



Draft Report

Water and Wastewater Development Impact Fee Update

City of Rialto, CA



SEPTEMBER 2018

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DRAFT

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Prepared for
City of Rialto
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September 2018

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List of Abbreviations

AWWA	American Water Works Association
AWWA M1 Manual	AWWA Ratemaking Manual
BOD	Biochemical Oxygen Demand
BODR	Basis of Design Report
DIF	Development Impact Fee
CCI	Construction Cost Index
CWIP	Construction Work in Progress
ENR	Engineering News Record
FIP	Facilities Improvement Plan
FG Solutions	FG Solutions, LLC
FY	fiscal year (July 1–June 30)
gpd	gallons per day
MGD	Million Gallons per Day
OCLD	Original Cost Less Depreciation
RUA	Rialto Utility Authority
RWS	Rialto Water Services
SBVMWD	San Bernardino Valley Municipal Water District
SWRCB	State Water Resources Control Board
TSS	Total Suspended Solids
WWTP	Wastewater Treatment Plant

Executive Summary

The City of Rialto (“City”) provides water and wastewater services to residences and businesses in the City limits. The wastewater service area is approximately the entire City limits, and the water service area is approximately the southern half of the City. The City provides these services through the Rialto Utility Authority (“RUA”).

The City charges a Development Impact Fee (“DIF”) to new applicants for water and wastewater service. DIFs are one-time charges to new applicants for water and sewer service, representing a proportionate share of the cost of facilities necessary to provide system capacity to new development.

The City has two wastewater DIFs: wastewater treatment and wastewater collection. Although the City updates its DIFs annually to incorporate the effects of inflation, there has been no review of the DIF methodology since 2002. City seeks to update its DIFs because of changes in the water and sewer system and the addition of several anticipated large developments.

This report describes the previous DIFs, the methodology and calculation of the adopted changes, and presents the updated DIF schedule. A comparison with neighboring utilities is included. Appendices A thru D provide supporting documentation.

The methodology used to update the Development Impact Fee is intended to be consistent with California Government Code Sections 66000-66025 and industry standards, one of which is the American Water Works Association Manual M1 (AWWA M1 Manual).

The proposed Development Impact Fees are based on the fact that water and wastewater system capacity to serve new development is provided by both existing and future infrastructure. The calculation steps introduced below, with additional detail contained in Section 2 with the calculations:

- Determine the Cost Basis: the cost of existing and future infrastructure required to serve new development.
- Determine the System Capacity:
 - For water, it is the demands, in units of million gallons per day, at the end of the planning period in the District’s 2012 Master Plan.
 - For wastewater, it is the treatment plant capacity after the upcoming “S1” project, as identified in the 2017 Basis of Design Report (“BODR”)
- Calculate Unit Cost of Capacity: divide Cost Basis by the System Capacity
- Calculate the Development Impact Fee for each customer class: multiply the Unit Cost of Capacity times the use of capacity for each customer class.

There are three separate DIF calculations proposed in this DIF Update.

1. Water Holding and Distribution.
2. Wastewater Treatment: Consistent with the current sewer DIF, the treatment DIF is based on the cost of the treatment plant, sewer pump stations, and pipes greater than 12” in diameter.
3. Wastewater Collection: This DIF is based on the cost of collection system pipes 12” or less in diameter, and recognizes that infill development will rely on the City’s existing small-diameter sewer mains, but new subdivisions will not.

Proposed Water DIFs are shown in the table below

Table ES-1: Proposed Water DIF

Water Meter Size	Meter Capacity, gpm (1)	Meter Equivalent Ratio (1)	Use of System Capacity gpd (2)	Proposed DIF (3)
5/8" x 3/4" Displacement	30	1.00	645.96	\$3,107.07
1" Displacement	50	1.67	1,078.75	\$5,188.79
1 1/2" Displacement	100	3.33	2,151.05	\$10,346.55
2" Displacement	160	5.33	3,442.97	\$16,560.69
3" Displacement	320	10.67	6,892.39	\$33,152.40
3" Displacement Compound	320	10.67	6,892.39	\$33,152.40
3" Class I & II Turbine	350	11.67	7,538.35	\$36,259.46
4" Displacement Compound	500	16.67	10,768.15	\$51,794.80
4" Class I Turbine	630	21.00	13,565.16	\$65,248.42
4" Class II Turbine	630	21.00	13,565.16	\$65,248.42
6" Displacement Compound	1,000	33.33	21,529.85	\$103,558.58
6" Class I Turbine	1,300	43.33	27,989.45	\$134,629.25
6" Class II Turbine	1,300	43.33	27,989.45	\$134,629.25
8" Displacement Compound	1,600	53.33	34,449.05	\$165,699.93
8" Class I Turbine	2,800	93.33	60,287.45	\$289,982.63
8" Class II Turbine	2,800	93.33	60,287.45	\$289,982.63

Table ES-2: Proposed Wastewater Treatment DIF

Customer Class	Unit of Measure	DIF Calculation			Total
		Flow	BOD	TSS	
Single-Family Residential	SF DU	\$1,104.71	\$407.42	\$456.56	\$1,968.69
Multi-Family Residential	MF DU	\$939.00	\$345.90	\$387.63	\$1,672.53
Barber Shop/Beauty Parlor	per station	\$150.64	\$38.32	\$71.20	\$260.16
Car Wash	1000 sf	\$13,557.76	\$454.82	\$3,818.64	\$17,831.22
Church	1000 sf	\$251.07	\$54.46	\$47.46	\$352.99
General Commercial	1000 sf	\$502.14	\$126.06	\$141.26	\$769.46
Department and Retail Store	1000 sf	\$502.14	\$126.06	\$141.26	\$769.46
Health Club/Spa	1000 sf	\$3,012.84	\$1,262.59	\$1,414.90	\$5,690.33
Hospitals, Dental Office, Clinic	1000 sf	\$1,506.42	\$631.30	\$282.53	\$2,420.24
Indoor Theatre	1000 sf	\$627.67	\$315.65	\$282.53	\$1,225.85
Laundromats	1000 sf	\$19,206.83	\$4,828.51	\$3,967.81	\$28,003.16
Lumber Yard	1000 sf	\$125.53	\$83.70	\$101.71	\$310.95
Professional Offices	1000 sf	\$1,004.28	\$218.84	\$151.43	\$1,374.55
Warehouse/Manufacturing (domestic)	1000 sf	\$125.53	\$31.26	\$35.03	\$191.83
Hotels/Motels (1)	room	\$627.67	\$325.73	\$141.26	\$1,094.67
Manufacturing (2)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Repair and Service Stations, Gas Station	1000 sf	\$502.14	\$151.27	\$264.45	\$917.85
Bakeries (wholesale) Doughnut Shop	1000 sf	\$1,405.99	\$2,355.76	\$1,584.41	\$5,346.17
Banquet Room/Ball Room	1000 sf	\$4,017.12	\$6,731.48	\$4,526.09	\$15,274.68
Mortuary - Embalming Area	1000 sf	\$502.14	\$673.65	\$754.91	\$1,930.70
Restaurant/Full Service and Cafeteria	seat	\$125.53	\$210.77	\$141.26	\$477.57
Restaurant/Fast Food	seat	\$75.32	\$126.06	\$84.76	\$286.14
Restaurant, Take Out	1000 sf	\$1,506.42	\$2,524.18	\$1,697.42	\$5,728.02
Supermarkets	1000 sf	\$753.21	\$1,009.47	\$1,131.24	\$2,893.92
Schools - Elementary/Junior/Day Care	per student	\$50.21	\$11.09	\$9.04	\$70.35
Schools - High School/College	per student	\$100.43	\$22.19	\$19.21	\$141.83

Table ES-2: Proposed Wastewater Collection DIF

Customer Class	Unit of Measure	DIF
All Single-Family Residential (1)	Dwelling Unit	\$834.00
Multi-Family and Mobile Homes (2)	Dwelling Unit	\$708.90
All Non-Residential (3)	Lineal Front Foot	\$8.34

The biggest changes to the City's DIFs are:

- Across the board, in just about every category, proposed DIFs are reduced.
- Proposed DIFs are an appropriate representation of the water and wastewater system that customers are buying into.
- Wastewater treatment customer classes have been simplified.

Section 3 goes into detail with comparisons of existing and proposed DIFs in the following neighboring cities:

- City of Rialto, in the City's water service area. Both water and wastewater service are provided by the City of Rialto.
- City of Rialto, in the West Valley Water District's water service area. Wastewater service is provided by the City of Rialto and water service is provided by the West Valley Water District. The DIFs shown in the tables below are the sum of Rialto's wastewater DIFs and West Valley's water DIF.
- City of Colton
- City of Riverside
- City of San Bernardino

DIF comparisons are provided for seven different example connection types, single-family and multi-family residential, fast food restaurant, full service restaurant, hotel, warehouse, and light industry. When reviewing these comparisons, it is vital to note the assumptions describing each example connection. DIF schedules vary substantially among utilities, and the basis for charging customers differs as well.

Section 1

Background and Report Organization

1.1 Introduction

The City of Rialto (“City”) provides water and wastewater services to residences and businesses in the City limits. The wastewater service area is approximately the entire City limits, and the water service area is approximately the southern half of the City. The City provides these services through the Rialto Utility Authority (“RUA”).

The City charges a Development Impact Fee (“DIF”) to new applicants for water and wastewater service. There are two wastewater DIFs: wastewater treatment and wastewater collection. Although the City updates its DIFs annually to incorporate the effects of inflation, there has been no review of the DIF methodology since 2002. Because of changes in the water and sewer system since 2002 and because of several anticipated large developments, the City seeks to update its DIFs.

DIFs are one-time charges to new applicants for water and sewer service representing a proportionate share of the cost of facilities necessary to provide system capacity to new development.

This report describes the previous DIFs, the methodology and calculation of the adopted changes, and presents the updated DIF schedule. A comparison with neighboring utilities is included. Appendices A and B provide supporting documentation.

1.2 Current Development Impact Fees

1.2.1 Water

Table 1-1 shows the current DIF, referred to as the Water Holding and Distribution DIF. The most recent inflationary adjustment occurred on July 1, 2018. The methodology for the existing Water Holding and Distribution Fees was developed in 2002, and on September 2, 2003, the Rialto City Council adopted Resolution 5022 adopting these DIFs. Since 2002, the Water Holding and Distribution DIF has been subject to periodic inflationary increases.

Table 1-1. Existing Water Development Impact Fee

Water Meter Size and Type	Current DIF Effective 7/1/2018
5/8" x 3/4" Displacement	\$8,421.34
1" Displacement	\$13,938.76
1 1/2" Displacement	\$27,877.51
2" Displacement	\$44,139.40
3" Displacement	\$84,213.33
3" Displacement Compound	\$89,440.37
3" Class I & II Turbine	\$98,152.09
4" Displacement Compound	\$139,387.60
4" Class I Turbine	\$168,426.68
4" Class II Turbine	\$174,234.48
6" Displacement Compound	\$278,775.18
6" Class I Turbine	\$348,468.99
6" Class II Turbine	\$383,315.87
8" Displacement Compound	\$441,394.03
8" Class I Turbine	\$505,280.02
8" Class II Turbine	\$667,898.87

1.2.2 Wastewater

There are two wastewater DIFs, shown in Tables 1-2 and 1-3. The Wastewater Treatment DIF includes the wastewater treatment plant, lift stations, and collection system pipes greater than 12-inches in diameter. The Wastewater Collection DIF covers collection system pipes 12-inches in diameter and smaller. Existing DIFs were adopted per City Resolution 5022 in 2003, and have been increased for inflation periodically in subsequent years.

Table 1-2 shows that there are 46 different customer classes. Most of these are for various non-residential customer types. Most non-residential customer classes are charged per 1,000 square feet of area, and the differences between the DIF for these customer classes are based on differing flow, Biochemical Oxygen Demand (“BOD”) concentrations, and Total Suspended Solids (“TSS”) concentrations in wastewater produced by the various customer classes. The DIF for other classes (including most restaurants, churches, and schools) is based on the number of seats and/or students.

Table 1-2. Existing Wastewater Treatment DIF

Customer Class	Unit	Current DIF Effective 7/1/2018	Customer Class	Unit	Current DIF Effective 7/1/2018			
Group I - Residential Uses								
Residential			Gas Station - 4 Bays Max	per station	\$6,716.16			
Estate / Single Family	EDU	\$3,577.61	Manufacturing (domestic)	1000 sq ft	\$1,105.80			
Multi Family/Mobile Home	EDU	\$2,785.43	Hotels/Motels (w/o restaurants)	room	\$1,986.27			
Group II - Commercial (Low Strength)								
Auto Parking	1000 sq ft	\$276.46	Manufacturing	1000 sq ft	\$3,942.35			
Barber Shop	1000 sq ft	\$1,382.26	Repair and Service Stations	1000 sq ft	\$1,562.30			
Beauty Parlor	1000 sq ft	\$3,871.49	Group IV - Commercial (High Strength)					
Car Wash (1)	1000 sq ft	\$45,757.47	Bakeries (wholesale) Doughnut Shop	1000 SF	\$7,950.91			
Church	fixed seat	\$54.60	Banquet Room/Ball Room	1000 SF	\$22,715.53			
Commercial Use	1000 sq ft	\$1,105.80	Cafeteria	seat	\$851.42			
Dental Office/Clinic	1000 sq ft	\$3,203.58	Doughnut Shop	1000 SF	\$7,950.91			
Department and Retail Store	1000 sq ft	\$1,382.26	Hotels/Motels (w restaurants) (2)	1000 SF				
Film Processing (1 hour)	1000 sq ft	\$1,382.26	Mortuary - Embalming Area	1000 SF	\$141.70			
Health Club/Spa	1000 sq ft	\$11,059.24	Restaurant - Take-out (1)	1000 SF	\$8,518.90			
Hospitals	bed	\$1,293.98	Restaurant - Drive-thru/Fast Food	per seat	\$569.16			
Indoor Theatre	1000 sq ft	\$7,472.33	Restaurant - Fast food/Outdoor seat	per seat	\$340.34			
Laundromats	1000 sq ft	\$61,529.17	Restaurant - Full service/Indoor seat	per seat	\$851.42			
Laundromats	machine	\$2,274.34	Restaurant - Full service/Outdoor seat	per seat	\$511.08			
Library: Public Area	1000 sq ft	\$1,105.80	Supermarkets	1000 SF	\$2,840.03			
Lumber Yard	1000 sq ft	\$493.66	Group V - Institutional Uses					
Membership Organizations	1000 sq ft	\$2,563.57	Church School Day Care/Elementary	occupant	\$104.54			
Motion Pictures (Studios)	1000 sq ft	\$320.60	Church School One Day Use	1000 SF	\$2,607.71			
Professional Offices	1000 sq ft	\$2,563.57	Schools - Elementary/Junior	per student	\$102.22			
Social Services	1000 sq ft	\$2,563.57	Schools - High	per student	\$156.81			
Softwater Service	1000 sq ft	\$2,222.08						
Theater (Cinema)	Seat	\$54.60						
Warehouse	1000 sq ft	\$276.46						

Notes:

(1) Car wash area is the tunnel area and restaurant area is the gross customer area.

(2) Calculated separately for (a) a hotel without restaurant and (b) a restaurant.

Table 1-3. Existing Wastewater Collection DIFs

Customer Class	Unit	Current DIF Effective 7/1/2018
Residential		
Estate	Dwelling Unit	\$1,974.65
Single-Family	Dwelling Unit	\$1,974.65
Multi-Family	Dwelling Unit	\$1,974.65
Mobile Homes	Dwelling Unit	\$1,974.65
Office Space	Lineal Front Foot	\$78.99
Retail	Lineal Front Foot	\$78.99
Service Space	Lineal Front Foot	\$78.99
Industrial	Lineal Front Foot	\$78.99

Table 1-3 shows that the collection DIF is applied to residential customers on a per-dwelling unit basis, and it is applied to non-residential customers per lineal front foot.

Section 2

Proposed Development Impact Fees

2.1 Overview of Methodology

The methodology used to update the Development Impact Fee is intended to be consistent with California Government Code Sections 66000-66025 and industry standards, one of which is the American Water Works Association Manual M1 (AWWA M1 Manual).

Specific relevant portions of California Government Code Sections 66000-66025 include the following:

- For any fee that is a condition of approval of a development project, the local agency must “determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed” (Section 66001(b))
- A fee shall not include the costs attributable to existing deficiencies in public facilities, but may include the costs attributable to the increased demand for public facilities reasonably related to the development project in order to (1) refurbish existing facilities to maintain the existing level of service or (2) achieve an adopted level of service that is consistent with the general plan. (Section 66001(g))

The proposed Development Impact Fees are based on the fact that water and wastewater system capacity to serve new development is provided by both existing and future infrastructure. The calculation steps introduced below, with additional detail contained below with the calculations:

- Determine the Cost Basis: the cost of existing and future infrastructure required to serve new development.
- Determine the System Capacity:
 - For water, it is the demands, in units of million gallons per day, at the end of the planning period in the District’s 2012 Master Plan.
 - For wastewater, it is the treatment plant capacity after the upcoming “S1” project, as identified in the 2017 Basis of Design Report (“BODR”)
- Calculate Unit Cost of Capacity: divide Cost Basis by the System Capacity
- Calculate the Development Impact Fee for each customer class: multiply the Unit Cost of Capacity times the use of capacity for each customer class.

There are three separate DIF calculations proposed in this DIF Update.

4. Water Holding and Distribution.
5. Wastewater Treatment: Consistent with the current sewer DIF, the treatment DIF is based on the cost of the treatment plant, sewer pump stations, and pipes greater than 12” in diameter.
6. Wastewater Collection: This DIF is based on the cost of collection system pipes 12” or less in diameter, and recognizes that infill development will rely on the City’s existing small-diameter sewer mains, but new subdivisions will not.

2.2 Proposed Water DIF

2.2.1 Cost Basis

The Cost Basis is defined as the value of the existing and future infrastructure that provides capacity for future customers. FG Solutions used the City's asset records to identify the existing infrastructure to be included in the cost basis. For existing facilities, the Cost Basis is calculated as follows, and is shown in Table 2-1:

- Start with the original cost of each water system asset. Original costs were obtained from City records as of 6/30/17.
- Subtract accumulated depreciation expense, to recognize that the existing facilities that serve new customers are not new. The cost of each asset after accumulated depreciation is subtracted is referred to as the Original Cost Less Depreciation ("OCLD") value.
- Calculate the Trended OCLD, by adjusting the OCLD for inflation to show the asset value in today's dollars. This inflation adjustment uses the change in the Engineering News Report ("ENR") Los Angeles Construction Cost Index ("CCI") between the date of installation and July 2017¹. The Trended OCLD is shown in Line 7 of Table 2-1.
- Subtract contributed facilities because they were not paid for by the existing customer base (Line 12 of Table 2-1).
- Subtract outstanding debt service principal (Line 14 of Table 2-1). Debt service principal is subtracted to avoid potentially double charging new connections for capacity through DIFs and through debt service repaid through water rates. RWS-issued debt is described in more detail below.
- Add the portion of the Facilities Improvement Plan ("FIP") that has been repaid by water ratepayers (Line 16 of Table 2-1). The FIP are the capital improvements that are included in the Concession Agreement to be built and financed by the Concessionaire (Rialto Water Services, or "RWS"). FIP improvements completed to date are not yet recorded in the City's asset records but represent infrastructure that will serve new development.
- Add construction work in progress ("CWIP") (Line 17 of Table 2-1).
- Add reserves (Line 18 of Table 2-1). A portion of the reserves held in trust by RWS are included.
- Add payments made to the San Bernardino Valley Municipal Water District ("SBVMWD") for the future replacement of the Baseline Feeder wells (Line 19 of Table 2-1).
- Add the estimated cost of a pump station to serve the Renaissance East Shopping Center, which is necessary to serve new development (Line 20 of Table 2-1).

¹ For assets installed after 1958, the ENR Los Angeles CCI is used. For assets installed in 1958 or earlier (where Los Angeles CCI data are not available), the ENR 20-City CCI is also used.

Table 2-1. Water DIF Cost Basis

Line No.	Amount
1 Trended OCLD (1)	
2 Source	\$8,591,128
3 Storage	\$14,590,178
4 Distribution	\$28,791,008
5 General/SCADA	\$184,611
6 Fire Hydrants	\$218,597
7 Subtotal	\$52,375,522
8	
9 Less Contributed (2)	
10 City/RDA	(\$257,615)
11 Developer	
12 Subtotal	(\$257,615)
13	
14 Less Debt Service (3) (4)	(\$3,194,927)
15	
16 Plus Repaid Portion of FIP (3) (5)	\$420,771
17 Plus Repaid Portion of CWIP (3) (6)	\$53,897
18 Plus Repaid Portion of Reserves in Trust (3) (7)	\$233,872
19 Plus Payments to SBVMWD (8)	\$864,617
20 Plus Capacity Increasing Capital (9)	\$800,000
21	
22 Total Cost Basis	\$51,296,139

Notes:

(1) OCLD = *Original Cost Less Depreciation*. Meters and service connections are not included because the City does not pay for these items when development occurs.

(2) The only contributed assets identified in City records are labelled “City/RDA”. No developer funded facilities are identified and no conclusively identified grant funded facilities are identified. City assets labelled “maybe grant” funded are not considered grant funded for the purposes of this DIF calculation.

(3) See debt service discussion below.

(4) Part of the RWS-issued debt was to refinance an Association of Bay Area Governments (“ABAG”) loan issued in the early 2000’s. ABAG, through the ABAG Finance Authority, provides conduit financing.

(5) \$11M in water FIP costs are included, which was financed by RWS. Meter replacement costs identified as part of the FIP are not included. 3.125% of this amount is included in the DIF Cost Basis.

(6) CWIP is identified in the City’s asset data but not specified whether it is water or wastewater. For the purposes of this DIF calculation, CWIP is assumed to be 50% water and 50% wastewater.

(7) Refer to the appendix for more information on reserves held in trust.

(8) Per City staff (March 2018 teleconference), \$14,410.28 per month has been paid to SBVMWD since July 2012 for future well replacements.

(9) Source: City staff.

The depreciation expense embedded in Table 2-1 was calculated by FG Solutions. The calculation recognizes that some assets, particularly distribution system pipes and storage, have longer asset lives than what is used in City records for depreciation purposes. Specifically, a 75-year useful life of distribution system pipes and reservoirs was used in DIF calculations compared with the 50 years used in City records. The City recognizes that there are reservoirs and pipes that are over 50 years old that are functioning and the City has no near-term plans to replace these facilities.

RWS issued debt in 2012 for a variety of purposes. Uses of the RWS included paying for the FIP, refinancing then-existing Rialto Utility Authority (“RUA”) debt, and capitalizing reserves that are held in trust. This debt is being repaid by rate revenue, specifically a portion of the RWS Capital Charge that is embedded in the City’s water and wastewater rate schedule. As of 6/30/17, approximately 3.825% of this outstanding debt principal has been repaid. 96.175% of the RWS-refinanced debt principal is deducted from the Cost Basis, corresponding to the percentage of RWS debt that has not been retired.

Table 2-1 also includes the cost of capacity increasing capital that is required solely to accommodate growth. The only known capital project that is required solely for growth is a pump station to serve the Renaissance East Shopping Center. The City plans other future capital improvements, but these capital improvements are not part of the DIF calculation for the following reasons:

1. They benefit both existing and future development. An example is drilling and equipping new wells for reliability purposes that don’t increase the overall source capacity but instead provide redundant service when well(s) are down.
2. They are being funded via debt issuance, and the debt service would be repaid through water rates. As a result, new development will pay their proportionate share of these projects through water rates.

2.2.2 System Capacity

For the purposes of this DIF calculation, System Capacity is defined as the average day demand in 2040, which is the end of the planning period in the City’s most recent Water Master Plan. The Water Master Plan uses 2040 because the City’s General Plan indicates that full development of the Rialto water service area is expected to occur by 2040.

The projected 2040 average day demand is 10.67 million gallons per day (“MGD”) (Table 3-7, page 3-7 of the 2012 Water Master Plan), and is based on water consumption data between 2005 and 2011. As used in this DIF calculation, the System Capacity is 10.67 MGD.

2.2.3 Unit Cost of Capacity

The Unit Cost of Capacity is the Cost Basis divided by the System Capacity. For this DIF calculation, the Unit Cost of Capacity is \$4.81 per gallon per day (“gpd”) water consumption, where gpd water consumption is measured as average day use.

2.2.4 Proposed DIF Schedule

The DIF is calculated by multiplying the Unit Cost of Capacity by the use of system capacity. For water meters smaller than $\frac{3}{4}$ -inch, the use of system capacity is the average day water use from 2009. The year 2009 is the middle of the range of years used in the 2012 Master Plan for the water use projections that define the System Capacity.

Table 2-2 shows the proposed DIF schedule. For meters smaller than $\frac{3}{4}$ -inch, the proposed DIF is \$3,107.07. For meters larger than $\frac{3}{4}$ -inch, the proposed DIF is scaled according to the meter capacity as published in American Water Works Association (“AWWA”) documents.

Table 2-2. Proposed Water DIF

Water Meter Size	Meter Capacity, gpm (1)	Meter Equivalent Ratio (1)	Use of System Capacity gpd (2)	Proposed DIF (3)
5/8" x 3/4" Displacement	30	1.00	645.96	\$3,107.07
1" Displacement	50	1.67	1,078.75	\$5,188.79
1 1/2" Displacement	100	3.33	2,151.05	\$10,346.55
2" Displacement	160	5.33	3,442.97	\$16,560.69
3" Displacement	320	10.67	6,892.39	\$33,152.40
3" Displacement Compound	320	10.67	6,892.39	\$33,152.40
3" Class I & II Turbine	350	11.67	7,538.35	\$36,259.46
4" Displacement Compound	500	16.67	10,768.15	\$51,794.80
4" Class I Turbine	630	21.00	13,565.16	\$65,248.42
4" Class II Turbine	630	21.00	13,565.16	\$65,248.42
6" Displacement Compound	1,000	33.33	21,529.85	\$103,558.58
6" Class I Turbine	1,300	43.33	27,989.45	\$134,629.25
6" Class II Turbine	1,300	43.33	27,989.45	\$134,629.25
8" Displacement Compound	1,600	53.33	34,449.05	\$165,699.93
8" Class I Turbine	2,800	93.33	60,287.45	\$289,982.63
8" Class II Turbine	2,800	93.33	60,287.45	\$289,982.63

Notes:

(1) Source: AWWA M1 Manual, Table VII.2-5 (Seventh Edition). The meter capacity is noted in this AWWA document as the “maximum-rated safe operating flow”. The AWWA document does not contain data for Class II turbine meters. For the purposes of this calculation, the meter capacity for Class I turbine meters is used for Class II turbine meters. Rounded to nearest 0.01.

(2) Equals 645.96 gpd per meter equivalent times the meter equivalent ratio. Rounded to nearest 0.01.

(3) The DIF equals the Use of System Capacity multiplied by the Unit Cost of Capacity, rounded to the nearest \$0.01.

2.3 Proposed Wastewater Treatment DIF

2.3.1 Cost Basis

The Wastewater Cost Basis calculation is very similar to the Water Cost Basis calculation described above. The following steps are part of the Wastewater Cost Basis calculation and are described in more detail in the Water Cost Basis section of this report, above.

- Calculate the Trended OCLD
 - Start with the original cost of each wastewater system asset
 - Subtract depreciation expense
 - Adjust the OCLD for inflation using the change in the ENR Los Angeles CCI between the date of installation and July 2017.
- Subtract contributed facilities.
- Subtract outstanding debt principal. Wastewater debt service is described below.
- Add portions of the FIP that has been repaid by wastewater ratepayers.
- Add CWIP.
- Add reserves, which are discussed in more detail below.

There are some aspects of the Wastewater Cost Basis calculation that differ from the Water Cost Basis calculation:

1. Two separate wastewater DIFs. The Wastewater Collection DIF covers wastewater collection pipes 12-inches in diameter and smaller, and the Wastewater Treatment DIF covers all other wastewater facilities. As a result, separate Cost Basis calculations are made for the two DIFs.
2. Flow and wastewater strength components of the Wastewater Treatment DIF. To calculate a DIF with flow and wastewater strength components, wastewater system assets must be divided into flow, BOD, and TSS components. This was done on an asset-by-asset basis for the Cost Basis.
3. There are more reserves associated with the wastewater system than with the water system. Some of these reserves are previous DIF payments that have not yet been spent.

Table 2-3 shows the Wastewater Treatment Cost Basis calculation. Wastewater assets were divided into five categories:

- 1. Collection system flow. This is collection system pipes greater than 12-inches in diameter and pump stations. All collection system assets are flow-related.
- 2, 3, and 4. Treatment plant flow, BOD, and TSS. Guidance from the State Water Resources Control Board (Revenue Program documentation, Appendix G) was used to allocate assets into flow, BOD, and TSS components.
 - Many of the largest treatment plant expenditures could be allocated into flow, BOD, and TSS components based on their descriptions. For example, a recent flow equalization tank is 100% allocable to flow. Solids handling facilities are allocable 50% to BOD and 50% to TSS.
 - Plant 5 assets are identified only as Plant 5 and not by the separate unit operations. Plant 5 assets were allocated 1/3 to flow, 1/3 to BOD, and 1/3 to TSS.
- 5. Treatment plant indirect. In the City's asset records, some assets either (a) did not contain a sufficient description to allow for separation into flow, BOD, and TSS components, or (b) are site electrical, mechanical, and piping that support all treatment plant functions. These assets were allocated to flow, BOD, and TSS components based on a weighted average of other treatment plant assets that could be allocated. In Table 2-3, these assets are identified as "Indirect @WWTP" and allocated to flow, BOD, and TSS components in Line 9 of Table 2-3.

Debt service (Line 10 of Table 2-3) refinanced by RWS is associated with Plant 5, and is allocated 1/3 to flow, 1/3 to BOD, and 1/3 to TSS. As with water, there is a portion of the FIP and CWIP that was included in the DIF. The wastewater system has comparatively large amounts of capital reserves that represent funds paid by current customers that will be used for capital projects that benefit growth (lines 13 and 14 of Table 2-3).

Table 2-3 indicates that the total cost basis for the Wastewater Treatment DIF is just over \$88 million. Approximately 17.33 percent is allocated to BOD and 15.83 percent is allocated to TSS. The remaining 66.84 percent is allocated to flow, approximately equally split between assets in the collection system and flow-allocable assets at the wastewater treatment plant.

Table 2-3. Wastewater Treatment Cost Basis Calculation

Line No.	Flow, Collection System, > 12" Diameter	Flow @WWTP	BOD	TSS	Indirect @WWTP (1)	Total
1 Trended OCLD (2)	\$30,280,344	\$24,261,137	\$16,027,204	\$15,055,072	\$4,816,497	\$90,440,254
2						
3 Less Contributed						
4 Grant	(\$26,068)	(\$947,076)			(\$89,315)	(\$1,062,458)
5 Developer Contributed	(\$5,559,102)					(\$5,559,102)
6 City/RDA Contributed	(\$656,920)		(\$1,857,365)	(\$1,857,365)		(\$4,371,649)
7 Subtotal	\$24,038,254	\$23,314,061	\$14,169,839	\$13,197,708	\$4,727,183	\$79,447,045
8						
9 Allocation of Indirect @ WWTP Assets (1)		\$2,174,553	\$1,321,651	\$1,230,979	(\$4,727,183)	\$0
10 Less Debt Service (3) (4)		(\$3,251,029)	(\$3,251,029)	(\$3,251,029)		(\$9,753,087)
11 Plus Repaid Portion of FIP (3) (5)	\$1,071,055					\$1,071,055
12 Plus Repaid Portion of CWIP (6)	\$53,897					\$53,897
13 Plus DIF Fees Held by RUA (7)	\$1,403,992	\$1,240,756	\$682,962	\$623,662	\$0	\$3,951,372
14 Plus RUA Reserves (7) (8)	\$4,469,472	\$3,949,825	\$2,174,143	\$1,985,368	\$0	\$12,578,808
15 Plus Repaid Portion of Reserves in Trust (7) (8)	\$151,550	\$133,930	\$73,720	\$67,319	\$0	\$426,519
16						
17 Total Cost Basis	\$31,188,220	\$27,562,095	\$15,171,286	\$13,854,007	\$0	\$87,775,608
18 as Percent of Total	35.53%	31.40%	17.28%	15.78%		100.00%

2.3.2 System Capacity

For the purposes of this DIF calculation, the system capacity is defined as the average raw wastewater design parameters associated with the City's S1 project. These annual average raw wastewater design parameters are found in Table 3-2 of the S1 Basis of Design Report ("BODR") (AECOM/W.M. Lyles, July 2017), and consist of:

- Flow: 11.7 mgd
- BOD: 15,044 lb/day
- TSS: 12,259 lb/day

2.3.3 Unit Cost of Capacity

The Unit Cost of Capacity is calculated by dividing the Cost Basis by the System Capacity.

- Flow: \$5.03 per average day gpd wastewater flow ($\$5.03 = (\$31,130,463 + \$27,692,979) / 11,700,000$)
- BOD: \$1,013.94 per lb/day BOD ($\$1,013.94 = \$15,253,762 / 15,044$)
- TSS: \$1,136.42 per lb/day TSS ($\$1,136.42 = \$13,931,336 / 12,259$)

2.3.4 Proposed DIF Schedule

Changes to Customer Classifications

Table 2-4 shows the changes to customer classes that were made during this DIF update. These changes were made to simplify the DIF structure, make it easier to administer, and to remove customer classes that were redundant or no longer relevant.

Table 2-4. DIF Customer Class Changes

Customer Class Change	Reason
Auto Parking: delete category, combine with General Commercial.	Simplify DIF structure.
Barber Shops and Beauty Parlors: combine into one category; change DIF units of service from 1,000 square feet to per seat.	Simplify DIF structure. Provide better linkage to available wastewater characteristic data (wastewater flow, BOD, and TSS data).
Churches: change DIF units of service from per seat to per 1,000 square feet.	Simplify administration.
One-Hour Photo: delete category.	No longer relevant.
Delete Commercial Use category; replace with General Commercial.	Simplify DIF structure.
Dental Office: delete category, combine with Hospitals.	Simplify DIF structure; provide better linkage to available wastewater characteristic data.
Membership Organization and Social Service categories: delete, and combine into Professional Offices.	Simplify DIF structure; provide better linkage to available wastewater characteristic data.
Industrial and Manufacturing: change DIF structure. For all industry and manufacturing, the DIF will be the sum of the equivalent-sized warehouse (for domestic wastewater) and user-provided BOD, TSS, and flow characteristics of industrial process wastewater discharged to sewer.	Improve equity of DIF calculations and recognize the variation in wastewater characteristics of industrial and manufacturing customers.
Hospital: change DIF basis from per bed to per 1,000 SF.	Simplify DIF administration.
Laundromats: deleted the per-machine customer class; DIFs for all laundromats will be calculated per 1,000 SF.	Simplify DIF administration.
Libraries: delete category, combine with General Commercial.	Simplify DIF administration.
Motion Pictures (Studios): delete category, combine with General Commercial.	Simplify DIF administration.
Soft water Services: delete category, combine with General Commercial.	Simplify DIF administration.
Theater (Cinema): delete category, combine with Indoor Theatre.	Simplify DIF administration.
Gas Station (4 Bays Max): delete category, combine with Repair and Service Station.	Simplify DIF administration.
Doughnut Shop: delete category, combine with Bakeries	Simplify DIF administration.
Restaurants: reduce the number of categories to three – full service restaurants, fast food restaurants and take-out restaurants. Take-out restaurants calculate DIF based area (per 1,000 SF) instead of per seat.	Simplify DIF administration. Provide a better linkage to available wastewater characteristic data.
Church School Day Care/Elementary: delete category and combine with Elementary School.	Simplify DIF administration. Provide a better linkage to available wastewater characteristic data.
Church School One Day Use: delete category and combine with Elementary School.	Simplify DIF administration. Provide a better linkage to available wastewater characteristic data.

Use of Capacity for Each Customer Classes

Table 2-5 shows the Use of Capacity for each customer class, where Use of Capacity is an estimate of flow, BOD concentration, and TSS concentration. The data was obtained from the State Water Resources Control Board (“SWRCB”) and other California utilities that have compiled similar standards, including the Sanitation Districts of Los Angeles County, San Diego County Sanitation District, and the City of Petaluma. The notes accompanying Table 2-5 indicate the source of each standard.

Table 2-5. Use of Capacity for Each Customer Class

Customer Class	Unit of Measure	Flow, gpd	Use of Capacity BOD, mg/L	TSS mg/L	Source of Data (Refer to Notes) Flow	BOD	TSS
Single-Family Residential	SF DU	220	220	220	1	2	2
Multi-Family Residential	MF DU	187	220	220	3	2	2
Barber Shop/Beauty Parlor	per station	30	150	250	8	2	2
Car Wash	1000 sf	2,700	20	150	4	2, 4	2, 4
Church	1000 sf	50	130	100	4	2	2
General Commercial	1000 sf	100	150	150	4	4, 5	4, 5
Department and Retail Store	1000 sf	100	150	150	4	2, 5	2, 5
Health Club/Spa	1000 sf	600	250	250	4, 9	7, 9	7, 9
Hospitals, Dental Office, Clinic	1000 sf	300	250	100	4	2, 5	2, 5
Indoor Theatre	1000 sf	125	300	240	4	2	2
Laundromats	1000 sf	3,825	150	110	4	2, 5	2, 5
Lumber Yard	1000 sf	25	400	430	4	2	2
Professional Offices	1000 sf	200	130	80	4	5	5
Warehouse/Manufacturing (domestic)	1000 sf	25	150	150	4	2	2
Hotels/Motels	room	125	310	120	4	2, 5	2, 5
Manufacturing					6	6	6
Repair and Service Stations, Gas Station	1000 sf	100	180	280	4	2, 5	2, 5
Bakeries (wholesale) Doughnut Shop	1000 sf	280	1,000	600	10	2, 5	2, 5
Banquet Room/Ball Room	1000 sf	800	1,000	600	10	5	5
Mortuary - Embalming Area	1000 sf	100	800	800	4	5	5
Restaurant/Full Service and Cafeteria	seat	25	1,000	600	7	5	5
Restaurant/Fast Food	seat	15	1,000	600	7	5	5
Restaurant, Take Out	1000 sf	300	1,000	600	10	5	5
Supermarkets	1000 sf	150	800	800	4	2, 5	2, 5
Schools - Elementary/Junior/Day Care	per student	10	130	100	5	2	2, 5
Schools - High School/College	per student	20	130	100	5	2	2, 5

Notes:

(1) 55 gallons per day per capita (State Water Resources Control Board planning standard for indoor water use), applied to an average household size of 4 (approximate average household size per 2010 Census).

(2) San Diego County Sanitation District, Wastewater Cost of Service Charge Study

(3) Multi-family residential flow standard, per multi-family unit, is 85% of single-family residential flow standard. This is an approximate composite average of the practice in other local jurisdictions, including Riverside (90%) and San Diego County (80%). Confirmed, with City staff via June 2018 teleconference.

(4) Los Angeles County Sanitation District No. 1

(5) California State Water Resources Control Board, Revenue Program Guidelines (1998 Version), Appendix G

(6) Same flow, BOD, and TSS standard as warehouse for domestic wastewater with additional DIF calculated by formula (see note 12 below).

(7) City of Colton and San Bernardino Municipal Water Department

(8) City of Colton

(9) Flow standard is LA County, for health club/spas with showers.

(10) Equals the standard embedded in Rialto's existing DIF.

Proposed DIF Schedule

Table 2-6 shows the proposed DIF schedule, where the DIF is the sum of flow, BOD, and TSS components. Each component is the product of the standard (from Table 2-5) and the Unit Cost of Capacity. For BOD and TSS, the standards in Table 2-5 are concentrations, and are also multiplied by the flow standard to obtain BOD and TSS loadings in lb/day.

The Wastewater DIF for most non-residential customers is per 1,000 square foot of area. For hotels with restaurants, separate DIFs are calculated for the hotel and the restaurant and then added together. For manufacturing (including industry), the DIF equivalent warehouse is calculated, and added to the DIF calculated for non-domestic sewer flow according to the formula:

$$\text{DIF} = \text{flow (gpd)} * \$5.02 + \text{BOD (lb/day)} * \$1,007.38 + \text{TSS (lb/day)} * \$1,128.90$$

Table 2-6. Proposed Wastewater Treatment DIF Schedule

Customer Class	Unit of Measure	Flow	DIF Calculation		
			BOD	TSS	Total
Single-Family Residential	SF DU	\$1,104.71	\$407.42	\$456.56	\$1,968.69
Multi-Family Residential	MF DU	\$939.00	\$345.90	\$387.63	\$1,672.53
Barber Shop/Beauty Parlor	per station	\$150.64	\$38.32	\$71.20	\$260.16
Car Wash	1000 sf	\$13,557.76	\$454.82	\$3,818.64	\$17,831.22
Church	1000 sf	\$251.07	\$54.46	\$47.46	\$352.99
General Commercial	1000 sf	\$502.14	\$126.06	\$141.26	\$769.46
Department and Retail Store	1000 sf	\$502.14	\$126.06	\$141.26	\$769.46
Health Club/Spa	1000 sf	\$3,012.84	\$1,262.59	\$1,414.90	\$5,690.33
Hospitals, Dental Office, Clinic	1000 sf	\$1,506.42	\$631.30	\$282.53	\$2,420.24
Indoor Theatre	1000 sf	\$627.67	\$315.65	\$282.53	\$1,225.85
Laundromats	1000 sf	\$19,206.83	\$4,828.51	\$3,967.81	\$28,003.16
Lumber Yard	1000 sf	\$125.53	\$83.70	\$101.71	\$310.95
Professional Offices	1000 sf	\$1,004.28	\$218.84	\$151.43	\$1,374.55
Warehouse/Manufacturing (domestic)	1000 sf	\$125.53	\$31.26	\$35.03	\$191.83
Hotels/Motels (1)	room	\$627.67	\$325.73	\$141.26	\$1,094.67
Manufacturing (2)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Repair and Service Stations, Gas Station	1000 sf	\$502.14	\$151.27	\$264.45	\$917.85
Bakeries (wholesale) Doughnut Shop	1000 sf	\$1,405.99	\$2,355.76	\$1,584.41	\$5,346.17
Banquet Room/Ball Room	1000 sf	\$4,017.12	\$6,731.48	\$4,526.09	\$15,274.68
Mortuary - Embalming Area	1000 sf	\$502.14	\$673.65	\$754.91	\$1,930.70
Restaurant/Full Service and Cafeteria	seat	\$125.53	\$210.77	\$141.26	\$477.57
Restaurant/Fast Food	seat	\$75.32	\$126.06	\$84.76	\$286.14
Restaurant, Take Out	1000 sf	\$1,506.42	\$2,524.18	\$1,697.42	\$5,728.02
Supermarkets	1000 sf	\$753.21	\$1,009.47	\$1,131.24	\$2,893.92
Schools - Elementary/Junior/Day Care	per student	\$50.21	\$11.09	\$9.04	\$70.35
Schools - High School/College	per student	\$100.43	\$22.19	\$19.21	\$141.83

Notes:

(1) For hotels with restaurants, the DIF for the hotel and the restaurant are calculated separately then added together.

(2) For industry and heavy manufacturing, the DIF for an equivalent warehouse is calculated, and added to the DIF calculated for non-domestic sewer flow according to the formula:

$$\text{DIF} = \text{flow (gpd)} * \$5.02 + \text{BOD (lb/day)} * \$1,007.38 + \text{TSS (lb/day)} * \$1,128.90.$$

2.4 Proposed Wastewater Collection DIF

2.4.1 Cost Basis

As described earlier, the Wastewater Collection DIF covers collection system pipe 12-inches and smaller in diameter. The calculation of the Wastewater Collection Cost Basis is described above in Section 2.3.1. Table 2-7 shows the Cost Basis.

Table 2-7. Wastewater Collection Cost Basis

	Amount
Trended OCLD (1)	\$16,735,763
Less Contributed	
Grant	(\$9,676)
Developer (2)	<u>(\$2,709,635)</u>
Subtotal	\$14,016,452
Plus RUA Reserves (3)	\$2,219,217
Plus RWS Reserves Used for Projects S3, S4 (4)	\$964,730
Plus Future Facilities (5)	<u>\$26,900</u>
Total Cost Basis	\$17,227,299

Notes:

(1) *OCLD = Original Cost Less Depreciation. Depreciation expense modified by FG Solutions by recognizing that some assets, particularly collection system mains, have longer asset lives than what is used in City records for depreciation purposes. Additional asset detail included in Appendix A.*

(2) *Note that approximately 16.1 percent of the Trended OCLD value was developer funded.*

(3) *Refer to Appendix B for use of RUA reserves and reserves held in trust. RUA reserves are divided among treatment and collection based on respective trended OCLD less contributed asset value.*

(4) *Projects S3 and S4 are upsizing of sewer mains with 12" diameter mains, and the amount shown was funded from RWS restricted reserves which were accumulated from past Development Impact Fees.*

(5) *Includes 269 LF of 10-inch main needed to serve Phase 1 of the Lytle Creek development (Source: 12/14/17 memo from West Yost Associates to City of Rialto). Placeholder cost estimate of \$100/LF*

2.4.2 System Capacity

For the purposes of this DIF calculation, the system capacity is defined as the existing length of wastewater mains 12-inches in diameter or less, that were not paid for by developers. The City's 2012 Sewer Master Plan contains the length of wastewater mains 12-inches or less in diameter. The length of developer funded sewer mains is not explicitly stated in City records, and is estimated to be 16 percent of the total, corresponding to the approximately 16 percent of the Trended OCLD value of wastewater collection system assets identified in City records as developer-funded.

The system capacity for the purposes of this DIF calculation is 1,032,406 lineal feet.

2.4.3 Unit Cost of Capacity

The Unit Cost of Capacity is calculated by dividing the Cost Basis by the System Capacity, divided by 2. Because the Wastewater Collection DIF is applied per lineal front footage, dividing by 2 is necessary because it is assumed that there is a sewer connections on each side of a sewer main.

The Unit Cost of Capacity is \$8.34 per lineal front foot, and the calculation is:

$$\$8.34/\text{lineal front foot} = \$17,227,299 / 1,032,406 \text{ feet of sewer main} / 2 \text{ front feet per foot of sewer main}$$

2.4.4 Proposed DIF Schedule

The proposed Wastewater Collection DIF is shown in Table 2-8. For single-family residences, the Wastewater Collection DIF is based on 100 front feet per house with development typically on both sides of the street. The proposed Wastewater Collection DIF for multi-family residential properties is 85 percent of that for a single-family residence. For all other customers, the proposed Wastewater Collection DIF is based on the lineal front footage. For properties on corners, the DIF would be based on the longer of the two frontage segments.

Table 2-8. Proposed Wastewater Collection DIF

Customer Class	Unit of Measure	DIF
All Single-Family Residential (1)	Dwelling Unit	\$834.00
Multi-Family and Mobile Homes (2)	Dwelling Unit	\$708.90
All Non-Residential (3)	Lineal Front Foot	\$8.34

Notes:

(1) Based on 100 foot frontage per dwelling unit and houses on two sides of the street.

(2) Equals 85% of Single-Family Residential DIF, based on consistency with Wastewater Treatment DIF

(3) Assumes that on a corner lot, the longer of the two front footages is used.

Section 3

Comparison with Other Utilities

3.1 Introduction

This section shows comparisons of existing and proposed DIFs in the following locations:

- City of Rialto, in the City's water service area. Both water and wastewater service are provided by the City of Rialto.
- City of Rialto, in the West Valley Water District's water service area. Wastewater service is provided by the City of Rialto and water service is provided by the West Valley Water District. The DIFs shown in the tables below are the sum of Rialto's wastewater DIFs and West Valley's water DIF.
- City of Colton
- City of Riverside
- City of San Bernardino

DIF comparisons are provided for seven different example connection types. When reviewing these comparisons, it is vital to note the assumptions describing each example connection. DIF schedules vary substantially among utilities, and the basis for charging customers differs as well.

Water DIFs are more uniform, where the DIF is often based on the water meter size. However, Colton charges (in addition to a water meter size based DIF) a DIF component that is based on lineal front footage.

Wastewater DIFs are less uniform than water DIFs:

- Some utilities have a single DIF covering both treatment and collection. Others (including Rialto) have separate fees.
- For example, some utilities base the DIF for a restaurant on the number of seats. Others will use the maximum occupancy determined by the local Fire Department. Still others use the square footage of the restaurant. In addition, some utilities (including Rialto) add a charge based on the front footage.

3.2 Single-Family Residence

Table 3-1 and Figure 3-1 show the comparison for a single-family residence. The data shown in the table combine the water, wastewater treatment, and wastewater collection DIFs. Currently, Rialto's DIFs are the highest of this group. If Rialto's proposed DIFs are implemented, the DIF in the Rialto water service area would be the lowest of these utilities, but of comparable magnitude to Colton, Riverside, and San Bernardino.

The data shown are based on the following customer characteristics:

- a. Most common residential water meter size (5/8 x ¾ inch, except 5/8-inch in San Bernardino and 1-inch in Colton)
- b. Three bedrooms (needed to calculate the DIF in Colton)
- c. 100 lineal feet of front footage

Table 3-1. Combined Water/Wastewater DIF Comparison: Example Single-Family Residence

Service Area Within Rialto	Existing DIF (1)	Proposed DIF (1)
Rialto Water Service Area	\$13,974	\$5,910
West Valley Water Service Area (2)	\$12,561	\$9,812

Other Neighboring Cities	Current DIF
Colton	\$7,860
Riverside	\$6,393
San Bernardino	\$6,669

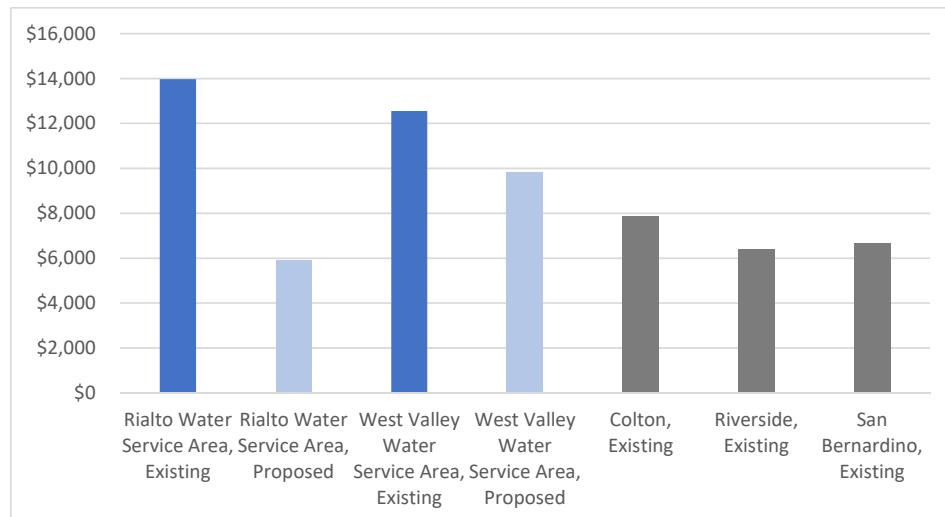
Notes:

(1) Customer Assumptions:

a. Most common residential water meter size (5/8x3/4-Inch, except 5/8-Inch in San Bernardino and 1" in Colton)

b. 3 Bedrooms

(2) Rialto's existing/proposed wastewater DIF and West Valley Water District's existing water DIF

Figure 3-1. Combined Water/Wastewater DIF Comparison: Example Single-Family Residence

Note: please refer to notes under Table 3-1 for customer assumptions.

3.3 Multi-Family Residential Unit

Table 3-2 and Figure 3-2 show the comparison for a multi-family residential unit. The data shown in the table combine the water, wastewater treatment, and wastewater collection DIFs. Currently, Rialto's DIFs are the highest of the group, for both Rialto's and West Valley's water service areas. If Rialto's proposed DIFs are implemented, the DIFs in Rialto will be comparable to Colton and Riverside.

The data shown are based on the following customer characteristics:

- One multi-family residential unit
- Where the DIF is based on water meter size, assume a 20-unit apartment building with a 2-inch meter. The DIF for a multi-family unit is 1/20 of the DIF for the building.
- Two bedrooms per unit (needed to calculate the DIF in Colton)

d. 250 lineal feet of front footage for the entire building.

Table 3-2. Combined Water/Wastewater DIF Comparison: Example Multi-Family Residential Unit

Service Area Within Rialto	Existing DIF (1)	Proposed DIF (1)
Rialto Water Service Area	\$6,967	\$3,209
West Valley Water Service Area (2)	\$6,618	\$4,239
Other Neighboring Cities	Current DIF	
Colton	\$3,465	
Riverside	\$4,461	
San Bernardino	\$5,888	

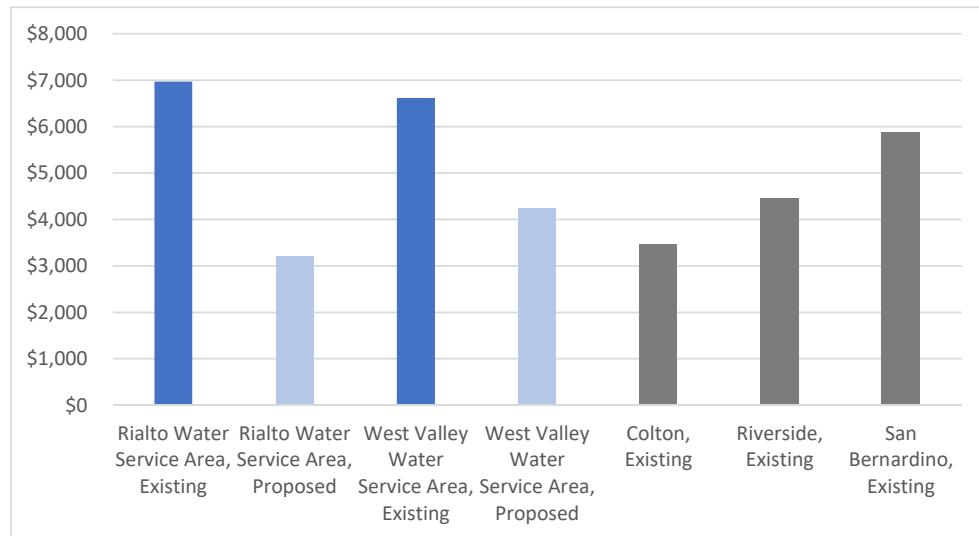
Notes:

(1) Customer Assumptions:

- a. One multi-family residential unit.
- b. Where DIF is based on water meter size, assume a 20-unit apartment building with a 2" meter DIF = 1/20 of building total.
- c. 2 Bedrooms

(2) Rialto's existing/proposed wastewater DIF and West Valley Water District's existing water DIF.

Figure 3-2. Combined Water/Wastewater DIF Comparison: Example Multi-Family Residential Unit



Note: please refer to notes under Table 3-2 for customer assumptions.

3.4 Fast Food Restaurant

Table 3-3 and Figure 3-3 show the comparison for an example fast food restaurant. Currently, Rialto's DIFs are higher than Colton, Riverside, and San Bernardino, for both Rialto's and West Valley's water service areas. If Rialto's proposed DIFs are implemented, the DIFs in Rialto would decrease but still be higher than the other three jurisdictions. Section 2 of this report shows the flow standard proposed for Rialto's DIF. It is based on a flow per 1,000 square feet. This is a change from Rialto's existing methodology, which counts indoor and outdoor seats and uses per-seat estimates of flow. This change was made to simplify DIF administration and provide better linkage

with available flow, BOD, and TSS data, though it also appears to result in higher DIFs than use of available flow data on a per-seat basis. The data shown are based on the following customer characteristics:

- a. 1-inch water meter
- b. 50 seats with 75 max occupancy
- c. 3,000 square feet
- d. 100 lineal feet of front footage

Table 3-3. Combined Water/Wastewater DIF Comparison: Example Fast Food Restaurant

Service Area Within Rialto	Existing DIF (1)	Proposed DIF (1)
Rialto Water Service Area	\$50,296	\$20,330
West Valley Water Service Area (2)	\$48,272	\$27,056
Other Neighboring Cities	Current DIF	
Colton	\$19,650	
Riverside	\$35,138	
San Bernardino	\$20,463	

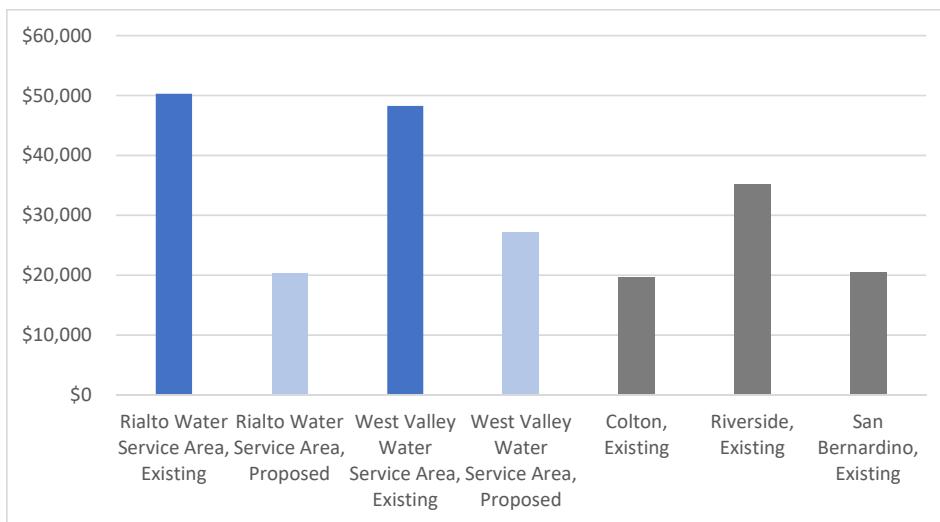
Notes:

(1) Customer Assumptions:

- a. 1-inch water meter
- b. 50 seats; 75 max occupancy
- c. 3,000 square feet
- d. 100 LF of front footage

(2) Rialto's existing/proposed wastewater DIF and West Valley Water District's existing water DIF

Figure 3-3. Combined Water/Wastewater DIF Comparison: Example Fast Food Restaurant



Note: please refer to notes under Table 3-3 for customer assumptions.

3.5 Full Service Restaurant

Table 3-4 and Figure 3-4 show the comparison for an example full service restaurant. Currently, Rialto's DIFs are higher than Colton, Riverside, and San Bernardino, for both Rialto's and West Valley's water service areas. If Rialto's

proposed DIFs are implemented, the DIFs in the Rialto water service area would decrease, and the DIF in the West Valley water service area would slightly increase. They would still be higher than the other three jurisdictions.

Section 2 of this report shows the flow standard proposed for Rialto's DIF. It is based on a flow per 1,000 square feet. This is a change from Rialto's existing methodology, which counts indoor and outdoor seats and uses per-seat estimates of flow. This change was made to simplify DIF administration and provide better linkage with available flow, BOD, and TSS data, though it also appears to result in higher DIFs than use of available flow data on a per-seat basis. The data shown are based on the following customer characteristics:

- a. 1-inch water meter
- b. 50 seats with 75 max occupancy
- c. 3,000 square feet
- d. 100 lineal feet of front footage

Table 3-4. Combined Water/Wastewater DIF Comparison: Example Full Service Restaurant

Service Area Within Rialto	Existing DIF (1)	Proposed DIF (1)
Rialto Water Service Area	\$64,409	\$29,901
West Valley Water Service Area (2)	\$62,385	\$36,627
Other Neighboring Cities	Current DIF	
Colton	\$28,650	
Riverside	\$35,138	
San Bernardino	\$26,688	

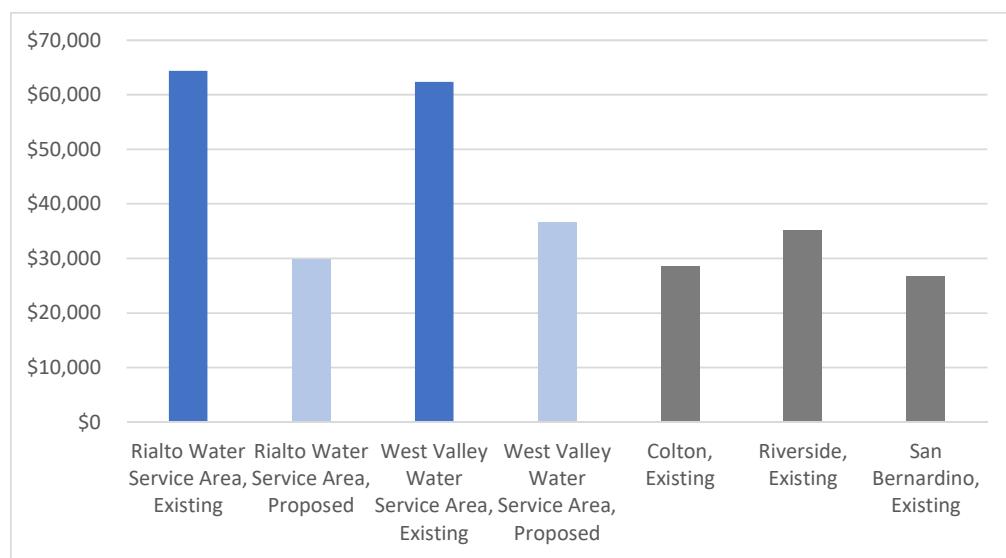
Notes:

(1) Customer Assumptions:

- a. 1-inch water meter
- b. 50 seats; 75 max occupancy
- c. 3,000 square feet
- d. 100 LF front footage

(2) Sum of Rialto's wastewater DIF and West Valley's water DIF.

Figure 3-4. Combined Water/Wastewater DIF Comparison: Example Full Service Restaurant



Note: please refer to notes under Table 3-4 for customer assumptions.

3.6 Hotel

Table 3-5 and Figure 3-5 show the comparison for a hotel, without a restaurant. Currently, Rialto's DIFs are higher than Colton, Riverside, and San Bernardino, for both Rialto's and West Valley's water service areas. If Rialto's proposed DIFs are implemented, the DIFs in the Rialto water service area be lower than the other areas, and the DIF in the West Valley water service area would be comparable to Colton, Riverside, and San Bernardino.

The data shown are based on the following customer characteristics:

- 3-inch water meter (except 4-inch in Colton, which has no DIF for a 3-inch water meter)
- 100 rooms
- 475 lineal feet of front footage

Table 3-5. Combined Water/Wastewater DIF Comparison: Example Hotel (Without Restaurant)

Service Area Within Rialto	Existing DIF (1)	Proposed DIF (1)
Rialto Water Service Area	\$320,361	\$146,581
West Valley Water Service Area (2)	\$318,152	\$195,434
Other Neighboring Cities	Current DIF	
Colton	\$217,438	
Riverside	\$177,100	
San Bernardino	\$211,250	

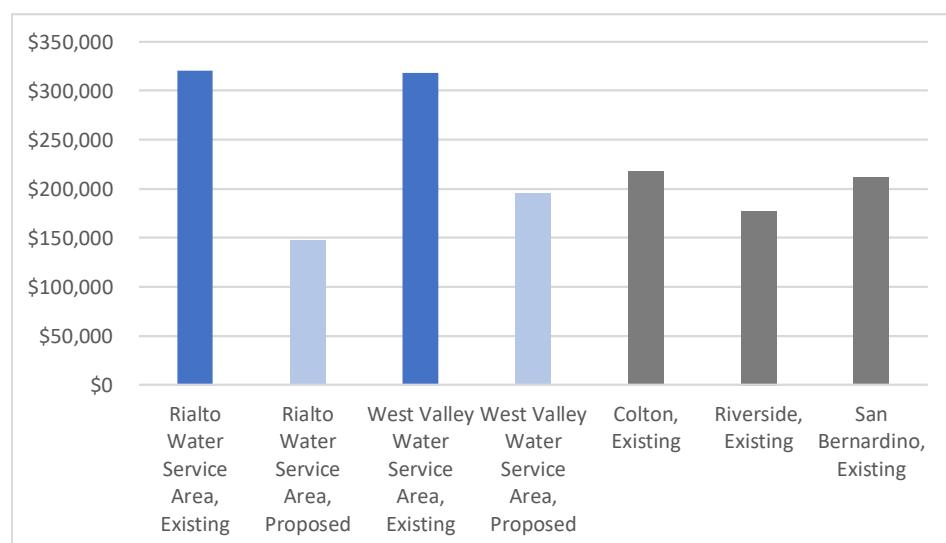
Notes:

(1) Customer Assumptions:

- 3-inch water meter (except 4-inch in Colton, which has no DIF for a 3-inch water meter)
- 100 rooms
- 475 LF front footage

(2) Sum of Rialto's wastewater DIF and West Valley's water DIF.

Figure 3-5. Combined Water/Wastewater DIF Comparison: Example Hotel



Note: please refer to notes under Table 3-5 for customer assumptions.

3.7 Warehouse

Table 3-6 and Figure 3-6 show the comparison for an example warehouse. Currently, Rialto's DIFs are higher than Colton, Riverside, and San Bernardino, for both Rialto's and West Valley's water service areas. If Rialto's proposed DIFs are implemented, the DIFs in the Rialto water service area be comparable to the other three jurisdictions.

The data shown are based on the following customer characteristics:

- 3-inch water meter (except 4-inch in Colton, which has no DIF for a 3-inch water meter)
- 600,000 square feet
- 1,100 lineal feet of front footage

Table 3-6. Combined Water/Wastewater DIF Comparison: Example Warehouse

Service Area Within Rialto	Existing DIF (1)	Proposed DIF (1)
Rialto Water Service Area	\$336,978	\$157,425
West Valley Water Service Area (2)	\$334,770	\$206,277
Other Neighboring Cities	Current DIF	
Colton	\$237,750	
Riverside	\$94,900	
San Bernardino	\$175,599	

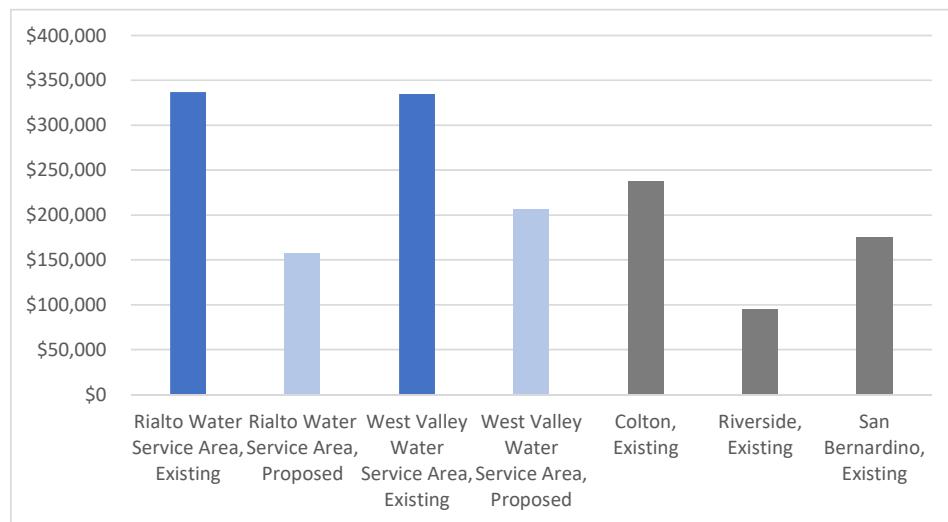
Notes:

(1) Customer Assumptions:

- 3-inch water meter (except 4-inch in Colton, which has no DIF for a 3-inch water meter)
- 600,000 square feet
- 1,100 LF front footage

(2) Sum of Rialto's wastewater DIF and West Valley's water DIF.

Figure 3-6. Combined Water/Wastewater DIF Comparison: Example Warehouse



Note: please refer to notes under Table 3-6 for customer assumptions.

3.8 Light Industry

Table 3-7 and Figure 3-7 show the comparison for an example light industry. Industrial DIF comparisons are particularly difficult because DIFs are often calculated for industrial process wastewater discharged to sewer based on customer-provided estimates of flow, BOD, and TSS. However the threshold varies for when industries must provide estimates of process wastewater to be required. Further, some jurisdictions list the formula under which the DIF would be calculated, and some do not.

Rialto currently does not use a formula for industrial process water. The proposed DIF does use a formula, which explains why the proposed DIF increases. Colton uses an unpublished formula for heavy industrial facilities if the customer requires its own wastewater discharge permit. San Bernardino does not use a formula for light industry, but does use an unpublished formula for food processing and heavy manufacturing based on the expected wastewater discharge. Riverside, with the highest DIF in Table 3-7, applies a formula for industrial customers with no apparent distinction between light and heavy industry.

The data shown are based on the following customer characteristics:

- a. 3-inch water meter (except 4-inch in Colton, which has no DIF for a 3-inch water meter)
- b. 20,000 square feet
- c. 200 lineal feet of front footage
- d. Domestic wastewater characteristics per Rialto's warehouse standards: 25 gpd per 1,000 SF, 150 mg/L BOD, and 150 mg/L TSS.
- e. Process water discharged to sewer: 20,000 gpd, 200 mg/L BOD, and 200 mg/L TSS.

Comparison of industrial DIFs is best done using actual examples. Doing so will allow other jurisdictions (in this case Colton and San Bernardino) identify how DIFs would be charged for industrial process wastewater.

Table 3-7. Combined Water/Wastewater DIF Comparison: Example Light Industry

Service Area Within Rialto	Existing DIF (1) (3)	Proposed DIF (1) (3)
Rialto Water Service Area	\$122,127	\$214,879
West Valley Water Service Area (2)	\$119,919	\$263,731
Other Neighboring Cities	Current DIF (3)	
Colton	see text above	
Riverside	\$386,084	
San Bernardino	see text above	

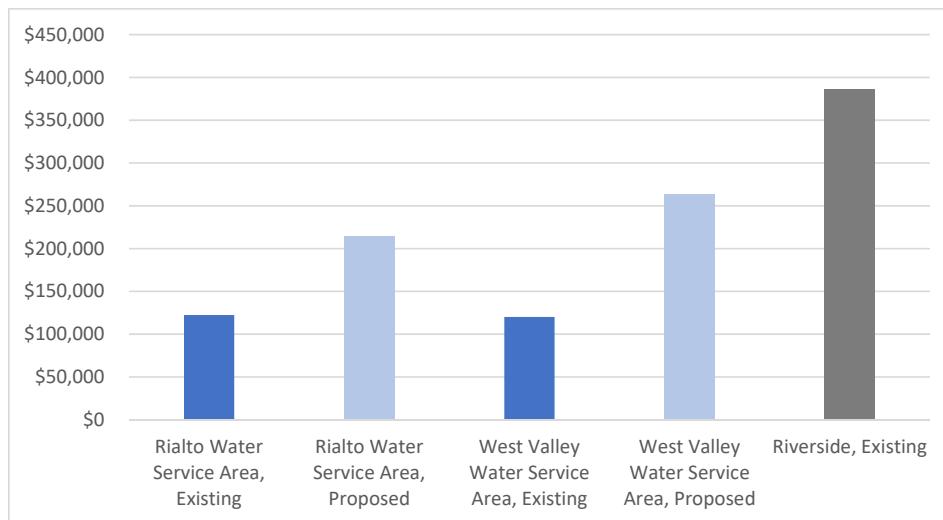
Notes:

(1) Customer Assumptions:

- a. 3-inch water meter (except 4-inch in Colton, which doesn't have a 3-inch meter DIF)
- b. 20,000 square feet
- c. 200 LF of front footage
- d. Domestic wastewater per Rialto's warehouse standards: 25 gpd/1000 SF; BOD and TSS 150 mg/L.
- e. Process wastewater of 20,000 gpd, 200 mg/L BOD, 200 mg/L TSS

(2) Rialto's existing/proposed wastewater DIF and West Valley Water District's existing water DIF

(3) Industrial DIFs are highly dependent on the characteristics of process wastewater, particularly in Riverside and as proposed for Rialto, which contain separate calculations. It is assumed that this industrial example does not have its own discharge permit, which would trigger additional fees in Colton and San Bernardino.

Figure 3-7. Combined Water/Wastewater DIF Comparison: Example Light Industry

Note: please refer to notes under Table 3-7 for customer assumptions.

Section 4

Appendix A: Asset Data

Appendix B: DIF Calculations

Appendix C: Supporting Calculations

Appendix D: ENR Cost Index Data
