



Water and Sewer Connection Fee Study

Final Report
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LIST OF ACRONYMS

- ADD – average day demand
- ADF – average day flow
- BOD – biochemical oxygen demand
- EDU – equivalent dwelling unit
- ENR CCI – Engineering News Record’s Construction Cost Index
- Gpd – gallons per day
- LF – linear feet
- LS – lump sum
- MGD – million gallons per day
- Mg/l – milligrams per liter
- MKN – Michael K. Nunley and Associates
- RCNLD – replacement cost new less depreciation
- SF – single family
- Sq – square feet
- TM – technical memoranda
- TSS – total suspended solids
- WWTP – wastewater treatment plant

SECTION 1: INTRODUCTION AND EXECUTIVE SUMMARY

1.1 Background

The purpose of this report is to update the water, wastewater treatment, and sewer trunk line connection fees charged by the City of Tehachapi (City) to new development connecting to the City's utilities. The City's current fees have not been updated in over a decade and no longer reflect current development projections and infrastructure needs. Lechowicz & Tseng Municipal Consultants (L&T) was selected as part of the Michael K. Nunley & Associates, Inc. (MKN) team to conduct a Water and Sewer Systems Modeling, Planning, and Fee Studies Update for the City of Tehachapi. This report draws upon information provided by MKN in the Water Model Report (Final October 2019) and Sewer Model Report (Final October 2019) to calculate updated connection fees.

Connection fees (also called impact fees or capacity fees) are one-time hookup fees intended to recover the capital cost of facilities needed to serve new development. Connection fees do not collect revenues to cover the costs of maintenance, operations, or repairs. Instead, these on-going costs are recovered through rates and charges billed monthly to customers. The MKN reports provide detailed information regarding the need to provide new or expanded facilities to accommodate growth and the estimated construction cost of facilities.

1.2 Current Connection Fees

The City has two types of connection fees: City-wide fees and sewer trunk service area fees. The water City-wide fee recovers the cost of water system assets throughout Tehachapi's sphere of influence consisting of wells, tanks, and transmission and distribution lines. The wastewater (sewer) City-wide fee recovers the cost of the wastewater treatment plant and other sewer assets that benefit the entire service area. All new development throughout the City pays water and sewer City-wide fees upon connection.

The City of Tehachapi also charges area-specific fees for the Downtown development area, Industrial (Dennison) area, Mountain View area, and Tucker area. These fees recover the cost of sewer trunk lines that only benefit their respective development areas. Consequently, the fees are only charged to new development in each service area.

A summary of the current water and sewer connection fees is provided in Table 1. The connection fees are expressed as \$/equivalent dwelling units (EDUs). One water EDU represents the estimated daily water demand of a single family residence. For the sewer system and trunk line service areas, an EDU is defined as the daily wastewater flow of a single family residence. As shown in Table 1, the connection fees have been updated at various intervals over the last 20 years. Each connection fee report used different development projections. As such, the underlying assumptions regarding the estimated water demand and sewer flow of an EDU varies across the reports. This updated report standardizes the definition of an EDU for the various fees.

Table 1: Current Connection Fees
Water and Sewer Connection Fees
City of Tehachapi

Fee	Development Area	Last Updated	Current Fee Amount per EDU
Water Connection Fee	City-wide	June 2007	\$6,780
Sewer Treatment and Disposal Fee	City-wide	May 2006	\$7,259
Downtown Trunk Fee	Downtown sewer service area	January 2006	\$927
Industrial Trunk Fee	Airport area, Nunes Ranch area, and other areas generally east of Dennison Road	November 1995	\$300
Mountain View Trunk Fee	Mountain View sewer service area	December 2006	Not defined
Tucker Trunk Fee	Tucker sewer service area	January 1998	\$600

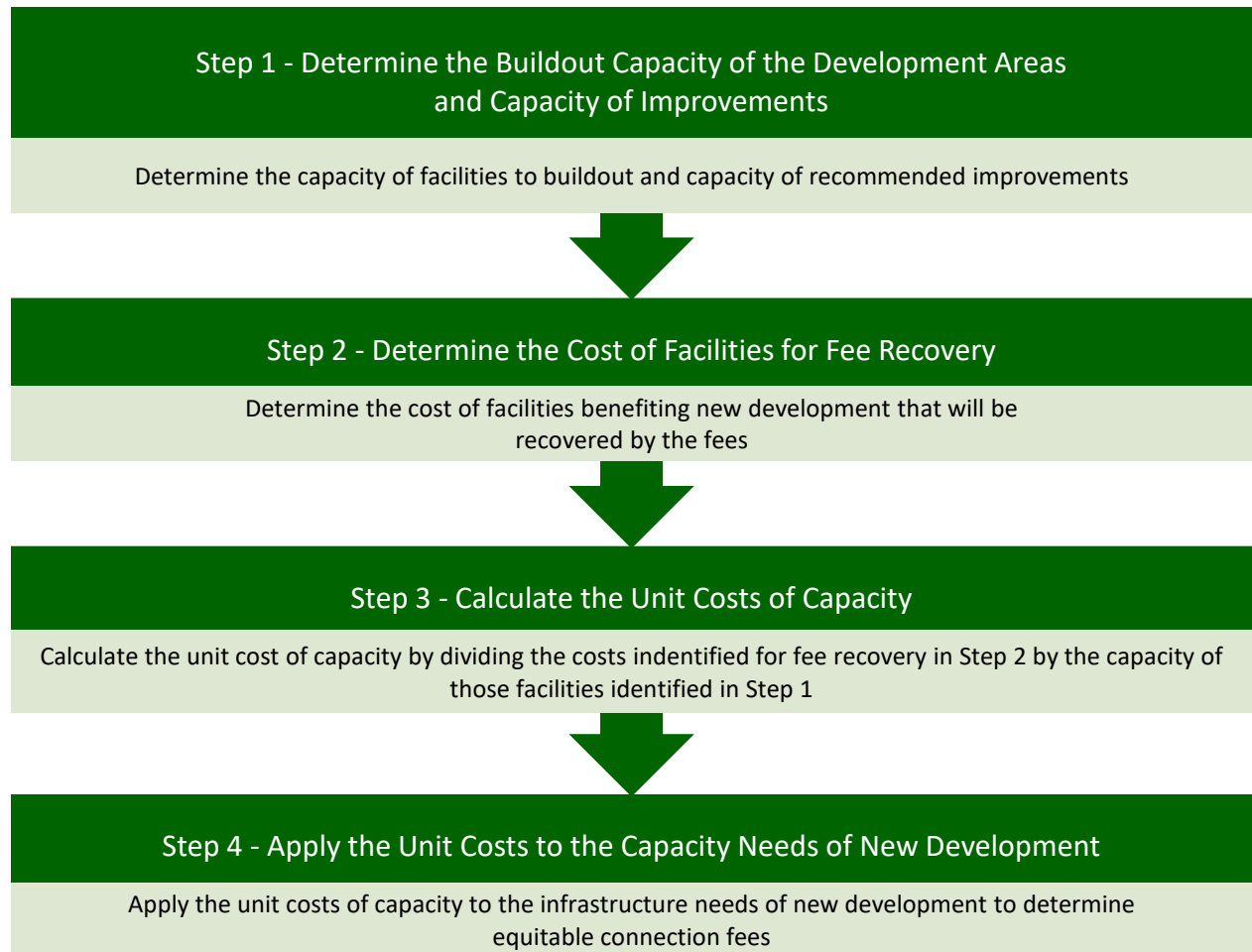
EDU – equivalent dwelling unit (i.e. a single family residence)

1.3 Legal Requirements

California Government Code Sections 66013, 66016, and 66022 describe the legal requirements pertaining to establishing connection fees. Absent a 2/3 vote, fees must be proportional to the cost of providing facilities to serve new development. Essentially, public agencies must identify facilities that benefit growth and determine a fair value or cost of those facilities. The cost of facilities attributable to new development must be proportional to the capacity used by new development. This report provides an administrative record to identify and document the facilities benefitting growth, the cost and capacity of such facilities, and the calculation of proposed connection fees.

1.4 Connection Fee Study Process

The fee study process is summarized in the figure below.



1.5 Proposed Fees

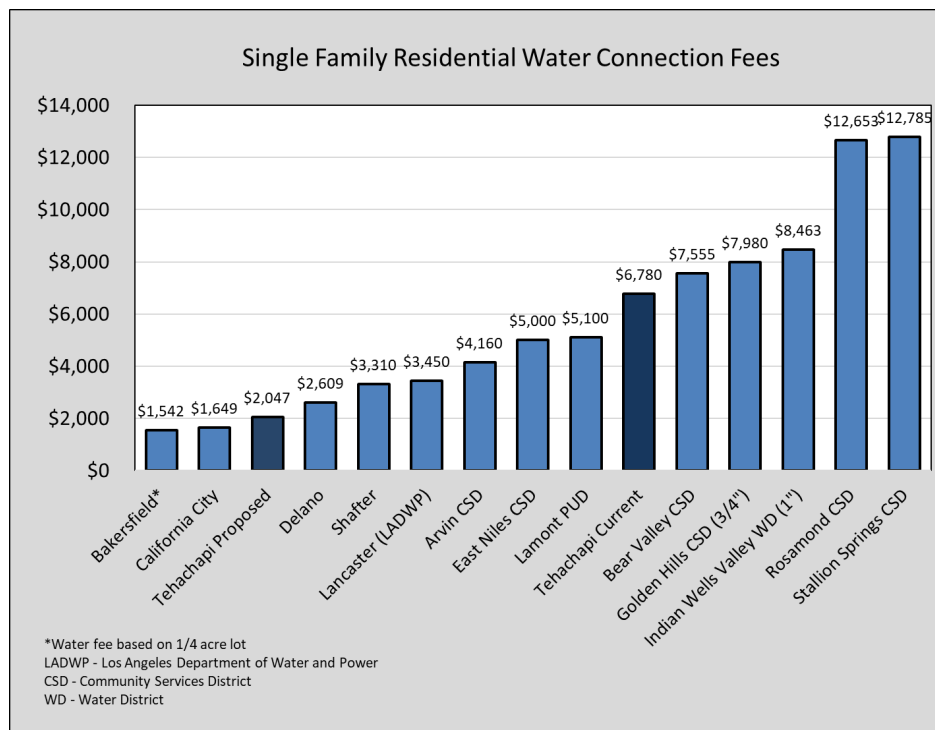
The current and proposed fees are provided in Table 2.

**Table 2: Current and Proposed Connection Fees
Water and Sewer Connection Fees
City of Tehachapi**

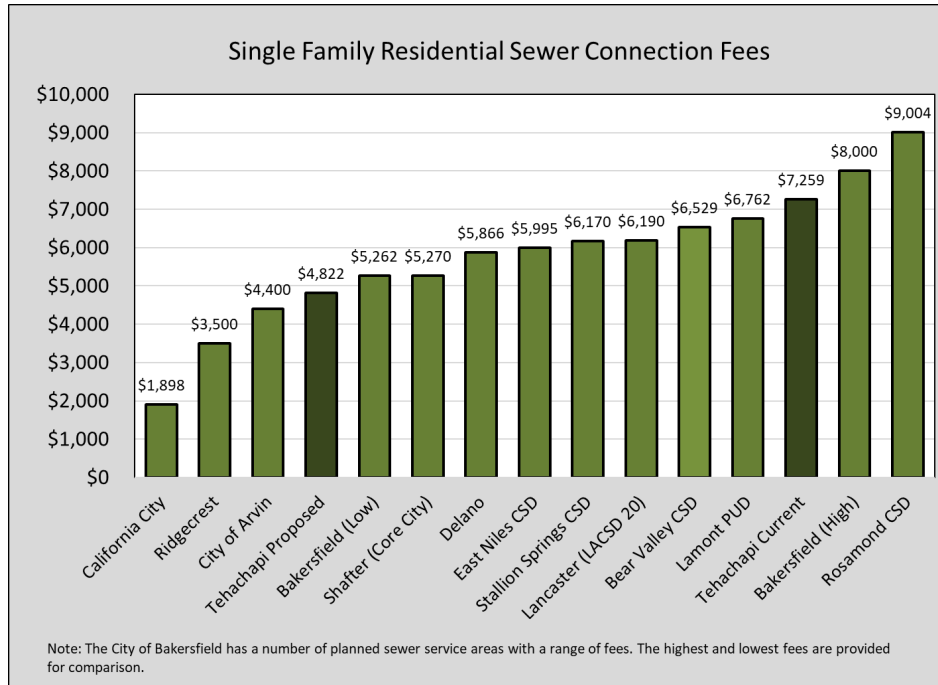
Fee	Development Area	Current Fee Amount per EDU	Proposed Fee Amount per EDU
Water Connection Fee	City-wide	\$6,780	\$2,047 [1]
Sewer Treatment and Disposal Fee	City-wide	\$7,259	\$4,822
Downtown Trunk Fee	Downtown sewer service area	\$927	\$552
Industrial Trunk Fee	Airport area, Nunes Ranch area, and other areas generally east of Dennison Road	\$300	\$52
Mountain View Trunk Fee	Mountain View sewer service area	Not defined	\$612
Tucker Trunk Fee	Tucker sewer service area	\$600	\$1,935

1 – Does not include water rights or additional sources of supply that may be needed to serve growth

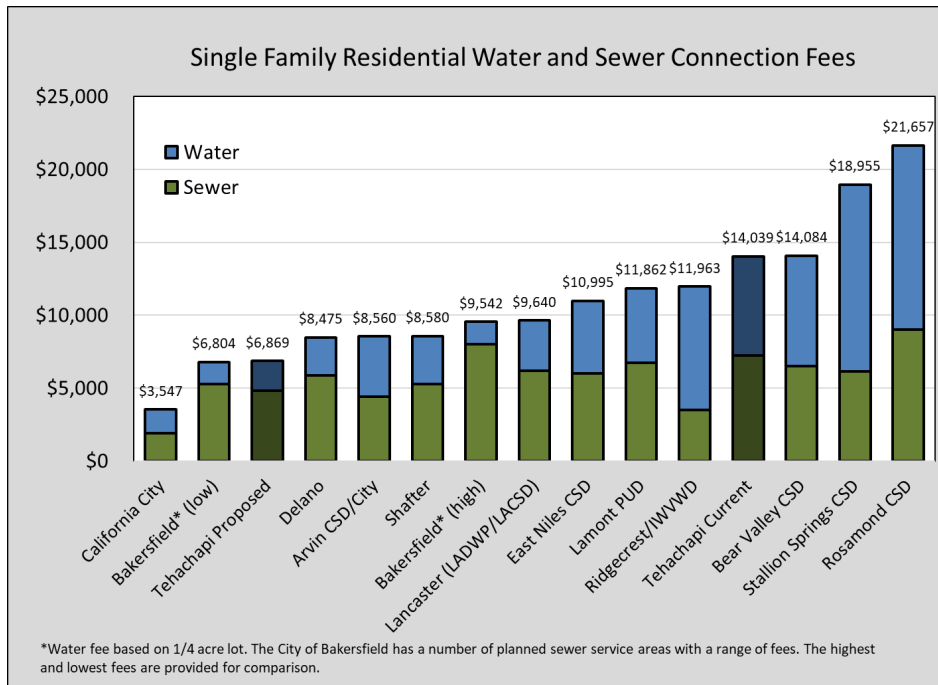
Provided below is a chart comparing the City's current and proposed water connection fees with the fees charged by other comparable public agencies. The City's current fee is in the middle range of surveyed connection fees and the proposed fee is in the lower end of surveyed fees.



The chart below compares the City's current and proposed sewer connection fees with the fees charged by other local agencies. The City's current fee is in the higher range of surveyed agencies and the proposed fee is in the lower range.



Provided below is a chart comparing the combined water and sewer fees with the fees of other local agencies.



SECTION 2: LEGAL REQUIREMENTS AND METHODOLOGY

This section provides a review of the economic and legal foundations for connection fees. The basic economic philosophy behind the imposition of connection fees is that the costs of providing infrastructure should be paid by new connections receiving the benefits of the infrastructure so that no one group subsidizes any other group (such as existing ratepayers subsidizing improvements that only benefit new development). In establishing any fee or charge, achieving equity is one of the primary goals. In the case of connection fees, this goal has been expressed in the form of “growth should pay for growth.”

2.1 Legal Requirements

In California, Government Code Section 66013, 66016, and 66022 address the implementation of connection fees (also called capacity fees or development impact fees). Government Code 66013 states:

(a) Notwithstanding any other provisions of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.

(b) As used in this section

- (1) “Sewer connection” means the connection of a building to a public sewer system.
- (2) “Water connection” means the connection of a building to a public water system, as defined in subdivision (e) of Section 4010.1 of the Health and Safety Code.
- (3) “Capacity charges” means charges for facilities in existence at the time the charge is imposed or charges for new facilities to be constructed in the future which are of benefit to the person or property being charged.
- (4) “Local agency” means a local agency as defined in Section 66000.

(c) Any judicial action or proceeding to attack, review, set aside, void, or annul the ordinance, resolution, or motion imposing a fee or capacity charge subject to this section shall be brought pursuant to Section 66022.

2.2 Fee Methodologies

There are several industry standard methodologies for calculating connection fees. It is recommended that the City of Tehachapi use a combination of the methodologies to best reflect the status of its infrastructure.

2.2.1 Buy-in Method

The buy-in concept is most appropriate for existing infrastructure that has excess capacity to serve new connections through buildout. This method is based on the premise that new development should pay an amount equal to the investment already made by existing ratepayers in the facilities. Once a new connection has paid its fee, the new connection becomes equivalent to existing ratepayers and shares the responsibility for existing facilities via the payment of utility rates. The value of existing facilities is calculated using the reproduction cost new less depreciation (RCNLD) method.

2.2.2 Expansion or Incremental Cost Method

When new development connects to the City's water and sewer systems, it either uses reserve capacity available in existing facilities or requires new capacity to accommodate its needs. Under the expansion method, new development pays the marginal cost for new facilities necessary to provide service to it. The goal of this method is to minimize or eliminate the need to increase utility rates in order to provide for system expansion. As an example, the incremental method is the recommended method for the new water production well. The well solely benefits new connections and would not be needed absent development (i.e. the project is "triggered" by growth).

SECTION 3: CAPACITY

This section determines the capacity of the water and sewer infrastructure included in the connection fees.

3.1 City-wide Capacity

The water and sewer City-wide fees proposed in this report use the 10-year buildout capacities provided by MKN in the Water Model Report (October 2019) and Sewer Model Report (October 2019), see Table 3 and Table 4. The current water system average day demand (ADD) is 1.52 million gallons per day (MGD). Water demand is predicted to increase to about 2.24 MGD over the next ten years. The current sewer system capacity is about 760,000 gallons per day (average day flow; ADF). New connections are projected to add about 480,000 gallons of flow through 2029. Under a 10-year buildout scenario, new customers are estimated to make up about 32% of water demand and 39% of City-wide sewer flows.

**Table 3: Water System City-wide Capacity
Water and Sewer Connection Fees
City of Tehachapi**

Customer Category	Gallons per day	%
Existing Average Day Demand	1,520,000	68%
Future Customers Average Day Demand	<u>720,000</u>	32%
Total 10-year Buildout	2,240,000	

**Table 4: Sewer System City-wide Capacity
Water and Sewer Connection Fees
City of Tehachapi**

Customer Category	Gallons per day	%
Existing Average Day Flow	760,000	61%
Future Customers Average Day Flow	<u>480,000</u>	39%
Total 10-year Buildout	1,240,000	

To provide wastewater treatment for new customers, the City projects an expansion of the treatment plant from 1.25 MGD to 2.0 MGD. Expansion of 0.75 MGD is triggered by growth and does not benefit existing customers.

3.2 Sewer Trunk Area Capacities

The table below provides capacities of the sewer trunk areas expressed as average day flow. The capacities of the Downtown, Industrial, and Tucker trunk services areas were estimated by MKN based on the maximum capacity of the most downstream trunk segment for each area. The buildout flow of the Mountain View service area was taken from the prior Mountain View service area evaluation study.

**Table 5: Capacities of the Sewer Trunk Areas
Water and Sewer Connection Fees
City of Tehachapi**

Trunk Fee Area	Existing Flow	Incremental Flow	2029 Total Capacity (ADF, gpd)
Downtown Trunk	347,040	164,160	511,200
Industrial Trunk	125,280	184,320	309,600
Mountain View Trunk	NA	NA	580,000
Tucker Trunk	74,880	72,000	146,880

Note: Average day flow of each trunk fee area was determined by MKN; the flow for the Mountain View service area was taken from the 2006 report

SECTION 4: COST OF CAPACITY

This section calculates the cost of capacity for City-wide facilities. As described in prior sections, the proposed costs of capacity include both a buy-in component and an expansion component.

4.1 Water Cost of Capacity

4.1.1 Water Buy-in

The buy-in to existing water infrastructure is calculated using the replacement cost new less depreciation (RCNLD) method of valuation. The original construction cost of facilities less accumulated depreciation (i.e. net book value) is escalated to current dollars based on the change in the Engineering News Record's Construction Cost Index. The economic philosophy supporting the RCNLD method is the concept that value should reflect the age and condition of assets (depreciation) as well as the City's investment and maintenance of the facilities to date (escalation to current dollars). The assets' construction date, original cost, and accumulated depreciation was taken from the City's fixed asset list.

The RCNLD value of water system pipelines is reduced by about 3% (see Table 6) to reflect deficient mains that are proposed to be replaced. It is recommended that the City replace about 10,000 linear feet (LF) of mains that are either substandard or would be deficient under fire flow conditions. These improvements should be funded via utility rates collected from existing customers. New customers should not pay a buy-in fee for substandard water mains and then also pay to replace the same mains via utility rates after they connect.

**Table 6: Water Pipeline Adjustment
Water and Sewer Connection Fees
City of Tehachapi**

Pipelines	Linear Feet
City-wide water distribution system	322,974
Pipelines to be replaced:	
Replacement of pipelines for fire flow	3,453
Replacement of substandard mains	<u>6,400</u>
Subtotal	9,853
Pipelines to be replaced as % of City-wide distribution system	3.05%

The buy-in to the City's water system is calculated to be about \$6.1 million as shown in Table 7.

**Table 7: Water Buy-in
Water and Sewer Connection Fees
City of Tehachapi**

Facilities [1]	Sum of RCNLD [2]
Buildings	\$6,099
Land [3]	\$25,522
Machinery & Equipment	\$341,402
Other Improvements	\$114,887
Pipelines	\$641,111
Less Pipeline Adjustment (-3.05%)	(\$19,558)
Tanks	\$2,359,893
Wells	<u>\$2,613,366</u>
Total Buy-in	\$6,082,723

1 - Water rights are excluded

2 - RCNLD = Replacement Cost New Less Depreciation

3 - Land does not depreciate; original purchase price shown here

4.1.2 Water Expansion Cost

In the Water Model Report (Final October 2019), MKN provides a list of recommended improvements for the City’s water system. MKN provides an opinion of probable cost for these projects in current dollars (August 2019) and an escalation to August 2024. The City has elected to use 2024 construction costs for the purpose of determining the connection fees. The buildout horizon used in this report is 10 years and 2024 represents the mid-point.¹ MKN report also discusses the need to secure new water rights to accommodate growth. The cost or effort required to secure new water rights are not within the scope of this evaluation.

The City, MKN, and L&T allocated project costs identified in the Water Model Report between developers, existing customers, and future customers as follows:

- Costs associated with correcting fire flow deficiencies and the replacement of substandard water mains are solely allocated to existing customers. These projects will be funded via utility rate revenues and are excluded from the connection fee calculation. New customers should not pay for infrastructure that has been degraded through its service to the City’s current customer base.
- The new production well is solely allocated to future customers and will be recovered via connection fees. This project is triggered by new development.

¹ The City also considered adopting fees based on the 2019 construction costs plus financing costs with an annual update based on the annual change in the Engineering News Record’s Construction Cost Index. The 2024 construction costs result in lower fees than the alternative considered and avoids uncertainty regarding how the City might finance projects.

- Well transmission main costs are allocated across all three groups. About 55% of the well transmission project is expected to be funded by the developer as a condition of development and is not the responsibility of current or future customers (see Table 8). The remaining 45% of the project cost is allocated between existing and future customers based on the 10-year buildout water demand.
- The Curry Tank main project will benefit both existing customers and future growth. Project costs are allocated 68% to current customers and 32% to future customers based on each group’s respective demand in 2029 (see Table 3).

About \$2.6 million in facility costs are allocated to future customers as shown in Table 9. Added to this expense is about \$478,000 that the water capacity fee fund owes to other City funds for the prior construction of facilities that will benefit future growth. The total water expansion component is about \$3.0 million.

**Table 8: Well Transmission Main Costs
Water and Sewer Connection Fees
City of Tehachapi**

Item	Description	Quantity	Unit	Unit Price	Amount	Existing & Future Customers	Developer Cost
1	Mobilization	1	LS	\$110,000	\$110,000	\$49,568	\$60,432
2	Traffic Control	1	LS	\$110,000	\$110,000	\$49,568	\$60,432
3	Connections	1	LS	\$50,000	\$50,000	\$37,500	\$12,500
4	Surge	1	LS	\$80,000	\$80,000	\$0	\$80,000
5	10" Main	3,050	LF	\$140	\$427,000	\$271,600	\$155,400
6	12" Main	1,840	LF	\$160	\$294,400	\$294,400	\$0
7	16" Main	1,560	LF	\$170	\$265,200	\$119,000	\$146,200
8	18" Main	5,230	LF	\$200	<u>\$1,046,000</u>	<u>\$252,000</u>	<u>\$794,000</u>
				Subtotal	\$2,382,600	\$1,073,635	\$1,308,965
				Soft Cost (25%)	\$596,000	\$268,567	\$327,433
				Contingency (25%)	<u>\$596,000</u>	<u>\$268,567</u>	<u>\$327,433</u>
				Total August 2019	\$3,574,600	\$1,610,768	\$1,963,832
				Total August 2024	\$4,146,536	\$1,868,491	\$2,278,045
					100%	45.1%	54.9%

Source: City of Tehachapi
LS - Lump sum; LF - linear foot

**Table 9: Allocation of Water Capital Improvements
Water and Sewer Connection Fees
City of Tehachapi**

Project	Construction Cost (August 2024)	Developer Funded %	Existing Customers %	Future Customers %
New Production Well	\$1,523,000	0%	0%	100%
Well Transmission Main	\$4,147,000	55%	31%	14%
Curry Tank Zone 1 Water Main Upgrade	\$1,364,000	0%	68%	32%
Projects for Fire Flow Deficiencies	\$912,000	0%	100%	0%
Replacement of Water Mains	<u>\$1,593,000</u>	0%	100%	0%
Total Water Projects	\$9,539,000			

Project	Construction Cost (August 2024)	Developer Funded %	Existing Customers \$	Future Customers \$
New Production Well	\$1,523,000	\$0	\$0	\$1,523,000
Well Transmission Main	\$4,147,000	\$2,278,300	\$1,268,047	\$600,654
Curry Tank Zone 1 Water Main Upgrade	\$1,364,000	\$0	\$925,571	\$438,429
Projects for Fire Flow Deficiencies	\$912,000	\$0	\$912,000	\$0
Replacement of Water Mains	<u>\$1,593,000</u>	<u>\$0</u>	<u>\$1,593,000</u>	<u>\$0</u>
Total Water Projects	\$9,539,000	\$2,278,300	\$4,698,618	\$2,562,082
Net of existing connection fee balance [1]				<u>\$477,802</u>
Total Expansion Cost				\$3,039,884

1 - Fund balance as of July 1, 2019; the water capacity fee fund owes \$477,802 to other City funds for projects constructed that benefit future growth

4.2 Sewer Cost of Capacity

Like the water utility, the proposed City-wide sewer capacity cost consists of a buy-in and an expansion cost.

4.2.1 Sewer Cost Allocation and Buy-in

The sewer buy-in is provided in Table 10. The value of the treatment plant reflects the original construction cost less principal forgiveness from the State Revolving Fund loan program. Principal forgiveness of \$2.1 million was not paid by the City and thus is not recovered in the connection fee. The buy-in excludes assets associated with the Downtown, Industrial, and Tucker sewer trunk mains as the cost of those facilities is recovered in the area specific connection fees. Recycled water assets are also excluded as they are considered water demand offset projects.

**Table 10: Sewer Buy-in
Water and Sewer Connection Fees
City of Tehachapi**

Facilities [1]	Sum of RCNLD [2]
Pipelines & Pump Stations	\$1,610,183
Treatment	\$3,708,725
Office, Buildings, and Fleet Vehicles	<u>\$122,068</u>
Total Buy-in	\$5,440,976

1 – Does not include assets that are accounted for in other connection fees and/or recycled water assets. Excluded assets:

- 444-510-00571 – Sewer Trunk Main-Downtown
- 444-510-00534 – Sewer Main 2004
- 444-520-00661 – Tucker Sewer Lift Station Improvements
- 444-510-00195 – Industrial Trunk Sewer Line
- 444-520-10619 – Sewer Reclamation Expansion
- 444-520-13004R – Recycled Water Pump Station

2 – RCNLD = Replacement Cost New Less Depreciation; does not include fully depreciated assets

4.2.2 Wastewater Treatment Expansion Cost

As shown in Table 4, over the next ten years, the City’s flow is expected to increase from 0.76 MGD to 1.24 MGD. At about 1.00 MGD, state regulation requires the City to begin to expand the wastewater treatment plant to 2.0 MGD. MKN evaluated the City’s existing treatment plant to identify components that would need to be expanded to provide an additional 0.75 MGD capacity. Some portions of the existing treatment plant are adequate to provide 2.0 MGD of capacity while other portions must be retrofit. Thus, new customers will take benefit from both existing treatment facilities as well as the expansion.

The probable 2024 expansion cost is about \$20.8 million (see Table 11). This amount is reduced by about \$2.5 million in existing capacity fees. In total, about \$18.2 million of wastewater treatment expansion costs are recommended for inclusion in the connection fee.

Table 11: Wastewater Treatment Plant Expansion Costs
Water and Sewer Connection Fees
City of Tehachapi

Item	Description	Quantity	Unit	Unit Price	Amount
1	Reactor Basin	1	LS	\$5,920,000	\$5,920,000
2	Secondary Clarifier	1	LS	\$1,036,000	\$1,036,000
3	RAS/WAS Pumping	1	LS	\$444,000	\$444,000
4	Sludge Dewatering / Drying	1	LS	\$2,960,000	\$2,960,000
5	Standby Power System Expansion	1	LS	\$592,000	\$592,000
6	Site Improvements	1	LS	\$1,000,000	\$1,000,000
				Subtotal	\$11,952,000
				Soft Cost (25%)	\$2,988,000
				Contingency (25%)	<u>\$2,988,000</u>
				Total Probable Construction Cost November 2019	\$17,928,000
				Total Probable Construction Cost November 2024	\$20,784,000
				Net of existing connection fee fund balance	<u>(\$2,548,000)</u>
				Total Expansion Cost (November 2024)	\$18,236,000

Source: MKN

LS - Lump sum; LF - linear foot

Notes:

1. Disposal costs have been excluded as the City is currently in development of the GSP project, which would have a separate fee structure.
2. Expansion from 1.25 to 2.0 MGD has been projected based on the City's draft evaluation of buildout conditions.
3. Unit prices from City of Tehachapi - Sewage Treatment and Disposal Connection Fee Study (May 2006) have been scaled to present using ENR CCI (where available).
4. Expansion only includes process expansions and does not include higher-quality treatment (i.e., tertiary).

4.3 Sewer Trunk Lines Cost of Capacity

As part of the Sewer Model Report, MKN reviewed the improvements described in the current trunk line connection fee reports. Some of the projects have already been constructed and other projects are still recommended in order to accommodate new development. Tables showing the cost of facilities of the sewer trunk areas are provided in the following section.

SECTION 5: FEE CALCULATION

This section provides the connection fee calculations. The cost of infrastructure is divided by average day demand for the water fee and wastewater flow for the City-wide sewer fee and trunk line fees. The capacity costs (expressed as \$/gpd) are multiplied by the demand or flow of various types of development to determine the connection fees.

5.1 Water Fee Calculation

5.1.1 Water City-wide Unit Cost

The water system unit cost is provided in Table 12. The buy-in value calculated in Table 7 is divided by the City's 2029 projected water demand because these facilities will be shared by all customers – existing and new development. Expansion related projects are divided by the estimated demand of new customers only. The buy-in plus expansion cost equals a total unit cost of \$6.94/gpd.

**Table 12: Water System Unit Cost
Water and Sewer Connection Fees
City of Tehachapi**

Fee Component	Cost	Capacity (gpd, ADD)	Unit Cost (\$/gpd) [1]
Buy-in	\$6,082,723	2,240,000	\$2.72
Expansion	\$3,039,884	720,000	<u>\$4.22</u>
		Total	\$6.94

1 – Cost divided by capacity, rounded to the nearest \$0.01

5.1.2 Water Fee Scaling

Currently, the City has a comprehensive schedule of connection fees for various types of residential and non-residential customers. The amount charged to each customer must be proportional to the capacity used by that customer in the water system. For the average single family water connection, MKN determined the average day demand to be 295 gallons per day (gpd). This demand or capacity is based on per capita use of 118 gpd and average occupancy of 2.5 people per dwelling.² The projected water use of other types of development is scaled to 295 gpd to determine the connection fee multiplier. The proposed single family connection fee will be multiplied by the connection fee multiplier to calculate the total fee amount for each new development.

The proposed residential and non-residential customer categories, estimated water use, and water connection fee multipliers are provided in Table 13. MKN provided the estimated water use for several customer categories. For other categories, water use was estimated based on a survey of other water and sewer utility providers including the City of Bakersfield, City of Modesto, and County of Los Angeles

² Water and Sewer System Modeling, Planning, and Fee Studies Update 2019, TM 3, MKN

Sanitation Districts (LACSD) or based on City of Tehachapi estimates. The City reviewed recent water billing records of commercial customers to estimate typical consumption patterns.

Water demand data was taken from the best available source. In most cases, water demand estimates were readily available from MKN, City estimates, or other comparable utility providers and used for the water connection fee calculation. For some classifications, existing water demand information was not available so sewer flows from comparable agencies were used. In these situations, water use was approximated based on the sewer flow divided by a discharge factor (discussed further in Section 5.2.3).

The current and proposed water connection fee scaling for various customer types is provided in Table 13. The table also includes new customer categories such as day care centers and medical offices. The City proposed new categories to better reflect anticipated new development.

The outdoor irrigation needs of customers should be considered when assessing water connection fees. For non-residential customers, it is assumed that new customers will be required to install dedicated irrigation lines for outdoor water use. Dedicated irrigation lines are presumed to be used in new developments with significant outdoor water demand such as school or park ballfields, common areas of homeowner associations, and/or common areas of strip malls. Minor outdoor use such as a retail store with a few decorative planter boxes is not assumed to be supplied by a dedicated irrigation line. Minor outdoor use is accounted for in residential and non-residential discharge factors discussed in the subsequent section. The fees for landscaped areas served by irrigation-only water lines are based on water use assumptions of various plant types – annual flowers and bedding plants, desert adapted plants, trees and shrubs, and turf grass.

Table 13: Water Connection Fee Multipliers
Water and Sewer Connection Fees
City of Tehachapi

Customer	Unit	Gallons Per Day	Source	Proposed Multiplier	Current Multiplier
Residential					
Single Family Residence	Each	295	[1]	1.00	1.00
Accessory Dwelling Unit	Each	118	[2]	0.40	New
Duplex	Each	472	[3]	1.60	1.17
Triplex	Each	708	[3]	2.40	1.76
Fourplex	Each	944	[3]	3.20	2.35
Condominium	Unit	236	[3]	0.80	0.51
Five Units or More	Unit	236	[3]	0.80	0.51
Mobile Home Park	Space	236	[3]	0.80	0.51
RV Park	Space	120	[4]	0.41	0.31
Non-Residential					
Animal Kennel	1,000 SF	150	City	0.51	0.24
Auto Repair	1,000 SF	75	City	0.25	0.24
Auto Sales	1,000 SF	125	[5]	0.42	0.24
Car Wash (Tunnel Type)	1,000 SF	4000	City	13.56	8.45
Car Wash (Wand Type)	1,000 SF	875	[5]	2.97	1.62
Day Care	Students	12.5	[5]	0.04	New
Dry Goods Retail	1,000 SF	18.8	[5], [6]	0.06	0.09
Financial Institution	1,000 SF	150	[7]	0.51	0.24
Fueling Station	1,000 SF	125	[5]	0.42	New
Fueling Station w/convenience store	1,000 SF	200	City	0.68	New
Fueling Station serving freeway	1,000 SF	500	City	1.69	New
Gym/Fitness w/showers	1,000 SF	350	[5]	1.19	New
Hospital	Beds	250	[5]	0.85	0.42
Hotel / Motel w/ Kitchen	Rooms	125	City	0.42	0.29
Hotel / Motel w/out Kitchen	Rooms	100	[8]	0.34	0.29
Landscape Irrigation					
Annual Flowers & Bedding Plants	1,000 SF	72	[9]	0.24	New
Desert Adapted Plants	1,000 SF	27	[9]	0.09	New
Trees and Shrubs	1,000 SF	45	[9]	0.15	New
Turf Grass	1,000 SF	72	[9]	0.24	New
Laundromat	Washing Machines	163	[5]	0.55	0.42
Light Industrial	1,000 SF	50	[8], [10]	0.17	0.26
Light Manufacturing	1,000 SF	31	[5], [10]	0.11	0.10
Manufacturing	1,000 SF	250	[5]	0.85	0.48
Medical Office (Doctor, Dentist, Urgent Care)	1,000 SF	150	[8]	0.51	New
Meeting Facility	1,000 SF	125	[5]	0.42	New
Night Club	1,000 SF	313	[5]	1.06	0.81
Nursery / Greenhouse (City water)	1,000 SF	100	City, [11]	0.34	0.05
Nursery / Greenhouse (off City water)	1,000 SF	25	City, [12]	0.08	0.48
Nursing Home	Beds	250	[5]	0.85	0.42
Office Building	1,000 SF	100	City	0.34	0.48
Open Storage	1,000 SF	19	City	0.06	0.06
Professional Building	1,000 SF	250	City	0.85	0.69
Pub/Bar/Brewery/Winetasting	1,000 SF	438	[5]	1.48	New

Customer	Unit	Gallons Per Day	Source	Proposed Multiplier	Current Multiplier
Public Shower	Each	176	[13]	0.60	New
Recreation (indoor or outdoor)	1,000 SF	156	[5]	0.53	New
Restaurant	1,000 SF	400	City	1.36	NA
Restaurant 24-hour	1,000 SF	850	City	2.88	NA
Restaurant w/ Drive-thru (i.e. Fast Food)	1,000 SF	650	City	2.20	New
Restaurant Quick-Serve	1,000 SF	600	City	2.03	New
Retail Store	1,000 SF	80	City	0.27	0.24
School	Students	18.8	[5]	0.06	0.08
Shopping Center	1,000 SF	250	City	0.85	0.73
Supermarket	1,000 SF	150	City	0.51	0.36
Theater	1,000 SF	156	[5]	0.53	0.30
Warehousing	1,000 SF	19	City	0.06	0.05
Other Commercial / Industrial	Employees	18.8	[5]	0.06	0.04

1 – Based on 118 gallons per day per capita and 2.5 persons per dwelling unit (Water and Sewer System Modeling, Planning, and Fee Studies Update 2019, TM 3)

2 – Single occupancy with 118 gpd demand

3 – Occupancy of two people per dwelling unit and 118 gpd per capita demand

4 – Modesto uses 120 gpd. Roughly equal to single occupancy and/or a hotel room with a kitchen

5 – Based on the sewer flow estimate divided by an 80% discharge factor

6 – Bulk goods retail establishment such as ranch supply store or lumber yard

7 – Assumed to be the same as the office category identified in MKN TM3

8 – Water use based on TM3

9 – Based on US Department of Energy "Guidelines for Estimating Unmetered Landscaping Water Use", plant coefficient factors from the American National Standards Institute (ANSI) and the American Society of Agricultural and Biological Engineers (ASABE) Standard S623.1, and 80% irrigation efficiency

10 – Does not include office space at the same location. Office space is assessed a separate connection fee

11 – per 1,000 SF based on the size of the site

12 – per 1,000 SF based on the size of the building

13 – Based on a flow rate of 2.2 gallons per minute and an 8 minute shower ten times a day

5.1.3 Proposed Water Connection Fees

The schedule of proposed water connection fees is provided in Table 14. The single family residential fee is calculated as 295 gpd multiplied by \$6.94/gpd to equal \$2,047. This is a decrease from the current fee of \$6,780 per home. The decrease in the connection fee reflects the change in projects recovered by the fee. The prior fee report included over \$17.3 million in project and financing costs. This fee report recommends recovery of \$5.0 million of expenses³ to be recovered in the water connection fee.

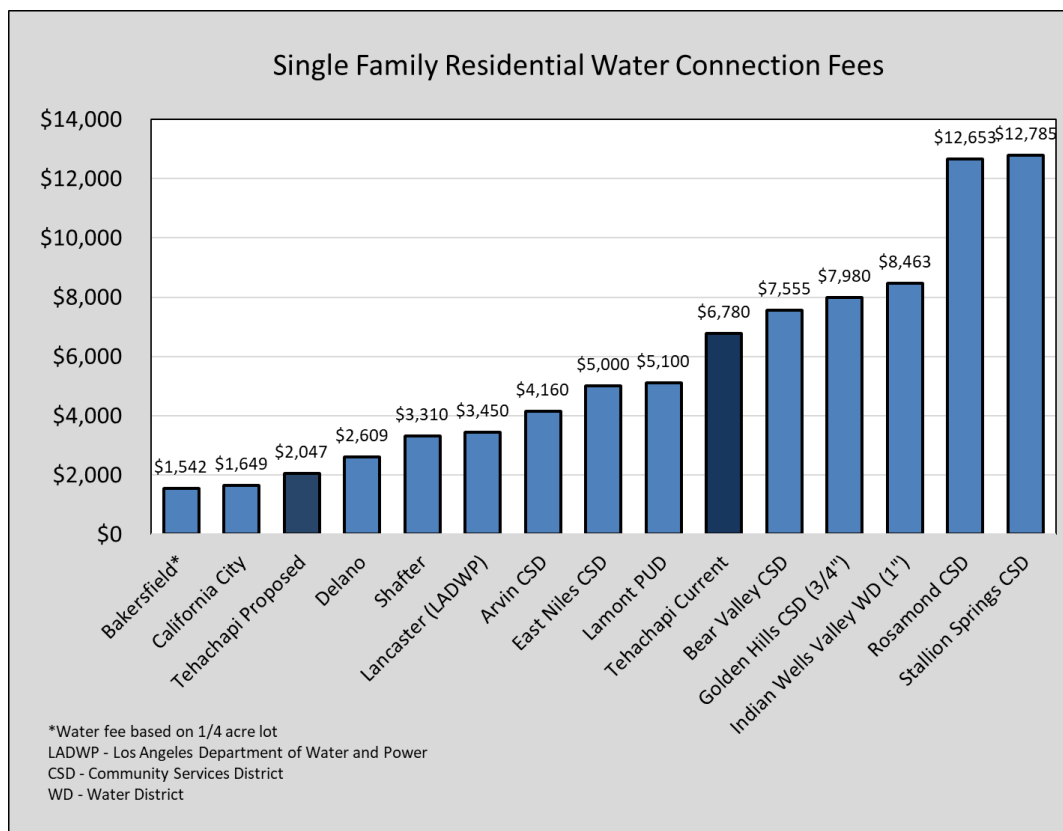
³ Approximately \$3.0 million of expansion costs (Table 9) and 32% (Table 3) of the buy-in value (Table 7)

Table 14: Proposed Water Connection Fees
Water and Sewer Connection Fees
City of Tehachapi

Customer	Unit	Proposed Fee	Current Fee
Residential			
Single Family Residence	Each	\$2,047	\$6,780
Accessory Dwelling Unit	Each	\$819	New
Duplex	Each	\$3,276	\$7,933
Triplex	Each	\$4,914	\$11,933
Fourplex	Each	\$6,551	\$15,933
Condominium	Unit	\$1,638	\$3,458
Five Units or More	Unit	\$1,638	\$3,458
Mobile Home Park	Space	\$1,638	\$3,458
RV Park	Space	\$833	\$2,102
Non-Residential			
Animal Kennel	1,000 SF	\$1,596	\$1,627
Animal Kennel	1,000 SF	\$1,041	\$1,627
Auto Repair	1,000 SF	\$521	\$1,627
Auto Sales	1,000 SF	\$868	\$1,627
Car Wash (Tunnel Type)	1,000 SF	\$27,760	\$57,291
Car Wash (Wand Type)	1,000 SF	\$6,073	\$10,984
Day Care	Students	\$87	New
Dry Goods Retail	1,000 SF	\$130	\$610
Financial Institution	1,000 SF	\$1,041	\$1,627
Fueling Station	1,000 SF	\$868	New
Fueling Station w/convenience store	1,000 SF	\$1,388	New
Fueling Station serving freeway	1,000 SF	\$3,470	New
Gym/Fitness w/showers	1,000 SF	\$2,429	New
Hospital	Beds	\$1,735	\$2,848
Hotel / Motel w/ Kitchen	Rooms	\$868	\$1,966
Hotel / Motel w/out Kitchen	Rooms	\$694	\$1,966
Landscape Irrigation			
Annual Flowers & Bedding Plants	1,000 SF	\$500	New
Desert Adapted Plants	1,000 SF	\$187	New
Trees and Shrubs	1,000 SF	\$312	New
Turf Grass	1,000 SF	\$500	New
Laundromat	Washing Machines	\$1,128	\$2,848
Light Industrial	1,000 SF	\$347	\$1,763
Light Manufacturing	1,000 SF	\$217	\$678
Manufacturing	1,000 SF	\$1,735	\$3,254
Medical Office (Doctor, Dentist, Urgent Care)	1,000 SF	\$1,041	New
Meeting Facility	1,000 SF	\$868	New
Night Club	1,000 SF	\$2,169	\$5,492
Nursery / Greenhouse (City water)	1,000 SF	\$694	\$339
Nursery / Greenhouse (off City water)	1,000 SF	\$174	\$3,254
Nursing Home	Beds	\$1,735	\$2,848
Office Building	1,000 SF	\$694	\$3,254
Open Storage	1,000 SF	\$132	\$407
Professional Building	1,000 SF	\$1,735	\$4,678

Customer	Unit	Proposed Fee	Current Fee
Pub/Bar/Brewery/Winetasting	1,000 SF	\$3,036	New
Public Shower	Each	\$1,221	New
Recreation (indoor or outdoor)	1,000 SF	\$1,084	New
Restaurant	1,000 SF	\$2,776	New
Restaurant 24-hour	1,000 SF	\$5,899	New
Restaurant w/ Drive-thru (i.e. Fast Food)	1,000 SF	\$4,511	New
Restaurant Quick-Serve	1,000 SF	\$4,164	New
Retail Store	1,000 SF	\$555	\$1,627
School	Students	\$130	\$542
Shopping Center	1,000 SF	\$1,735	\$4,949
Supermarket	1,000 SF	\$1,041	\$2,441
Theater	1,000 SF	\$1,084	\$2,034
Warehousing	1,000 SF	\$132	\$339
Other Commercial / Industrial	Employees	\$130	\$271

The chart below compares Tehachapi's current and proposed water connection fees for single family development with the fees charged by other local public agencies. With the proposed decrease to the connection fee, the City's fee falls in the lower end of surveyed agencies.



5.2 City-wide Sewer Fee Calculation

5.2.1 Sewer Unit Cost

The sewer connection fee unit cost is provided in Table 15. The buy-in cost is divided by the total buildout flow projected for 2029. The expansion cost is divided by the capacity added by the wastewater treatment plant expansion. The total unit cost is calculated as \$28.70/gpd.

**Table 15: Sewer System Unit Cost
Water and Sewer Connection Fees
City of Tehachapi**

Fee Component	Cost	Capacity (gpd, ADF)	Unit Cost (\$/gpd) [1]
Buy-in	\$5,440,976	1,240,000	\$4.39
Expansion	\$18,236,000	750,000	<u>\$24.31</u>
		Total	\$28.70

1 – Cost divided by capacity, rounded to the nearest \$0.01

5.2.2 Allocation to Flow and Loading

The current sewer connection fee recovers costs from new development based on average day flow. It is recommended that the updated connection fee reflect the flow and wastewater pollutant strength of each new customer. Thus, the cost of existing facilities is allocated across flow, biochemical oxygen demand (BOD), and total suspended solids (TSS). This methodology more fairly recovers costs from customers with higher strength flow. The allocation of treatment costs is based on engineering rules of thumb for primary and secondary treatment. Pipelines and pump stations are allocated 100% to flow.

**Table 16: Cost Allocation to Sewer Flow and Pollutant Loading
Water and Sewer Connection Fees
City of Tehachapi**

Facilities [1]	RCNLD (Existing Facilities)	Flow	BOD	TSS
Pipelines & Pump Stations	\$1,610,183	100%	0%	0%
Treatment	<u>\$3,708,725</u>	55%	20%	25%
	\$5,318,908	\$3,649,982	\$741,745	\$927,181
Composite		69%	14%	17%
Treatment Cost Allocation				
Primary Treatment		70%	10%	20%
Secondary Treatment		40%	30%	30%
Recommended		55%	20%	25%

1 – Office, buildings, and fleet vehicle assets are not included in the determination of flow, BOD, and TSS percentages. Instead, these assets are allocated based on the composite calculated here.

5.2.3 Sewer Fee Scaling

The proposed City-wide sewer fees are scaled based on each customer's estimated flows and loads. The wastewater flows of various customer classes were projected based on a percentage return rate of water consumed and discharged to the sewer collection system. Based on information provided by MKN, the return rate for single family residential connections is estimated at 57%, multi-family residential is 50%, and non-residential connections is 80%. The estimated daily flow for a single family residential customer is 168 gpd based on water use of 295 gpd. The assumed residential pollutant concentrations are 225 mg/l BOD and 180 mg/l TSS based on assumptions used by the City of Bakersfield. The flows and loads of non-residential customers were based on water use estimates and an 80% sewer discharge rate or estimates used by other comparable agencies, see Table 17.

To determine the sewer fee multiplier for various customer types, the flow, BOD, and TSS of each new customer will be scaled to the flow and strength characteristics of a single family home as shown in the equation below:

$$Multiplier = \frac{Flow}{SF\ Flow} \times \left(69\% + \left[14\% \times \frac{BOD}{SF\ BOD} \right] + \left[17\% \times \frac{TSS}{SF\ TSS} \right] \right)$$

SF – Single Family

Table 17: Sewer Connection Fee Multipliers
Water and Sewer Connection Fees
City of Tehachapi

Customer	Unit	Flow	Source	BOD	TSS	Source	Proposed Multiplier	Current Multiplier
Cost Allocation		69%		14%	17%			
Residential								
Single Family Residence	Each	168	[1]	225	180	Bakersfield	1.00	1.00
Accessory Dwelling Unit	Each	59	[2]	225	180	Bakersfield	0.35	New
Duplex	Each	236	[2]	225	180	Bakersfield	1.40	1.15
Triplex	Each	354	[2]	225	180	Bakersfield	2.11	1.72
Fourplex	Each	472	[2]	225	180	Bakersfield	2.81	2.29
Condominium	Unit	118	[2]	225	180	Bakersfield	0.70	0.58
Five Units or More	Unit	118	[2]	225	180	Bakersfield	0.70	0.58
Mobile Home Park	Space	118	[2]	225	180	Bakersfield	0.70	0.58
RV Park	Space	60	[2]	225	180	Bakersfield	0.36	0.31
Non-Residential								
Animal Kennel	1,000 SF	120	[3]	200	200	[15]	0.72	0.37
Auto Repair	1,000 SF	60	[3]	180	280	Bakersfield	0.38	0.37
Auto Sales	1,000 SF	100	LACSD	130	80	Bakersfield	0.50	0.37
Car Wash (Tunnel Type)	1,000 SF	3200	[3]	20	150	Bakersfield	16.07	13.64
Car Wash (Wand Type)	1,000 SF	700	LACSD	20	150	Bakersfield	3.52	2.57
Day Care	Students	10	[4]	130	100	Bakersfield	0.05	New
Dry Goods Retail	1,000 SF	15	[5], [6]	150	150	Bakersfield	0.08	NA
Financial Institution	1,000 SF	120	[3]	130	80	Bakersfield	0.60	0.37
Fueling Station	1,000 SF	100	LACSD	180	280	Bakersfield	0.64	New
Fueling Station w/convenience store	1,000 SF	160	[3]	180	280	Bakersfield	1.02	New
Fueling Station serving freeway	1,000 SF	400	[3]	180	280	Bakersfield	2.55	New
Gym/Fitness w/showers	1,000 SF	280	Modesto	180	150	[16]	1.57	New
Hospital	Beds	200	[7]	250	100	Bakersfield	1.12	0.92
Hotel / Motel w/ Kitchen	Rooms	100	[3]	225	180	[17]	0.60	0.46
Hotel / Motel w/out Kitchen	Rooms	80	[3]	225	180	[17]	0.48	0.46
Laundromat	Washing Machines	130	Modesto	150	110	Modesto	0.69	0.64
Light Industrial	1,000 SF	40	[3], [8]	180	150	Bakersfield	0.22	0.60
Light Manufacturing	1,000 SF	25	LACSD, [8]	130	80	[18]	0.13	0.09
Manufacturing	1,000 SF	200	LACSD, [8]	180	150	[16]	1.12	0.70
Medical Office (Doctor, Dentist, Urgent Care)	1,000 SF	120	[3]	225	180	[17]	0.71	New
Meeting Facility	1,000 SF	100	[9]	130	80	[18]	0.50	New
Night Club	1,000 SF	250	[10]	200	200	Modesto	1.49	1.28
Nursery / Greenhouse (City water)	1,000 SF	80	[3], [11]	130	80	[18]	0.40	New
Nursery / Greenhouse (off City water)	1,000 SF	20	[3], [12]	130	80	[18]	0.10	New
Nursing Home	Beds	200	same as hospital	225	180	[17]	1.19	0.92
Office Building	1,000 SF	80	[3]	130	80	[18]	0.40	0.73
Open Storage	1,000 SF	15.2	[3]	130	80	[18]	0.08	0.09
Professional Building	1,000 SF	200	[3]	130	80	[18]	1.01	1.10
Pub/Bar/Brewery/Winetasting	1,000 SF	350	[10]	225	180	[17]	2.08	New
Public Shower	Each	141	[3]	130	80	[18]	0.71	New
Recreation (indoor or outdoor)	1,000 SF	125	[13]	200	250	Bakersfield	0.78	New
Restaurant	1,000 SF	320	[3]	400	240	Modesto	2.22	3.68
Restaurant 24-hour	1,000 SF	680	[3]	400	240	Modesto	4.72	New

Customer	Unit	Flow	Source	BOD	TSS	Source	Proposed Multiple	Current Multiple
Restaurant w/ Drive-thru (i.e. Fast Food)	1,000 SF	520	[3]	400	240	Modesto	3.61	New
Restaurant Quick-Serve	1,000 SF	480	[3]	400	240	Modesto	3.33	New
Retail Store	1,000 SF	64	[3]	150	150	Bakersfield	0.35	0.37
School	Students	15	[4]	130	100	Bakersfield	0.08	0.07
Shopping Center	1,000 SF	200	[3]	180	150	[16]	1.12	1.19
Supermarket	1,000 SF	120	[3]	400	240	[19]	0.83	0.55
Theater	1,000 SF	125	LACSD	200	200	Modesto	0.75	0.46
Warehousing	1,000 SF	15.2	[3]	130	80	[18]	0.08	0.09
Other Commercial / Industrial	Employees	15	[14]	130	100	[14]	0.08	0.06

1 – Water demand multiplied by a 57% discharge factor

2 – Water demand multiplied by a 50% discharge factor

3 – Water demand multiplied by an 80% discharge factor

4 – LACSD uses 20 gpd for universities; Bakersfield uses 12 gpd; Modesto uses 10 gpd for high school. 15 gpd was used for “school” and 10 was used for “daycare” as a mid-point between the surveyed agencies

5 – Taken as a mid-point between LACSD’s small and large warehousing and light manufacturing categories

6 – Bulk goods retail establishment such as ranch supply store or lumber yard

7 – Taken as a mid-point between Modesto and Bakersfield; Modesto uses 250 gpd/bed and Bakersfield uses 180/bed

8 – Does not include office space at the same location. Office space is assessed a separate connection fee

9 – Assumed to be slightly less than financial institutions to reflect lower occupancy of meeting facilities

10 – LACSD uses 350 gpd for night club; Modesto uses 350 gpd for “bars without dining”; 350 gpd is used for pub/bar/winetasting. Its assumed that a nightclub would generate less water use/sewer flow

11 – per 1,000 SF based on the size of the site

12 – per 1,000 SF based on the size of the building

13 – Data taken from LACSD; mid-point between bowling/skating and structures at a park or golf course

14 – Same as school

15 – Strength used by most commercial categories in Modesto

16 – Assumed to be the same as light industrial

17 – Bakersfield domestic strength

18 – Bakersfield combination store and office

19 – High variability in this category. Bakersfield uses 800 mg/l BOD and TSS. Modesto uses 200 BOD and TSS but shopping center strengths are much higher. It’s unclear if this category includes an on-site butcher, bakery, deli, and/or coffee shop. Modesto restaurant BOD and TSS used.

5.2.4 Proposed Sewer Connection Fee

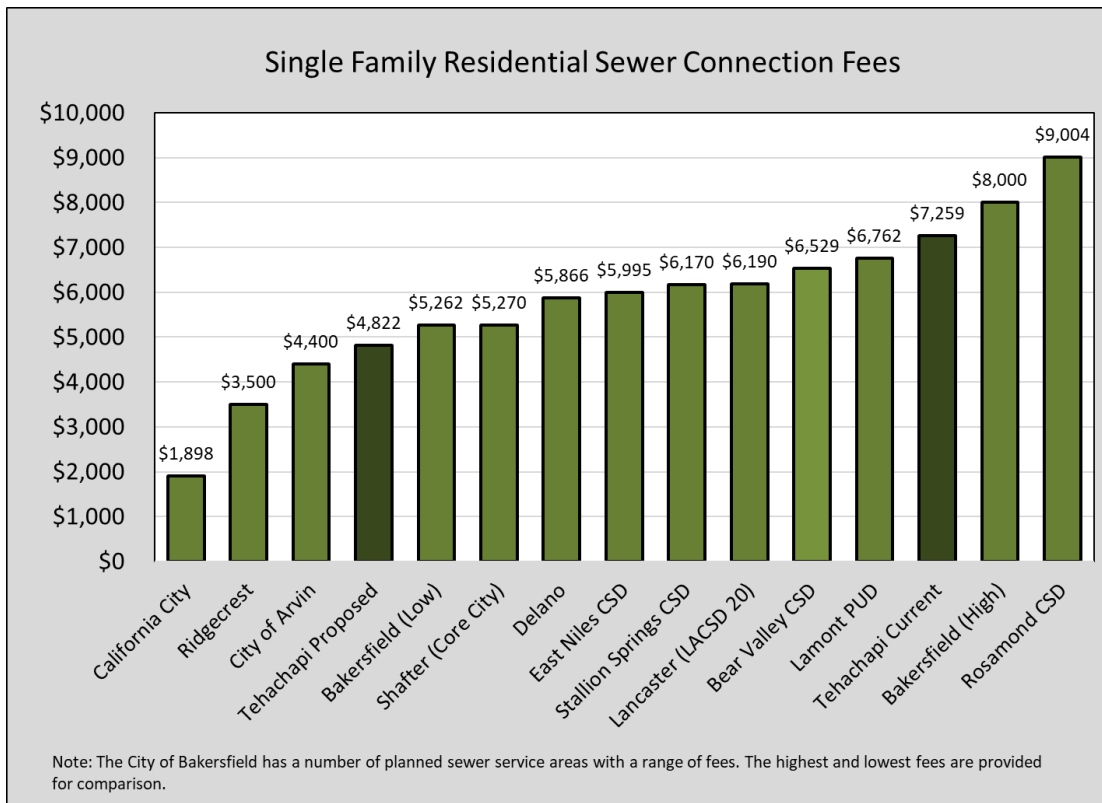
Based on an average day flow of 168 gpd and a cost of \$28.70/gpd, the single family sewer connection fee is \$4,822. The proposed fees for other customer classes are scaled based on the fee multipliers. The full schedule of proposed sewer connection fees is provided in Table 18.

Table 18: Proposed Sewer Connection Fees
Water and Sewer Connection Fees
City of Tehachapi

Customer	Unit	Proposed Fee	Current Fee
Residential			
Single Family Residence	Each	\$4,822	\$7,259
Accessory Dwelling Unit	Each	\$1,688	New
Duplex	Each	\$6,751	\$8,348
Triplex	Each	\$10,174	\$12,485
Fourplex	Each	\$13,550	\$16,623
Condominium	Unit	\$3,375	\$4,210
Five Units or More	Unit	\$3,375	\$4,210
Mobile Home Park	Space	\$3,375	\$4,210
RV Park	Space	\$1,736	\$2,250
Non-Residential			
Animal Kennel	1,000 SF	\$3,472	\$2,686
Auto Repair	1,000 SF	\$1,832	\$2,686
Auto Sales	1,000 SF	\$2,411	\$2,686
Car Wash (Tunnel Type)	1,000 SF	\$77,490	\$99,013
Car Wash (Wand Type)	1,000 SF	\$16,973	\$18,656
Day Care	Students	\$241	New
Dry Goods Retail	1,000 SF	\$386	NA
Financial Institution	1,000 SF	\$2,893	\$2,686
Fueling Station	1,000 SF	\$3,086	New
Fueling Station w/convenience store	1,000 SF	\$4,918	New
Fueling Station serving freeway	1,000 SF	\$12,296	New
Gym/Fitness w/showers	1,000 SF	\$7,571	New
Hospital	Beds	\$5,401	\$6,678
Hotel / Motel w/ Kitchen	Rooms	\$2,893	\$3,339
Hotel / Motel w/out Kitchen	Rooms	\$2,315	\$3,339
Laundromat	Washing Machines	\$3,327	\$4,646
Light Industrial	1,000 SF	\$1,061	\$4,355
Light Manufacturing	1,000 SF	\$627	\$653
Manufacturing	1,000 SF	\$5,401	\$5,081
Medical Office (Doctor, Dentist, Urgent Care)	1,000 SF	\$3,424	New
Meeting Facility	1,000 SF	\$2,411	New
Night Club	1,000 SF	\$7,185	\$9,292
Nursery / Greenhouse (City water)	1,000 SF	\$1,929	New
Nursery / Greenhouse (off City water)	1,000 SF	\$482	New
Nursing Home	Beds	\$5,738	\$6,678
Office Building	1,000 SF	\$1,929	\$5,299
Open Storage	1,000 SF	\$386	\$653
Professional Building	1,000 SF	\$4,870	\$7,985
Pub/Bar/Brewery/Winetasting	1,000 SF	\$10,030	New
Public Shower	Each	\$3,424	New
Recreation (indoor or outdoor)	1,000 SF	\$3,761	New
Restaurant	1,000 SF	\$10,705	\$26,713
Restaurant 24-hour	1,000 SF	\$22,760	New

Customer	Unit	Proposed Fee	Current Fee
Restaurant w/ Drive-thru (i.e. Fast Food)	1,000 SF	\$17,407	New
Restaurant Quick-Serve	1,000 SF	\$16,057	New
Retail Store	1,000 SF	\$1,688	\$2,686
School	Students	\$386	\$508
Shopping Center	1,000 SF	\$5,401	\$8,638
Supermarket	1,000 SF	\$4,002	\$3,992
Theater	1,000 SF	\$3,617	\$3,339
Warehousing	1,000 SF	\$386	\$653
Other Commercial / Industrial	Employees	\$386	\$436

The chart below compares Tehachapi’s current and proposed sewer connection fees for single family development with the fees charged by other local public agencies.



5.3 Sewer Trunk Line Fee Calculations

The sewer trunk line connection fees are calculated in the tables below. The fees reflect revised projects and costs developed by MKN and the City of Tehachapi. The fees include the original cost of existing assets or the construction cost for new facilities, as applicable.

The Downtown sewer trunk fee is calculated in Table 19. Facilities include the existing 15-inch pipeline and proposed new pipe segments. The cost of the proposed project is reduced by the connection fee fund balance. The total cost (existing plus new facilities) is divided by the buildout capacity of the Downtown trunk area. The proposed pipe segment will benefit both existing and future Downtown customers.

**Table 19: Downtown Sewer Trunk Unit Cost of Capacity
Water and Sewer Connection Fees
City of Tehachapi**

Projects	Cost	Notes	Capacity (ADF, gpd)	Unit Cost (\$/gpd)
Existing Downtown Trunk facilities (asset # 444-510-00571): 15-inch sewer north from intersection of Valley Boulevard and Curry Street and then west along C Street ending at the intersection of Pauley Street and C Street (Phase 1) [1]	\$476,732	Original Cost		
15-inch trunk line beginning at the intersection of Pauley Street and C Street and continue north along Pauley Street then east along Tehachapi Boulevard connecting to the 15-inch trunk sewer at the intersection of Tehachapi Boulevard and Mill Street [2]	\$1,377,000	Opinion of Probable Construction Cost August 2024		
Less existing connection fee fund balance	<u>(\$173,074)</u>			
Total Downtown Trunk	\$1,680,658		511,200	\$3.29

1 – Improvement #1 from the Study of Sewer System Connection Fees Downtown Sewer Service Area (January 2006) as constructed

2 – Improvement #4 from the Study of Sewer System Connection Fees Downtown Sewer Service Area (January 2006); construction cost updated by MKN in Sewer Model Report (October 2019)

Table 20 provides the Industrial sewer trunk fee calculation. The Industrial area’s current facilities are adequate to support development through year 2029 and no additional projects are proposed. The fee is calculated as the remaining cost of facilities (net of fees already paid and grants) divided by the remaining capacity.

**Table 20: Industrial Sewer Trunk Unit Cost of Capacity
Water and Sewer Connection Fees
City of Tehachapi**

Projects	Cost	Notes	Capacity (ADF, gpd)	Unit Cost (\$/gpd)
Existing Industrial Trunk facilities (asset # 444-510-00195): Pipeline east from WWTP on Dennison to Tehachapi Boulevard and the pipeline east from WWTP along Highway 58 to Steuber Road, then south on Steuber Road [1]	\$544,951	Original cost		
Less existing connection fee fund balance	(\$142,460)			
Less RDA Fund	<u>(\$345,277)</u>			
Total Industrial Trunk	\$57,214		184,320	\$0.31

1 - Improvements #1 & 2 from the Industrial Sewer Trunk Lines Connection Fee (November 1995) as constructed

Table 21 provides the Mountain View trunk fee calculation. Construction of the Mountain View area has not yet been triggered so there are no existing facilities. The cost of proposed sewer pipelines is divided by the buildout capacity of the area.

**Table 21: Mountain View Sewer Trunk Unit Cost of Capacity
Water and Sewer Connection Fees
City of Tehachapi**

Projects [1]	Cost	Notes	Capacity (ADF, gpd)	Unit Cost (\$/gpd)
Parallel 8-inch sewer from the intersection of Cherry Ln and Hickory Ave to the intersection of Cherry Ln and Beech St	see total below			
8-inch parallel line from the intersection of Valley Blvd and Beech St to the intersection of Valley Blvd and Mountain View Ave	see total below			
10-inch sewer from the intersection of Valley Blvd and Beech St to the intersection of Valley Blvd and Griffin St, then along Griffin St north to the existing 10-inch sewer pipe	see total below			
15-inch parallel line from the intersection of Mountain View Ave and E St to the intersection of Mountain View Ave and Tehachapi Blvd and tie-in to the existing 18-inch sewer trunk	see total below			
Mountain View Trunk Total	\$2,114,000	Opinion of Probable Construction Cost August 2024	580,000	\$3.64

1 - Improvements #1 - 4 from the Sewer System Evaluation Study Mountain View Sewer Service Area (December 2006); construction cost updated by MKN in Sewer Model Report (October 2019)

Table 22 provides the Tucker area trunk fee calculation. Similar to the Industrial area, the Tucker fee area is not proposed to add any new projects through 2029. Thus, the fee is calculated as the remaining cost of existing facilities divided by the remaining capacity available for new customers.

**Table 22: Tucker Sewer Trunk Unit Cost of Capacity
Water and Sewer Connection Fees
City of Tehachapi**

Project	Cost	Notes	Capacity (ADF, gpd)	Unit Cost (\$/gpd)
Sewer lift station at the intersection of Tehachapi Blvd and Tucker Rd and force main from the sewer lift station to Mulberry St (asset # 444-520-00661) [1]	\$90,940	Original Cost		
12-inch sewer in Tucker Rd from Conway Ave to the sewer lift station (asset # 444-510-00534) [2]	\$1,046,686	Original Cost		
8-inch sewer from Conway Ave and Antelope Run to the new 12" sewer in Tucker Rd	\$0	[3]		
Less existing connection fee fund balance	(\$85,231)			
Less RDA Fund	<u>(\$300,000)</u>			
Total Tucker Trunk	\$829,409		72,000	\$11.52

1 - Improvements #1 & #2 from the Tucker Sewer Service Area Development Fee Study (January 1998) as constructed

2 - Improvement #3 from the Tucker Sewer Service Area Development Fee Study (January 1998) as constructed

3 - Improvement #4 from the Tucker Sewer Service Area Development Fee Study (January 1998) was constructed by a private developer at no cost to the City

The sewer trunk lines are part of the City's collection system. Therefore, costs are recovered from customers on the basis of sewer flow. Wastewater pollutant strength does not factor into the calculations. A summary of the unit cost of capacity and the resulting residential connection fee (based on 168 gpd flow) is provided in Table 23. The complete list of trunk connection fees for other types of development is provided in Appendix A. It should be noted that the current trunk fee reports used various methods to project new development. Each fee study attributed a different flow generation rate to a single family home. This study standardizes the definition of a sewer EDU as 168 gpd across all trunk service areas.

Table 23: Summary of Proposed Trunk Fees
Water and Sewer Connection Fees
City of Tehachapi

Sewer Trunk Fee	Unit Cost (\$/gpd)	Proposed Single Family Residential Fee	Current Single Family Residential Fee
Downtown Trunk Fee	\$3.29	\$552	\$927
Industrial Trunk Fee	\$0.31	\$52	\$300
Mountain View Trunk Fee	\$3.64	\$612	Not defined
Tucker Trunk Fee	\$11.52	\$1,935	\$600

APPENDIX A: Schedule of Proposed Sewer Trunk Fees

A comprehensive schedule of connection fees for each sewer trunk service area is provided below. The unit costs (\$/gpd) provided in Table 23 are multiplied by the estimated wastewater flow of each customer to calculate the proposed fee.

Downtown Sewer Trunk Fees

Customer	Unit	Flow (gpd)	Proposed Fee
Residential			
Single Family Residence	Each	168	\$552
Accessory Dwelling Unit	Each	59	\$194
Duplex	Each	236	\$776
Triplex	Each	354	\$1,164
Fourplex	Each	472	\$1,552
Condominium	Unit	118	\$388
Five Units or More	Unit	118	\$388
Mobile Home Park	Space	118	\$388
RV Park	Space	60	\$197
Non-Residential			\$0
Animal Kennel	1,000 SF	120	\$395
Auto Repair	1,000 SF	60	\$197
Auto Sales	1,000 SF	100	\$329
Car Wash (Tunnel Type)	1,000 SF	3200	\$10,521
Car Wash (Wand Type)	1,000 SF	700	\$2,301
Day Care	Students	10	\$33
Dry Goods Retail	1,000 SF	15	\$49
Financial Institution	1,000 SF	120	\$395
Fueling Station	1,000 SF	100	\$329
Fueling Station w/convenience store	1,000 SF	160	\$526
Fueling Station serving freeway	1,000 SF	400	\$1,315
Gym/Fitness w/showers	1,000 SF	280	\$921
Hospital	Beds	200	\$658
Hotel / Motel w/ Kitchen	Rooms	100	\$329
Hotel / Motel w/out Kitchen	Rooms	80	\$263
Laundromat	Washing Machines	130	\$427
Light Industrial	1,000 SF	40	\$132
Light Manufacturing	1,000 SF	25	\$82
Manufacturing	1,000 SF	200	\$658
Medical Office (Doctor, Dentist, Urgent Care)	1,000 SF	120	\$395
Meeting Facility	1,000 SF	100	\$329
Night Club	1,000 SF	250	\$822
Nursery / Greenhouse (City water)	1,000 SF	80	\$263
Nursery / Greenhouse (off City water)	1,000 SF	20	\$66
Nursing Home	Beds	200	\$658
Office Building	1,000 SF	80	\$263
Open Storage	1,000 SF	15.2	\$50
Professional Building	1,000 SF	200	\$658
Pub/Bar/Brewery/Winetasting	1,000 SF	350	\$1,151
Public Shower	Each	141	\$463
Recreation (indoor or outdoor)	1,000 SF	125	\$411
Restaurant	1,000 SF	320	\$1,052
Restaurant 24-hour	1,000 SF	680	\$2,236
Restaurant w/ Drive-thru (i.e. Fast Food)	1,000 SF	520	\$1,710
Restaurant Quick-Serve	1,000 SF	480	\$1,578
Retail Store	1,000 SF	64	\$210
School	Students	15	\$49
Shopping Center	1,000 SF	200	\$658
Supermarket	1,000 SF	120	\$395
Theater	1,000 SF	125	\$411
Warehousing	1,000 SF	15.2	\$50
Other Commercial / Industrial	Employees	15	\$49

Industrial Sewer Trunk Fees

Customer	Unit	Flow (gpd)	Proposed Fee
Residential			
Single Family Residence	Each	168	\$52
Accessory Dwelling Unit	Each	59	\$18
Duplex	Each	236	\$73
Triplex	Each	354	\$110
Fourplex	Each	472	\$146
Condominium	Unit	118	\$37
Five Units or More	Unit	118	\$37
Mobile Home Park	Space	118	\$37
RV Park	Space	60	\$19
Non-Residential			
Animal Kennel	1,000 SF	120	\$37
Auto Repair	1,000 SF	60	\$19
Auto Sales	1,000 SF	100	\$31
Car Wash (Tunnel Type)	1,000 SF	3200	\$992
Car Wash (Wand Type)	1,000 SF	700	\$217
Day Care	Students	10	\$3
Dry Goods Retail	1,000 SF	15	\$5
Financial Institution	1,000 SF	120	\$37
Fueling Station	1,000 SF	100	\$31
Fueling Station w/convenience store	1,000 SF	160	\$50
Fueling Station serving freeway	1,000 SF	400	\$124
Gym/Fitness w/showers	1,000 SF	280	\$87
Hospital	Beds	200	\$62
Hotel / Motel w/ Kitchen	Rooms	100	\$31
Hotel / Motel w/out Kitchen	Rooms	80	\$25
Laundromat	Washing Machines	130	\$40
Light Industrial	1,000 SF	40	\$12
Light Manufacturing	1,000 SF	25	\$8
Manufacturing	1,000 SF	200	\$62
Medical Office (Doctor, Dentist, Urgent Care)	1,000 SF	120	\$37
Meeting Facility	1,000 SF	100	\$31
Night Club	1,000 SF	250	\$78
Nursery / Greenhouse (City water)	1,000 SF	80	\$25
Nursery / Greenhouse (off City water)	1,000 SF	20	\$6
Nursing Home	Beds	200	\$62
Office Building	1,000 SF	80	\$25
Open Storage	1,000 SF	15.2	\$5
Professional Building	1,000 SF	200	\$62
Pub/Bar/Brewery/Winetasting	1,000 SF	350	\$109
Public Shower	Each	141	\$44
Recreation (indoor or outdoor)	1,000 SF	125	\$39
Restaurant	1,000 SF	320	\$99
Restaurant 24-hour	1,000 SF	680	\$211
Restaurant w/ Drive-thru (i.e. Fast Food)	1,000 SF	520	\$161
Restaurant Quick-Serve	1,000 SF	480	\$149
Retail Store	1,000 SF	64	\$20
School	Students	15	\$5
Shopping Center	1,000 SF	200	\$62
Supermarket	1,000 SF	120	\$37
Theater	1,000 SF	125	\$39
Warehousing	1,000 SF	15.2	\$5
Other Commercial / Industrial	Employees	15	\$5

Mountain View Sewer Trunk Fees

Customer	Unit	Flow (gpd)	Proposed Fee
Residential			
Single Family Residence	Each	168	\$612
Accessory Dwelling Unit	Each	59	\$215
Duplex	Each	236	\$859
Triplex	Each	354	\$1,289
Fourplex	Each	472	\$1,718
Condominium	Unit	118	\$430
Five Units or More	Unit	118	\$430
Mobile Home Park	Space	118	\$430
RV Park	Space	60	\$218
Non-Residential			
Animal Kennel	1,000 SF	120	\$437
Auto Repair	1,000 SF	60	\$218
Auto Sales	1,000 SF	100	\$364
Car Wash (Tunnel Type)	1,000 SF	3200	\$11,648
Car Wash (Wand Type)	1,000 SF	700	\$2,548
Day Care	Students	10	\$36
Dry Goods Retail	1,000 SF	15	\$55
Financial Institution	1,000 SF	120	\$437
Fueling Station	1,000 SF	100	\$364
Fueling Station w/convenience store	1,000 SF	160	\$582
Fueling Station serving freeway	1,000 SF	400	\$1,456
Gym/Fitness w/showers	1,000 SF	280	\$1,019
Hospital	Beds	200	\$728
Hotel / Motel w/ Kitchen	Rooms	100	\$364
Hotel / Motel w/out Kitchen	Rooms	80	\$291
Laundromat	Washing Machines	130	\$473
Light Industrial	1,000 SF	40	\$146
Light Manufacturing	1,000 SF	25	\$91
Manufacturing	1,000 SF	200	\$728
Medical Office (Doctor, Dentist, Urgent Care)	1,000 SF	120	\$437
Meeting Facility	1,000 SF	100	\$364
Night Club	1,000 SF	250	\$910
Nursery / Greenhouse (City water)	1,000 SF	80	\$291
Nursery / Greenhouse (off City water)	1,000 SF	20	\$73
Nursing Home	Beds	200	\$728
Office Building	1,000 SF	80	\$291
Open Storage	1,000 SF	15.2	\$55
Professional Building	1,000 SF	200	\$728
Pub/Bar/Brewery/Winetasting	1,000 SF	350	\$1,274
Public Shower	Each	141	\$513
Recreation (indoor or outdoor)	1,000 SF	125	\$455
Restaurant	1,000 SF	320	\$1,165
Restaurant 24-hour	1,000 SF	680	\$2,475
Restaurant w/ Drive-thru (i.e. Fast Food)	1,000 SF	520	\$1,893
Restaurant Quick-Serve	1,000 SF	480	\$1,747
Retail Store	1,000 SF	64	\$233
School	Students	15	\$55
Shopping Center	1,000 SF	200	\$728
Supermarket	1,000 SF	120	\$437
Theater	1,000 SF	125	\$455
Warehousing	1,000 SF	15.2	\$55
Other Commercial / Industrial	Employees	15	\$55

Tucker Sewer Trunk Fees

Customer	Unit	Flow (gpd)	Proposed Fee
Residential			
Single Family Residence	Each	168	\$1,935
Accessory Dwelling Unit	Each	59	\$680
Duplex	Each	236	\$2,719
Triplex	Each	354	\$4,078
Fourplex	Each	472	\$5,437
Condominium	Unit	118	\$1,359
Five Units or More	Unit	118	\$1,359
Mobile Home Park	Space	118	\$1,359
RV Park	Space	60	\$691
Non-Residential			
Animal Kennel	1,000 SF	120	\$1,382
Auto Repair	1,000 SF	60	\$691
Auto Sales	1,000 SF	100	\$1,152
Car Wash (Tunnel Type)	1,000 SF	3200	\$36,864
Car Wash (Wand Type)	1,000 SF	700	\$8,064
Day Care	Students	10	\$115
Dry Goods Retail	1,000 SF	15	\$173
Financial Institution	1,000 SF	120	\$1,382
Fueling Station	1,000 SF	100	\$1,152
Fueling Station w/convenience store	1,000 SF	160	\$1,843
Fueling Station serving freeway	1,000 SF	400	\$4,608
Gym/Fitness w/showers	1,000 SF	280	\$3,226
Hospital	Beds	200	\$2,304
Hotel / Motel w/ Kitchen	Rooms	100	\$1,152
Hotel / Motel w/out Kitchen	Rooms	80	\$922
Laundromat	Washing Machines	130	\$1,498
Light Industrial	1,000 SF	40	\$461
Light Manufacturing	1,000 SF	25	\$288
Manufacturing	1,000 SF	200	\$2,304
Medical Office (Doctor, Dentist, Urgent Care)	1,000 SF	120	\$1,382
Meeting Facility	1,000 SF	100	\$1,152
Night Club	1,000 SF	250	\$2,880
Nursery / Greenhouse (City water)	1,000 SF	80	\$922
Nursery / Greenhouse (off City water)	1,000 SF	20	\$230
Nursing Home	Beds	200	\$2,304
Office Building	1,000 SF	80	\$922
Open Storage	1,000 SF	15.2	\$175
Professional Building	1,000 SF	200	\$2,304
Pub/Bar/Brewery/Winetasting	1,000 SF	350	\$4,032
Public Shower	Each	141	\$1,622
Recreation (indoor or outdoor)	1,000 SF	125	\$1,440
Restaurant	1,000 SF	320	\$3,686
Restaurant 24-hour	1,000 SF	680	\$7,834
Restaurant w/ Drive-thru (i.e. Fast Food)	1,000 SF	520	\$5,990
Restaurant Quick-Serve	1,000 SF	480	\$5,530
Retail Store	1,000 SF	64	\$737
School	Students	15	\$173
Shopping Center	1,000 SF	200	\$2,304
Supermarket	1,000 SF	120	\$1,382
Theater	1,000 SF	125	\$1,440
Warehousing	1,000 SF	15.2	\$175
Other Commercial / Industrial	Employees	15	\$173