

# Northern Nevada Water Planning Commission

## STAFF REPORT

**DATE:** April 29, 2022  
**TO:** Chairman and Members, Northern Nevada Water Planning Commission (“NNWPC”)  
**FROM:** Kim Rigdon, Water Resources Program Manager  
**SUBJECT:** Action, discussion, and possible direction to staff, on the draft update to Chapter 9 “Cost and Financing” for the 2021-2040 Comprehensive Regional Water Management Plan (RWMP).

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### SUMMARY

During the January 5, 2022 and the March 2, 2022, NNWPC meetings, members of the commission commented on the draft Chapter 9 “Cost and Financing” for the 2021-2040 RWMP Update. Due to plan development delays, some information had become dated. Staff and Hansford Economic Consulting (HEC) met with commission members individually to receive further comments and direction. Subsequently, HEC worked with regional partners to include updated information into the chapter.

The most recent modifications include:

- Water and sewer connection fees were updated to current fees.
- Water and sewer rates were updated to current rates.
- TMWRF costs were updated to the current 5-year outlook.
- TMWRF longer-term cost estimates per its recently completed Facility Plan were incorporated.
- City of Reno costs were updated to the current 5-year outlook.

As a result of these changes, the total costs increased from \$840 million over the next 5-year period to \$1.0 billion.

### **RECOMMENDATION**

Staff recommends that the NNWPC accept Draft Chapter 9 “Cost and Financing” of the 2021-2040 RWMP, with or without changes, and provide direction to staff as appropriate.

KR:jp

Attachment: Draft RWMP Chapter 9 “Cost and Financing”

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### List of Abbreviations and Acronyms

<b>CIPs</b>	Capital Improvement Plans
<b>CSWRF</b>	Cold Springs Water Reclamation Facility
<b>CTMRD</b>	Central Truckee Meadows Remediation District
<b>LVWRF</b>	Lemmon Valley Water Reclamation Facility
<b>Reno</b>	City of Reno
<b>RSWRF</b>	Reno-Stead Water Reclamation Facility
<b>RWMP</b>	Regional Water Management Plan
<b>SAD</b>	Special Assessment District
<b>Sparks</b>	City of Sparks
<b>SRF</b>	State Revolving Fund
<b>STMWRF</b>	South Truckee Meadows Water Reclamation Facility
<b>SVGID</b>	Sun Valley General Improvement District
<b>TMRPA</b>	Truckee Meadows Regional Planning Agency
<b>TMWA</b>	Truckee Meadows Water Authority
<b>TMWRF</b>	Truckee Meadows Water Reclamation Facility
<b>TRFMA</b>	Truckee River Flood Management Authority

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## Chapter 9 Cost and Financing

### Purpose and Scope

This chapter satisfies Section 42.7 of the Act, presenting a summary of the costs associated with planned major facility improvements for water, wastewater, reclaimed water, storm drain, and flood management in the Planning Area. Facility cost data consists of a summary of the estimated costs identified in the City of Reno (“Reno”), City of Sparks (“Sparks”), Washoe County, Sun Valley General Improvement District (“SVGID”), Truckee River Flood Management Authority (“TRFMA”), and Truckee Meadows Water Authority (“TMWA”) five-year Capital Improvement Plans (“CIPs”), as well as very preliminary long-range planning cost estimates of major infrastructure. The chapter also provides an overview on funding sources and potential impacts of capital facilities costs on both existing and future users.

This chapter presents currently available data; some capital improvement projects and associated costs in the longer-term are not readily available. Plans for capital spending continually change as new information becomes available and new priorities are established. As such, the information presented is useful in providing order of magnitude comparisons between the current plans for water-related infrastructure growth and those that were presented in the 2011 and 2016 regional water management plans. It demonstrates the relationship between economic activity, growth in population and housing needs, and the need for new water-related infrastructure.

### Summary and Findings

The data provided by each of the water service agencies shows that greater spending on capital improvements is anticipated to occur in the next five years than was planned for in the previous two five-year intervals (2011 and 2016). Spending on infrastructure, including both rehabilitation of existing assets and building of new facilities, is projected to be 135% higher than in the 2011-2015 time period and 89% higher than in the 2016-2020 time period, but perhaps the most important finding is that the utility providers are preparing for the anticipated growth in the region, as is reflected in the increase in infrastructure funded by developer fees. Developer-funded project costs are anticipated to be 533% greater than in the 2011-2015 time period and 247% greater than in the 2016-2020 time period.

Spending on wastewater systems is anticipated to comprise 47-percent, and water systems 23-percent, of total CIP spending over the five-year period from 2022 through 2026. The remaining costs will be spent on reclaimed water systems (18-percent), flood infrastructure (8-percent), and storm drainage facilities (4-percent). Of note, the region is increasing investment in reclaimed water facilities, which was estimated at only 2-percent of total expenditures in the 2016-2020 time period.

It is estimated that about \$206.9 million will be spent annually on capital improvement projects for existing and new infrastructure over the first five-year period, and at least \$35.7 million will be spent annually through the following fifteen-year period on critical new infrastructure alone. Costs over the fifteen-year period in this chapter are lower than actually expected for several reasons; first, the level of planning detail is low and costs are refined over time as the scope of improvements becomes better known; second, some cost data is not available at this time (although some idea of improvement needs are known, there has not been a scoping of budget conducted); and third, costs typically increase over time.

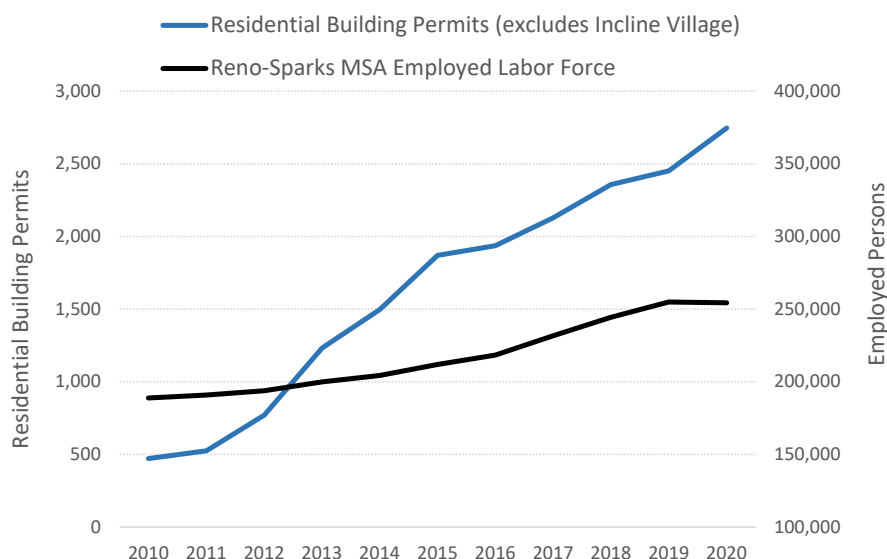
All costs presented in this chapter are expressed in fiscal year 2022 dollars.

Impacts to the current users of the water systems cannot be estimated in this chapter because each agency employs different rate structure methodologies and has different philosophies in their approach to rate-setting. Impacts to future users of the systems similarly cannot be estimated; however, the impact of fees charged to new users is analyzed within context of the overall development fee and cost burden to evaluate the significance of water-related fees in development decisions. The analysis finds that water-related fees are a relatively insignificant factor driving land development decisions compared to other factors, primarily economic factors at both the macro (US in general) and micro (regional) levels; however, the level of fees can encourage or discourage development in certain parts of the region.

## Background

The 2016 RWMP documented the continued need to provide for on-going repair and replacement of existing infrastructure, and it recognized the need for investment in new facilities to serve growth, almost doubling the estimated five-year CIP costs to be funded with developer fees. At that time, it was projected approximately \$90.1 million per year would be spent on all water-related improvement projects in the next five-year period (through 2020), with the exception of the TRFMA’s costs which were excluded because they were very much in flux at the time. There have been several changes in the region since the 2016 RWMP was completed, most notably the steady continual improvement of the region’s prosperity. As illustrated in Figure 9-1, in 2020 there were 42,400 more employed persons than in 2015, and there were approximately 1.2 times as many new residential building permits being pulled in 2020 as in 2015. The data indicates confidence in the region for continual growth, but even more importantly, real estate forecasts show a need for the amount of new housing to be built to be more critical than ever. The stock of housing in the Truckee Meadows has dwindled dramatically. The combination of a strong economy, low interest rates, migration of households from California, shortage of supply materials (in particular lumber) and other materials due the Covid-19 pandemic that began in March 2020, and tightening of control of the housing supply pipeline to a few publicly-traded development companies, has led to a classic demand-supply problem in the Truckee Meadows. Housing prices have soared and the ‘missing middle’ income bracket of households has been pushed to the rental market, putting pressure on the existing housing stock and creating a steady demand for apartments.

**Figure 9-1 Employment and Building Permits 2010-2020**



## 9.1 Financial Summary

Planned improvements for the water, wastewater, reclaim, flood and storm water programs in the region are developed through the service provider staff and local government decision-making CIP process. The CIPs are intended to accommodate planned growth, meet existing and anticipated regulatory requirements, and provide for ongoing infrastructure repair and replacement projects to extend the useful life of existing facility assets. Although individual project implementation decisions remain at the discretion of the utilities providers and local governments, one priority of all of these entities is to strive to maximize the use of existing assets and minimize costs to keep utility rates and charges affordable.

### 9.1.1 Costs Included in the Financial Summary

A summary of the estimated costs identified in the Reno, Sparks, Washoe County, SVGID, TMWA, TRFMA, and Central Truckee Meadows Remediation District (“CTMRD”) five-year CIPs is presented below (see Appendix I for detailed lists). The level of the analysis of alternatives for financing and funding described in Section 42.7 of the Act is extensive and much of the data required by the statute is not readily available due to the uncertain economic conditions; therefore, this analysis is limited to a summary of available cost data provided by each of the service providers. The Great Basin Water Company (“GBWC”), a private utility provider with regulatory activity overseen by the Nevada Public Utility Commission, which provides water and sewer services in the Cold Springs and Spanish Springs areas, has not participated in the sharing of data for this chapter.

Costs ***included*** in this analysis are:

#### Water Infrastructure

- Water production facilities (surface water treatment plants and groundwater wells);
- Major water transmission and storage facilities;
- Intertie pipelines between water providers (TMWA and SVGID); and
- System reliability improvements.

#### Reclaimed Water Infrastructure

- Effluent reuse storage and distribution facilities.

#### Wastewater Infrastructure

- Major collection facilities; and
- Treatment plant expansions and upgrades.

#### Storm Water / Flood Control Infrastructure

- Major interceptors;
- Storm water detention facilities;
- North Truckee Drain and other flood control improvements by the City of Sparks; and
- Completion of flood protection facilities by TRFMA.

Costs **excluded** from this analysis are:

- Developer-built infrastructure to serve new development;
- Costs for purchase of water rights for new users;
- Costs for project-driven capture and detention of storm water runoff;
- Costs for local water distribution facilities;
- Costs for local sanitary sewer collection facilities; and
- Costs for local reclaim distribution facilities.

Tables 9-1 through 9-5 summarize the planned water, wastewater, reclaim, flood and storm water CIP expenditures for the next five years for each of the service providers and shows currently identified funding sources. All costs are shown in 2022 millions of dollars (costs have not been inflated for future years).

**Table 9-1 Five-Year CIP for Reno**

	CUSTOMER RATES	DEVELOPER FEES	GRANTS	5-YEAR TOTAL
	Millions of Dollars			
Sewer Collection	\$118.9	\$1.2	\$0.0	\$120.1
Sewer Treatment - Reno-Stead Water Reclamation Facility	\$0.0	\$0.4	\$0.0	\$0.4
Sewer Treatment - Truckee Meadows Water Reclamation Facility	\$59.0	\$23.7	\$0.0	\$82.7
Storm Water	\$26.4	\$0.0	\$0.0	\$26.4
Reclaim at RSWRF	\$60.2	\$53.0	\$0.0	\$113.2
<b>Total City of Reno</b>	<b>\$264.5</b>	<b>\$78.3</b>	<b>\$0.0</b>	<b>\$342.9</b>

Note: Further study of phased wastewater treatment plant expansions and effluent management options may lead to a revised CIP for sewer treatment and reclaimed water facilities with changed amounts funded by rates and fees.

**Table 9-2 Five-Year CIP for Sparks**

	CUSTOMER RATES	DEVELOPER FEES	GRANTS	5-YEAR TOTAL
	Millions of Dollars			
Sewer Collection	\$0.6	\$10.5	\$0.0	\$11.0
Sewer Treatment - Truckee Meadows Water Reclamation Facility	\$27.0	\$10.8	\$0.0	\$37.8
Reclaimed Water	\$0.4	\$0.0	\$0.0	\$0.4
Storm Water	\$1.6	\$11.4	\$0.0	\$13.0
Flood Water	\$6.6	\$17.4	\$0.0	\$24.0
<b>Total City of Sparks</b>	<b>\$36.1</b>	<b>\$50.0</b>	<b>\$0.0</b>	<b>\$86.2</b>

Note: The Storm Water plan will be updated in the next 5-year timeframe.

**Table 9-3 Five-Year CIP for Washoe County**

	CUSTOMER	DEVELOPER		5-YEAR
	RATES	FEES	GRANTS	TOTAL
	Millions of Dollars			
Sewer Collection	\$29.1	\$16.6	\$0.0	\$45.7
Sewer Treatment - South Truckee Meadows Water Reclamation Facility	\$0.0	\$80.4	\$0.0	\$80.4
Sewer Treatment - Cold Springs Water Reclamation Facility	\$1.1	\$37.1	\$0.0	\$38.2
Sewer Treatment - Lemmon Valley Water Reclamation Facility	\$0.9	\$5.5	\$0.0	\$6.4
Reclaimed Water	\$12.3	\$22.2	\$0.0	\$34.6
Storm Water	\$0.9	\$0.0	\$0.0	\$0.9
<b>Total Washoe County</b>	<b>\$44.4</b>	<b>\$161.8</b>	<b>\$0.0</b>	<b>\$206.2</b>
Central Truckee Meadows Remediation (Water)	\$5.8	\$0.0	\$0.0	\$5.8

**Table 9-4 Five-Year CIP for SVGID**

	CUSTOMER	DEVELOPER		5-YEAR
	RATES	FEES	GRANTS	TOTAL
	Millions of Dollars			
Water Distribution	\$3.1	\$0.1	\$0.0	\$3.3
Sewer Collection	\$1.8	\$0.3	\$0.0	\$2.1
<b>Total Sun Valley General Improvement District</b>	<b>\$4.9</b>	<b>\$0.4</b>	<b>\$0.0</b>	<b>\$5.4</b>

**Table 9-5 2021-2025 CIP for TMWA**

	CUSTOMER	DEVELOPER		5-YEAR
	RATES	FEES	GRANTS	TOTAL
	[1]	[2]	[3]	
	Millions of Dollars			
Raw Water Supply & Groundwater Development	\$12.5	\$12.6	\$0.0	\$25.1
Reclaimed Water (Joint project with City of Reno)	\$19.5	\$19.5	\$0.0	\$39.0
Treatment	\$27.4	\$2.7	\$0.0	\$30.1
Distribution	\$74.9	\$32.2	\$0.0	\$107.2
Storage	\$11.5	\$8.7	\$0.0	\$20.3
Hydroelectric & Other	\$32.9	\$7.9	\$5.6	\$46.4
<b>Total Truckee Meadows Water Authority</b>	<b>\$178.8</b>	<b>\$83.6</b>	<b>\$5.6</b>	<b>\$268.1</b>

[1] Includes funding from STMGID reserves.

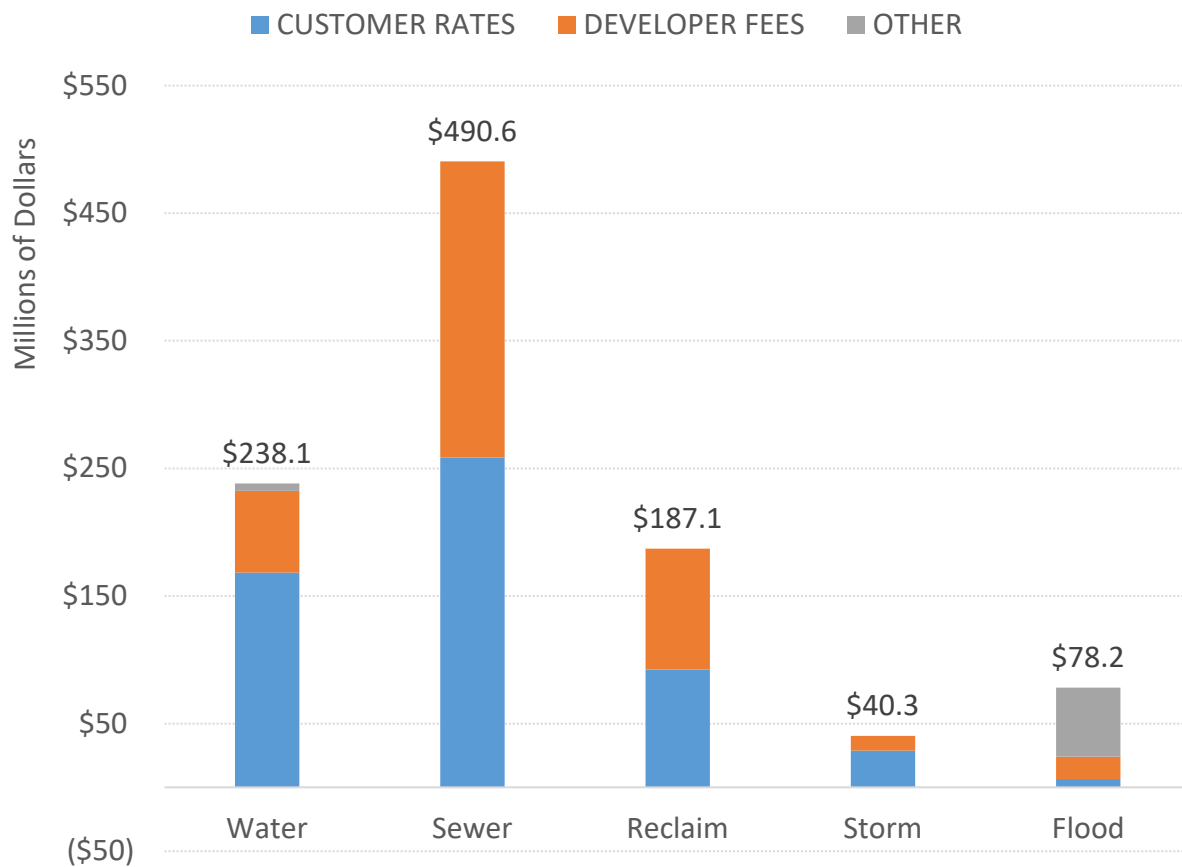
[2] Includes meter retrofit and sustainability fees, and developer reimbursements.

[3] Includes insurance settlement.

In total, the public service providers have identified expenses of \$1.0 billion for water-related infrastructure over the next five years. Figure 9-2 illustrates total estimated costs by utility type, and major funding sources.



**Figure 9-2 Five-Year Estimated CIP Costs by Water Utility**



A summary of the total costs by utility type, further disaggregated by service provider, is presented in Table 9-6. The largest expenditures are for sewer infrastructure (47-percent of total expenditures), and water (23-percent of total expenditures). Of note, there is increasing investment in reclaimed water facilities, which now comprises 18-percent of total planned expenditures, compared to 2-percent of total planned expenditures in the 2016 RWMP. It is estimated that existing customers will pay 59-percent, and new customers will pay 41-percent of the total costs. Grants are secured to fund a portion of the TRFMA estimated costs. Sales taxes will pay for the remainder of the TRFMA estimated costs.

**Table 9-6 2021-2025 Projected Five-Year CIPs for the Region**

UTILITY TYPE	CUSTOMER RATES	DEVELOPER FEES	GRANTS	5-YEAR TOTAL	PERCENT OF TOTAL
<b>WATER</b>		Figures in Millions of Dollars			<b>2022 Dollars</b>
TMWA [1]	\$159.3	\$64.1	\$5.6	\$229.1	22%
SUN VALLEY GID	\$3.1	\$0.1	\$0.0	\$3.3	0%
CTMRD	\$5.8	\$0.0	\$0.0	\$5.8	1%
<b>TOTAL WATER</b>	<b>\$168.3</b>	<b>\$64.3</b>	<b>\$5.6</b>	<b>\$238.1</b>	<b>23%</b>
<b>SEWER</b>					
WASHOE COUNTY	\$31.1	\$139.6	\$0.0	\$170.7	17%
SUN VALLEY GID	\$1.8	\$0.3	\$0.0	\$2.1	0%
RENO	\$198.1	\$70.9	\$0.0	\$269.0	26%
SPARKS	\$27.5	\$21.3	\$0.0	\$48.8	5%
<b>TOTAL SEWER</b>	<b>\$258.6</b>	<b>\$232.0</b>	<b>\$0.0</b>	<b>\$490.6</b>	<b>47%</b>
<b>RECLAIM</b>					
TMWA	\$19.5	\$19.5	\$0.0	\$39.0	4%
WASHOE COUNTY	\$12.3	\$22.2	\$0.0	\$34.6	3%
SPARKS	\$0.4	\$0.0	\$0.0	\$0.4	0%
RENO	\$60.2	\$53.0	\$0.0	\$113.2	11%
<b>TOTAL RECLAIM</b>	<b>\$92.4</b>	<b>\$94.7</b>	<b>\$0.0</b>	<b>\$187.1</b>	<b>18%</b>
<b>STORM</b>					
WASHOE COUNTY	\$0.9	\$0.0	\$0.0	\$0.9	0%
RENO	\$26.4	\$0.0	\$0.0	\$26.4	3%
SPARKS	\$1.6	\$11.4	\$0.0	\$13.0	1%
<b>TOTAL STORM</b>	<b>\$28.9</b>	<b>\$11.4</b>	<b>\$0.0</b>	<b>\$40.3</b>	<b>4%</b>
<b>FLOOD</b>					
SPARKS	\$6.6	\$17.4	\$0.0	\$24.0	2%
FLOOD AUTHORITY [2]	\$51.7	\$0.0	\$2.5	\$54.2	5%
<b>TOTAL FLOOD</b>	<b>\$58.3</b>	<b>\$17.4</b>	<b>\$2.5</b>	<b>\$78.2</b>	<b>8%</b>
<b>GRAND TOTAL</b>	<b>\$606.4</b>	<b>\$419.8</b>	<b>\$8.1</b>	<b>\$1,034.3</b>	<b>100%</b>
<b>AVERAGE PER YEAR</b>	<b>59%</b>	<b>41%</b>		<b>\$206.9</b>	

[1] Includes insurance settlement money in the grant column.

[2] The Truckee River Flood Management Authority does not charge customer rates; revenues in this column are from sales tax.

A comparison of total five-year CIP costs between the 2011 RWMP, 2016 RWMP, and the 2021 RWMP update is shown in Table 9-7. The 2011 and 2016 RWMP costs have been inflated to 2021/22 dollars to provide a current dollar comparison. As shown, total costs for repair and rehabilitation of the existing systems (funded by user rates) are anticipated to increase, but a greater increase is anticipated in costs for new infrastructure (funded by developer fees). Spending on infrastructure, including both rehabilitation of existing assets and building of new facilities, is projected to be 135% higher than in the 2011-2015 time period and 89% higher than

in the 2016-2020 time period, but perhaps the most important finding is that the utility providers are preparing for the anticipated growth in the region, as is reflected in the increase in infrastructure funded by developer fees. Developer-funded project costs are anticipated to be 533% greater than in the 2011-2015 time period and 247% higher than in the 2016-2020 time period.

**Table 9-7 Comparison of 2011, 2016, and 2021 Five-Year CIP Funding Sources**

Funding	RWMP [1] 2011	RWMP 2016	RWMP [1] 2021
[3]	[2]	[2]	Millions of \$s
	<i>fy2022 \$s</i>	<i>fy2022 \$s</i>	<i>fy2022 \$s</i>
<b>User Rates</b>	<b>\$351.52</b>	<b>\$396.4</b>	<b>\$560.3</b>
<i>Percent of Projects - Existing Customers</i>	<i>84%</i>	<i>77%</i>	<i>57%</i>
<b>Developer Fees</b>	<b>\$66.35</b>	<b>\$120.9</b>	<b>\$419.8</b>
<i>Percent of Projects - New Customers</i>	<i>16%</i>	<i>23%</i>	<i>43%</i>
<b>Total</b>	<b>\$417.9</b>	<b>\$517.3</b>	<b>\$980.1</b>

[1] Excludes the Truckee River Flood Project as this was not included in the 2016 RWMP 5-Year CIP cost.

[2] Inflated by the ENR CCI.

[3] Grants, insurance settlement and other funding sources not included.

The Truckee River Flood Management Authority’s (“TRFMA”) capital improvement projects, which are not included in Table 9-7 above, total approximately \$54.2 million in the next five years. TRFMA currently operates from a 1/8-cent Washoe County sales tax. This funding source has been leveraged with bond sales to enable some land acquisitions and small capital purchases; however, it is largely used for operations costs of the TRFMA. TRFMA is proposing to pay for the project with its 1/8-cent sales revenues, by leveraging public-private partnerships, and with grant funds. Due to recent events and decisions made by the US Army Corps of Engineers, TRFMA does not anticipate receiving any funding from the Army Corps of Engineers; instead, planned flood protection improvements will be paid for with TRFMA’s revenue stream. The first major project is the Vista Narrows project, for which TRFMA has been saving and setting money aside for, and should not have to incur any debt for.

### 9.1.2 CIP Needs 2026-2040

For most utilities, estimating capital improvement needs beyond five years can be very challenging because of unknown future rates of growth, unknown standards of compliance for environmental and other public health regulations, the need to secure land purchases or easements, and many other reasons. Many utilities do not attempt to look beyond five to ten years; however, because the 2021 RWMP timeframe is twenty years, some extremely preliminary numbers to serve new growth are presented in this chapter. The cost data presented in Table 9-8 should be considered an absolute minimum of investment necessary for critical new capital infrastructure. It does not include spending on flood facilities. In addition, solutions for expansion of certain wastewater treatment plants to meet effluent generation needs for new developments outside of their current service territory, have yet to be developed, and changes in environmental regulations may necessitate additional costs. All of the long-range planning costs are subject to change due to multiple factors including: uncertainties concerning expected growth patterns and

type of growth, potential capital improvement projects/changes, and constraints for effluent disposal which include a changing regulatory framework which has the potential to dramatically alter options for wastewater treatment plant effluent. Support tables are provided in Appendix I. Major facilities included in the cost estimates in Table 9-8 include:

- Truckee Meadows Water Reclamation Facility nitrogen removal solution estimated at \$26.0 million;
- South Truckee Meadows Water Reclamation Facility additional screening and mixing, additional solids management, additional controls and expansion of effluent reuse sites estimated at \$52.0 million;
- Cold Springs Water Reclamation Facility expansion phase two, effluent filter and pump system, solids management, disinfection, pumping, storage and distributed estimated at \$72.5 million;
- Sewer collection new pipelines \$208.7 million. A twenty-year sewer collection systems cost was developed for this chapter using TMRPA land use estimates and average cost data per lineal foot of new pipe. The sewer collection system cost was based on development in the areas shown in Figure 9-2 (prepared by TMRPA);
- Water infrastructure based on TMWA's Facility Plan, with the cost estimates inflated to current day dollars at \$57.5 million; note however, TMWA's planned groundwater treatment plant in Sparks and Chalk Bluff surface water treatment plant phase four expansion, likely needed after 2035, are not included;
- Storm water collection and improvements projected at \$118.2 million using estimated costs for the next 5-year CIPs for the cities of Sparks and Reno.

**Table 9-8 Summary of Long-Term CIPs (2026-2040)**

Improvement	Fiscal Year Period			TOTAL
	2026-2030	2031-2035	2036-2040	
	Figures in Millions of Dollars			<b>2021 Dollars</b>
<b>TMWA - WATER DISTRIBUTION [1]</b>	\$29.4	\$4.1	\$24.0	\$57.5
<b>STORM WATER</b>				
Reno - estimate using next 5-Year CIP annual spending				\$79.2
Sparks - estimate using next 5-Year CIP annual spending				\$39.0
<b>TOTAL STORM WATER</b>				<b>\$118.2</b>
<b>SEWER COLLECTION</b>				
Reno	\$50.1	\$42.2	\$34.1	\$126.4
Sparks	\$19.5	\$11.8	\$15.3	\$46.6
Washoe County	\$2.8	\$5.4	\$1.8	\$9.9
Sun Valley	\$10.9	\$7.4	\$7.5	\$25.8
<b>TOTAL SEWER COLLECTION</b>	<b>\$83.3</b>	<b>\$66.8</b>	<b>\$58.7</b>	<b>\$208.7</b>
<b>WASTEWATER TREATMENT</b>				
TMWRF				\$26.0
STMWRF				\$52.0
CSWRF				\$72.5
RSWRF				---
<b>TOTAL WASTEWATER TREATMENT</b>				<b>\$150.5</b>
<b>TOTAL INFRASTRUCTURE 2026-2040</b>				<b>\$534.9</b>
<b>TOTAL PER YEAR</b>				<b>\$35.7</b>

[1] Excludes supply projects and developer-built projects.

**Figure 9-3 Wastewater Analysis Zones by Jurisdiction and Treatment Facility Service Area**

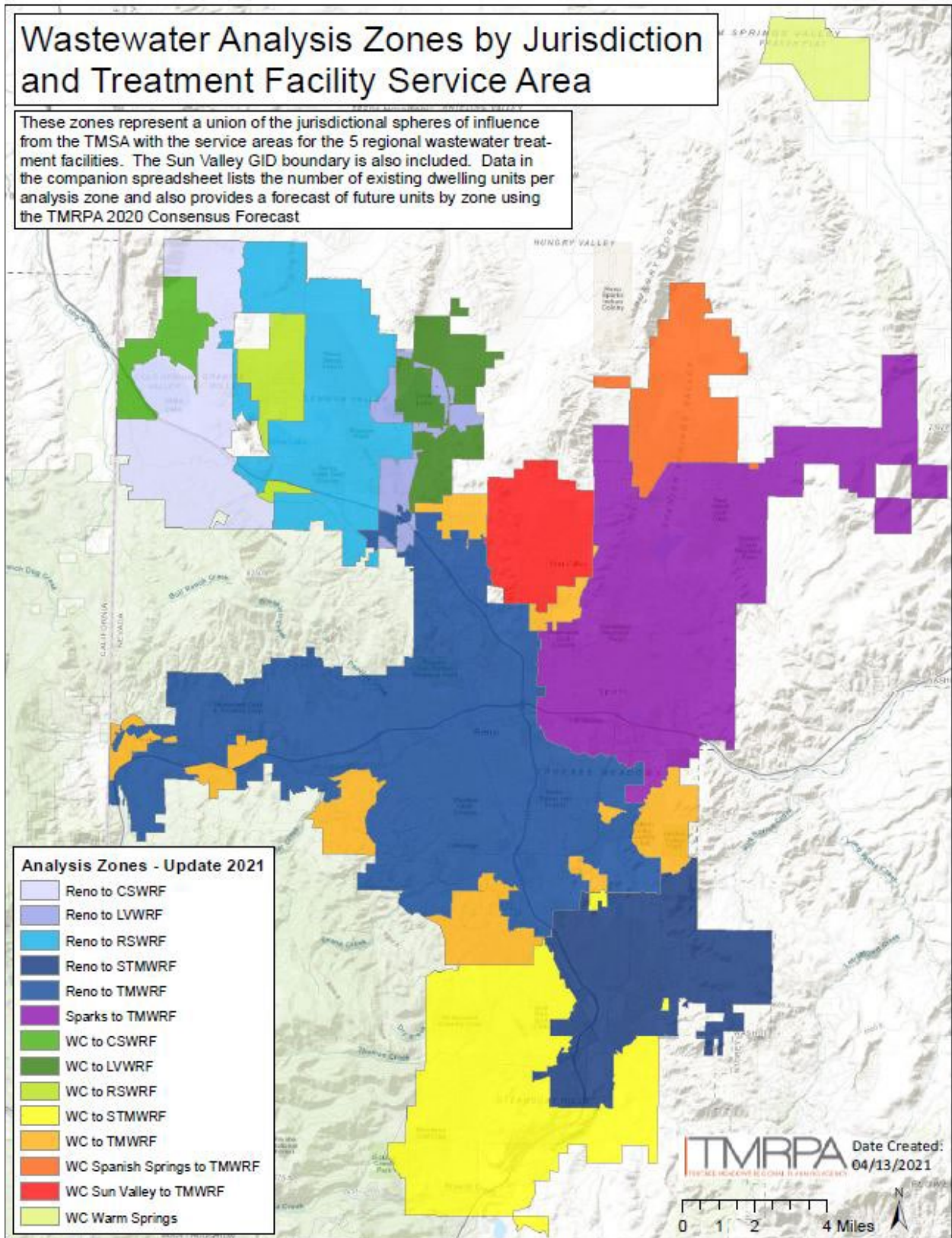


Table 9-8 excludes repair and replacement of existing facilities for all the water utility systems (including TRFMA assets and SVGID’s water distribution system). These costs are addressed through collection of rates for depreciation.

A good management practice for water utilities is to include the cost of depreciation in the rates. Depreciation is used as a proxy for the amount of money that should be collected each year so that existing facilities can be replaced when they reach the end of their useful life. While this is a good management practice it raises rates and can be politically difficult to do. In addition, without routine updates to rates (with a rate review at least every five years), the amount collected for depreciation can quickly become eroded. It is unknown exactly how much each agency is collecting in its rates; however, the comprehensive annual financial report for each agency shows how much depreciation is for each of the water-related utilities. Table 9-9 shows the total amount that would be collected if 100 percent of annual depreciation was included in the rates. Support tables are provided in Appendix I.

**Table 9-9 Annual Depreciation by Agency**

<b>Agency</b>	<b>Annual Depreciation</b>
Figures in Million of Dollars	
Reno (sewer, storm)	\$11.21
Sparks (sewer, storm, flood)	\$7.24
Washoe County (sewer, water remediation)	\$3.52
Sun Valley (water, sewer)	\$1.32
TMWRF (wastewater)	\$7.68
TMWA (water)	\$32.83
<b>Total Annual Depreciation</b>	<b>\$63.80</b>

### 9.1.3 Funding Alternatives

Water, wastewater, storm drain and effluent (reclaimed water) systems are funded through a combination of different sources. Water-related utility services are accounted for in enterprise funds. Enterprise funds are self-funding and are not intended to be supported by any other governmental fund. As such, water-related utility services are primarily funded by users of the system who pay user charges (rates or fees). The exception to this is the TRFMA, which is primarily funded by sales taxes and grants.

Most systems have separate operating and capital funds. Operating funds pay for ongoing operations costs such as personnel costs, administrative costs, routine (small) repair and replacement, fleet, utilities, supplies, technology, security costs and so forth. Capital funds pay for larger repair and replacement of existing assets as well as new capital facilities, for example expansion of a treatment facility, new pumps, booster stations and so forth.

Existing customers pay for operations and replacement of existing facilities with rates. Other sources of revenue include interest income, late charges, and small sources of miscellaneous income. For capital facilities rate revenue alone is often insufficient to pay for large facility costs and maintain adequate cash flow for operations. Capital facilities are often bond-funded, or funded with other mechanisms such as a commercial paper program. Low-cost financing is available

through the Nevada Department of Environmental Protection's water and wastewater State Revolving Fund ("SRF") programs for projects necessary to meet the Safe Drinking Water Act, and for other projects that primarily benefit existing users. Another lower-cost financing source as an alternative to general obligation or revenue bond funding is to sell bonds through the State Bond Bank. By selling bonds for multiple agencies in an offering the State Bond Bank is able to reduce the costs of the bond sale (bond counsel, underwriting costs and so forth) to each agency, and because the bonds are backed by the State of Nevada, preferential interest rates are also passed along to each agency.

Payments by users of the system may also be in the form of a self-imposed tax or assessment such as a Special Assessment District ("SAD"). SADs are established when there is a need for work (i.e., installation/repair of sidewalks, installation of sewer systems, paving of streets) that would be considered to benefit a specified group of parcels. The cost of the work done is apportioned to the benefited property on a pro-rata basis, and becomes a lien against that property until the assessment amount is paid in full.

Grant funding and principal forgiveness is occasionally available for capital projects. Sources of grant funding include United States Department of Agriculture Rural Utilities, Community Development Block Grant funds, United States Army Corps of Engineers, and the Bureau of Reclamation. Some projects may qualify for principal forgiveness under the SRF programs.

Capital facilities benefiting new users of the system are recovered in system development charges, otherwise known as connection fees. When facilities are built to serve specific new development areas, they may be funded by impact fees.

## **9.2 Potential Impacts to Existing User Rates and Developer Fees**

Incremental developer connection fees and changes to monthly rates charged to single family residences in the planning area cannot be calculated with precision from the information summarized for this plan. Actual rates and fees will vary by utility provider, depending on, but not limited to the following:

- Actual costs of infrastructure and distribution of costs among utilities when applicable;
- Cost sharing agreements between participating service providers;
- Costs of financing instruments; and
- Board decisions on rate and fee setting.

Costs of water-related utilities services are shared by existing and future users. Existing users' costs include the operating costs of the existing system, rehabilitation and repair of existing assets in the CIP, debt service on infrastructure, and collection for depreciation or future system rehabilitation needs. Existing users' costs are captured in their rates, fees or charges for services in monthly bills. Future users' costs are collected in connection fees or impact fees. Future users' costs include costs incurred to expand capacity specifically to serve new development and/or future users' buy-in to existing capacity that is currently not utilized.



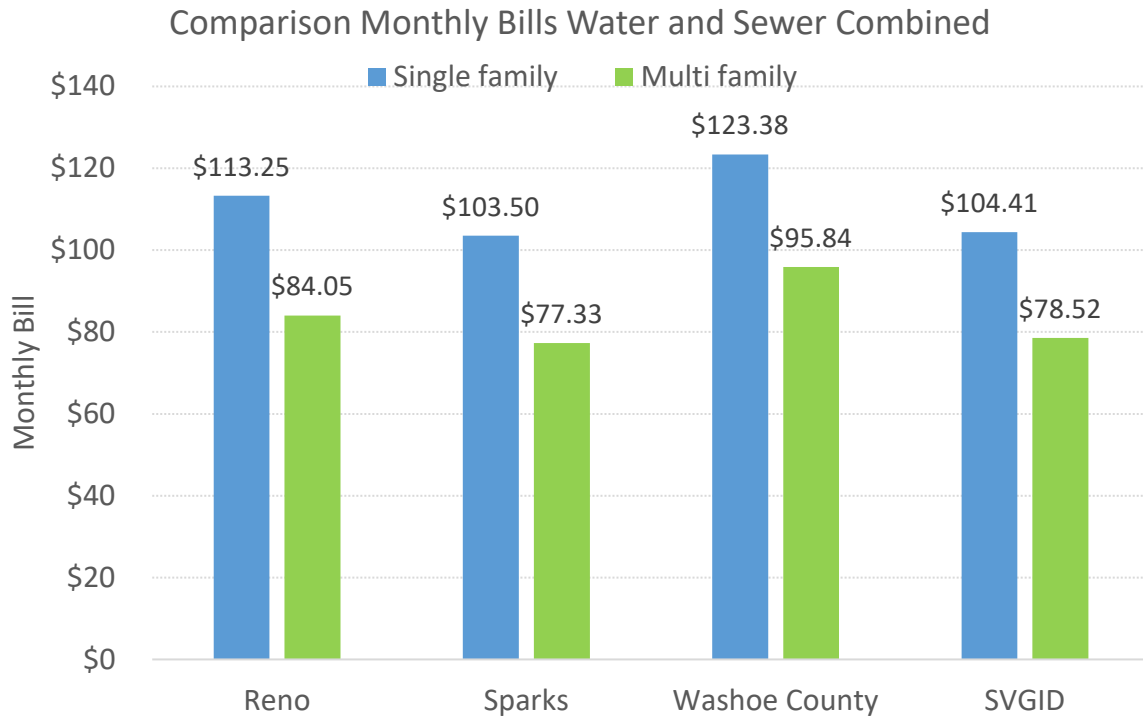
### **9.2.1 Estimated Incremental Changes to Rates (Existing User Fees)**

Most utilities' operating costs increase in the range of at least three percent to five percent each year. Just as the price of other goods increase over time, utility customers should expect their utility bills to increase over time. It is usual for utility operating costs to increase each year at a rate greater than consumer price indices, or other indices such as the Engineering News Record Construction Cost Index. The most recent 20-year average annual increase for the Engineering News Record Construction Cost Index is 3.1 percent, and the most recent 20-year average annual increase for the West Region Consumer Price Index is 2.2 percent. In May 2019, the American Water Works Association released an article, "Rate survey: water cost increases outpacing other U.S. goods and services" in which it reported between 2014 and 2018 **water rates increased 5.1% per year** and **wastewater rates increased 5.6% per year**. In June 2020 the National Association of Clean Water Agencies determined that the **cost of wastewater service more than doubled the rate of inflation over the past twelve months**, the 18<sup>th</sup> consecutive year that the increase in charges has outpaced inflation.

When utilities do not adequately fund the costs to repair or replace major assets in the system user bills may see a spike greater than a typical five to six percent range of annual increase. Other factors that may cause greater than typical increases may include pass-through of wholesale costs, new Federal, State, or local, health and safety or environmental regulations, addition of personnel or higher-qualified personnel, such as a grade three rather than a grade two operator, necessary to meet operating requirements, and other costs out of control of the local agency, such as changes to insurance or retirement plans that the utility has to absorb.

The rate schedules include both the costs to be borne by existing users and potentially costs to be borne by future users when the existing users pay for increased capacity to serve new development up-front. Because each agency's rate structures are different, and because their funding preferences differ (pay-as-you-go with cash versus bonding for example) it is impossible to estimate future rates based on the CIPs presented in this chapter. Each agency needs to evaluate its financial needs, financing strategy, and in particular, determine the level of depreciation to include in their rates. Figure 9-4 shows the difference in monthly bills by jurisdiction for residential units (single family and multi-family) under current rate structures. In the figure a single-family unit uses 15,000 gallons of water and a multi-family unit uses 8,000 gallons of water. Bill comparisons only show a snapshot in time; since service providers are on different cycles for rate updates, the combined water and sewer bill might be higher in one jurisdiction one year and higher in another jurisdiction in the next year. Support tables showing rate schedules for each agency are provided in Appendix J.

**Figure 9-4 Comparison of Monthly Bills**



**9.2.2 Estimated Incremental Changes to Connection Fees (New User Fees paid by Development)**

As previously described, water-related utilities charge connection fees or impact fees to new development so that growth pays for itself and existing customers are not burdened with the cost of growth. The water-related utility can either collect the fee and build the facilities or alternatively require the new development to install all the facilities to their standards and specifications and contribute (or turn over) the facilities to the water utility. Both approaches are used in the Truckee Meadows. For a development that builds all the required facilities a connection fee is not applicable.

Connection and/or impact fees will increase or decrease over time depending on the planned facilities needed to accommodate new growth and the number of units that the costs are spread over. The most recent cost burden analysis memorandum prepared for the WRWC showed total fees paid by a single-family unit to develop in Reno, Sparks, and Washoe County in 2021. Fees paid are dependent not only on location but also potential demand for service as measured in gallons per minute for TMWA. Each of the service providers will incorporate their CIPs presented in this chapter to update their connection and impact fees. Since the change will be different for each agency no attempt has been made to calculate update fees in this chapter. The analysis concluded that the level of water-related fees is not the primary driver of development in the region; moderate increases to the current level of fees should not have a major impact on the pace or location of new development. The 2021 analysis (which is a high-level review; it does not provide details as to how each of the fees were determined by their respective agencies, nor does it provide any recommendations for change) finds that both single family and multi-family market-

rate housing development is financially feasible for all greenfield and likely most infill development in the Truckee Meadows Service Area at the time the analysis was performed.

Overall, the level of water utility fees represents a small portion of total development costs. The level of development fees may be a factor for a developer in selecting one site over another, but it is not the primary factor; there are both macro and micro economic factors, not to mention topography of a site, that have greater influence over whether to develop and where to develop. In addition, the analysis found that TMWA water fees, which reflect the cost of infrastructure by service area as well as the size of different housing types (and therefore water demands), encourage infill development. Sewer connection fees, however, do not vary by residential unit size or sub-area; they do not encourage infill development.

## References

- Board of Directors Agenda Packets, Truckee River Flood Management Authority (TRFMA), February and March 2021.
- Truckee Meadows Healthy Communities in partnership with Truckee Meadows Regional Planning Agency and Enterprise Community Partners, Inc., 'Housing Our Future – Truckee Meadows Regional Strategy for Housing Affordability', 2019.
- Truckee Meadows Regional Planning Agency, (TMRPA), 2019 Regional Plan and Truckee Meadows Annual Report (TMAR) 2020.
- Truckee Meadows Water Authority, (TMWA), 2018 Water Facility Plan Update.
- Truckee Meadows Water Reclamation Facility (TMWRF), Facility Plan, Technical Memorandum No. 11, February 4, 2022, Brown and Caldwell.
- Building Association of Northern Nevada (BANN) 2021 Forecast.
- Regional Water Management Plan New Housing Cost Burden Analysis, August 25, 2021, Technical Memorandum (Hansford Economic Consulting LLC).

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Table I.1: Full List of 5-Year CIPs

PROVIDER	PROJECT NAME	FUNDING SOURCE	ESTIMATED COST IN 2021 DOLLARS					5-YR TOTAL
			2021	2022	2023	2024	2025	
<b>TRUCKEE MEADOWS WATER AUTHORITY</b>								
<i>Five-Year Plan is for FY 2022-2026; *NOTE* Totals may not match data source exactly due to rounding</i>								
WATER	GIS / GPS System Mapping Equipment	RATES	\$0	\$20,000	\$0	\$20,000	\$0	\$40,000
WATER	IT Server Hardware	RATES	\$180,000	\$30,000	\$45,000	\$30,000	\$0	\$285,000
WATER	IT Network Security Upgrades	RATES	\$45,000	\$160,000	\$70,000	\$10,000	\$0	\$285,000
WATER	IT Physical Access Security Upgrades	RATES	\$60,000	\$60,000	\$60,000	\$60,000	\$0	\$240,000
WATER	Printer / Scanner Replacement	RATES	\$40,000	\$50,000	\$0	\$100,000	\$0	\$190,000
WATER	Crew Trucks / Vehicles	RATES	\$650,000	\$750,000	\$750,000	\$850,000	\$950,000	\$3,950,000
WATER	Emergency Response Projects	RATES	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
WATER	CIS System Replacement	RATES	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000
WATER	Emergency Operations Annex Design / Construction	RATES	\$0	\$0	\$0	\$250,000	\$250,000	\$500,000
WATER	System Wide Asphalt Rehabilitation	RATES	\$250,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,050,000
WATER	Physical Access Control System Upgrade	RATES	\$200,000	\$0	\$0	\$0	\$0	\$200,000
WATER	CSR Work Area Security Upgrade	RATES	\$360,000	\$0	\$0	\$0	\$0	\$360,000
WATER	Physical Site Security Improvements	RATES	\$200,000	\$150,000	\$100,000	\$100,000	\$100,000	\$650,000
WATER	Medeco Intelligent Key System	RATES	\$0	\$150,000	\$100,000	\$100,000	\$0	\$350,000
WATER	Meter Reading Equipment	RATES	\$0	\$60,000	\$0	\$75,000	\$0	\$135,000
WATER	New Business Meters	CONNECTION FEES	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
WATER	Mueller Pit Replacements former Washoe County	RATES	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$625,000
WATER	Galvanized / Poly Service Line Replacements	RATES	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
WATER	AMI Automated Meter Infrastructure (73%)	RATES	\$1,533,000	\$4,380,000	\$4,380,000	\$4,380,000	\$730,000	\$15,403,000
WATER	AMI Automated Meter Infrastructure (27%)	METER RETROFIT	\$567,000	\$1,620,000	\$1,620,000	\$1,620,000	\$270,000	\$5,697,000
WATER	STMGID Mueller Pit Replacements	STMGID RESERVE	\$50,000	\$0	\$0	\$0	\$0	\$50,000
WATER	Pressure Regulators Rehabilitation	RATES	\$0	\$1,000,000	\$500,000	\$500,000	\$500,000	\$2,500,000
WATER	Pressure Reducing Valve (Roll Seal) Removal	RATES	\$400,000	\$0	\$0	\$0	\$0	\$400,000
WATER	Land Acquisitions	RATES	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
WATER	Desert Fox Standby Generator	RATES	\$0	\$150,000	\$0	\$0	\$0	\$150,000
WATER	Disc Drive Low Head Pump Station and Mains	CONNECTION FEES	\$1,900,000	\$1,900,000	\$0	\$0	\$0	\$3,800,000
WATER	Longley Booster Pump Station / Double R Capacity Increase	CONNECTION FEES	\$0	\$250,000	\$1,000,000	\$0	\$0	\$1,250,000
WATER	Pump Station Oversizing	RATES	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
WATER	Pump Station Rebuilds, Rehabilitations	RATES	\$1,200,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,200,000
WATER	Sullivan #2 Booster Pump Station Replacement (90%)	RATES	\$0	\$0	\$0	\$0	\$72,000	\$72,000
WATER	Sullivan #2 Booster Pump Station Replacement (10%)	CONNECTION FEES	\$0	\$0	\$0	\$0	\$8,000	\$8,000
WATER	Mount Rose Well #3 Pump Station Improvements	RATES	\$250,000	\$0	\$0	\$0	\$0	\$250,000
WATER	Standby Generator Improvements	RATES	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
WATER	Idlewild Booster Pump Station Improvements	RATES	\$100,000	\$1,200,000	\$0	\$0	\$0	\$1,300,000
WATER	Raleigh to Fish Springs Booster Pump Station	CONNECTION FEES	\$0	\$300,000	\$1,600,000	\$0	\$0	\$1,900,000
WATER	Southwest Pump Zone Consolidation Phase 1 (76%)	RATES	\$0	\$250,800	\$4,810,800	\$0	\$0	\$5,061,600
WATER	Spanish Springs #1 Pump Zone Inter tie	CONNECTION FEES	\$0	\$79,200	\$1,519,200	\$0	\$0	\$1,598,400
WATER	STMGID Tank #4 Booster Pump Station / Transmission Line	RATES	\$600,000	\$0	\$0	\$0	\$0	\$600,000
WATER	Wildwood 2 Pressure Regulating Station Scada Control	CONNECTION FEES	\$0	\$0	\$100,000	\$0	\$550,000	\$550,000
WATER	Southwest Pump Zone Consolidation Phase 2 (76%)	RATES	\$0	\$0	\$38,000	\$752,400	\$0	\$790,400
WATER	Southwest Pump Zone Consolidation Phase 2 (24%)	CONNECTION FEES	\$0	\$0	\$12,000	\$237,600	\$0	\$249,600
WATER	Sierra Summit-Kohl's Zone Consolidation	RATES	\$0	\$0	\$380,000	\$400,000	\$0	\$780,000
WATER	Wild Mustang Regulated Pressure Zone	RATES	\$0	\$0	\$50,000	\$380,000	\$0	\$430,000
WATER	Twin Lakes Booster Pump Station	RATES	\$400,000	\$0	\$0	\$0	\$0	\$400,000
WATER	Thomas Creek #4 PRS	RATES	\$0	\$0	\$0	\$170,000	\$0	\$170,000
WATER	Kings Row 1 Booster Pump Station	RATES	\$50,000	\$0	\$0	\$0	\$0	\$50,000
WATER	Spring Creek Tanks #3&4 Booster Pump Station Modifications	CONNECTION FEES	\$0	\$0	\$0	\$600,000	\$0	\$600,000
WATER	Lazy S Low Head Pump Station & Mains	CONNECTION FEES	\$150,000	\$1,200,000	\$0	\$0	\$0	\$1,350,000
WATER	Common (Stonegate) Booster Pump Station	DEVELOPER REIMBURSEMENT	\$2,500,000	\$0	\$0	\$0	\$0	\$2,500,000
WATER	Caughlin SC Pump and Motor Replacement	RATES	\$150,000	\$0	\$0	\$0	\$0	\$150,000
WATER	Kinglet Pump Station	DEVELOPER REIMBURSEMENT	\$1,400,000	\$0	\$0	\$0	\$0	\$1,400,000
WATER	South Hills BPS Replacement	RATES	\$0	\$0	\$70,000	\$3,760,000	\$490,000	\$4,320,000
WATER	Sierra Highlands PRS	RATES	\$0	\$0	\$0	\$0	\$210,000	\$210,000
WATER	Street & Highway Main Replacements	RATES	\$4,500,000	\$4,500,000	\$4,500,000	\$5,000,000	\$5,000,000	\$23,500,000
WATER	Spring Creek South Zone Conversion	RATES	\$1,500,000	\$0	\$0	\$0	\$0	\$1,500,000
WATER	Booth, Sharon Way, Monroe 24" Main Replacements	RATES	\$0	\$1,800,000	\$1,100,000	\$2,200,000	\$0	\$5,100,000
WATER	South Virginia 24" Main (Kumle to Peckham)	CONNECTION FEES	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000
WATER	North East Sparks Tank Feeder Main Relocation	RATES	\$0	\$975,000	\$0	\$0	\$0	\$975,000
WATER	Goldeneye Parkway Main Tie and Check Valve	RATES	\$0	\$180,000	\$0	\$0	\$0	\$180,000
WATER	Trademark 14" Main Tie	CONNECTION FEES	\$0	\$0	\$0	\$0	\$350,000	\$350,000
WATER	Spanish Springs Main Replacement	RATES	\$2,300,000	\$0	\$0	\$0	\$0	\$2,300,000
WATER	Mt Rose Tank 1 Fire Flow Improvements	RATES	\$0	\$400,000	\$570,000	\$0	\$0	\$970,000
WATER	Stead Golf Course Main Replacement (78%)	RATES	\$0	\$0	\$132,600	\$1,872,000	\$0	\$2,004,600
WATER	Stead Golf Course Main Replacement (22%)	CONNECTION FEES	\$0	\$0	\$37,400	\$528,000	\$0	\$565,400
WATER	General Waterline Extensions	RATES	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
WATER	North-East Sparks Feeder Main Ph. 8	CONNECTION FEES	\$0	\$50,000	\$2,050,000	\$0	\$0	\$2,100,000
WATER	Mount Rose 5 Distribution / Pressure Improvements	CONNECTION FEES	\$750,000	\$0	\$0	\$0	\$0	\$750,000
WATER	Goldenrod Main	CONNECTION FEES	\$0	\$50,000	\$1,200,000	\$0	\$0	\$1,250,000
WATER	Boomtown Water System Improvements	CONNECTION FEES	\$2,500,000	\$0	\$0	\$0	\$0	\$2,500,000
WATER	Boomtown to TMWA Connection	CONNECTION FEES	\$1,900,000	\$0	\$0	\$0	\$0	\$1,900,000

Table I.1: Full List of 5-Year CIPs

PROVIDER	PROJECT NAME	FUNDING SOURCE	ESTIMATED COST IN 2021 DOLLARS					5-YR TOTAL
			2021	2022	2023	2024	2025	
WATER	Lemmon Valley Sand Yard	RATES	\$0	\$530,000	\$0	\$0	\$0	\$530,000
WATER	Sullivan #1 Main Tie & PRS (90%)	RATES	\$0	\$0	\$0	\$0	\$45,000	\$45,000
WATER	Sullivan #1 Main Tie & PRS (10%)	CONNECTION FEES	\$0	\$0	\$0	\$0	\$5,000	\$5,000
WATER	Montreux High Pressure ACP Replacement	RATES	\$0	\$0	\$0	\$520,000	\$1,060,000	\$1,580,000
WATER	2nd Galena Creek Main Crossing	RATES	\$0	\$0	\$0	\$40,000	\$560,000	\$600,000
WATER	Off-River Supply Improvements - STM	RATES	\$0	\$0	\$0	\$50,000	\$1,050,000	\$1,100,000
WATER	Off-River Supply Improvements - NVS Pump Station	RATES	\$0	\$0	\$0	\$400,000	\$0	\$400,000
WATER	Somerset #6 Main Tie & PRS	RATES	\$0	\$0	\$0	\$280,000	\$0	\$280,000
WATER	Stonebrook West Main Oversizing	CONNECTION FEES	\$450,000	\$0	\$0	\$0	\$0	\$450,000
WATER	2025 Fire Flow Improvements - Gravity <1,000 GPM	RATES	\$0	\$0	\$0	\$0	\$550,000	\$550,000
WATER	2025 Fire Flow Improvements - North Valleys <1,000 GPM	RATES	\$0	\$0	\$0	\$0	\$940,000	\$940,000
WATER	Deluchi to Airway Main Tie	CONNECTION FEES	\$0	\$0	\$0	\$0	\$440,000	\$440,000
WATER	SE Sparks Feeder Main Phase 1	CONNECTION FEES	\$0	\$0	\$0	\$50,000	\$4,450,000	\$4,500,000
WATER	South Truckee Meadows Capacity Improvements	CONNECTION FEES	\$430,000	\$670,000	\$0	\$0	\$0	\$1,100,000
WATER	Stewart-Taylor Main Replacements	RATES	\$2,000,000	\$0	\$0	\$0	\$0	\$2,000,000
WATER	Roberts-Wilson-Moran Main Replacements	RATES	\$2,340,000	\$0	\$0	\$0	\$0	\$2,340,000
WATER	Verdi Hydro Main Extension	RATES	\$0	\$320,000	\$0	\$0	\$0	\$320,000
WATER	STMIGD Conjunctive Use Facilities	STMIGD RESERVE	\$1,600,000	\$500,000	\$0	\$0	\$0	\$2,100,000
WATER	STMIGD NAC Deficiencies - Saddlehorn, Upper Toll, STMIGD East	STMIGD RESERVE	\$100,000	\$100,000	\$1,800,000	\$0	\$0	\$2,000,000
WATER	STMIGD NAC Deficiencies Ph2 - Sioux Trail, Geiger Grade, Westwind Cr	STMIGD RESERVE	\$800,000	\$0	\$0	\$0	\$0	\$800,000
WATER	Well Rehabilitation Improvements	RATES	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
WATER	Double Diamond #5 and Equipping	CONNECTION FEES	\$50,000	\$450,000	\$0	\$60,000	\$1,140,000	\$1,700,000
WATER	Callamont Well South Equipping	CONNECTION FEES	\$0	\$60,000	\$1,140,000	\$0	\$0	\$1,200,000
WATER	Air Guard Well Replacement Equipping	RATES	\$0	\$0	\$0	\$1,100,000	\$0	\$1,100,000
WATER	Sunrise Well #3 Replacement	RATES	\$100,000	\$0	\$0	\$0	\$0	\$100,000
WATER	Lemmon Valley Well #8 Replacement	RATES	\$0	\$0	\$0	\$0	\$250,000	\$250,000
WATER	Well Fix & Finish	RATES	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
WATER	Well Plugging / Conversion	RATES	\$120,000	\$0	\$0	\$0	\$0	\$120,000
WATER	NDEP Monitoring Wells	RATES	\$200,000	\$0	\$0	\$0	\$0	\$200,000
WATER	Thomas Creek Well Replacement and Spring Creek 5	RATES	\$750,000	\$500,000	\$0	\$0	\$0	\$1,250,000
WATER	Truckee Canyon Well 3 Site Modifications	RATES	\$50,000	\$0	\$0	\$0	\$0	\$50,000
WATER	Well Head TTHM Mitigation (50%)	RATES	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
WATER	Well Head TTHM Mitigation (50%)	SUSTAINABILITY FEES	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
WATER	Spring Creek Well #7 Recharge (50%)	RATES	\$37,500	\$212,500	\$0	\$0	\$0	\$250,000
WATER	Spring Creek Well #7 Recharge (50%)	SUSTAINABILITY FEES	\$37,500	\$212,500	\$0	\$0	\$0	\$250,000
WATER	Kletzke, High, Morrill PCE Treatment	RATES	\$50,000	\$0	\$0	\$0	\$0	\$50,000
WATER	Callamont Well North Equipping	CONNECTION FEES	\$0	\$0	\$60,000	\$1,140,000	\$0	\$1,200,000
WATER	Spring Creek Well #8 - Donovan	CONNECTION FEES	\$0	\$300,000	\$910,000	\$1,060,000	\$0	\$2,000,000
WATER	Fish Springs Ranch TDS Monitoring Wells	RATES	\$300,000	\$0	\$0	\$0	\$0	\$300,000
WATER	Fish Springs Ranch Weather Station	RATES	\$10,000	\$0	\$0	\$0	\$0	\$10,000
WATER	Geothermal Fluid Monitoring Well	RATES	\$100,000	\$0	\$0	\$0	\$0	\$100,000
WATER	STMIGD Well Fix & Finish	STMIGD RESERVE	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
WATER	STMIGD Well #1 Re Drill and Equipping	STMIGD RESERVE	\$0	\$900,000	\$0	\$0	\$0	\$900,000
WATER	Forebay, Diversion, and Canal Improvements	RATES	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
WATER	Flume Rehabilitation	RATES	\$150,000	\$150,000	\$0	\$0	\$0	\$300,000
WATER	Hydro Plant Generator Rewinds	RATES	\$0	\$650,000	\$650,000	\$650,000	\$0	\$1,950,000
WATER	Washoe Flume Reconstruction	RATES	\$50,000	\$1,450,000	\$0	\$0	\$0	\$1,500,000
WATER	Orr Ditch Hydro Facility	INSURANCE SETTLEMENT	\$1,100,000	\$4,000,000	\$500,000	\$0	\$0	\$5,600,000
WATER	Washoe Flume Reconstruction Boxes 1-68	RATES	\$1,350,000	\$0	\$0	\$0	\$0	\$1,350,000
WATER	Water Meter Retrofits	METER RETROFIT	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
WATER	Water Right Purchases	CONNECTION FEES	\$150,000	\$150,000	\$300,000	\$300,000	\$300,000	\$1,200,000
WATER	Highland Canal-Upgrades-Downstream	RATES	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$1,125,000
WATER	Highland Canal-Upgrades-Diversion to Chalk Bluff	RATES	\$1,500,000	\$300,000	\$300,000	\$100,000	\$100,000	\$2,300,000
WATER	TROA Drought Storage / Implementation	RATES	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
WATER	Donner Lake Outlet Improvements Phase 2	RATES	\$0	\$150,000	\$0	\$0	\$0	\$150,000
WATER	Advanced Purified Water Demonstration Facility (50%)	CONNECTION FEES	\$150,000	\$1,750,000	\$600,000	\$0	\$0	\$2,500,000
WATER	Advanced Purified Water Demonstration Facility (50%)	SUSTAINABILITY FEES	\$150,000	\$1,750,000	\$600,000	\$0	\$0	\$2,500,000
WATER	Sun Valley #2 Tank (90%)	RATES	\$0	\$0	\$0	\$0	\$378,000	\$378,000
WATER	Sun Valley #2 Tank (10%)	CONNECTION FEES	\$0	\$0	\$0	\$0	\$42,000	\$42,000
WATER	Fish Springs Terminal Tank #2	CONNECTION FEES	\$0	\$0	\$0	\$0	\$400,000	\$400,000
WATER	Storage Tank Recoats; Access; Drainage Improvements	RATES	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$4,500,000
WATER	Highland Reservoir Tank (50%)	RATES	\$50,000	\$2,500,000	\$1,350,000	\$0	\$0	\$3,900,000
WATER	Highland Reservoir Tank (50%)	CONNECTION FEES	\$50,000	\$2,500,000	\$1,350,000	\$0	\$0	\$3,900,000
WATER	STMIGD Tank East Zone 11 Tank (20%)	RATES	\$20,000	\$95,000	\$0	\$0	\$0	\$615,000
WATER	STMIGD Tank East Zone 11 Tank (80%)	CONNECTION FEES	\$80,000	\$2,380,000	\$0	\$0	\$0	\$2,460,000
WATER	Lightning W Tank 2	RATES	\$400,000	\$0	\$0	\$0	\$0	\$400,000
WATER	US 40 Tank & Feeder Main (33%)	RATES	\$0	\$56,100	\$99,000	\$900,900	\$0	\$1,056,000
WATER	US 40 Tank & Feeder Main (67%)	CONNECTION FEES	\$0	\$113,900	\$201,000	\$1,829,100	\$0	\$2,144,000
WATER	Spanish Springs Altitude Valves (SC6 & DS3) (50%)	RATES	\$0	\$150,000	\$0	\$0	\$0	\$150,000
WATER	Spanish Springs Altitude Valves (SC6 & DS3) (50%)	CONNECTION FEES	\$0	\$0	\$150,000	\$0	\$0	\$150,000
WATER	Terminal Tank Generator	RATES	\$0	\$200,000	\$0	\$0	\$0	\$200,000
WATER	Hidden Valley Tank Altitude Valve	RATES	\$0	\$350,000	\$0	\$0	\$0	\$350,000
WATER	Chalk Bluff Plant Improvements	RATES	\$650,000	\$750,000	\$550,000	\$365,000	\$360,000	\$2,675,000
WATER	Glendale Treatment Plant Improvements	RATES	\$400,000	\$375,000	\$200,000	\$1,000,000	\$375,000	\$2,350,000
WATER	Chalk Bluff Filter Underdrains	RATES	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$4,000,000
WATER	Glendale Filter Underdrains	RATES	\$0	\$0	\$0	\$500,000	\$500,000	\$1,000,000
WATER	Chalk Bluff Lighting Upgrade	RATES	\$0	\$0	\$350,000	\$0	\$0	\$350,000
WATER	Glendale Lighting Upgrade	RATES	\$0	\$250,000	\$0	\$0	\$0	\$250,000
WATER	Orr Ditch Pump Station Rehab	RATES	\$200,000	\$5,000,000	\$5,000,000	\$0	\$0	\$10,200,000
WATER	Truckee Canyon Water Treatment Improvements	RATES	\$100,000	\$100,000	\$20,000	\$20,000	\$20,000	\$260,000
WATER	Lightning W Treatment Improvements	RATES	\$60,000	\$20,000	\$20,000	\$20,000	\$150,000	\$270,000
WATER	SCADA Rehab / Plant Operating Software	RATES	\$800,000	\$500,000	\$500,000	\$0	\$0	\$1,800,000
WATER	Mount Rose Surface Water Treatment Plant (33%)	RATES	\$1,320,000	\$0	\$0	\$0	\$0	\$1,320,000
WATER	Mount Rose Surface Water Treatment Plant (67%)	CONNECTION FEES	\$2,680,000	\$0	\$0	\$0	\$0	\$2,680,000
WATER	Longley Plant HV 3 and HV 4 Treatment Improvements	RATES	\$200,000	\$900,000	\$400,000	\$0	\$0	\$1,500,000
WATER	Spanish Springs Nitrate Treatment Facility	RATES	\$300,000	\$500,000	\$500,000	\$0	\$0	\$1,300,000
WATER	Chalk Bluff Electrical System Upgrades	RATES	\$150,000	\$0	\$0	\$0	\$0	\$150,000
RECLAIM	American Flat APW (cost share is 30%)	CONNECTION FEES	\$5,750,000	\$5,750,000	\$5,750,000	\$0	\$0	\$17,250,000
RECLAIM	American Flat APW (cost share is 30%)	RATES	\$5,750,000	\$5,750,000	\$5,750,000	\$0	\$0	\$17,250,000
RECLAIM	Pipeline to American Flats (cost share is 30%)	CONNECTION FEES	\$0	\$2,250,000	\$0	\$0	\$0	\$2,250,000
RECLAIM	Pipeline to American Flats (cost share is 30%)	RATES	\$0	\$2,250,000	\$0	\$0	\$0	\$2,250,000
<b>TOTAL TRUCKEE MEADOWS WATER AUTHORITY</b>			<b>\$66,220,000</b>	<b>\$74,540,000</b>	<b>\$60,895,000</b>	<b>\$39,280,000</b>	<b>\$27,135,000</b>	<b>\$268,070,000</b>

Table I.1: Full List of 5-Year CIPs

PROVIDER	PROJECT NAME	FUNDING SOURCE	ESTIMATED COST IN 2021 DOLLARS					5-YR TOTAL
			2021	2022	2023	2024	2025	
			<i>Five-Year Plan is for FY 2022-2026; *NOTE* Totals may not match data source exactly due to rounding</i>					
WASHOE COUNTY								
SEWER	Steamboat Lift Station Replacement and 2nd Force Main	RATES	\$500,000	\$7,500,000	\$7,000,000	\$0	\$0	\$15,000,000
SEWER - CSWRF	Cold Springs WRF Projects - SCADA System Controls	RATES	\$500,000	\$0	\$0	\$0	\$0	\$500,000
SEWER - LVWRF	LV WRF Design - Flow Balance, Nitrogen Removal, Disinfection Improvements, Pond Upgrades	RATES	\$0	\$0	\$0	\$650,000	\$0	\$650,000
SEWER	Pebble Creek Lift Station - Flood Improvements	RATES	\$0	\$500,000	\$0	\$0	\$0	\$500,000
SEWER	SCADA Emergency Ops Center Development	CONNECTION FEES	\$0	\$100,000	\$70,000	\$0	\$0	\$170,000
SEWER	SCADA County-wide network improvements	CONNECTION FEES	\$100,000	\$175,000	\$75,000	\$0	\$0	\$350,000
SEWER	Pleasant Valley Interceptor - Reach 3 Conveyance Project	CONNECTION FEES	\$5,000,000	\$7,000,000	\$4,000,000	\$0	\$0	\$16,000,000
SEWER - STMWRF	STMWRF 2020 Expansion	CONNECTION FEES	\$19,566,435	\$18,661,000	\$17,100,000	\$16,560,000	\$8,500,000	\$80,387,435
SEWER - CSWRF	Cold Springs Emergency Generator and Plant Water System	CONNECTION FEES	\$0	\$0	\$0	\$0	\$2,300,000	\$2,300,000
SEWER - CSWRF	Cold Springs Headworks Improvements	CONNECTION FEES	\$0	\$0	\$0	\$5,000,000	\$0	\$5,000,000
SEWER - CSWRF	Cold Springs Secondary Treatment	CONNECTION FEES	\$0	\$0	\$0	\$0	\$10,800,000	\$10,800,000
SEWER - CSWRF	Cold Springs Effluent Management - Planning and Design	CONNECTION FEES	\$0	\$600,000	\$0	\$0	\$0	\$600,000
SEWER - CSWRF	Cold Springs Effluent Management - Supply and Transmission*	CONNECTION FEES	\$0	\$0	\$500,000	\$0	\$0	\$500,000
SEWER - CSWRF	Cold Springs Expansion Design	CONNECTION FEES	\$0	\$0	\$2,000,000	\$0	\$0	\$2,000,000
SEWER - CSWRF	Cold Springs Solids Handling Improvements and Expansion	CONNECTION FEES	\$0	\$0	\$4,000,000	\$0	\$10,800,000	\$14,800,000
SEWER - CSWRF	Cold Springs SCADA System Upgrades (New Equipment)	CONNECTION FEES	\$0	\$100,000	\$245,000	\$698,000	\$60,000	\$1,103,000
SEWER - LVWRF	LV Phase II - Flow Balance, Nitrogen Removal, Disinfection Improvements, Effluent Storage Upgrades	CONNECTION FEES	\$0	\$0	\$0	\$5,500,000	\$0	\$5,500,000
SEWER	Remote SCADA System Upgrades	RATES	\$115,000	\$0	\$0	\$0	\$0	\$115,000
SEWER - CSWRF	Cold Springs - Effluent Assessment and Analysis Report	RATES	\$500,000	\$0	\$0	\$0	\$0	\$500,000
SEWER - CSWRF	Cold Springs - Sophia Court Lift Station - Drywell structural and mechanical	RATES	\$100,000	\$0	\$0	\$0	\$0	\$100,000
SEWER - LVWRF	Engineering Assessment and Analysis Report - Lemmon Valley Collection	RATES	\$0	\$250,000	\$0	\$0	\$0	\$250,000
SEWER	Montreux Lift Station - Wet Well Coating and access hatch rehabilitation/waterproofing	RATES	\$250,000	\$0	\$0	\$0	\$0	\$250,000
SEWER	Mayberry Lift Station - Collection System Improvements	RATES	\$100,000	\$0	\$0	\$0	\$0	\$100,000
SEWER	Hidden Meadows Lift Station - Elec & Mechanical Rehab	RATES	\$0	\$0	\$0	\$0	\$250,000	\$250,000
SEWER	Lift Station Electrical Upgrades Program	RATES	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
SEWER	Effluent Mg't - Nevada Water Innovation Institute - AWT Program Management	RATES	\$107,000	\$0	\$0	\$0	\$0	\$107,000
SEWER	Effluent Mg't - NSF Industry-University Collaborative Research Center	RATES	\$0	\$50,000	\$50,000	\$50,000	\$50,000	\$200,000
SEWER	Effluent Mg't Water Research Foundation 04904 Grant Program	RATES	\$60,000	\$30,000	\$0	\$0	\$0	\$90,000
SEWER	Effluent Mg't Bedell Flat Rapid Infiltration Basin Study	RATES	\$150,000	\$0	\$0	\$0	\$0	\$150,000
SEWER	Effluent Mg't Remote SCADA System Upgrades	RATES	\$115,000	\$0	\$0	\$0	\$0	\$115,000
SEWER	Effluent Area Wide Distribution System - Programmatic Rehabilitation	RATES	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
SEWER	Effluent Water Projects - Existing Water Resources Management and Planning	RATES	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
SEWER	Sewer Asset Management Program	RATES	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000
SEWER	Sewer Interceptor Video Inspection Program	RATES	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
SEWER	Sewer Interceptor Rehabilitation Program	RATES	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$10,000,000
SEWER	Utility Rate and Connection Fee Study (25%)	RATES	\$45,000	\$0	\$0	\$0	\$0	\$45,000
SEWER	Utility Rate and Connection Fee Study (25%)	CONNECTION FEES	\$45,000	\$0	\$0	\$0	\$0	\$45,000
RECLAIM	Truck Fill Sites - Construction Water	RATES	\$0	\$500,000	\$0	\$0	\$400,000	\$900,000
RECLAIM	Rapid Infiltration Basin - Hidden Valley Regional Park	RATES	\$500,000	\$4,000,000	\$0	\$0	\$0	\$4,500,000
RECLAIM	Rapid Infiltration Basin - South Truckee Meadows	RATES	\$0	\$200,000	\$4,000,000	\$0	\$0	\$4,200,000
RECLAIM	Wetlands Enhancement and Implementation- STM	RATES	\$100,000	\$1,000,000	\$0	\$0	\$0	\$1,100,000
RECLAIM	Flushing Improvements Program	RATES	\$200,000	\$0	\$200,000	\$0	\$200,000	\$600,000
RECLAIM	Distribution Expansion Phase 1: STMWRF to Veterans Parkway	CONNECTION FEES	\$3,900,000	\$0	\$0	\$0	\$0	\$3,900,000
RECLAIM	Distribution Expansion Phase 2: Veterans to Hidden Valley Park and In-Ground Tank	CONNECTION FEES	\$0	\$5,400,000	\$5,000,000	\$0	\$0	\$10,400,000
RECLAIM	Distribution Expansion Phase 3: Hidden Valley GC Main Extension	CONNECTION FEES	\$0	\$1,450,000	\$0	\$0	\$0	\$1,450,000
RECLAIM	Distribution Expansion Phase 4: Veterans to City of Reno - Mira Loma Intertie	CONNECTION FEES	\$0	\$0	\$0	\$4,500,000	\$0	\$4,500,000
RECLAIM	Bella Vista Ranch Effluent System Extension	CONNECTION FEES	\$400,000	\$0	\$0	\$0	\$0	\$400,000
RECLAIM	Damonte Ranch Effluent System Extension	CONNECTION FEES	\$0	\$350,000	\$0	\$0	\$0	\$350,000
RECLAIM	Reclaim SCADA System Upgrades	CONNECTION FEES	\$310,000	\$250,000	\$0	\$0	\$0	\$560,000
RECLAIM	Reclaim SCADA Emergency Ops Center Development	CONNECTION FEES	\$0	\$100,000	\$0	\$0	\$0	\$100,000
RECLAIM	Reclaim SCADA County-wide network improvements	CONNECTION FEES	\$100,000	\$350,000	\$0	\$0	\$0	\$450,000
RECLAIM	Utility Rate and Connection Fee Study (25%)	RATES	\$45,000	\$0	\$0	\$0	\$0	\$45,000
RECLAIM	Effluent Mg't Cia-Val Reclaim PRV Retrofits	RATES	\$450,000	\$0	\$0	\$0	\$0	\$450,000
RECLAIM	Reclaimed Water Asset Management Program	RATES	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
RECLAIM	Reclaimed Water Valve Replacement Program	RATES	\$100,000	\$0	\$100,000	\$0	\$100,000	\$300,000
RECLAIM	Utility Rate and Connection Fee Study (25%)	CONNECTION FEES	\$45,000	\$0	\$0	\$0	\$0	\$45,000
RECLAIM	Hidden Valley Facility Master Plan	CONNECTION FEES	\$80,000	\$0	\$0	\$0	\$0	\$80,000
STORM	Calle De La Plata and Pyramid Highway	RATES	\$0	\$100,000	\$0	\$0	\$0	\$100,000
STORM	Pyramid Highway and Eagle Canyon	RATES	\$0	\$100,000	\$0	\$0	\$0	\$100,000
STORM	NSSFDF - Security Improvements	RATES	\$0	\$50,000	\$650,000	\$0	\$0	\$700,000
<b>TOTAL WASHOE COUNTY</b>			<b>\$35,973,435</b>	<b>\$51,306,000</b>	<b>\$47,480,000</b>	<b>\$35,448,000</b>	<b>\$35,950,000</b>	<b>\$206,157,435</b>



Table I.1: Full List of 5-Year CIPs

PROVIDER	PROJECT NAME	FUNDING SOURCE	ESTIMATED COST IN 2021 DOLLARS					5-YR TOTAL
			2021	2022	2023	2024	2025	
<b>CITY OF RENO</b>								
<i>Five-Year Plan is for FY 2022-2026 except TMWRF (2023-2027); *NOTE* Totals may not match data source exactly due to rounding</i>								
SEWER	Collection System General	RATES	\$0	\$0	\$20,695,413	\$20,545,272	\$18,697,238	\$59,937,923
SEWER	Annual Program - Large Diameter - CIPP	RATES	\$4,000,000	\$4,000,000	\$0	\$0	\$0	\$8,000,000
SEWER	Sewer Rehab - Remove and Replace	RATES	\$6,306,000	\$4,112,000	\$0	\$0	\$0	\$10,418,000
SEWER	Sewer Rehab - Remove and Replace RTC Rehab Areas	RATES	\$0	\$5,000,000	\$0	\$0	\$0	\$5,000,000
SEWER	Annual Program - I/J Mitigation/Various locations	RATES	\$2,000,000	\$2,000,000	\$0	\$0	\$0	\$4,000,000
SEWER	Annual Sewer On-Call	RATES	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$2,000,000
SEWER	Corp Yard Security Fencing (Sewer Share)	RATES	\$24,000	\$0	\$0	\$0	\$0	\$24,000
SEWER	Capacity Studies and Flow Monitoring	RATES	\$645,000	\$645,000	\$0	\$0	\$0	\$1,290,000
SEWER	Moya South Interceptor	RATES	\$0	\$0	\$0	\$522,000	\$0	\$522,000
SEWER	Stead Blvd Main - Phase 1	RATES	\$5,600,000	\$0	\$0	\$0	\$0	\$5,600,000
SEWER	Keystone Diversion (@ Riverside)	RATES	\$0	\$5,600,000	\$0	\$0	\$0	\$5,600,000
SEWER	Downtown Capacity Improvements	RATES	\$0	\$2,450,000	\$1,980,000	\$1,980,000	\$988,000	\$7,398,000
SEWER	Idlewild Syphon & Main Replacements	RATES	\$256,000	\$0	\$0	\$0	\$0	\$256,000
SEWER	Mill Interceptor (5) [White Fir]	RATES	\$0	\$0	\$705,640	\$0	\$0	\$705,640
SEWER	Maestro Interceptor	RATES	\$0	\$0	\$0	\$0	\$95,000	\$95,000
SEWER	Patriot Main	RATES	\$0	\$0	\$0	\$0	\$102,600	\$102,600
SEWER	South Virginia Trunk	RATES	\$0	\$0	\$0	\$0	\$52,080	\$52,080
SEWER	2nd Street Interceptor [Downtown]	RATES	\$0	\$0	\$0	\$0	\$162,000	\$162,000
SEWER	Mill (4)	RATES	\$0	\$0	\$0	\$0	\$838,134	\$838,134
SEWER	McCarran/Plumas	RATES	\$0	\$0	\$1,050,000	\$0	\$0	\$1,050,000
SEWER	Peckham/Baker	RATES	\$0	\$0	\$75,000	\$0	\$0	\$75,000
SEWER	Lift Stations General	RATES	\$0	\$0	\$2,000,000	\$2,000,000	\$1,200,000	\$5,200,000
SEWER	Lear LS and FM	RATES	\$8,450,000	\$0	\$0	\$0	\$0	\$8,450,000
SEWER	Edison LS and FM	RATES	\$310,598	\$3,500,000	\$0	\$0	\$0	\$3,810,598
SEWER	Parr LS	RATES	\$0	\$2,360,000	\$0	\$0	\$0	\$2,360,000
SEWER	Dermody LS	RATES	\$0	\$200,000	\$0	\$0	\$0	\$200,000
SEWER	North Dakota LS	RATES	\$0	\$200,000	\$0	\$0	\$0	\$200,000
SEWER	University LS	RATES	\$0	\$4,000,000	\$0	\$0	\$0	\$4,000,000
SEWER	Sky Vista FM	RATES	\$317,594	\$0	\$0	\$0	\$0	\$317,594
SEWER	Collection System General	CONNECTION FEES	\$0	\$0	\$0	\$6,163,582	\$5,609,171	\$11,772,753
SEWER	Sewer Rehab - Remove and Replace, City	CONNECTION FEES	\$194,000	\$1,888,000	\$0	\$0	\$0	\$2,082,000
SEWER	Moya South Interceptor	CONNECTION FEES	\$0	\$0	\$0	\$2,378,000	\$0	\$2,378,000
SEWER	Stead Blvd Main - Phase 1	CONNECTION FEES	\$4,400,000	\$0	\$0	\$0	\$0	\$4,400,000
SEWER	Keystone Diversion (@ Riverside)	CONNECTION FEES	\$0	\$2,400,000	\$0	\$0	\$0	\$2,400,000
SEWER	Downtown Capacity Improvements	CONNECTION FEES	\$0	\$1,050,000	\$3,520,000	\$3,520,000	\$1,612,000	\$9,702,000
SEWER	Idlewild Syphon & Main Replacements	CONNECTION FEES	\$144,000	\$0	\$0	\$0	\$0	\$144,000
SEWER	Mill Interceptor (5) [White Fir]	CONNECTION FEES	\$0	\$0	\$2,362,360	\$0	\$0	\$2,362,360
SEWER	Maestro Interceptor	CONNECTION FEES	\$0	\$0	\$0	\$0	\$380,000	\$380,000
SEWER	Patriot Main	CONNECTION FEES	\$0	\$0	\$0	\$0	\$239,400	\$239,400
SEWER	South Virginia Trunk	CONNECTION FEES	\$0	\$0	\$0	\$0	\$598,920	\$598,920
SEWER	2nd Street Interceptor [Downtown]	CONNECTION FEES	\$0	\$0	\$0	\$0	\$438,000	\$438,000
SEWER	Mill (4)	CONNECTION FEES	\$0	\$0	\$0	\$0	\$2,266,066	\$2,266,066
SEWER	McCarran/Plumas	CONNECTION FEES	\$0	\$0	\$450,000	\$0	\$0	\$450,000
SEWER	Peckham/Baker	CONNECTION FEES	\$0	\$0	\$1,425,000	\$0	\$0	\$1,425,000
SEWER	Lear LS and FM	CONNECTION FEES	\$4,550,000	\$0	\$0	\$0	\$0	\$4,550,000
SEWER	Parr LS	CONNECTION FEES	\$0	\$1,640,000	\$0	\$0	\$0	\$1,640,000
STORM	West Wash Dam Rehabilitation Project	RATES	\$198,000	\$0	\$0	\$0	\$0	\$198,000
STORM	Dam Inspection and Improvements Planning Phase 2	RATES	\$60,000	\$0	\$0	\$0	\$0	\$60,000
STORM	Dry Creek Channel Stabilization (JUB)	RATES	\$0	\$3,000,000	\$0	\$0	\$0	\$3,000,000
STORM	RTAA Dry Creek Channel Stabilization Design and Construction at Longley Lane - Design - Atkins	RATES	\$310,000	\$0	\$0	\$0	\$0	\$310,000
STORM	RTAA Dry Creek Channel Stabilization Design and Construction at Longley Lane - Construction	RATES	\$0	\$0	\$3,500,000	\$0	\$0	\$3,500,000
STORM	Rosewood Wash (Construction, Construction Management) (Has FEMA grant, \$2.5 million City Costs)	RATES	\$2,250,000	\$0	\$0	\$0	\$0	\$2,250,000
STORM	Storm Drain Master Planning (Design Cost/Planning Cost)	RATES	\$600,000	\$800,000	\$0	\$800,000	\$0	\$2,200,000
STORM	Chalk Creek Stabilization	RATES	\$200,000	\$0	\$3,000,000	\$0	\$0	\$3,200,000
STORM	Watershed Management Plan for Tributaries to the Truckee River 319 Grant Opportunities	RATES	\$0	\$0	\$0	\$250,000	\$1,750,000	\$2,000,000
STORM	Virginia Lake Water Quality	RATES	\$0	\$0	\$0	\$0	\$250,000	\$250,000
STORM	Lake Park - Water Quality	RATES	\$0	\$0	\$0	\$25,000	\$200,000	\$225,000
STORM	SDMP Criticality & Opportunity CIPs design and construction	RATES	\$0	\$0	\$200,000	\$4,500,000	\$4,500,000	\$9,200,000
RSWRF	Storage Bldg and Dedicated Control Rm/Server Space (Design)	RATES	\$105,000	\$0	\$0	\$0	\$0	\$105,000
RSWRF	Construct 60ft x 80 ft Metal Storage Bldg. Construction.	RATES	\$0	\$600,000	\$0	\$0	\$0	\$600,000
RSWRF	Construct dedicated Control Rm/Server Space at Admin Bldg. Construction.	RATES	\$0	\$450,000	\$0	\$0	\$0	\$450,000
RSWRF	Clarifier Existing Landscaping Irrigation Rehab (onsite)	RATES	\$0	\$50,000	\$0	\$0	\$0	\$50,000
RSWRF	Clarifier: Drain, inspect and rehab as required (estimate is placeholder).	RATES	\$0	\$0	\$175,000	\$0	\$0	\$175,000
RECLAIM	Offsite Flow control valves and meters and telemetry at reuse sites. Includes Eng at 15%	RATES	\$368,300	\$0	\$0	\$0	\$0	\$368,300
RECLAIM	Mayor's park reuse upgrades pending Stantec Recommendations. Includes Eng at 15%.	RATES	\$0	\$100,000	\$0	\$0	\$0	\$100,000
RECLAIM	Reuse Improvements, The Lakes	RATES	\$0	\$75,000	\$0	\$0	\$0	\$75,000
RECLAIM	Reuse Pump Station Improvements	RATES	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000
RECLAIM	Red Rock Reservoir or Reno Sparks Indian Colony first Segment of Class A effluent transmission line	RATES	\$0	\$7,500,000	\$0	\$0	\$0	\$7,500,000
RECLAIM	Direct Bury Swan Lake to American Flat Lake Dewatering Pipe	RATES	\$0	\$0	\$5,000,000	\$0	\$0	\$5,000,000
RECLAIM	OneWater Community Outreach	RATES	\$50,000	\$50,000	\$0	\$0	\$0	\$150,000
RECLAIM	OneWater Demonstration Center Preliminary Engineering	RATES	\$0	\$0	\$500,000	\$0	\$0	\$500,000
RECLAIM	Red Rock Reservoir or Reno Sparks Indian Colony first Segment of Class A effluent transmission line	CONNECTION FEES	\$0	\$7,500,000	\$0	\$0	\$0	\$7,500,000
RECLAIM	American Flat APW (cost share is 70%)	CONNECTION FEES	\$13,416,667	\$13,416,667	\$13,416,667	\$0	\$0	\$40,250,000
RECLAIM	American Flat APW (cost share is 70%)	RATES	\$13,416,667	\$13,416,667	\$13,416,667	\$0	\$0	\$40,250,000
RECLAIM	Pipeline to American Flats (cost share is 70%)	CONNECTION FEES	\$0	\$5,250,000	\$0	\$0	\$0	\$5,250,000
RECLAIM	Pipeline to American Flats (cost share is 70%)	RATES	\$0	\$5,250,000	\$0	\$0	\$0	\$5,250,000
TMWRF	Clarifier Basin Concrete and Steel Rehabilitation (Design/Construction)	RATES	\$418,000	\$430,000	\$443,000	\$456,000	\$470,000	\$2,217,000
TMWRF	Nitrification Tower Rehabilitation & Improvements (Design/Construction)	RATES	\$2,882,000	\$343,000	\$3,027,000	\$343,000	\$3,178,000	\$9,773,000
TMWRF	Motor Control Centers (MCC) Rehabilitation (Design/Construction)	RATES	\$343,000	\$343,000	\$343,000	\$343,000	\$343,000	\$1,715,000
TMWRF	TWAS Short-Term Improvements (Construction)	CONNECTION FEES	\$1,373,000	\$0	\$0	\$0	\$0	\$1,373,000
TMWRF	Dewatering Building (Design)	RATES	\$1,373,000	\$0	\$0	\$0	\$0	\$1,373,000
TMWRF	Dewatering Building (Construction)	RATES	\$0	\$0	\$0	\$0	\$10,295,000	\$10,295,000
TMWRF	Dewatering Building (Construction)	CONNECTION FEES	\$0	\$0	\$0	\$0	\$10,295,000	\$10,295,000
TMWRF	Gas Conditioning System Improvements (Design)	RATES	\$0	\$686,000	\$0	\$0	\$0	\$686,000
TMWRF	Fluidized Bed Reactor Expansion (Design)	RATES	\$1,373,000	\$0	\$0	\$0	\$0	\$1,373,000
TMWRF	Fluidized Bed Reactor Expansion (Construction)	CONNECTION FEES	\$0	\$0	\$0	\$0	\$6,863,000	\$6,863,000
TMWRF	Digester #4 Membrane Cover (Design)	RATES	\$446,000	\$0	\$0	\$0	\$0	\$446,000

Table I.1: Full List of 5-Year CIPs

PROVIDER	PROJECT NAME	FUNDING SOURCE	ESTIMATED COST IN 2021 DOLLARS					5-YR TOTAL
			2021	2022	2023	2024	2025	
TMWRF	Digester #4 Membrane Cover (Construction)	RATES	\$0	\$2,745,000	\$0	\$0	\$0	\$2,745,000
TMWRF	Heat Loop Improvements (Design Ph1)	RATES	\$172,000	\$0	\$0	\$0	\$0	\$172,000
TMWRF	Heat Loop Improvements (Construction Ph1)	RATES	\$0	\$2,745,000	\$0	\$0	\$0	\$2,745,000
TMWRF	Heat Loop Improvements (Design Ph2)	RATES	\$0	\$0	\$172,000	\$0	\$0	\$172,000
TMWRF	Heat Loop Improvements (Construction Ph2)	RATES	\$0	\$0	\$0	\$3,088,000	\$0	\$3,088,000
TMWRF	Filter Building Bypass/UV Disinfection (Design)	RATES	\$686,000	\$0	\$0	\$0	\$0	\$686,000
TMWRF	Filter Building Bypass/UV Disinfection (Construction)	RATES	\$0	\$0	\$0	\$10,295,000	\$0	\$10,295,000
TMWRF	Filter Building Rehab Eval	RATES	\$206,000	\$0	\$0	\$0	\$0	\$206,000
TMWRF	Aeration Piping Improvements (PreDesign)	RATES	\$0	\$206,000	\$0	\$0	\$0	\$206,000
TMWRF	Aeration Piping Improvements (Design)	RATES	\$0	\$0	\$480,000	\$0	\$0	\$480,000
TMWRF	Aeration Piping Improvements (Construction)	RATES	\$0	\$0	\$0	\$1,029,000	\$0	\$1,029,000
TMWRF	Aeration Piping Improvements (Construction)	CONNECTION FEES	\$0	\$0	\$0	\$1,029,000	\$0	\$1,029,000
TMWRF	Emergency Generators PreDesign	RATES	\$0	\$0	\$172,000	\$0	\$0	\$172,000
TMWRF	Digester #1 Control Building HVAC & Electrical Room (Pre-Design & Design)	RATES	\$0	\$0	\$137,000	\$0	\$0	\$137,000
TMWRF	Digester #1 Control Building HVAC & Electrical Room (Construction)	RATES	\$0	\$0	\$0	\$549,000	\$0	\$549,000
TMWRF	Grit Washer (Evaluation/Pre-Design)	RATES	\$0	\$0	\$0	\$137,000	\$0	\$137,000
TMWRF	Grit Washer (Design)	RATES	\$0	\$0	\$0	\$0	\$343,000	\$343,000
TMWRF	Aeration Basin Rehabilitation System 1 (Design)	RATES	\$137,000	\$0	\$0	\$0	\$0	\$137,000
TMWRF	Aeration Basin Rehabilitation System 1 (Construction)	RATES	\$0	\$1,373,000	\$0	\$0	\$0	\$1,373,000
TMWRF	Aeration Basin Rehabilitation System 2 (Design)	RATES	\$0	\$0	\$343,000	\$0	\$0	\$343,000
TMWRF	Aeration Basin Rehabilitation System 2 (Construction)	RATES	\$0	\$0	\$0	\$1,544,000	\$0	\$1,544,000
TMWRF	Electrical Expansion & Upgrades (Design)	RATES	\$480,000	\$0	\$0	\$0	\$0	\$480,000
TMWRF	Electrical Expansion & Upgrades (Construction)	RATES	\$0	\$0	\$4,118,000	\$0	\$0	\$4,118,000
TMWRF	Electrical Expansion & Upgrades (Construction)	CONNECTION FEES	\$0	\$0	\$4,118,000	\$0	\$0	\$4,118,000
<b>TOTAL CITY OF RENO</b>			<b>\$80,060,825</b>	<b>\$108,374,333</b>	<b>\$86,874,746</b>	<b>\$61,496,854</b>	<b>\$71,765,609</b>	<b>\$408,572,368</b>
<b>CITY OF SPARKS</b>								
			<i>Five-Year plan is for FY 2022-2026 except TMWRF (2023-2027). *NOTE* Totals may not match data source exactly due to rounding</i>					
SEWER	Sanitary Sewer Manhole Rehab.	CONNECTION FEES	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$1,125,000
SEWER	Sewer Model Outlook Population Update	CONNECTION FEES		\$100,000				\$100,000
SEWER	Sanitary Sewer Upgrade Projects - Quail, Boise, and Greenbrae Dr - Design	CONNECTION FEES	\$80,000					\$80,000
SEWER	Sanitary Sewer Upgrade Projects - Quail, Boise, and Greenbrae Dr - Construction	CONNECTION FEES		\$900,000				\$900,000
SEWER	Sanitary Sewer Upgrade Projects - Springland, Lida, and Montezuma - Design	CONNECTION FEES		\$95,000				\$95,000
SEWER	Sanitary Sewer Upgrade Projects - Springland, Lida, and Montezuma - Construction	CONNECTION FEES			\$1,100,000			\$1,100,000
SEWER	Rate Study	CONNECTION FEES		\$75,000				\$75,000
SEWER	C Street and Prater Alley Sewer Rehabilitation Project - Design	CONNECTION FEES			\$125,000			\$125,000
SEWER	C Street and Prater Alley Sewer Rehabilitation Project - Construction	CONNECTION FEES				\$1,600,000		\$1,600,000
SEWER	Annual Sewer System Rehab	CONNECTION FEES	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
SEWER	Annual Sewer System Street Improvement Coordination	CONNECTION FEES	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
SEWER	SS Manhole CCTV Assessment	RATES	\$50,000					\$50,000
SEWER	Annual Contingency for Emergencies	RATES	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
STORM	Rate Study	CONNECTION FEES		\$75,000				\$75,000
STORM	Glendale Ave and Dermody Way Storm Drain Rehab Project - Design	CONNECTION FEES				\$250,000		\$250,000
STORM	Glendale Ave and Dermody Way Storm Drain Rehab Project - Construction	CONNECTION FEES					\$5,100,000	\$5,100,000
STORM	Annual Storm Drain Street Improvement Coordination	CONNECTION FEES	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$1,375,000
STORM	Annual Storm Drain System Dam, Ditch, Flood and Drainage Structures	CONNECTION FEES	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
STORM	Annual Curb, Gutter, and Sidewalk Projects	CONNECTION FEES	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$3,250,000
STORM	Stormwater Master Plan Update	CONNECTION FEES	\$325,000					\$325,000
STORM	Storm Drain Manhole CCTV Assessment	CONNECTION FEES						\$50,000
STORM	FEMA CRS/CAV	RATES	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
STORM	North Truckee Drain Annual Cleaning	RATES	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
STORM	Storm Drain Outreach Maintenance Program	RATES	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$75,000
STORM	Annual Contingency for Emergencies	RATES	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
RECLAIM	Effluent Metered Site Upgrades	RATES	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000
RECLAIM	Annual Contingency for Emergencies	RATES	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
FLOOD	N. Truckee Drain Debris Removal	RATES	\$0	\$0	\$0	\$1,600,000	\$0	\$1,600,000
FLOOD	N. Truckee Drain Flood Improvements / RTC Sparks Blvd Widening - Design	CONNECTION FEES	\$400,000	\$0	\$0	\$0	\$0	\$400,000
FLOOD	N. Truckee Drain Flood Improvements / RTC Sparks Blvd Widening - Construction	CONNECTION FEES	\$0	\$11,300,000	\$5,700,000	\$0	\$0	\$17,000,000
FLOOD	Truckee River Levee Backflow Device Rehab. Project	RATES	\$0	\$0	\$0	\$0	\$2,000,000	\$2,000,000
FLOOD	N. Truckee Drain Lillard Box Culvert Construction	RATES	\$0	\$0	\$0	\$3,000,000	\$0	\$3,000,000
TMWRF	Clarifier Basin Concrete and Steel Rehabilitation (Design/Construction)	RATES	\$191,000	\$197,000	\$203,000	\$209,000	\$215,000	\$1,015,000
TMWRF	Nitrification Tower Rehabilitation & Improvements (Design/Construction)	RATES	\$1,318,000	\$157,000	\$1,383,000	\$157,000	\$1,453,000	\$4,468,000
TMWRF	Motor Control Centers (MCC) Rehabilitation (Design/Construction)	RATES	\$157,000	\$157,000	\$157,000	\$157,000	\$157,000	\$785,000
TMWRF	TWAS Short-Term Improvements (Construction)	CONNECTION FEES	\$627,000	\$0	\$0	\$0	\$0	\$627,000
TMWRF	Dewatering Building (Design)	RATES	\$627,000	\$0	\$0	\$0	\$0	\$627,000
TMWRF	Dewatering Building (Construction)	RATES	\$0	\$0	\$0	\$0	\$4,706,000	\$4,706,000
TMWRF	Dewatering Building (Construction)	CONNECTION FEES	\$0	\$0	\$0	\$0	\$4,706,000	\$4,706,000
TMWRF	Gas Conditioning System Improvements (Design)	RATES	\$0	\$314,000	\$0	\$0	\$0	\$314,000
TMWRF	Fluidized Bed Reactor Expansion (Design)	RATES	\$627,000	\$0	\$0	\$0	\$0	\$627,000
TMWRF	Fluidized Bed Reactor Expansion (Construction)	CONNECTION FEES	\$0	\$0	\$0	\$0	\$3,137,000	\$3,137,000
TMWRF	Digester #4 Membrane Cover (Design)	RATES	\$204,000	\$0	\$0	\$0	\$0	\$204,000
TMWRF	Digester #4 Membrane Cover (Construction)	RATES	\$0	\$1,255,000	\$0	\$0	\$0	\$1,255,000
TMWRF	Heat Loop Improvements (Design Ph1)	RATES	\$78,000	\$0	\$0	\$0	\$0	\$78,000
TMWRF	Heat Loop Improvements (Construction Ph1)	RATES	\$0	\$1,255,000	\$0	\$0	\$0	\$1,255,000
TMWRF	Heat Loop Improvements (Design Ph2)	RATES	\$0	\$0	\$78,000	\$0	\$0	\$78,000
TMWRF	Heat Loop Improvements (Construction Ph2)	RATES	\$0	\$0	\$0	\$1,412,000	\$0	\$1,412,000
TMWRF	Filter Building Bypass/UV Disinfection (Design)	RATES	\$314,000	\$0	\$0	\$0	\$0	\$314,000
TMWRF	Filter Building Bypass/UV Disinfection (Construction)	RATES	\$0	\$0	\$0	\$4,706,000	\$0	\$4,706,000
TMWRF	Filter Building Rehab Eval	RATES	\$94,000	\$0	\$0	\$0	\$0	\$94,000
TMWRF	Aeration Piping Improvements (PreDesign)	RATES	\$0	\$94,000	\$0	\$0	\$0	\$94,000
TMWRF	Aeration Piping Improvements (Design)	RATES	\$0	\$0	\$220,000	\$0	\$0	\$220,000
TMWRF	Aeration Piping Improvements (Construction)	RATES	\$0	\$0	\$0	\$471,000	\$0	\$471,000
TMWRF	Aeration Piping Improvements (Construction)	CONNECTION FEES	\$0	\$0	\$0	\$471,000	\$0	\$471,000
TMWRF	Emergency Generators PreDesign	RATES	\$0	\$0	\$78,000	\$0	\$0	\$78,000
TMWRF	Digester #1 Control Building HVAC & Electrical Room (Pre-Design & Design)	RATES	\$0	\$0	\$63,000	\$0	\$0	\$63,000
TMWRF	Digester #1 Control Building HVAC & Electrical Room (Construction)	RATES	\$0	\$0	\$0	\$251,000	\$0	\$251,000
TMWRF	Grit Washer (Evaluation/Pre-Design)	RATES	\$0	\$0	\$0	\$63,000	\$0	\$63,000
TMWRF	Grit Washer (Design)	RATES	\$0	\$0	\$0	\$0	\$157,000	\$157,000
TMWRF	Aeration Basin Rehabilitation System 1 (Design)	RATES	\$63,000	\$0	\$0	\$0	\$0	\$63,000
TMWRF	Aeration Basin Rehabilitation System 1 (Construction)	RATES	\$0	\$627,000	\$0	\$0	\$0	\$627,000
TMWRF	Aeration Basin Rehabilitation System 2 (Design)	RATES	\$0	\$0	\$157,000	\$0	\$0	\$157,000
TMWRF	Aeration Basin Rehabilitation System 2 (Construction)	RATES	\$0	\$0	\$0	\$706,000	\$0	\$706,000
TMWRF	Electrical Expansion & Upgrades (Design)	RATES	\$220,000	\$0	\$0	\$0	\$0	\$220,000
TMWRF	Electrical Expansion & Upgrades (Construction)	RATES	\$0	\$0	\$1,882,000	\$0	\$0	\$1,882,000
TMWRF	Electrical Expansion & Upgrades (Construction)	CONNECTION FEES	\$0	\$0	\$1,882,000	\$0	\$0	\$1,882,000
<b>TOTAL CITY OF SPARKS</b>			<b>\$8,315,000</b>	<b>\$19,491,000</b>	<b>\$15,918,000</b>	<b>\$17,943,000</b>	<b>\$24,521,000</b>	<b>\$86,188,000</b>

Table I.1: Full List of 5-Year CIPs

PROVIDER	PROJECT NAME	FUNDING SOURCE	ESTIMATED COST IN 2021 DOLLARS					5-YR TOTAL
			2021	2022	2023	2024	2025	
<b>SUN VALLEY GENERAL IMPROVEMENT DISTRICT</b>			<i>Five-Year Plan is based on last Master Plan; *NOTE* Totals may not match data source exactly due to rounding</i>					
SEWER	Flow Meter #1	RATES	\$11,600					\$11,600
SEWER	Gepford Low Spot Repair	RATES		\$40,600				\$40,600
SEWER	South Basin 12" Parallel Main	RATES		\$450,000				\$450,000
SEWER	Regrade MH 62 to 63	RATES		\$387,900				\$387,900
SEWER	Regrade MH 18 to 19	RATES	\$144,900					\$144,900
SEWER	MV 1 abandonment	RATES		\$41,300				\$41,300
SEWER	MV 2 Rehab	RATES		\$300,000				\$300,000
SEWER	Interceptor cleaning/vidoeing	RATES	\$100,000					\$100,000
SEWER	Collection System Cleaning & Inspection	RATES		\$71,100				\$71,100
SEWER	Master Plan	CONNECTION FEES		\$30,000				\$30,000
SEWER	Engineering	CONNECTION FEES	\$30,000		\$40,000	\$40,000	\$40,000	\$150,000
SEWER	Treatment Plant Capital	CONNECTION FEES	\$40,000	\$15,000	\$15,000	\$15,000		\$85,000
SEWER	10-yr Cleanout	RATES	\$15,000					\$15,000
SEWER	SCADA RTU/FIU Replacement	RATES	\$5,000	\$10,000				\$15,000
SEWER	Sewer Vault #1 and 2 Fans	RATES	\$5,000					\$5,000
SEWER	Shoring/Trench Box	RATES	\$5,000					\$5,000
SEWER	Raise Sewer Manholes	RATES	\$50,000					\$50,000
SEWER	Expansion - Shop Building	CONNECTION FEES	\$40,000					\$40,000
SEWER	Ergonomics Consult. Purchase	RATES	\$5,000					\$5,000
SEWER	M400 Base Station	RATES	\$10,000					\$10,000
SEWER	Sensus Analytics	RATES	\$5,000					\$5,000
SEWER	New Computers	RATES	\$15,000					\$15,000
SEWER	Springbrook PayrollModule	RATES	\$15,000					\$15,000
SEWER	New PWD Truck	RATES	\$25,000					\$25,000
SEWER	New Forklift	RATES	\$10,000					\$10,000
SEWER	Office Interior Paint	RATES	\$10,000					\$10,000
SEWER	Map File Cabinets	RATES		\$5,000				\$5,000
SEWER	Alternate Energy Consultant & Other	RATES	\$30,000	\$15,000	\$15,000	\$15,000		\$75,000
WATER	5TH/Wood / Leon 8" Distribution Line	RATES		\$85,000				\$85,000
WATER	1st/sun Valley Blvd PRV Station Rehabilitation	RATES		\$145,200				\$145,200
WATER	Main Pump Station Improvement	RATES		\$39,000				\$39,000
WATER	Prosser Distr. Main	RATES		\$139,000				\$139,000
WATER	2nd 8" Dist. Main between Sidehill/Sun Valley	RATES	\$300,000					\$300,000
WATER	PRV Station Flow Monitoring	RATES	\$35,000					\$35,000
WATER	Sidehill Pump Station Improvement	RATES			\$36,000			\$36,000
WATER	4th/Lupin PRV Station Rehab	RATES		\$50,000				\$50,000
WATER	Pegasus to Jacobsen 8" Distribution Main	RATES		\$33,000				\$33,000
WATER	2nd 8" Distribution Main - Lupin/Leon	RATES		\$190,000				\$190,000
WATER	Klondike 8" Distribution Line	RATES		\$67,000				\$67,000
WATER	2nd 8" Distribution Main - Carol/SV Blvd	RATES		\$240,000				\$240,000
WATER	Chocolate 8" Main	RATES			\$338,000			\$338,000
WATER	Klondike/7th PRV Station	RATES			\$268,000			\$268,000
WATER	Water Master Plan	CONNECTION FEES				\$30,000		\$30,000
WATER	Corral/Torbie at 4th Convert to Chocolate	RATES		\$15,000				\$15,000
WATER	Sidehill/Chimney Seismic Investigation	RATES			\$10,000			\$10,000
WATER	System Mapping	RATES	\$20,000	\$20,000				\$40,000
WATER	Main Replacement 4" to 6" E. 2nd/SV Blvd	RATES	\$40,000					\$40,000
WATER	Valve Cut-in on SV Blvd (Gepford, 5th & 6th)	RATES	\$35,000					\$35,000
WATER	Valve Replacement SV Blvd/4th	RATES	\$35,000					\$35,000
WATER	Engineering	CONNECTION FEES	\$60,000					\$60,000
WATER	Paint Tanks	RATES	\$10,000	\$10,000	\$10,000	\$10,000		\$40,000
WATER	Tank Inspections	RATES	\$15,000	\$15,000				\$30,000
WATER	Tank Interior Recoat	RATES		\$100,000	\$100,000	\$100,000		\$300,000
WATER	Water Rights	RATES	\$2,500					\$2,500
WATER	Leak Audit	RATES		\$15,000		\$15,000		\$30,000
WATER	PRV RTU	RATES	\$5,000					\$5,000
WATER	RTU Electrical	RATES	\$5,000					\$5,000
WATER	MXU/FlexNet	RATES	\$20,000					\$20,000
WATER	GPS/GIS Purchase	RATES		\$10,000				\$10,000
WATER	Raise Valves	RATES	\$65,000					\$65,000
WATER	East 4th 12" Main Replacement	RATES		\$300,000				\$300,000
WATER	Expansion - Shop Building	CONNECTION FEES	\$40,000					\$40,000
WATER	Ergonomics Consult. Purchase	RATES	\$5,000					\$5,000
WATER	M400 Base Station	RATES	\$10,000					\$10,000
WATER	Sensus Analytics	RATES	\$5,000					\$5,000
WATER	New Computers	RATES	\$15,000					\$15,000
WATER	Springbrook PayrollModule	RATES	\$15,000					\$15,000
WATER	New PWD Truck	RATES	\$25,000					\$25,000
WATER	Forklift	RATES	\$10,000					\$10,000
WATER	Water Sampling Stations	RATES	\$5,000					\$5,000
WATER	Office Interior Paint	RATES	\$10,000					\$10,000
WATER	Map File Cabinets	RATES		\$5,000				\$5,000
WATER	Alternate Energy Consultant & Other	RATES	\$30,000	\$15,000	\$15,000	\$15,000		\$75,000
<b>TOTAL SUN VALLEY GENERAL IMPROVEMENT DISTRICT</b>			<b>\$1,389,000</b>	<b>\$2,668,900</b>	<b>\$1,077,200</b>	<b>\$240,000</b>	<b>\$0</b>	<b>\$5,375,100</b>
<b>CENTRAL TRUCKEE MEADOWS REMEDIATION DISTRICT</b>			<i>Five-Year Plan is for FY 2022-2026; *NOTE* Totals may not match data source exactly due to rounding</i>					
WATER	PCE Remediation - Kietzke Lane Packed Tower Aerator (PTA) Improvements	RATES	\$191,893	\$4,200	\$13,950	\$49,200	\$106,800	\$366,043
WATER	PCE Remediation - Mill Street Packed Tower Aerator (PTA) Improvements	RATES	\$123,143	\$4,200	\$106,950	\$116,700	\$16,800	\$367,793
WATER	PCE Remediation - Morrill Avenue Packed Tower Aerator (PTA) Improvements	RATES	\$123,143	\$4,200	\$30,375	\$78,500	\$16,800	\$253,018
WATER	PCE Remediation - NEW PCE Treatment Facilities (SPARKS, POPLAR#2) if needed	RATES	\$0	\$3,200,000	\$0	\$0	\$0	\$3,200,000
WATER	PCE Remediation - NEW PCE Treatment Facilities (in response to possible MCL change)	RATES	\$0	\$0	\$0	\$1,600,000	\$0	\$1,600,000
<b>TOTAL CENTRAL TRUCKEE MEADOWS REMEDIATION DISTRICT</b>			<b>\$438,179</b>	<b>\$3,212,600</b>	<b>\$151,275</b>	<b>\$1,844,400</b>	<b>\$140,400</b>	<b>\$5,786,854</b>
<b>TRUCKEE RIVER FLOOD MANAGEMENT AUTHORITY</b>			<i>Five-Year Plan is for FY 2022-2026; *NOTE* Totals may not match data source exactly due to rounding</i>					
FLOOD	Hidden Valley Home Elevation Projects	GRANTS	\$900,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,500,000
FLOOD	Vista Narrows Project	SALES TAX	\$2,100,000	\$10,850,000	\$24,150,000	\$0	\$0	\$37,100,000
FLOOD	Grand Sierra Resort Berm (South Bank)	SALES TAX	\$0	\$0	\$300,000	\$1,350,000	\$1,350,000	\$3,000,000
FLOOD	Airport Berm (Glendale to Rock South Bank)	SALES TAX	\$0	\$0	\$300,000	\$1,600,000	\$1,600,000	\$3,500,000
FLOOD	TMWA Levee (across from GSR North Bank)	SALES TAX	\$0	\$0	\$600,000	\$2,100,000	\$2,100,000	\$4,800,000
FLOOD	Mill McCarran Terracing, Stream Restoration + Levees	SALES TAX	\$0	\$0	\$400,000	\$500,000	\$1,500,000	\$2,400,000
FLOOD	Levee and Floodwall McCarran to Vista North Bank	SALES TAX	\$0	\$0	\$0	\$200,000	\$500,000	\$700,000
FLOOD	UNR Farms Home Elevation	SALES TAX	\$0	\$0	\$0	\$0	\$150,000	\$150,000
<b>TOTAL TRUCKEE RIVER FLOOD MANAGEMENT AUTHORITY</b>			<b>\$3,000,000</b>	<b>\$11,250,000</b>	<b>\$26,150,000</b>	<b>\$6,150,000</b>	<b>\$7,600,000</b>	<b>\$54,150,000</b>
<b>TOTAL TRUCKEE MEADOWS WATER AUTHORITY</b>			<b>\$66,220,000</b>	<b>\$74,540,000</b>	<b>\$60,895,000</b>	<b>\$39,280,000</b>	<b>\$27,135,000</b>	<b>\$268,070,000</b>
<b>TOTAL WASHOE COUNTY</b>			<b>\$35,973,435</b>	<b>\$51,306,000</b>	<b>\$47,480,000</b>	<b>\$35,448,000</b>	<b>\$35,950,000</b>	<b>\$206,157,435</b>
<b>TOTAL CITY OF RENO</b>			<b>\$80,060,825</b>	<b>\$108,374,333</b>	<b>\$86,874,746</b>	<b>\$61,496,854</b>	<b>\$71,765,609</b>	<b>\$408,572,368</b>
<b>TOTAL CITY OF SPARKS</b>			<b>\$8,315,000</b>	<b>\$19,491,000</b>	<b>\$15,918,000</b>	<b>\$17,943,000</b>	<b>\$24,521,000</b>	<b>\$86,188,000</b>
<b>TOTAL SUN VALLEY GENERAL IMPROVEMENT DISTRICT</b>			<b>\$1,389,000</b>	<b>\$2,668,900</b>	<b>\$1,077,200</b>	<b>\$240,000</b>	<b>\$0</b>	<b>\$5,375,100</b>
<b>TOTAL CENTRAL TRUCKEE MEADOWS REMEDIATION DISTRICT</b>			<b>\$438,179</b>	<b>\$3,212,600</b>	<b>\$151,275</b>	<b>\$1,844,400</b>	<b>\$140,400</b>	<b>\$5,786,854</b>
<b>TOTAL TRUCKEE RIVER FLOOD MANAGEMENT AUTHORITY</b>			<b>\$3,000,000</b>	<b>\$11,250,000</b>	<b>\$26,150,000</b>	<b>\$6,150,000</b>	<b>\$7,600,000</b>	<b>\$54,150,000</b>
<b>GRAND TOTAL</b>			<b>\$195,396,439</b>	<b>\$270,842,833</b>	<b>\$238,546,221</b>	<b>\$162,402,254</b>	<b>\$167,112,009</b>	<b>\$1,034,299,757</b>

vashoe County (Feb. 22nd, 2021), Reno (March 30, 2022), Sparks (Apr 13, 2021), SVGID (Apr 5, 2021), TRFMA (March 12, 2021), and CTMRD. TMWRF costs approved March 2, 2022 by the Joint Coordinating Committee. Allocation between rates and connection fees is approximate - still to be determined.

**Table I.2: TMWA CIP 2026-2040**

TMWA Fee Area	[1]	Fiscal Year Period			TOTAL
		2026-2030	2031-2035	2036-2040	
<i>All Figures in Thousands of Dollars</i>					
<b>AREA 2/2A</b>					
SE Sparks Feeder Mains Ph. 2		\$684,440	\$0	\$0	\$684,440
NE Sparks Feeder Mains Ph. 6		\$6,363,156	\$0	\$0	\$6,363,156
NE Sparks Feeder Mains Ph. 7		\$0	\$2,106,793	\$0	\$2,106,793
<b>AREA 3</b>					
Gooseberry 2nd Source		\$395,692	\$0	\$0	\$395,692
W. 4th St 24" Main		\$3,315,258	\$0	\$0	\$3,315,258
Anselmo BPS & Discharge Main		\$2,523,874	\$0	\$0	\$2,523,874
Truckee River Highlands #2 PS		\$0	\$1,176,382	\$0	\$1,176,382
TRHL PS Discharge & Main Ties		\$0	\$513,330	\$0	\$513,330
<b>AREA 4</b>					
Spanish Springs #2 Suction		\$199,985	\$0	\$0	\$199,985
Spanish Springs #2 Discharge		\$181,804	\$0	\$0	\$181,804
Spanish Springs #2 Cap. Inc.		\$0	\$534,719	\$0	\$534,719
<b>AREA 10</b>					
2.5 MG Fish Springs Tank #2		\$2,416,930	\$0	\$0	\$2,416,930
Peaking Wells		\$4,384,696	\$0	\$0	\$4,384,696
<b>AREA 0</b>					
Oddie-Sullivan 24" Mains		\$3,219,009	\$0	\$0	\$3,219,009
W. Fourth 30" Main		\$598,885	\$0	\$0	\$598,885
Washington 6th, 5th, 9th Main Repl.		\$0	\$0	\$9,143,695	\$9,143,695
<b>AREA 11</b>					
Double Diamond Tanks 2/3A Tie		\$1,411,658	\$0	\$0	\$1,411,658
Veterans Parkway BPS		\$3,315,258	\$0	\$0	\$3,315,258
Double Diamond Well 4 Equipping		\$0	\$0	\$1,604,157	\$1,604,157
Double Diamond Wells Blending Main		\$0	\$0	\$481,247	\$481,247
Double Diamond Well 5 Equipping		\$0	\$0	\$1,604,157	\$1,604,157
Rattlesnake Tank BPS and T-Main		\$0	\$0	\$6,983,431	\$6,983,431
Mia Vista/Loma Vista P/F-F		\$0	\$0	\$1,133,604	\$1,133,604
<b>AREA 12</b>					
0.25 MG Spring Creek Tank 5B		\$534,719	\$0	\$0	\$534,719
1.0 MG Desert Springs Tank 3B		\$1,069,438	\$0	\$0	\$1,069,438
DS Tans 2A/2B Parallel Feeder Main		\$171,110	\$0	\$0	\$171,110
Eagle Canyon Ties & Parallel Main		\$267,360	\$0	\$0	\$267,360
La Posada Ct. Zone Conversion		\$0	\$0	\$139,027	\$139,027
Valle de Sol Ct Zone Conversion		\$0	\$0	\$374,303	\$374,303
Carneros PRS		\$0	\$0	\$85,555	\$85,555
<b>AREA 14</b>					
Prairie Flower Loop		\$160,416	\$0	\$0	\$160,416
Thomas Crk #4 PRS		\$160,416	\$0	\$0	\$160,416
<b>AREA 15</b>					
Sky Terrace Ct CV		\$32,083	\$0	\$0	\$32,083
Callamont Well Equipping		\$0	\$0	\$1,358,186	\$1,358,186
<b>FIRE FLOW PROJECTS</b>					
Steelwood Ln Fire Flow Improvement		\$0	\$0	\$87,694	\$87,694
19th St Fire Flow		\$0	\$0	\$1,336,798	\$1,336,798
LaFond 8" Main		\$0	\$0	\$141,166	\$141,166
Camelot PRS		\$0	\$0	\$80,208	\$80,208
San Mateo PRS		\$0	\$0	\$173,249	\$173,249
Susileen Parallel Main		\$0	\$0	\$217,096	\$217,096
Solari Drive Intertie		\$0	\$0	\$144,374	\$144,374
Willow Tree & Moore Main Replacement		\$0	\$0	\$403,178	\$403,178
Exeter Way Hydrant Relocation		\$0	\$0	\$26,736	\$26,736
Heights Dr. Main Replacements		\$0	\$0	\$192,499	\$192,499
<b>TOTAL FUTURE CIP COST ESTIMATES</b>		<b>\$29,367,000</b>	<b>\$4,050,000</b>	<b>\$24,041,000</b>	<b>\$61,447,772</b>

Source: Truckee Meadows Water Authority Facility Plan.

[1] Excludes infrastructure that developers will be required to build and dedicate.

**Table I.3: 20-Year CIPs for Wastewater Treatment Plants**

<b>Reclamation Facility</b>	<b>Description of Improvements</b>	<b>Estimated Cost [1] 2026-2040</b>
		2021 Dollars
Cold Springs	Expansion phase 2: effluent filter and pump system, solids management, effluent management, disinfection, pumping, storage & distribution	\$72,500,000
Reno-Stead	Currently completing expansion from 2 MGD to 4 MGD at cost of \$55 Million	--
South Truckee Meadows	Expand effluent reuse sites, additional screening and mixing, additional solids management, additional controls	\$52,000,000
Truckee Meadows	DON Removal (TMDL Compliance)	\$26,000,000
<b>TOTAL</b>		<b>\$150,500,000</b>

Source: Washoe County and City of Reno staff.

[1] Very high planning-level estimates subject to change.

**Table I.4: Estimated Costs of New Sewer Collection Systems to Serve New Development**

<b>Agency</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
<b>Cumulative Estimated New Lineal Feet of Sewer Collection</b>				
Reno	295,643	559,349	781,411	960,917
Sparks	132,333	234,946	297,068	377,619
Sun Valley	0	14,741	42,963	52,243
Washoe County	65,351	122,478	161,648	201,137
<b>Cumulative Estimated Cost of New Sewer Collection</b>				
<i>Cost per Lineal Foot [1] \$190</i>				
Reno	\$56,172,200	\$106,276,200	\$148,468,200	\$182,574,300
Sparks	\$25,143,400	\$44,639,700	\$56,442,900	\$71,747,600
Sun Valley	\$0	\$2,800,800	\$8,162,900	\$9,926,200
Washoe County	\$12,416,600	\$23,270,900	\$30,713,200	\$38,216,000
<b>Incremental Estimated Cost of New Sewer Collection</b>				
Reno	\$56,172,200	\$50,104,000	\$42,192,000	\$34,106,100
Sparks	\$25,143,400	\$19,496,300	\$11,803,200	\$15,304,700
Sun Valley	\$0	\$2,800,800	\$5,362,100	\$1,763,300
Washoe County	\$12,416,600	\$10,854,300	\$7,442,300	\$7,502,800

Source: TMRPA, Reno, Sparks, Washoe County, SVGID.

[1] Cost estimate for 8" PVC pipe with Class A backfill - planning level cost of \$150 in April 2021 inflated 25%.

**Table I.5: Estimated Growth in the TMSA by Wastewater Treatment Plant**

Reclamation Facility	2020	Anticipated Cumulative Growth			
		2025	2030	2035	2040
<b>Housing Units by Receiving Treatment Plant</b>					
Truckee Meadows	146,666	155,152	161,774	166,216	170,644
South Truckee Meadows	25,696	27,302	28,592	30,587	31,957
Reno-Stead	8,970	9,375	10,184	10,644	11,079
Cold Springs	3,575	4,119	5,202	5,558	6,218
Lemmon Valley	2,641	3,194	3,506	4,235	4,472
<b>Total</b>	<b>187,548</b>	<b>199,142</b>	<b>209,257</b>	<b>217,240</b>	<b>224,371</b>
<b>Population by Receiving Treatment Plant</b>					
Truckee Meadows	357,376	378,110	394,293	405,130	415,997
South Truckee Meadows	61,598	65,402	68,481	73,204	76,470
Reno-Stead	21,238	22,205	24,132	25,230	26,263
Cold Springs	8,830	10,121	12,681	13,523	15,081
Lemmon Valley	6,418	7,755	8,504	10,251	10,834
<b>Total</b>	<b>455,460</b>	<b>483,593</b>	<b>508,092</b>	<b>527,338</b>	<b>544,646</b>

Source: TMRPA, April 2021.

**Table I.6: Estimated Growth in the TMSA by Jurisdiction**

Jurisdiction	2020	Anticipated Cumulative Growth				Total Change
		2025	2030	2035	2040	
<b>Housing Units by</b>		<i>Cumulative Number of Units</i>				
Reno	113,393	120,974	127,735	133,429	138,032	24,639
Sparks	42,637	45,645	47,977	49,389	51,219	8,582
Sun Valley	6,168	6,168	6,311	6,585	6,675	507
Washoe County [1]	25,350	26,355	27,234	27,837	28,444	3,094
<b>Total</b>	<b>187,548</b>	<b>199,142</b>	<b>209,257</b>	<b>217,240</b>	<b>224,371</b>	<b>36,823</b>
<b>Population by</b>		<i>Cumulative Population</i>				
Reno	267,607	285,498	301,455	314,893	325,755	58,148
Sparks	110,003	117,763	123,780	127,422	132,146	22,142
Sun Valley	15,235	15,235	15,588	16,265	16,488	1,253
Washoe County [1]	62,615	65,098	67,269	68,757	70,258	7,643
<b>Total</b>	<b>455,460</b>	<b>483,593</b>	<b>508,092</b>	<b>527,338</b>	<b>544,646</b>	<b>89,186</b>

Source: TMRPA, April 2021.



**Table I.7: Estimated Lineal Feet of Sewer Line per Housing Unit**

<b>Agency</b>	<b>Collection System Miles</b>	<b>Housing Units Served</b>	<b>Miles per Housing Unit</b>	<b>Lineal Feet Sewer Line per Housing Unit</b>
		[2]		rounded
Reno [1]	842	113,393	0.0074	39
Sparks	356	42,637	0.0084	44
Sun Valley	120	6,168	0.0195	103
Washoe County	310	25,350	0.0122	65

Source: Reno, Sparks, Washoe County, SVGID.

[1] Reno does not own the line from the main to the property line.

[2] Data provided by TMRPA, April 2021. While these numbers may not exactly match each agency's records, it is used to keep apples-to-apples comparisons.

**Table I.8: Water Systems Depreciation**

<b>Item</b>	<b>TMWA</b>	<b>Sun Valley</b>
Salaries and benefits	\$31,157,340	
Services and supplies	\$28,475,960	
<b>Subtotal Operating Expenses</b>	<b>\$59,633,300</b>	<b>\$1,814,899</b>
<b>Depreciation</b>	<b>\$32,833,604</b>	<b>\$654,167</b>
Total Operating Expenses	\$92,466,904	\$2,469,066
Depreciation as % of Operating Expenses	55%	36%

Source: 2019 Comprehensive Annual Financial Report for each agency.

**Table I.9: Wastewater Systems Depreciation**

Item	Fiscal Year Ended June 30, 2019			
	Reno [1]	Sparks [2]	County [3]	Sun Valley [4]
Salaries and benefits	\$10,436,106	\$4,477,933	\$2,794,293	
Services and supplies	\$13,394,592	\$10,817,700	\$12,702,459	
Joint sewer plant	\$14,120,130	\$2,318,494		
<b>Subtotal Operating Expenses</b>	<b>\$37,950,828</b>	<b>\$17,614,127</b>	<b>\$15,496,752</b>	<b>\$1,497,187</b>
<b>Depreciation</b>	<b>\$11,205,677</b>	<b>\$7,238,804</b>	<b>\$3,520,656</b>	<b>\$663,580</b>
Total Operating Expenses	\$49,156,505	\$24,852,931	\$19,017,408	\$2,160,767
Depreciation as % of Operating Expenses	30%	41%	23%	44%

Source: 2019 Comprehensive Annual Financial Report for each agency.

[1] Includes wastewater and storm drain operating expenses.

[2] Includes storm drain, wastewater, and flood mitigation operating expenses.

[3] Includes wastewater, storm drain and flood mitigation operating expenses.

[4] CAFR does not split water and wastewater activities. Costs split 50/50 with the exception of purchased water.

**Table J.1: Current Single Family Residential Water Rate Schedules by Agency**

**TMWA Residential Water Service Rate Schedule**

<b>Service Size</b>		<b>Base Charge</b>	
3/4-inch		\$20.16	
1-inch		\$22.18	
1 1/2-inch		\$25.23	

<b>Volume Charge</b>	<b>Charge per</b>	<b>Tier</b>
<b>Range of Use (in Gallons)</b>	<b>1,000 gallons</b>	
Zero to 6,000	\$1.87	Tier 1
6,001 to 25,000	\$3.02	Tier 2
greater than 25,000	\$3.54	Tier 3

**TMWA - OLD STMGID Residential Water Service Rate Schedule**

<b>Service Size</b>		<b>Base Charge</b>	
3/4-inch		\$10.32	
1-inch		\$12.63	
1 1/2-inch		\$17.91	

<b>Volume Charge</b>	<b>Charge per</b>	<b>Tier</b>
<b>Range of Use (in Gallons)</b>	<b>1,000 gallons</b>	
Zero to 6,000	\$1.48	Tier 1
6,001 to 20,000	\$1.96	Tier 2
20,001 to 40,000	\$2.40	Tier 3
40,001 to 65,000	\$2.81	Tier 4
greater than 65,000	\$2.97	Tier 5

**TMWA - OLD DWR Residential Water Service Rate Schedule**

<b>Service Size</b>		<b>Base Charge</b>	
3/4-inch		\$18.95	
1-inch		\$24.38	
1 1/2-inch		\$34.87	

<b>Volume Charge</b>	<b>Charge per</b>	<b>Tier</b>
<b>Range of Use (in Gallons)</b>	<b>1,000 gallons</b>	
Zero to 6,999	\$2.85	Tier 1
7,000 to 20,999	\$3.56	Tier 2
21,000 to 40,999	\$4.27	Tier 3
greater than 41,000	\$5.71	Tier 4

**SVGID Residential Water Service Rate Schedule**

<b>Service Size</b>		<b>Base Charge</b>	
3/4-inch		\$24.00	
1-inch		\$26.02	
1 1/2-inch		\$30.04	

<b>Volume Charge</b>	<b>Charge per</b>
<b>Range of Use (in Gallons)</b>	<b>1,000 gallons</b>
Uniform Charge	\$2.40

Source: TMWA rate schedules effective June 1, 2021, and SVGID rates effective June 1, 2021.

**Table J.2: Comparison Bills for a Single Family Residential Customer using 15,000 Gallons / Month**

Bill Component	TMWA			SVGID
	OLD STMGID	OLD DWR	TMWA	
	[1]	[1]		
<b>Base Monthly Charges</b>				
Service Charge	\$10.32	\$18.95	\$20.16	\$24.00
<b>Subtotal Base</b>	<b>\$10.32</b>	<b>\$18.95</b>	<b>\$20.16</b>	<b>\$24.00</b>
<b>Volume Charges</b>	<b>15,000</b>	<b>gallons</b>		
Tier 1	\$8.88	\$19.95	\$11.22	\$36.00
Tier 2	\$17.64	\$28.48	\$27.18	\$0.00
Tier 3	\$0.00	\$0.00	\$0.00	\$0.00
Tier 4	\$0.00	\$0.00	\$0.00	\$0.00
Tier 5	\$0.00	\$0.00	\$0.00	\$0.00
<b>Subtotal Volume</b>	<b>\$26.52</b>	<b>\$48.43</b>	<b>\$38.40</b>	<b>\$36.00</b>
<b>Total Base and Volume Charges</b>	<b>\$36.84</b>	<b>\$67.38</b>	<b>\$58.56</b>	<b>\$60.00</b>
<b>Other (Pass Through Charges to Other Agencies)</b>				
Right of Way Toll (5%) [2]	\$1.84	\$3.37	\$2.93	\$0.00
Regional Water Management Fee (1.5%)	\$0.55	\$1.01	\$0.88	\$0.90
CTM Remediation District [3]	\$0.63	\$0.63	\$0.63	\$0.63
<b>Subtotal Other Charges</b>	<b>\$3.02</b>	<b>\$5.01</b>	<b>\$4.43</b>	<b>\$1.53</b>
<b>Total Monthly Charges</b>	<b>\$39.86</b>	<b>\$72.38</b>	<b>\$62.99</b>	<b>\$61.53</b>

Source: City of Reno, City of Sparks, Washoe County, SVGID

[1] Closed tariff. All new customers will pay TMWA rates.

[2] Although SVGID customers do not pay a right of way toll; wholesale water charges include a right of way toll which customers absorb in their rates.

[3] Fiscal year 2021/22 average fee for Benefit Group A (residential customers outside the contaminated area).

**Table J.3: Current Multi-Family Residential Water Rate Schedules by Agency**

**TMWA Residential Water Service Rate Schedule**

<b>Service Size</b>	<b>Base Charge</b>		
3/4-inch	\$20.16		
1-inch	\$22.18		
1 1/2-inch	\$25.23		
<b>Volume Charge</b>		<b>Charge per</b>	
<b>Range of Use (in Gallons)</b>		<b>1,000 gallons</b>	<b>Tier</b>
		[1]	
Zero to	4,000	\$1.87	Tier 1
greater than	4,000	\$3.02	Tier 2

**TMWA - OLD STMGID Residential Water Service Rate Schedule**

<b>Service Size</b>	<b>Base Charge</b>		
3/4-inch	\$10.32		
1-inch	\$12.63		
1 1/2-inch	\$17.91		
<b>Volume Charge</b>		<b>Charge per</b>	
<b>Range of Use (in Gallons)</b>		<b>1,000 gallons</b>	<b>Tier</b>
Zero to	6,000	\$1.48	Tier 1
6,001 to	20,000	\$1.96	Tier 2
20,001 to	40,000	\$2.40	Tier 3
40,001 to	65,000	\$2.81	Tier 4
greater than	65,000	\$2.97	Tier 5

**TMWA - OLD DWR Residential Water Service Rate Schedule**

<b>Service Size</b>	<b>Base Charge</b>		
3/4-inch	\$18.95		
1-inch	\$24.38		
1 1/2-inch	\$34.87		
<b>Volume Charge</b>		<b>Charge per</b>	
<b>Range of Use (in Gallons)</b>		<b>1,000 gallons</b>	<b>Tier</b>
Zero to	28,999	\$2.85	Tier 1
29,000 to	150,999	\$3.56	Tier 2
151,000 to	600,999	\$4.27	Tier 3
greater than	601,000	\$5.71	Tier 4

**SVGID Residential Water Service Rate Schedule**

<b>Service Size</b>	<b>Base Charge</b>		
3/4-inch	\$24.00	plus, for each additional unit served:	
1-inch	\$26.02	\$24.00	
1 1/2-inch	\$30.04		
<b>Volume Charge</b>		<b>Charge per</b>	
<b>Range of Use (in Gallons)</b>		<b>1,000 gallons</b>	
Uniform Charge		\$2.40	

Source: TMWA rate schedules effective June 1, 2021, and SVGID rates effective June 1, 2021.

[1] Multiplied by number of units per billing period.

**Table J.4: Comparison Charges for Multi-Family Residential Customer using 8,000 Gallons / Month**

Bill Component	TMWA			SVGID
	OLD STMGID	OLD DWR	TMWA	
	[1]	[1]		[2]
<b>Base Monthly Charges</b>				
Service Charge [2]	\$10.32	\$18.95	\$20.16	\$24.00
<b>Subtotal Base</b>	<b>\$10.32</b>	<b>\$18.95</b>	<b>\$20.16</b>	<b>\$24.00</b>
<b>Volume Charges</b>	<b>8,000</b>	<b>gallons</b>		
Tier 1	\$11.84	\$22.80	\$7.48	\$19.20
Tier 2	\$0.00	\$0.00	\$12.08	\$0.00
Tier 3	\$0.00	\$0.00	\$0.00	\$0.00
Tier 4	\$0.00	\$0.00	\$0.00	\$0.00
Tier 5	\$0.00	\$0.00	\$0.00	\$0.00
<b>Subtotal Volume</b>	<b>\$11.84</b>	<b>\$22.80</b>	<b>\$19.56</b>	<b>\$19.20</b>
<b>Total Base and Volume Charges</b>	<b>\$22.16</b>	<b>\$41.75</b>	<b>\$39.72</b>	<b>\$43.20</b>
<b>Other (Pass Through Charges to Other Agencies)</b>				
Right of Way Toll (5%) [3]	\$1.11	\$2.09	\$1.99	\$0.00
Regional Water Management Fee (1.5%)	\$0.33	\$0.63	\$0.60	\$0.65
CTM Remediation District [4]	\$0.38	\$0.38	\$0.38	\$0.38
<b>Subtotal Other Charges</b>	<b>\$1.82</b>	<b>\$3.09</b>	<b>\$2.96</b>	<b>\$1.02</b>
<b>Total Monthly Charges</b>	<b>\$23.98</b>	<b>\$44.84</b>	<b>\$42.68</b>	<b>\$44.22</b>

Source: City of Reno, City of Sparks, Washoe County, SVGID

[1] Closed tariff. All new customers will pay TMWA rates.

[2] The SVGID service charge is multiplied by the number of units.

[3] The toll applies to customers within the city limits of Reno and Sparks. Although SVGID customers do not pay a right of way toll; wholesale water charges include a right of way toll which customers absorb in their rates.

[4] FY 2021/22 average fee for Benefit Group A multiplied by 60% (MF units use less water than SF units).

**Table J.5: Current Residential Sewer Rate Schedules by Agency**

<b>Agency</b>	<b>Base Charge</b>	<b>Usage Charge per 1,000 Gallons</b>
<b>Single Family</b>		
Reno	\$50.26	\$0.00
Washoe County	\$51.00	\$0.00
Sparks [1]	\$40.51	\$0.00
SVGID	\$17.14	\$4.29
<b>Multi-Family</b>		
	per unit	
Reno	\$41.37	\$0.00
Washoe County	\$51.00	\$0.00
Sparks [1]	\$34.65	\$0.00
SVGID	\$17.14	\$4.29

Source: City of Reno website April 2022, Washoe County rates effective Jan. 1, 2022, City of Sparks Municipal Code Title 13, and SVGID website April 2022.

[1] Sparks' monthly charge includes a flood and storm drain rate.



**Table J.6: Comparison of Combined Water and Sewer Bill for Single Family and Multi-Family Residential**

Unit	Reno	Sparks	Washoe County	SVGID
<b>Single Family</b>	<i>15,000 gallons of water usage</i>			[1], [2]
Water	\$62.99	\$62.99	\$72.38	\$61.53
Sewer [1]	\$50.26	\$40.51	\$51.00	\$42.88
<b>Total</b>	<b>\$113.25</b>	<b>\$103.50</b>	<b>\$123.38</b>	<b>\$104.41</b>
<b>Multi-Family</b>	<i>8,000 gallons of water usage</i>			
Water	\$42.68	\$42.68	\$44.84	\$44.22
Sewer [2]	\$41.37	\$34.65	\$51.00	\$34.30
<b>Total</b>	<b>\$84.05</b>	<b>\$77.33</b>	<b>\$95.84</b>	<b>\$78.52</b>

Source: City of Reno, City of Sparks, Washoe County, SVGID

[1] SVGID bills single family sewer customers based on average winter months water consumption of 6,000 gallons.

[2] SVGID bills multi-family sewer customers based on average winter months water consumption of 4,000 gallons.

**Table J.7: Current Sewer Connection Fees**

Name	Single Family <i>per unit</i>	Multi-Family <i>per unit</i>	Residential Unit Shared Kitchen or Rooming		Industrial/ Commercial <i>per fixture</i>
			House Kitchen <i>per bedroom</i>	Rooming House <i>per room rental</i>	
	[1]	[2]			[3]
<b>Reno [1],[2],[3]</b>	\$6,376	\$5,445	\$2,271	\$2,041	\$295
<b>Sparks [5]</b>	\$6,817				\$315
<b>Washoe County</b>	\$5,800	\$5,800			\$310
<b>SVGID [4]</b>					
3/4"	\$6,340				
1"	\$7,982				
1.5"	\$10,582				
2"	\$13,482				
3"	\$20,482				
4"	\$30,482				
6"	\$55,482				

Source: Reno Municipal Code 12.16, Sparks Municipal Code 13, Washoe County correspondence February 2022, SVGID current tariff schedule.

[1] Reno - mobile home estates or subdivisions pay the same rate as single family per mobile unit space.

[2] Reno - mobile home parks pay the multi-family fee per space.

[3] Reno's industrial connection fee cannot be less than a single family connection fee.

[4] SVGID charges all customer categories based on meter size.

**Table J.8: Current Water Connection Fees**

Name	TMWA Area #	Area Facility Cost	Supply and Treatment Facility Cost	Storage Facility Cost	Total
<b>Sun Valley GID Fee per New Connection</b>					<b>\$7,381</b>
<b>Truckee Meadows Water Authority [1]</b>		<i>\$ per GPM</i>	<i>\$ per GPM</i>	<i>\$ per GPM</i>	<i>\$ per GPM</i>
Central Reno	0	\$0	\$6,957	\$1,287	<b>\$8,244</b>
South Truckee Meadows	1	\$3,440	\$6,957	\$1,287	<b>\$11,684</b>
Sparks - East Reno	2	\$2,811	\$6,957	\$1,287	<b>\$11,055</b>
Sparks - Inside McCarran Blvd	2A	\$1,406	\$6,957	\$1,287	<b>\$9,650</b>
Northwest Reno - Northgate/Mogul	3	\$3,258	\$6,957	\$1,287	<b>\$11,502</b>
Sparks - Pyramid/Spanish Springs	4	\$4,167	\$6,957	\$1,287	<b>\$12,411</b>
Sparks - The Vistas	5	\$8,179	\$6,957	\$1,287	<b>\$16,423</b>
Sun Valley - Sullivan Pump Zones	6	\$4,354	\$6,957	\$1,287	<b>\$12,598</b>
Verdi	7	\$44,128	\$6,957	\$0	<b>\$51,085</b>
Sierra - North Virginia Pump Station	8	\$11,199	\$6,957	\$1,287	<b>\$19,443</b>
Lakeridge - Plumas Pump Station	9	\$2,878	\$6,957	\$1,287	<b>\$11,122</b>
Stead - Silver Lake- Lemmon Valley [2]	10	\$6,695	\$6,957	\$0	<b>\$13,652</b>
Southeast Truckee Meadows	11	\$5,751	\$6,957	\$0	<b>\$12,708</b>
Spanish Springs	12	\$9,097	\$6,957	\$0	<b>\$16,054</b>
Heppner [3]	13A	\$2,115	\$0	\$0	<b>\$2,115</b>
Arrowcreek/Mt. Rose [4]	15	\$14,624	\$0	\$0	<b>\$14,624</b>
Truckee Canyon		\$7,551	\$6,957	\$0	<b>\$14,508</b>
Stampmill, Sunrise Estates, Old Washoe Estates and Lightning W		\$0	\$6,957	\$0	<b>\$6,957</b>

Source: SVGID current tariff schedule and Truckee Meadows Water Authority WSF Rate Schedule effective January 31, 2022.

[1] TMWA costs are the unit cost in dollars per gallons per minute of Maximum Day Demand.

[2] Growth dedicating Fish Springs groundwater resources have a Supply and Treatment Facility Unit Cost of \$0.

[3] Charge Area 13a is subject to an additional charge of \$5,490 per lot for on-site distribution improvements.

[4] Component of fee includes estimated cost of acquiring supplemental resource supply. Fee may be reduced to \$10,286 upon Applicant dedication of an acceptable combination of groundwater and creek water rights to satisfy supplemental conjunctive use supply as determined by the Authority pursuant to its Rule 7.