



Additional Documents Distributed for the Regular City Council Meeting September 6, 2017

Item No.	Agenda Item Description	Distributor	Document
2	PHS Animal Adoption	Julie Bank, President, Pasadena Humane Society	PowerPoint, Animal Adoption
8	Councilmember Communications	Marina Khubesrian, M.D.	PowerPoint, Various Photos
8	Councilmember Communications	Robert S. Joe	PowerPoint, Congresswoman Judy Chu Seminar on Healthcare
8	Councilmember Communications	Michael A. Cacciotti	PowerPoint, Various Photos
9	City Manager Communications	Elaine Aguilar, Interim City Manager	PowerPoint, Commission Recruitment, Clean Air Car Show & Green Living Expo, District Elections Workshop, Cruz'n for Roses
11	Minutes of the City Council Meeting of August 16, 2017	Anthony J. Mejia, Chief City Clerk	Memo to Council
19	Public Hearing to Receive Input from the Community Regarding the Creation of a City Council District-Based Electoral System Pursuant to Elections Code Section 10010	Anthony J. Mejia, Chief City Clerk	PowerPoint, Staff Presentation
19	Public Hearing to Receive Input from the Community Regarding the Creation of a City Council District-Based Electoral System Pursuant to Elections Code Section 10010	John Heller, South Pasadena Resident	Email to Council
19	Public Hearing to Receive Input from the Community Regarding the Creation of a City Council District-Based Electoral System Pursuant to Elections Code Section 10010	Beverly Biber, South Pasadena Resident	Email to Council

Regular City Council Meeting Additional Documents
September 6, 2017

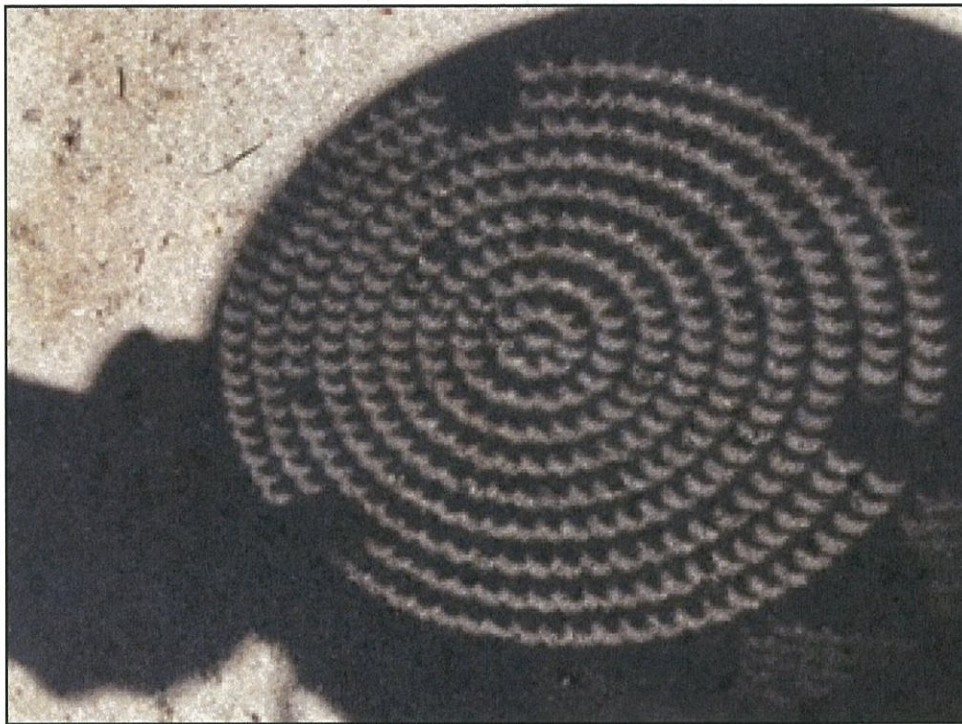
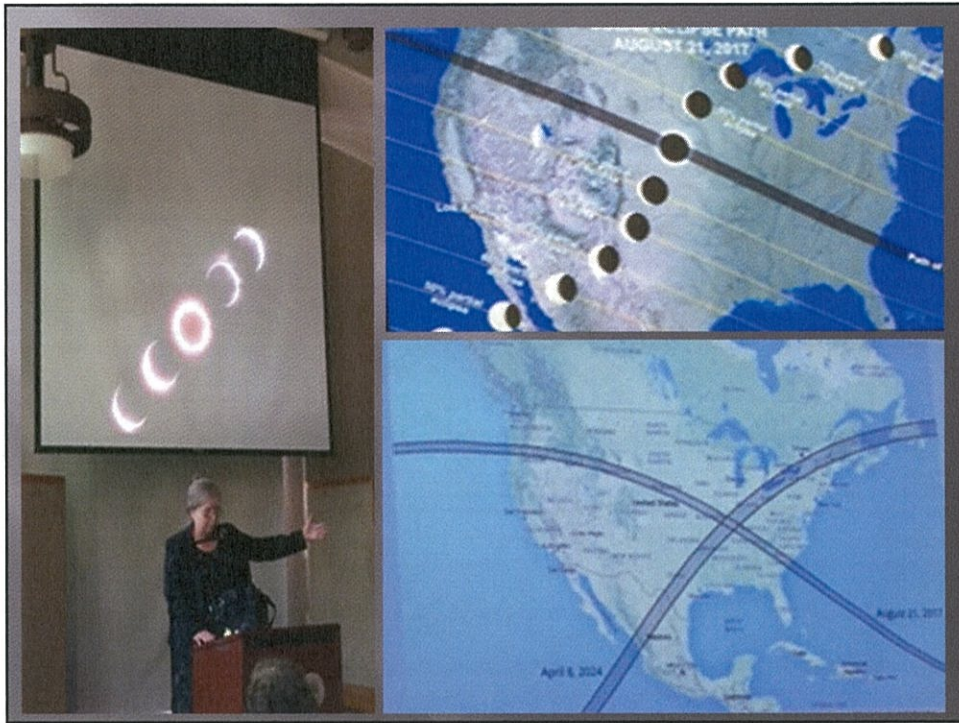
19	Public Hearing to Receive Input from the Community Regarding the Creation of a City Council District-Based Electoral System Pursuant to Elections Code Section 10010	Laurie Wheeler President/CEO, South Pasadena Chamber of Commerce	Email to Council
20	Public Hearing to Receive Input from the Community Regarding the Creation of a City Council District-Based Electoral System Pursuant to Elections Code Section 10010	Patricia LoVerme and Patrick O'Neal, South Pasadena Residents	Email to Council
20	Set a Public Hearing Date for the Proposed Water and Sewer Rates on November 1, 2017 and approve the Publication of the Proposition 218 Notice	Paul Toor Public Works Director	Memo to Council – Attachment No. 2 Water and Sewer Rates Study provided under separate cover
20	Set a Public Hearing Date for the Proposed Water and Sewer Rates on November 1, 2017 and approve the Publication of the Proposition 218 Notice	Paul Toor, Public Works Director	PowerPoint, Staff Presentation
21	First Reading and Introduction of an Ordinance to Amend the South Pasadena Municipal Code to Establish City Campaign Contribution Regulations	Anthony J. Mejia, Chief City Clerk	PowerPoint, Staff Presentation
22	Discretionary Fund Request from Mayor Cacciotti in the Amount of \$7,500 for the Purpose of Installing an Electrical Vehicle Charging Station at the Hope Street/Mound Avenue Public Parking Lot and Direction Regarding Project Funding	Kelly Koldus, South Pasadena Resident	Email to Council





CC: MK; CCC; Original to 9/16/17 Addl Docs; Reference Binder

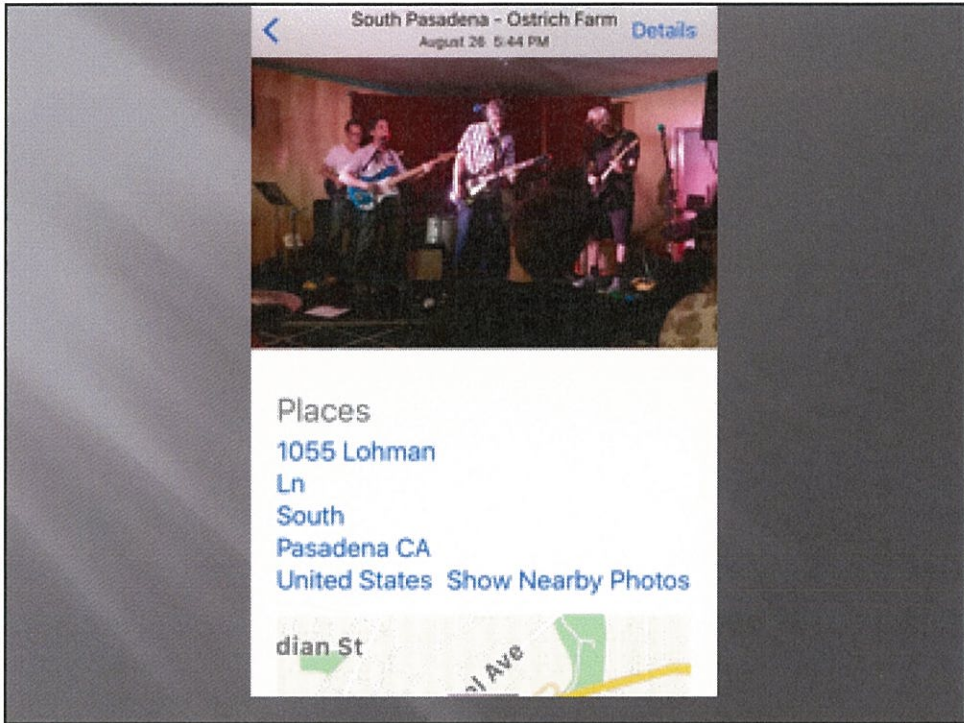
Khubesnian
Additional Material
AGENDA ITEM # 8
9/16/17 City Council Mtg.



[Faint, illegible handwritten text]









Congresswoman Judy Chu Presented Update on American Health Care Act

FRIDAY, SEPTEMBER 1, 2017
TO SOUTH PASADENA SENIOR
CENTER MEMBERS



Cc: RJOE; CC; Reference Binder; Original to 9/16/17 Addl Docs

JOE

Additional Material

AGENDA ITEM # 8

9/16/17 City Council Mtg.

Event was sponsored by Senior Citizens Commission and the City Clerks Office



City Manager Elaine Aguilar, Councilman Robert Joe, Congresswoman Judy Chu, Senior Commissioners, Alexandria Levitt, Cindi Knight, Chair Robert Vanderwall, and Senior Center Manager Liliana Torres.

Special thanks to City Clerk Zneimer for assisting with making the event possible.



Councilman Robert Joe introduces
Evelyn Zneimer



Congresswoman Chu addresses
her constituents

**Attendance of 40 + Senior Center members
asked a variety of questions regarding health care**





CC: MAC; CCL; Reference Binder; Original to 9/16/17 Addl Docs

Cacciotti
Additional Material
AGENDA ITEM # 8
9/16/17 City Council Mtg.











CITY OF SOUTH PASADENA COMMISSION RECRUITMENT

Applications are being accepted to serve on the following Commissions:

- **Cultural Heritage Commission**
- **Natural Resources & Environmental Commission (Youth Position Only)**
- **Youth Commission**

Applications may be obtained at the Office of the City Clerk, 1414 Mission Street, Second Floor, South Pasadena or on the web at: www.southpasadenaca.gov/boardsandcommissions.



Cc: Cm; ccc; Reference Binder; Original to 9/10/17 Addl Docs

Additional Material
AGENDA ITEM # 9
9/10/17 City Council Mtg.
CM Aguilar

THE CITY OF SOUTH PASADENA PRESENTS



CLEAN AIR CAR SHOW & GREEN LIVING EXPO



FREE

SUNDAY, SEPTEMBER 10, 2017
10:30AM-2:30PM | GARFIELD PARK
GREVELIA ST. & STRATFORD AVE. SOUTH PASADENA

WWW.SOUTHPASADENACA.GOV



**CITY OF SOUTH PASADENA
CONSIDERATION AND IMPLEMENTATION OF A
DISTRICT-BASED ELECTORAL SYSTEM**

SATURDAY, SEPTEMBER 16, 2017

10 a.m. – 12 p.m.

Council Chamber

1424 Mission Street, South Pasadena



A Community Workshop to present and seek community input on the content of the draft district map(s) and sequence of elections.

For further information, please contact the City Clerk's Office at (626) 403-7230.

www.southpasadenaca.gov/districts

South Pasadena Police and Fire Department



Open House



Sunday, September 17, 2017

10 AM to 3 PM

1422 Mission Street, South Pasadena



Free Giveaway Items * Police Canines * Police and Fire Station Tours * Earthquake and Disaster Safety Information
 Hot Rod & Classic Car Show * Helicopters * Child Souvenir Photographs * Antique Fire Engines * Police and Fire Demonstrations
 Hands-on Emergency Preparedness activities * Support the SPPOA "Pink Patch" Program for Breast Cancer
 Child Fingerprinting and Photographs * Enter the SPPOA raffle to win a ride in a Police Helicopter
 AND MUCH, MUCH MORE!

LOS ANGELES COUNTY'S
PrepareAthon!
 BE SMART. TAKE PART. PREPARE.

Event Generously Sponsored and Supported by:

Bristol Farms
 Your Extraordinary Food Store

COMMLine inc.
 Public Safety Communications



**TRADER
 JOE'S®**



MIJARES
 Mexican Restaurant

GET IT BACK WITH
LO/JACK

South Pasadena Police
 Officers' Association

HENRY'S
 Towing & Recovery Inc.
 www.henrystow.com

**COGENT
 SYSTEMS**



For more information visit www.southpasadenaca.gov, or call 626-403-7285



PASADENA



CRUZZIN FOR ROSES



South Pasadena Tournament of Roses *Thirteenth Annual*
HOT ROD & CLASSIC CAR SHOW 2017

All proceeds benefit the South Pasadena Tournament of Roses (the oldest self-built float in the parade)

SUNDAY, SEPTEMBER 17

10 AM to 3 PM

on Mission Street (Route 66)

From Fair Oaks to the Gold Line Mission Station



SHAW, MOSES
MENDENHALL
INSURANCE



Burke Triolo Studios • The Kutzer Company • So Pas Police Association

For information, contact: Shaw, Moses, Mendenhall & Associates (626) 799-7813
Register on line @ www.SPTOR.org



CITY OF SOUTH PASADENA

INTER-OFFICE MEMORANDUM

Date: September 6, 2017

To: Honorable Mayor and Members of the City Council

Via: Elaine Aguilar, Interim City Manager

From: Anthony J. Mejia, Chief City Clerk

Re: September 6, 2017 City Council Meeting Agenda Item No. 11 - Minutes of the City Council Meeting of August 16, 2017

Attached for your review are the draft minutes of the August 16, 2017 City Council Meeting.

CC: Council; CM; CA; Reference Binder; Original to 9/6/17 Addl Docs

Additional Material
AGENDA ITEM # 11
9/6/17 City Council Mtg.



Wednesday, August 16, 2017
Minutes of the Regular Meeting of the City Council

CALL TO ORDER

A Regular Meeting of the South Pasadena City Council was called to order by Mayor Cacciotti on Wednesday, August 16, 2017, at 7:45 p.m., in the Amedee O. "Dick" Richards, Jr., Council Chamber, located at 1424 Mission Street, South Pasadena, California.

ROLL CALL

Present: Councilmembers Joe, Khubesrian, and Mahmud; Mayor Pro Tem Schneider; and Mayor Cacciotti.

Absent: None.

City Staff

Present: Elaine Aguilar, Interim City Manager; Teresa L. Highsmith, City Attorney; Evelyn G. Zneimer, City Clerk; and Anthony J. Mejia, Chief City Clerk were present at Roll Call. Other staff members presented reports or responded to questions as indicated in the minutes.

INVOCATION

Councilmember Joe gave the invocation.

PLEDGE OF ALLEGIANCE

Councilmember Joe led the Pledge of Allegiance.

CLOSED SESSION ANNOUNCEMENTS

1. Closed Session Announcements

The Regular Closed Session of the City Council of August 16, 2017, was called to order by Mayor Cacciotti at 6:00 p.m.

The meeting convened into Closed Session to discuss the following items as listed on the Closed Session Regular Meeting Agenda:

- A. CONFERENCE WITH LEGAL COUNSEL – PUBLIC EMPLOYEE APPOINTMENT, Pursuant to Government Code Section 54957 (b) (1):

Title: City Manager

- B. CONFERENCE WITH LEGAL COUNSEL – INITIATION OF LITIGATION, Pursuant to Government Code Section 54956.9 (d)(4):

Number of Cases: 1

- C. CONFERENCE WITH LEGAL COUNSEL – LABOR NEGOTIATIONS, Pursuant to Government Code Section 54957.6:

City Negotiators: Interim City Manager Elaine Aguilar, Human Resources Manager Mariam Lee Ko, City Attorney Teresa L. Highsmith; and Attorney Steve Berliner

Represented Employee

Organizations: Firefighters' Association (FFA)
Police Officers' Association (POA)
Public Service Employees' Association (PSEA) Full Time Unit
PSEA– Part Time Unit

City Attorney Highsmith reported that the City Council received briefings and provided direction to staff regarding the agendaized Closed Session Items, but did not take any reportable action.

PRESENTATIONS

2. **Fire Department Promotional Badge Pinning and Oath of Office Ceremony of Fire Chief Paul Riddle**

Kirk Summers, Laguna Beach Fire Chief, introduced Paul Riddle as the new South Pasadena Fire Chief.

City Clerk Zneimer administered the Oath of Office to Fire Chief Riddle.

Lynn Riddle, wife of Fire Chief Riddle, conducted the badge pinning ceremony for Fire Chief Riddle.

3. **Presentation of a Certificate of Appreciation to Outgoing Commissioner Hailey Isabelle Bugg for Service on the Natural Resources & Environmental Commission**

Mayor Cacciotti read a Certificate of Appreciation for outgoing Commissioner Hailey Isabelle Bugg for her service on the Natural Resources and Environmental Commission.

4. Presentation by the San Gabriel Valley Mosquito and Vector Control District

Jared Dever, San Gabriel Valley Mosquito and Vector Control District Manager, narrated a PowerPoint presentation entitled “District Overview and Annexation Update” and responded to City Council inquiries.

APPOINTMENTS**5. Commission Appointment**

The City Council took no action on the appointment to the Cultural Heritage Commission, as the applicant withdrew his nomination.

COMMUNICATIONS**6. Councilmembers Communications**

Councilmember Khubesrian announced that the Community Services Department will reopen the Teen Center on August 21, 2017, at the Orange Grove Recreational Building; summarized the major projects and issues that will be considered by the City Council for the remainder of the year.

Councilmember Mahmud urged residents to pick up after their dogs, noting that dog feces impacts storm water quality due to bacteria; encouraged residents to attend the Public Safety Commission Special Meeting and Community Forum on the City’s Immigration Policies.

Mayor Cacciotti noted that the City’s Polystyrene Ban will become effective in November 2017; displayed photos depicting construction projects, special events, and various activities over the past week.

7. City Manager Communications

City Manager Aguilar announced a special viewing of the solar eclipse at the Library Community Room on August 21, 2017; introduced Wilber Babb, representing the Metropolitan Transportation Authority, who presented an update regarding the installation of an Americans with Disabilities Act (ADA) complaint access ramp at the south east entrance of the South Pasadena Gold Line Station.

8. Merchant Minute

Mayor Cacciotti introduced Fayez Karroum, of Fair Oaks Cigars, who invited adults to visit his business, noting that it specializes in premium cigars and spirits and is located on the corner of Fair Oaks Avenue between Mission and Hope Streets.

9. Reordering of and Additions to the Agenda

None.

PUBLIC COMMENTS

Timothy Okitsu, South Pasadena resident, announced that his Eagle Scout project is to install an interpretive sign at the entrance of the Nature Park; advised that the sign is estimated at \$1,700 and fund will be raised through yard sales and other fundraising efforts.

Glen Duncan, South Pasadena resident, announced that the Military Vehicle Preservation Association will facilitate a military vehicle convoy from Chicago to Santa Monica along the historic Route 66 in October 2017; encouraged community organizations and residents to participate in the event.

Gary Coyne, South Pasadena resident, opined that the rules and regulations at the Mission-Meridian Village Parking Garage is overly complicated; suggested that the City Council allow free parking earlier than noon, improve the signage, and allow for onsite payment.

Milena Formica and Julia Chen, South Pasadena residents, voiced concern that the Pasadena Community College (PCC) parenting classes offered at Eddie Park will be cancelled due to a rent increase; urged the City Council to work out the rental cost with PCC so that the parenting classes may resume.

Councilmember Joe requested the City Manager provide an update to the City Council regarding the rent increase for PCC, seconded by Mayor Cacciotti.

Holly Chang, South Pasadena resident, spoke in favor of the parent education course offered through PCC at Eddie Park; noted that the courses taught by Mary Beth Henry fill quickly due to the quality of her instruction.

Linda Krausen, South Pasadena resident, advised that pro far-right protests are scheduled in nine cities across the nation, including Venice, California; stated that police will be more prepared to ensure the safety of protesters and counter protesters.

The following individuals spoke in support of the current management and trainers of the San Pascual Stables, noting that management supports numerous charity events and organizations; noted that the management has facilitated the development of championship youth riders and fosters a family-oriented community; stated that if a new operator is selected for the San Pasqual Stables, many of the borders would relocate their horses to follow their current trainers.

Janet Hay, South Pasadena resident,

Rebecca Ring, South Pasadena resident,

Julia Seltz, Los Angeles resident,

Caroline Sterckx, Los Angeles resident,

Alessandra Drago, Beverly Hills resident,

Schifrin Lopez, South Gate resident,

Sydney Flashman, Pasadena resident,

Jeff Flashman, Pasadena resident,

Sydney Rusch and Jorge Quezada, South Pasadena residents,

Jill Fung, South Pasadena resident,

Terri Miller, Pasadena resident,

Avery Kim, South Pasadena resident,

Sarah Durrer, Pasadena resident,

Holly Edge-Booth, Altadena resident,

CONSENT CALENDAR

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to approve the Consent Calendar Item Nos. 10-13, 15-16, and 19-20; with Item Nos. 14, 17, and 18 pulled for separate discussion.

10. Minutes of the City Council Meeting of July 19, 2017

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to approve the minutes of the July 19, 2017 City Council Meeting.

11. Prepaid Warrants, General City Warrants, and Payroll

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to approve the City of South Pasadena Prepaid Warrants Nos. 199244 through 199516 in the amount of \$2,603,324.03; General City Warrants Nos. 199517 through 199652 in the amount of \$386,203.54; Special Payroll dated July 21, 2017, in the amount of \$206,960.22; Payroll dated July 28, 2017, in the amount of \$576,358.90; Payroll dated August 11, 2017, in the amount of \$589,619.64; and Wire Transfers in the amount of \$1,676,810.

12. Monthly Investment Reports for June 2017

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to receive and file the Monthly Investment Reports for June 2017.

13. Appointment of Voting Delegate and Alternate to Represent the City of South Pasadena at the 2017 League of California Cities' Annual Business Meeting

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to appoint Councilmember Diana Mahmud as the City of South Pasadena's voting delegate, and Councilmember Marina Khubesrian as the voting alternate for the League of California Cities' 2017 Annual Business Meeting on Friday, September 15, 2017, at the Sacramento Convention Center.

15. Contract Amendment with KOA Corporation for the Mission Street Bicycle Improvement Project to Extend the Existing Agreement Term to June 30, 2018

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to authorize the City Manager to execute a contract amendment with KOA Corporation to extend the existing agreement term until June 30, 2018.

16. Mission-Meridian Village Parking Garage Valet Parking Services Lease Agreement Renewal with Crossings Restaurant

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to authorize the City Manager to renew the lease agreement with Crossings Restaurant to provide parking for their valet services within the Mission-Meridian Village Parking Garage.

19. Approval of Resolutions: 1) Adopting a Memorandum of Understanding Between the City of South Pasadena and the South Pasadena Public Service Employees' Association, 2) Establishing Compensation and Benefits for Management Employees; and Approval of Job Descriptions for New Full-Time Classifications

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to:

1. Adopt Resolution No. 7527 entitled "A Resolution of the City Council of the City of South Pasadena, California, adopting a Memorandum of Understanding between the City of South Pasadena and the South Pasadena Public Service Employees' Association, superseding Resolution No. 7384 and Resolution No. 7479."
2. Adopt Resolution No. 7528 entitled "A Resolution of the City Council of the City of South Pasadena, California, approving Unrepresented Management Employee benefits listing and management salary schedule, superseding Resolution No. 7494."
3. Approve job descriptions for three new full-time classifications and one updated job classification within the Library Department.

20. Award of Contract to Climatec, LLC to Perform an Energy and Water Resources Investment Grade Audit

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to Authorize the City Manager to execute an agreement with Climatec, LLC to perform an energy and water resources investment grade audit.

ITEMS REMOVED FROM THE CONSENT CALENDAR FOR DISCUSSION**14. Approval of a Resolution Authorizing the Purchase of 1107 Grevelia Street and 2006 Berkshire Avenue for the Purpose of Creating Pocket Parks and Authorize the City Manager to Sign the Associated Certificate of Acceptance**

Linda Krausen, South Pasadena resident, expressed gratitude to the City Council for their support in purchasing the subject lots for the development of neighborhood pocket parks.

In response to City Council inquiry, City Manager Aguilar advised that community meetings will be conducted for the purpose of receiving feedback on the development and amenities for the proposed pocket parks.

Councilmember Mahmud requested that staff provide a status report on the in lieu of property tax payments received from Caltrans, seconded by Mayor Cacciotti.

MOTION BY COUNCILMEMBER KHUBESRIAN, SECOND BY MAYOR PRO TEM SCHNEIDER, CARRIED 5-0, to:

1. Adopt Resolution No. 7525 entitled “A Resolution of the City Council of the City of South Pasadena, California, authorizing payment from the General Fund Caltrans Vacant Lot Purchases Designated Reserve for the remaining balance associated with the purchase of 1107 Grevelia Street and 2006 Berkshire Avenue for the purpose of creating pocket parks.”
2. Authorize the City Manager to sign the associated Certificate of Acceptance.

17. Adoption of a Resolution Establishing a Two (2) Hour Parking Restriction on Rollin Street from Fremont Avenue to Ramona Avenue

Cambria Tortorelli, representing Holy Family Catholic Church, spoke in favor of extending the one-hour parking restriction to two hours, noting that it will allow parishioners to attend mass and other ceremonies.

John Srebalus, South Pasadena resident, expressed support for modifying the parking restriction, noting that it will benefit visitors to the church and parents needing to meet with school officials.

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER JOE, CARRIED 5-0, to adopt Resolution No. 7526 entitled “A Resolution of the City Council of the City of South Pasadena, California, establishing a two hour parking restriction, from 7:00 a.m. to 5:00 p.m., every day on the south side of Rollin Street from Fremont Avenue to Ramona Avenue.”

18. Authorize a Letter of Support for Assembly Bill 1180 (Holden) Los Angeles County Flood Control District: Taxes, Fees, and Charges

Councilmember Mahmud noted that a revised letter has been placed as the dais for the City Council's consideration.

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER KHUBESRIAN, CARRIED 5-0, to authorize a letter of support for Assembly Bill 1180 (Holden) Los Angeles County Flood Control District: taxes, fees, and charges, as revised.

PUBLIC HEARING

21. Public Hearing to Receive Input from the Community Regarding the Creation of a City Council District-Based Electoral System Pursuant to Elections Code Section 10010

Chief City Clerk Mejia narrated a PowerPoint presentation entitled "Developing Boundaries for a District-Based Electoral System" and responded to City Council inquiries.

In response to City Council inquiries, City Attorney Highsmith advised that the California Voting Rights Act (CVRA) does not preempt the Federal Voting Rights Act (FVRA) because it is considered to be a "stricter" application of the law; suggested that the schedule of Public Hearings be modified to ensure that the ordinance is adopted within the 90-day safe harbor period.

Mayor Cacciotti opened the Public Hearing.

Chief City Clerk Mejia read the emails of Susan Sulsky and Colin Swank which are part of the Official Record, on file with the City Clerk's Division.

Alan Ehrlich, South Pasadena resident, questioned and received clarification that candidates will be required to reside within the electoral district, if a candidate does not come forward the City Council will be required to follow the Elections Code procedures related to appointments, and the existing City Councilmembers' terms will not be extended.

Bianca Richards, South Pasadena resident, voiced concern that the Public Hearing started at 10:00 p.m.; suggested that the future Public Hearings begin earlier in the evening; supported having each proposed District converge at Mission Street.

John Srebalus, South Pasadena, spoke in favor of district elections; voiced support for consideration of renters as a community of interest, noting that the share legislative concerns and would benefit from representation on the City Council; stated that nearly 50% of the community of comprised of renters; stated that three areas with multi-family housing could expect accountability from district representation.

Shlomo Nitzani, South Pasadena, questioned and received clarification that the City Council will continue to be elected on the electoral cycle; suggested that Monterey Hills should be a community of interest, asserting that the neighborhood needs accessible representation.

Jane Schirmeister, South Pasadena resident, voiced concerned that South Pasadena is too small to divide; opined that renters do not vote as much in local elections, suggesting that proposed districts include a mix of renters and non-renters.

Linda Krausen, South Pasadena resident, questioned and received clarification that approximately 5,000 residents will be within each district; suggested that the boundaries of Mission Street and Grevelia Street and Fair Oaks Avenue and Meridian Avenue should be a neighborhood.

There being no others desiring to speak on this item, Mayor Cacciotti closed the Public Comment period.

Mayor Pro Tem Schneider read an email from Steve Garcia, South Pasadena resident, who objected to the City paying the maximum catalyst fee of \$30,000 to Kevin Shenkman, questioning whether Mr. Shenkman would sue if the City offered a lesser amount.

In response to City Council inquiry, City Attorney Highsmith advised that the City would have to submit a ballot question in order to revert back to at-large elections, provided that the CVRA is amended to comport with the FVRA. Mayor Pro Tem Schneider voiced support for pursuing a legislative edit to the CVRA.

In response to City Council inquiry, Chief City Clerk Mejia advised that election-related ordinances may be introduced, adopted, and become effective at the same time; noted that the schedule of Public Hearings does not need to be modified and an additional Community Workshop may be scheduled if the City Council so directs.

The City Council directed staff to conduct a Community Workshop on Saturday, September 16, 2017, to solicit feedback regarding the draft district maps and to forward a summary of the comments to the City Council.

ACTION/DISCUSSION

22. Resolution Adopting the South Pasadena Inventory of Cultural Resources and Review of Properties within Potential Historic Districts and Preservation Planning Districts

Senior Planner Mayer narrated a PowerPoint presentation entitled “Inventory of Cultural Resources” and responded to City Council inquiries.

In response to City Council inquiry, Christine Lazzaretto, of Historic Resources Group, advised that clarifying language will be incorporated into the inventory as it relates to the designation categories assigned for 1000 Buena Vista Street.

In response to City Council inquiries, Senior Planner Mayer explained that the draft inventory presented to the Cultural Heritage Commission (CHC) indicated delisting approximately 1,000 properties because they did not meet the eligibility requirements. Ms. Lazzaretto further explained that the subject properties could be carried forward because they were identified in a valid survey and been on the City’s Inventory for 15 years and subject to the applicable regulations. City Attorney Highsmith requested that the consultant modify the final Inventory Report to clarify the rationale for retaining the subject properties on the inventory.

Councilmember Mahmud noted that staff has advised that the survey methodology has improved and resulted in properties being recommended for delisting; questioned whether the draft inventory balances the need for preservation and property owner rights; suggested that the City Council's consideration of the inventory be postponed to allow for necessary corrections, modifications, and enhanced community outreach efforts.

Mayor Cacciotti opened the Public Comment period.

Mark Gallatin, South Pasadena resident and CHC Vice Chair, recommended that the City Council approve the subject Inventory; speaking as an individual, suggested that non-contributing properties within a historic district should be subject to review by the CHC; recommended that Preservation Planning Areas be subject to review by the Design Review Board with the development of design guidelines and overlay zones.

Karen Hallock, South Pasadena resident, voiced objection to the Inventory in its current form; expressed concern regarding errors contained in the report and a lack of public noticing; opined that her residence on Alta Vista Circle does not meet the criteria for inclusion on the Inventory, pointing out that the structure is not mid-century modern architecture.

Brian Chang, South Pasadena resident, opined that his residence on Alta Vista Circle is misclassified and requested that the City Council defer action on the subject Inventory; asserted that inclusion on the Inventory list creates an undue burden for property owners; stated that other property owner should be noticed and provided an opportunity to raise their concerns.

Mark Haynes, South Pasadena resident, noted that properties in the Altos de Monterey area are subject to Covenants, Conditions, and Restrictions (CC&Rs) development guidelines; noted that the CC&Rs will ensure preservation mid-century modern homes; suggested that the City Council postpone action on the subject Inventory to allow for property owners to provide feedback to the City.

There being no others desiring to speak on this item, Mayor Cacciotti closed the Public Comment period.

In response to City Council inquiry, CHC Vice Chair Gallatin expressed support for postponing City Council action.

The City Council requested that staff conduct expanded public outreach/noticing and to provide the City Council with delineated options, including an option to allow the Design Review Board to have a larger oversight role, and to provide information regarding the percentage of residences citywide included in the Inventory.

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER KHUBESRIAN, CARRIED 5-0, to continue this matter to a meeting on or after October 18, 2017.

23. Discussion Regarding the Roles and Responsibilities of the Freeway and Transportation Commission and the Public Works Commission

This matter was continued to a future City Council meeting, without discussion.

24. Authorize Three Full-Time, Non-Sworn Parking Control Officer Positions and Purchase of Two Vehicles

Police Captain Neff presented the staff report and responded to City Council inquiries.

Mayor Cacciotti recommended that the City Council defer action related to the purchase of vehicles to allow staff to further analysis the cost difference between the gasoline versus electric powered vehicles, including maintenance and fuel costs over the vehicle's lifetime; advised that Firefly Essential Services Vehicle has agreed to provide an electric powered vehicle demonstration.

Mayor Cacciotti opened and closed the Public Comment period, there being no one desiring to speak on this item.

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY MAYOR PRO TEM SCHNEIDER, CARRIED 5-0, to:

1. Authorize three full-time Parking Control Officers (PCO), non-sworn positions in the Police Department's Support Services Division.
2. Authorize a budget transfer from Fiscal Year 2017-18 from "Contract Services" to "Salaries-Permanent."
3. Direct staff to cost analysis gasoline and electric powered vehicles and return to the City Council for direction.

25. Authorize the Purchase of Two Administrative/Detective Vehicles, One Police Motorcycle, One Police Radio and Installation of Emergency Equipment

Police Captain Neff presented the staff report and responded to City Council inquiries.

MOTION BY COUNCILMEMBER KHUBESRIAN, SECOND BY COUNCILMEMBER MAHMUD, CARRIED 5-0, to:

1. Authorize the purchase of two new 2017 Ford Police Utility Vehicles in the amount of \$59,521.60, from Wondries Fleet Group under the Cooperative Purchase Provision of the County of Los Angeles Contract #16361257-4.
2. Authorize the purchase of one new 2017 BMW Motorcycle in the amount of \$29,578.06 from Long Beach BMW under the Cooperative Purchase Provision of the County of Los Angeles Contract #PO-SH-15323008-1.
3. Authorize the purchase and installation of emergency operating equipment and one police radio in the amount of \$20,764.79, from Commline, Inc.

26. Discussion of the San Gabriel Valley Council of Governments' Integration of the Alameda Corridor East

Principal Management Analyst Lin presented the staff report and responded to City Council inquiries.

Mayor Cacciotti opened and closed the Public Comment period, there being no one desiring to speak on this item.

Following discussion, MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER KHUBESRIAN, CARRIED 5-0, to support the San Gabriel Valley Council of Governments' integration of the Alameda Corridor East.

27. Provide Direction on Resolutions Being Considered at the League of California Cities' Annual Business Meeting

Assistant to the City Manager Demirjian presented the staff report and responded to City Council inquiries.

Mayor Cacciotti opened and closed the Public Comment period, there being no one desiring to speak on this item.

MOTION BY COUNCILMEMBER MAHMUD, SECOND BY COUNCILMEMBER KHUBESRIAN, CARRIED 5-0, to direct the City of South Pasadena's delegate, or alternate delegate, to support the resolutions being considered at the upcoming League of California Cities' Annual Business Meeting being held during the League's Annual Conference in Sacramento, California.

ADJOURNMENT

MOTION BY COUNCILMEMBER JOE, SECOND BY COUNCILMEMBER KHUBESRIAN, CARRIED 5-0, to adjourn the City Council Meeting at 11:55 p.m., in memory of Levon Khubesrian.

Evelyn G. Zneimer
City Clerk

Michael A. Cacciotti
Mayor

Minutes approved by the South Pasadena City Council on September 6, 2017.


DEVELOPING BOUNDARIES FOR A DISTRICT-BASED ELECTORAL SYSTEM

City Council Meeting of September 6, 2017

Presented by,
Anthony J. Mejia, Chief City Clerk

Public Hearing No. 2

- Purpose:
 - Inform the public about the districting process and to hear from the community on what factors should be considered while creating district boundaries.



CC: Council; CM; CA; CCC; Reference Binder, Original to 9/6/17 Addl Docs

Additional Material
AGENDA ITEM # 19
9/6/17 City Council Mtg.

How Did We Get Here?

- June 5, 2017 • The City received a letter alleging violations of the California Voting Rights Act (CVRA).

- July 19, 2017 • The City Council adopted Resolution No. 7524, declaring its intention to transition to district-based elections.

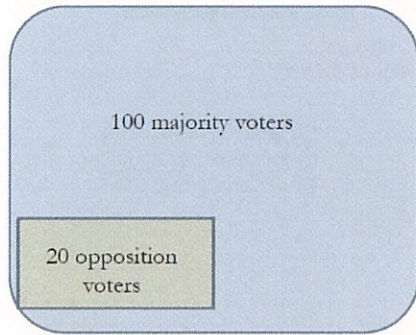
- Provides for 90-day safe harbor period in which to conduct four (4) Public Hearings to develop District Maps and adopt an Ordinance.

Community Outreach and Notice

- New Webpage: www.southpasadenaca.gov/districts
(Updated Daily) www.southpasadenaca.gov/districtsfaq
- Legal Noticing 10 days prior to each Public Hearing
 - La Opinión (Spanish)
 - World Journal (Chinese)
 - Korea Times (Korean)
 - South Pasadena Review (Multi-Language Instructions)
- Multiple articles in South Pasadena Review and Star News
- Facebook
- National Night Out
- E-Neighbors
- Community Groups
 - Meetings of Chamber of Commerce, Rotary, & Exchange
 - Notified to Chinese American Club and Vecinos Representatives

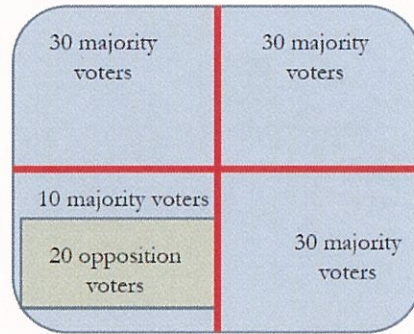
How Are District Elections Designed To Work?

At-Large Election



When one voting bloc significantly outnumbers another, the majority wins every at-large seat.

By-District Election

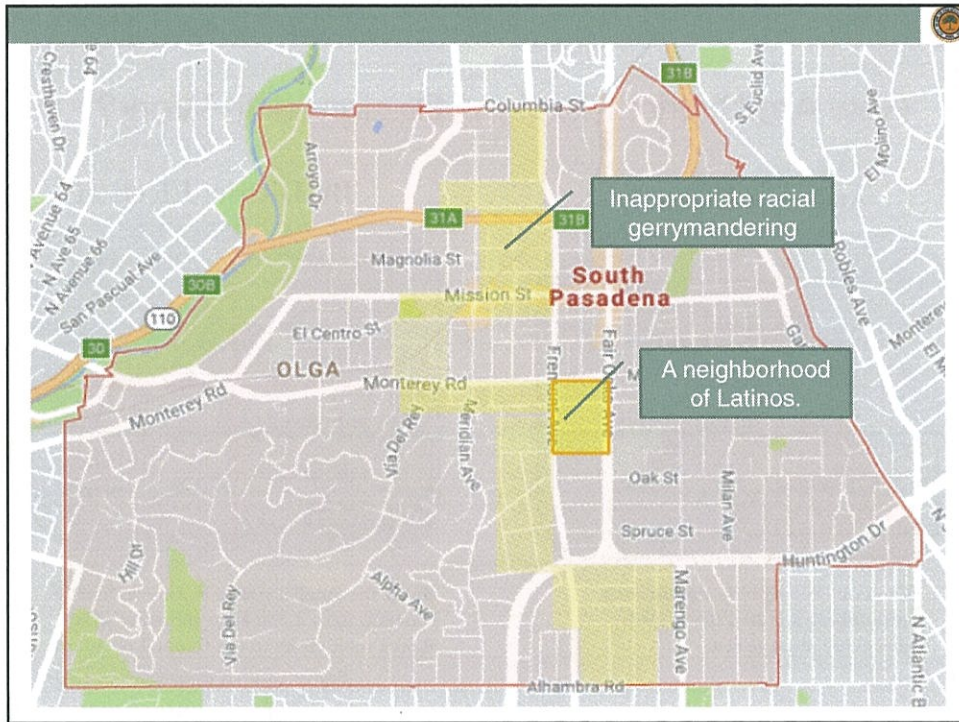


But if the smaller group is geographically concentrated, it can elect someone who shares their views to the Council or Board.

Source: National Demographics Corporation

Meeting and Hearing Schedule

- September 16, 2017: Saturday Community Workshop to seek input on the content of the draft maps and sequencing of elections. **(Day 59)**
- September 20, 2017: City Council Meeting to seek community input and to provide direction on the content of the draft maps and sequence of elections. Public Hearing #3 **(Day 63)**
- October 4, 2017: City Council Meeting to select a preferred district map and to adopt an ordinance to transition to district-based elections (Govt. Code 36937[a]). Public Hearing #4 **(Day 77)**



Criteria for District Boundaries (Cont.)

- Communities of Interest – A neighborhood or community of shared interest, views, or characteristics.
- Possible community feature/boundary definitions include:
 - School Attendance Areas;
 - Natural dividing lines such as major roads, hills, or highways;
 - Areas around parks and other neighborhood landmarks;
 - Common issues, neighborhood activities, or legislative/election concerns; and
 - Shared demographic characteristics, such as:
 - Similar levels of income, education, or linguistic insolation;
 - Languages spoken at home; and
 - Single-family and multi-family housing unit areas.

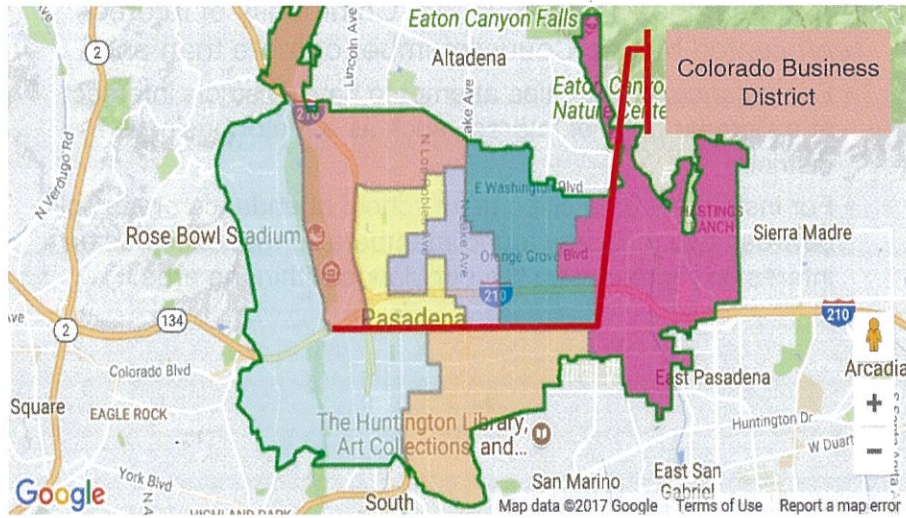
Overlooked Question

- Is it more beneficial to have the “Community of Interest” represented by one Councilmember or more than one?
 - For instance, some cities attempt to have Districts intersect at a singular point of interest, such as a major business district.
 - For instance, some cities have school attendance areas split between two or more Councilmembers so that each has an interest in representing the population within the area.

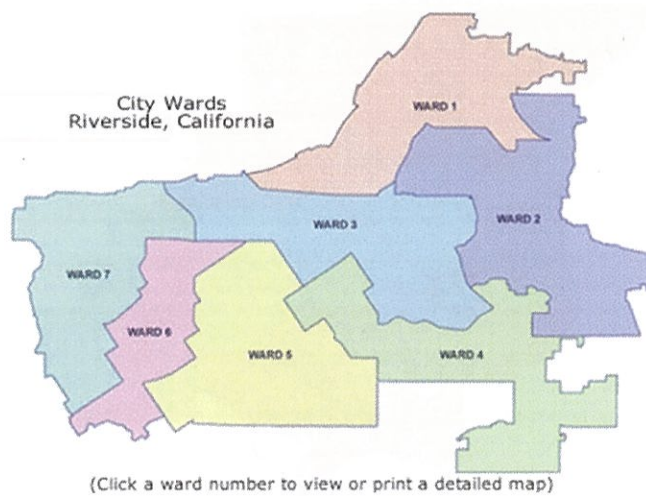
Example: San Luis Obispo County Board of Supervisors



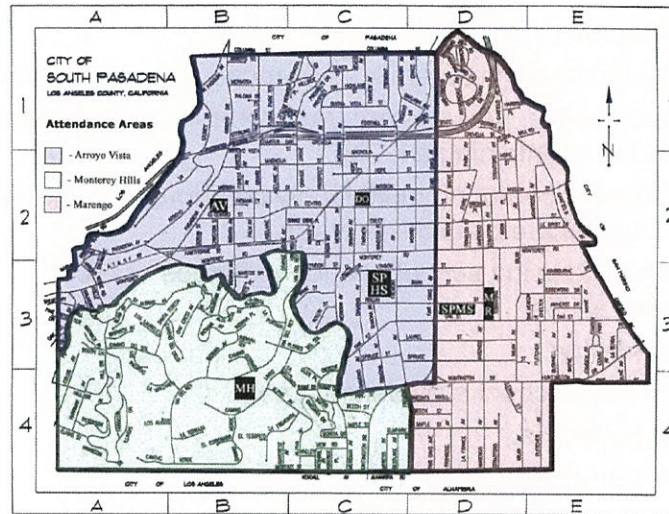
Example: City of Pasadena



Example: City of Riverside



South Pasadena School Attendance Areas



Next Steps

Next Steps

- Between now and September 12th; NDC will prepare draft District Maps.
 - On September 12th draft Maps will be posted online at: www.southpasadenaca.gov/districts
 - On September 13th draft Maps will be published in the Pasadena Star-News.
- Community Workshop
 - Council Chamber
 - Saturday, September 16th
 - 10:00 a.m. – Noon
 - A Community Workshop to present and seek community input on the draft District Maps and sequence of elections.

Criteria Suggested by the Community

- **Colin Swank:**
 - Single family or multi-family residences and zoning location.
 - Taxation levels, parcel taxes, rent control and other items related to maintaining a home.
 - Commercial corridors, multi-family corridors, and residences abutting commercial zoning areas.
 - Opposed to using school attendance areas or racial considerations.
- **Susan Sulsky:**
 - Elementary school attendance areas.
- **Bianca Richards:**
 - Each district should converge at Mission Street.

Criteria Suggested by the Community

- **John Srebalus:**
 - Concentrated areas of multi-family housing.
- **Shlomo Nitzani:**
 - Monterey Hills neighborhood.
- **Jane Schirmeister:**
 - Districts should be a mix of renters and non-renters.
- **Linda Krausen:**
 - Between Mission Street to Grevelia Street and Fair Oaks Avenue to Meridian Avenue should be a neighborhood.

Recommendations

- Open the public hearing, asking the community to focus on:
 - How do you define your neighborhood or community of interest?
 - What other surrounding neighborhoods share similar interests?
- Provide direction to the City's demographer regarding the composition of districts for a district-based electoral system.

Natalie Sanchez

From: Anthony Mejia
Sent: Friday, September 01, 2017 12:43 PM
To: John Heller; City Clerk's Division
Subject: RE: Feedback - Districting and Communities of Interest

Mr. Heller:

I appreciate the comments below and I will forward them to the City Council.

Anthony J. Mejia, MMC
Chief City Clerk



1414 Mission Street, South Pasadena, CA 91030
E amejia@southpasadenaca.gov
T 626.403.7232
SouthPasadenaCa.gov

Register to Vote Today!

From: John Heller [REDACTED]
Sent: Friday, September 01, 2017 12:39 PM
To: City Clerk's Division
Subject: Feedback - Districting and Communities of Interest

Anthony Mejia, Chief City Clerk on behalf of the South Pasadena City Council

Dear Council Persons,
I am unable to attend any of the scheduled meetings or workshops so I truly appreciate the opportunity to write to you on this matter.

I am opposed to the Balkanization of our beloved city but I do understand the realities of our situation and the inevitableness of dividing our town into five districts.

May I offer a schema that would meet the legal requirements of districting yet better protect the oneness of all of our citizens?

PROPOSED:

We divide the community into five districts and each district elects a councilperson for a four year term as planned.

CC: Council; CM; CCC; CA; LF; Reference Binder;
Original to 9/1/2017 ADDL Docs

Additional Material
AGENDA ITEM # 19
9/6/17 City Council Mtg.

Each year of a councilperson's term they in rotating succession represent each of the other four council districts, **never** directly representing their own district.

We citizens receive the benefit a district neighbor sitting on the council plus the benefit of being represented each year by another neighbor from one of the other four districts thus insuring that all five council persons will continue to look out for the interests of all the city's residents as a whole.

John Heller, Architect
5065 Collis Av
South Pasadena CA
91030

Natalie Sanchez

From: Beverly Biber [REDACTED]
Sent: Wednesday, September 06, 2017 6:21 PM
To: City Clerk's Division
Subject: Council Dist hearing comment

Honorable council

I will be unable to attend this evening's public hearing but want to ask a question :

If the state law that allows (extort) just one disgruntled voter (and one sleezy attorney) to obliterate the common good for all residents of So Pas is ever rescinded, can you put a proviso that future councils will automatically revert back to general council.

Thank you

Beverly Biber.

Sent from my iPhone

Additional Material
AGENDA ITEM # 19
9/6/17 City Council Mtg.

BBiber

Natalie Sanchez

From: Laurie Wheeler [mailto:laurie@southpasadena.net]
Sent: Wednesday, September 06, 2017 5:41 PM
To: Anthony Mejia
Subject: Electoral District Options

To: Honorable City Council Members,

The Board of Directors of the South Pasadena Chamber of Commerce would like to suggest to City Council that the electoral districts be designated in such a way that each district includes a mix of retail, professional and other business uses as well as residential properties. The attached (very rough) diagram is a suggestion that might achieve that goal. South Pasadena is a community of small businesses, some home based, some in the "downtown business district" and others in various clusters throughout the city. This suggested districting plan allows each councilmember to represent a portion of the businesses in town.

Map Notes:

The pink highlights the major streets, and the orange/black lines are the suggested district boundaries. The dotted black line along Grevelia Street (Area 1 on the map), east of Fair Oaks could be an alternate boundary line, depending on the population of each district.

Four of the five districts include two elementary school areas:

- "Mar" - Marengo School area
- "AV" - Arroyo Vista School area
- "MH" - Monterey Hills School area

Thank you for your consideration and continued support of the small businesses that help make South Pasadena the wonderful place it is to live, work and play.

Warm Regards,
Laurie

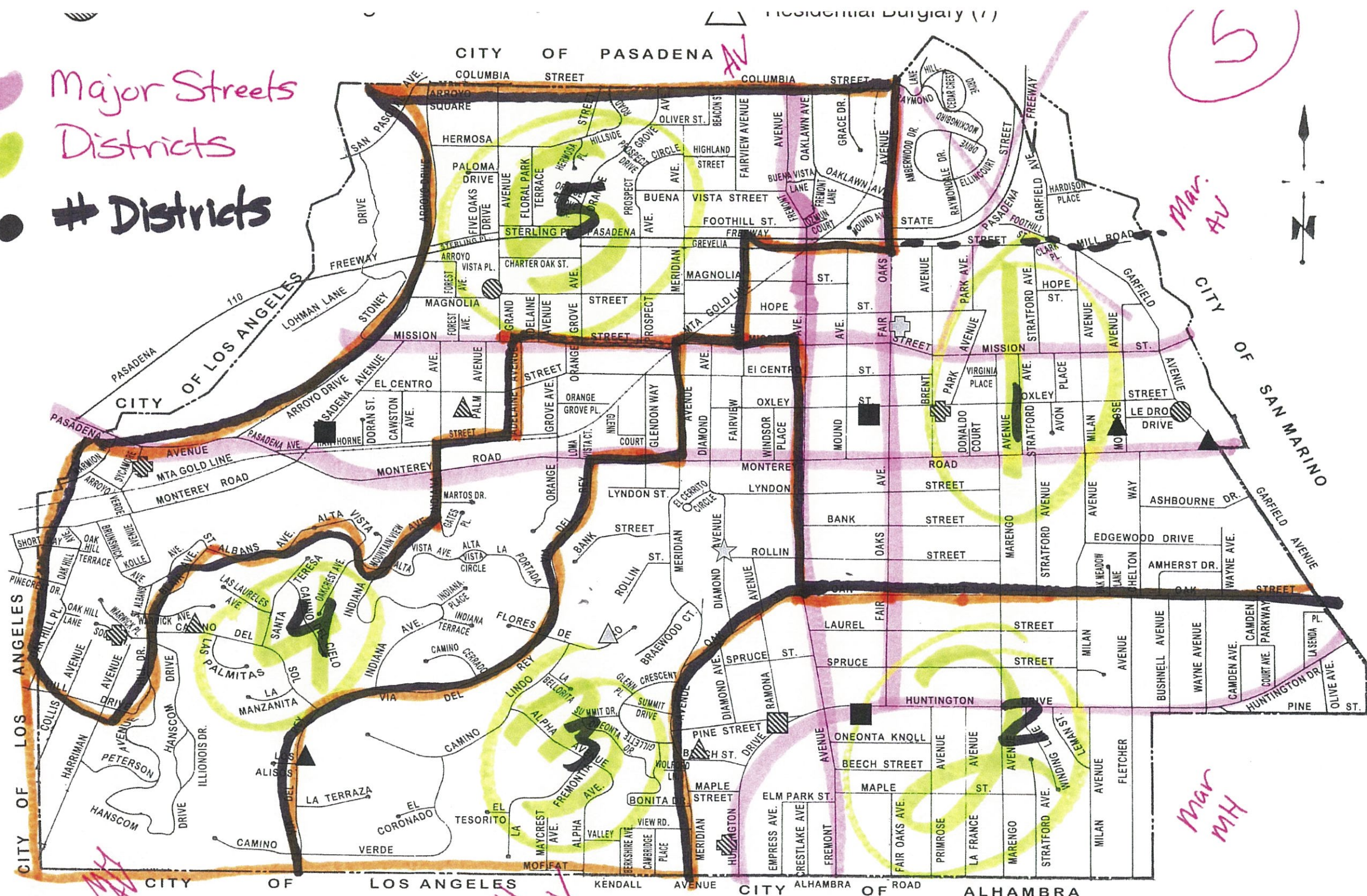
Laurie Wheeler
President/CEO
South Pasadena Chamber of Commerce
1121 Mission Street
South Pasadena, CA 91030

Office: 626-441-2339
[Redacted]



Additional Material
AGENDA ITEM # 19
9/6/17 City Council Mtg.
LWheeler

- Major Streets
- Districts
- # Districts



Residential Burglary (7)

CITY OF PASADENA

CITY OF LOS ANGELES

CITY OF LOS ANGELES

CITY OF LOS ANGELES

CITY OF ALHAMBRA

Mar. AV

MH AV

(5)

Desiree Jimenez

From: PAT LOVERME [REDACTED]
Sent: Friday, September 08, 2017 12:48 PM
To: CCO
Subject: City Districts

I strongly oppose dividing the City of South Pasadena into districts. I can walk across the city. Every area of the city is of interest to me and my family.

The city is too small. Please don't do this.

Patricia LoVerme
Patrick O'Neal
[REDACTED]



CITY OF SOUTH PASADENA

INTER-OFFICE MEMORANDUM

Date: September 1, 2017

To: City Council

From: Paul Toor, Public Works Director

Via: Elaine Aguilar, Interim City Manager

Re: Water and Sewer Rate Study Prepared by Raftelis Financial Consultants

At the September 6, 2017 South Pasadena City Council Meeting, the City Council will be considering the following item: "Set a Public Hearing Date for the Propose Water and Sewer Rates on November 1, 2017 and approve Publication of the Proposition 218 Notice". Attached is a copy of the Water and Sewer Rate Study prepared by Raftelis Financial Consultants that is referred to in the Staff Report.

cc: Council; CM; PTOOR; K Courty; CCC; L Deminjian;
Reference Binder; LF; Original to 9/1/17 ADDL DOCS

Additional Material
AGENDA ITEM # 20
9/6/17 City Council Mtg.



CITY OF SOUTH PASADENA

Water and Wastewater Rate Study

Draft Report / August 22, 2017





445 S. Figueroa Street
Suite 2270
Los Angeles, 90071

Phone 213.262.9300
Fax 213.262.9303

www.raftelis.com

August 22, 2017

Mr. Paul Toor, P.E.
Public Works Director
City of South Pasadena
1414 Mission Street
South Pasadena, CA 91030

Subject: Water and Wastewater Rate Study Report

Dear Mr. Toor:

Raftelis Financial Consultants, Inc. (RFC) is pleased to present this Water and Wastewater Rate Study Report (Report) to the City of South Pasadena (City). The Water and Wastewater Rate Study (Study) involved a comprehensive review of the City's financial plan and water rates.

We are confident that the resulting rates, based on cost of service principles, meet the requirements of Proposition 218 and are fair and equitable to the City's customers. This Report includes a brief Executive Summary highlighting the main results of the Study, a summary of the City's water and wastewater systems, financial plans, cost of service analyses, and detailed rate derivations in the subsequent sections.

It has been a pleasure working with you, and we wish to express our thanks for the support from you and other staff members during the course of this Study. If you have any questions, please do not hesitate to contact me at (626) 583-1894.

Sincerely,

RAFTELIS FINANCIAL CONSULTANTS, INC.

A handwritten signature in blue ink, appearing to read 'Sudhir Pardiwala'.

Sudhir Pardiwala, PE
Executive Vice President

A handwritten signature in blue ink, appearing to read 'Hannah Phan'.

Hannah Phan
Manager

A handwritten signature in blue ink, appearing to read 'Nancy Phan'.

Nancy Phan
Associate Consultant

This page intentionally left blank to facilitate two-sided printing.



TABLE OF CONTENTS

List of Tables	iv
List of Figures	vi
1 Executive Summary.....	1
1.1 Background	1
1.2 Water System Summary	1
1.3 Water Financial Plan	2
1.4 Water Cost of Service and Rate Design.....	6
1.5 Proposed Water Rates	6
1.6 Wastewater System Summary.....	7
1.7 Wastewater Financial Plan.....	8
1.8 Proposed Wastewater Rates.....	11
2 Water System.....	12
2.1 Water System Information	12
Customer Accounts and Growth.....	12
2.2 Water Financial Plan	13
Revenues.....	13
Water Inflationary Assumptions	15
O&M Expenses.....	16
Water Supply Production Cost.....	18
Capital Improvement Plan	20
Existing and Proposed Debt	21
Proposed Financial Plan	22
Fund Balances	23
2.3 Water Cost of Service Analysis.....	25
Legal Framework.....	25
Cost-Based Rate Setting Methodology	26
Cost of Service Analysis Overview	27
Allocation of Functionalized Expenses to Cost Components.....	28
Revenue Requirement Determination.....	32

Unit Cost Component Derivation.....	33
Distribution of Cost Causation Components to Tiers.....	35
2.4 Water Rate Design	36
Derivation of Bi-Monthly Service Charges	36
Derivation of Proposed Volume Charge	37
Proposed Water Rates	39
Customer Impacts	39
3 Wastewater System	42
3.1 Wastewater System Information.....	42
Background of the System	42
Customer Accounts and Growth.....	42
3.2 Wastewater Financial Plan.....	43
Revenues.....	43
Inflationary Assumptions	45
O&M Expenses.....	45
Capital Improvement Plan	46
Existing and Proposed Debt	46
Proposed Financial Plan	47
Fund Balances	48
3.3 Wastewater Rate Derivation.....	49
Revenue Requirement Determination.....	49
Wastewater Flow Estimates	49
Wastewater Rates Calculation	51
Proposed Wastewater Rates.....	53
Customer Impacts	54
Appendix	56
Water Usage by Tier and Meter Size	56
Water Usage by Tier and Meter Size (cont'd).....	57

LIST OF TABLES

Table 1-1: Proposed Water Rates	7
Table 1-2: Proposed Wastewater Rates.....	11
Table 2-1: Water Account and Demand Growth Assumptions.....	12
Table 2-2: Projected Water Customer Accounts	12
Table 2-3: Projected Water Usage	13
Table 2-4: Water Revenue Inflationary Assumptions	13
Table 2-5: Current Water Rates	14
Table 2-6: Calculated Water Rate Revenues at Current Rates	14
Table 2-7: Projected Water Revenues Based on Current Rates	15
Table 2-8: Water Expense Inflationary Assumptions.....	16
Table 2-9: Projected Water O&M Expenses	16
Table 2-10: Water Supply Cost Calculations	20
Table 2-11: Inflated Water Capital Projects.....	21
Table 2-12: Proposed Water Capital Financing Plan.....	21
Table 2-13: Existing Water Debt Service.....	22
Table 2-14: Proposed Water Debt Proceeds and Debt Service	22
Table 2-15: Proposed Water Financial Plan	23
Table 2-16: Proposed Water Fund Balances	24
Table 2-17: Water System-Wide Peaking Factors.....	29
Table 2-18: Equivalent Water Meters (FY 2018).....	30
Table 2-19: O&M Expenses Allocation (Previous Study, FY 2013).....	31
Table 2-20: Water O&M Expenses Percentage Allocation	31
Table 2-21: Water O&M Expenses Allocation by Cost Causation Component.....	31
Table 2-22: Water Capital Assets Percentage Allocation.....	32
Table 2-23: Water Capital Assets Allocation by Cost Causation Component	32
Table 2-24: Water Revenue Requirement	33
Table 2-25: Derivation of Water Cost Causation Component Service Units	33
Table 2-26: Water Unit Cost Calculation.....	35
Table 2-27: Allocation of Water Costs to Tiers	35

Table 2-28: Proposed Bi-Monthly Service Charges.....	37
Table 2-29: Bi-Monthly Tier Allocation.....	37
Table 2-30: Supply Unit Cost Derivation.....	38
Table 2-31: Derivation of Supply Unit Cost per Tier.....	38
Table 2-32: Proposed Volume Rate.....	39
Table 2-33: Proposed Water Rates.....	39
Table 3-1: Wastewater Account Growth Assumptions.....	42
Table 3-2: Projected Wastewater Connections.....	43
Table 3-3: Wastewater Revenue Inflationary Assumptions.....	43
Table 3-4: Current Bimonthly Wastewater Rates.....	43
Table 3-5: Calculated Wastewater Rate Revenues.....	44
Table 3-6: Projected Wastewater Revenues.....	44
Table 3-7: Wastewater Expense Inflationary Assumptions.....	45
Table 3-8: Projected Wastewater O&M Expenses.....	45
Table 3-9: Inflated Wastewater Capital Projects.....	46
Table 3-10: Proposed Wastewater Capital Financing Plan.....	46
Table 3-11: Existing Wastewater Debt Service.....	46
Table 3-12: Proposed Wastewater Financial Plan.....	47
Table 3-13: Proposed Wastewater Fund Balances.....	48
Table 3-14: Wastewater Revenue Requirement.....	49
Table 3-15: Wastewater Flow Estimates.....	51
Table 3-16: Wastewater Rates Calculation.....	53
Table 3-17: Proposed Bi-Monthly Wastewater Rates.....	54

LIST OF FIGURES

Figure 1-1: Proposed Water Operating Financial Plan.....	3
Figure 1-2: Proposed Water Revenue Adjustments	4
Figure 1-3: Proposed Water Capital Financing Plan	5
Figure 1-4: Proposed Water Reserve Balances.....	6
Figure 1-5: Proposed Wastewater Operating Financial Plan.....	9
Figure 1-6: Proposed Wastewater Revenue Adjustments.....	9
Figure 1-7: Proposed Wastewater Capital Financing Plan.....	10
Figure 1-8: Proposed Wastewater Reserve Balances	11
Figure 2-1: Monthly Customer Impacts (3/4" Meter).....	41
Figure 2-2: Monthly Customer Impacts (1" Meter)	41
Figure 3-1: Monthly Residential Customer Impacts	54
Figure 3-2: Monthly Commercial Customer Impacts.....	55

1 EXECUTIVE SUMMARY

1.1 BACKGROUND

In August 2016, the City of South Pasadena (City) engaged Raftelis Financial Consultants, Inc. (RFC) to conduct a Water and Wastewater Rate Study (Study), which includes a five-year financial plan, cost of service analysis, and rate design. This Water and Wastewater Study Report (Report) presents the proposed financial plans and resulting rates for implementation in fiscal years (FY) 2017-18 and the subsequent four fiscal years. In this report, FY 2017-18 or FY 2018 represents the year starting July 1, 2017 and ending June 30, 2018.

This Executive Summary is an overview of the water and wastewater rate-making process and contains a description of the Study process, methodology, results, and recommendations for the City's water and wastewater rates. The City wishes to establish fair and equitable rates that:

- » Provide adequate revenues to meet the City's operational and capital expenses, reserve requirements, and debt coverage to ensure the financial stability of the City
- » Are easy to implement, to update in the future, and for customers to understand
- » Proportionally allocate the costs of providing service in accordance with Article XIII D of the California Constitution, commonly known as Proposition 218

1.2 WATER SYSTEM SUMMARY

The last few years have imposed significant stress on the finances of water systems because of the drought and mandatory cutbacks imposed on water utilities.

- » The City's rate payers responded to water conservation efforts which has impacted water sales and revenues.
- » As a result of the drought, the safe yield in the basin has been reduced to 130,000 acre feet (AF) per year (AFY) requiring greater replenishment costs to the Watermaster; and the Water Resource Development Fee (WRDF) has increased from \$20 per AF to \$70 per AF in 2018 and is projected to increase to \$175 per AF by FY 2022. The WRDF allows the Watermaster to develop water sources to ensure reliable water supply available to its member agencies.
- » Water production costs have increased because of reduced supplies and large increases in Watermaster charges.
- » Additionally, the City is planning to correct seismic deficiencies in its major reservoirs which are expected to be funded by State Revolving Fund Loans but which will incur debt payments.
- » Water sales are not expected to return to pre-drought levels in the near future which will also require the City to charge higher rates to recover fixed costs.
- » Regulatory requirements will require the City to incur additional capital treatment costs.
- » Since the last rate study was conducted, clarifications to the Proposition 218 requirements by the San Juan Capistrano decision requires that all rates be proportional to the cost of providing

service. The concept of pay more if you use more has been modified to conform to the new requirements and reduces the affordability currently provided in Tier 1.

To minimize impacts on customers, the proposed rates maintain the current rate structure that the City has in place, which consists of a bi-monthly fixed charge based on meter size, a three-tier volume charge per hundred cubic feet (hcf), and an efficiency fee per hcf. The amount of water available in each tier is based on the size of the meter.

1.3 WATER FINANCIAL PLAN

To determine the revenue adjustments needed to meet the ongoing expenses of the City's water system and to provide financial stability, RFC projected the revenue requirements, including operations and maintenance (O&M) expenses, capital projects, reserve requirements, etc. for the Study period from FY 2018 to FY 2022. O&M expenses include the cost of operating and maintaining the water system, including pumping and water purchase costs, providing technical services, including engineering and legal services, and other administrative costs of the system, including billing and customer service.

RFC worked closely with City staff to develop a long-term financial plan which sets forth the total revenue adjustments, proposed debt, and capital investment for the next five years. The City's Rate Committee recommended a financial plan that entails an average of 9 percent adjustment in FY 2018, an average of 7 percent adjustment in FY 2019, and an average of 6 percent adjustment for every year thereafter until FY 2022. The financial plan also includes approximately \$24.0 million in capital projects from FY 2018 to FY 2022 (adjusted for future years' dollars) and \$17.9 million in State Revolving Fund (SRF) Loans for the Graves Reservoir and Westside Reservoir in the same period from FY 2018 to 2022.

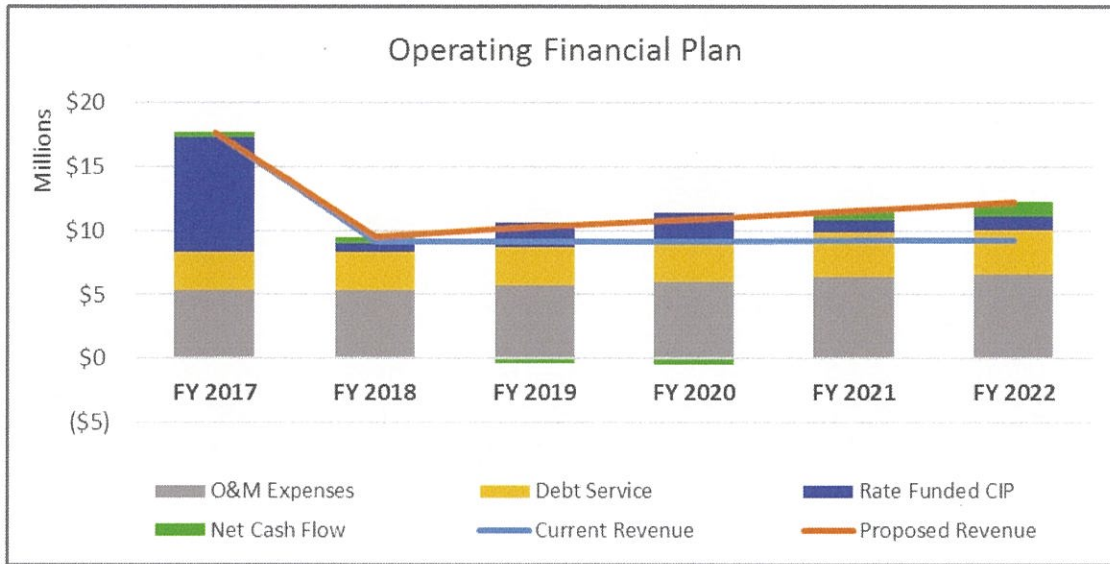
Figure 1-1 shows the City's operating financial plan over the planning period. The blue line represents the City's current water revenues and the orange line represents the City's proposed revenue with the average revenue adjustments shown in **Figure 1-2**. The grey bars represent the total O&M expenses, the yellow bars represent the total debt service (including existing and proposed debt), and the blue bars represent rate funded capital projects. The green bars represent the City's net annual cash flow. If the green bars are negative, then the City is drawing from reserves; if the green bars are positive, then the City is replenishing reserves.

Figure 1-2 shows the proposed average revenue adjustments of 9 percent, 7 percent and three years of 6 percent each year. It should be noted that the revenue adjustments represent the average increase in rates for the water enterprise. Individual customers will realize different impacts based on their meter size and usage as a result of the cost of service analysis and water rate structure.

The rate increases will be implemented in January of each year, which is in the middle of each fiscal year; since the increase is only implemented for half the fiscal year the amount of revenue collected for

FY 2018 and each subsequent fiscal year is reduced compared to a full year of increase. Although the graph shows anticipated revenue adjustments for the Study period, the City will review and confirm the necessary revenue adjustments each year. The red line shows the target debt coverage and the green line shows the debt coverage achieved over the planning period. Attempts have been made to make sure that the water enterprise exceeds the target coverage in each year of the plan.

Figure 1-1: Proposed Water Operating Financial Plan ¹



The rate funded CIP shown in FY 2017 comes from debt proceeds.

The main factors that determine the City’s water revenue requirements are O&M expenses including Water Resource Development Fees by the Watermaster, capital projects, and reserve funding, which in turn affect the proposed revenue adjustments shown previously.

¹ Reflects approximately \$8 million in water bond proceeds in FY 2017

Figure 1-2: Proposed Water Revenue Adjustments

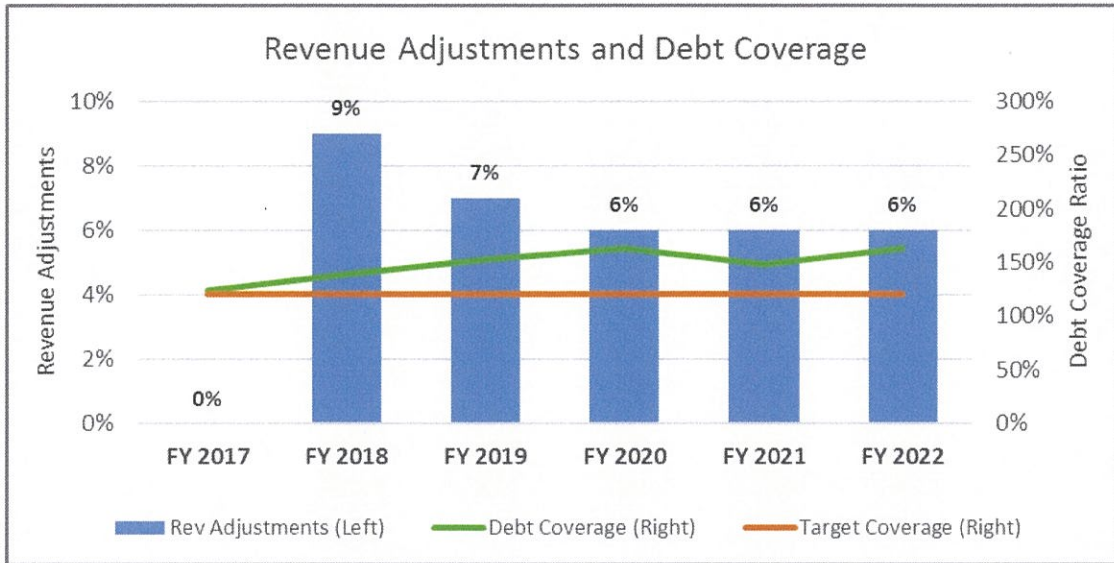


Figure 1-3 shows the total amount of water capital projects and their funding sources. The City is expected to spend approximately \$24 million on capital projects from FY 2018 through FY 2022. The construction of the Westside Reservoir is projected to start in FY 2020 and will continue for another two years. The City plans to issue \$10.5 million in SRF Loans for the Graves Reservoir and \$7.4 million in SRF Loans for the Westside Reservoir; the proceeds are represented as the orange bars for debt funded capital projects.

Figure 1-3: Proposed Water Capital Financing Plan²

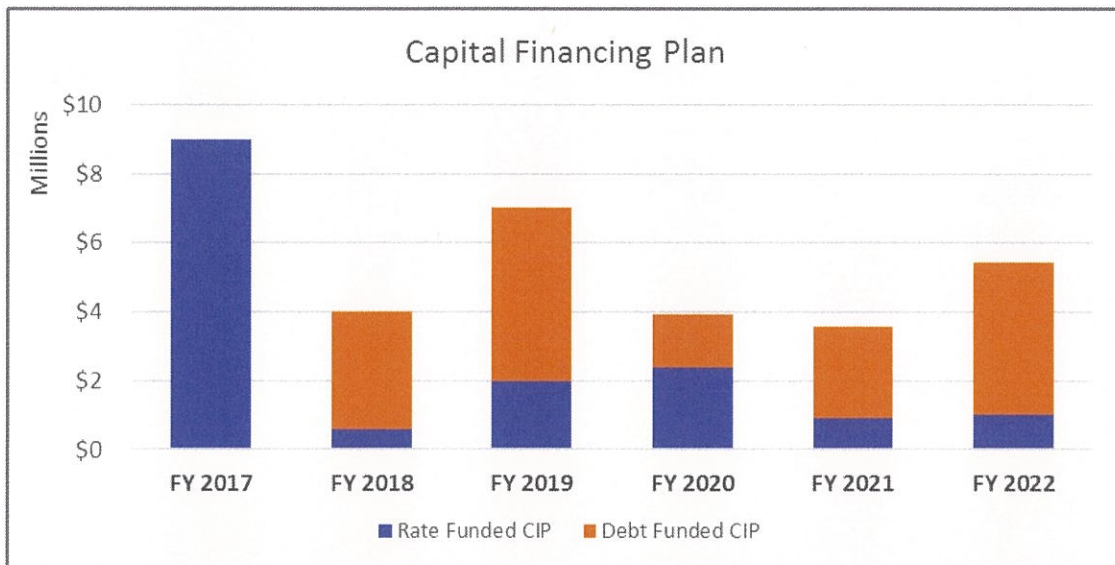
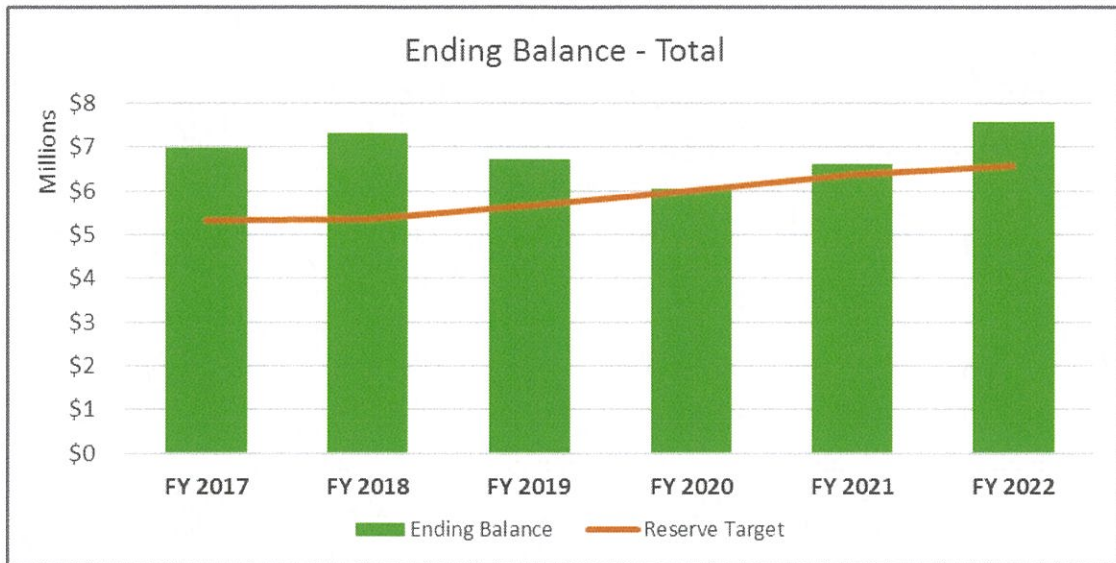


Figure 1-4 shows the City’s water reserve ending balances, including the water fund, efficiency fee fund, and rate stabilization fund. The orange line represents the reserve target. The City does not currently have a formal written reserve policy. For this study, the target for operating reserves is set at one year of O&M expenses. A rate stabilization reserve of \$200,000 is also included. The proposed revenue adjustments offset the depletion of reserves due to increasing O&M expenses and capital project spending. The ending reserves do not include the debt reserve, which includes one year of debt service for every new debt issuance. The reserves are higher in some years than the target partly to provide steady changes to rates and to provide flexibility to carry out transmission line repairs and refurbishments which are currently not included in the capital improvement plan (CIP).

² Reflects approximately \$8 million in water bond proceeds in FY 2017

Figure 1-4: Proposed Water Reserve Balances



1.4 WATER COST OF SERVICE AND RATE DESIGN

The water rates were developed using cost of service principles set forth by the American Water Works Association (AWWA) M1 Manual titled *Principles of Water Rates, Fees, and Charges* (M1 Manual). Cost of service principles are designed to distribute costs to customer classes in accordance with the way each customer class uses the water system.

For this Study, the Base-Extra Capacity Method of the M1 Manual was utilized for distributing costs. This method separates costs into four different components: (1) base costs, (2) extra capacity (peaking) costs, (3) customer costs, and (4) direct fire protection costs. Base costs are costs that are associated with meeting average daily demand requirements and include operations and maintenance costs and capital costs designed to meet average load conditions. Included in the base costs are the water supply costs. Extra capacity costs are costs associated with meeting peak demand. Customer costs are costs associated with serving customers, such as meter reading, billing, customer service, etc.

1.5 PROPOSED WATER RATES

The proposed water rates retain the City’s current rate structure and contain three components: a bi-monthly fixed charge, an efficiency fee, and a volume charge. The bi-monthly fixed charge is based on the size of meter serving a property and is intended to recover costs related to system capacity, meter reading and maintenance and customer service and billing. The efficiency fee is charged per hcf of water use and is intended to recover costs associated with the City’s water efficiency fee projects. The volume

charge consists of three tiers and is charged per hcf of water use. It is intended to recover all remaining costs related to water supply and production, base delivery, and extra capacity.

Table 1-1 shows the proposed water rates for the next five fiscal years, starting in January 2018 and in January of every subsequent year. The bi-monthly tier allocation retains the City’s current structure and is used to determine the volume charge per tier for each meter size. Municipal customers including the golf course will be subject to the same rates as other customers in the system.

Table 1-1: Proposed Water Rates

	Current	January 2018	January 2019	January 2020	January 2021	January 2022
Bi-Monthly Fixed Charge						
3/4"	\$72.93	\$73.97	\$79.15	\$83.90	\$88.94	\$94.28
1"	\$109.92	\$111.19	\$118.98	\$126.12	\$133.69	\$141.72
1 1/2"	\$202.39	\$204.26	\$218.56	\$231.68	\$245.59	\$260.33
2"	\$313.37	\$315.94	\$338.06	\$358.35	\$379.86	\$402.66
3"	\$572.29	\$576.52	\$616.88	\$653.90	\$693.14	\$734.73
4"	\$942.17	\$948.78	\$1,015.20	\$1,076.12	\$1,140.69	\$1,209.14
6"	\$1,866.88	\$1,879.43	\$2,011.00	\$2,131.66	\$2,259.56	\$2,395.14
8"	\$3,346.43	\$3,368.47	\$3,604.27	\$3,820.53	\$4,049.77	\$4,292.76
Volume Charge (per hcf)						
Tier 1	\$1.97	\$2.93	\$3.14	\$3.33	\$3.53	\$3.75
Tier 2	\$3.36	\$3.69	\$3.95	\$4.19	\$4.45	\$4.72
Tier 3	\$5.41	\$4.32	\$4.63	\$4.91	\$5.21	\$5.53
Efficiency Fee (per hcf)	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14
Bi-Monthly Tier Allocation						
Meter Size	Tier 1	Tier 2	Tier 3			
3/4"	15	30	30+			
1"	20	45	45+			
1 1/2"	40	90	90+			
2"	90	190	190+			
3"	200	460	460+			
4"	237	490	490+			
6"	275	600	600+			
8"	350	800	800+			

1.6 WASTEWATER SYSTEM SUMMARY

The wastewater system has not been impacted by the drought because the wastewater charges are fixed for all customers and provide a stable source of revenues. However, the City implemented a major CIP program to correct deficiencies in the sewers to meet regulatory requirements and will continue to pay associated debt service expenses. The proposed rates maintain the current fixed charge structure for residential customers: single family residential (SFR) and multi-family residential (MFR) customers

based on dwelling units. Due to wide variations in water use and wastewater generation among commercial customers, RFC proposes to change the commercial rate from a fixed charge to a flow charge based on hcf of water use. As a result, most commercial customers with high water consumption will experience increases in their sewer bills and **bills for residential customers will be lower**. The proposed rate structure for schools is a fixed charge based on the number of students and the expected wastewater flow data from the State Water Resources Control Board guidelines.

1.7 WASTEWATER FINANCIAL PLAN

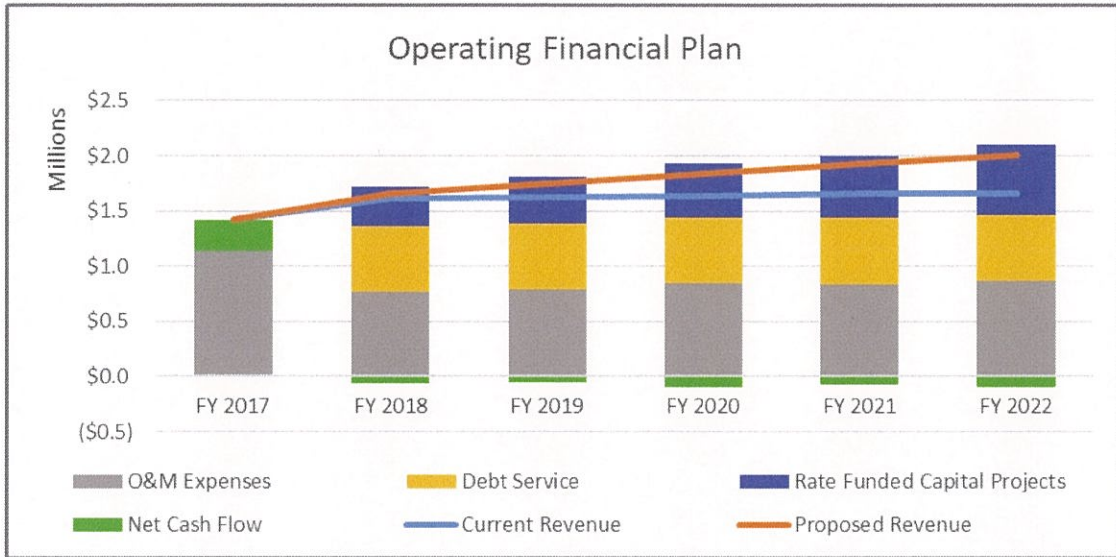
To determine the revenue adjustments necessary to meet the ongoing expenses of the City's wastewater system and to provide financial stability, RFC projected the revenue requirements, including O&M expenses, capital projects, reserve requirements, etc. for the Study period from FY 2018 to FY 2022. O&M expenses include the cost of operating and maintaining the wastewater collection system, including technical services, building and vehicle maintenance, equipment, and other administrative costs of the system, along with billing and customer service.

Similar to the water system, RFC worked closely with City staff to develop a long-term financial plan which sets forth the total revenue adjustments and capital investment for the next five years for the wastewater system. The City's Ad hoc Rate Committee recommended a financial plan that entails an average of 6 percent revenue adjustment for FY 2018 and an average of 4 percent revenue adjustment for each year thereafter until FY 2022. The financial plan also includes approximately \$2.5 million in capital projects (adjusted for future years' dollars) and no additional debt.

Figure 1-5 shows the City's operating financial plan over the planning period. The blue line represents the City's current wastewater revenues and the orange line represents the City's proposed revenue with the revenue adjustments shown in **Figure 1-6**. The grey bars represent the total O&M expenses, the yellow bars represent the total debt service (including existing and proposed debt), and the blue bars represent rate funded capital projects. The green bars represent the City's net annual cash flow. If the green bars are negative, then the City is drawing from reserves; if the green bars are positive, then the City is replenishing reserves.

Figure 1-6 shows the proposed revenue adjustments of 6% On January 1, 2018 followed by 4% increases each in January of the next four years. The bill impacts for customers will vary depending on the type of customer and the amount of water used in the case of non-residential customers. Although the graph shows anticipated revenue adjustments for the Study period, the City will review and confirm the necessary revenue adjustments each year. The red line shows that the debt coverage achieved over the planning period is good.

Figure 1-5: Proposed Wastewater Operating Financial Plan



The main factors that determine the City’s wastewater revenue requirements are O&M expenses, capital projects, and reserve funding, which in turn affect the proposed revenue adjustments.

Figure 1-6: Proposed Wastewater Revenue Adjustments

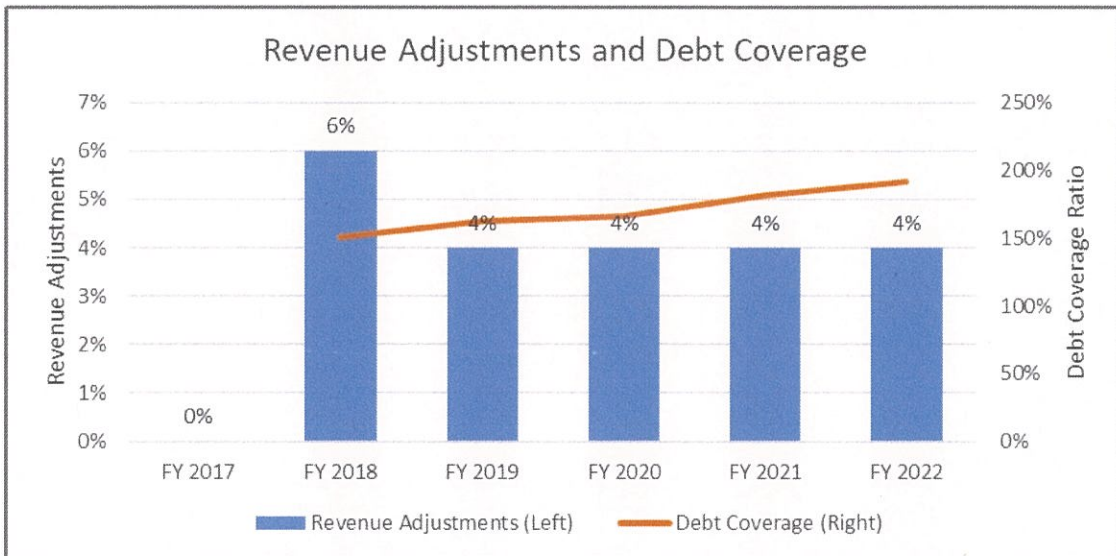


Figure 1-7 shows the total amount of wastewater capital projects and their funding sources. The City is expected to spend approximately \$2.5 million on capital projects from FY 2018 through FY 2022. As the City is not planning to issue any additional debt during the Study period, all wastewater capital projects will be funded by rates.

Figure 1-7: Proposed Wastewater Capital Financing Plan

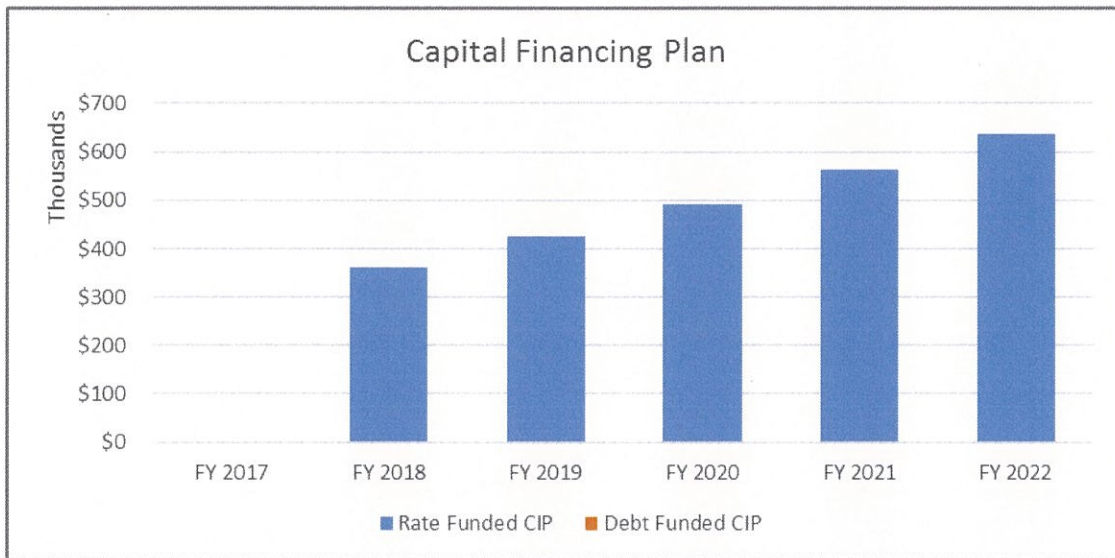


Figure 1-8 shows the City’s wastewater reserve ending balances, including the sewer fund and the sewer capital fund. The proposed revenue adjustments offset the depletion of reserves due to increasing O&M expenses and capital project spending. The City does not currently have a formal written reserve policy however, the following reserves are provided:

- » Sewer Fund: 100% of the annual O&M expenses
- » Sewer Capital Fund: 100% of five-year average capital improvement plan (CIP)

It should be noted that even though the reserves are higher than target, they continue to be depleted each year of the planning period.

Figure 1-8: Proposed Wastewater Reserve Balances



1.8 PROPOSED WASTEWATER RATES

The proposed wastewater rates consist of a bi-monthly fixed charge per dwelling unit (EDU) for single family residential and multi-family residential (MFR) customers, a flow charge per hcf of water for commercial customers subject to a minimum charge equal to the MFR charge, and a monthly fixed charge per average daily attendance per student (ADA) for schools. To maintain the system’s financial stability and recover all operating and maintenance costs as well as capital project expenditures, the City’s current wastewater rates were increased; **Table 1-2** shows the proposed wastewater rates for the next five fiscal years, starting in January 2018 and in January of the next four years.

Table 1-2: Proposed Wastewater Rates³

Wastewater Rates	Current	January 2018	January 2019	January 2020	January 2021	January 2022
Single Family Fixed Charge (per EDU per bi-month)	\$29.85	\$26.03	\$27.07	\$28.15	\$29.28	\$30.45
Multi-Family Fixed Charge (per EDU per bi-month)	\$20.16	\$20.45	\$21.27	\$22.12	\$23.00	\$23.92
Commercial Flow Charge (per hcf of water)	\$29.85	\$1.72	\$1.79	\$1.86	\$1.93	\$2.01
Elementary Schools (per ADA per month)		\$0.20	\$0.21	\$0.22	\$0.22	\$0.23
Middle Schools (per ADA per month)		\$0.39	\$0.41	\$0.42	\$0.44	\$0.46
High Schools (per ADA per month)		\$0.58	\$0.60	\$0.63	\$0.65	\$0.68
Nurseries (per hcf of water)		\$0.96	\$1.00	\$1.04	\$1.08	\$1.12

Non-residential customers are subject to a minimum charge equal to the charge for a multi-family dwelling unit.

³ The proposed rate structure for commercial customers is changing from a fixed charge to a flow-based charge.

2 WATER SYSTEM

2.1 WATER SYSTEM INFORMATION

This section briefly describes the water system customer and use data provided by the City.

Customer Accounts and Growth

Table 2-1 shows the account growth assumptions and demand factors that were used to project customer accounts and usage for the Study. City staff provided customer account and usage data for FY 2016. It is expected that there will be minimal customer account growth during the planning period and it is conservatively set to zero. To project water usage for FY 2017 and beyond, RFC increased the amount of usage (in the previous year, starting with FY 2016) by the account growth factor for each year multiplied by the demand factor for that year. Although the City does not expect an increase in customer accounts, there is a 10 percent rebound in demand for FY 2017 and project an additional 3 percent for FY 2018. It is not projected to increase further due to conservation.

Table 2-1: Water Account and Demand Growth Assumptions

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Account Growth						
All Accounts	0%	0%	0%	0%	0%	0%
Demand Factor	110%	103%	100%	100%	100%	100%

Table 2-2 shows the projected bi-monthly bills (six bills per customer per year) for the City’s water system. **Table 2-3** shows the projected customer usage for all meters by tier. Detailed customer usage by meter size is included in the Appendix of this Report.

Table 2-2: Projected Water Customer Accounts

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Bi-Monthly Bills						
3/4"	15,648	15,648	15,648	15,648	15,648	15,648
1"	14,916	14,916	14,916	14,916	14,916	14,916
1 1/2"	2,844	2,844	2,844	2,844	2,844	2,844
2"	1,585	1,585	1,585	1,585	1,585	1,585
3"	158	158	158	158	158	158
4"	123	123	123	123	123	123
6"	4	4	4	4	4	4
8"	0	0	0	0	0	0
Total - Bi-Monthly Bills	35,278	35,278	35,278	35,278	35,278	35,278

Table 2-3: Projected Water Usage

	Projected FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
All Meters						
Tier 1	741,813	764,067	764,067	764,067	764,067	764,067
Tier 2	411,269	423,607	423,607	423,607	423,607	423,607
Tier 3	283,496	292,001	292,001	292,001	292,001	292,001
Total - All Meters	1,436,578	1,479,675	1,479,675	1,479,675	1,479,675	1,479,675

2.2 WATER FINANCIAL PLAN

This section describes the assumptions used in projecting water revenues, O&M expenses, capital projects, reserves, and debt coverage requirements that determine the overall revenue adjustments required to ensure the financial stability of the City’s water system. To develop the financial plan, RFC projected annual revenues at current rates, miscellaneous revenues, O&M expenses, modeled reserves balances, and rate funded capital expenditures to estimate the amount of annual rate revenue required. Revenue adjustments represent the average increase in rate revenue for the water system. Rate changes for individual classes (based on meter size) will depend on the cost of service analysis.

Revenues

To project non-rate revenues for future years, RFC utilizes the inflationary assumptions in **Table 2-4**. The non-rate revenue inflation factor is used to project all non-rate revenues that are inflated for future years. The reserve interest rate is used to calculate interest income for future years.

Table 2-4: Water Revenue Inflationary Assumptions

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Revenue					
Non-Rate Revenue	1%	1%	1%	1%	1%
Reserve Interest Rate	1.00%	1.50%	2.00%	2.50%	2.50%

Table 2-5 shows the City’s current water rates that are used to calculate the revenues under the status quo conditions.

Table 2-5: Current Water Rates

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Bi-Monthly Fixed Charge						
3/4"	\$72.93	\$72.93	\$72.93	\$72.93	\$72.93	\$72.93
1"	\$109.92	\$109.92	\$109.92	\$109.92	\$109.92	\$109.92
1 1/2"	\$202.39	\$202.39	\$202.39	\$202.39	\$202.39	\$202.39
2"	\$313.37	\$313.37	\$313.37	\$313.37	\$313.37	\$313.37
3"	\$572.29	\$572.29	\$572.29	\$572.29	\$572.29	\$572.29
4"	\$942.17	\$942.17	\$942.17	\$942.17	\$942.17	\$942.17
6"	\$1,866.88	\$1,866.88	\$1,866.88	\$1,866.88	\$1,866.88	\$1,866.88
8"	\$3,346.43	\$3,346.43	\$3,346.43	\$3,346.43	\$3,346.43	\$3,346.43
Volume Rate (per hcf)						
Tier 1	\$1.97	\$1.97	\$1.97	\$1.97	\$1.97	\$1.97
Tier 2	\$3.36	\$3.36	\$3.36	\$3.36	\$3.36	\$3.36
Tier 3	\$5.41	\$5.41	\$5.41	\$5.41	\$5.41	\$5.41
Efficiency Fee (per hcf)						
All Usage	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14

Table 2-6 shows the calculated water rate revenues for each of the three charges. The fixed charge revenue (Line 2) is calculated by multiplying the number of bi-monthly bills in **Table 2-2** with the bi-monthly fixed charge in **Table 2-5**. The volume charge revenue (Line 3) is calculated by multiplying the projected water usage by tier in **Table 2-3** with the volume rate in **Table 2-5**. Similarly, the efficiency fee revenue (Line 4) is calculated by multiplying total water usage in **Table 2-3** by the efficiency fee.

Table 2-6: Calculated Water Rate Revenues at Current Rates

	Calculated FY 2017	Calculated FY 2018	Calculated FY 2019	Calculated FY 2020	Calculated FY 2021	Calculated FY 2022
1 Rate Revenue						
2 Fixed Charge	\$4,066,840	\$4,066,840	\$4,066,840	\$4,066,840	\$4,066,840	\$4,066,840
3 Volume Charge	\$4,376,950	\$4,508,259	\$4,508,259	\$4,508,259	\$4,508,259	\$4,508,259
5 Efficiency Fee	\$201,121	\$207,155	\$207,155	\$207,155	\$207,155	\$207,155
4 Total - Rate Revenue	\$8,644,911	\$8,782,254	\$8,782,254	\$8,782,254	\$8,782,254	\$8,782,254
6 Water Sales Only	\$8,443,791	\$8,575,099	\$8,575,099	\$8,575,099	\$8,575,099	\$8,575,099

Table 2-7 shows the City’s projected revenues for the water system over the Study period. Water sales revenue (Line 5) correlates with the calculated water sales revenue in **Table 2-6** (Line 6); efficiency fee revenue (Line 7) correlates with the calculated efficiency fee revenue in **Table 2-6** (Line 4). Transfer in – PFA revenues (Line 28) are debt proceeds associated with the Public Finance Authority and are not inflated for future years.



Table 2-7: Projected Water Revenues Based on Current Rates

	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 Water Fund					
2 Interest Income	\$41,616	\$76,865	\$103,107	\$134,511	\$175,144
3 Gain / Loss on Investmer	\$0	\$0	\$0	\$0	\$0
4 Unrealized Gain / Loss	\$0	\$0	\$0	\$0	\$0
5 Water Sales	\$8,575,099	\$8,575,099	\$8,575,099	\$8,575,099	\$8,575,099
6 Standby Service Charge	\$14,140	\$14,281	\$14,424	\$14,568	\$14,714
7 Efficiency Fee	\$207,155	\$207,155	\$207,155	\$207,155	\$207,155
8 Private Fire Service	\$35,350	\$35,704	\$36,061	\$36,421	\$36,785
9 Water Capacity Charges	\$0	\$0	\$0	\$0	\$0
10 Sales to Other Facilities	\$0	\$0	\$0	\$0	\$0
11 Municipal Water	\$0	\$0	\$0	\$0	\$0
12 Rubbish Clearing	\$0	\$0	\$0	\$0	\$0
13 Penalty - Water/Rubbish	\$60,600	\$61,206	\$61,818	\$62,436	\$63,061
14 Gain / Loss - Sale of Proj	\$0	\$0	\$0	\$0	\$0
15 Workers Comp Reimb	\$0	\$0	\$0	\$0	\$0
16 Gen. Liability Insurance R	\$0	\$0	\$0	\$0	\$0
17 Damage to City Property	\$0	\$0	\$0	\$0	\$0
18 Recycling Revenue	\$0	\$0	\$0	\$0	\$0
19 Recycling Container	\$0	\$0	\$0	\$0	\$0
20 Miscellaneous	\$0	\$0	\$0	\$0	\$0
21 Misc Service Revenue	\$3,030	\$3,060	\$3,091	\$3,122	\$3,153
22 Energy Rebates	\$0	\$0	\$0	\$0	\$0
23 Yard Waste	\$0	\$0	\$0	\$0	\$0
24 Rubbish Billing Fees	\$113,120	\$114,251	\$115,394	\$116,548	\$117,713
25 Service Fees	\$20,200	\$20,402	\$20,606	\$20,812	\$21,020
26 Prior Year Adjustment	\$0	\$0	\$0	\$0	\$0
27 Sewer Billing Fees	\$47,470	\$47,945	\$48,424	\$48,908	\$49,397
28 Transfer In - PFA	\$0	\$0	\$0	\$0	\$0
29 Total - Water Fund	\$9,117,780	\$9,155,967	\$9,185,178	\$9,219,580	\$9,263,242

Water Inflationary Assumptions

To ensure that future costs are reasonably projected, inflationary assumptions are utilized with input from City staff. **Table 2-8** shows the inflationary assumptions that were utilized to inflate the expenses for future years (FY 2018 and onward) in the financial plan.

Table 2-8: Water Expense Inflationary Assumptions

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Inflation Factors					
General	3%	3%	3%	3%	3%
Salary	3%	3%	3%	3%	3%
Benefits	5%	5%	5%	5%	5%
Utilities	5%	5%	5%	5%	5%
Capital	3%	3%	3%	3%	3%
Non-Inflated	0%	0%	0%	0%	0%

O&M Expenses

The City’s water O&M budget is shown in **Table 2-9**, which incorporates the inflationary assumptions shown in **Table 2-8**.

Table 2-9: Projected Water O&M Expenses

	Budget FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 Water Fund						
2 Finance						
3 Salaries - Permanent	\$250,236	\$257,743	\$265,475	\$273,440	\$281,643	\$290,092
4 Salaries - Temp /Part	\$21,000	\$21,630	\$22,279	\$22,947	\$23,636	\$24,345
5 Overtime	\$195	\$0	\$0	\$0	\$0	\$0
6 Holiday	\$0	\$0	\$0	\$0	\$0	\$0
7 IOD - Non-Safety	\$0	\$0	\$0	\$0	\$0	\$0
8 Leave Buyback	\$0	\$0	\$0	\$0	\$0	\$0
9 Retirement	\$37,705	\$39,590	\$41,570	\$43,648	\$45,831	\$48,122
10 Deferred Compensation	\$1,716	\$1,802	\$1,892	\$1,986	\$2,086	\$2,190
11 Workers Compensation	\$10,435	\$10,957	\$11,505	\$12,080	\$12,684	\$13,318
12 Disability Insurance	\$0	\$0	\$0	\$0	\$0	\$0
13 Group Health Insurance	\$19,133	\$20,090	\$21,094	\$22,149	\$23,256	\$24,419
14 Optical Insurance	\$650	\$683	\$717	\$752	\$790	\$830
15 Dental Insurance	\$2,439	\$2,561	\$2,689	\$2,823	\$2,965	\$3,113
16 Life Insurance	\$504	\$529	\$556	\$583	\$613	\$643
17 FICA - Medicare	\$3,935	\$4,132	\$4,338	\$4,555	\$4,783	\$5,022
18 Office Supplies	\$0	\$0	\$0	\$0	\$0	\$0
19 Postage	\$300	\$309	\$318	\$328	\$338	\$348
20 Special Department Expense	\$120,500	\$124,115	\$127,838	\$131,674	\$135,624	\$139,693
21 Water Efficiency Fee Projects	\$100,000	\$103,000	\$106,090	\$109,273	\$112,551	\$115,927
22 Dues & Memberships	\$0	\$0	\$0	\$0	\$0	\$0
23 Mileage/Auto Allowance	\$0	\$0	\$0	\$0	\$0	\$0
24 Convention & Meeting Expense	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688	\$1,739
25 Equipment Maintenance	\$13,900	\$14,317	\$14,747	\$15,189	\$15,645	\$16,114
26 Professional Services	\$337,400	\$347,522	\$357,948	\$368,686	\$379,747	\$391,139
27 Contract Services	\$9,000	\$9,270	\$9,548	\$9,835	\$10,130	\$10,433
28 Training Expense	\$500	\$515	\$530	\$546	\$563	\$580



Water and Wastewater Rate Study Report – August 2017

	Budget FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
29 Water Efficiency Fee Projects	\$0	\$0	\$0	\$0	\$0	\$0
30 Bad Debt Expense	\$0	\$0	\$0	\$0	\$0	\$0
31 Overhead Allocation	\$91,980	\$94,739	\$97,582	\$100,509	\$103,524	\$106,630
32 Machinery & Equipment	\$0	\$0	\$0	\$0	\$0	\$0
33 Computer Equipment	\$0	\$0	\$0	\$0	\$0	\$0
34 Admin & Engineering						
35 Salaries - Permanent	\$510,551	\$525,868	\$541,644	\$557,893	\$574,630	\$591,869
36 Salaries - Temp /Part	\$0	\$0	\$0	\$0	\$0	\$0
37 Overtime	\$25,000	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982
38 Holiday	\$0	\$0	\$0	\$0	\$0	\$0
39 IOD - Non - Safety	\$0	\$0	\$0	\$0	\$0	\$0
40 Leave Buyback	\$0	\$0	\$0	\$0	\$0	\$0
41 Retirement	\$98,068	\$102,971	\$108,120	\$113,526	\$119,202	\$125,162
42 Deferred Compensation	\$3,155	\$3,313	\$3,478	\$3,652	\$3,835	\$4,027
43 Workers Compensation	\$49,628	\$52,109	\$54,715	\$57,451	\$60,323	\$63,339
44 Disability Insurance	\$0	\$0	\$0	\$0	\$0	\$0
45 Unemployment Insurance	\$0	\$0	\$0	\$0	\$0	\$0
46 Group Health Insurance	\$55,007	\$57,757	\$60,645	\$63,677	\$66,861	\$70,204
47 Retirees Medical Insurance	\$0	\$0	\$0	\$0	\$0	\$0
48 Optical Insurance	\$1,764	\$1,852	\$1,945	\$2,042	\$2,144	\$2,251
49 Dental Insurance	\$6,615	\$6,946	\$7,293	\$7,658	\$8,041	\$8,443
50 Life Insurance	\$1,367	\$1,435	\$1,507	\$1,582	\$1,662	\$1,745
51 FICA - Medicare	\$7,403	\$7,773	\$8,162	\$8,570	\$8,998	\$9,448
52 Office Supplies	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688	\$1,739
53 Postage	\$200	\$206	\$212	\$219	\$225	\$232
54 Special Department Expense	\$120,000	\$123,600	\$127,308	\$131,127	\$135,061	\$139,113
55 Printing and Duplication	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319
56 Dues & Memberships	\$700	\$721	\$743	\$765	\$788	\$811
57 Mileage/Auto Allowance	\$0	\$0	\$0	\$0	\$0	\$0
58 Conference & Meeting Expense	\$0	\$0	\$0	\$0	\$0	\$0
59 Vehicle Maintenance	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389
60 Equipment Maintenance	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255	\$11,593
61 Building Maintenance	\$500	\$515	\$530	\$546	\$563	\$580
62 Small Tools	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255	\$11,593
63 Uniform and Equipment	\$3,500	\$3,605	\$3,713	\$3,825	\$3,939	\$4,057
64 Safety & Equipment Supplies	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814	\$2,898
65 Electricity	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255	\$11,593
66 Telephone	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796
67 Legal Services	\$0	\$0	\$0	\$0	\$0	\$0
68 Professional Service	\$20,000	\$20,600	\$21,218	\$21,855	\$22,510	\$23,185
69 Contract Services	\$20,000	\$20,600	\$21,218	\$21,855	\$22,510	\$23,185
70 Liability/Property Insurance	\$56,700	\$58,401	\$60,153	\$61,958	\$63,816	\$65,731
71 Training Expense	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319
72 Taxes	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796
73 Overhead Allocation	\$117,114	\$120,627	\$124,246	\$127,974	\$131,813	\$135,767
74 Machinery & Equipment	\$0	\$0	\$0	\$0	\$0	\$0
75 Computer Equipment	\$0	\$0	\$0	\$0	\$0	\$0
76 Automotive Equipment	\$160,000	\$0	\$0	\$0	\$0	\$0
77 Water Sales	\$0	\$0	\$0	\$0	\$0	\$0
78 Fire Services	\$0	\$0	\$0	\$0	\$0	\$0
79 Meters	\$0	\$0	\$0	\$0	\$0	\$0
80 Fire Hydrants	\$0	\$0	\$0	\$0	\$0	\$0

Water and Wastewater Rate Study Report – August 2017

	Budget FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
81 Valves	\$0	\$0	\$0	\$0	\$0	\$0
82 Salaries - Permanent	\$360,544	\$371,360	\$382,501	\$393,976	\$405,795	\$417,969
83 Overtime	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778
84 Holiday	\$0	\$0	\$0	\$0	\$0	\$0
85 IOD/Non-Safety	\$0	\$0	\$0	\$0	\$0	\$0
86 Leave Buyback	\$0	\$0	\$0	\$0	\$0	\$0
87 Retirement	\$70,367	\$73,885	\$77,580	\$81,459	\$85,532	\$89,808
88 Deferred Compensation	\$495	\$520	\$546	\$573	\$602	\$632
89 Workers Compensation	\$42,014	\$44,115	\$46,320	\$48,636	\$51,068	\$53,622
90 Disability Insurance	\$0	\$0	\$0	\$0	\$0	\$0
91 Group Health Insurance	\$38,949	\$40,896	\$42,941	\$45,088	\$47,343	\$49,710
92 Retirees Medical Insurance	\$0	\$0	\$0	\$0	\$0	\$0
93 Optical Insurance	\$1,236	\$1,298	\$1,363	\$1,431	\$1,502	\$1,577
94 Dental Insurance	\$4,635	\$4,867	\$5,110	\$5,366	\$5,634	\$5,916
95 Life Insurance	\$958	\$1,006	\$1,056	\$1,109	\$1,164	\$1,223
96 FICA - Medicare	\$5,227	\$5,488	\$5,763	\$6,051	\$6,353	\$6,671
97 Office Supplies	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688	\$1,739
98 Postage	\$200	\$206	\$212	\$219	\$225	\$232
99 Special Department Expense	\$14,000	\$14,420	\$14,853	\$15,298	\$15,757	\$16,230
100 Advertising	\$0	\$0	\$0	\$0	\$0	\$0
101 Printing and Duplication	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319
102 Dues & Memberships	\$2,600	\$2,678	\$2,758	\$2,841	\$2,926	\$3,014
103 Mileage/Auto Allowance	\$200	\$206	\$212	\$219	\$225	\$232
104 Books and Publications	\$500	\$515	\$530	\$546	\$563	\$580
105 Vehicle Maintenance	\$6,000	\$6,180	\$6,365	\$6,556	\$6,753	\$6,956
106 Equipment Maintenance	\$10,500	\$10,815	\$11,139	\$11,474	\$11,818	\$12,172
107 Building Maintenance	\$12,000	\$12,360	\$12,731	\$13,113	\$13,506	\$13,911
108 Small Tools	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159
109 Uniforms and Equipment	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319
110 Safety Equipment & Supplies	\$800	\$824	\$849	\$874	\$900	\$927
111 Utilities	\$7,000	\$7,210	\$7,426	\$7,649	\$7,879	\$8,115
112 Telephone	\$500	\$515	\$530	\$546	\$563	\$580
113 Pumping Power	\$750,000	\$811,125	\$851,681	\$894,265	\$938,979	\$985,928
114 Professional Service	\$260,000	\$267,800	\$275,834	\$284,109	\$292,632	\$301,411
115 Contract Services	\$80,000	\$82,400	\$84,872	\$87,418	\$90,041	\$92,742
116 Training Expense	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688	\$1,739
117 Water Purchases - Resale	\$100,000	\$26,961	\$28,309	\$29,724	\$31,210	\$32,771
118 Watermaster Charges	\$930,000	\$1,056,600	\$1,223,855	\$1,393,116	\$1,564,483	\$1,610,922
119 Overhead Allocation	\$205,266	\$211,424	\$217,767	\$224,300	\$231,029	\$237,960
120 Machinery and Equipment	\$0	\$0	\$0	\$0	\$0	\$0
121 Computer Equipment	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478
122 Vehicles and Equipment	\$34,000	\$0	\$0	\$0	\$34,000	\$0
123 Debt Service-Professional Svc	\$0	\$0	\$0	\$0	\$0	\$0
124 Total - Water Fund	\$5,322,291	\$5,352,492	\$5,675,117	\$6,005,734	\$6,378,688	\$6,565,203

Water Supply Production Cost

RFC calculated the water supply cost (Table 2-9, Line 117 and 118) for FY 2018 and beyond by using source of supply and cost of supply data provided by the City. Table 2-10 summarizes the water supply cost calculation. There is a large increase in the water supply costs by 52 percent between FY 2018 and



FY 2022 primarily resulting from large increases in the Water Resource Development Fee. This fee is 75% higher in FY 2018 compared to FY 2017.

Total water demand (Line 1) is derived from projected water use data for FY 2018 to 2022. The water loss factor is estimated to be 7 percent for the City's system (Line 2), which results in the water supply amount equal to the total water required to meet demand (Line 3). The City's source of water supply includes groundwater rights of 1.8052 percent of the basin operating safe yield of 130,000 acre feet (AF) a year (Line 7). In addition, the City has leased 1,000 additional AF (Line 8) and has carryover rights (Line 9) from the remaining amount that the City has not pumped in prior years. The total production rights (Line 10) is equal to the City's share of the operating safe yield, additional amount leased, and carryover rights. The City also purchases 20 AF a year from the City of Pasadena. If the total water required to meet demand is greater than the City's total production rights, the City either purchases imported water from the Metropolitan Water District (MWD) or over-pumps the basin; however, it does not appear to be necessary during the planning period.

The water supply amount for each source of supply is outlined in Lines 11 to 15. To calculate the water supply cost, RFC used the water supply cost per AF, as provided by the City, and inflated for future years based on the Utilities inflation factor in **Table 2-8**. The leased water cost (Line 27) is calculated by multiplying the total amount leased (Line 8) with the leased water cost of supply (Line 22). In addition, each AF of leased water pumped incurs an Admin Assessment Cost, In Lieu Assessment Cost, and Water Resource Development Fee. The Watermaster Charges for groundwater (Line 31) includes the total groundwater pumped to meet demand (Line 13). Imported water costs are for MWD water (Line 36) and City of Pasadena water (Line 37). The monthly fixed charge for Pasadena water (Line 25) is multiplied by 12 to determine the annual cost (Line 38). The total water supply cost is shown in Line 39.

Table 2-10: Water Supply Cost Calculations

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
1 Total Water Demand (AF)	3,397	3,397	3,397	3,397	3,397
2 Water Loss Factor	7%	7%	7%	7%	7%
3 Total Water Required to Meet Demand (AF)	3,653	3,653	3,653	3,653	3,653
4 Source of Supply (AF)					
5 Basin Operating Safe Yield	130,000	130,000	130,000	130,000	130,000
6 Percent Share of OSY	1.8052%	1.8052%	1.8052%	1.8052%	1.8052%
7 Share of OSY	2,347	2,347	2,347	2,347	2,347
8 Amount Leased	1,000	1,000	1,000	1,000	1,000
9 Carryover Rights	3,282	2,997	2,711	2,425	2,139
10 Total Production Rights	6,629	6,343	6,058	5,772	5,486
11 Purchase from City of Pasadena	20	20	20	20	20
12 Purchase from MWD	0	0	0	0	0
13 Amount Pumped (Groundwater)	2,347	2,347	2,347	2,347	2,347
14 Amount Pumped (Leased Water)	1,286	1,286	1,286	1,286	1,286
15 Overpumped	0	0	0	0	0
16 Cost of Supply (\$/AF)					
17 Water Master Charges					
18 Admin Assessment Cost	\$15.75	\$16.54	\$17.36	\$18.23	\$19.14
19 In Lieu Assessment Cost	\$10.50	\$11.03	\$11.58	\$12.16	\$12.76
20 Replacement Water Assessment Cost	\$912.45	\$958.07	\$1,005.98	\$1,056.27	\$1,109.09
21 Water Resource Development Fee	\$70.00	\$105.00	\$140.00	\$175.00	\$175.00
22 Leased Water Cost	\$706.97	\$742.32	\$779.43	\$818.40	\$859.32
23 MWD - Treated Tier 1	\$1,015.00	\$1,065.75	\$1,119.04	\$1,174.99	\$1,233.74
24 City of Pasadena Block 1	\$800.26	\$840.27	\$882.29	\$926.40	\$972.72
25 City of Pasadena Monthly Fixed Charge	\$912.95	\$958.60	\$1,006.53	\$1,056.85	\$1,109.70
26 Calculated Water Supply Costs					
27 Leased Water Cost	\$706,967	\$742,315	\$779,431	\$818,403	\$859,323
28 Admin Assessment Cost	\$20,251	\$21,264	\$22,327	\$23,443	\$24,615
29 In Lieu Assessment Cost	\$13,501	\$14,176	\$14,885	\$15,629	\$16,410
30 Water Resource Development Fee	\$90,005	\$135,007	\$180,010	\$225,012	\$225,012
31 Water Master Charges (Groundwater)					
32 Admin Assessment Cost	\$36,961	\$38,810	\$40,750	\$42,788	\$44,927
33 In Lieu Assessment Cost	\$24,641	\$25,873	\$27,167	\$28,525	\$29,951
34 Water Resource Development Fee	\$164,273	\$246,410	\$328,546	\$410,683	\$410,683
35 Replacement Water Assessment Cost (Overpumping)	\$0	\$0	\$0	\$0	\$0
36 MWD - Treated Tier 1	\$0	\$0	\$0	\$0	\$0
37 City of Pasadena Block 1	\$16,005	\$16,805	\$17,646	\$18,528	\$19,454
38 City of Pasadena Monthly Fixed Charge	\$10,955	\$11,503	\$12,078	\$12,682	\$13,316
39 Total	\$1,083,560	\$1,252,163	\$1,422,840	\$1,595,693	\$1,643,693

Capital Improvement Plan

Table 2-11 shows the City's six-year water capital improvement plan. The City provided capital projects in current dollars from FY 2017 to FY 2022. Starting in FY 2018, the capital projects are inflated for future dollars using the capital escalation factor in Table 2-8. The major projects are the reservoir projects: Graves construction will start in FY 2018 and Westside in FY 2020. Both the reservoir projects are projected to be funded by low interest SRF loans.

Table 2-11: Inflated Water Capital Projects

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Capital Projects						
Wilson Well 2	\$200,000	\$309,000	\$106,090	\$0	\$0	\$0
Transmission Line Repairs	\$0	\$0	\$0	\$0	\$0	\$0
Graves Reservoir	\$500,000	\$3,090,000	\$5,304,500	\$1,639,091	\$0	\$0
Garfield	\$8,000,000	\$0	\$0	\$0	\$0	\$0
Automated Reading	\$0	\$51,500	\$106,090	\$109,273	\$112,551	\$115,927
Raymond & Bilike Tank	\$0	\$51,500	\$371,315	\$382,454	\$0	\$0
SCADA Upgrade	\$0	\$0	\$79,568	\$81,955	\$0	\$0
Westside Reservoir	\$0	\$0	\$0	\$546,364	\$2,251,018	\$4,637,096
Water Master Plan	\$0	\$0	\$0	\$81,955	\$84,413	\$86,946
Wilson Well #4	\$0	\$0	\$0	\$0	\$0	\$0
Waterline Replacement	\$300,000	\$515,000	\$530,450	\$546,364	\$562,754	\$579,637
Treatment	\$0	\$0	\$0	\$0	\$0	\$0
Well Head Treatment	\$0	\$0	\$530,450	\$546,364	\$562,754	\$0
Total	\$9,000,000	\$4,017,000	\$7,028,463	\$3,933,817	\$3,573,490	\$5,419,606

Table 2-12 displays the proposed six-year capital financing plan for the CIP shown in **Table 2-11**. The City is expected to issue approximately \$18.0 million in SRF Loans during the Study period to fund the design and construction of the Graves and Westside Reservoir projects.

Table 2-12: Proposed Water Capital Financing Plan

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Capital Financing						
Total Capital Projects	\$9,000,000	\$4,017,000	\$7,028,463	\$3,933,817	\$3,573,490	\$5,419,606
Debt Proceeds	\$0	\$3,418,478	\$5,051,064	\$1,560,779	\$2,663,729	\$4,415,547
Debt Proceeds Balance	\$0	\$3,418,478	\$5,051,064	\$1,560,779	\$2,663,729	\$4,415,547
Rate Funded	\$9,000,000	\$598,522	\$1,977,399	\$2,373,039	\$909,762	\$1,004,060
Debt Funded	\$0	\$3,418,478	\$5,051,064	\$1,560,779	\$2,663,729	\$4,415,547

Existing and Proposed Debt

Table 2-13 shows the City’s existing debt service for the water system. The 2004 and 2009 Installment Payments have been refinanced, which is reflected in the debt service detail.

Table 2-13: Existing Water Debt Service

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Existing Debt						
2013 Installment Payments	\$556,688	\$556,188	\$556,788	\$556,788	\$556,188	\$554,988
Bond Principal	\$990,000	\$835,000	\$850,000	\$880,000	\$905,000	\$945,000
Bond Interest	\$1,450,062	\$1,606,438	\$1,589,738	\$1,564,238	\$1,537,838	\$1,501,638
Total - Existing Debt	\$2,996,749	\$2,997,625	\$2,996,525	\$3,001,025	\$2,999,025	\$3,001,625

Table 2-14 shows the City’s proposed debt proceeds, the debt reserve amount, and the debt service associated with those debt issues for the water system. The amount in the debt reserve for each new debt is equal to the debt service for that SRF loan for that year. The SRF Loan repayment begins the year following the project completion year. The Graves Reservoir project is expected to finish in FY 2020; the Westside Reservoir project is expected to finish in FY 2022.

Table 2-14: Proposed Water Debt Proceeds and Debt Service

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Proposed Debt Proceeds					
SRF Loan - Graves Reservoir	\$3,418,478	\$5,051,064	\$1,560,779	\$0	\$0
SRF Loan - Westside Reservoir	\$0	\$0	\$0	\$2,663,729	\$4,415,547
Total	\$3,418,478	\$5,051,064	\$1,560,779	\$2,663,729	\$4,415,547
Proposed Debt Reserve					
SRF Loan - Graves Reservoir	\$171,522	\$253,436	\$78,312	\$0	\$0
SRF Loan - Westside Reservoir	\$0	\$0	\$0	\$133,652	\$221,550
Total	\$171,522	\$253,436	\$78,312	\$133,652	\$221,550
Proposed Debt Service					
SRF Loan - Graves Reservoir	\$0	\$0	\$0	\$503,270	\$503,270
SRF Loan - Westside Reservoir	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$503,270	\$503,270

Proposed Financial Plan

Table 2-15 shows the City’s water cash flow detail for the Study period, which includes the proposed revenues after revenue adjustments (Lines 3-10) and net annual cash flow (Line 31). The proposed revenue adjustments help ensure adequate revenue to fund operating expenses, capital projects, and reserve balances and meet debt coverage requirements. The revenue adjustments occur on January 2018 for the first year and in January for every subsequent year. It should be noted that the revenue adjustments represent the average increase in rates for the water enterprise. Individual customers will realize different impacts based on their usage as a result of the cost of service analysis and water rate structure.

Table 2-15: Proposed Water Financial Plan

	Budgeted FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 Revenues						
2 Revenues from Rates	\$8,443,791	\$8,575,099	\$8,575,099	\$8,575,099	\$8,575,099	\$8,575,099
3 Revenue Adjustments						
4 FY 2017	0%	\$0	\$0	\$0	\$0	\$0
5 FY 2018	9%		\$385,879	\$771,759	\$771,759	\$771,759
6 FY 2019	7%			\$327,140	\$654,280	\$654,280
7 FY 2020	6%				\$300,034	\$600,068
8 FY 2021	6%					\$318,036
9 FY 2022	6%					
10 Total - Revenue Adjustments	\$0	\$385,879	\$1,098,899	\$1,726,073	\$2,344,143	\$2,999,298
11 Total Revenue from Rates	\$8,443,791	\$8,960,979	\$9,673,998	\$10,301,172	\$10,919,242	\$11,574,397
12 Efficiency Fee	\$220,000	\$207,155	\$207,155	\$207,155	\$207,155	\$207,155
13 Other Revenue	\$291,000	\$293,910	\$296,849	\$299,818	\$302,816	\$305,844
14 Interest Earnings	\$80,000	\$41,616	\$76,865	\$103,107	\$134,511	\$175,144
15 Transfer in - PFA	\$8,600,000	\$0	\$0	\$0	\$0	\$0
16 Total - Revenues	\$17,634,791	\$9,503,659	\$10,254,866	\$10,911,251	\$11,563,724	\$12,262,540
17 Expenses						
18 Finance	\$1,023,028	\$1,055,048	\$1,088,307	\$1,122,643	\$1,158,094	\$1,194,697
19 Admin & Engineering	\$2,519,263	\$2,402,759	\$2,482,966	\$2,565,986	\$2,685,923	\$2,740,886
20 Pumping Power	\$750,000	\$811,125	\$851,681	\$894,265	\$938,979	\$985,928
21 Water Purchases - Resale	\$100,000	\$26,961	\$28,309	\$29,724	\$31,210	\$32,771
22 Watermaster Charges	\$930,000	\$1,056,600	\$1,223,855	\$1,393,116	\$1,564,483	\$1,610,922
23 Total - Expenses	\$5,322,291	\$5,352,492	\$5,675,117	\$6,005,734	\$6,378,688	\$6,565,203
24 Debt Service						
25 Existing Debt Service	\$2,996,749	\$2,997,625	\$2,996,525	\$3,001,025	\$2,999,025	\$3,001,625
26 Proposed Debt Service	\$0	\$0	\$0	\$0	\$503,270	\$503,270
27 Total - Debt Service	\$2,996,749	\$2,997,625	\$2,996,525	\$3,001,025	\$3,502,295	\$3,504,895
28 Capital Projects						
29 Rate Funded CIP	\$9,000,000	\$598,522	\$1,977,399	\$2,373,039	\$909,762	\$1,004,060
30 Total - Capital Projects	\$9,000,000	\$598,522	\$1,977,399	\$2,373,039	\$909,762	\$1,004,060
31 Net Annual Cash Flow	\$315,750	\$555,020	(\$394,175)	(\$468,547)	\$772,979	\$1,188,382
32 Net Operating Revenue	\$3,712,500	\$4,151,167	\$4,579,749	\$4,905,517	\$5,185,035	\$5,697,337
33 Calculated Debt Coverage	124%	138%	153%	163%	148%	163%
34 Required Debt Coverage	120%	120%	120%	120%	120%	120%

Fund Balances

Table 2-16 shows the revenues, expenses, beginning and ending fund balance, and reserve target for the City’s water fund, efficiency fund, and rate stabilization fund. The reserve target for the water fund is set to 100 percent of O&M expenses.



Table 2-16: Proposed Water Fund Balances

	Projected FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 Water Fund						
2 Beginning Balance	\$6,000,000	\$5,865,616	\$5,994,287	\$5,164,454	\$4,248,564	\$4,559,935
3 Revenues						
4 Total Revenue from Rates	\$8,223,791	\$8,753,824	\$9,466,843	\$10,094,018	\$10,712,088	\$11,367,243
5 Other Revenue	\$291,000	\$293,910	\$296,849	\$299,818	\$302,816	\$305,844
6 Debt Proceeds	\$8,600,000	\$3,418,478	\$5,051,064	\$1,560,779	\$2,663,729	\$4,415,547
7 Interest Earnings	\$69,866	\$29,576	\$55,516	\$70,072	\$87,213	\$121,485
8 Total - Revenues	\$17,184,656	\$12,495,788	\$14,870,272	\$12,024,686	\$13,765,845	\$16,210,118
9 Expenses						
10 O&M Expenses	\$5,322,291	\$5,352,492	\$5,675,117	\$6,005,734	\$6,378,688	\$6,565,203
11 Transfer to Rate Stabilization Fund	\$0	\$0	\$0	\$0	\$0	\$0
12 Debt Service	\$2,996,749	\$2,997,625	\$2,996,525	\$3,001,025	\$3,502,295	\$3,504,895
13 Capital Projects	\$9,000,000	\$4,017,000	\$7,028,463	\$3,933,817	\$3,573,490	\$5,419,606
14 Total - Expenses	\$17,319,040	\$12,367,117	\$15,700,105	\$12,940,576	\$13,454,474	\$15,489,705
15 Ending Balance	\$5,865,616	\$5,994,287	\$5,164,454	\$4,248,564	\$4,559,935	\$5,280,349
16 Reserve Target	\$5,322,291	\$5,352,492	\$5,675,117	\$6,005,734	\$6,378,688	\$6,565,203
17 Efficiency Fund						
18 Beginning Balance	\$670,325	\$898,130	\$1,115,302	\$1,340,740	\$1,576,781	\$1,825,944
19 Revenues						
20 Efficiency Fees	\$220,000	\$207,155	\$207,155	\$207,155	\$207,155	\$207,155
21 Interest Earnings	\$7,805	\$10,017	\$18,283	\$28,886	\$42,009	\$48,238
22 Total - Revenues	\$227,805	\$217,172	\$225,438	\$236,041	\$249,163	\$255,393
23 Ending Balance	\$898,130	\$1,115,302	\$1,340,740	\$1,576,781	\$1,825,944	\$2,081,337
24 Rate Stabilization Fund						
25 Beginning Balance	\$200,000	\$202,329	\$204,352	\$207,417	\$211,566	\$216,855
26 Revenues						
27 Transfer from Water Fund	\$0	\$0	\$0	\$0	\$0	\$0
28 Interest Earnings	\$2,329	\$2,023	\$3,065	\$4,148	\$5,289	\$5,421
29 Total - Revenues	\$2,329	\$2,023	\$3,065	\$4,148	\$5,289	\$5,421
30 Ending Balance	\$202,329	\$204,352	\$207,417	\$211,566	\$216,855	\$222,276
31 Debt Reserve						
32 Beginning Balance	\$0	\$0	\$171,522	\$424,958	\$503,270	\$636,922
33 Revenues						
34 Debt Reserves	\$0	\$171,522	\$253,436	\$78,312	\$133,652	\$221,550
35 Total - Revenues	\$0	\$171,522	\$253,436	\$78,312	\$133,652	\$221,550
36 Ending Balance	\$0	\$171,522	\$424,958	\$503,270	\$636,922	\$858,472

2.3 WATER COST OF SERVICE ANALYSIS

*Legal Framework*⁴

This section of the report describes the legal framework that was considered to ensure that the calculated cost of service rates provide a fair and equitable allocation of costs to customer classes.

California Constitution - Article XIII D, Section 6 (Proposition 218)

Proposition 218, reflected in the California Constitution as Article XIII D, was enacted in 1996 to ensure that rates and fees are reasonable and proportional to the cost of providing service. The principal requirements for fairness of the fees, as they relate to public water service are as follows:

1. A property-related charge (such as water rates) imposed by a public agency on a parcel shall not exceed the costs required to provide the property related service.
2. Revenues derived by the charge shall not be used for any other purpose other than that for which the charge was imposed.
3. The amount of the charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel.
4. No charge may be imposed for a service unless that service is actually used or immediately available to the owner of property.
5. No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.
6. A written notice of the proposed charge shall be mailed to the record owner of each parcel at least 45 days prior to the public hearing, when the agency considers all written protests against the charge.

As stated in AWWA's M1 Manual, "water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers." Proposition 218 requires that water rates cannot be "arbitrary and capricious," meaning that the rate-setting methodology must be sound and that there must be a nexus between costs and the rates charged. RFC followed industry standard rate setting methodologies set forth by the AWWA M1 Manual to ensure this study meets Proposition 218 requirements and creates rates that do not exceed the proportionate cost of providing water services.

Section 53756 of the Government Code allows a water or sewer utility to pass through inflationary increases or wholesale water purchase cost changes for up to five years with a 30-day notice.

⁴ RFC does not practice law nor does it provide legal advice. The above discussion is to provide a general review of apparent state institutional constraints and is labeled "legal framework" for literary convenience only. The City should consult with its counsel for clarification and/or specific review of any of the above or other matters.

In addition, Section 106 of the Water Code declares that the highest priority use of water is for domestic purposes, with irrigation secondary. Section 375 et seq. of the Water Code allows a water purveyor to design rates to incentivize the conservation.

The latest clarification of Proposition 218 results from the Appellate Court ruling in the San Juan Capistrano Case⁵. The two main takeaways from that decision are:

- the actual costs of providing water at various levels of usage must correspond to the actual cost of providing service at a given level of usage
- the administrative record (this report) must clearly explain the rationale and nexus between the rates and the costs of providing service

This means that the tiered rates (as well as rates for the remaining classes) need to be based on the proportionate costs incurred to provide water to customer classes to achieve compliance with Proposition 218. The immediate impact of this ruling is the change in the generally accepted of charging customers more if they use more to provide affordability to small users.

“Inclining” block rate structures (which are synonymous with “increasing” block rate structures and tiered rates) when properly designed and differentiated by customer class, allow a water utility to send consistent conservation price incentives to customers. Due to heightened interest in water conservation, tiered rates have gained widespread use, especially in relatively water-scarce regions, such as Southern California. Tiered rates meet the requirements of Proposition 218 as long as the tiered rates reflect the proportionate cost of providing service.

Cost-Based Rate Setting Methodology

As stated in the AWWA M1 Manual, “the costs of water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers.” To develop utility rates that comply with Proposition 218 and industry standards while meeting other emerging goals and objectives of the utility, there are four major steps discussed below.

1) Calculate Revenue Requirement

The rate-making process starts by determining the test year revenue requirement - which for this study is FY 2017. The revenue requirement should sufficiently fund the utility’s O&M, debt service, and capital expenses, and reserve funding.

2) Cost of Service (COS) Analysis

The annual cost of providing water service is distributed among customer classes commensurate with their service requirements. A COS analysis involves the following:

⁵ Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano, Opinion G048969, Super. Ct. No 30-2012-00594579, Filed April 20, 2015.

1. Functionalizing costs. Examples of functions are supply, treatment, transmission, distribution, storage, meter servicing and customer billing and collection.
2. Allocating functionalized costs to cost causation components. Cost causation components include base, maximum day, maximum hour⁶, meter service, customer servicing and conservation costs.
3. Distributing the cost causation components. Distribute cost causation components, using unit costs, to customer classes in proportion to their demands on the water system. This is described in the M1 Manual published by AWWA.

A COS analysis considers both the average quantity of water consumed (base costs) and the peak rate at which it is consumed (peaking or capacity costs as identified by maximum day and maximum hour demands)⁷. The water system must be designed to meet peak demands. There are additional costs associated with designing, constructing, and operating and maintaining facilities to meet peak demands. These peak demand costs need to be allocated to those imposing such costs on the utility. Different customer classes impose different peak demands on the water system. In other words, not all customer classes share the same responsibility for peaking related costs.

3) Rate Design and Calculations

Rates do more than simply recover costs. Within the legal framework and industry standards, properly designed rates should support and optimize a blend of various utility objectives, such as conservation, affordability for essential needs and revenue stability among other objectives. Rates may also act as a public information tool in communicating these objectives to customers.

4) Rate Adoption

Rate adoption is the last step of the rate-making process to comply with Proposition 218. RFC documented the rate study results in this Study Report to help educate the public about the proposed changes, the rationale and justifications behind the changes and their anticipated financial impacts in lay terms.

Cost of Service Analysis Overview

The principles and methodology of a COS analysis is to distribute a utility's revenue requirements (or costs) to each customer class. After determining a utility's revenue requirement, the next step in a COS analysis is to allocate its O&M costs to the following typical functions:

- » Water supply – represents the cost of pumping groundwater and purchasing water

⁶ Collectively, maximum day and maximum hour costs are known as peaking costs or capacity costs.

⁷ System capacity is the system's ability to supply water to all delivery points at the time when demanded. Coincident peaking factors are calculated for each customer class at the time of greatest system demand. The time of greatest demand is known as peak demand. Both the operating costs and capital asset related costs incurred to accommodate the peak flows are generally allocated to each customer class based upon the class's contribution to the peak month, day and hour event.

- » Treatment – represents the cost of treating the water
- » Transmission – represents the operating and maintenance cost of the water transmission system
- » Distribution and storage – represents the operating and maintenance cost of the water distribution system
- » Meter service – represents the cost of purchasing and maintaining water meters
- » Customer billing and collection – represents the costs associated with billing and customer service
- » General and administrative costs – represents all other costs that do not serve a specific function

The functionalization of costs allows for better allocation of the functionalized costs to the cost causation components, which include:

- » Supply costs – costs that are associated with pumping groundwater and purchasing water
- » Base Delivery costs – costs that are associated with providing service under average conditions
- » Peaking costs (maximum day and maximum hour) – costs that are associated with meeting the peak demand in excess of the average rate of use
- » Meter service – costs that are associated with maintenance and capital costs of meters and services
- » Customer billing and collection – costs that are incurred to provide billing and customer service
- » General and administrative costs – costs that do not have any direct cost causation

The typical Base costs described in the M1 Manual are further split into Supply and Base Delivery. The Supply component represent the variable portion of the Base cost and the Base Delivery represents the fixed cost component of the Base Cost.

Peaking costs are further divided into maximum day and maximum hour demand. The maximum day demand is the maximum amount of water used in a single day in a year. The maximum hour demand is the maximum usage in an hour on the maximum usage day. Different facilities, such as distribution and storage facilities, and the O&M costs associated with those facilities are designed to meet the peaking demands of customers. Therefore, extra capacity⁸ costs include the O&M and capital costs associated with meeting peak customer demand. This method is consistent with the AWWA M1 Manual and is widely used in the water industry to perform COS analyses.

Allocation of Functionalized Expenses to Cost Components

After functionalizing expenses, the next step is to allocate the functionalized expenses to cost causation components. To do so, RFC identified system-wide peaking factors, which are shown in **Table 2-17**. The City did not have the max day and max hour peaking factors so RFC used factors based on our

⁸ The terms extra capacity, peaking, and capacity costs are used interchangeably.

professional judgement for a system the size of South Pasadena. The system Maximum Day and Maximum Hour factors used are 2.00 and 3.00, respectively. The system-wide peaking factors are used to derive the cost component allocation bases (or percentages). Functionalized expenses are then allocated to the cost causation components using these allocation bases.

To understand the interpretation of the percentages, RFC first established the base use as the average daily demand during the year. To determine the relative proportion of costs to assign to Supply, Base Delivery, Maximum Day (Max Day), and Maximum Hour (Max Hour), allocations are calculated based on these factors. Cost components that are solely related to providing average day demand (ADD) are allocated entirely to Base Delivery (Line 1). To determine the allocation factors to Base, Max Day and Max Hour, we normalize Base to 1. Because Max Day factor is 2, 1 (2-1) out of the 2 provides the average or Base use and the remainder provides the factor for Max Day use. Similarly, for Max Hour factor of 3, 1 out of 3 is allocated to Base, 1 (3-2) out of 3 is allocated to Max Day and the remainder to Max Hour.

Different components of the water system are designed to handle different peaks. Supply costs are allocated to Supply. Components that are designed to meet Max Day peaks, such as reservoirs and transmission facilities, are allocated to Max Day factor.. Distribution lines are designed for Max Hour and allocated the Max Hour factors.

The Maximum Day allocation is as follows:

- » Base Delivery: $50\% = (1.00/2.00) = (\text{Base}/\text{Max Day})$
- » Maximum Day: $50\% = 100\% - (1.00/2.00) = ((\text{Max Day} - \text{Base})/\text{Max Day})$

Cost components such as those related to the distribution system that are designed for Maximum Hour peaks are allocated similarly. The allocation of Maximum Hour facilities is as follows:

- » Base Delivery: $33.3\% = (1.00/3.00) = (\text{Base}/\text{Max Hour})$
- » Max Day: $33.3\% = (2.00-1.00)/3.00 = ((\text{Max Day}-\text{Base})/\text{Max Hour})$
- » Max Hour: $33.3\% = 100\% - (1.00/3.00) - (2.00-1.00)/3.00 = ((\text{Max Hour}-\text{Max Day})/\text{Max Hour})$

Collectively, the Max Day and Max Hour cost components are known as peaking costs. These allocation bases are used to assign the functionalized costs to the cost causation components.

Table 2-17: Water System-Wide Peaking Factors

	Factor	Base Delivery	Max Day	Max Hour
Base	1.00	100.0%		
Max Day	2.00	50.0%	50.0%	0.0%
Max Hour	3.00	33.3%	33.3%	33.3%

To allocate meter related costs appropriately, the concept of equivalent meters needs to be understood. By using equivalent meters instead of a straight meter count, the analysis accounts for the fact that larger meters impose larger demands, are more expensive to install, maintain, and replace than smaller meters and commit a greater capacity in the system. Equivalent meters are used in calculating meter service costs.

Equivalent meters are based on meter hydraulic capacity. Equivalent meters are calculated to represent the potential demand on the water system compared to the base, or smallest meter size. A ratio of hydraulic capacity is calculated by dividing larger meter capacities by the base meter capacity. The base meter is the smallest meter, which is the ¾" meter for this Study. The actual number of meters by size is multiplied by the corresponding capacity ratio to calculate the number of equivalent meters. The capacity ratio is calculated using the meter capacity in gallons per minute (gpm) provided in the AWWA M1 Manual. **Table 2-18** shows the equivalent meters for FY 2018.

Table 2-18: Equivalent Water Meters (FY 2018)

Meter Size	Capacity (gpm)	AWWA Ratio	No. of Meters	Equiv. Meters
¾"	30	1.00	2,685	2,685
1"	50	1.67	2,622	4,370
1 ½"	100	3.33	491	1,637
2"	160	5.33	272	1,451
3"	300	10.00	28	280
4"	500	16.67	22	367
6"	1,000	33.33	1	33
8"	1,800	60.00	0	0
Total			6,121	10,822

Table 2-19 shows the O&M expenses allocation percentages from the previous study in FY 2013. These percentage allocations were used as a proxy to estimate the current year’s O&M expenses allocation. The prior year’s percentage allocations were used as a proxy because the City’s current budget does not have functionalized costs. The previous study’s percentage allocation is a reasonable proxy since the operating costs generally do not change much relative to each other. Supply costs, which generally fluctuate from year to year, were removed from the O&M expenses in the previous study to determine the allocation to the other cost components.

Table 2-20 allocates the O&M expenses to each cost causation component. **Table 2-21** shows the total resulting cost causation component allocation for the City’s water O&M expenses. The resulting allocation is used to allocate the City’s operating revenue requirement to the cost causation components.

Table 2-22 shows the allocation of the City’s water assets to each cost component. First, RFC functionalized the City’s water assets and then allocated the assets to the cost causation components

previously discussed resulting in the total asset allocation shown in **Table 2-23**. The total amount of \$2,527,005 in **Table 2-23** represents the Replacement Cost Less Depreciation (RCLD) of the City’s water assets. The RCLD amount is used to determine the capital percentage allocation, which is then used to determine the allocation of capital costs and debt service to each cost component in **Table 2-26**.

Table 2-19: O&M Expenses Allocation (Previous Study, FY 2013)

O&M Categories	Base	Max Day	Max Hour	Customer	Meters	Total
Utility Billing						
Wages & Benefits				100.0%		100.0%
Operations & Maintenance				100.0%		100.0%
Capital Outlay					100.0%	100.0%
Water Distribution						
Wages & Benefits	30.0%	30.0%	30.0%		10.0%	100.0%
Operations & Maintenance	30.0%	30.0%	30.0%		10.0%	100.0%
Capital Outlay	30.0%	30.0%	30.0%		10.0%	100.0%
Water Production						
Wages & Benefits	50.0%	50.0%	0.0%			100.0%
Operations & Maintenance	50.0%	50.0%	0.0%			100.0%
Variable Cost (Purchase and Power)	100.0%					100.0%
Capital Outlay	50.0%	50.0%	0.0%			100.0%

O&M Expenses Allocation	Base	Max Day	Max Hour	Customer	Meters	Total
Utility Billing						
Wages & Benefits	\$0	\$0	\$0	\$234,144	\$0	\$234,144
Operations & Maintenance	\$0	\$0	\$0	\$263,250	\$0	\$263,250
Capital Outlay	\$0	\$0	\$0	\$0	\$0	\$0
Water Distribution						
Wages & Benefits	\$215,678	\$215,678	\$215,678	\$0	\$71,893	\$718,926
Operations & Maintenance	\$176,312	\$176,312	\$176,312	\$0	\$58,771	\$587,705
Capital Outlay	\$24,000	\$24,000	\$24,000	\$0	\$8,000	\$80,000
Water Production						
Wages & Benefits	\$296,073	\$296,073	\$0	\$0	\$0	\$592,146
Operations & Maintenance	\$420,378	\$420,378	\$0	\$0	\$0	\$840,756
Variable Cost (Purchase and Power)	\$0	\$0	\$0	\$0	\$0	\$0
Capital Outlay	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL O&M EXPENSES	\$1,132,441	\$1,132,441	\$415,989	\$497,394	\$138,663	\$3,316,927
% Allocation	34.1%	34.1%	12.5%	15.0%	4.2%	

Table 2-20: Water O&M Expenses Percentage Allocation

	Supply	Base Delivery	Max Day	Max Hour	Customer	Meters	General	Total
Pumping Power	100.0%						0.0%	100%
Water Purchases - Resale	100.0%						0.0%	100%
Watermaster Charges	100.0%						0.0%	100%
All Other O&M Expenses		34.1%	34.1%	12.5%	15.0%	4.2%	0.0%	100%

Table 2-21: Water O&M Expenses Allocation by Cost Causation Component

	Supply	Base Delivery	Max Day	Max Hour	Customer	Meters	General	Total
Pumping Power	\$811,125	\$0	\$0	\$0	\$0	\$0	\$0	\$811,125
Water Purchases - Resale	\$26,961	\$0	\$0	\$0	\$0	\$0	\$0	\$26,961
Watermaster Charges	\$1,056,600	\$0	\$0	\$0	\$0	\$0	\$0	\$1,056,600
All Other O&M Expenses	\$0	\$1,179,804	\$1,180,495	\$433,609	\$518,671	\$145,228	\$0	\$3,457,807
Total O&M Expenses	\$1,894,685	\$1,179,804	\$1,180,495	\$433,609	\$518,671	\$145,228	\$0	\$5,352,492
O&M Allocation (less Supply)		34%	34%	13%	15%	4%	0%	100%

Table 2-22: Water Capital Assets Percentage Allocation

	Allocation Basis	Supply	Base Delivery	Max Day	Max Hour	Customer	Meters	General	Total
Water Distribution	Max Hour		33.3%	33.3%	33.3%			0.0%	100%
Water Production	Max Day		50.0%	50.0%				0.0%	100%
Telemetry System	Max Day		50.0%	50.0%				0.0%	100%
Service Facility Rehab	Average (Less Meters)		37.5%	37.5%	15.0%		10.0%	0.0%	100%
Building, Equipment and Other Improvements	Average (Less Meters and Customer)		27.1%	27.1%	10.8%	10.0%	25.0%	0.0%	100%

Table 2-23: Water Capital Assets Allocation by Cost Causation Component

	Supply	Base Delivery	Max Day	Max Hour	Customer	Meters	General	Total
Water Distribution	\$0	\$199,073	\$199,073	\$199,073	\$0	\$0	\$0	\$597,219
Water Production	\$0	\$392,314	\$392,314	\$0	\$0	\$0	\$0	\$784,628
Telemetry System	\$0	\$31,862	\$31,862	\$0	\$0	\$0	\$0	\$63,725
Service Facility Rehab	\$0	\$24,255	\$24,255	\$9,702	\$0	\$6,468	\$0	\$64,679
Building, Equipment and Other Improvements	\$0	\$275,371	\$275,371	\$110,148	\$101,675	\$254,189	\$0	\$1,016,754
Total Assets	\$0	\$922,875	\$922,875	\$318,923	\$101,675	\$260,657	\$0	\$2,527,005
Capital Allocation	0%	37%	37%	13%	4%	10%	0%	100%

Revenue Requirement Determination

Table 2-24 shows the revenue requirement derivation with the total revenue required from rates. The totals shown in the Operating and Capital columns are the total O&M and capital revenue requirements, respectively, that are allocated to the cost causation components using the allocation percentages shown in Table 2-21 and Table 2-23. The debt service and rate funded capital numbers come from Table 2-15, rows 25 and 29, respectively.

RFC calculated the revenue requirement using FY 2018 expenses, which include O&M expenses (Line 2), rate funded capital expenses (Line 5), and existing and proposed debt service (Lines 3-4). To arrive at the rate revenue requirement, we subtract revenue offsets from other expenses and adjust for annual cash balances and for annualization of rate increases since the Cash Flow only shows the revenue increase for half the year. The adjustments for annual cash balance is equal to the net cash flow in FY 2018 (Table 2-15, Line 31). Since the rate increase is implemented only for part of the year, the adjustments for the annualization of rate increases shows the additional revenue that would be recovered for the full year year rate increase in FY 2018 (Table 2-15, Line 5) so that the annual rates can be calculated. Efficiency



fee revenue (Line 8) is considered a revenue offset. The negative adjustments are subtracted and therefore added as a result of subtracting a negative number. The total revenue requirement is the amount that the rates are designed to recover.

Table 2-24: Water Revenue Requirement

	FY 2018		
	Operating	Capital	Total
1 Revenue Requirements			
2 O&M Expenses	\$5,352,492		\$5,352,492
3 Existing Debt Service		\$2,997,625	\$2,997,625
4 Proposed Debt Service		\$0	\$0
5 Rate Funded Capital Projects		\$598,522	\$598,522
6 Total - Revenue Requirements	\$5,352,492	\$3,596,147	\$8,948,639
7 Less Other Revenue			
8 Efficiency Fee	\$207,155		\$207,155
9 Other Revenue	\$293,910		\$293,910
10 Transfer in - PFA		\$0	\$0
11 Interest Income		\$41,616	\$41,616
12 Total - Less Other Revenue	\$501,065	\$41,616	\$542,681
13 Less Adjustments			
14 Adjustments for Annual Cash Balance		(\$555,020)	(\$555,020)
15 Adjustments for Annualized Rate Increase	(\$385,879)		(\$385,879)
16 Total - Less Adjustments	(\$385,879)	(\$555,020)	(\$940,900)
17 Revenue to be Recovered from Rates	\$5,237,307	\$4,109,551	\$9,346,858

Unit Cost Component Derivation

The end goal is to proportionately distribute the cost causation components to each customer class, or tier. To do so, we must calculate the cost causation component unit costs, which begins by assessing the total service units demanded by each tier for each cost causation component. To determine the units demanded by each customer class, the peaking factors in **Table 2-17** and equivalent meters in **Table 2-18** are utilized. This process is summarized in **Table 2-25**.

Table 2-25: Derivation of Water Cost Causation Component Service Units

Meter Size	Annual Use (hcf)	Maximum Day Requirements			Maximum Hour Requirements			Bi-Monthly Bills	Equivalent Meters
		Average Daily Use (hcf/day)	Capacity Factor	Total Capacity (hcf/day)	Extra Capacity (hcf/day)	Capacity Factor	Total Capacity (hcf/hour)		
1 Tier 1	764,067	2,093	2.00	4,187	2,093	3.00	6,280	2,093	
2 Tier 2	423,607	1,161	2.00	2,321	1,161	3.00	3,482	1,161	
3 Tier 3	292,001	800	2.00	1,600	800	3.00	2,400	800	
4 Meters									36,726
5 Total	1,479,675	4,054		8,108	4,054		12,162	4,054	36,726

Table 2-26 shows the cost causation component unit cost derivation. To account for capital cost fluctuations from year to year, the cost of service allocation factors are determined on a five-year basis. The first step is to determine a five-year average allocation factor for both operating and capital expenses. To do this, RFC determined the total water supply cost for FY 2018 to FY 2022 (\$11.5 million) and the total operating expenses for the five-year period (\$30.0 million). The remainder of operating expenses, excluding water supply costs, (\$30.0 million - \$11.5 million) is allocated proportionately to each cost causation component using the percentage allocations determined in **Table 2-21**. RFC then determined the total rate funded capital costs for the five-year period (\$22.9 million) and allocated this amount proportionately to each cost causation component using the percentage allocations in **Table 2-23**.

Not including the supply costs, the average allocation factors are the percentage that each cost causation component amount represents as part of the total amount. For example, the total five-year cost of service, not including Supply costs, are \$41.4 million. The Base Delivery cost of service is \$14.7 million, or 35.4 percent of \$41.4 million.

The next step is to allocate FY 2018 costs using the average allocation factors (Line 5). The Supply cost of service is the total cost related to water supply, including pumping power, resale water purchases, and water master charges (**Table 2-21**). The total cost of service, or revenue to be recovered from rates, is \$9.3 million (**Table 2-24**, Line 17). The remaining cost of service, not including Supply costs, is allocated to the Base, Maximum Day, Maximum Hour, Customer, Meters, and General cost causation components using the average allocation factors (Line 4) previously determined.

To provide additional revenue stability for the City’s water system and to retain the proportion of revenue collected from fixed charges, a portion of peaking costs are allocated to the Meter component.

The total adjusted cost of service (Line 7) is divided by the units of service to calculate the unit cost. For example, the unit cost for the Base Delivery component of \$1.79 per hcf is calculated by dividing the Base Delivery cost of service (\$2.6 million) by total water use (1,479,675 hcf).

Table 2-26: Water Unit Cost Calculation

	Supply	Base Delivery	Max Day	Max Hour	Customer	Meters	General	Total
1 Operating Costs - 5 years total	\$11,479,927	\$6,311,282	\$6,314,981	\$2,319,562	\$2,774,596	\$776,887	\$0	\$29,977,235
2 Capital Costs - 5 years total	\$0	\$8,350,466	\$8,350,466	\$2,885,720	\$919,992	\$2,358,503	\$0	\$22,865,146
3 Total Cost of Service - 5 years total	\$11,479,927	\$14,661,747	\$14,665,447	\$5,205,282	\$3,694,588	\$3,135,390	\$0	\$52,842,381
4 Average Allocation Factors		35.4%	35.5%	12.6%	8.9%	7.6%	0.0%	100.0%
5 Total Cost of Service - FY 2018	\$1,894,685	\$2,641,571	\$2,642,238	\$937,823	\$665,645	\$564,896	\$0	\$9,346,858
6 Allocation of Peaking Costs			(\$2,259,113)	(\$801,839)		\$3,060,952		\$0
7 Total Adjusted Cost of Service	\$1,894,685	\$2,641,571	\$383,124	\$135,984	\$665,645	\$3,625,848	\$0	\$9,346,858
8 Units of Service	1,479,675	1,479,675	4,054	4,054	36,726	10,822		
9 Units of Measure	hcf	hcf	hcf/day	hcf/hour	annual bills	meters/bi-month		
10 Unit Cost of Service	\$1.28	\$1.79	\$94.51	\$33.54	\$18.12	\$55.84		
11 Units of Measure	hcf	hcf	hcf/day	hcf/hour	bills/bi-month	meters/bi-month		

Distribution of Cost Causation Components to Tiers

The final step the COS analysis is to distribute the cost causation components to tiers using the unit costs derived in **Table 2-26** to arrive at the cost to serve each tier. **Table 2-27** shows the derivation of the cost to service (or cost of service for) each tier. The Supply, Base Delivery, Maximum Day, Maximum Hour cost components are collected through the volume charge. The Meter and Customer cost components are collected through the bi-monthly fixed charge.

To derive the cost to serve each tier, the unit costs from **Table 2-26** are multiplied by the units shown in **Table 2-25** for each tier. For example, the Supply cost for Tier 1 is calculated by multiply the Supply unit cost (\$1.28 per hcf) by the annual use for that tier (764,067 hcf) to determine the total annual cost of providing water supply to that tier (\$978,367). Similarly, the Customer costs are derived by multiplying the Customer unit cost (\$18.12 per bills per bi-month) by the number of bills (36,726 bi-monthly bills) to determine the total annual cost of providing customer service (\$665,645). Note that the total cost of service (Line 5) is equal to the total revenue requirement in **Table 2-24** (Line 17) and the total cost of service in **Table 2-26** (Line 7).

Table 2-27: Allocation of Water Costs to Tiers

Tiers	Supply	Base Delivery	Max Day	Max Hour	Customer	Meters	Total
1 Tier 1	\$978,367	\$1,364,041	\$197,836	\$70,219			\$2,610,463
2 Tier 2	\$542,418	\$756,239	\$109,682	\$38,930			\$1,447,270
3 Tier 3	\$373,900	\$521,292	\$75,606	\$26,835			\$997,633
4 Meters					\$665,645	\$3,625,848	\$4,291,493
5 Total	\$1,894,685	\$2,641,571	\$383,124	\$135,984	\$665,645	\$3,625,848	\$9,346,858

2.4 WATER RATE DESIGN

The last step in the COS Study is the rate design and rate derivation. In this step, we have some flexibility to design rates to meet City objectives such as revenue stability. Proposition 218 does not specify the type of rate structure so long as the rates justify the costs of servicing customers.

Derivation of Bi-Monthly Service Charges

Table 2-28 shows the derivation of the bi-monthly service charges. The COS analysis derived in **Table 2-27** is used to determine the bi-monthly service charge, which is designed to collect the amount of revenues related to Customers and Meters (**Table 2-27**, Line 4).

There are two components that comprise the fixed bi-monthly service charge: meter capacity and customer service or billing. This charge recognizes the fact that even when a customer does not use any water, the City incurs fixed costs related to the maintenance of the meters and the water system, the ability or readiness to service each connection, and/or the billing services provided to each connection.

The meter capacity component collects capacity related costs. Capacity related costs can be allocated to and collected through the bi-monthly service charge by meter size. This reflects the fact that larger meters have the potential to demand more capacity as compared to smaller meters. The potential capacity demanded is proportional to the potential flow through each meter size as established by the American Water Works Association's (AWWA) hydraulic capacity ratios. The ratios depict the potential flow through each meter size compared to the flow through a ¾" meter, which is the base meter size for this Study. For example, the maximum sustained flow through a 2" meter is approximately 5.33 times the flow through a ¾" meter. The ¾" meter is assigned one meter capacity component as shown in **Table 2-18**. The meter capacity component for all larger meters is scaled up using the AWWA capacity ratios. For example, the 2" meter has a meter ratio of 5.33 and therefore has a meter capacity component of \$297.77 (5.33 x \$55.83).

The customer component recovers costs associated with meter reading, customer billing and collection, and customer service costs. These costs are the same for all meter sizes as it costs the same to provide billing and customer services to a small meter as it does for a larger one. The customer component is equal to the Customer unit cost in **Table 2-26**.

Table 2-28: Proposed Bi-Monthly Service Charges

Meter Size	AWWA Ratio	Meter	Customer	Total Bi-Monthly Charge
3/4"	1.00	\$55.84	\$18.12	\$73.97
1"	1.67	\$93.06	\$18.12	\$111.19
1 1/2"	3.33	\$186.13	\$18.12	\$204.26
2"	5.33	\$297.81	\$18.12	\$315.94
3"	10.00	\$558.39	\$18.12	\$576.52
4"	16.67	\$930.65	\$18.12	\$948.78
6"	33.33	\$1,861.30	\$18.12	\$1,879.43
8"	60.00	\$3,350.34	\$18.12	\$3,368.47

Derivation of Proposed Volume Charge

The proposed rate structure for the volume charge includes three tiers based on meter size to ensure that all customers are incentivized to participate in conservation through tiered rates. Defining tiers by meter size allows the non-homogenous customers to be included in a tiered structure without unduly penalizing them and provides allocations based on historic usage. The City’s current tier allocations shown in **Table 2-29** are retained to minimize impacts and are based on our previous study. Tier 2 represents the average usage for each meter size. The design of the first tier for the different meter sizes starts with defining Tier 1 for the 3/4" meter which is comprised of mostly residential customers. To ensure that residential customers received a minimum allocation in Tier 1 to meet their basic domestic needs, Tier 1 for the 3/4" meter was set to 15 hcf bimonthly. Recognizing that the larger 1" meter serves the needs of larger accounts that are primarily residential, the first tier allocation was set at 20 units which is about 45% of the average usage for that meter. The Tier 1 allocation for the remaining meters is set at approximately 45% of their average usage to ensure that there is an incentive for conservation. Tier 3 represents usage above the average.

Table 2-29: Bi-Monthly Tier Allocation

Bi-Monthly Tier Allocation	Tier 1	Tier 2	Tier 3
Meter Size			
3/4"	15	30	30+
1"	20	45	45+
1 1/2"	40	90	90+
2"	90	190	190+
3"	200	460	460+
4"	237	490	490+
6"	275	600	600+
8"	350	800	800+

The next step is to derive the volume rates for these tiers. The volume rate is derived by adding the unit rates for three cost causation components: Supply, Base Delivery, and Peaking (Maximum Day and Maximum Hour).

Supply costs are costs related to the cost of purchasing and producing water. The City has four sources of water: groundwater, leased groundwater, over-pumped groundwater, and imported water. Each source of supply is distributed to each tier based on cost. For example, Tier 1 users will receive the lowest priced water first, then Tier 2 and Tier 3. This signals conservation and provides affordability for basic usage. **Table 2-30** shows the derivation of the unit cost for each source of supply. The unit cost for each supply source is derived by dividing the total water cost (Line 4), which includes the water purchase cost and pumping cost, by the total supply availability net of water loss (Line 1).

Table 2-30: Supply Unit Cost Derivation

Supply Allocation	Groundwater	Leased	Imported	Overpumping	TOTAL
1 Supply Availability (hcf), net of water loss	950,691	520,882	8,102	0	1,479,675
2 Water Cost	\$225,876	\$830,724	\$26,961	\$0	\$1,083,560
3 Pumping Cost	\$524,017	\$287,108	\$0	\$0	\$811,125
4 Total Water Cost	\$749,893	\$1,117,832	\$26,961	\$0	\$1,894,685
5 Unit Cost	\$0.79	\$2.15	\$3.33	\$0.00	\$1.28

Then, each source of supply and its costs are allocated to the three tiers as shown in **Table 2-31**. Groundwater supply is the lowest in price at \$0.79 per hcf, and therefore the amount of groundwater available (950,691 hcf) is allocated first to Tier 1. Any remaining groundwater available is allocated to Tier 2. This is repeated for all sources of supply, started with the lowest in price to highest in price and moving from Tier 1 to Tier 3. The Base Delivery cost recovers the average cost of providing service to each tier and is the same for each tier and is determined from the total Base Delivery cost shown in Table 2-26 spread over the total sales in Table 2-30. The last component is the peaking cost. Because each meter size represents different classes of customers and each tier has different levels of use based on the meter size, we have spread the system cost allocated to peaking to all usage equally. The max day and max hour costs from Table 2-26 are spread over total usage to arrive at \$0.35 per hcf of use for all tiers. The blended costs, shown in the last column of **Table 2-31**, for each source of supply in each tier determines the Supply unit cost for that tier.

Table 2-31: Derivation of Supply Unit Cost per Tier

Supply Allocation	Usage (hcf)	Groundwater	Leased	Imported	Overpumping	Unit Cost
1 Tier 1	764,067	764,067	0	0	0	\$0.79
2 Tier 2	423,607	186,624	236,983	0	0	\$1.55
3 Tier 3	292,001	0	283,899	8,102	0	\$2.18
4 TOTAL	1,479,675	950,691	520,882	8,102	0	\$1.28

The proposed rates with each of the three components is shown in **Table 2-32**. The Supply cost is derived in **Table 2-31** and the Base Delivery and Peaking costs are derived in **Table 2-26**.

Table 2-32: Proposed Volume Rate

Tiers	Supply	Base Delivery	Peaking	Proposed Rates
Tier 1	\$0.79	\$1.79	\$0.35	\$2.93
Tier 2	\$1.55	\$1.79	\$0.35	\$3.69
Tier 3	\$2.18	\$1.79	\$0.35	\$4.32

Proposed Water Rates

Table 2-33 shows the proposed bi-monthly service charges by meter size, the volume charge, and the efficiency fee charge for the next five years, starting in January of 2018 and then in January of every subsequent year. As recommended by the Committee, the efficiency fee remains the same for all years of the Study period.

Table 2-33: Proposed Water Rates

	Current	January 2018	January 2019	January 2020	January 2021	January 2022
Bi-Monthly Fixed Charge						
3/4"	\$72.93	\$73.97	\$79.15	\$83.90	\$88.94	\$94.28
1"	\$109.92	\$111.19	\$118.98	\$126.12	\$133.69	\$141.72
1 1/2"	\$202.39	\$204.26	\$218.56	\$231.68	\$245.59	\$260.33
2"	\$313.37	\$315.94	\$338.06	\$358.35	\$379.86	\$402.66
3"	\$572.29	\$576.52	\$616.88	\$653.90	\$693.14	\$734.73
4"	\$942.17	\$948.78	\$1,015.20	\$1,076.12	\$1,140.69	\$1,209.14
6"	\$1,866.88	\$1,879.43	\$2,011.00	\$2,131.66	\$2,259.56	\$2,395.14
8"	\$3,346.43	\$3,368.47	\$3,604.27	\$3,820.53	\$4,049.77	\$4,292.76
Volume Charge (per hcf)						
Tier 1	\$1.97	\$2.93	\$3.14	\$3.33	\$3.53	\$3.75
Tier 2	\$3.36	\$3.69	\$3.95	\$4.19	\$4.45	\$4.72
Tier 3	\$5.41	\$4.32	\$4.63	\$4.91	\$5.21	\$5.53
Efficiency Fee (per hcf)						
	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14

Customer Impacts

The following customer impact charts in **Figure 2-1** and **Figure 2-2** shows the monthly customer impacts for a ¾" meter and a 1" meter at various levels of use.





Figure 2-1: Monthly Customer Impacts (3/4" Meter)

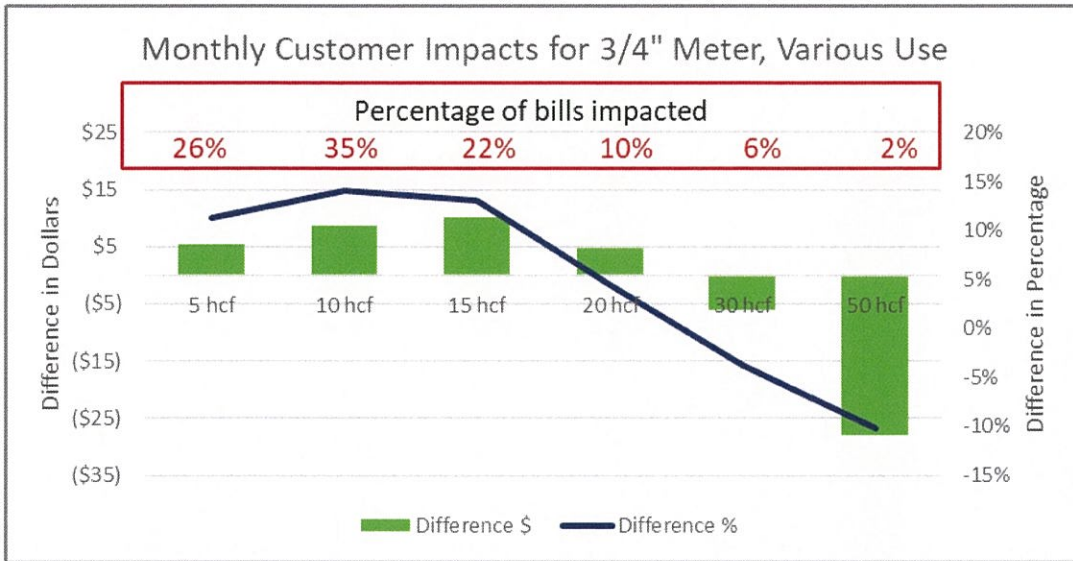
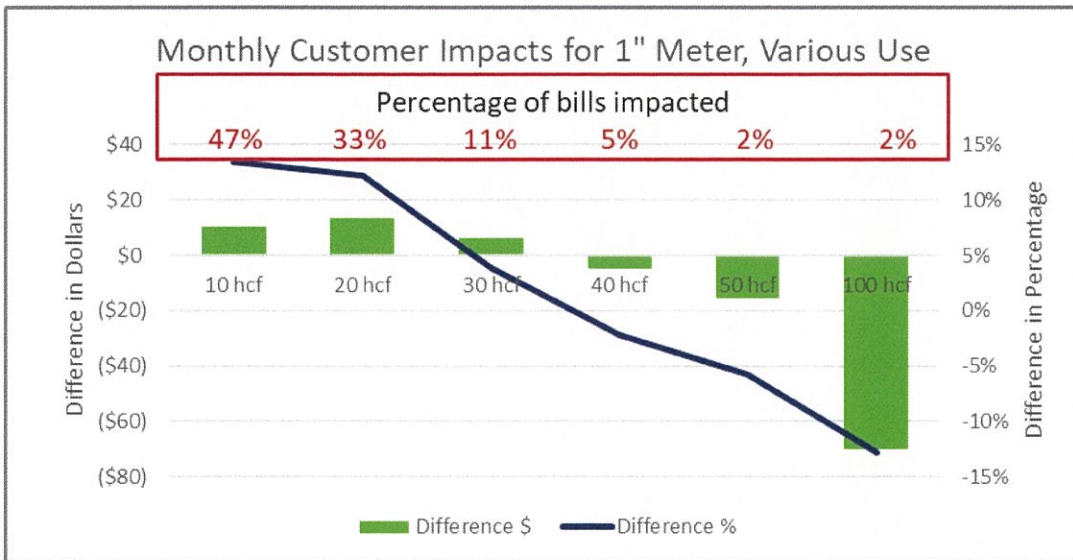


Figure 2-2: Monthly Customer Impacts (1" Meter)



3 WASTEWATER SYSTEM

This section describes the rate setting process and results for the wastewater system. The process is similar to the water system; however, the cost causation components are different. In this chapter wastewater and sewer are used interchangeably.

3.1 WASTEWATER SYSTEM INFORMATION

This section briefly describes the wastewater system and customer data provided by the City.

Background of the System

The wastewater enterprise consists mainly of sewers that transport the City’s wastewater to the Los Angeles County Sanitation Districts (LACSD) for treatment and disposal. The LACSD bills all the City’s wastewater customers directly on the County tax roll. The City is responsible for maintaining the sewer system. Over the last few years the City has undertaken a significant replacement and refurbishment program for its sewer lines in response to a State mandate. The City acquired low cost funding to help finance the program.

Customer Accounts and Growth

Similar to the water system, **Table 3-1** shows that City is essentially built out and no account growth assumptions for each customer class is expected. The account growth assumptions are normally used to project the number of wastewater accounts for the Study period.

Table 3-1: Wastewater Account Growth Assumptions

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Account Growth						
Single Family	0%	0%	0%	0%	0%	0%
Multi-Family	0%	0%	0%	0%	0%	0%
Commercial	0%	0%	0%	0%	0%	0%

Table 3-2 shows the number of connections by customer class projected using customer data in FY 2016 and the growth assumptions in **Table 3-1**.

Table 3-2: Projected Wastewater Connections

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Connections						
Single Family	4,411	4,411	4,411	4,411	4,411	4,411
Multi-Family	6,195	6,195	6,195	6,195	6,195	6,195
Commercial	278	278	278	278	278	278
Total - Connections	10,884	10,884	10,884	10,884	10,884	10,884

3.2 WASTEWATER FINANCIAL PLAN

This section describes the assumptions used in projecting wastewater revenue, O&M expenses, capital projects, reserves, and debt coverage requirements that determine the overall revenue adjustments required to ensure the financial stability of the City’s wastewater system. To develop the financial plan, RFC projected annual revenues at current rates, O&M expenses, modeled reserves balances, and calculated capital expenditure funding sources to estimate the amount of annual rate revenue required.

Revenues

To project non-rate revenues for future years, RFC utilizes the inflationary assumptions in **Table 3-3**. The non-rate revenue inflation factor is used to project all non-rate revenues that are inflated for future years. The reserve interest rate is used to calculate interest income for future years.

Table 3-3: Wastewater Revenue Inflationary Assumptions

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Revenue						
Non-Rate Revenue	1%	1%	1%	1%	1%	1%
Reserve Interest Rate	0.5%	1.0%	1.5%	2.0%	2.5%	2.5%

Table 3-4 shows the City’s current wastewater service charges that are used to calculate the revenues under the status quo conditions. All customers pay fixed charges including commercial customers who pay the same rate as single family residential (SFR).

Table 3-4: Current Bimonthly Wastewater Rates

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Fixed Charge						
Single Family	\$29.85	\$29.85	\$29.85	\$29.85	\$29.85	\$29.85
Multi-Family	\$20.16	\$20.16	\$20.16	\$20.16	\$20.16	\$20.16
Commercial	\$29.85	\$29.85	\$29.85	\$29.85	\$29.85	\$29.85

Table 3-5 shows the calculated wastewater rate revenues for the Study period. The rate revenue for each customer class is calculated by multiplying the number of connections in **Table 3-2** by the current rates in **Table 3-4** for six billing periods.

Table 3-5: Calculated Wastewater Rate Revenues

	Calculated FY 2018	Calculated FY 2019	Calculated FY 2020	Calculated FY 2021	Calculated FY 2022
Fixed Charge					
Single Family	\$789,956	\$789,956	\$789,956	\$789,956	\$789,956
Multi-Family	\$749,401	\$749,401	\$749,401	\$749,401	\$749,401
Commercial	\$49,712	\$49,712	\$49,712	\$49,712	\$49,712
Total - Fixed Charge	\$1,589,069	\$1,589,069	\$1,589,069	\$1,589,069	\$1,589,069

Table 3-6 shows the projected revenues for the City’s wastewater system over the Study period. FY 2017 revenues are from the City’s wastewater O&M budget. The sewer service charges (Line 5) for FY 2018 onward correlate with the calculated rate revenue in **Table 3-5**. The interest income is calculating using the reserve interest rate in **Table 3-3** and the remaining revenues are projected using the non-rate revenue inflationary assumption in **Table 3-3**.

Table 3-6: Projected Wastewater Revenues

	Budgeted FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 Sewer Fund						
2 Interest Income	\$18,000	\$17,089	\$29,023	\$43,113	\$59,612	\$68,578
3 Gain / Loss on Investments	\$0	\$0	\$0	\$0	\$0	\$0
4 Unrealized Gain / Loss	\$0	\$0	\$0	\$0	\$0	\$0
5 Sewer Service Charges	\$1,400,000	\$1,589,069	\$1,589,069	\$1,589,069	\$1,589,069	\$1,589,069
6 Penalty - Sewer	\$5,000	\$5,050	\$5,101	\$5,152	\$5,203	\$5,255
7 Sewer Capacity Charges	\$0	\$0	\$0	\$0	\$0	\$0
8 Gen. Liability Insurance Reimb	\$0	\$0	\$0	\$0	\$0	\$0
9 Miscellaneous	\$0	\$0	\$0	\$0	\$0	\$0
10 Prior Year Adjustment	\$0	\$0	\$0	\$0	\$0	\$0
11 Transfers In	\$0	\$0	\$0	\$0	\$0	\$0
12 Subtotal - Sewer Fund	\$1,423,000	\$1,611,208	\$1,623,192	\$1,637,333	\$1,653,883	\$1,662,901
13 Sewer Capital Fund						
14 Interest	\$0	\$4,307	\$2,144	(\$3,254)	(\$12,326)	(\$23,887)
15 Gain / Loss on Investments	\$0	\$0	\$0	\$0	\$0	\$0
16 Unrealized Gain / Loss	\$0	\$0	\$0	\$0	\$0	\$0
17 Loan Proceeds	\$0	\$0	\$0	\$0	\$0	\$0
18 Transfers In	\$3,000	\$0	\$0	\$0	\$0	\$0
19 Subtotal - Sewer Capital Fund	\$3,000	\$4,307	\$2,144	(\$3,254)	(\$12,326)	(\$23,887)
20 Total - Revenues	\$1,426,000	\$1,615,515	\$1,625,336	\$1,634,079	\$1,641,557	\$1,639,015

Inflationary Assumptions

To ensure that future costs are reasonably projected, inflationary assumptions are utilized with input from City staff. **Table 3-7** shows the inflationary assumptions that were utilized to inflate the expenses for future years (FY 2018 and onward) in the financial plan.

Table 3-7: Wastewater Expense Inflationary Assumptions

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Inflation Factors					
General	3%	3%	3%	3%	3%
Salary	3%	3%	3%	3%	3%
Benefits	5%	5%	5%	5%	5%
Utilities	5%	5%	5%	5%	5%
Capital	3%	3%	3%	3%	3%
Non-Inflated	0%	0%	0%	0%	0%

O&M Expenses

The wastewater O&M expenses are shown in **Table 3-8**, which incorporates the inflationary assumptions shown in **Table 3-7**.

Table 3-8: Projected Wastewater O&M Expenses

	Budgeted FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 Sewer Fund						
2 Interest Income	\$18,000	\$17,089	\$29,023	\$43,113	\$59,612	\$68,578
3 Gain / Loss on Investments	\$0	\$0	\$0	\$0	\$0	\$0
4 Unrealized Gain / Loss	\$0	\$0	\$0	\$0	\$0	\$0
5 Sewer Service Charges	\$1,400,000	\$1,589,069	\$1,589,069	\$1,589,069	\$1,589,069	\$1,589,069
6 Penalty - Sewer	\$5,000	\$5,050	\$5,101	\$5,152	\$5,203	\$5,255
7 Sewer Capacity Charges	\$0	\$0	\$0	\$0	\$0	\$0
8 Gen. Liability Insurance Reimb	\$0	\$0	\$0	\$0	\$0	\$0
9 Miscellaneous	\$0	\$0	\$0	\$0	\$0	\$0
10 Prior Year Adjustment	\$0	\$0	\$0	\$0	\$0	\$0
11 Transfers In	\$0	\$0	\$0	\$0	\$0	\$0
12 Subtotal - Sewer Fund	\$1,423,000	\$1,611,208	\$1,623,192	\$1,637,333	\$1,653,883	\$1,662,901
13 Sewer Capital Fund	\$3,000	\$4,307	\$2,144	(\$3,254)	(\$12,326)	(\$23,887)
14 Total - Revenues	\$1,426,000	\$1,615,515	\$1,625,336	\$1,634,079	\$1,641,557	\$1,639,015

Capital Improvement Plan

Table 3-9 shows the City’s six-year wastewater capital improvement plan consisting primarily of sewer line replacements and refurbishments. The City provided capital projects in current dollars from FY 2017 to FY 2022. Starting in FY 2018, the capital projects are inflated for future dollars using the capital escalation factor in **Table 3-7**.

Table 3-9: Inflated Wastewater Capital Projects

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Capital Projects						
Wastewater Capital Projects	\$0	\$360,500	\$424,360	\$491,727	\$562,754	\$637,601
Total - Capital Projects	\$0	\$360,500	\$424,360	\$491,727	\$562,754	\$637,601

Table 3-10 displays the proposed six-year capital financing plan for the CIP shown in **Table 3-9**. As the City does not expect to issue any additional debt for the wastewater system, all capital projects will be rate funded for the Study period.

Table 3-10: Proposed Wastewater Capital Financing Plan

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Capital Financing						
Total Capital Projects	\$0	\$360,500	\$424,360	\$491,727	\$562,754	\$637,601
Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0
Debt Proceeds Balance	\$0	\$0	\$0	\$0	\$0	\$0
Rate Funded	\$0	\$360,500	\$424,360	\$491,727	\$562,754	\$637,601
Debt Funded	\$0	\$0	\$0	\$0	\$0	\$0

Existing and Proposed Debt

Table 3-11 shows the City’s existing debt service for the wastewater system.

Table 3-11: Existing Wastewater Debt Service

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Existing Debt						
Debt	\$0	\$446,499	\$446,499	\$446,499	\$446,499	\$446,499
Total - Existing Debt	\$0	\$446,499	\$446,499	\$446,499	\$446,499	\$446,499

The City does not expect to issue any additional debt during the Study period except for the \$750,000 outstanding loan from the City’s General Fund.



Proposed Financial Plan

Table 3-12 shows the City’s wastewater cash flow detail for the Study period, which includes the proposed revenues after revenue adjustments (Lines 3-10) and net annual cash flow (Line 25). The proposed revenue adjustments help ensure adequate revenue to fund operating expenses, capital projects, and reserve balances. The revenue adjustments occur on January 2018 for the first year and in January for every subsequent year. Note that these adjustments represent the average increase in rates for the wastewater utility. Different customers will be impacted differently based on the cost of service analysis and rate structure.

Table 3-12: Proposed Wastewater Financial Plan

	Budgeted FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 Revenues						
2 Revenue from Rates	\$1,400,000	\$1,589,069	\$1,589,069	\$1,589,069	\$1,589,069	\$1,589,069
3 Revenue Adjustments						
4 Adjustment						
4 FY 2017	0%	\$0	\$0	\$0	\$0	\$0
5 FY 2018	6%	\$47,672	\$95,344	\$95,344	\$95,344	\$95,344
6 FY 2019	4%		\$33,688	\$67,377	\$67,377	\$67,377
7 FY 2020	4%			\$35,036	\$70,072	\$70,072
8 FY 2021	4%				\$36,437	\$72,874
9 FY 2022	4%					\$37,895
10 Total - Revenue Adjustments	\$0	\$47,672	\$129,032	\$197,756	\$269,229	\$343,561
11 Total Revenue from Rates	\$1,400,000	\$1,636,741	\$1,718,101	\$1,786,825	\$1,858,298	\$1,932,630
12 Other Revenue	\$5,000	\$5,050	\$5,101	\$5,152	\$5,203	\$5,255
13 Interest Earnings	\$18,000	\$17,089	\$29,023	\$43,113	\$59,612	\$68,578
14 Total - Revenues	\$1,423,000	\$1,658,880	\$1,752,224	\$1,835,090	\$1,923,113	\$2,006,463
15 Expenses						
16 O&M Expenses	\$1,139,236	\$761,932	\$785,410	\$846,198	\$837,871	\$865,461
17 Total - Expenses	\$1,139,236	\$761,932	\$785,410	\$846,198	\$837,871	\$865,461
18 Debt Service						
19 Existing Debt Service	\$0	\$446,499	\$446,499	\$446,499	\$446,499	\$446,499
20 Loan Repayment to City General Fund	\$0	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
21 Total - Debt Service	\$0	\$596,499	\$596,499	\$596,499	\$596,499	\$596,499
22 Capital Projects						
23 Rate Funded CIP	\$0	\$360,500	\$424,360	\$491,727	\$562,754	\$637,601
24 Total - Capital Projects	\$0	\$360,500	\$424,360	\$491,727	\$562,754	\$637,601
25 Net Annual Cash Flow	\$283,764	(\$60,051)	(\$54,045)	(\$99,334)	(\$74,012)	(\$93,098)
26 Net Operating Revenue	\$283,764	\$896,948	\$966,815	\$988,892	\$1,085,242	\$1,141,002
27 Calculated Debt Coverage	#N/A	150%	162%	166%	182%	191%

Fund Balances

Table 3-13 shows the revenues, expenses, beginning and ending fund balance, and reserve target for the City’s sewer fund and sewer capital fund. The reserve target for the sewer fund is set to 100 percent of O&M expenses and 100 percent of the five-year CIP for the sewer capital fund consistent with current policy.

Table 3-13: Proposed Wastewater Fund Balances

	Projected FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 Sewer Fund						
2 Beginning Balance	\$2,185,230	\$1,668,994	\$1,765,942	\$2,132,756	\$2,221,648	\$2,606,890
3 Revenues						
4 Total Revenue from Rates	\$1,400,000	\$1,636,741	\$1,718,101	\$1,786,825	\$1,858,298	\$1,932,630
5 Other Revenue	\$5,000	\$5,050	\$5,101	\$5,152	\$5,203	\$5,255
6 Interest Earnings	\$18,000	\$17,089	\$29,023	\$43,113	\$59,612	\$68,578
7 Total - Revenues	\$1,423,000	\$1,658,880	\$1,752,224	\$1,835,090	\$1,923,113	\$2,006,463
8 Expenses						
9 O&M Expenses	\$1,139,236	\$761,932	\$785,410	\$846,198	\$837,871	\$865,461
10 Transfer to Capital Fund	\$800,000	\$800,000	\$600,000	\$900,000	\$700,000	\$800,000
11 Total - Expenses	\$1,939,236	\$1,561,932	\$1,385,410	\$1,746,198	\$1,537,871	\$1,665,461
12 Ending Balance	\$1,668,994	\$1,765,942	\$2,132,756	\$2,221,648	\$2,606,890	\$2,947,892
13 Reserve Target	\$1,139,236	\$761,932	\$785,410	\$846,198	\$837,871	\$865,461
14 Sewer Capital Fund						
15 Beginning Balance	(\$289,285)	\$510,715	\$354,932	(\$66,966)	(\$261,725)	(\$736,681)
16 Revenues						
17 Other Revenue	\$3,000	\$0	\$0	\$0	\$0	\$0
18 Transfer from Sewer Fund	\$800,000	\$800,000	\$600,000	\$900,000	\$700,000	\$800,000
19 Loan Proceeds	\$0	\$0	\$0	\$0	\$0	\$0
20 Interest Earnings	\$0	\$4,307	\$2,144	(\$3,254)	(\$12,326)	(\$23,887)
21 Total - Revenues	\$803,000	\$804,307	\$602,144	\$896,746	\$687,674	\$776,113
22 Expenses						
23 Expenses	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478
24 Capital Projects	\$0	\$360,500	\$424,360	\$491,727	\$562,754	\$637,601
25 Debt Service	\$0	\$596,499	\$596,499	\$596,499	\$596,499	\$596,499
26 Total - Expenses	\$3,000	\$960,089	\$1,024,042	\$1,091,505	\$1,162,630	\$1,237,578
27 Ending Balance	\$510,715	\$354,932	(\$66,966)	(\$261,725)	(\$736,681)	(\$1,198,145)
28 Reserve Target	\$367,868	\$495,388	\$537,917	\$578,493	\$616,958	\$653,152

3.3 WASTEWATER RATE DERIVATION

Revenue Requirement Determination

Table 3-14 shows the revenue requirement derivation with the total revenue required from rates. RFC calculated the revenue requirement using FY 2018 expenses, which include O&M expenses (Line 2), rate funded capital expenses (Line 5), and existing and proposed debt service (Lines 3-4). To arrive at the rate revenue requirement, we subtract revenue offsets from other expenses and adjust for annual cash balances. The negative adjustments are subtracted and therefore added as a result of subtracting a negative number. The total revenue requirement is the amount that the rates are designed to recover.

Table 3-14: Wastewater Revenue Requirement

	Operating	FY 2018 Capital	Total
1 Revenue Requirements			
2 O&M Expenses	\$761,932		\$761,932
3 Existing Debt Service		\$446,499	\$446,499
4 Proposed Debt Service		\$150,000	\$150,000
5 Rate Funded Capital Projects		\$360,500	\$360,500
6 Total - Revenue Requirements	\$761,932	\$956,999	\$1,718,931
7 Less Other Revenue			
8 Other Revenues	\$5,050		\$5,050
9 Interest Income		\$17,089	\$17,089
10 Total - Less Other Revenue	\$5,050	\$17,089	\$22,139
11 Less Adjustments			
12 Adjustments for Annual Cash Balance		\$60,051	\$60,051
13 Adjustments for Annualized Rate Increase	(\$47,672)		(\$47,672)
14 Total - Less Adjustments	(\$47,672)	\$60,051	\$12,379
15 Revenue to be Recovered from Rates	\$804,554	\$879,859	\$1,684,413

Wastewater Flow Estimates

Table 3-15 shows the wastewater flow derivation for all customer classes.

RFC estimated the wastewater flow for residential customer classes using the population (25,999 people) multiplied by the estimated wastewater flow for a person per day (60 gallons per capita per day)

to get the residential wastewater flow estimate (Line 3). The amount in gallons is then converted into hcf (Line 4).

Based on 2010 Census data, the owner-occupied density is 2.75 and the renter-occupied density is 2.16. According to the 2010 Census, South Pasadena has a population of 25,999 people. The estimated population using owner-occupied and renter-occupied density is 25,512. These figures are used as a proxy to determine single family residential and multi-family residential populations. Single family residential customers are assumed to be owner-occupied, whereas multi-family residential customers are assumed to be renter-occupied. The number of single family and multi-family dwelling units (Lines 7-8) was shown previously in **Table 3-2**. The number of dwelling units (Lines 7-8) is multiplied by the household density for each class (Lines 5-6) to determine the estimated single family and multi-family population (Lines 9-10). The single family proportion of the total residential wastewater flow estimate (Line 4) is 48 percent and the multi-family proportion is 52 percent.

The City provided commercial water flow data (Line 13). The commercial wastewater flow estimate is derived using an average wastewater return factor of 80 percent for most customers except the nursery whose return factor is estimated to be 50%. The 80% factor provides a reasonable level of water for irrigation for this class. The change from a flat charge to a flow based charge will result in higher bills for larger commercial customers.

Elementary, middle, and high schools are expected to generate 5, 10, and 15 gallons per day for each student, respectively. The flow factors are based on the California State Water Resources Board Guidelines for flows from schools. The schools are billed for 180 days of the year, which coincides with the school year.

Table 3-15: Wastewater Flow Estimates

1	Population	25,999	people
2	Residential Wastewater Flow Factor	60	gpcd
3	Residential Wastewater Flow Estimate	569,378,100	gallons
4	Residential Wastewater Flow	761,201	hcf
5	Owner-Occupied Density (SFR)	2.75	persons/househo
6	Renter-Occupied Density (MFR)	2.16	persons/househo
7	Single Family EDUs	4,411	
8	Multi-Family EDUs	6,195	
9	Estimated Single Family Population	12,129	
10	Estimated Multi-Family Population	13,382	
11	Single Family Proportion	48%	
12	Multi-Family Proportion	52%	
13	Commercial Water Flow	154,818	hcf
14	Commercial Wastewater Flow Factor	80%	
15	Commercial Wastewater Flow Estimate	123,854	hcf
16	Elementary School	5	gpd per student
17	Middle School	10	gpd per student
18	High School	15	gpd per student
19	Days Billed	180	days

Wastewater Rates Calculation

Table 3-16 summarizes the rates calculation for all customer classes.

Sine the costs of the sewer system are based on the collection system only, all the costs are assigned to wastewater flow. The revenue requirement in **Table 3-14** is proportionately allocated to residential and commercial classes based on the wastewater flow estimates derived in **Table 3-15**. Residential classes generate 86 percent of flow for the entire system; commercial classes generate 14 percent. The revenue requirement of \$1,684,413 is allocated using these percentages to determine the residential and commercial revenue requirements (Lines 6-7).

For residential classes, the revenue requirement (Line 9) is further allocated to single family residential and multi-family residential customer classes (Lines 10-11) using the population proportion (**Table 3-15**, Lines 11-12). The rate for each customer class is calculated by dividing the revenue requirement by the number of dwelling units for each of the six billing periods. The residential rates are shown in Lines 14-15.

The commercial rate is calculated by dividing the commercial revenue requirement (Line 17) by the estimated commercial wastewater flow (Line 18) to determine the commercial rate per hcf of wastewater (Line 19). Using the 80 percent wastewater return factor, the commercial rate per hcf of water is \$1.72 (Line 20). The rate for Nurseries, with a 50 percent return factor, is \$0.96 per hcf of water use. Because nearly all the wastewater system costs are fixed, commercial customers pay a minimum bi-monthly charge equal to the lowest fixed charge in the system which is the MFR charge of \$20.45 for every two months or \$10.23 per month.

The rates for schools are calculated by multiplying the wastewater flow for each type of school (**Table 3-15**, Lines 16-18) by the number of days (**Table 3-15**, Line 19) converted into hcf and multiplied by the commercial wastewater rate (Line 19) to determine the total rate per student per year.

Table 3-16: Wastewater Rates Calculation

1 Residential WW Flow	761,201	
2 Commercial WW Flow	123,854	
3 Total Wastewater Flow	885,055	
4 Residential Flow % of Total	86%	
5 Commercial Flow % of Total	14%	
6 Residential Revenue Requirement	\$1,448,697	
7 Commercial Revenue Requirement	\$235,716	
8 Residential Rate Calculation		
9 Revenue Requirement	\$1,448,697	
10 Single Family Revenue Requirement	\$688,780	
11 Multi-Family Revenue Requirement	\$759,917	
12 Single Family EDUs	4,411	
13 Multi-Family EDUs	6,195	
14 Single Family Fixed Charge (Bi-Monthly)	\$26.03	per EDU
15 Multi-Family Fixed Charge (Bi-Monthly)	\$20.45	per EDU
16 Commercial Rate Calculation ¹		
17 Revenue Requirement	\$235,716	
18 Commercial WW Flow	123,854	
19 Commercial Flow Charge	\$1.91	per hcf WW
20 Commercial Usage Charge	\$1.72	per hcf of Water
21 School Rate Calculation		
22 Elementary Schools	\$2.30	per student per year
23	\$0.20	per student per month
24 Middle Schools	\$4.60	per student per year
25	\$0.39	per student per month
26 High Schools	\$6.89	per student per year
27	\$0.58	per student per month
<i>1 Commercial customers are subject to a minimum bi-monthly charge of \$20.45 for every two months or \$10.23 per month.</i>		

Proposed Wastewater Rates

Table 3-17 shows the total bi-monthly rates for all customer classes for the next five years. The rates for each type of school is equal to the annual charge divided by six billing periods. The rates for nurseries is equal to half of the commercial wastewater flow charge (**Table 3-16**, Line 19) due to a 50 percent return factor.

Table 3-17: Proposed Bi-Monthly Wastewater Rates⁹

Wastewater Rates	Current	January 2018	January 2019	January 2020	January 2021	January 2022
Single Family Fixed Charge (per EDU per bi-month)	\$29.85	\$26.03	\$27.07	\$28.15	\$29.28	\$30.45
Multi-Family Fixed Charge (per EDU per bi-month)	\$20.16	\$20.45	\$21.27	\$22.12	\$23.00	\$23.92
Commercial Flow Charge (per hcf of water)	\$29.85	\$1.72	\$1.79	\$1.86	\$1.93	\$2.01
Elementary Schools (per ADA per month)		\$0.20	\$0.21	\$0.22	\$0.22	\$0.23
Middle Schools (per ADA per month)		\$0.39	\$0.41	\$0.42	\$0.44	\$0.46
High Schools (per ADA per month)		\$0.58	\$0.60	\$0.63	\$0.65	\$0.68
Nurseries (per hcf of water)		\$0.96	\$1.00	\$1.04	\$1.08	\$1.12

Customer Impacts

Figure 3-1 shows the monthly residential customer impacts for single family residential and multi-family residential customer classes. Residential classes will experience a decrease in their bills.

Figure 3-1: Monthly Residential Customer Impacts

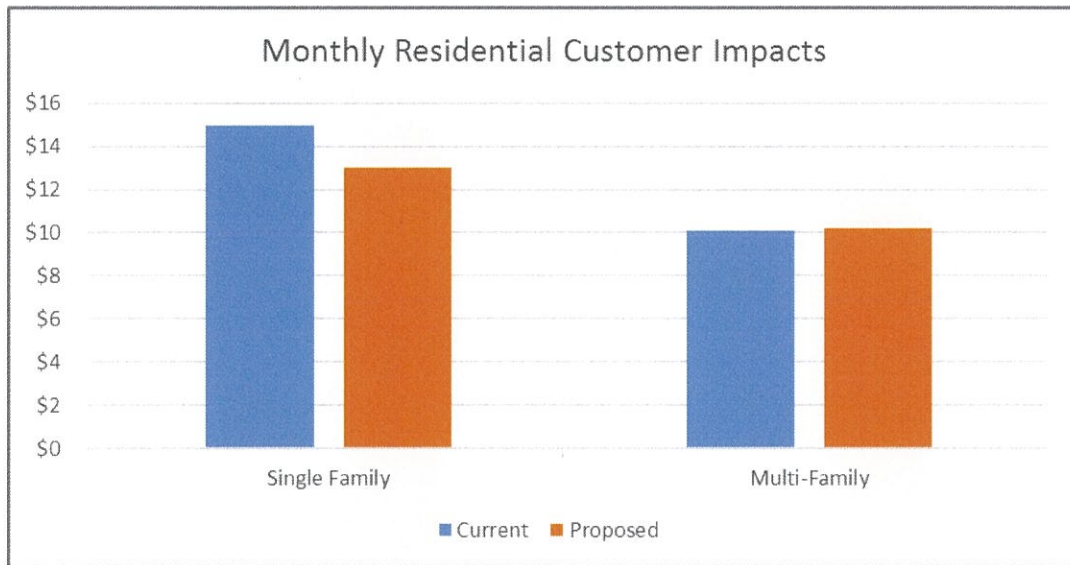
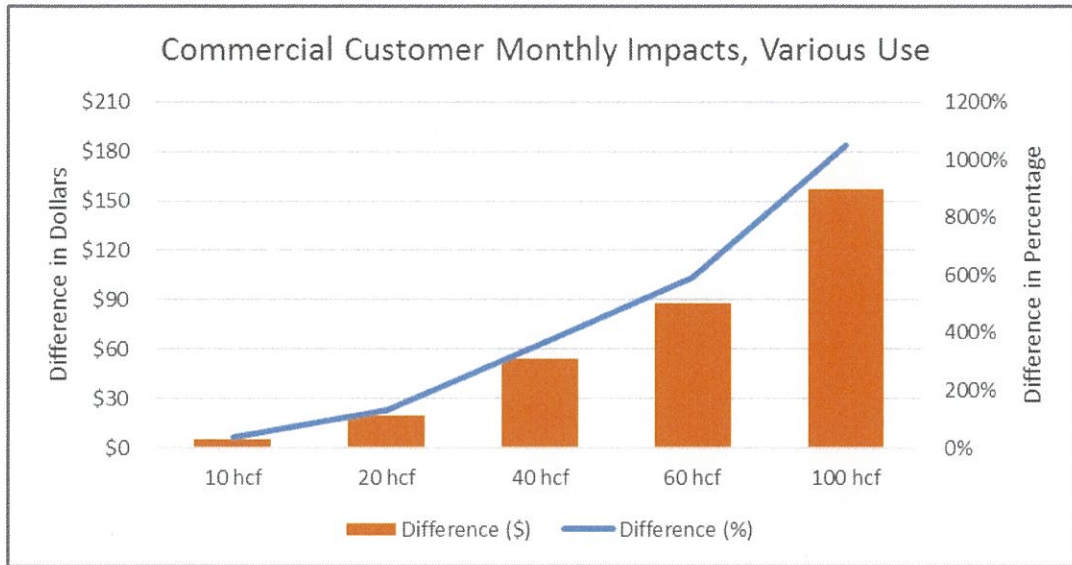


Figure 3-2 shows the monthly commercial customer impacts at various levels of use. Small commercial customers will experience a lower bill and high water users will experience increases in their bills.

⁹ The proposed rate structure for commercial customers is changing from a fixed charge to a flow-based charge.

Figure 3-2: Monthly Commercial Customer Impacts




APPENDIX

Water Usage by Tier and Meter Size

	Projected FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
3/4"						
Tier 1	215,999	222,479	222,479	222,479	222,479	222,479
Tier 2	98,065	101,007	101,007	101,007	101,007	101,007
Tier 3	54,669	56,309	56,309	56,309	56,309	56,309
Total - 3/4"	368,733	379,795	379,795	379,795	379,795	379,795
1"						
Tier 1	270,734	278,856	278,856	278,856	278,856	278,856
Tier 2	147,629	152,058	152,058	152,058	152,058	152,058
Tier 3	95,702	98,573	98,573	98,573	98,573	98,573
Total - 1"	514,065	529,487	529,487	529,487	529,487	529,487
1 1/2"						
Tier 1	102,271	105,340	105,340	105,340	105,340	105,340
Tier 2	68,549	70,605	70,605	70,605	70,605	70,605
Tier 3	45,768	47,141	47,141	47,141	47,141	47,141
Total - 1 1/2"	216,588	223,085	223,085	223,085	223,085	223,085
2"						
Tier 1	107,063	110,275	110,275	110,275	110,275	110,275
Tier 2	66,881	68,888	68,888	68,888	68,888	68,888
Tier 3	64,280	66,208	66,208	66,208	66,208	66,208
Total - 2"	238,224	245,370	245,370	245,370	245,370	245,370
3"						
Tier 1	25,037	25,788	25,788	25,788	25,788	25,788
Tier 2	17,277	17,795	17,795	17,795	17,795	17,795
Tier 3	14,048	14,470	14,470	14,470	14,470	14,470
Total - 3"	56,362	58,053	58,053	58,053	58,053	58,053


Water Usage by Tier and Meter Size (cont'd)

	Projected FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
4"						
Tier 1	20,682	21,303	21,303	21,303	21,303	21,303
Tier 2	12,869	13,255	13,255	13,255	13,255	13,255
Tier 3	9,030	9,301	9,301	9,301	9,301	9,301
Total - 4"	42,581	43,858	43,858	43,858	43,858	43,858
6"						
Tier 1	25	26	26	26	26	26
Tier 2	0	0	0	0	0	0
Tier 3	0	0	0	0	0	0
Total - 6"	25	26	26	26	26	26
8"						
Tier 1	0	0	0	0	0	0
Tier 2	0	0	0	0	0	0
Tier 3	0	0	0	0	0	0
Total - 8"	0	0	0	0	0	0



WATER AND SEWER RATE STUDY

City of South Pasadena
September 6, 2017



Water System Overview

- Water system consists of:
 - 4 wells in the Main San Gabriel Basin
 - 5 Reservoirs and 2 Elevated Tanks with a storage capacity of 13.2 million gallons
 - 70 miles of water pipe
 - 6,200 water meter connections serving over 25,000 residents

Water System Overview

- Over \$30M in Water Capital Improvement Projects completed in the last 5-years



Wilson Reservoir & Pump Station – Complete in 2015



Garfield Reservoir – Under Construction (expected completion October 2017)

Water Rate Study Objectives

- Meet revenue requirements to fund operations and capital projects
- Analyze cost of providing services
- Develop rates consistent with Proposition 218
- Compliance with the San Juan Capistrano decision

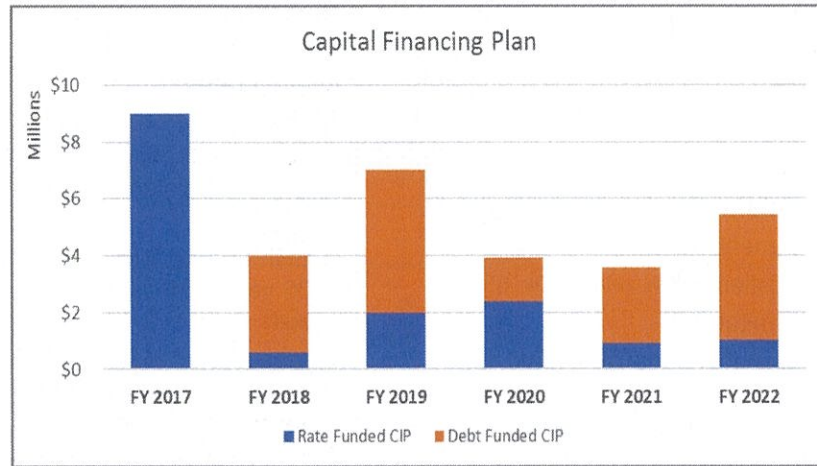
Water Rate Study Key Assumptions

- Growth rates: 0% account growth
- Usage increase: 3% increase in FY 2018
- Inflation rates:
 - General: 3%
 - Salary: 3%
 - Benefits: 5%
 - Utilities/water purchase: 5%
 - Capital: 3%
 - Miscellaneous revenues: 1%
- Continue the City's current rate subsidy for low-income residents
- Operating safe yield is 130,000 AFY
- Interest rates:
 - Reserve interest rate: 1% in FY 2018, increasing by 0.5% every year after until 2.5%
 - SRF Loans: 2.5% interest, 30 years, 0% issuance cost
- City accounts (including golf course) will need to pay for water to meet Proposition 218 requirements

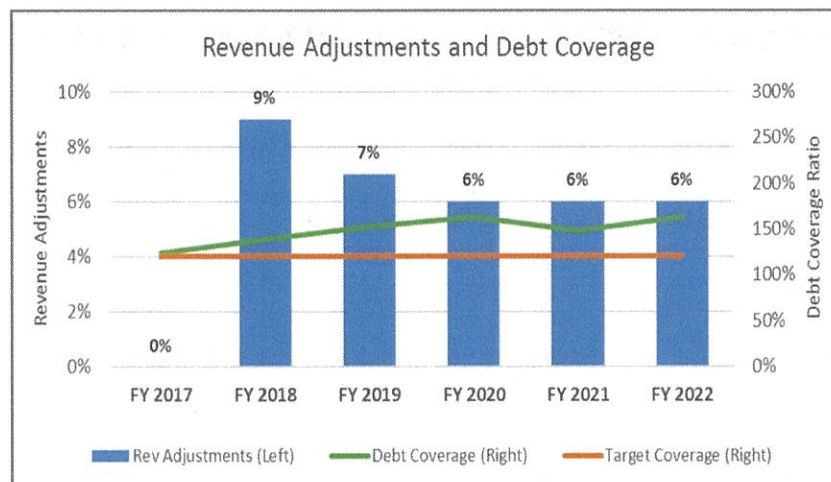
Water Capital Expenses

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Capital Projects						
Wilson Well 2	\$200,000	\$309,000	\$106,090	\$0	\$0	\$0
Transmission Line Repairs	\$0	\$0	\$0	\$0	\$0	\$0
Graves Reservoir	\$500,000	\$3,090,000	\$5,304,500	\$1,639,091	\$0	\$0
Garfield	\$8,000,000	\$0	\$0	\$0	\$0	\$0
Automated Reading	\$0	\$51,500	\$106,090	\$109,273	\$112,551	\$115,927
Raymond & Bilike Tank	\$0	\$51,500	\$371,315	\$382,454	\$0	\$0
SCADA Upgrade	\$0	\$0	\$79,568	\$81,955	\$0	\$0
Westside Reservoir	\$0	\$0	\$0	\$546,364	\$2,251,018	\$4,637,096
Water Master Plan	\$0	\$0	\$0	\$81,955	\$84,413	\$86,946
Wilson Well #4	\$0	\$0	\$0	\$0	\$0	\$0
Waterline Replacement	\$300,000	\$515,000	\$530,450	\$546,364	\$562,754	\$579,637
Treatment	\$0	\$0	\$0	\$0	\$0	\$0
Well Head Treatment	\$0	\$0	\$530,450	\$546,364	\$562,754	\$0
Total	\$9,000,000	\$4,017,000	\$7,028,463	\$3,933,817	\$3,573,490	\$5,419,606

Water Capital Financing Plan



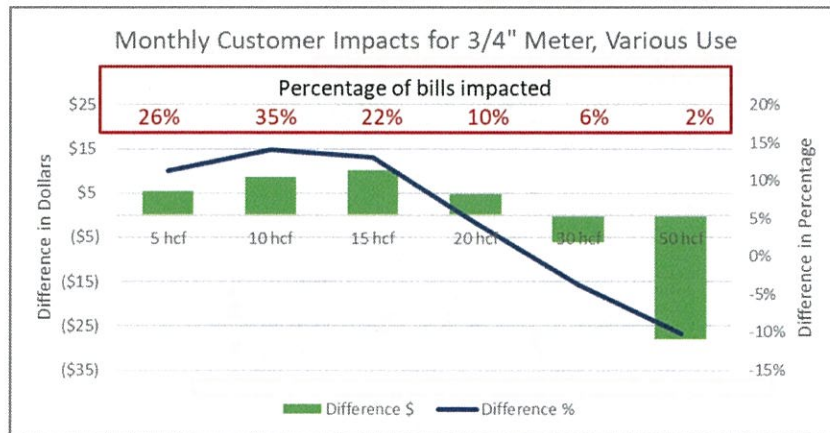
Water Revenue Adjustments



Proposed Water Rates

	Current	January 2018	January 2019	January 2020	January 2021	January 2022
Bi-Monthly Fixed Charge						
3/4"	\$72.93	\$73.97	\$79.15	\$83.90	\$88.94	\$94.28
1"	\$109.92	\$111.19	\$118.98	\$126.12	\$133.69	\$141.72
1 1/2"	\$202.39	\$204.26	\$218.56	\$231.68	\$245.59	\$260.33
2"	\$313.37	\$315.94	\$338.06	\$358.35	\$379.86	\$402.66
3"	\$572.29	\$576.52	\$616.88	\$653.90	\$693.14	\$734.73
4"	\$942.17	\$948.78	\$1,015.20	\$1,076.12	\$1,140.69	\$1,209.14
6"	\$1,866.88	\$1,879.43	\$2,011.00	\$2,131.66	\$2,259.56	\$2,395.14
8"	\$3,346.43	\$3,368.47	\$3,604.27	\$3,820.53	\$4,049.77	\$4,292.76
Volume Charge (per hcf)						
Tier 1	\$1.97	\$2.93	\$3.14	\$3.33	\$3.53	\$3.75
Tier 2	\$3.36	\$3.69	\$3.95	\$4.19	\$4.45	\$4.72
Tier 3	\$5.41	\$4.32	\$4.63	\$4.91	\$5.21	\$5.53
Efficiency Fee (per hcf)						
	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14

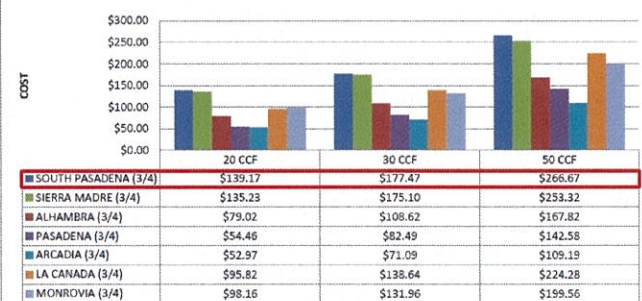
Water Residential Customer Impacts



Water Rate Comparison

CITIES	3/4" METER		
	20 CCF	30 CCF	50 CCF
CITY OF LA CANADA	\$95.82	\$138.64	\$224.28
CITY OF SIERRA MADRE	\$135.23	\$175.10	\$253.32
CITY OF SOUTH PASADENA	\$139.17	\$177.47	\$266.67
CITY OF ALHAMBRA	\$79.02	\$108.62	\$167.82
CITY OF PASADENA	\$54.46	\$82.49	\$142.58
CITY OF ARCADIA	\$52.97	\$71.09	\$109.19
CITY OF MONROVIA	\$98.16	\$131.96	\$199.56

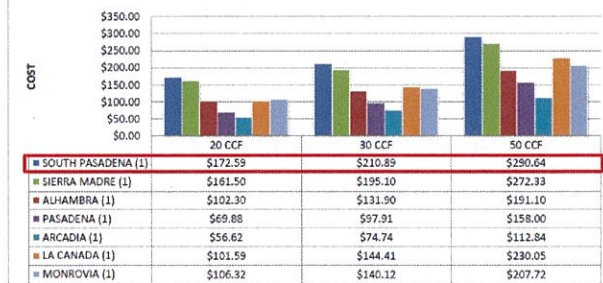
3/4" CHARGES



Water Rate Comparison

CITIES	1" METER		
	20 CCF	30 CCF	50 CCF
CITY OF LA CANADA	\$101.59	\$144.41	\$230.05
CITY OF SIERRA MADRE	\$161.50	\$195.10	\$272.33
CITY OF SOUTH PASADENA	\$172.59	\$210.89	\$290.64
CITY OF ALHAMBRA	\$102.30	\$131.90	\$191.10
CITY OF PASADENA	\$69.88	\$97.91	\$158.00
CITY OF ARCADIA	\$56.62	\$74.74	\$112.84
CITY OF MONROVIA	\$106.32	\$140.12	\$207.72

1" CHARGES



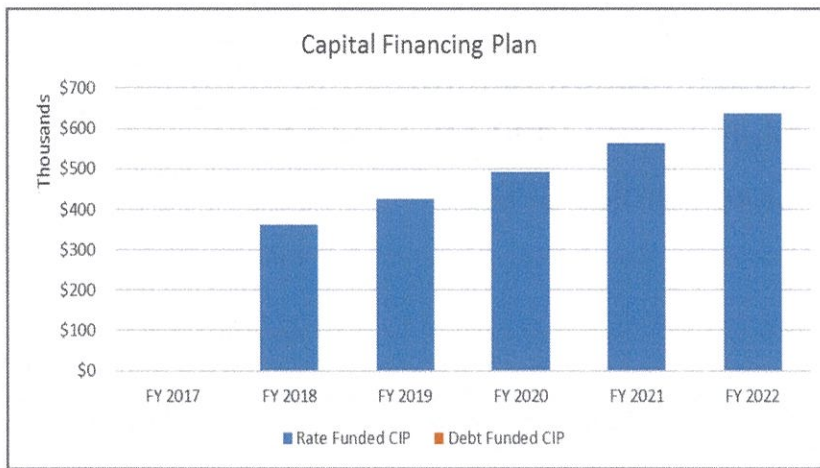
Current Sewer Rates

- Current Fixed Charge per Connection:
 - Single Family: \$29.85
 - Multi-Family: \$20.16
 - Commercial: \$29.85

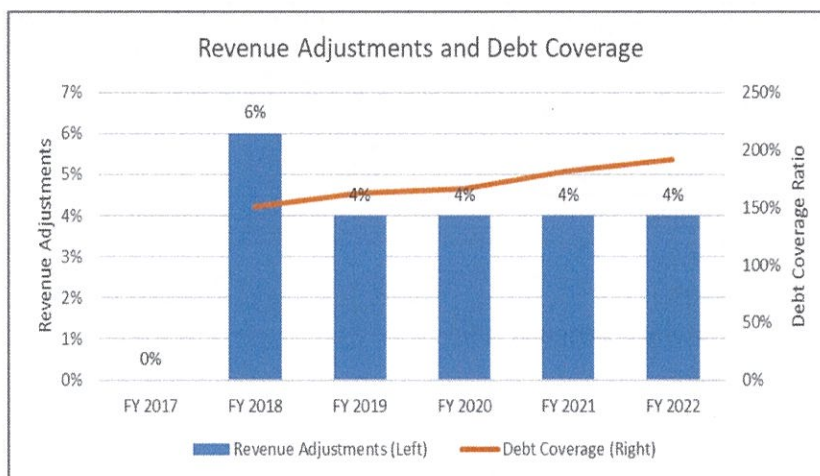
Sewer Rate Study Key Assumptions

- Growth rates: 0% account growth
- Usage increase: 0% usage increase
- Inflation rates:
 - General: 3%
 - Salary: 3%
 - Benefits: 5%
 - Utilities: 5%
 - Capital: 3%
 - Miscellaneous revenues: 1%
- Interest rates:
 - Reserve interest rate: 1% in FY 2018, increasing by 0.5% every year after until 2.5%

Sewer Capital Financing Plan



Sewer Revenue Adjustments



Proposed Sewer Rates

Wastewater Rates	Current	January 2018	January 2019	January 2020	January 2021	January 2022
Single Family Fixed Charge (per EDU per bi-month)	\$29.85	\$26.03	\$27.07	\$28.15	\$29.28	\$30.45
Multi-Family Fixed Charge (per EDU per bi-month)	\$20.16	\$20.45	\$21.27	\$22.12	\$23.00	\$23.92
Commercial Flow Charge (per hcf of water)	\$29.85	\$1.72	\$1.79	\$1.86	\$1.93	\$2.01
Elementary Schools (per ADA per month)		\$0.20	\$0.21	\$0.22	\$0.22	\$0.23
Middle Schools (per ADA per month)		\$0.39	\$0.41	\$0.42	\$0.44	\$0.46
High Schools (per ADA per month)		\$0.58	\$0.60	\$0.63	\$0.65	\$0.68
Nurseries (per hcf of water)		\$0.96	\$1.00	\$1.04	\$1.08	\$1.12

NOTE: The proposed rate structure for commercial customers is changing from a fixed charge to a flow-based charge. The minimum commercial customer charge is the multi-family fixed charge.

Water & Sewer Rates Tentative Schedule

- September 6, 2017: City Council to review Prop 218 Notice and set Public Hearing
- September 14, 2017: Mail Prop 218 Notice
- September/October 2017: Public Outreach, Community Meetings and Water Facility Tours
- November 1, 2017: Public Hearing
- January 1, 2018: Effective date for new water and sewer rates (if approved)

- Ad Hoc Water and Sewer Rate Committee reviewed and recommended approval of the Water and Sewer Rate Study

Questions



ORDINANCE TO ESTABLISH CITY CAMPAIGN REGULATIONS

City Council Meeting of September 6, 2017

Presented by,
Anthony J. Mejia, Chief City Clerk

What is the purpose of a Local Campaign Ordinance?

- To promote integrity, honesty, fairness, and transparency in municipal election campaigns.
- To prevent corruption, or the appearance of corruption, which results from the real or perceived influence of large contributions on the conduct or actions of candidates.
- To place realistic and enforceable limits on the amount of money that may be contributed to political campaigns in municipal elections for city offices.

Previous City Council Direction...

- At the City Council Meeting of March 2, 2016:
 - 5-0, the City Council directed staff to utilize the City of Cudahy's Campaign Contribution Regulations as a Model Ordinance.
 - 3-2 (Schneider and Mahmud voting no), to set an individual campaign contributions limit at \$1,000.
 - Mahmud suggested a limit of \$500.
 - Schneider suggested a limit of \$250.

Highlights of the Draft Ordinance

- The individual campaign contribution limit is set at \$1,000.
- Officeholders are prohibited from inducing or coercing contributions from city contractors, bidders, franchisees, and labor negotiators.
- Officeholders are prohibited from accepting contributions for one year after final action on a permit, contract, or other discretionary decisions, including franchise agreements and labor contracts.
- All candidates are prohibited from accepting contributions from City employees, unless such contribution is unsolicited and voluntary.

Alternative Ordinance

- Individual campaign contribution limit of \$1,000.
- City staff is recommending elimination of the additional regulations due to concerns that certain provisions would be difficult to enforce, may cause candidates to unintentionally violate the ordinance, and/or state law already criminalizes the illicit activity.
- If the City Council adopts the alternative ordinance and later finds certain provisions are necessary, it may at any time reconsider and modify the ordinance.

Tonight's Consideration

- Introduce one of the following ordinances:
 - Draft Ordinance:
 - Individual contribution limit of \$1,000.
 - Officeholders prohibited from using coercion.
 - Officeholders prohibited from accepting contributions for one year after rendering a discretionary decision.
 - Candidates prohibited from soliciting contributions from City employees.
 - Alternative Ordinance:
 - Individual contribution limit of \$1,000.
- Or, provide further direction to staff.

Natalie Sanchez

From: Kelly Koldus [REDACTED]
Sent: Tuesday, September 05, 2017 10:30 AM
To: Natalie Sanchez
Subject: Comment on 9/6/2017 Agenda Item 22

Please forward my email to the Council.

Mayor Cacciotti and Council Members,

Thank you for considering using discretionary funds to close the gap in the Electric Vehicle Charging Station project. I would hate to see the \$10,183 grant go unused for such an important infrastructure project. There are no public charging stations in South Pasadena, so EV drivers like me have to charge in adjacent cities. Please find a way to fully fund this project before the grant expires in November!

-Kelly Koldus, resident

Sent from Yahoo Mail on Android

CC: Council; CM; CA; DBatt; CCC; LF; Reference Binder;
original to 9/6/2017 ADDL Docs

Additional Material
AGENDA ITEM # 22
9/10/17 City Council Mtg.