank is scheduled for construction in FY's 2026-2027.

Potable Water Storage Improvements
STMGID Tank East Zone 11 Tank

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates / Developer Fees	STMGID Tank East Zone 11 Tank	—	175	2,900	—	—	3,075

PROJECT DESCRIPTION: The project involves construction of a 3.7 MG above ground welded steel storage tank in the South Truckee Meadows area off of Geiger Grade formerly owned by STMGID. Due to growth in the area over the last several years, additional storage is required to meet the requirements of the NAC 445A regulations and TMWA standards. The tank will replace an existing 0.75 MG tank providing a net increase in storage of about 3 MG.

SCHEDULE: The project is currently scheduled for construction in FY 2028, subject to acquisition of the Special Use Permit and Bureau of Land Management (BLM) permitting.

Potable Water Storage Improvements
US 40 Tank and Feeder Main

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates / Reimbursements / Developer Fees	US 40 Tank and Feeder Main	3,500	1,000	—	—	—	4,500

PROJECT DESCRIPTION: The project involves construction of two 800,000 gallon steel tanks with site improvements, utilities, drain line and access road including about 2,100 linear feet of 20-inch feeder main. The project will improve reliability and hydraulic performance in the zone which experiences a lot of surge issues due to cycling of the Mae Anne pump train and the closed system on the Mogul end. This situation is only expected to worsen when pumping to Verdi begins.

SCHEDULE: Construction is scheduled to begin in FY 2025.

Potable Water Storage Improvements
Spanish Springs Altitude Valves (SC6 and DS3)

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates / Developer Fees	Spanish Springs Altitude Valves (SC6 and DS3)	—	—	300	—	—	300

PROJECT DESCRIPTION: The project involves the construction of altitude valves in underground vaults at the Spring Creek Tank 6 and at the Desert Springs Tank 3. The altitude valves will keep the existing tanks from overflowing when well recharge operations are conducted in Spanish Springs Valley.

SCHEDULE: The project is schedule for construction in FY 2027.

Potable Water Storage Improvements
Hidden Valley Tank Altitude Valve

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Hidden Valley Tank Altitude Valve	—	—	350	—	—	350

PROJECT DESCRIPTION: The project involves installation of a new altitude valve in a vault on the Hidden Valley Tank l in/out line. Requires cutting into and rerouting existing piping, addition of new valves, etc.

SCHEDULE: The project is schedule for construction in FY 2027.

Potable Water Storage Improvements

Lemmon Valley Tank 1 Replacement and Patrician Pressure Regulating Station

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Lemmon Valley Tank 1 Replacement and Patrician Pressure Regulating Station	1,500	—	—	—	—	1,500

PROJECT DESCRIPTION: Lemmon Valley Tank 1 is at the end of it's useful life and needs to be replaced. The tank can't be taken out of service without improvements to the system. The Patrician pressure regulator station would provide supply with the tank out of service and allow the existing tank to be demolished and the new tank to be constructed.

SCHEDULE: Construction is scheduled in FY 2025.

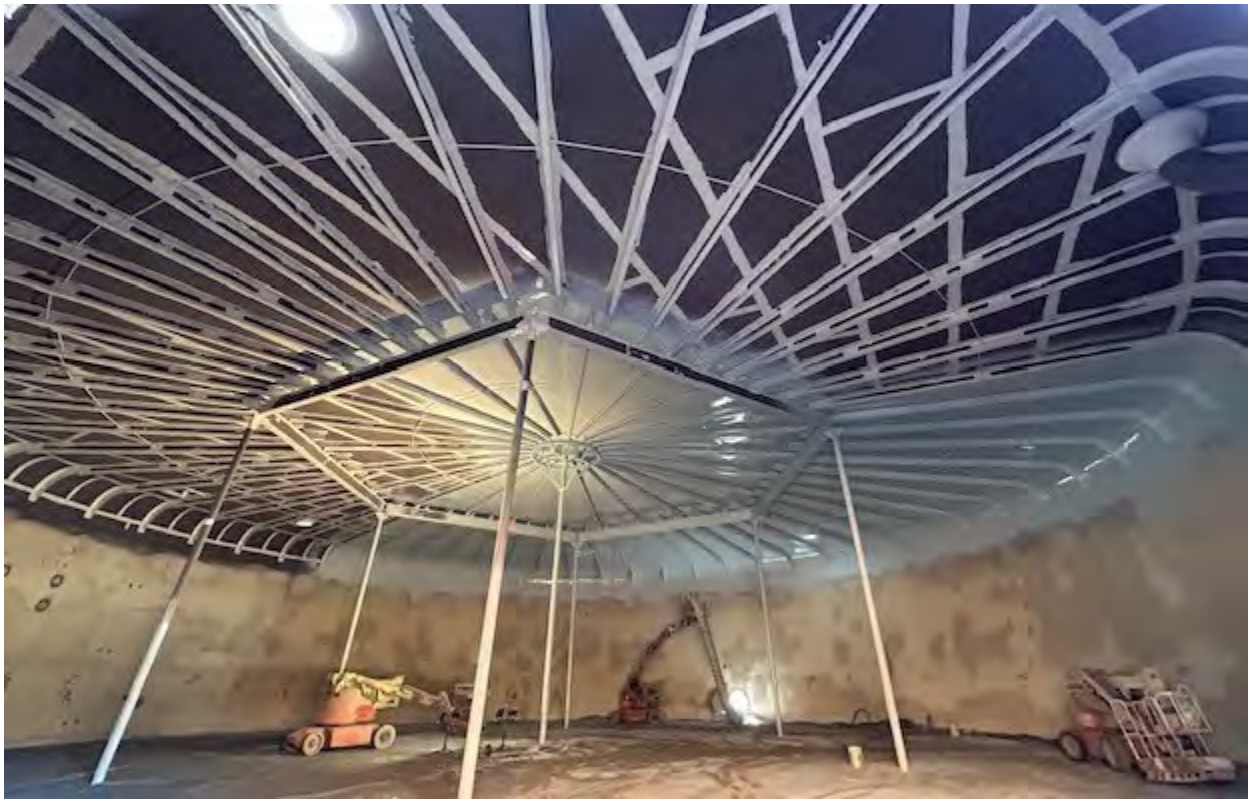
Potable Water Storage Improvements
Hidden Valley Tank 4 Outage Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Hidden Valley Tank 4 Outage Improvements	250	1,500	—	—	—	1,750

PROJECT DESCRIPTION: Hidden Valley Tank 4 is due for rehabilitation and recoating in the next year. The tank cannot be taken out of service and meet all NAC requirements including fire flow. This project will improve redundancy and supply to the zone with the tank out of service.

SCHEDULE: Construction is scheduled in FY 2026.



Potable Water Storage Improvements
Hunter Creek Reservoir Rehabilitation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Hunter Creek Reservoir Rehabilitation	75	—	100	3,000	1,500	4,675

PROJECT DESCRIPTION: The pond liner and floating cover of the Hunter Creek 30 MG Reservoir are nearing the end of their useful lifespan and require replacement. A condition report conducted in 2020 included project recommendations for improvements. Combining periodic inspections of the liner indicates that it needs replacement within the next five years.

SCHEDULE: Some minor improvements, based on the 2020 condition assessment report, will be done in FY 2025 with the major replacement anticipated to begin in FY 2027.

Potable Water Storage Improvements
Terminal Tank CO2 Delivery Road Improvements

FUNDING TIMELINE

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Terminal Tank CO2 Delivery Road Improvements	100	—	—	—	—	100

PROJECT DESCRIPTION: Currently, only one CO2 vendor is willing to deliver to the Terminal Tank site due to site constraints. TMWA has met with another vendor and identified site improvements that can be made to open this to a more competitive bid. This project will require easement agreements with the neighboring International Community of Christ Property.

SCHEDULE: Design and Construction is anticipated to be completed in FY 2025.

Potable Water Storage Improvements
STMGID 6 New Tank

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	STMGID 6 New Tank	20	—	—	400	—	420

PROJECT DESCRIPTION: This project is to add a redundant steel tank in order to rehab the existing tank. This project also include site improvements for a continued slope failure.

SCHEDULE: Site improvements scheduled for FY 2025 with the new tank in FY 2028.

Potable Water Storage Improvements
Rattle Snake Tank Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Rattle Snake Tank Replacement	—	—	500	3,000	3,000	6,500

PROJECT DESCRIPTION: An assessment of the Rattle Snake Tank was conducted in FY 2024, revealing serious corrosion in the rafters, roof plate, and floor. The extent of the damage is beyond justifiable repair and necessitates replacement. This project will involve installing a second redundant tank in phase 1 and replacing the tank in phase 2. This approach is also necessary to maintain fire flow to the Northern Nevada Hospital.

SCHEDULE: Design is scheduled to begin in FY 2027 and phased construction FY 2027-2029.

Potable Water Storage Improvements
Pyramid Tank Cathodic Protection Investigation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Pyramid Tank Cathodic Protection Investigation	—	15	—	100	—	115

PROJECT DESCRIPTION: This tank was rehabilitated during the 21/22 Tank Improvements Project. During the final phase of the rehabilitation, it was discovered that the bottom side of the floor is sitting on highly corrosive soils. A corrosion protection system is needed, including a full floor scan and patching of the floor as needed.

SCHEDULE: Floor scan is scheduled for FY 2026 and the Corrosion system design and construction in FY 2028.

Potable Water Storage Improvements
Double Diamond Tank Overflow and Drain Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Double Diamond Tank Overflow and Drain Improvements	—	—	100	—	—	100

PROJECT DESCRIPTION: The current tank discharges on a very steep slope above the South Truckee Meadows Water Reclamation Facility effluent ponds. Damage to the pond road will take place if this tank overflows and the overflow pipe needs improvement.

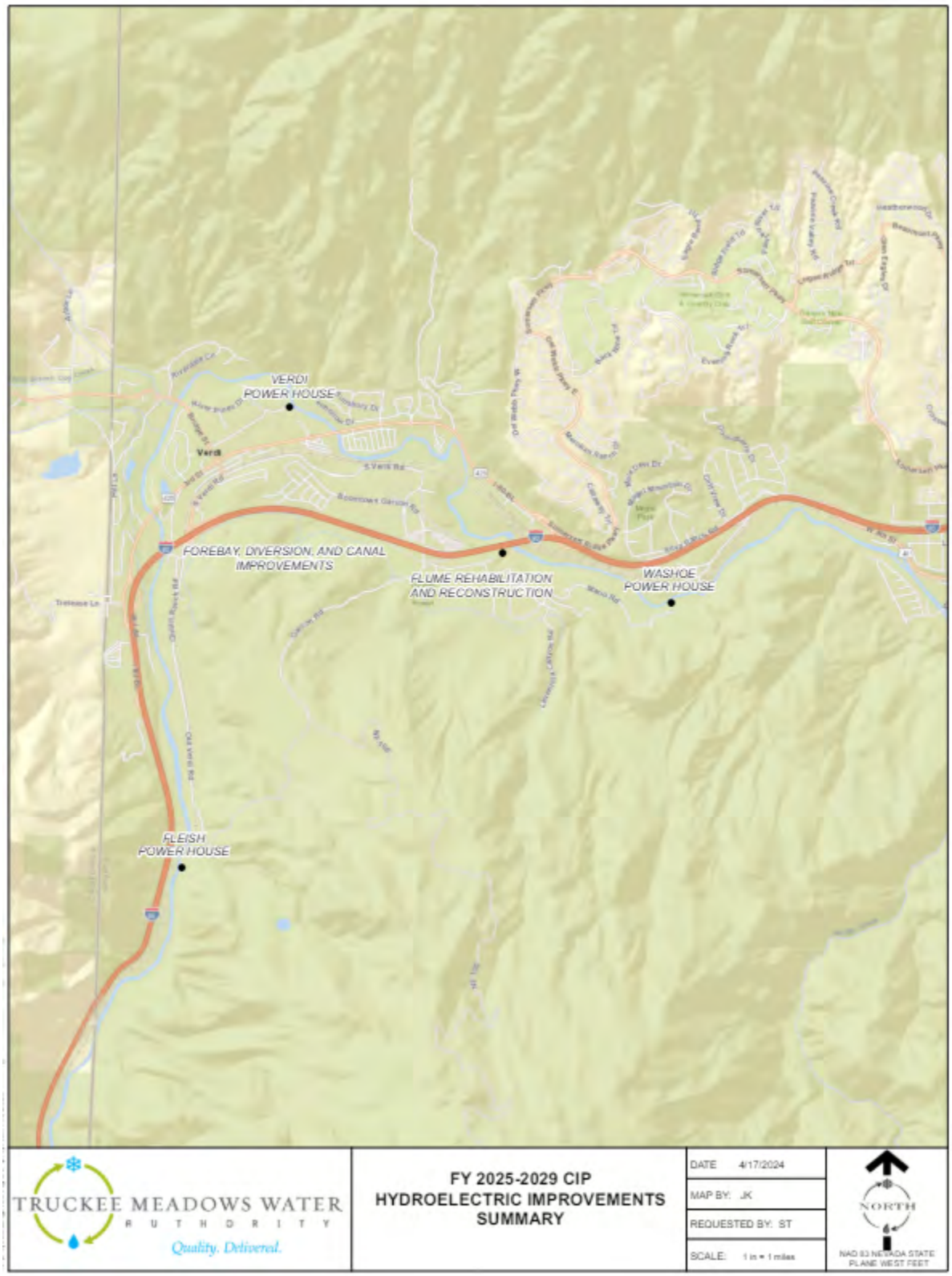
SCHEDULE: Design and Construction is anticipated in FY 2027.

HYDROELECTRIC IMPROVEMENTS

Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Hydroelectric	Forebay, Diversion, and Canal Improvements	100	105	110	115	120	550
3	Hydroelectric	Flume Rehabilitation	150	160	165	175	180	830
3	Hydroelectric	Fleish Plant Improvements	—	600	10,000	—	—	10,600
1	Hydroelectric	Verdi Sandgate Improvements	500	—	—	—	—	500
1	Hydroelectric	Verdi Bypass Valve Improvements	850	—	—	—	—	850
2	Hydroelectric	Washoe Plant Improvements	400	11,000	—	—	—	11,400
Subtotal Hydroelectric Improvements			**2,000**	**11,865**	**10,275**	**290**	**300**	**24,730**

Project Locations: Map of all *Hydroelectric Improvements* projects are highlighted in the following map.


VERDI
POWER HOUSE
Verdi
FOREBAY, DIVERSION, AND CANAL
IMPROVEMENTS
FLUME REHABILITATION
AND RECONSTRUCTION
WASHOE
POWER HOUSE
FLEISH
POWER HOUSE
TRUCKEE MEADOWS WATER
AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
HYDROELECTRIC IMPROVEMENTS
SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 1 miles
NORTH
NAD 83 NEVADA STATE
PLANE WEST FEET

Hydroelectric Improvements
Forebay, Diversion, and Canal Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Hydroelectric	Forebay, Diversion, and Canal Improvements	100	105	110	115	120	550

PROJECT DESCRIPTION:

Provision is made each year for hydroelectric flume reconstruction to mitigate damage from unexpected rock falls, landslides and/or flooding events. Diversion structures including gates, canals, flumes, forebays and all hydro-plant water conveyance structures are monitored and evaluated for reliable and safe operation.

SCHEDULE: Ongoing annual evaluation and prioritization of forebay and canal conditions in the early spring (winter weather can change priorities) to identify projects for fall construction when historically, river flows are lower.

Hydroelectric Improvements
Flume Rehabilitation

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Hydroelectric	Flume Rehabilitation	150	160	165	175	180	830

PROJECT DESCRIPTION: TMWA's three operating hydroelectric facilities have nearly 12,150 feet of flume. The average service life for flume structures is 35 years using treated timbers, at an average replacement cost of approximately $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.

SCHEDULE: Ongoing annual evaluation and prioritization of flume condition in the early spring (winter weather can change priorities) to identify projects for fall construction when historically, river flows are lower.

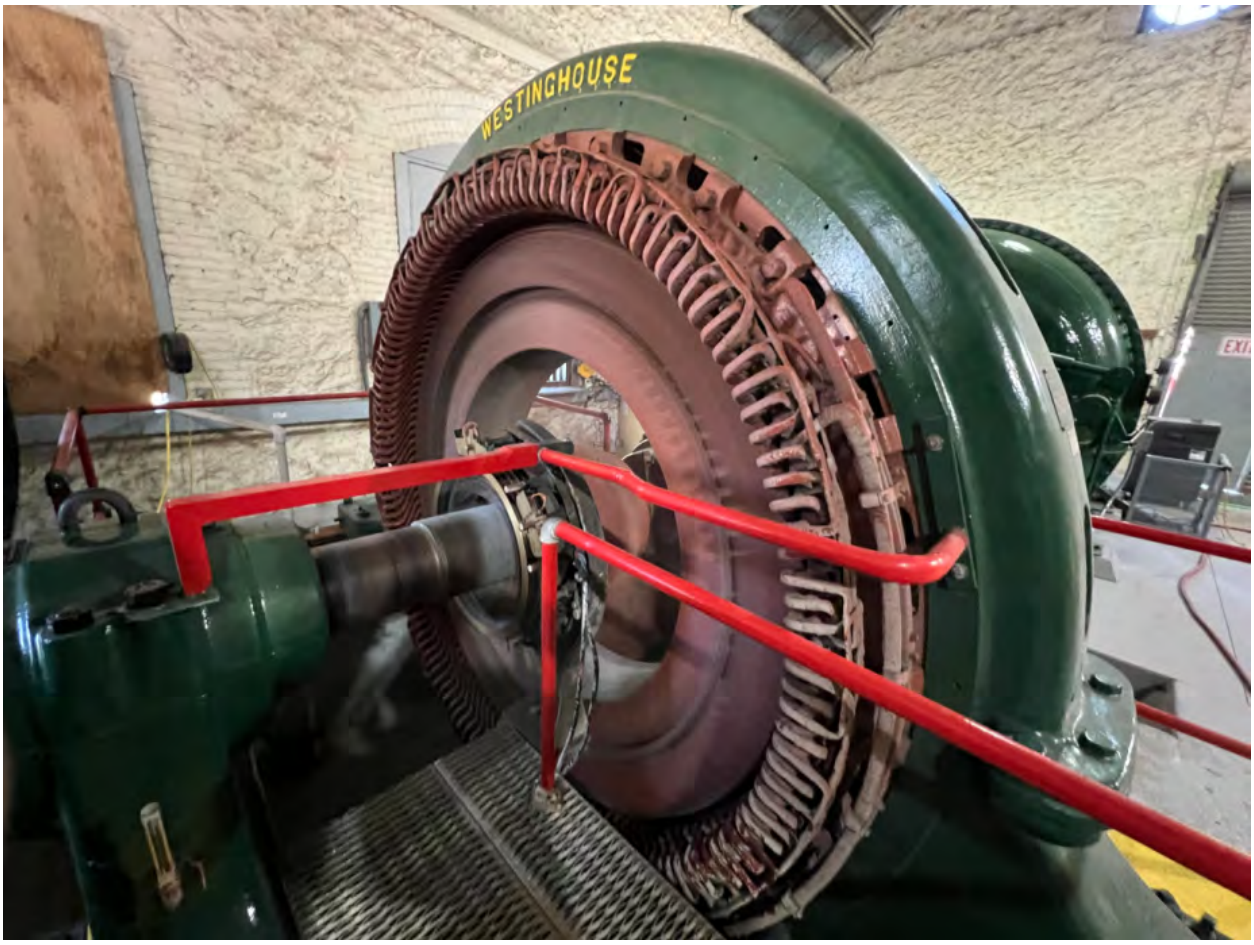
Hydroelectric Improvements
Fleish Plant Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Hydroelectric	Fleish Plant Improvements	—	600	10,000	—	—	10,600

PROJECT DESCRIPTION: The Fleish Hydroelectric Plant was commissioned in 1905. Roofing, HVAC, windows and glass, and aging infrastructure is in need of replacement or repair.

SCHEDULE: Improvements are scheduled for FY 2027.



Hydroelectric Improvements
Verdi Sandgate Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Hydroelectric	Verdi Sandgate Improvements	500	—	—	—	—	500

PROJECT DESCRIPTION: This project will rehabilitate the Verdi Hydro Sand Gate dam to halt erosion and the flow of water through the dam, which leads to loss productivity. We are also replacing the rusted out old gate, along with implementing access improvements to ensure safe operation.

SCHEDULE: Improvements are scheduled for FY 2025.

Hydroelectric Improvements
Verdi Bypass Valve Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Hydroelectric	Verdi Bypass Valve Improvements	850	—	—	—	—	850

PROJECT DESCRIPTION: The concrete structure below the existing valve has degraded and is no longer properly supporting the valve. The valve is original to the plant and is being held closed by the plant crane. Replacement of the valve will allow for electronic operation and use of the plant crane when the facility is online. This project will replace the valve, associated piping, and improve the structure supporting the valve.

SCHEDULE: Replacement of the valve is scheduled for FY 2025.

Hydroelectric Improvements
Washoe Plant Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Hydroelectric	Washoe Plant Improvements	400	11,000	—	—	—	11,400

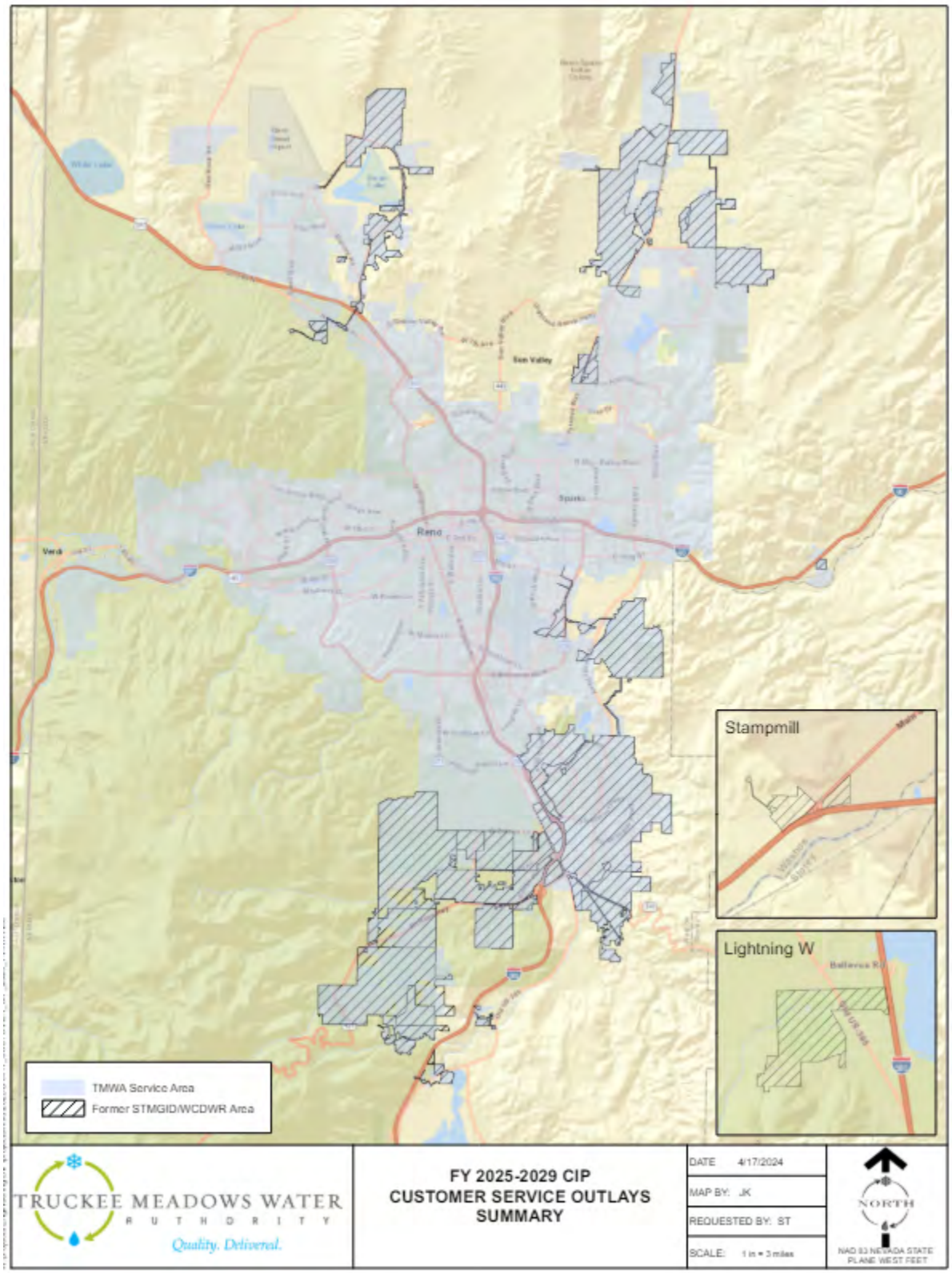
PROJECT DESCRIPTION: Assessment and potential replacement of the 1908 Built Washoe Hydroelectric Facility building, both turbines and auxiliary equipment, and generator rewind.

SCHEDULE: The project is currently in the assessment stage and is planned to move to design in FY 2025 and to construction in FY 2026.

CUSTOMER SERVICE OUTLAYS
Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Meter Reading Equipment	75	—	—	—	—	75
2	Developer Fees	New Business Meters	100	100	100	100	100	500
1	Customer Rates	Mueller Pit Replacements former Washoe County	125	125	125	125	125	625
2	Customer Rates	Galvanized / Poly Service Line Replacements	250	250	250	250	250	1,250
1	Customer Rates	Automated Meter Infrastructure (AMI)	2,650	2,650	2,650	2,650	2,650	13,250
Subtotal Customer Service			**3,200**	**3,125**	**3,125**	**3,125**	**3,125**	**15,700**

Project Locations: Map of all *Customer Service Outlays* projects are highlighted in the following map.


Stampmill
Lightning W
TMWA Service Area
Former STMGID/WCDWR Area
TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
CUSTOMER SERVICE OUTLAYS
SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 3 miles
NORTH
NAD 83 NEVADA STATE PLANE WEST FEET

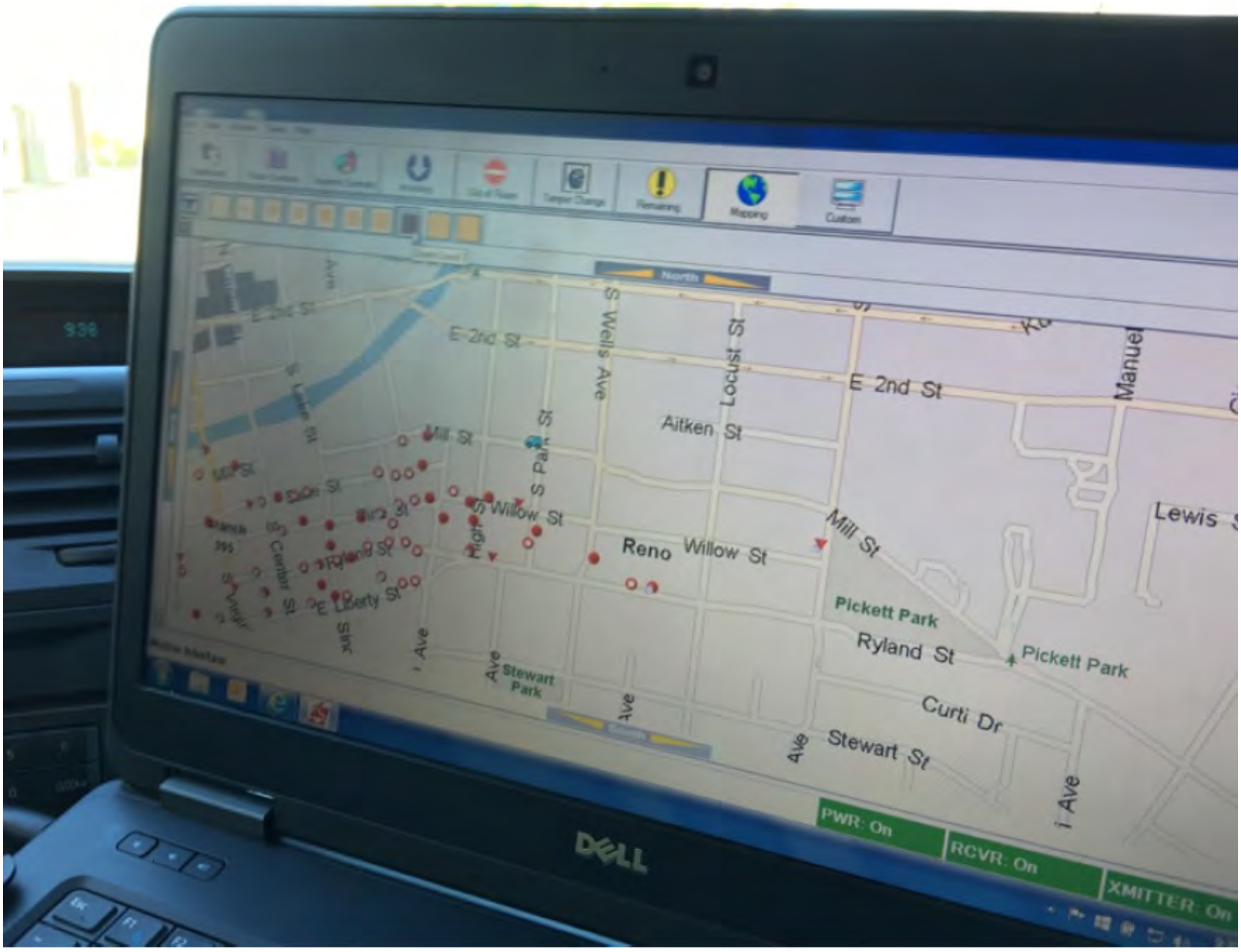
Customer Service Outlays
Meter Reading Equipment

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
3	Customer Rates	Meter Reading Equipment	75	—	—	—	—	75

PROJECT DESCRIPTION: TMWA utilizes a multiple meter reading systems in which the transmitters attached to the meters send a signal out to be collected by data collectors. These collectors are mounted in the meter reading vehicles or on various mountain peaks surrounding the valley. TMWA is anticipating replacing units that have degraded.

SCHEDULE: Will need to purchase equipment on an as needed basis.



Customer Service Outlays
New Business Meters

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Developer Fees	New Business Meters	100	100	100	100	100	500

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.

SCHEDULE: Dependent on the pace of development in the service territory.

Customer Service Outlays
Mueller Pit Replacements Former Washoe County

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Mueller Pit Replacements former Washoe County	125	125	125	125	125	625

PROJECT DESCRIPTION: The Mueller metering pits are a very high maintenance metering facility and are prone to leaks and failures. TMWA plans to replace these facilities in response to leaks and or subsidence of these facilities.

SCHEDULE: Equipment and employee needs are evaluated and updated annually**.**

Customer Service Outlays
Galvanized / Poly Service Line Replacements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Galvanized / Poly Service Line Replacements	250	250	250	250	250	1,250

PROJECT DESCRIPTION: 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 water system losses.

SCHEDULE: This is an ongoing annual project budget. Service lines will be replaced as they are identified.

Customer Service Outlays
Automated Meter Infrastructure (AMI)

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Automated Meter Infrastructure (AMI)	2,650	2,650	2,650	2,650	2,650	13,250

PROJECT DESCRIPTION: TMWA utilizes multiple meter reading systems in which the transmitters attached to the meters send a signal out to be collected by data collectors. Over the next five years, TMWA will be installing new meters or retrofitting existing meters with technology that will allow for remote readings. This is expected to assist in quickly identifying leaks for customers, more accurate billing, and long-term cost savings.

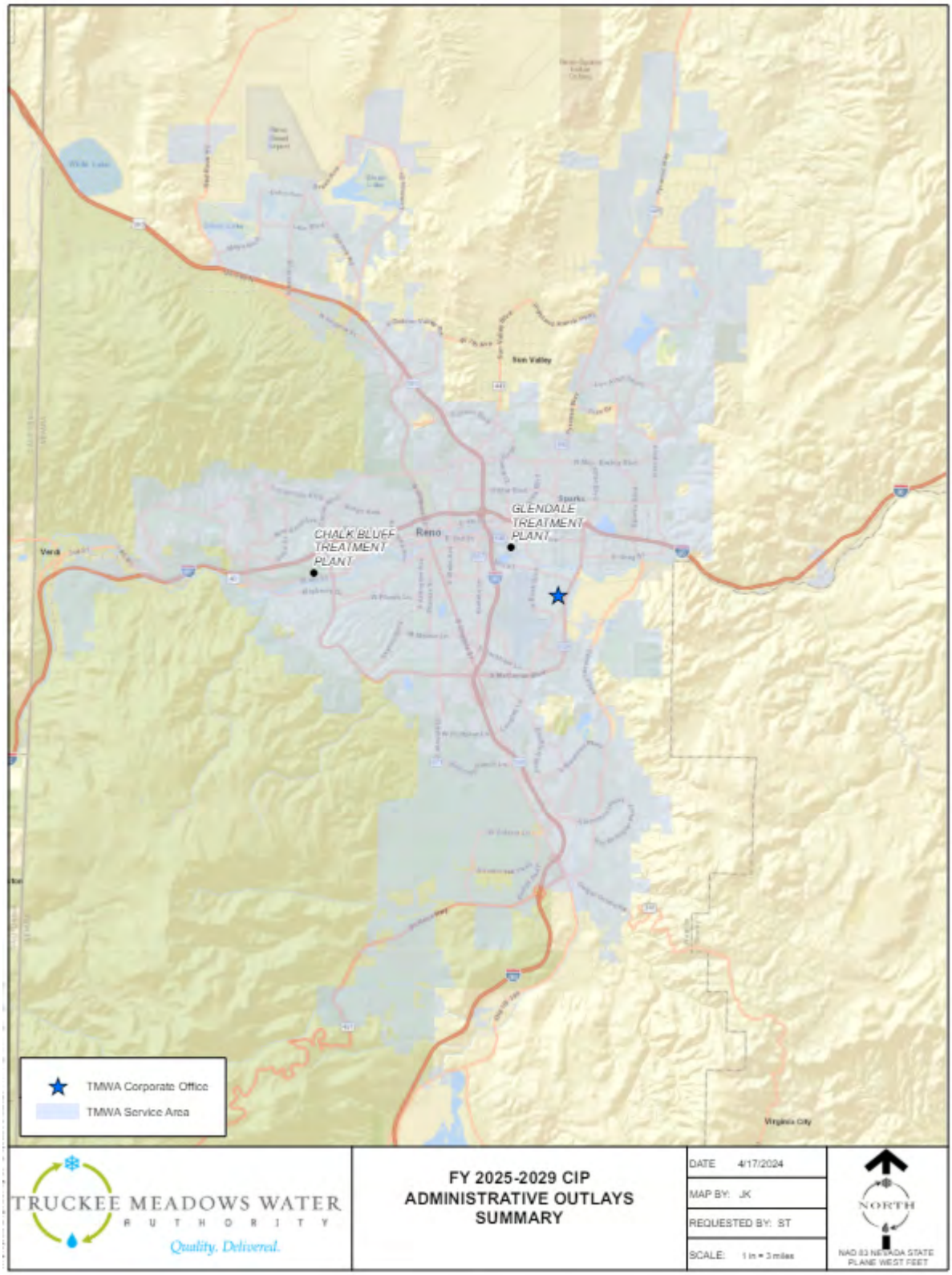
SCHEDULE: This project began in FY 2022 and is expected to be completed in FY 2029.

ADMINISTRATIVE OUTLAYS

Summary

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	GIS / GPS System Mapping Equipment	20	20	20	20	20	100
2	Customer Rates	IT Server Hardware and Equipment	240	20	20	—	—	280
2	Customer Rates	IT Network Security Upgrades	210	10	10	—	—	230
2	Customer Rates	IT Physical Access Security Upgrades	15	10	10	—	—	35
1	Customer Rates	IT Firewall Infrastructure Enhancements	100	—	—	—	—	100
2	Customer Rates	Printer / Scanner Replacement	10	10	10	—	—	30
2	Customer Rates	Crew Trucks / Vehicles	1,500	1,500	1,500	1,500	1,000	7,000
1	Customer Rates	Replacement HCM System	1,000	—	—	—	—	1,000
1	Customer Rates	Corporate Office Expansion	5,000	2,500	—	—	—	7,500
1	Customer Rates	Glendale Office Expansion	500	2,000	—	—	—	2,500
1	Customer Rates	Corporate HVAC Improvements	100	—	—	—	—	100
1	Customer Rates	Emergency Management Projects	50	50	50	50	50	250
2	Customer Rates/ Grants	Emergency Operations Annex Design / Construction	—	250	2,375	2,375	—	5,000
1	Customer Rates	Physical Site Security Improvements	1,250	850	350	350	350	3,150
Subtotal Administrative Outlays			**9,995**	**7,220**	**4,345**	**4,295**	**1,420**	**27,275**

Project Locations: Map of all *Administrative Outlays* projects are highlighted in the following map.


CHALK BLUFF TREATMENT PLANT
GLENDALE TREATMENT PLANT
Reno
Sparks
Verdi
Sun Valley
Virginia City
TMWA Corporate Office
TMWA Service Area
TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.
FY 2025-2029 CIP
ADMINISTRATIVE OUTLAYS
SUMMARY
DATE 4/17/2024
MAP BY: JK
REQUESTED BY: ST
SCALE: 1 in = 3 miles
NORTH
NAD 83 NEVADA STATE PLANE WEST FEET

Administrative Outlays
GIS/GPS System Mapping Equipment

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	GIS / GPS System Mapping Equipment	20	20	20	20	20	100

PROJECT DESCRIPTION: TMWA will have to update mapping equipment on a periodic basis to keep up with changes in technology; and to replace existing equipment as it reaches obsolescence.

SCHEDULE: Equipment is replaced and/or purchased as needed.

Administrative Outlays
IT Server Hardware

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	IT Server Hardware and Equipment	240	20	20	—	—	280

PROJECT DESCRIPTION: TMWA currently has over 50 physical servers and 130 virtual servers, hosting a variety of enterprise software applications that support TMWA's daily business operations. All physical servers are typically purchased with a three year warranty, with the expectation that they will reach the end of their system life cycle in a three to five year time frame, requiring a replacement. TMWA annually reviews its server platforms and can option a strategy of warranty extension, if cost effective, rather than outright hardware replacement. All servers require an Operating System Software license to run. Operating System Software is upgraded only when the current release is obsolete or a newer version offers a significant advantage over the current iteration.

SCHEDULE: Spending would be determined on an as needed basis.

Administrative Outlays
IT Network Security Upgrades

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	IT Network Security Upgrades	210	10	10	—	—	230

PROJECT DESCRIPTION: As a leading water purveyor for a major metropolitan area, TMWA is reliant on the internet for employee productivity enhancement and providing valuable customer information and outreach. Such dependency on the internet also carries a significant degree of risk, as it makes TMWA a major target for external security threats looming within globalized networks. To offset this risk and combat network threats, a variety of security specific hardware and software solutions are used, weaving them into a layered deployment strategy called Defense in Depth. In order to continually evolve and reinforce this Defense in Depth strategy and effectively fight new unforeseen threats, TMWA must continually acquire new security platforms that adapt to the continually changing security landscape.

SCHEDULE: Spending occurs only on an as needed basis**.**

Administrative Outlays
IT Physical Security Upgrades

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	IT Physical Access Security Upgrades	15	10	10	—	—	35

PROJECT DESCRIPTION: Security measures that are designed to deny unauthorized access to facilities, equipment and resources to protect personnel from damage or harm such as theft or attacks. Physical security involves the use of multiple layers of interdependent systems which can include surveillance, security guards, protective barriers, locks and other techniques.

SCHEDULE: Equipment is replaced and/or purchased as needed.

Administrative Outlays
IT Firewall Infrastructure Enhancements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	IT Firewall Infrastructure Enhancements	100	—	—	—	—	100

PROJECT DESCRIPTION: In addition to broad network security device upgrade and replacements, TMWA must further protect its corporate network by increasing the number and the features of the installed next generation firewalls allowing for enhanced network segmentation.

SCHEDULE: Implementation is scheduled for FY 2025.

Administrative Outlays
Printer / Scanner Replacement

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Printer / Scanner Replacement	10	10	10	—	—	30

PROJECT DESCRIPTION: TMWA currently has variety of printers and scanners that support TMWA's daily business operations. All printers are typically purchased with a three-year warranty, with the expectation that they will reach the end of their system life cycle in a three to five year time frame, requiring a replacement. TMWA annually reviews its printer/scanner performance and business needs and can option a strategy of warranty extension, if cost effective, rather than outright replacement.

SCHEDULE: Equipment is replaced and/or purchased as needed.

Administrative Outlays
Crew Trucks/Vehicles

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates	Crew Trucks / Vehicles	1,500	1,500	1,500	1,500	1,000	7,000

PROJECT DESCRIPTION: TMWA's service fleet consists of light duty and heavy duty crew trucks. 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 or other less demanding activities prior to disposal at auction.

SCHEDULE: Equipment and employee needs are evaluated and updated annually**.**

Administrative Outlays
Replacement HCM System

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Replacement HCM System	1,000	—	—	—	—	1,000

PROJECT DESCRIPTION: TMWA is implementing a new Human Capital Management (HCM) system. This system will be provide tools for employee timekeeping, payroll, recruiting and onboarding, and human resources. The system is expected to be live in fiscal year 2025.

SCHEDULE: The system is expected to be fully implemented in FY 2025.

Administrative Outlays

Corporate Office Expansion

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Corporate Office Expansion	5,000	2,500	—	—	—	7,500

PROJECT DESCRIPTION: TMWA's corporate office expanded in 2017 to account for the new staff associated with the merger of the STMGID and WCWU systems. The headcount has steadily grown for office and field staff since then to a point where the office will be full in a couple of years. This project allocates funds for construction or acquisition of additional building space.

SCHEDULE: If constructed, planning and design would commence in FY 2025, acquisition would occur in FY 2025 with improvements in FY 2025 and 2026.

Treatment Plant Improvements

Glendale Office Expansion

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Glendale Office Expansion	500	2,000	—	—	—	2,500

PROJECT DESCRIPTION: This project includes the additions of four offices and the necessary HVAC and lighting improvements in the Glendale Water Treatment Plant ready room.

SCHEDULE: Design is scheduled for FY 2025 and construction is scheduled for FY 2026.

Administrative Outlays

Corporate HVAC Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Corporate HVAC Improvements	100	—	—	—	—	100

PROJECT DESCRIPTION: Replacement of VAVs (variable air volume) throughout the building and replacement of the controls for the boiler system.

SCHEDULE: Improvements are scheduled for FY 2025.

Administrative Outlays
Emergency Management Projects

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Emergency Management Projects	50	50	50	50	50	250

PROJECT DESCRIPTION: Various ongoing preparedness, mitigation and recover planning.

SCHEDULE: Evaluated and assessed annually.

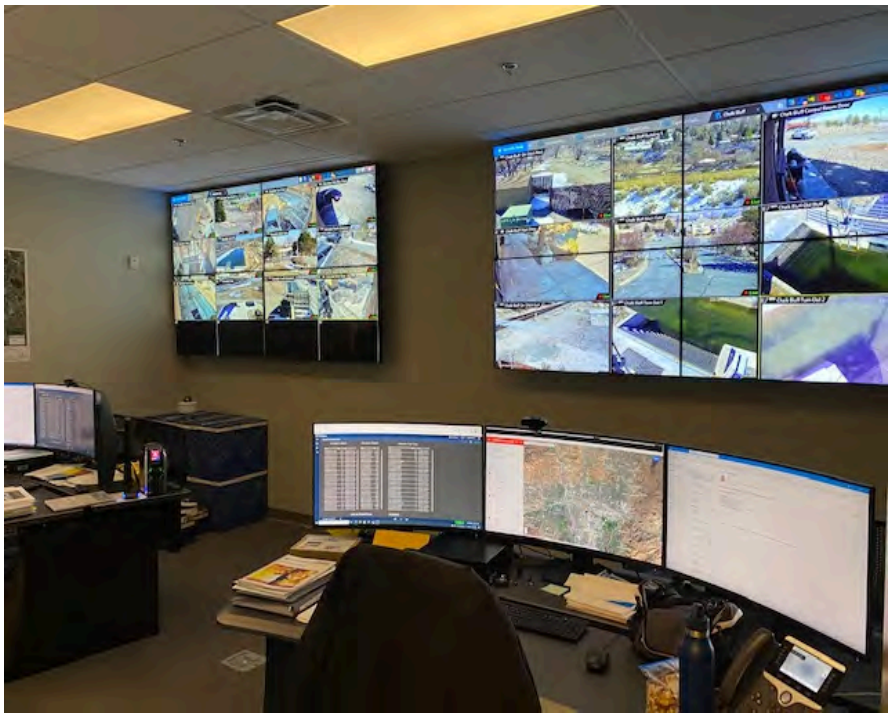
Administrative Outlays
Emergency Operations Annex-Design / Construction

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
2	Customer Rates/ Grants	Emergency Operations Annex Design / Construction	—	250	2,375	2,375	—	5,000

PROJECT DESCRIPTION: The need for a dedicated, full-time Emergency Operations Center has been identified on subsequent Department of Homeland Security (DHS) Vulnerability Assessments as a top priority for TMWA to be able to effectively prepare for, respond to, and recover from natural disasters and emergency related events impacting the Truckee Meadows region within Washoe County. TMWA is currently in the planning and conceptual design phase for a primary Emergency Operations Center (EOC), co-located Security Operations Center (SOC), and Disaster Recovery (DR) site. The location for this project is TBD. Potential emergency operations conducted from the EOC would include internal response to earthquakes, floods, and similar events as well as conducting training and communications support with regional partners. Security operations will be conducted from the SOC on a 24/7 basis while working to ensure the security of our staff, water production, distribution facilities, and other critical infrastructure.

SCHEDULE: Construction is scheduled to begin in FY 2027.



Administrative Outlays
Physical Site Security Improvements

FUNDING TIMELINE:

Priority	Funding Source	Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	CIP Total
1	Customer Rates	Physical Site Security Improvements	1,250	850	350	350	350	3,150

PROJECT DESCRIPTION: Physical site security improvements for Chalk Bluff, Glendale and Corporate sites are based on Department of Homeland Security (DHS) Vulnerability Assessments. Recommended priorities included bringing site perimeter fencing up to DHS minimum standards, expanding our security camera network for better site perimeter coverage, general exterior lighting improvement throughout both treatment plants and the use of intrusion detection systems. Landscaping improvements were also noted to help prevent unauthorized access, improve overall visibility, and protect TMWA personnel and buildings.

SCHEDULE: Improvements will continue annually.

Photo: Hidden Valley Tank #2 Rebuild
Photo By: Tarra Mora, Student Employee Engineering