

**RESOLUTION 2017.01**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF  
THE EAST VALLEY WATER DISTRICT  
ESTABLISHING A SCHEDULE OF FEES AND CHARGES RELATED TO THE  
PROVISION OF WATER AND WASTEWATER SERVICE AND RESCINDING  
RESOLUTION 2016.05**

**WHEREAS**, East Valley Water District (“District”) is a county water district organized and operating pursuant to California Water Code Section 30000 et seq.; and

**WHEREAS**, pursuant to applicable law, including but not limited to Water Code Section 31105, the District’s Board of Directors adopted Ordinance No. 389 on December 10, 2014, establishing the rules and regulations for sewer service by the District; and

**WHEREAS**, pursuant to applicable law, including but not limited to Water Code Sections 31007 and 31101, the District’s Board of Directors is authorized to adopt rates for the provision of sewer service by the District to yield an amount sufficient to pay the operating expenses of the District, provide for repairs and depreciation of works owned or operated by the District, pay the interest on any bonded debt, and, so far as possible, provide a fund for the payment of the principal of the bonded debt as it becomes due; and

**WHEREAS**, the actions taken herein are necessary for setting rates, fees, and charges for the provision of sewer service within the boundaries of the District and are therefore exempt from the requirements of the California Environmental Quality Act as provided by Public Resources Code Section 21080(b)(8); and

**WHEREAS**, the amount of the rates and charges hereby adopted do not exceed the reasonable anticipated costs for the corresponding services provided by the District, and therefore the fees imposed hereby do not qualify as a “tax” under Article XIIC, Section 1(e), of the California Constitution or Section 50076 of the California Government Code, and the actions taken herein are exempt from the additional notice and public meeting requirements of the Brown Act pursuant to Government Code Section 54954.6(a)(1)(A) and (B); and

**WHEREAS**, the District has satisfied all of the substantive and procedural prerequisites of Article XIID of the California Constitution in establishing the rates and charges set forth herein, including but not limited to, the identification of the parcels upon which the rates and charges will be imposed; the calculation of the rates and charges; the mailing of written notice to the record owners of each parcel upon which the rates and charges will be imposed describing the amount thereof, the basis upon which the rates and charges were calculated, the reason for the rates and charges, and the date, time, and location of the public hearing to be held thereon; and the conducting of a public hearing on the rates and charges not less than 45 days after mailing the notice during which all protests against the fee were considered.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of the East Valley Water District as follows:

**Section 1.** It is hereby found that the wastewater treatment rates established or increased hereby do not exceed the estimated reasonable cost of providing the service for which they are imposed and that said rates and charges do not constitute a tax pursuant to Article XIII Section 1(e) of the California Constitution.

**Section 2.** The new rates and charges are set forth in the revised Schedule of Water and Wastewater Rates and Charges as set forth in Exhibit "A", and the Sewer Treatment Rate Study prepared by the City of San Bernardino Municipal Water Department in Exhibit "B" to this Resolution.

**Section 3.** Future cost increases in wastewater services imposed by the City within five years of the date of this Resolution may be automatically passed through to ratepayers in accordance with the provisions of Government Code 53756 and other applicable provision of law.

**Section 4.** It is hereby found that the written protests against the wastewater treatment rates and charges set forth in Exhibit "A", that were received by the District prior to the close of the public hearing hereon, represented less than a majority of the parcels subject to the rates and charges set forth below and, thus, the District's Board of Directors further finds and orders that the public interest and necessity requires the adoption of the rates and charges for sewer service by the District in accordance with Ordinance No. 389, as well as affirmation and ratification of all prior rates and charges previously adopted by the District's Board of Directors.

**Section 5.** Resolution 2016.05 is hereby rescinded:

This Resolution shall take effect as of the 1<sup>st</sup> day of July 2017.

**ADOPTED** this 25<sup>th</sup> day of January 2017.


**ROLL CALL:**

Ayes: Director's: Carrillo, Coats, Morales, Shelton, Smith

Noes: None

Absent: None

Abstain: None



Ronald L. Coats  
Board President

January 25, 2017

**I HEREBY CERTIFY** that the foregoing is a full, true and correct copy of Resolution 2017.01 adopted by the Board of Directors of East Valley Water District at its Regular Meeting held January 25, 2017.

ATTEST:

  
\_\_\_\_\_  
John Mura  
Board Secretary

**EXHIBIT “A”**

**EAST VALLEY WATER DISTRICT**

**SCHEDULE OF  
WATER AND WASTEWATER  
RATES AND CHARGES**



***UPDATED JANUARY 25, 2017***

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# Section 1: Water Service Charges

## Monthly Water System Charge

The water system charge is the monthly availability charge applicable to all metered water services, and shall apply whether or not premises served by the meter are occupied. The charges, which vary by meter size, are established at the amounts listed in the table below.

Meter Size	Rates Effective on:		
	6/1/2015	7/1/2016	7/1/2017
5/8"	\$ 20.96	\$ 23.06	\$ 24.67
3/4"	\$ 26.61	\$ 29.27	\$ 31.32
1"	\$ 37.92	\$ 41.71	\$ 44.63
1 1/2"	\$ 66.19	\$ 72.81	\$ 77.91
2"	\$ 100.12	\$ 110.13	\$ 117.84
3"	\$ 207.54	\$ 228.30	\$ 244.28
4"	\$ 365.85	\$ 402.44	\$ 430.61
6"	\$ 744.67	\$ 819.14	\$ 876.48
8"	\$ 1,366.62	\$ 1,503.28	\$ 1,608.51

## Commodity Charges: Potable Water

Commodity Charges are billed on a per unit basis for water consumption registered by the water service meter. One unit is 100 cubic feet (hcf) of water, which is equal to 748 gallons.

Tiers	Rates Effective on:		
	6/1/2015	7/1/2016	7/1/2017
Tier 1 - Indoor Use	\$ 1.45	\$ 1.63	\$ 1.83
Tier 2 - Outdoor Use	\$ 2.07	\$ 2.32	\$ 2.61
Tier 3 - Inefficient Use	\$ 2.89	\$ 3.24	\$ 3.64



## **MWD Surcharge**

The MWD surcharge rate (per hundred cubic feet) for all customer types is as follows

### **Effective 6/1/2015**

Rate per HCF	\$0.00
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The MWD Surcharge Rate represents increased costs associated with water imported from the State Water Project. The charge to the District for State Water Project imported water is established by the San Bernardino Valley Municipal Water District.

Since the District has no control over the adoption or imposition of MWD water charges, imposed through San Bernardino Valley Municipal Water District for the delivery of imported water to the District, EVWD may pass-through, for a five year period beginning June 1, 2015 any increases in the cost of MWD imported water imposed by the San Bernardino Valley Municipal Water District.

## Private Fire Protection Service

### 1. Commercial Standby Charge

The fire service standby charge is the monthly charge assessed per inch diameter of the District fire service meter. Water use through this service is limited to emergency fire requirements only.

Meter Size	Rates Effective on:		
	6/1/2015	7/1/2016	7/1/2017
1"	\$ 7.97	\$ 8.78	\$ 9.40
1 1/2"	\$ 11.98	\$ 13.18	\$ 14.10
2"	\$ 15.97	\$ 17.57	\$ 18.80
3"	\$ 23.96	\$ 26.35	\$ 28.20
4"	\$ 31.94	\$ 35.14	\$ 37.59
6"	\$ 47.91	\$ 52.70	\$ 56.39
8"	\$ 63.88	\$ 70.27	\$ 75.19
10"	\$ 79.85	\$ 87.84	\$ 93.99

### 2. Fire Flow Testing

The fire flow test charge is a flat rate established to cover the District's time and effort for testing parts of the water system to obtain fire flow test data and calculate results as requested. The District will charge a one-time fee of \$100.00 to administer fire flow tests.

## Temporary Water Service Connection

A temporary service is available through the use of a fire hydrant. A customer deposit for the temporary service will be required, and all other applicable service charges shall apply.

### Monthly Service Charge

Refer to the schedule of Monthly Water System Charges for three inch (3") meters.

#### 1. Commodity Charge

Commodity charges for temporary services shall be billed at the Tier 3 rates based on the Potable Water Commodity Rates. When available, and feasible, recycled water shall be used for temporary construction uses.

The Commodity Charge shall be as follows:

Area	Rate/100 Cubic Feet
Potable	Tier 3 Rate
Recycled	TBD

#### 2. Meter Deposit

A deposit equal to the replacement cost of the construction meter shall be collected at the time of service application. Currently, the replacement cost is estimated to be \$1,800.00. The deposit will be applied to the closing bill and any remaining amount refunded to the customer. Lost meters will result in forfeiture of the deposit.

#### 3. Unauthorized use of Water Charge

The unauthorized use of water charge shall be charged to any person, organization or agency for each unauthorized use of District water or for tampering in any manner with any meter belonging to the District where this tampering shall affect the accuracy of such meter. The unauthorized use of water charge is hereby established at the rate of \$500.00 for a first occurrence and \$1,000.00 for each subsequent occurrence.

## **New Account Fees for Water Services**

The following fees are applicable to all requests for new service, or transfer of an existing account to a new location:

1. **Service Initiation Charge**

The service initiation charge is a non-refundable charge of \$30.00 per account, which covers the reasonable District costs for initiating water service.

2. **Security Deposit**

A deposit of \$150.00 will be required until a one year payment history, with fewer than two delinquencies, has been established. The deposit insures payment of minimum District charges.

## **Miscellaneous Water Service Charges and Fees**

1. **Delinquency Charge**

Rates and charges which are not paid on or before the due dates shall be subject to interest charges. Interest will be calculated at a rate of one and one-half percent (1 ½%) on all amounts that remain unpaid at the end of each billing cycle.

2. **Returned Payment Charge**

A returned check charge is a charge which covers the reasonable administrative cost and banking charges for processing a returned check.

3. **Disconnection Notice Charge**

The disconnect notice charge is the charge which covers reasonable District costs to notify customers that their water service is subject to impending termination.

4. **Service Reconnect Charge (Business Hours)**

The service reconnect charge is the charge which covers the reasonable District costs for disconnection and reconnection during regular business hours, of service connections which are in violation of the provisions contained herein.

5. **Service Reconnect Charge (After Hours)**

The service reconnect charge is the charge which covers the reasonable District costs for disconnection and reconnection during non-business hours, of service connections which are in violation of the provisions contained herein.

6. Meter Test Charge

The meter test charge is the charge which covers the District costs for removing, bench testing, and reinstalling the water meter to be tested.

7. Annual Backflow Compliance Test (per device)

A fee of \$5.00 per month will be charged to the customer when the annual backflow compliance test is performed by District staff. The customer will only be billed as a lump sum when District standards regarding the inspection, testing, and maintenance of customer-owned backflow assemblies are not followed.

8. Backflow Device Installation Fee

Installation of new backflow prevention assemblies completed by the District will be done at actual cost.

9. Backflow Device Annual Administration Fee (per device)

The District shall appoint at least one person trained in cross-connection control to administer and ensure all District standards are met. This backflow device annual administration fee will be assessed annually.

<b>Charge or Fee Name</b>	<b>Charge/Fee</b>
Delinquency Charge	1.5%
Returned Payment Charge	\$20.00
Disconnect Notice Charge	\$23.00
Service Reconnect Charge (Business Hours)	\$70.00
Service Reconnect Charge (After Hours)	\$150.00
Meter Test Charge	\$75.00
Annual Backflow Compliance Test	\$ 60.00 (\$5.00 per month)
Backflow Device Installations	Actual Cost
Backflow Annual Administration Fee	\$20.00 (per device)

## Section 2: Wastewater Service Charges

### Monthly Wastewater System Charge

#### Collection Charges

Collection charges were established to maintain the District's wastewater collection lines.

#### A. Residential Customers (1 - 3 units)

The collection charge for residential customers is a monthly fixed charge.

Customer Class	Charge
West of Boulder Avenue	\$ 15.36
East of Boulder Avenue	\$ 17.36

#### B. Commercial Customers

The collection charges for commercial customers include a small fixed charge plus a volumetric charge (water usage). Commercial accounts east of Boulder have an additional \$0.09/hcf (hundred cubic feet) charge.

Customer Class	Charge
Fixed Charge	\$ 3.90

Volumetric Charge (per HCF):

<b>Customer Class</b>	<b>West of Boulder Avenue</b>	<b>East of Boulder Avenue</b>
Multi-Family (4 or more units, Mobile Home Park)	\$ 0.55	\$ 0.64
Commercial/Retail (Non-Office, Bakery, Market)	\$ 0.55	\$ 0.64
Restaurant/Lounge	\$ 0.55	\$ 0.64
Laundromat	\$ 0.55	\$ 0.64
Dry Cleaner	\$ 0.55	\$ 0.64
School/Church (Daycare, Nursery School)	\$ 0.55	\$ 0.64
Office Building/Motel (without a restroom, Municipality)	\$ 0.55	\$ 0.64
Convalescent Home	\$ 0.55	\$ 0.64

**Treatment Charges**

The District pays treatment charges established by the City of San Bernardino for the operation and maintenance of their wastewater treatment facilities. Any future increases made by the City over the next five years following the previous public hearing, held on January 25, 2017, may be automatically passed through and incorporated herein by this reference, by action of the District's Board of Directors to the extent authorized by Government Code Section 53756 and any other applicable provision of law.

**A. Residential Customers**

Treatment charges for residential customers are a monthly fixed charge.

<b>Customer Class</b>	<b>Rates Effective on:</b>	
	<b>7/1/2016</b>	<b>7/1/2017</b>
Residential	\$ 20.85	\$ 21.55
Multi-Family (2 Units)	\$ 41.72	\$ 43.10
Multi-Family (3 Units)	\$ 62.58	\$ 64.64

**B. Commercial Customers**

Treatment charges for commercial customers include a small fixed plus a volumetric charge (water usage) which varies depending on the nature of the commercial entity.

**Fixed Charges:**

<b>Customer Class</b>	<b>Rates Effective on:</b>	
	<b>7/1/2016</b>	<b>7/1/2017</b>
Multi-Family (4+ Units), Mobile Home Parks	\$ 1.90	\$ 1.97
Non-Residential Customer Classes	\$ 3.42	\$ 3.52

**Volumetric Charges (per HCF):**

<b>Customer Class</b>	<b>Rates Effective on:</b>	
	<b>7/1/2016</b>	<b>7/1/2017</b>
Multi-Family (4+ Units), Mobile Home Parks	\$ 1.48	\$ 1.53
Commercial / Retail	\$ 2.47	\$ 2.55
Restaurants / Lounges	\$ 3.18	\$ 3.28
Laundromats	\$ 1.77	\$ 1.83
Dry Cleaners	\$ 2.47	\$ 2.55
Schools / Churches	\$ 1.29	\$ 1.33
Governments / Municipal	\$ 1.77	\$ 1.83
Convalescent Homes	\$ 1.58	\$ 1.63
Hotels (with Restaurants)	\$ 3.18	\$ 3.28
Offices Buildings / Motels	\$ 1.77	\$ 1.83
Auto Repair / Service Station	\$ 1.53	\$ 1.58
Car Wash	\$ 1.53	\$ 1.58



- **Users other than Residential:** Rates for users other than “residential” shall be computed on the basis of actual consumption as reflected by water meter readings for the billing period. Such water consumption may be reduced for the purpose of establishing sewer service charges subject to “seasonal” or “consumptive” use as recognized and approved by the Board of Directors.
- **Unmetered Commercial Dischargers:** Unmetered commercial dischargers shall be billed as follows:

Residential units in apartments, condominiums, and mobile home parks shall be billed for each dwelling unit at the rate established for single-family dwelling units. Other commercial dischargers shall be billed at a rate determined by the General Manager, based on experience from similar metered dischargers.

## Section 3: Developer Services

### Water Connection Fees

The water service connection charge is the charge for the type and size of water service connection desired. Such regular charge shall be paid in advance by the applicant. Where there is no regular charge, the District reserves the right to require the applicant to deposit an amount equal to the estimated cost of such service connection.

Meter Size	Capacity Charge	
	Harmony	Non-Harmony
3/4"	\$ 5,200.00	\$ 4,607.00
1"	\$ 8,684.00	\$ 7,694.00
1 1/2"	\$ 17,316.00	\$ 15,343.00
2"	\$ 27,714.00	\$ 24,556.00
3"	\$ 51,997.00	\$ 46,072.00
4"	\$ 86,741.00	\$ 76,858.00
6"	\$ 173,165.00	\$ 153,434.00
8"	\$ 311,983.00	\$ 276,434.00
10"	\$ 519,971.00	\$ 460,723.00

Installation charges will be estimated by the District based on availability of District staff to complete the work and site specific construction conditions and requirements. If the applicant elects not to have District staff complete the installation then an administrative fee of 5% of the estimate will be charged.

## Wastewater Connection Fees

The sewer service connection charge is the charge for the type and size of service connection desired. Such regular charge shall be paid in advance by the applicant. Where there is no such regular charge, the District reserves the right to require the applicant to deposit an amount equal to the estimated cost of such service connection. The following charges are hereby established and shall be collected at the time of application for sewer connection:

Charge or Fee Name	Charge/Fee
Permit Charge	\$ 25.00 per connection
Inspection Charge	\$ 100.00 per connection
District Conveyance Capacity Charge	\$ 3,099.00 per EDU or portion thereof
Trunk Sewer Charge	\$ 158.00 per EDU or portion thereof

The City of San Bernardino Water Reclamation Plant currently treats all wastewater flows generated by residential and commercial dischargers within the East Valley Water District service area. Accordingly, the City is responsible for establishing the Wastewater Treatment Capacity fee collected by the District for new development. The current fee established by the City is \$3,500 per equivalent dwelling unit (EDU).

## Fire Service Connection Charges

The fire service charge is the charge for the type and size of fire service connection desired. Such regular charge shall be paid in advance by the applicant. Where there is no regular charge, the District reserves the right to require the applicant to deposit an amount equal to the estimated cost of such service connection.

Installation charges will be estimated by the District based on availability of District staff to complete the work and site specific construction conditions and requirements. If the applicant elects not to have District staff complete the installation then an administrative fee of 5% of the estimate will be charged.

## Developer Services Charges and Fees

### 1. Front Footage Charge

The front footage charge is a one-time reimbursement to the District for previously constructed water mains adjacent to all sides of an unimproved property to be serviced. This charge is hereby established at a rate of \$30.00 per lineal foot.

### 2. Water Main Extension Charge

The water main extension charge is for the construction of a water main extending to the far side of the property to be served. This charge shall be based on the prevailing rates of time and material per District approved plans. The customer shall be responsible to provide the plans and for all applicable Engineering Services charges described below.

### 3. Fire Hydrant Installation Charge

Installation charges will be estimated by the District based on availability of District staff to complete the work and site specific construction conditions and requirements. If the applicant elects not to have District staff complete the installation then an administrative fee of 5% of the estimate will be charged.

### 4. Special Facility Charge

A special facility charge shall be required for development of limited service whenever special facilities, including pressure regulators are required. The charge to be made to a developer or owner of land that is considered by the District to be within a limited service area shall be based upon the developer's or landowner's proportionate share of the cost for the installation of such Special Facility. Such proportionate share to be borne by the developer or landowner shall be based on the percentage of such development to the entire limited service area to be served by the Special Facilities; and the same number of acres or area under normal conditions and the cost of facilities to serve the acreage of area under special conditions at a higher cost.

### 5. Construction Inspection Charge

Where a customer service connection or facility requires inspection by District personnel, the customer shall be charged for such inspection at the rate of \$900.00 per day. When District personnel are not available, inspection will be performed by third party inspectors retained by the District. The hourly rate for third party inspectors will be established at the beginning of each third party inspection assignment.

6. Water System Design Charge

A water system design charge shall be required for all main extensions, service connections and/or special facilities requiring the preparation of engineering plans and drawings. The water system design charge is hereby established as that fee charged by an engineering firm of the District's choosing, plus an additional 10% thereof for the District's administrative costs. In the event the costs exceed the fees charged, the additional cost will be billed to the customer.

7. Engineering Service Charges

The Engineering Services charge is a fee for the District's time and effort spent on assisting customers who have a requirement to construct water or sewer main extensions, or other water and/or sewer facilities, which must meet District needs and conform to District standards. This fee includes time and effort the District spends on plan checking, plan and easement development, and all other related work.

Prior to submission of any documents requiring work by the District, a non-refundable minimum charge in the amount of 10% of the engineer's estimated cost for the project shall be submitted to the District. The work will be accomplished on a time and effort basis. Should the District require more funds than the original charge, the additional costs will be billed and must be paid prior to allowing water and/or sewer service to the project.

8. Sewer Manhole and Valve Can Deposit

A refundable deposit of \$1,500.00 per manhole will be charged for each sewer manhole structure shown on the sewer construction plans. A refundable deposit of \$500 per valve can will be charged for each valve can as shown on the water construction plans. These deposits will be returned when all manholes and valve cans are constructed to final grade by the developer's contractor and verified by the District.

As an alternative to the manhole and valve can deposit, a guarantee bond may be provided in the same amount as the deposit. The guarantee bond shall contain covenants that are satisfactory to the District. Such bond shall remain in force until all manholes and valve cans are constructed to final grade by the developer's contractor and verified by the District.

9. Research Fee (flat rate, 4 hour minimum)

This \$200.00 fee will provide funding for engineering staff to conduct research and provide copies of materials to developer engineers' such as plans, easements, and other development related materials. This would only apply to obtaining information

for developers that is unique to their development area and not general information such as fee schedules or District design standards.

10. Development Meeting Fee (after first meeting)

This \$250.00 per hour fee will provide funding for engineering staff to prepare for and attend, meetings with developers regarding their projects beyond the initial project consultation meeting and set-up. This fee will impact primarily larger more complex developments which may require multiple coordination meetings with staff.

11. Annual Backflow Compliance Test (per device)

A fee of \$60.00 will be charged to the developer after newly installed and inspected devices (performed by District staff) are complete.

12. Backflow Inspection Fee (per inspection)

A fee of \$80.00 will be charged for each backflow inspection of newly installed backflow prevention devices, in accordance with District standards.

13. Water Quality Sampling Fee (per sample)

A fee of \$110.00 will be charged for each water quality sample taken for new construction.

14. New Construction Chlorination and Flushing Fee (\$225 minimum to actual cost)

A minimum fee of \$225.00 will be charged for new construction disinfection plan review, inspection, and flushing prior to sampling.

<b>Charge or Fee Name</b>	<b>Charge/Fee</b>
Front Footage Charge	\$30.00 (per lineal foot)
Water Main Extension Charge	
Fire Hydrant Installation Charge	Actual cost or 5% of estimate
Special Facility Charge	
Construction Inspection Charge	\$900.00 (per day) or actual cost
Water System Design Charge	Actual cost + 10%
Engineering Service Charges	10% (of Engineer's estimated project cost)
Sewer Manhole and Valve Can Deposit	\$1,500.00 (per manhole); \$500.00 (per valve can)
Research Fee	\$200.00 (flat rate, 4 hour minimum)
Development Meeting Fee	\$250.00 (per hour, after first meeting)
Annual Backflow Compliance Test	\$60.00 (per device)
Backflow Inspection Fee	\$80.00 (per inspection)
Water Quality Sampling Fee	\$110.00 (per sample)
New Construction Chlorination and Flushing Fee	\$225.00 (minimum to actual cost)

# History of Revisions

<b>DATE ADOPTED</b>	<b>RESOLUTION</b>	<b>RESCIND</b>	<b>REVISION</b>	<b>DATE EFFECTIVE</b>
01/25/17	2017.01	2016.05	Update Wastewater Treatment Fees and Renew 5-Year Pass Through Provision	07/01/17
02/24/16	2016.05	2015.04	Update Wastewater and Miscellaneous Fees	04/01/16
03/25/15	2015.04	2014.32	Implement Water Budget Based Rates	06/01/15
03/25/15	2015.04	Ord 391	Update Wastewater Fees	06/01/15



# Exhibit "B"

6.D.b

Draft Report

## Sewer Treatment Rate Study

City of San Bernardino Municipal Water Department



May 2015



Attachment: 051115 Draft Sewer Treatment Report (4053 : Sewer Treatment Charges)

Draft Report

# Sewer Treatment Rate Study

City of San Bernardino Municipal Water Department



Attachment: 051115 Draft Sewer Treatment Report (4053 : Sewer Treatment Charges)

May 2015



This report has been prepared for the use of the client for the specific purposes identified in the report. The conclusions, observations and recommendations contained herein attributed to FG Solutions, LLC constitute the opinions of FG Solutions, LLC. To the extent that statements, information and opinions provided by the client or others have been used in the preparation of this report, FG Solutions, LLC has relied upon the same to be accurate, and for which no assurances are intended and no representations or warranties are made. FG Solutions, LLC makes no certification and gives no assurances except as explicitly set forth in this report.

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Attachment: 051115 Draft Sewer Treatment Report (4053 : Sewer Treatment Charges)

# Sewer Treatment Rate Study

## City of San Bernardino Municipal Water Department

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## SEWER TREATMENT RATE STUDY

### Background

The City of San Bernardino provides sewer collection and treatment services to its customers through two separate City departments. The City of San Bernardino Municipal Water Department (“Department”) provides sewer treatment services, and the City of San Bernardino Public Services Department provides sewer collection services.

The Department provides sewer treatment services to approximately 64,000 connections in the City of San Bernardino, the City of Loma Linda, the East Valley Water District, and portions of unincorporated San Bernardino County. The Department is a semi-autonomous agency governed by the five-member Board of Water Commissioners (“BOWC”). The Department’s sewer treatment services are provided to retail customers in San Bernardino, as well as retail customers of its two Partners, the East Valley Water District (“EVWD”) and the City of Loma Linda (collectively referred to as “Partners” in this report).

A periodic analysis of the revenues and expenditures for the sewer treatment system is conducted to ensure sufficient revenues are collected to effectively provide for the short-term and long-term wastewater treatment needs of the community. The analysis includes a six-year projection of operating and capital program costs in order to provide adequate funding for upcoming expenses and to avoid significant unanticipated increases in rates. To achieve planned service goals, incremental rate increases provide a method for ensuring rate stability.

Since the most recent Sewer Treatment Rate Study was completed in approximately 2010, there have been ongoing changes in the Department’s sewer systems, and the Department seeks to update its sewer treatment rate schedule. In 2013, the Department hired Leidos Engineering, LLC (“Leidos”) to update the charges. In 2014, the Leidos project manager founded FG Solutions, LLC (“FG Solutions”), and subsequently, the District hired FG Solutions to complete the project.

The results of this Study are summarized in this report, the purposes of which are:

- To summarize the projected sewer treatment revenue requirements for the six-year study period for fiscal years (“FY”) 2015/16 through 2020/21<sup>1</sup>.
- To present the adopted schedule of sewer treatment rates effective through the end of FY 2017/18 that the BOWC and the City Council may choose to consider in the first half of 2015.

<sup>1</sup> The Department’s fiscal year begins on July 1.

Attachment: 051115 Draft Sewer Treatment Report (4053 : Sewer Treatment Charges)



## SEWER TREATMENT RATE STUDY

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- To outline potentially changing conditions with financial implications and, recommendations for ongoing monitoring of these items.

### Methodology and Key Assumptions

To provide for the continued operation of a utility on a sound financial basis, revenues must be sufficient to meet the cash requirements for operation and maintenance (O&M) expense, debt service requirements, debt service coverage requirements, reserves, and cash funded capital expenditures not financed with debt. The sum of these cost components for a given year is referred to as a utility's revenue requirement.

Historical and budgeted financial and operational data were provided by the Department and used by FG Solutions to develop the projected revenue requirement for the six-year study period. The revenue requirement analysis was an iterative process and draft versions were revised based on comments and input provided by Department staff. Next, the revenue requirement was compared with the revenues generated by the existing rates to generate additional revenues needed from rate increases. In general, rate increases were minimized while meeting reserve and debt service coverage requirements. The reserve requirements, described below, are met in the later years of the six-year projection period as the proposed rates were developed to generate these reserve levels over time.

Key assumptions used in this Study are listed below. Additional assumptions are provided in the printout of the rate calculations that comprise Appendix A.

#### Expenses

- Projected O&M expenditures are primarily based on the Department's FY 14/15 budget, and some specific adjustments to the Department's budget were made based on other known or anticipated conditions. Additional detail for O&M expense projections is included in later sections of this report.
- Inflation projected at 2.1 percent per year, unless otherwise noted.
- Projected capital expenditures through FY 20/21 were obtained from the Department's 5-Year Sewer Fund Capital Improvement Program ("CIP").
- Debt issuances are sized and timed to fund the projected capital expenditures, minimize rate increases, meet reserve requirements, and meet Debt Service Coverage Ratio ("DSCR") targets. Additional detail is found below.

#### Revenue Assumptions

- There is a 45 day lag between the date a rate increase is applicable to San Bernardino customers and the date a rate increase is applicable to the Department's Partners.
- Projected sewer rate revenues are based on FY 13/14 actual revenues.
- A 1 percent annual customer growth and revenue growth is projected.

- Non-rate revenues are based on the Department's FY 14/15 budget, which are of similar magnitude as historical values.

### Policy Assumptions

The proposed sewer treatment rates are influenced by the financial policy targets shown in Table 1. The Reserve Policy has been adopted by the BOWC. The other policies in Table 1 have not been formally adopted by the Department, but were used in the development of the adopted rate structure.

**Table 1**  
**Financial Policies**

Policy Issue	Importance of Financial Policy	Financial Policy Target
Debt Service Coverage Ratio (DSCR)	A minimum DSCR is a requirement of lenders. Exceeding the minimum DSCR provides additional flexibility for the Department to accommodate changing conditions such as unanticipated expenses and may help obtain more favorable future debt terms.	A Department's senior debt ordinances require a debt service coverage ratio greater than 1.10, but a 1.75 minimum for ratemaking purposes is used to ensure sufficient revenue is collected to cover debt service expenditures.
Amount of Future Debt Issued	A pay-as-you-go capital funding strategy (without issuing debt) requires higher up-front rate increases but decreases future costs.	Debt is issued to fund certain capital improvements, as described below.
Reserve Balance	Reserves provide more flexibility for the Department to react to changing conditions with financial implications (such as changes in capital costs, development activity, or the economy).	Described in further detail below.

## Revenue Projections

Revenue projections are a critical part of the revenue requirement analysis. The three aspects of revenue projections described in the sections below are non-rate revenues, rate revenues under the current rates effective January 1, 2012, and rate revenues from proposed rate increases.

### Non-Rate Revenues

The key sources of sewer revenues other than sewer treatment rates are the following:

- **Sewer Capacity Fees.** These are one-time fees payable at the time of development that represent a proportionate share of the cost of sewer treatment capacity. Capacity Fee revenues dropped substantially during the downturn but have rebounded to some extent in recent years. The FY 14/15 budgeted value of \$700,000 is used to project Sewer Capacity Fee revenue in each year of this Study.
- **SARI Discharge and Permits.** The Santa Ana Regional Interceptor ("SARI") station is operated by the Department under an agreement with the San Bernardino Valley Municipal Water District ("SBVMWD") for the discharge of brine



## SEWER TREATMENT RATE STUDY

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wastewater. In FY 14/15, the Department is projecting \$90,000 in SARI discharge and permit reimbursements.

- **Septic Receiving Fees.** The Department receives approximately \$100,000 per year from septic customers that deliver septage to the Department's Margaret H. Chandler Water Reclamation Plant ("WRP").
- **Industrial Waste Income.** The Department receives approximately \$90,000 per year in industrial waste income.
- **Interest Income.** The Department invests its capital and operating reserves and earns interest income on these reserves. In FY 14/15, interest income is projected to be \$510,000. For the remainder of the Study period, annual interest income is estimated to be 2.0 percent of Sewer Fund reserves.
- **Capital Grants.** The Department aggressively pursues grant funding for capital projects. Grant funding is competitive and is difficult to obtain. The Department anticipates using \$588,000 in grant funding associated with its Clean Water Factory to offset capital costs. For the purposes of this Study, no additional grant funding is projected other than what has already been received by the Department.

Additional detail of projected non-rate revenues is included in Appendix A.

### Rate Revenues under Current Rates

Table 2 shows the current sewer treatment rate schedule, which became effective on January 1, 2012.

Single-family residential customers pay a flat monthly service charge of \$18.50. Two- and three-unit multi-family customers pay a flat monthly service charge of \$18.50 per unit.

The service charge for all other customers is \$2.40 per month. In addition, all other non-industrial customers pay a usage charge that depends on the amount of metered water consumption. This usage charge depends on the type of customer.

Rates for the City's industrial customers are based on the amount of flow, biochemical oxygen demand ("BOD") and total suspended solids ("TSS") discharged.

Table 2  
Current Sewer Treatment Rate Schedule

Customer Class	Current Rates	Units
<b>Monthly Charge</b>		
Residential	\$18.50	\$/month
Multi-Family (2 Units)	\$37.00	\$/month
Multi-Family (3 Units)	\$55.50	\$/month
Multi-Family (4 or more units), Non-Residential	\$2.40	\$/month
Industrial	\$1.00	\$/month
<b>Usage Charge</b>		
Multi-Family (4+ Units), Mobile Home Parks	\$1.25	\$/hcf
Retail, Commercial, Light Industrial	\$2.10	\$/hcf
Auto Repair, Car Wash	\$1.30	\$/hcf
Offices, Motels (without Restaurants)	\$1.50	\$/hcf
Restaurants, Hotels	\$2.70	\$/hcf
Laundromats	\$1.50	\$/hcf
Hospitals, Convalescent Homes	\$1.35	\$/hcf
Schools, Churches, Nursery Schools	\$1.10	\$/hcf
Industrial		
Discharge Flow	\$900	\$/mg
Biochemical Oxygen Demand Charge	360	\$/1,000 lbs
Suspended Solids Charge	640	\$/1,000 lbs

Note: hcf means hundred cubic feet. mg means million gallons.

Table 3 summarizes actual rate revenues under the current rate schedule for FY 2013/14. Rate revenues are shown for each Partner, and separately broken out for single-family residential (including duplexes and triplexes) customers. Approximately 64 percent of rate revenue is from customers with retail service from San Bernardino. Approximately 27 percent is from East Valley Water District customers, and the remaining 9 percent are customers of the City of Loma Linda.

Attachment: 051115 Draft Sewer Treatment Report (4053 : Sewer Treatment Charges)

**Table 3**  
**Revenues under Current Rates**

Line	Customer Class	FY 13/14	
		Actual	Percentage
1	San Bernardino		
2	Residential	\$8,111,634	32%
3	Non-Residential	8,033,072	32%
4	Subtotal	\$16,144,705	64%
5			
6	East Valley Water District		
7	Residential	\$4,149,836	16%
8	Non-Residential	2,725,075	11%
9	Subtotal	\$6,874,911	27%
10			
11	Loma Linda		
12	Residential	\$991,387	4%
13	Non-Residential	1,330,102	5%
14	Subtotal	\$2,321,489	9%
15			
16	Total	\$25,341,105	100%

## Notes:

(1) Based on rates effective January 1, 2012.

Excluded from the scope of this Study is the \$2/month Trunk Line fee paid by East Valley Water District customers.

### Rate Revenues from Proposed Rate Increases

Rate revenues resulting from proposed rate increases are shown later in this report.

## Expense Projections

### O&M Expenses

Operation & maintenance ("O&M") expenses for past years (FYs 10/11, 11/12, 12/13), projected actual expenses from FY 13/14, and the FY 14/15 budget were obtained from the Department. These records were used in identifying any significant changes in costs over the last few years, which was considered when projecting O&M expenses.

In FY 12/13 and FY 13/14, the Department made accounting changes which affect how certain expenses are shown, which limit the usefulness of using expenses before FY 13/14. Included are:

- Creation of the Rapid Infiltration and Exchange ("RIX") Fund. The RIX facility is governed by a Joint Powers Agreement between the Cities of San Bernardino and Colton. San Bernardino is responsible for 80 percent of RIX costs and Colton is responsible for the remaining 20 percent. In previous years, all costs associated with the RIX facility were included in sewer treatment financial projections. Colton's 20 percent share of the costs were

## SEWER TREATMENT RATE STUDY

recorded as a revenue to partially offset costs. The creation of the RIX Fund changes how RIX costs are shown in the Department's Sewer Fund. Now, the Sewer Fund only shows San Bernardino's 80 percent share of the costs, with no offsetting revenue. The Sewer Treatment Fund will now show less expenses (because Colton's 20 percent share is not included) and less revenues (because Colton's payments for these costs are not included).

- Recording of certain administrative costs in the Administrative Division instead of in Section 4010 of the Water Reclamation Division. This change does not represent a change in expenses – rather, it is a change in where the expenses are recorded. As a result, this accounting change increases Administration Division expenses, decreases Water Reclamation Division expenses and does not change total expenses.

Table 4 shows the basis for projection of O&M expenses for FY 14/15 and the remainder of the Study period. Additional detail is included Table 5 and in the Appendix.

**Table 4**  
**O&M Expenses – Basis for Projection**

Type of Expense	FY 14/15	Succeeding Years	Notes
All Expenses Not Described Below	FY 14/15 Budget	Previous Year + Inflation	
Personnel Costs	FY 14/15 Budget Less Vacancies	Previous Year + Infl; Fill Vacancies	1
PERS	FY 14/15 Budget	Per Actuarial Projections	2
Biosolids: Contracted Services and Polymer	FY 14/15 Budget	Previous Year + Infl; Loading Growth	3
Certain Administrative Expenses	FY 14/15 Budget	Previous Year + Infl; Less Non-Recurring \$	4

## Notes:

1. There are a number of budgeted, but unfilled, positions within the Water Reclamation Division. The cost of vacant positions is excluded from financial projections, and it is assumed that the vacancies will be filled during the remainder of FY 14/15 and FY 15/16.
2. PERS projections were obtained from CalPERS actuarial data provided by the Department. Generally, PERS costs are increasing faster than inflation.
3. In addition to inflation, these expenses are projected to increase with increases in solids loadings at a rate of 1% per year.
4. Certain expenses in the FY 14/15 budget are non-recurring and are not included in projections after FY 14/15.

Table 5 summarizes the projected O&M expenses for the six-year study period for each section. A detailed list of O&M expenses is included in Appendix A. The majority of O&M expenses pay for services provided the Department's Administrative Services and Water Reclamation Divisions. The Sewer Fund also pays for a portion of the Engineering Section which is housed in the Department's Water Division.

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**Table 5**  
**Projected Operation and Maintenance Expenses**

Line	Division and Section	Section Number	Projected						
			FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21
1	Administrative Division								
2	Board of Water Commissioners	1010	\$18,275	\$18,660	\$19,050	\$19,450	\$19,850	\$20,260	\$20,680
3	Administration	1050	175,860	182,470	189,420	196,030	202,690	209,550	213,950
4	Administrative Services	1055	163,305	169,580	176,150	182,400	188,690	195,180	199,280
5	Environmental and Regulatory Compliance	1060	429,200	443,610	362,880	375,350	387,920	400,860	409,280
6	Human Resources	1070	104,208	107,950	111,910	115,700	119,510	123,440	126,030
7	Finance and Accounting	2010	408,690	423,980	439,990	455,250	470,630	486,470	496,690
8	Information Technology	2030	312,708	324,190	336,160	347,600	359,140	371,000	378,790
9	Purchasing	2040	270,174	236,270	245,150	253,610	262,150	270,940	276,620
10	Fleet	2045	174,064	145,870	184,330	190,780	197,290	203,990	208,270
11	Customer Relations	2050	72,270	74,980	77,820	80,520	83,250	86,050	87,850
12	Customer Service (1)	2060	378,147	391,590	405,640	419,080	432,650	446,620	455,980
13	Billing and Collections (1)	2070	126,794	131,380	136,210	140,810	145,460	150,230	153,390
14	Cashiering (1)	2080	204,792	212,280	220,160	227,680	235,260	243,060	248,170
15	Subtotal, Administrative Division		\$2,838,487	\$2,862,810	\$2,904,870	\$3,004,260	\$3,104,490	\$3,207,650	\$3,274,980
16									
17	Water Division								
18	Engineering	3060	\$581,262	\$602,990	\$625,760	\$647,450	\$669,320	\$691,820	\$706,340
19	Subtotal, Water Division		\$581,262	\$602,990	\$625,760	\$647,450	\$669,320	\$691,820	\$706,340
20									
21	Water Reclamation Division								
22	Water Reclamation Administration	4010	\$738,315	\$763,960	\$790,760	\$816,490	\$842,440	\$869,120	\$887,360
23	Water Reclamation Plant Operations	4020	5,939,990	6,098,390	6,262,090	6,423,760	6,587,860	6,756,010	6,897,890
24	Bio-Solid Processing	4021	2,462,500	2,529,530	2,607,310	2,687,480	2,770,130	2,855,340	2,943,180
25	RIX Facility	4025	3,754,963	3,833,820	3,914,330	3,996,530	4,080,460	4,166,150	4,253,640
26	Water Reclamation Plant Maintenance	4040	2,680,365	2,759,440	2,841,530	2,921,620	3,002,750	3,085,980	3,150,780
27	Electrical, Instrumentation, and SCADA	4042	966,340	997,160	1,029,250	1,060,310	1,091,720	1,123,970	1,147,670
28	Environmental Control	4050	659,500	682,150	705,790	728,500	751,420	774,990	791,270
29	General Administrative Expense	4090	1,311,400	1,399,760	1,095,870	1,103,150	1,110,550	1,118,120	1,125,840
30	Subtotal, Water Reclamation Division		\$18,513,393	\$19,064,210	\$19,246,930	\$19,737,840	\$20,237,330	\$20,749,680	\$21,197,530
31									
32	Adjustment for Vacancies		(\$1,110,000)	(\$370,000)	\$0	\$0	\$0	\$0	\$0
33									
34	Total, Sewer Fund O&M Expenses		\$20,823,142	\$22,160,010	\$22,777,560	\$23,389,550	\$24,011,140	\$24,649,150	\$25,178,850

## Notes:

(1) These costs are recovered solely from San Bernardino customers and are not charged to EVWD or Loma Linda customers.

### Capital Improvements and Capital Improvement Funding

The Department provided its Capital Improvement Plan, covering the years through FY 20/21. This CIP contains 90 projects incorporated into this Study, and in Table 6, the projects are grouped into one of five categories shown in Lines 1 through 5 of the table.

Attachment: 051115 Draft Sewer Treatment Report (4053 : Sewer Treatment Charges)

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**Table 6**  
**Projected Capital Improvements**

Line	Capital Project Type	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	Notes
1	Replacement/Rehabilitation of System Assets	\$10,981,700	\$1,760,000	\$3,620,000	\$3,884,500	\$1,280,875	\$601,500	\$863,750	1
2	New System Assets	6,102,296	360,000	8,875,000	12,082,000	4,585,000	570,000	2,910,000	1
3	Clean Water Factory Phases 1 - 3	2,603,700	0	2,000,000	18,250,000	0	0	0	1, 4
4	RIX - New System Assets (SBMWD Portion Only)	500,600	24,000	24,000	0	0	0	24,000	1
5	RIX - Facilities Rehabilitation (SBMWD Portion Only)	651,800	300,800	308,000	391,200	397,600	250,400	0	1
6	Plus New Engineering Staff	0	300,000	300,000	300,000	300,000	300,000	300,000	2
7	Plus Overhead Applied Property, Plant, and Equipment	425,000	433,930	443,040	452,340	461,840	471,540	481,440	3
8	Plus Capitalized Labor	1,495,200	1,526,600	1,558,660	1,591,390	1,624,810	1,658,930	1,693,770	3
9	Total	\$22,760,296	\$4,705,330	\$17,126,700	\$36,951,430	\$8,650,125	\$3,852,370	\$6,272,950	

## Notes:

- (1) FY 14/15 through FY 20/21 from the Department's CIP updated in February 2015.
- (2) Per Department discussion 10/17/13, two FTE will be needed in order to complete CIP. For the purposes of this Rate Study, expenses for these staff start in FY 15/16.
- (3) These costs are capital costs that are paid from the Department's operating budget. They are excluded from O&M expenses shown in Table 5 and included as capital expenses in this table. FY 14/15 amounts are from the Department's FY 14/15 budget, with inflationary adjustments for subsequent years.
- (4) Clean Water Factory Phase 4 (full scale design and construction) is not included in this Study.

Replacement/Rehabilitation of System Assets and New System Assets both refer to improvements at the WRP. Similarly, improvements at the RIX facility are categorized as either New System Assets or Facilities Rehabilitation. RIX costs are limited to the Department's 80 percent share of the total RIX project cost. The remaining 20 percent is covered by the City of Colton and is not included in this Study.

Projects associated with Phases 1 – 3 of the Department's Clean Water Factory are also shown. These phases include preliminary engineering, pilot testing of the advanced purification pilot plant, and design/construction of the related tertiary treatment facilities. Phase 4 (design and construction of the full-scale facility) is not yet included in rate projections.

The projected capital improvements represent a larger annual expenditure than what the Department historically has executed. Department staff anticipate that two additional engineering staff are needed to deliver the projects that constitute the CIP. Finally, an annual capital expenditure for equipment and capitalized labor is included.

The total anticipated capital expenditure over the six-year Study period is approximately \$100 million (including approximately \$22 million in the current fiscal year which ends prior to the proposed rate increases taking effect). The CIP includes Phases 1 through 3 of the Department's proposed Clean Water Factory, but does not include Phase 4, full scale design and construction.

The Department anticipates issuing debt to fund much of this CIP. In general, debt issuances are sized and timed to fund the CIP, minimize rate increases, meet reserve requirements (discussed below) and meet DSCR criteria.

The anticipated debt proceeds would fund approximately 68 percent of the estimated capital project cost through FY 20/21. Debt service payments would be paid through rate revenue and other non-rate revenues.



## SEWER TREATMENT RATE STUDY

As described above under financial policies, the sizing and timing of debt issuances is done to minimize rate impacts, meet coverage requirements, and meet reserve requirements.

## Existing and Projected Debt Service

Table 7 shows existing and projected annual debt service payments. Debt proceeds are shown in line 1, and annual debt service payments are shown in lines 2 through 8. Line 3 through 5, assuming existing Certificates of Participation are refinanced. Lines 6 and 7 shows anticipated future debt.

More detailed information on existing and projected debt service is included in Appendix A.

**Table 7**  
**Projected Debt Service Payments**

Line	Existing and Projected Debt Service	Projected						Notes	
		FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20		FY 20/21
1	Debt Proceeds	\$0	\$20,000,000	\$10,000,000	\$30,000,000	\$8,000,000	\$0	\$0	1
2	Debt Service								
3	Existing Certificates of Participation	\$3,439,412	\$0	\$0	\$0	\$0	\$0	\$0	
4	Refinanced Certificates of Participation	0	760,000	760,000	760,000	760,000	760,000	760,000	2
5	Existing SRF Loan (Subordinate Lien)	1,758,900	1,757,582	0	0	0	0	0	
6	New FY 15/16 Debt	0	1,340,000	1,340,000	1,340,000	1,340,000	1,340,000	1,340,000	3
7	New Bank Financing after FY 15/16	0	0	796,000	3,184,000	3,821,000	3,821,000	3,821,000	3
8	Total Debt Service	\$5,198,312	\$3,857,582	\$2,896,000	\$5,284,000	\$5,921,000	\$5,921,000	\$5,921,000	

## Notes:

- (1) Debt issuances for this Study were sized to pay for the capital program, meet reserve and coverage requirements, and minimize rate increases.  
(2) Based on a 10-year refinancing in FY 15/16. Refinancing terms are calculated by FG Solutions from information in a 2014 presentation to the City by De La Rosa & Co.; 2.9% interest rate over 10 years, with a 10% capitalized bond reserve.  
(3) FY 15/16 information is calculated by FG Solutions, LLC based on information in a 2014 presentation of the City by De La Rosa & Co.; Refer to Appendix for more detail. After FY 15/16, projected debt terms are 6% over 30 years, with capitalized bond reserve of 8.75% of proceeds.

## Reserves

The Department has created several water system reserves. The following is a description of these reserves and their minimum balances:

- **Operating Reserve.** The minimum Operating Reserve balance is 45 days of O&M expenses. This minimum balance is maintained throughout the Study period.
- **Revenue Stabilization Reserve.** The minimum Revenue Stabilization Reserve balance is 10 percent of annual sewer sales revenue. This reserve is fully funded by the end of FY 15/16.
- **Emergency Reserve.** The minimum Emergency Reserve balance is three percent of the total plant in service. This reserve is fully funded by the end of FY 15/16.
- **Capital Replacement Reserve.** The minimum Capital Replacement Reserve balance is 20 percent of the cash-funded CIP. This reserve is fully funded by the end of FY 15/16.

- **Unrestricted Fund Balance.** The balance of Department reserves, for the purposes of this Rate Study, as Unrestricted Fund Balance. There is no minimum balance established for Unrestricted Funds, but in this Study, the intent is to keep this balance above \$0.

By the end of FY 20/21, the Department is projected to have a total of approximately \$21 million in sewer reserve balances, as shown in further detail in Table 8 below.

## Financial Projection

To provide for the continued operation of a utility on a sound financial basis, revenues must be sufficient to meet the cash requirements for operation and maintenance (O&M) expense, debt service and debt service coverage requirements, reserves, and cash funded capital expenditures not financed with debt.

Table 8 shows the Department's revenue requirement projections through FY 20/21. Lines 1 through 18 show sources of funds, including beginning year reserves, water rate revenues, other revenues, and debt proceeds.

Lines 20 through 30 show the projected uses of funds. These uses of funds include O&M expenses shown in Table 5 of this report, existing and proposed debt service shown in Table 7 of this report, and capital expenditures. Line 32 shows the projected end year reserve balance.



## SEWER TREATMENT RATE STUDY

**Table 8**  
**Revenue Requirement Projections**

Line		Projected						
		FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21
1	<b>SOURCES OF FUNDS</b>							
2	Beginning Fund Balance (Restricted and Unrestricted)	\$23,728,091	\$2,614,920	\$20,903,370	\$20,157,060	\$17,952,840	\$22,165,670	\$22,956,740
3	Sewer Rate Revenue with Current Rates	25,594,516	25,850,460	26,108,960	26,370,050	26,633,750	26,900,090	27,169,090
4	Revenues under Proposed Rate Increases							
5	% of Sales							
6	Effective Date							
7	FY 15/16		2,097,610	2,219,260	2,241,460	2,263,870	2,286,510	2,309,370
8	FY 16/17			2,298,660	2,431,970	2,456,300	2,480,860	2,505,670
9	FY 17/18				963,140	1,019,000	1,029,180	1,039,490
10	FY 18/19					1,052,110	1,062,640	1,073,260
11	FY 19/20						0	0
12	FY 20/21							0
13	Subtotal, Rate Revenue From Rate Increases	\$0	\$2,097,610	\$4,517,920	\$5,636,570	\$6,791,280	\$6,859,190	\$6,927,790
14								
15	Service Charges and Other Revenue	\$288,000	\$288,000	\$288,000	\$288,000	\$288,000	\$288,000	\$288,000
16	Interest Income and Non-Operating Revenues	1,786,060	775,300	1,141,070	1,126,140	1,062,060	1,166,310	1,182,130
17	Debt Proceeds	0	20,000,000	10,000,000	30,000,000	8,000,000	0	0
18	Total Sources of Funds	\$51,396,667	\$51,626,290	\$62,959,320	\$83,577,820	\$60,747,930	\$57,379,260	\$58,523,750
19								
20	<b>USES OF FUNDS</b>							
21	O&M Expenditures	\$20,823,142	\$22,160,010	\$22,777,560	\$23,389,550	\$24,011,140	\$24,649,150	\$25,178,850
22								
23	Total Debt Service	\$5,198,312	\$3,857,582	\$2,896,000	\$5,284,000	\$5,921,000	\$5,921,000	\$5,921,000
24								
25	Capital Expenditures							
26	Debt Funded	\$0	\$20,000,000	\$10,000,000	\$30,000,000	\$8,000,000	\$0	\$0
27	Cash Funded	22,760,296	(15,294,670)	7,128,700	6,951,430	650,125	3,852,370	6,272,960
28	Total Capital Expenditures	\$22,760,296	\$4,705,330	\$17,128,700	\$36,951,430	\$8,650,125	\$3,852,370	\$6,272,960
29								
30	Total Expenditures	\$48,781,750	\$30,722,922	\$42,802,260	\$65,624,980	\$38,582,265	\$34,422,520	\$37,372,810
31								
32	Ending Fund Balance	\$2,614,917	\$20,903,368	\$20,157,060	\$17,952,840	\$22,165,665	\$22,956,740	\$21,150,940

Table 9 shows the various reserve balances and the projected Debt Service Coverage Ratio. A minimum coverage ratio criterion of 1.75 is used for rate setting purposes. Table 9 shows that the Department exceeds this criterion throughout the Rate Study period.

**Table 9**  
**Financial Performance Indicators**

Line	Projected							
	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21		
1	<b>EOY Reserve Balance</b>							
2	Operating Reserve Minimum	\$2,732,060	\$2,808,190	\$2,883,640	\$2,960,280	\$3,038,940	\$3,104,240	
3	Revenue Stabilization Reserve (10% of Sewer Sales)	2,823,610	3,091,490	3,229,460	3,371,300	3,404,730	3,438,490	
4	Emergency Reserve (3% of Total Plant in Service)	7,211,330	7,725,190	8,833,730	9,093,230	9,208,800	9,396,990	
5	Capital Replacement Reserve (20% of the Cash Funded 5-Yr CIP)	5,210,000	5,210,000	2,910,000	5,210,000	5,210,000	5,210,000	
6	Unrestricted Fund Balance	2,926,368	1,322,190	96,010	1,530,855	2,094,270	1,220	
7	Total	\$20,903,368	\$20,157,060	\$17,952,840	\$22,165,665	\$22,956,740	\$21,150,940	
8								
9	<b>Debt Service Coverage Ratio</b>							
10	Gross Revenue	\$27,668,576	\$29,011,370	\$32,055,950	\$33,420,760	\$34,795,090	\$35,213,590	
11	Less O&M Expenses	(20,823,142)	(22,160,010)	(22,777,560)	(23,389,550)	(24,011,140)	(24,649,150)	
12	Subtotal: Revenue Available for Debt Service	6,845,434	6,851,360	9,278,390	10,031,210	10,783,950	10,564,440	
13								
14	First Tier Debt Service	3,439,412	2,100,000	2,896,000	5,284,000	5,921,000	5,921,000	
15								
16	Debt Service Coverage Ratio		1.99	3.26	3.20	1.90	1.82	1.78
17	DSCR Criterion: Minimum		1.75	1.75	1.75	1.75	1.75	1.75

## Proposed Sewer Treatment Rate Schedule

The proposed sewer treatment rate schedule shown in Table 10 contains three rate increases that would become effective later in 2015, and July 1 of 2016 and 2017. The rate increase shown in Table 10 is proposed to be applied to the various components of the rate structure as follows:

- Usage Charge are increased by the systemwide average rate revenue increases shown in Table 8: 8.5 percent increase effective later in 2015; 8.5 percent increase effective July 1, 2016; 3.25 percent increase effective July 1, 2017.
- Certain expenses are allocated only to San Bernardino and are referred to in this Rate Study as “Department-Only Expenses”. These are expenses associated with the Department’s Customer Service, Billing, and Cashiering services (Department Sections 2060, 2070, and 2080, respectively). These services are most appropriately allocated only to San Bernardino because the Department only provides them for San Bernardino customers. The Department does not provide them for EVWD and Loma Linda customers.
- Recognition of recovery of Department-Only Expenses only from San Bernardino customers is done by an addition to the Monthly Charge in addition to the systemwide average percentage increase.
- Conversely, the Monthly Charge applicable to EVWD and Loma Linda will be lower than that applicable to San Bernardino.

Not included in Table 10 is the remaining projected increase to the monthly minimum charge and commodity charge that would take effect (if adopted) in 2018.

## SEWER TREATMENT RATE STUDY

**Table 10**  
**Proposed Sewer Treatment Rate Schedule**

Line	Customer Class	Current Rates	Proposed Rates (Draft)		
			Later in 2015	7/1/2016	7/1/2017
1	System-Wide Percent Rate Increase	n/a	8.5%	8.5%	3.25%
2					
3	<b>Monthly Charge (San Bernardino)</b>				
4	Residential	\$18.50	\$20.65	\$22.38	\$23.10
5	Multi-Family (2 Units)	\$37.00	\$41.31	\$44.76	\$46.20
6	Multi-Family (3 Units)	\$55.50	\$61.96	\$67.14	\$69.29
7	Multi-Family (4 or more units), Non-Residential	\$2.40	\$3.18	\$3.42	\$3.52
8	Industrial	\$1.00	\$1.67	\$1.78	\$1.83
9	<b>Monthly Charge (EVWD and Loma Linda)</b>				
10	Residential	\$18.50	\$19.18	\$20.86	\$21.55
11	Multi-Family (2 Units)	\$37.00	\$38.37	\$41.72	\$43.10
12	Multi-Family (3 Units)	\$55.50	\$57.55	\$62.58	\$64.64
13	Multi-Family (4 or more units), Non-Residential	\$2.40	\$1.71	\$1.90	\$1.97
14	Industrial	\$1.00	\$0.20	\$0.26	\$0.28
15	<b>Usage Charge (All Customers)</b>				
16	Multi-Family (4+ Units), Mobile Home Parks	\$1.25	\$1.36	\$1.48	\$1.53
17	Retail, Commercial, Light Industrial	\$2.10	\$2.28	\$2.47	\$2.55
18	Auto Repair, Car Wash	\$1.30	\$1.41	\$1.53	\$1.58
19	Offices, Motels (without Restaurants)	\$1.50	\$1.63	\$1.77	\$1.83
20	Restaurants, Hotels	\$2.70	\$2.93	\$3.18	\$3.28
21	Laundromats	\$1.50	\$1.63	\$1.77	\$1.83
22	Hospitals, Convalescent Homes	\$1.35	\$1.46	\$1.58	\$1.63
23	Schools, Churches, Nursery Schools	\$1.10	\$1.19	\$1.29	\$1.33
24	Industrial				
25	Discharge Flow	\$900	\$977	\$1,060	\$1,094
26	Biochemical Oxygen Demand Charge	360	391	424	438
27	Suspended Solids Charge	640	694	753	778

## Example Monthly Sewer Bill Comparison

Table 11 compares example monthly residential sewer bills with those for other local utilities. The comparison includes both sewer treatment, provided by the Department, and sewer collection, currently provided by the City. The draft results of the concurrent Sewer Collection Rate Study are also included.

Where possible, Table 11 separately identifies rates for sewer collection and treatment, as some but not all utilities have separate charges.

This table shows that the Department's monthly sewer bill for this average residential customer is lower than most neighboring agencies<sup>2</sup>, even after the proposed three rate increases. The table shows currently available information about sewer rates that will be in effect as of later in 2015 and where known, includes in the table notes information about future rate increases that have already been adopted.

<sup>2</sup> Note that the two utilities served by Inland Empire Utilities Agency (IEUA) appear to have lower sewer treatment rates than other utilities. However, Table 11 does not show that IEUA collects property tax revenues in addition to user charge revenues. IEUA's FY 14/15 Budget shows \$62.8M of user charge revenues and \$40.1M of property tax revenues.

**Table 11**  
**Monthly Single-Family Residential Bill Comparison**

Line	Utility	Treatment	Collection	Total
1	San Bernardino			
2	Existing	\$18.50	\$4.00	\$22.50
3	Proposed Later in 2015	\$20.65	\$9.00	\$29.65
4	Proposed 7/1/16	\$22.38	\$9.45	\$31.83
5	Proposed 7/1/17	\$23.10	\$9.92	\$33.02
6				
7	Other Jurisdictions, Rates Later in 2015 (1)			
8	Rialto (4)	N/A	N/A	\$50.72
9	East Valley Water District (3)	\$19.18	\$15.36	\$34.54
10	Riverside (5)	N/A	N/A	\$33.62
11	Colton (2)	N/A	N/A	\$33.00
12	Loma Linda (3)	\$19.18	\$10.97	\$30.15
13	Redlands	N/A	N/A	\$23.24
14	Fontana (6)	\$14.39	\$7.37	\$21.76
15	Cucamonga Valley Water District (6)	\$14.39	\$5.73	\$20.12

**Notes:**

- (1) Rates effective later in 2015, to the extent rate increases have already been adopted. "N/A" means that treatment and collection rates are not broken out separately.
- (2) Colton's rate will increase to \$34.33 as of 7/1/17.
- (3) Includes the proposed Department sewer treatment rate increase effective later in 2015. EVWD and Loma Linda's sewer collection rate was calculated by FG Solutions, LLC by subtracting the Department's sewer treatment charge from the total charge.
- (4) Rialto's rate will increase to \$60.19 in 2015.
- (5) Riverside's rate will increase to \$39.59 as of 7/1/17.
- (6) Sewer treatment provided by Inland Empire Utilities Agency (IEUA). IEUA has adopted treatment rate increases to \$15.89 effective 10/1/15, with gradual increases to \$20 by FY 19/20. IEUA also collects property tax revenues not shown in this table. Its FY 14/15 budget shows \$61.8M in user charge revenue and \$40.2M in property tax revenue.

Comparisons with other jurisdictions can be useful, but they do not in themselves explain why utility rates are set at the levels they are. Each utility is unique and has its own set of circumstances that influence rate setting. In particular, the following are not apparent from a monthly bill comparison:

- Age of infrastructure and needed capital investments in order to maintain service and comply with regulatory mandates.
- The condition of the infrastructure and the extent to which a utility chooses to invest in repairs and replacements to its infrastructure.
- Whether a utility is currently deferring capital investment and whether large capital expenditures loom in the future.
- Specifically to the comparison shown in Table 11, any additional future rate for other jurisdictions increases not already adopted and not shown in Table 11.

## SEWER TREATMENT RATE STUDY

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- Level of treatment, capacity of facilities, final disposition of the treated wastewater, point of discharge, etc.

### Ongoing Considerations

The financial plan shown in Table 8 extends for a period of six years, and rate increases are proposed for the first three years. There are a number of factors that will change over the next few years that have financial implications. The extent to which these factors change will influence the Department's next review of sewer rates.

The Department should continue to monitor its financial status on an ongoing basis, and should continue to monitor the following:

- **Sewer flows and customer growth.** The Rate Study assumes customer 1% annual growth through FY 20/21. Customer growth will increase the size of the customer base and will increase connection fee revenue and rate revenues compared with projections. Commercial sewer rate revenues are related to water consumption; and changes in water consumption will affect sewer rate revenues.
- **Capital project cost certainty.** The Capital Improvement Plan contains estimates of future project costs. The actual costs won't be known until the projects are designed, bid, and built.
- **Inflation rates.** The projected rates are based on a 2.1 percent annual inflation rate. Changes in inflation rates will have financial implications.
- **Interest rates.** Interest rates that differ from assumptions used in this Study will have financial implications.
- **Changing sewer flow patterns.** The sewer treatment rates shown above are based on the flow and strength of wastewater. Water use patterns in San Bernardino are changing as a result of the ongoing drought. Changing water use patterns might affect the flow and strength of wastewater from the Department's various customer classes. If water use patterns continue to change, future rate analyses may need to reassess wastewater flow and strengths from each customer class as part of a cost-of-service analysis.

# Appendix A

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Attachment: 051115 Draft Sewer Treatment Report (4053 : Sewer Treatment Charges)

