



**San Francisco**  
**Water Power Sewer**

Services of the San Francisco Public Utilities Commission

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March 26, 2021

Angela Calvillo  
Clerk of the Board  
1 Dr. Carlton B. Goodlett Place  
City Hall, Room 244  
San Francisco, CA 94102-4689

Dear Ms. Calvillo

Please see the enclosed Certificates as required under 2002 Proposition E related to the following bond authorizing legislation:

- Wastewater Enterprise: File No. 200837 and Board of Supervisors Ordinance No. 0173-20.

Should you have any questions, please do not hesitate to contact me.

Best regards,

Richard Morales  
Debt Manager  
Tel: 415-551-2973

**London N. Breed**  
Mayor

**Sophie Maxwell**  
President

**Anson Moran**  
Vice President

**Tim Paulson**  
Commissioner

**Ed Harrington**  
Commissioner

**Newsha Ajami**  
Commissioner

**Michael Carlin**  
Acting  
General Manager

**OUR MISSION:** To provide our customers with high-quality, efficient and reliable water, power and sewer services in a manner that values environmental and community interests and sustains the resources entrusted to our care.





**Certificate of City and County of San Francisco Planning Department Regarding Proposed Sale of Wastewater Revenue Bonds, Including Notes, Commercial Paper, and Other Forms of Indebtedness, with a combined not to exceed issuance amount of \$349,919,252 for Capital Projects budgeted in Fiscal Years 2020-21 and 2021-22**

I, Lisa M. Gibson, Environmental Review Officer of the Planning Department of the City and County of San Francisco (the Planning Department), hereby certify as follows:

1. As the Environmental Review Officer (ERO) of the Planning Department, I am authorized to certify as to the compliance of the San Francisco Public Utilities Commission (SFPUC) with applicable requirements of the California Environmental Quality Act (CEQA).
2. After consultation with the SFPUC, I understand that the SFPUC proposes to sell Wastewater Revenue Bonds and Other Forms of Indebtedness (the "Revenue Indebtedness") to finance certain improvements to the Wastewater Enterprise of the City and County of San Francisco (the "City"). The improvements proposed for financing include those projects described in the following document, attached to this Certificate as Exhibit A and may represent a subset of the total available authorization.
3. I understand that Section 8B.124 of the City Charter grants authority to the City's Board of Supervisors to approve the issuance of Revenue Indebtedness, including revenue bonds, notes, and commercial paper, by ordinance upon two-thirds vote of its members and under certain conditions. The ordinances related to the debt issuance, 173-20, is attached hereto as Exhibit B (the Ordinances).
4. I understand that one of the conditions to the Board of Supervisor's authorization of such Revenue Indebtedness is the delivery of a certificate of the Planning Department regarding the projects or additional to be financed under the authorization provided in Exhibit B, the Ordinances.
5. The San Francisco Planning Commission certifies Environmental Impact Reports as they are completed pursuant to CEQA. In addition, the Planning Department approves Initial Study/Mitigated Negative Declarations, and the ERO approves Categorical Exemptions.
6. Based on a preliminary review of the additional Projects and discussions with the SFPUC regarding the requirements for undertaking such additional Projects, I certify that the Projects under the jurisdiction of the SFPUC to be funded with proceeds of the Revenue Indebtedness, as described in the Ordinances, (a) are not considered to be projects under CEQA, (b) are projects under CEQA and a CEQA determination has already been issued, or (c) are projects under CEQA and will undergo CEQA review prior to approval. Pursuant to the provisions of Chapter 31 of the San Francisco Administrative Code, any additional Project to be financed will comply with applicable requirements of CEQA prior to any draw on the Revenue Indebtedness proceeds to finance the acquisition or construction of such facilities.

In witness whereof, the undersigned has executed this certification as of this 30<sup>th</sup> day of November, 2020.

A handwritten signature in black ink that reads "Lisa M. Gibson".

Lisa M. Gibson, Environmental Review Officer

EXHIBIT A  
WASTEWATER ENTERPRISE REVENUE BONDS AND OTHER FORMS OF INDEBTEDNESS  
FY 2020-2021 AND FY 2021-2022 CAPITAL IMPROVEMENT PROJECTS

Program	Project Number	Project Title	CEQA Compliance
Sewer System Improvement Program (SSIP)	19142	SSIP - Program Wide Management	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.
SSIP	10015796 (CWWSIPDP)	Biosolids Digester Facilities Project	The Planning Commission certified the Final Environmental Impact Report (EIR) on March 8, 2018 (Case No. 2015-000644ENV).
SSIP	10015807 (CWWSIPSE02)	Southeast Plant-New Headworks (Grit) Replacement	The Final MND was issued on December 19, 2016 (Case No. 2015-006224ENV). An Addendum was issued on March 7, 2019.
SSIP	15735	Southeast Plant Improvement	SEP-1; SEP 550 Booster Pump Station Condition Inspection and Interim Upgrades – This is a project under CEQA and will undergo CEQA review prior to approval. SEP-2; SEP, Booster PS, & BFS Security Enhancements - This is a project under CEQA and will undergo CEQA review prior to approval. SEP-3; Oxygen Generation (SEP 275) Reliability Upgrades – This is a project under CEQA and will undergo CEQA review prior to approval. SEP-4; SEP Facilities Interim H&S Improvements (SEP 850 & 930) – This is a project under CEQA and will undergo CEQA review prior to approval. SEP-5; Primary Treatment (SEP 040/041) H&S Improvements – This is a project under CEQA and will undergo CEQA review prior to approval. SEP-13; SEP-13-Maintenance Building (SEP 940) Interim Improvement – This is a project under CEQA and will undergo CEQA review prior to approval.
SSIP	15736	North Point Facility (NPF)	NPF-1; Sedimentation (NPF 040/041) Tanks Condition Improvements - This is a project under CEQA and will undergo CEQA review prior to approval. NPF-2; Admin Bldg (NPF 930) Evaluation & Interim H&S Improvements - This is a project under CEQA and will undergo CEQA review prior to approval. NPF-3; Dechlorination Process (NPF 500) Evaluation & Interim Upgrades – This is a project under CEQA and will undergo CEQA review prior to approval. NPF-5; NPF & NSS Security Enhancements - This is a project under CEQA and will undergo CEQA review prior to approval. NPF-6; NPF DCS Upgrades (Construction) - This is a project under CEQA and will undergo CEQA review prior to approval.
SSIP	15756	Oceanside Treatment Plant (OSP)	OSP-2; Solids Thickening (OSP 011) Process Upgrade - This is a project under CEQA and will undergo CEQA review prior to approval.

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WASTEWATER ENTERPRISE REVENUE BONDS AND OTHER FORMS OF INDEBTEDNESS  
FY 2020-2021 AND FY 2021-2022 CAPITAL IMPROVEMENT PROJECTS

Program	Project Number	Project Title	CEQA Compliance
		Improvements	<p>OSP-3; OSP Plant-wide Ventilation (HVAC) Upgrades - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>OSP-5; OSP Odor Control Upgrades - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>OSP-7; Admin Bldg (OSP 930) Health &amp; Safety Improvements - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>OSP-8; OSP DCS Upgrade (Construction) - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>OSP-9; OSP &amp; WSPS Security Enhancements – This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>OSP-11; Gaseous Oxygen System (OSP 011) Upgrades - This is a project under CEQA and will undergo CEQA review prior to approval.</p>
SSIP	--	Collection System Improvements – Interceptors/Tunnels/Odor Control	<p>LDS-1 (10034718); Large Diameter Sewer Initial Projects - this consists of numerous sub projects.</p> <p>For the Mission St. Brick Sewer Rehabilitation Project, a categorical exemption determination was issued May 7, 2020 (Case Number 2019-020703ENV).</p> <p>For the New Montgomery, Jessie, Minna and Mission Streets Brick Sewer Rehabilitation Project, a statutory exemption concurrence was received from Planning on August 6, 2020 (Case Number 2020-006988ENV).</p> <p>Tenderloin and Nob Hill Sewer Project - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>Castro and Mission Districts Sewer Improvements - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>Channel Force Main Intertie - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>Oak, Fell, Cole, Stanyan Streets and 7<sup>th</sup> Avenue Large Sewer Rehabilitation - South Van Ness Ave Sewer Project - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>Chinatown and North Beach Large Sewer - This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>CSD-1; Brannan (019) CSD Gate &amp; Baffle Rehab - This is a project under CEQA and will undergo CEQA review prior to approval.</p>

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WASTEWATER ENTERPRISE REVENUE BONDS AND OTHER FORMS OF INDEBTEDNESS  
FY 2020-2021 AND FY 2021-2022 CAPITAL IMPROVEMENT PROJECTS

Program	Project Number	Project Title	CEQA Compliance
			CSD-2; Baker (009) Baffle Improvements - This is a project under CEQA and will undergo CEQA review prior to approval. CSD-3; System-wide CSD & T/S Monitoring Equipment Assessment - This is a project under CEQA and will undergo CEQA review prior to approval. CSD-4; CSD Structure Rehab & Upgrades - Part 1 - This is a project under CEQA and will undergo CEQA review prior to approval.
SSIP	--	Pump Stations/Force Main Improvements	PS-1; Seacliff No. 1 PS & FM Upgrade – This is a project under CEQA and will undergo CEQA review prior to approval. PS-2; Seacliff No. 2 PS & FM Upgrade – This is a project under CEQA and will undergo CEQA review prior to approval. PS-3; Sunnydale PS Safety Improvements - This is a project under CEQA and will undergo CEQA review prior to approval. PS-4; Pump Station Security Upgrades - This is a project under CEQA and will undergo CEQA review prior to approval. PS-5; Geary Underpass Pump Station Safe Access Enhancements – This is a project under CEQA and will undergo CEQA review prior to approval.
SSIP	15729	Green Infrastructure Projects	GI-1; Balboa High School Regional Runoff Reduction Project – This is a project under CEQA and will undergo CEQA review prior to approval (by SFUSD). GI-3; Regional School/Park: Giannini Middle School - This is a project under CEQA and will undergo CEQA review prior to approval (SFUSD).

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WASTEWATER ENTERPRISE REVENUE BONDS AND OTHER FORMS OF INDEBTEDNESS  
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Program	Project Number	Project Title	CEQA Compliance
SSIP	15730	Flood Resilience	FR-1; Folsom Area Stormwater Imp. Project Phase 2 - This is a project under CEQA and will undergo CEQA review prior to approval.
Capital	15722	Wastewater Engineering Repair and Replacement Collection System	CWWRNRCS; Collection System - Sewer Improvements - Small Diameter – This is a project under CEQA and will undergo CEQA review prior to approval. CWWRNROI; Collection System - Condition Assessment - Small Diameter – This is a project under CEQA and will undergo CEQA review prior to approval. CWWRNRSS; Collection System - Sewer Improvements - Spot Sewer – This is a project under CEQA and will undergo CEQA review prior to approval. Collection System - Condition Assessment - Large Diameter – This is a project under CEQA and will undergo CEQA review prior to approval. Collection System - Condition Assessment - Sewer Laterals – This is a project under CEQA and will undergo CEQA review prior to approval. TS-1; T/S Box Tier 1 Condition Assessment - This is a project under CEQA and will undergo CEQA review prior to approval.
Capital	15724	Wastewater Engineering Repair and Replacement Treatment Facilities	CWWRNRTF; Treatment Plant Improvements – This is a project under CEQA and will undergo CEQA review prior to approval.
Capital	15707	Treasure Island Capital Improvements	CWP110; Treasure Island New Wastewater Treatment Plant and Recycled Water Facility – This is a project under CEQA and will undergo CEQA review prior to approval.
Capital	15714 (CWWFAC01)	Ocean Beach Climate Change Adaptation Project	This is a project under CEQA and will undergo CEQA review prior to approval (Case Number 2019-020115ENV).
Capital	15717	Islais Creek Outfall Crossing	This is a project under CEQA and will undergo CEQA review prior to approval (Case Number 2016-011136ENV).

1 [San Francisco Public Utilities Commission Wastewater Revenue Bond Issuance - Various  
2 Capital Wastewater Projects Benefitting the Wastewater Enterprise - Not to Exceed  
3 \$349,919,252]

4 **Ordinance authorizing the issuance and sale of tax-exempt or taxable Wastewater**  
5 **Revenue Bonds and other forms of indebtedness, as defined herein, by the San**  
6 **Francisco Public Utilities Commission (Commission) in an aggregate principal amount**  
7 **not to exceed \$349,919,252 to finance the costs of various capital wastewater projects**  
8 **benefitting the Wastewater Enterprise pursuant to amendments to the Charter of the**  
9 **City and County of San Francisco enacted by the voters on November 5, 2002, as**  
10 **Proposition E; authorizing the issuance of Wastewater Revenue Refunding Bonds and**  
11 **the retirement of outstanding Wastewater Enterprise Commercial Paper; declaring the**  
12 **Official Intent of the Commission to reimburse itself with one or more issues of tax-**  
13 **exempt bonds or other forms of indebtedness, as defined herein; and ratifying**  
14 **previous actions taken in connection therewith, as defined herein.**

15 NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.  
16 **Additions to Codes** are in *single-underline italics Times New Roman font*.  
17 **Deletions to Codes** are in ~~*strikethrough italics Times New Roman font*~~.  
18 **Board amendment additions** are in double-underlined Arial font.  
19 **Board amendment deletions** are in ~~strikethrough Arial font~~.  
20 **Asterisks (\* \* \* \*)** indicate the omission of unchanged Code  
21 subsections or parts of tables.

22 Be it ordained by the People of the City and County of San Francisco:

23 Section 1. Findings. The Board of Supervisors ( "Board") of the City hereby finds  
24 and declares as follows:

1           A.     On November 5, 2002, the voters of the City and County of San Francisco (the  
2 “City”) approved Proposition E (“Proposition E”), which among other things, authorized the  
3 San Francisco Public Utilities Commission (“Commission”) to issue revenue bonds, including  
4 notes, commercial paper or other forms of indebtedness (which forms of indebtedness may  
5 include without limitation for purposes of Proposition E, loans and other forms of indebtedness  
6 provided by governmental agencies and/or commercial or investment banks), when  
7 authorized by ordinance approved by a two-thirds vote of the Board of Supervisors, for the  
8 purpose of reconstructing, replacing, expanding, repairing or improving water facilities or  
9 clean water facilities or combinations of water and clean water facilities under the jurisdiction  
10 of the Commission; and

11           B.     The Commission adopted the Indenture dated as of January 1, 2003, as further  
12 amended and supplemented from time to time (“Indenture”), between the Commission and U.  
13 S. Bank National Association and in connection therewith, has from time to time issued  
14 revenue bonds to finance projects benefitting the Wastewater Enterprise; and

15           C.     By Resolution 20-0031 adopted by the Commission on February 11, 2020  
16 (“Commission Resolution”) the Commission has determined to issue Wastewater Revenue  
17 Bonds (“Wastewater Revenue Bonds”) and other forms of indebtedness (including without  
18 limitation SRF Loans or WIFIA Loans , as described below), as well as interim funding  
19 vehicles such as commercial paper, revolving credit notes, bond anticipation notes or other  
20 forms of notes, which interim funding vehicles will be issued in advance of being paid off by  
21 either Wastewater Revenue Bonds or other forms of indebtedness (including, without  
22 limitation and for illustrative purposes only, SRF Loans or WIFIA Loans), to finance the costs  
23 of various capital wastewater projects benefitting the Wastewater Enterprise (“Capital  
24 Improvement Projects”, such projects being more fully described in the Commission  
25 Resolution), pursuant to Proposition E, and has formally requested this Board to authorize the



1 issuance and sale of Wastewater Revenue Bonds for such purposes, such Commission  
2 Resolution being on file with the Clerk of the Board in File No. 200837; and

3 ///

4 D. Pursuant to Section 43.5 of the San Francisco Administrative Code (“Article V”),  
5 enacted by Ordinance No. 203-98 adopted by the Board on June 8, 1998, and signed by the  
6 Mayor of the City on June 19, 1998, as amended by Ordinance No. 270-06, adopted on  
7 October 24, 2006 by the Board and signed by the Mayor on October 31, 2006, the Board  
8 established a procedure pursuant to which the Commission may issue short-term  
9 indebtedness, including the issuance of commercial paper in anticipation of the issuance of  
10 revenue bonds; and

11 E. The Commission has authorized pursuant to Resolution No. 17-0086, approved  
12 by the Commission on April 25, 2017, and the Board has approved pursuant to Resolution No.  
13 193-17, adopted by the Board on May 23, 2017, and signed by the Mayor on May 26, 2017, a  
14 resolution to increase the Wastewater CP Program to an aggregate principal amount not to  
15 exceed \$750 million of commercial paper notes outstanding at any one time, and the  
16 Commission has caused from time to time wastewater commercial paper to be issued; and

17 F. In order to finance the costs of the Capital Improvement Projects, the Board now  
18 desires to authorize pursuant to Proposition E the issuance and sale of Wastewater Revenue  
19 Bonds and other forms of indebtedness for such purposes, including without limitation State  
20 Revolving Fund Loans and/or grants from the State Water Resources Control Board (“SRF  
21 Loans”) or U.S. Environmental Protection Agency Water Infrastructure Finance and Innovation  
22 Act loans (“WIFIA Loans”) and such other indebtedness as may be advantageous to the  
23 Commission; and

24 G. The Commission has paid, beginning no earlier than 60 days prior to the  
25 adoption of this Ordinance and will pay, on and after the date hereof, certain expenditures

1 (“Expenditures”) in connection with the acquisition, construction and/or equipping of the  
2 Capital Improvement Projects; and

3 ///

4 F.H. This Board is concurrently considering with this Ordinance, another Ordinance  
5 approving a Capital Improvement Program related supplemental appropriation totaling  
6 \$579,185,142 for fiscal years ending 2021 and 2022, including the proceeds of such  
7 Wastewater Revenue Bonds and other forms of indebtedness (including, without limitation  
8 and for illustrative purposes only) SRF Loans, WIFIA Loans, commercial paper, revolving  
9 credit notes and bond anticipation notes); and

10 G.I. This Board, on behalf of the Commission, adopts this Ordinance as official  
11 action of the Commission in order to comply with Treasury Regulation §1.150-2 and any other  
12 regulations of the Internal Revenue Service relating to the qualification for reimbursement of  
13 Commission expenditures incurred prior to the date of issue of the Wastewater Revenue  
14 Bonds or other forms of indebtedness (including, without limitation and for illustrative  
15 purposes only, SRF Loans, WIFIA Loans, commercial paper, revolving credit notes and bond  
16 anticipation notes).

17 J. In order to refinance the costs of any Wastewater Enterprise facilities or  
18 improvements financed with bonds issued pursuant Proposition E, the Board now desires to  
19 authorize the issuance and sale of Wastewater Revenue Refunding Bonds.

20 Section 2. Authorization to Issue Wastewater Revenue Bonds and other forms of  
21 indebtedness. The Board hereby authorizes the issuance and sale of Wastewater Revenue  
22 Bonds in one or more series from time to time by the Commission pursuant to Proposition E  
23 and in accordance with the Commission Resolution and the execution and delivery of SRF  
24 Loan or WIFIA Loan agreements or the issuance of commercial paper, revolving credit notes,  
25 or bond anticipation notes, in an aggregate principal amount not to exceed \$349,919,252

1 (inclusive of financing costs), but exclusive of refunding indebtedness), bearing a maximum  
2 rate or rates of interest of not to exceed twelve percent (12%) per annum to finance a portion  
3 of the costs of the design, acquisition and construction of the Capital Improvement Projects.  
4 Without limiting the foregoing, the Commission shall be authorized to incur SRF Loans from  
5 the State Water Resources Control Board or WIFIA Loans from the U.S. Environmental  
6 Protection Agency at such time, in such amounts, and upon such other terms and conditions  
7 as the Commission may deem advantageous. The Commission is hereby further authorized  
8 to determine the timing, amount and manner of sale (i.e., competitive or negotiated) of each  
9 series of Wastewater Revenue Bonds, commercial paper, revolving credit notes, or bond  
10 anticipation notes pursuant to this authorization; provided however, the Commission's  
11 authorization to issue Wastewater Revenue Bonds or incur other forms of indebtedness  
12 (including SRF Loans, WIFIA Loans, bond anticipation notes, commercial paper or revolving  
13 credit notes) is subject to approval by the Commission of the form of substantially final offering  
14 document related to such obligations (if any) and the approval of any related agreements,  
15 financing documents and the filing with its Board and the Clerk of the Board any certifications  
16 required by Proposition E prior to the issuance of any bonds or the incurrence of any  
17 indebtedness herein authorized. The Commission shall also file, within 30 days of any bond  
18 sale authorized hereby, with the Clerk of the Board of Supervisors a report showing the  
19 results of the sale of Wastewater Revenue Bonds, SRF Loans or other form of indebtedness  
20 including (i) principal amount sold and method of sale, (ii) true interest cost, (iii) final maturity,  
21 (iv) the facilities constructed and/or improved, and (v) a statement about the remaining  
22 bonding authorization under this Ordinance ("Bond Report"); provided however that failure to  
23 file the Bond Report shall not affect the validity of any bonds authorized hereunder.

24 Section 3. Authorization to Retire Commercial Paper. In furtherance of the purpose  
25 of managing the Commission outstanding indebtedness, the General Manager is hereby

1 authorized and directed, in consultation the City Attorney, from Available Wastewater  
2 Enterprise Revenues to retire outstanding Wastewater Enterprise Commercial Paper at such  
3 times and in such amounts advantageous to the Commission.

4 Section 4. Authorization to Issue Wastewater Revenue Refunding Bonds ~~and to~~  
5 ~~retire Outstanding Commercial Paper.~~ The Board further authorizes and approves the  
6 issuance by the Commission of Wastewater Revenue Refunding Bonds (“Refunding Bonds”)  
7 to refund any outstanding obligations of the Wastewater Enterprise, without limitation as to  
8 principal amount, in one or more series on one or more dates, at a maximum interest rate or  
9 rates of interest not to exceed twelve percent (12%) per annum, provided that each such  
10 Refunding Bond issue is permitted under the applicable policies and procedures of the  
11 Commission and authorized by Section 9.109 of the Charter (including related ordinances and  
12 resolutions of the Board). The Refunding Bonds may be issued as tax-exempt or taxable  
13 obligations, or any combination thereof. Refunding Bonds authorized hereunder shall be  
14 subject to the further following conditions, that: (i) three percent (3%) net present value debt  
15 service savings or greater is achieved to ensure ratepayer savings (exclusive of any issuance  
16 to refund commercial paper or bond anticipation notes); (ii) that the maturity of the refunded  
17 bonds is not extended, provided that principal payments and term may be adjusted, where  
18 permitted under federal and state tax law, only if and when the underlying capital asset funded  
19 through said refunded bonds has a useful life not in excess of any limit permitted under  
20 federal and state tax law than the refunded term (iii) this authorization is subject to a 56-year  
21 term through June 30, 2056, at which time this Board may consider an extension; and (iv)  
22 the Commission shall within 30 days of any executed refunding transaction provide a  
23 refunding savings report (“Refunding Savings Report”) prepared by its financial advisors (that  
24 reflects at least a three percent (3%) net present value debt service savings) to the Board,  
25 together with a copy of the final Official Statement (if any) with respect to such series of

1 Refunding Bonds; provided that the failure to deliver such Refunding Savings Report shall in  
2 no way affect the validity of any Refunding Bonds.

3 ///

4 Section 5. Certain other Refunding Bonds. Notwithstanding the foregoing, the  
5 Commission is authorized to issue Refunding Bonds for non-economic factors, including by  
6 way of illustration, eliminating onerous covenants and obsolete provisions contained in the  
7 Commission's indenture or other security documents. The Commission shall request a waiver  
8 of the savings requirement under Section 4 for any Refunding Bonds issued for non-economic  
9 reasons, which the Board may grant by resolution. ~~In furtherance of the purpose of managing  
10 the Commission outstanding indebtedness, the General Manager is hereby authorized and  
11 directed, in consultation the City Attorney, from Available Wastewater Enterprise Revenues to  
12 retire outstanding Wastewater Enterprise Commercial Paper at such times and in such  
13 amounts advantageous to the Commission.~~

14 Section 46. Declaration of Official Intent. The Board, on behalf of the Commission,  
15 hereby declares the official intent of the Commission to reimburse the Commission with  
16 proceeds of the Wastewater Revenue Bonds or other forms of indebtedness (including SRF  
17 Loans, WIFIA Loans, bond anticipation notes or commercial paper) for the Expenditures with  
18 respect to the Capital Improvement Projects made on and after a date that is no more than 60  
19 days prior to the adoption of this Ordinance. The Commission reasonably expects on the date  
20 hereof that it will reimburse the Expenditures with proceeds of the Wastewater Revenue  
21 Bonds or other forms of indebtedness (including SRF Loans, WIFIA Loans, bond anticipation  
22 notes or commercial paper). Each said Expenditure was and will be either (A) of a type  
23 properly chargeable to a capital account under general federal income tax principles  
24 (determined in each case as of the date of the Expenditure), (B) a cost of issuance with  
25 respect to such obligations, (C) a nonrecurring item that is not customarily payable from

1 current revenues, or (D) a grant to pay a party that is not related to or an agent of the issuer  
2 so long as such grant does not impose any obligation or condition (directly or indirectly) to  
3 repay any amount to or for the benefit of the Commission. The Commission will make a  
4 reimbursement allocation, which is a written allocation by the Issuer that evidences the  
5 Commission's use of proceeds of the Wastewater Revenue Bonds or other forms of  
6 indebtedness to reimburse an Expenditure, no later than 18 months after the later of the date  
7 on which the Expenditure is paid or the component of the Capital Improvement Projects is  
8 placed in service or abandoned, but in no event more than three years after the date on which  
9 the Expenditure is paid. The Commission recognizes that exceptions are available for certain  
10 "preliminary expenditures," costs of issuance, certain de minimis amounts, expenditures by  
11 "small issuers" (based on the year of issuance and not the year of expenditure) and  
12 expenditures for construction projects of at least 5 years.

13 Section 57. General Authority. The Controller, Treasurer, the City Attorney and other  
14 officers of the City, including the Director of the Office of Public Finance, and their duly  
15 authorized deputies and agents are hereby authorized and directed, jointly and severally, to  
16 take such actions and to execute and deliver such certificates, agreements, requests or other  
17 documents, as they may deem necessary or desirable to facilitate the issuance, sale and  
18 delivery of the Wastewater Revenue Bonds, SRF Loans, WIFIA Loans, bond anticipation  
19 notes, commercial paper or Refunding Bonds, to obtain bond insurance or other credit or  
20 liquidity enhancements with respect to any such obligations, and otherwise to carry out the  
21 provisions of this Ordinance. The Commission is hereby directed to provide the final form to  
22 the Clerk of the Board of any disclosure document (if any) prepared in connection with the  
23 execution of any Wastewater Revenue Bonds, SRF Loans, WIFIA Loans, bond anticipation  
24 notes, commercial paper or Refunding Bonds, and the final executed Installment Sale  
25 Agreement or other document reflecting the incurrence of an SRF Loan or a WIFIA Loan,

1 within 30 days of the closing of such transactions; provided however that failure to provide  
2 such document shall not affect the validity of the obligations authorized hereunder. The  
3 Commission is further directed as a part of the two-year budget review to provide to this Board  
4 of Supervisors a written report about Wastewater Revenue Bonds authorized hereunder,  
5 detailing the total amount authorized, the total amount sold, the remaining authorized but  
6 unissued amount, and the bond authorization no longer necessary due to changes in projects  
7 and project financing.

8 Section 68. Ratification of Prior Actions. All actions authorized and directed by this  
9 Ordinance in connection with the issuance of the Wastewater Revenue Bonds or other forms  
10 of indebtedness (including, without limitation and for illustrative purposes only, SRF Loans,  
11 WIFIA Loans, bond anticipation notes or commercial paper), Refunding Bonds, and heretofore  
12 taken are hereby ratified, approved and confirmed by this Board.

13 Section 79. File Documents. All documents referred to as on file with the Clerk of the  
14 Board are in File Nos. 200837.

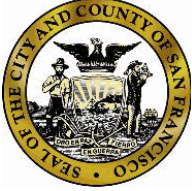
15 Section 810. Effective Date. Pursuant to Charter Section 2.105, Section 4 of this  
16 Ordinance and Sections 7 and 8 of this Ordinance as they pertain to Refunding Bonds  
17 authorized under Section 4 shall take effect immediately after its adoption. Pursuant to  
18 Charter Section 8B.124, the remainder of this Ordinance shall take effect thirty (30) days after  
19 its adoption.

20

21 APPROVED AS TO FORM:  
22 DENNIS J. HERRERA, City Attorney

23

24 By: /s/ Mark D. Blake  
25 Mark D. Blake  
Deputy City Attorney



**City and County of San Francisco**  
**Tails**  
**Ordinance**

City Hall  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102-4689

**File Number:** 200837

**Date Passed:** September 29, 2020

Ordinance authorizing the issuance and sale of tax-exempt or taxable Wastewater Revenue Bonds and other forms of indebtedness, as defined herein, by the San Francisco Public Utilities Commission (Commission) in an aggregate principal amount not to exceed \$349,919,252 to finance the costs of various capital wastewater projects benefitting the Wastewater Enterprise pursuant to amendments to the Charter of the City and County of San Francisco enacted by the voters on November 5, 2002, as Proposition E; authorizing the issuance of Wastewater Revenue Refunding Bonds and the retirement of outstanding Wastewater Enterprise Commercial Paper; declaring the Official Intent of the Commission to reimburse itself with one or more issues of tax-exempt bonds or other forms of indebtedness, as defined herein; and ratifying previous actions taken in connection therewith, as defined herein.

August 13, 2020 Budget and Appropriations Committee - CONTINUED

August 21, 2020 Budget and Appropriations Committee - AMENDED, AN AMENDMENT OF THE WHOLE BEARING SAME TITLE

August 21, 2020 Budget and Appropriations Committee - RECOMMENDED AS AMENDED

September 15, 2020 Board of Supervisors - CONTINUED ON FIRST READING

Ayes: 11 - Fewer, Haney, Mandelman, Mar, Peskin, Preston, Ronen, Safai, Stefani, Walton and Yee

September 22, 2020 Board of Supervisors - PASSED ON FIRST READING

Ayes: 10 - Fewer, Haney, Mandelman, Mar, Peskin, Preston, Ronen, Safai, Walton and Yee  
Noes: 1 - Stefani

September 29, 2020 Board of Supervisors - FINALLY PASSED

Ayes: 10 - Fewer, Haney, Mandelman, Mar, Peskin, Preston, Ronen, Safai, Walton and Yee  
Noes: 1 - Stefani



File No. 200837

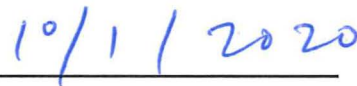
I hereby certify that the foregoing Ordinance was FINALLY PASSED on 9/29/2020 by the Board of Supervisors of the City and County of San Francisco.



Angela Calvillo  
Clerk of the Board



London N. Breed  
Mayor



Date Approved

**Certificate of the Consulting Engineers  
in connection with Section 8B.124 of the Charter of the City and County of San Francisco and  
the Indenture of the San Francisco Public Utilities Commission (SFPUC)  
authorizing the Sale of Wastewater Revenue Bonds and / or Other Forms of Indebtedness, including  
Commercial Paper and State and Federal Loans**

This Certificate has been prepared by AECOM Technical Services, Inc., (AECOM), an independent consulting firm, at the request of the San Francisco Public Utilities Commission (SFPUC) in connection with the issuance by the SFPUC of its Wastewater Revenue Bonds and/or other forms of Indebtedness, including Commercial Paper and State and Federal loans.

Proposition E requires certification by an independent consulting engineer that, among other things, “(i) the Projects to be financed with proceeds of bonds under Proposition E, including the prioritization, scheduling and cost estimates thereof, meet generally accepted utility standards.”

Section A below includes projects in the Sewer System Improvement Program (SSIP) and other portions of the Wastewater Enterprise’s capital program, and certifies that (i) the anticipated projects to be financed by the proposed Revenue Bonds and/or Commercial Paper Notes (the “Notes”), or State and Federal loans including the prioritization, cost estimates and scheduling, meet generally accepted utility standards.

The findings and conclusions in this Certificate are based on AECOM’s review of the following Documents, references and data provided by the SFPUC:

- Wastewater Enterprise Capital Improvement Program Quarterly Report – (Q1, FY2020-21), dated December 1, 2020.
- Wastewater Enterprise 2020 10-Year Capital Improvement Plan Technical Project Details, December 23, 2019
- Wastewater Enterprise Revenue Bonds and Other Forms of Indebtedness – FY 2020-21 and FY 2021-22 Capital Improvement Projects (Attachment A, as included with the Environmental Planning Certification date November 30, 2020).
- Certificate of City and County of San Francisco Planning Department Regarding Proposed Sale of Wastewater Revenue Bonds and Other Forms of Indebtedness in an amount not to Exceed \$349,919,252 for Capital Projects budgeted in Fiscal Years 2020-21 and 2021-22, San Francisco Planning Department, November 30, 2020.
- Wastewater Financial Projections, March 5, 2021
- Discussions with SFPUC staff.

1. Based upon its review of the Documents and in reliance on the information presented in the Documents, references and data, and in reliance upon conversations and representations of SFPUC staff, the undersigned certifies that the Projects, including prioritization, cost estimates, and scheduling, meet generally accepted utility standards.

2. The Documents contain information about the current status of the Projects, estimated completion dates and cost of completion of some of the Projects.

While developing the Certificate, AECOM reviewed the Documents, references and data and consulted with SFPUC staff. This Certification is based on the information provided by the SFPUC. The conclusions and observations contained herein constitute only the opinions of AECOM. The various background documents, statements, and other information supplied by the SFPUC, its employees, and other consultants have been relied upon as being accurate in the performance of these analyses; however, no assurances are given nor warranties implied by AECOM as to the accuracy of such information. AECOM makes no certification and gives no assurances except as explicitly set forth in this document.

**SECTION A: CERTIFICATION OF SSIP AND OTHER PORTIONS OF THE WASTEWATER CIP**

AECOM’s review of the Documents, references and data for Section A included a “programmatic approach” such that AECOM certifies that the revenue bonds and/or commercial paper proceeds or state or federal loans are intended to be used by the SFPUC to fund the capital projects included in the Wastewater Enterprise’s SSIP and other portions of the Wastewater Enterprise’s capital program . Projects may be moved on or off the CIP list, modified, delayed or accelerated as necessary due to scheduling, budgeting, or other constraints.

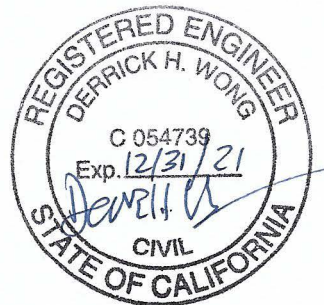
Based upon our review of the Documents, references and data provided by the SFPUC, and in reliance upon conversations and representations of SFPUC staff, AECOM certifies that the projects to be financed by the revenue bonds and/or commercial paper program, as identified in the Wastewater Enterprise’s SSIP and other portions of the Wastewater Enterprise’s capital program including the prioritization, cost estimates and scheduling, meet generally accepted utility standards.

Dated this 22<sup>th</sup> day of March, 2021

AECOM Technical Services, Inc.

By: 

Derrick Wong, P. E.  
Assoc. Vice President



Attachment A  
Wastewater Enterprise Revenue Bonds and Other Forms of Indebtedness  
FY 2020-21 and FY 2021-22 Capital Improvement Projects

**SCHEDULE I**

<b>Program</b>	<b>Project No. (from Planning Certificate Exhibit A)</b>	<b>Title (from Planning Certificate Exhibit A)</b>	<b>CEQA Compliance (from Planning Certificate Exhibit A)</b>	<b>Notes/References</b>
SSIP	19142	SSIP - Program Wide Management	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.	Based on Wastewater 10-year CIP Summary, no funding for FY 20-21/FY 21-22.
SSIP	CWWSIPDP/10015796	Biosolids Digester Facilities Project	The Planning Commission certified the Final Environmental Impact Report (EIR) on March 8, 2018 (Case No. 2015-000644ENV).	
SSIP	CWWSIPSE02/10015807	Southeast Plant-New Headworks (Grit) Replacement	The Final MND was issued on December 19, 2016 (Case No. 2015-006224ENV). An Addendum was issued on March 7, 2019.	Based on Wastewater 10-year CIP Summary, no funding for FY 20-21/FY 21-22.
SSIP	SEP-1 (15735)	SEP 550 Booster Pump Station Condition Inspection and Interim Upgrades	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	SEP-2 (15735)	SEP, Booster PS, & BFS Security Enhancements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	SEP-3 (15735)	Oxygen Generation (SEP 275) Reliability Upgrades	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	SEP-4 (15735)	SEP Facilities Interim H&S Improvements (SEP 850 & 930)	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	SEP-5 (15735)	Primary Treatment (SEP 040/041) H&S Improvements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	SEP-13 (15735)	SEP-13-Maintenance Building (SEP 940) Interim Improvement	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	NPF-1 (15736)	Sedimentation (NPF 040/041) Tanks Condition Improvements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	NPF-2 (15736)	Admin Bldg (NPF 930) Evaluation & Interim H&S Improvements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	NPF-3 (15736)	Dechlorination Process (NPF 500) Evaluation & Interim Upgrades	This is a project under CEQA and will undergo CEQA review prior to approval.	

<b>Program</b>	<b>Project No. (from Planning Certificate Exhibit A)</b>	<b>Title (from Planning Certificate Exhibit A)</b>	<b>CEQA Compliance (from Planning Certificate Exhibit A)</b>	<b>Notes/References</b>
SSIP	NPF-5 (15736)	NPF & NSS Security Enhancements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	NPF-6 (15736)	NPF DCS Upgrades (Construction)	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	OSP-2 (15756)	Solids Thickening (OSP 011) Process Upgrade	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	OSP-3 (15756)	OSP Plant-wide Ventilation (HVAC) Upgrades	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	OSP-5 (15756)	OSP Odor Control Upgrades	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	OSP-7 (15756)	Admin Bldg (OSP 930) Health & Safety Improvements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	OSP-8 (15756)	OSP DCS Upgrade (Construction)	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	OSP-9 (15756)	OSP & WSPS Security Enhancements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	OSP-11 (15756)	Gaseous Oxygen System (OSP 011) Upgrades	This is a project under CEQA and will undergo CEQA review prior to approval.	

Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
SSIP	LDS- 1/10034718	Large Diameter Sewer Initial Projects - this consists of numerous sub projects: 1. Mission St. Brick Sewer Rehabilitation Project 2. Tenderloin and Nob Hill Sewer Project 3. Castro and Mission Districts Sewer Improvements 4. Channel Force Main Intertie 5. Oak, Fell, Cole, Stanyan Streets and 7th Avenue Large Sewer Rehabilitation 6. South Van Ness Ave Sewer Project 7. Chinatown and North Beach Large Sewer	<b>For the Mission St. Brick Sewer Rehabilitation Project:</b> a categorical exemption determination was issued May 7, 2020 (Case Number 2019-020703ENV). For the New Montgomery, Jessie, Minna and Mission Streets Brick Sewer Rehabilitation Project, a statutory exemption concurrence was received from Planning on August 6, 2020 (Case Number 2020-006988ENV). <b>The other projects</b> are under CEQA and will undergo CEQA review prior to approval:	
SSIP	CSD-1	Brannan (019) CSD Gate & Baffle Rehab	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	CSD-2	Baker (009) Baffle Improvements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	CSD-3	System-wide CSD & T/S Monitoring Equipment Assessment	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	CSD-4	CSD Structure Rehab & Upgrades - Part 1	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	PS-1	Seacliff No. 1 PS & FM Upgrade	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	PS-2	Seacliff No. 2 PS & FM Upgrade	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	PS-3	Sunnydale PS Safety Improvements	This is a project under CEQA and will undergo CEQA review prior to approval.	

<b>Program</b>	<b>Project No. (from Planning Certificate Exhibit A)</b>	<b>Title (from Planning Certificate Exhibit A)</b>	<b>CEQA Compliance (from Planning Certificate Exhibit A)</b>	<b>Notes/References</b>
SSIP	PS-4	Pump Station Security Upgrades	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	PS-5	Geary Underpass Pump Station Safe Access Enhancements	This is a project under CEQA and will undergo CEQA review prior to approval.	
SSIP	GI-1 (15729)	Balboa High School Regional Runoff Reduction Project	This is a project under CEQA and will undergo CEQA review prior to approval (by SFUSD).	
SSIP	GI-3 (15729)	Regional School/Park: Giannini Middle School	This is a project under CEQA and will undergo CEQA review prior to approval (by SFUSD).	
SSIP	FR-1	Folsom Area Stormwater Imp. Project Phase 2	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	CWWRNRCS (15722)	Collection System - Sewer Improvements - Small Diameter	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	CWWRNROI (15722)	Collection System - Condition Assessment - Small Diameter	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	CWWRNRSS (15722)	Collection System - Sewer Improvements - Spot Sewer	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	15722	Collection System - Condition Assessment - Large Diameter	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	15722	Collection System - Condition Assessment - Sewer Laterals	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	TS-1 (15722)	T/S Box Tier 1 Condition Assessment	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	CWWRNRTF	Treatment Plant Improvements	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	CWP110	Treasure Island New Wastewater Treatment Plant and Recycled Water Facility	This is a project under CEQA and will undergo CEQA review prior to approval.	
Capital	CWWFAC01 (15714 )	Ocean Beach Climate Change Adaptation Project	This is a project under CEQA and will undergo CEQA review prior to approval.	

Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
Capital	15717	Islais Creek Outfall Crossing	This is a project under CEQA and will undergo CEQA review prior to approval.	





San Francisco  
**Water**  
**Power**  
**Sewer**



# Wastewater Financial Projections

March 5, 2021



**BARTLE WELLS ASSOCIATES**  
INDEPENDENT PUBLIC FINANCE ADVISORS



**BARTLE WELLS ASSOCIATES**  
INDEPENDENT PUBLIC FINANCE ADVISORS

2625 Alcatraz Avenue, #602  
Berkeley, CA 94705  
Tel 510 653 3399  
www.bartlewells.com

TO: San Francisco Public Utilities Commission

DATE: March 5, 2021

ATTN: Mike Brown, Environmental Finance Manager

FROM: Alex Handlers & Douglas Dove, P.E.

RE: Wastewater Financial Projections for Proposition E Compliance

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## **Background**

Bartle Wells Associates (BWA) was retained by the San Francisco Public Utilities Commission (SFPUC) to develop financial projections in support of San Francisco Charter Article VIII B, Section 8B.124, as established by Proposition E which was approved by the voters of the City and County of San Francisco on November 5, 2002. This section of the Charter a) authorizes the SFPUC to issue revenue bonds and other forms of indebtedness and b) authorizes the Board of Supervisors to take actions necessary for the issuance and repayment of such debt subject to various conditions including *“that estimated net revenue after payment of operating and maintenance expenses will be sufficient to meet debt service coverage and other indenture or resolution requirements, including debt service on the bonds to be issued, and estimated repair and replacement costs.”*

## **Financial Projections**

BWA developed financial projections based on data provided by the SFPUC as well as a number of independent calculations and assumptions which constitute such examination or investigation as is necessary to enable BWA to express an informed opinion as to whether the requirements of Proposition E have been satisfied. Based on the projections, the Wastewater Enterprise will generate net revenues (as defined per the Indenture securing the SFPUC’s outstanding Wastewater Revenue Bonds) that are at least 1.25 times Annual Debt Service in each fiscal year from Fiscal Years 2020-21 through 2020-30. In accordance with the requirements of Proposition E, BWA certifies that estimated net revenue after payment of operating and maintenance expenses will be sufficient to meet debt service coverage and other indenture or resolution requirements, including debt service on the bonds to be issued, and estimated repair and replacement costs.

## Attached Tables

The attached tables include:

- **Table 1 - SFPUC Wastewater Cash Flow Projections Cash Flow Projections** – This table was developed by Bartle Wells Associates based on information provided by the SFPUC and a number of independent assumptions, and includes projections of future fund balances, revenues, operating and maintenance expenses, debt service, other non-operating expenses, net revenues, and debt service coverage.
- **Table 2 - Cash Flow Assumptions** – This table describes assumptions used in developing the financial projections.
- **Table 3 - 10-Year Capital Improvement Program & Funding Sources** – This table shows projected SFPUC power capital improvements and anticipated sources of funding.
- **Table 4 - Estimated Debt Service** – This tables estimates annual debt service on future bonds per each \$100 million of project funding.
- **Table 5 - Projected Bond Issues** – This table shows projected debt issued by fiscal year and calculates annual debt service for each bond issue.
- **Table 6 - Projected Debt Service on Future Financings** – This table projects debt service by fiscal year for each water debt issue and shows a schedule of projected debt payments.
- **Table 7 - Outstanding Debt** – This table shows debt service due on outstanding debt issues.

The tables are based on information provided by the SFPUC as well as a number of independent calculations and assumptions. BWA takes no responsibility for the accuracy of information provided by the SFPUC, nor for any errors or omissions in information provided.

Submitted by: BARTLE WELLS ASSOCIATES



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Alex Handlers  
Principal/Vice President



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Douglas R. Dove, P.E.  
President



Table 1 - SFPUC Wastewater Cash Flow Projections

Years 1 - 5

	2020/21	2021/22	2022/23	2023/24	2024/25
<b>ASSUMPTIONS</b>					
Projected Rate Increases	8.0%	8.0%	8.0%	8.0%	8.0%
Change in Retail Sales Volume	-	1.4%	1.4%	1.3%	-0.8%
Change in Wholesale Sales Volume	-	4.0%	3.8%	3.7%	-0.8%
Interest Earnings Rate	-	2.0%	2.0%	2.0%	2.0%
O&M Cost Escalator	-	-	3.0%	3.0%	3.0%
<b>Beginning Fund Reserves</b> (Unappropriated)	219,233,000	211,666,000	221,097,000	235,749,000	279,733,000
<b>REVENUES</b>					
Sewer Service Charges, Retail	342,859,000	373,352,000	408,676,000	447,262,000	479,315,000
Sewer Service Charges, Wholesale	9,515,000	10,216,000	11,455,000	12,827,000	13,746,000
Interest Income	5,873,000	5,802,000	4,422,000	4,715,000	5,595,000
BABS Bond Subsidy	3,519,000	3,519,000	3,463,000	3,349,000	3,493,000
Rental Revenue	675,000	699,000	716,000	734,000	752,000
Other Revenues	4,506,000	6,559,000	6,723,000	6,891,000	7,063,000
Programmatic Revenues	4,070,000	4,120,000	4,223,000	4,329,000	4,437,000
Capacity Fees/Other Non-Debt Revs	5,800,000	5,319,000	5,695,000	5,695,000	5,695,000
Subtotal	376,817,000	409,586,000	445,373,000	485,802,000	520,096,000
Excluded from Coverage Calculation	(2,198,000)	(2,248,000)	(2,400,000)	(2,546,000)	(2,654,000)
<b>Total</b>	<b>374,619,000</b>	<b>407,338,000</b>	<b>442,973,000</b>	<b>483,256,000</b>	<b>517,442,000</b>
<b>EXPENSES</b>					
<b>Operating &amp; Maintenance</b>					
Salaries & Benefits	76,950,000	78,281,000	80,629,000	83,048,000	85,539,000
Utilities	12,869,000	13,318,000	13,717,000	14,128,000	14,551,000
Other Non-Personnel	23,045,000	24,840,000	25,584,000	26,352,000	27,142,000
Materials/Supplies/Equipment	13,120,000	13,878,000	14,293,000	14,722,000	15,165,000
Services of SFPUC Bureaus	32,952,000	34,144,000	35,168,000	36,223,000	37,310,000
Services of Other Depts	26,095,000	26,007,000	26,619,000	27,249,000	27,900,000
Other Operating Expenses	737,000	750,000	764,000	778,000	793,000
Programmatic Projects (Net of Lease)	4,934,000	4,146,000	4,229,000	4,269,000	4,269,000
Adjustments	(3,700,000)	(3,700,000)	(3,700,000)	(3,700,000)	(3,700,000)
Subtotal	187,002,000	191,664,000	197,303,000	203,069,000	208,969,000
<b>Debt Service (Net of Cap I)</b>					
Outstanding Bonds	80,257,000	86,743,000	96,841,000	99,346,000	99,226,000
Outstanding SRF Loans	4,006,000	4,453,000	5,798,000	6,180,000	6,445,000
Outstanding WIFIA Loan	0	0	0	0	0
Projected Bonds (Net of Cap I)	0	0	0	0	24,159,000
Subtotal	84,263,000	91,196,000	102,639,000	105,526,000	129,830,000
<b>Non-Operating</b>					
Pay-Go Capital Funding	110,695,000	114,871,000	128,352,000	130,806,000	133,308,000
525GG Lease	2,424,000	2,424,000	2,427,000	2,417,000	2,396,000
Subtotal	113,119,000	117,295,000	130,779,000	133,223,000	135,704,000
<b>Total Expenses</b>	<b>384,384,000</b>	<b>400,155,000</b>	<b>430,721,000</b>	<b>441,818,000</b>	<b>474,503,000</b>
<b>Revenues Less Expenses</b>	(7,567,000)	9,431,000	14,652,000	43,984,000	45,593,000
<b>Ending Fund Reserves</b>	211,666,000	221,097,000	235,749,000	279,733,000	325,326,000
Annual Revenues	376,817,000	409,586,000	445,373,000	485,802,000	520,096,000
Less Revs Excluded from Coverage	(2,198,000)	(2,248,000)	(2,400,000)	(2,546,000)	(2,654,000)
Operating & Maintenance Expenses	(187,002,000)	(191,664,000)	(197,303,000)	(203,069,000)	(208,969,000)
<b>Net Revenues</b> (Current Basis)	187,617,000	215,674,000	245,670,000	280,187,000	308,473,000
<b>Net Revs + Beginning Fund Reserves</b>	406,850,000	427,340,000	466,767,000	515,936,000	588,206,000
Debt Service Coverage, Current Basis	2.23	2.36	2.39	2.66	2.38
Debt Service Coverage, Indenture Basis	4.83	4.69	4.55	4.89	4.53

Table 1 - SFPUC Wastewater Cash Flow Projections

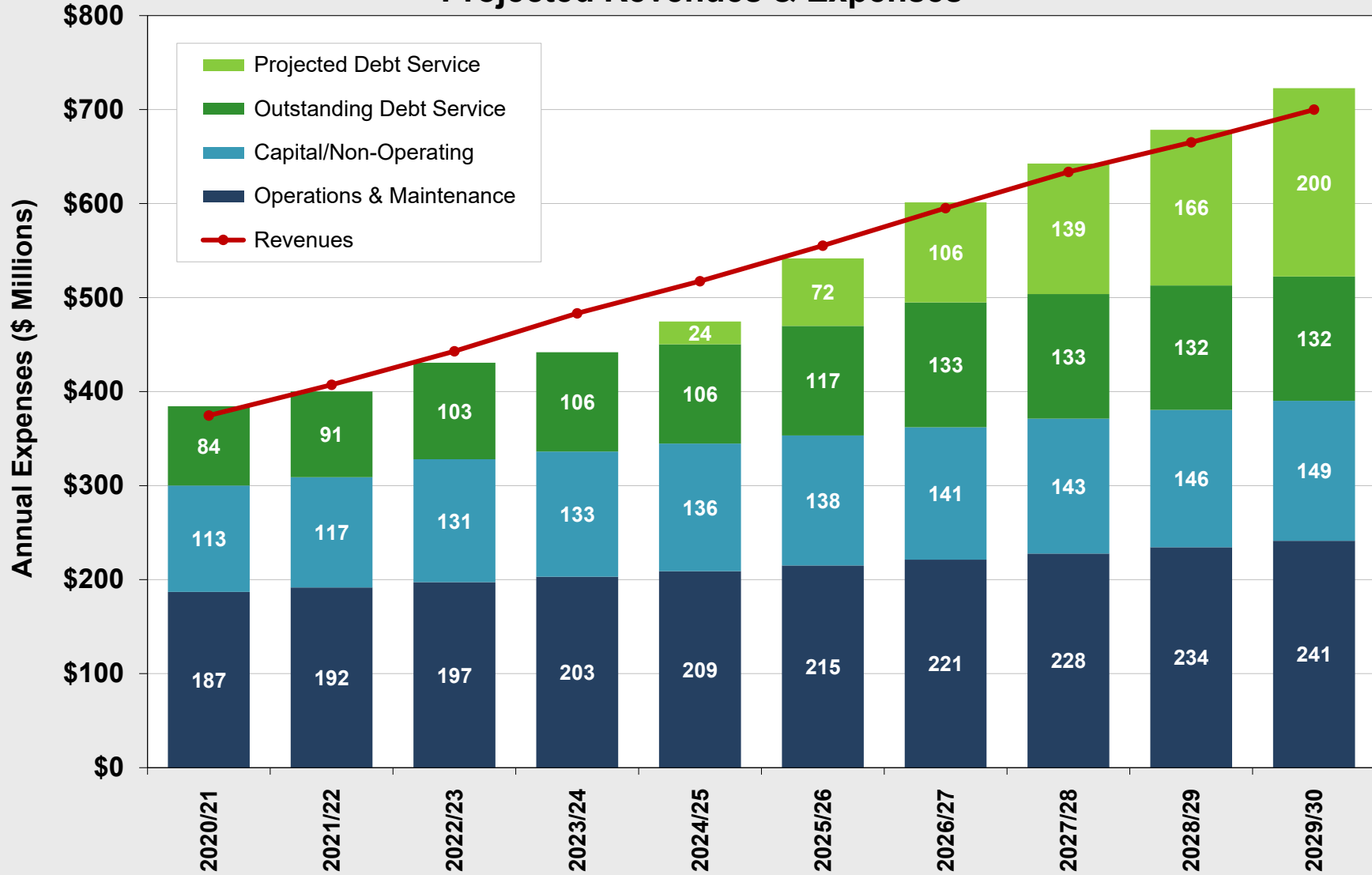
Years 6 - 10

	2025/26	2026/27	2027/28	2028/29	2029/30
<b>ASSUMPTIONS</b>					
Projected Rate Increases	8.0%	8.0%	7.0%	6.0%	6.0%
Change in Retail Sales Volume	-0.5%	-0.5%	-0.2%	-0.8%	-0.5%
Change in Wholesale Sales Volume	-0.5%	-0.5%	-0.2%	-0.8%	-0.5%
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
O&M Cost Escalator	3.0%	3.0%	3.0%	3.0%	3.0%
<b>Beginning Fund Reserves</b>	<b>325,326,000</b>	<b>341,631,000</b>	<b>338,425,000</b>	<b>332,542,000</b>	<b>322,346,000</b>
Sewer Service Charges, Retail	515,072,000	553,496,000	590,894,000	621,513,000	655,510,000
Sewer Service Charges, Wholesale	14,771,000	15,873,000	16,945,000	17,823,000	18,798,000
Interest Income	6,507,000	6,833,000	6,769,000	6,651,000	6,447,000
BABS Bond Subsidy	3,438,000	3,324,000	3,204,000	3,076,000	2,939,000
Rental Revenue	771,000	790,000	810,000	830,000	851,000
Other Revenues	7,240,000	7,421,000	7,607,000	7,797,000	7,992,000
Programmatic Revenues	4,548,000	4,662,000	4,779,000	4,898,000	5,020,000
Capacity Fees/Other Non-Debt Revs	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000
Subtotal	558,042,000	598,094,000	636,703,000	668,283,000	703,252,000
Excluded from Coverage Calculation	(2,776,000)	(2,916,000)	(3,051,000)	(3,150,000)	(3,262,000)
<b>Total</b>	<b>555,266,000</b>	<b>595,178,000</b>	<b>633,652,000</b>	<b>665,133,000</b>	<b>699,990,000</b>
<b>EXPENSES</b>					
<b>Operating &amp; Maintenance</b>					
Salaries & Benefits	88,105,000	90,748,000	93,470,000	96,274,000	99,162,000
Utilities	14,988,000	15,438,000	15,901,000	16,378,000	16,869,000
Other Non-Personnel	27,956,000	28,795,000	29,659,000	30,549,000	31,465,000
Materials/Supplies/Equipment	15,620,000	16,089,000	16,572,000	17,069,000	17,581,000
Services of SFPUC Bureaus	38,429,000	39,582,000	40,769,000	41,992,000	43,252,000
Services of Other Depts	28,569,000	29,258,000	29,968,000	30,700,000	31,452,000
Other Operating Expenses	808,000	823,000	839,000	855,000	872,000
Programmatic Projects (Net of Lease)	4,269,000	4,269,000	4,269,000	4,307,000	4,347,000
Adjustments	(3,700,000)	(3,700,000)	(3,700,000)	(3,700,000)	(3,700,000)
Subtotal	215,044,000	221,302,000	227,747,000	234,424,000	241,300,000
<b>Debt Service (Net of Cap I)</b>					
Outstanding Bonds	99,125,000	99,021,000	98,865,000	98,701,000	98,527,000
Outstanding SRF Loans	6,545,000	11,800,000	11,800,000	11,800,000	11,800,000
2018ABC Bonds	10,943,000	21,886,000	21,886,000	21,886,000	21,886,000
Projected Bonds (Net of Cap I)	71,844,000	106,474,000	138,837,000	165,532,000	200,330,000
Subtotal	188,457,000	239,181,000	271,388,000	297,919,000	332,543,000
<b>Non-Operating</b>					
Pay-Go Capital Funding	135,860,000	138,463,000	141,119,000	143,827,000	146,590,000
525GG Lease	2,376,000	2,354,000	2,332,000	2,309,000	2,284,000
Subtotal	138,236,000	140,817,000	143,451,000	146,136,000	148,874,000
<b>Total Expenses</b>	<b>541,737,000</b>	<b>601,300,000</b>	<b>642,586,000</b>	<b>678,479,000</b>	<b>722,717,000</b>
<b>Revenues Less Expenses</b>	<b>16,305,000</b>	<b>(3,206,000)</b>	<b>(5,883,000)</b>	<b>(10,196,000)</b>	<b>(19,465,000)</b>
<b>Ending Fund Reserves</b>	<b>341,631,000</b>	<b>338,425,000</b>	<b>332,542,000</b>	<b>322,346,000</b>	<b>302,881,000</b>
Annual Revenues	558,042,000	598,094,000	636,703,000	668,283,000	703,252,000
Less Revs Excluded from Coverage	(2,776,000)	(2,916,000)	(3,051,000)	(3,150,000)	(3,262,000)
Operating & Maintenance Expenses	(215,044,000)	(221,302,000)	(227,747,000)	(234,424,000)	(241,300,000)
<b>Net Revenues (Current Basis)</b>	<b>340,222,000</b>	<b>373,876,000</b>	<b>405,905,000</b>	<b>430,709,000</b>	<b>458,690,000</b>
<b>Net Revs + Beginning Fund Reserves</b>	<b>665,548,000</b>	<b>715,507,000</b>	<b>744,330,000</b>	<b>763,251,000</b>	<b>781,036,000</b>
Debt Service Coverage, Current Basis	1.81	1.56	1.50	1.45	1.38
Debt Service Coverage, Indenture Basis	3.53	2.99	2.74	2.56	2.35

**Table 2**  
**SFPUC Wastewater Financial Projections**  
**Cash Flow Assumptions**

SFPUC Model Basis	Financial projections are based on SFPUC's <i>FY19 Wastewater 10 Year Plan</i> emailed November 17, 2020.
Projected Rate Increases	Future rate increases are based on SFPUC projections.
Beginning Fund Reserves	Beginning fund reserves based on SFPUC estimates.
Sewer Service Charges	Sewer Service Charge are based on SFPUC estimates for 2020/21 and 2021/22 with BWA projections for future years accounting for SFPUC-projected rate increases and SFPUC projections of changes in retail and wholesale sales volumes.
Interest Income	Interest earnings starting FY 2018/19 are estimated based on the projected interest rate multiplied by beginning fund reserves for each year.
Other Miscellaneous Income	Based on SFPUC projections.
Operation & Maintenance Expenses	Operation & Maintenance Expenses are based on SFPUC projections with most items escalating at the annual rate of 3.0% after 2021/22.
Capital Projects	Capital Project expenses and sources of funding are based on SFPUC projections.
Outstanding Debt Service	Outstanding debt service is based on debt service schedules for each issue, as provided by SFPUC, and is shown on a fiscal year basis.
Debt Service Assumptions & Projected Debt Service	Debt assumptions are shown on Table 4, which calculates debt service per \$100 million of project funding for bonds and SRF Loans based on assumptions shown on the table. Future debt service projections are based on SFPUC projections of annual debt financing requirements and BWA projections of debt service as shown on Table 5, with a schedule of projected debt service by fiscal year shown on Table 6.
Other Non-Operating Expenses	Based on SFPUC projections.
Net Revenues	Pursuant to the Indenture, Net Revenues are defined as Annual Revenues (excluding interest earnings on any bond funds including the reserve fund, capitalized interest fund, and improvement fund; but including fund reserves available to pay debt service assuming the Commission determined such reserves should be "Revenues" under the Indenture) less Operation and Maintenance Expenses.
Debt Service Coverage, Current Basis	Coverage based on annual Net Revenues (excluding available fund reserves) divided by Annual Debt Service.
Debt Service Coverage, Indenture Basis	Coverage based on annual Net Revenues plus Beginning Fund Reserves (as allowed per Indenture) divided by Annual Debt Service.

## SFPUC Wastewater Projected Revenues & Expenses



**Table 3**  
**SFPUC Wastewater Enterprise**  
**10-Year Capital Improvement Program & Funding Sources**  
*Includes Construction Cost Inflation*

	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
<b>CAPITAL IMPROVEMENT PROGRAM COSTS</b>										
Sewer System Improvement Program (SSIP)										
Program-Wide Management	0	0	7,000,000	10,000,000	9,143,143	14,000,000	14,000,000	13,000,000	12,000,000	10,000,000
Treatment Facilities	6,891,810	119,351,752	169,131,955	248,142,409	291,222,495	275,517,803	108,891,760	137,756,053	50,795,573	25,862,244
Sewer/Collection System	1,789,892	15,047,677	33,493,575	44,959,121	73,723,270	87,686,836	76,507,953	141,831,565	170,647,612	154,471,871
Stormwater Mgmt/Flood Control	772,000	46,544,368	87,262,737	106,984,195	127,207,200	90,911,837	79,699,743	26,354,085	25,034,952	20,196,942
Renewal & Replacement	132,492,500	142,328,375	142,688,644	177,159,476	172,493,700	194,360,809	201,597,476	209,924,548	211,625,575	220,466,805
Treasure Island	0	35,000,000	60,000,000	52,810,000	0	0	0	0	0	0
Wastewater Facils & Infrastr	20,346,679	6,132,201	50,761,226	50,889,774	39,173,722	16,513,639	4,415,434	2,810,100	23,659,175	25,383,940
<b>Total</b>	<b>162,292,881</b>	<b>364,404,373</b>	<b>550,338,137</b>	<b>690,944,975</b>	<b>712,963,530</b>	<b>678,990,924</b>	<b>485,112,366</b>	<b>531,676,351</b>	<b>493,762,887</b>	<b>456,381,802</b>
<b>FUNDING SOURCES</b>										
New Debt Funding	48,598,381	248,832,983	421,985,699	560,139,389	579,655,732	543,130,870	346,649,011	390,557,629	349,935,690	309,791,961
Annual Revenues	107,894,500	110,252,390	122,657,438	125,110,586	127,612,798	130,165,054	132,768,355	135,423,722	138,132,197	140,894,841
Capacity Fees/Other	5,800,000	5,319,000	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000
<b>Total</b>	<b>162,292,881</b>	<b>364,404,373</b>	<b>550,338,137</b>	<b>690,944,975</b>	<b>712,963,530</b>	<b>678,990,924</b>	<b>485,112,366</b>	<b>531,676,351</b>	<b>493,762,887</b>	<b>456,381,802</b>
<b>SURPLUS / (SHORTFALL)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Note: Amounts shown reflect capital improvements projected to be budgeted, but not necessarily funded or financed, each year.



Table 4  
 SFPUC Wastewater Enterprise  
 Estimated Debt Service  
 Per \$100 Million of Project Funding

<b>Funding Source</b>		<b>Bonds</b>	<b>SRF Loans</b>
<b>Repayment Term</b>		30 Years	30 Years
<b>Cap I Term</b>		2.5 Years	n/a
<b>Funding Target</b>		\$100,000,000	\$100,000,000
<b>Assumed Issuance &amp; Payment Months</b>			
Issuance Date		Mar-1	Oct-1
Payment: Semi-Annual Interest		Apr-1	Oct-1
Payment: Semi-Annual Interest + Principal		Oct-1	Oct-1
<b>Total Debt Issue</b>		\$118,720,000	\$102,600,000
<b>Project Funding</b>		\$104,655,000	\$100,000,000
<b>Issuance Costs &amp; Reserve Requirement</b>			
Underwriter Discount	0.30%	\$356,000	n/a
Issuance Costs	Est.	300,000	n/a
Reserve Requirement		0	n/a
Capitalized Interest (Months)	30	13,355,000	n/a
Accrued Interest During Construction		n/a	2,565,000
Rounding/Contingency		<u>54,000</u>	<u>35,000</u>
Total		14,065,000	2,600,000
<b>Financing Terms</b>			
Term (Years)		30	30
Interest Only (Years)		2.5	-
Principal Amortization (Years)		28	30
Est. Average Interest Rate		4.50%	2.50%
<b>Debt Service</b>			
Interest Only Period (Annual Amount)		5,342,000	n/a
Principal Amortization Period		7,611,000	4,902,000
<i>Financing costs and interest rates estimated for financial planning purposes.</i>			

Table 5  
 SFPUC Wastewater Enterprise  
 Projected Bond Issues

<b>Debt Issuance</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
<b>Financing Terms</b>	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds
CIP Project Funding Target	775,281,000	411,940,000	517,116,000	292,632,000	434,574,000	489,872,000	467,246,000	389,578,000	355,658,000
Total Issue Size	879,470,000	467,300,000	586,610,000	331,960,000	492,980,000	555,710,000	530,040,000	441,930,000	403,460,000
Interest Payments	Apr-1 & Oct-1	Apr-1 & Oct-1	Apr-1 & Oct-1	Apr-1 & Oct-1	Apr-1 & Oct-1	Apr-1 & Oct-1	Apr-1 & Oct-1	Apr-1 & Oct-1	Apr-1 & Oct-1
Principal Payments (Year 3+)	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1
Average Interest Rate	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	5.0%
Repayment Term (Years)	30	30	30	30	30	30	30	30	30
Capitalized Interest (Years)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<b>Debt Service per \$100M</b>									
Interest Only Period (Annual)	5,342,000	5,342,000	5,342,000	5,342,000	5,342,000	5,342,000	5,342,000	5,342,000	5,342,000
Principal Amort Period	7,611,000	7,611,000	7,611,000	7,611,000	7,611,000	7,611,000	7,611,000	7,611,000	7,611,000
<b>Annual Debt Service</b>									
Interest Only Period	41,416,000	22,006,000	27,624,000	15,632,000	23,215,000	26,169,000	24,960,000	20,811,000	18,999,000
Principal Amort Period	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000
<b>Cumulative MADS</b>	59,007,000	90,360,000	129,718,000	151,990,000	185,065,000	222,349,000	257,911,000	287,562,000	314,631,000

**Table 6**  
**SFPUC Wastewater Enterprise**  
**Projected Debt Service on Future Financings**

<b>Fiscal Year Ending June 30</b>	<b>2022 Bonds</b>	<b>2023 Bonds</b>	<b>2024 Bonds</b>	<b>2025 Bonds</b>	<b>2026 Bonds</b>	<b>2027 Bonds</b>	<b>2028 Bonds</b>	<b>2029 Bonds</b>	<b>2030 Bonds</b>	<b>Total Net of Cap I</b>
2022	Cap I									0
2023	Cap I	Cap I								0
2024	Cap I	Cap I	Cap I							0
2025	24,159,000	Cap I	Cap I	Cap I						24,159,000
2026	59,007,000	12,837,000	Cap I	Cap I	Cap I					71,844,000
2027	59,007,000	31,353,000	16,114,000	Cap I	Cap I	Cap I				106,474,000
2028	59,007,000	31,353,000	39,358,000	9,119,000	Cap I	Cap I	Cap I			138,837,000
2029	59,007,000	31,353,000	39,358,000	22,272,000	13,542,000	Cap I	Cap I	Cap I		165,532,000
2030	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	15,265,000	Cap I	Cap I	Cap I	200,330,000
2031	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	14,560,000	Cap I	Cap I	236,909,000
2032	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	12,140,000	Cap I	270,051,000
2033	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	11,083,000	298,645,000
2034	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2035	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2036	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2037	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2038	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2039	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2040	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2041	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2042	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2043	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2044	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2045	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2046	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2047	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2048	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2049	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2050	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2051	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2052	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2053	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2054	59,007,000	31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	314,631,000
2055		31,353,000	39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	255,624,000
2056			39,358,000	22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	224,271,000
2057				22,272,000	33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	184,913,000
2058					33,075,000	37,284,000	35,562,000	29,651,000	27,069,000	162,641,000
2059						37,284,000	35,562,000	29,651,000	27,069,000	129,566,000
2060							35,562,000	29,651,000	27,069,000	92,282,000
2061								29,651,000	27,069,000	56,720,000
2062									27,069,000	27,069,000
2062										0

Note: First fiscal year debt payment of each bond issue assumes 7 months of interest-only payments.

Table 7  
 SFPUC Wastewater Enterprise  
 Outstanding Debt

Fiscal Year Ending June 30	2010A Bonds	2010B Bonds (BABS)			2013A Bonds	2013B Bonds	2016A Bonds	2016B Bonds	2018A Bonds	2018B Bonds	2018C Bonds	Total Senior Bonds (Gross)	SRF Loans	WIFIA Loan	Total Senior Debt (Gross)
		Gross	Int Reimbs	Net											
			Seq: 5.70%					Net of Cap I	Net of Cap I	Net of Cap I					
2021	9,040,750	10,685,426	3,526,725	14,212,150	16,557,300	14,428,000	10,645,750	3,001,050	7,162,567	6,198,333	2,537,888	<b>80,257,063</b>	4,005,719	0	<b>84,262,782</b>
2022	9,040,500	10,685,426	3,526,725	14,212,150	15,094,550	14,428,000	10,645,750	3,001,050	10,743,850	9,297,500	3,806,831	<b>86,743,457</b>	4,453,424	0	<b>91,196,881</b>
2023		17,796,166	3,470,860	21,267,026	13,495,800	14,428,000	10,645,750	3,001,050	18,265,975	15,401,000	3,806,831	<b>96,840,572</b>	5,797,739	0	<b>102,638,311</b>
2024		17,673,662	3,356,167	21,029,829	664,175	23,042,125	15,983,875	4,507,425	17,339,100	14,649,250	5,486,316	<b>99,345,927</b>	6,179,695	0	<b>105,525,622</b>
2025		17,545,666	3,234,710	20,780,375	672,600	23,034,250	15,988,000	4,508,175	16,415,600	13,895,625	7,165,800	<b>99,225,716</b>	6,445,226	0	<b>105,670,941</b>
2026		17,408,913	3,105,412	20,514,325	1,285,200	22,424,000	16,017,900	4,513,450	16,413,225	13,897,000	7,165,800	<b>99,125,488</b>	6,545,104	10,942,811	<b>116,613,403</b>
2027		17,261,893	2,967,774	20,229,667		23,707,875	16,047,675	4,524,475	16,413,600	13,899,250	7,165,800	<b>99,020,568</b>	11,799,673	21,885,623	<b>132,705,864</b>
2028		17,110,033	2,821,938	19,931,971		23,708,125	16,046,300	4,522,475	16,415,725	13,896,750	7,165,800	<b>98,865,208</b>	11,799,673	21,885,623	<b>132,550,504</b>
2029		16,943,973	2,668,115	19,612,088		23,709,625	16,048,175	4,520,850	16,413,725	13,898,750	7,165,800	<b>98,700,898</b>	11,799,673	21,885,623	<b>132,386,194</b>
2030		16,772,303	2,505,840	19,278,143		23,706,000	16,047,425	4,524,225	16,411,725	13,899,375	7,165,800	<b>98,526,853</b>	11,799,673	21,885,623	<b>132,212,149</b>
2031		16,593,293	2,334,540	18,927,833		23,705,750	16,048,175	4,522,350	16,413,600	13,897,875	7,165,800	<b>98,346,843</b>	11,799,673	21,885,623	<b>132,032,139</b>
2032		16,397,827	2,152,859	18,550,686		23,707,125	16,044,550	4,524,975	16,413,225	13,898,375	7,165,800	<b>98,151,877</b>	11,799,673	21,885,623	<b>131,837,172</b>
2033		16,194,233	1,961,894	18,156,127		23,708,375	16,045,550	4,521,850	16,414,475	13,895,000	7,165,800	<b>97,945,283</b>	11,799,673	21,885,623	<b>131,630,579</b>
2034		15,983,646	1,763,670	17,747,316		23,711,700	16,045,050	4,522,725	16,411,225	13,901,625	7,165,800	<b>97,741,771</b>	11,799,673	21,885,623	<b>131,427,066</b>
2035		15,765,202	1,557,903	17,323,104		23,712,500	16,046,925	4,522,225	16,412,225	13,897,250	7,165,800	<b>97,522,127</b>	11,799,673	21,885,623	<b>131,207,422</b>
2036		15,542,896	1,344,259	16,887,155		23,707,700	16,045,050	4,524,975	16,411,100	13,900,875	7,165,800	<b>97,298,396</b>	11,799,673	21,885,623	<b>130,983,691</b>
2037		15,306,552	1,121,032	16,427,584		23,706,300	16,048,175	4,525,600	16,411,475	13,901,250	7,165,800	<b>97,065,152</b>	11,799,673	21,885,623	<b>130,750,448</b>
2038		15,055,150	887,884	15,943,033		23,712,000	16,046,300	4,524,700	16,411,850	13,897,375	7,165,800	<b>96,813,175</b>	11,799,673	21,885,623	<b>130,498,470</b>
2039		14,801,539	645,756	15,447,294		23,703,800	16,048,300	4,523,400	16,410,725	13,898,000	7,165,800	<b>96,551,564</b>	11,799,673	21,885,623	<b>130,236,859</b>
2040		14,534,555	394,263	14,928,818		23,705,600	16,047,000	4,522,000	16,437,000	13,872,375	7,165,800	<b>96,284,330</b>	11,799,673	21,885,623	<b>129,969,626</b>
2041		14,258,181	133,070	14,391,250		23,706,000	16,046,700	4,525,200	16,499,200	13,810,750	7,165,800	<b>96,011,831</b>	11,799,673	21,885,623	<b>129,697,126</b>
2042						37,820,700	16,046,600	4,522,800	16,565,600	13,742,875	7,165,800	<b>95,864,375</b>	11,799,673	21,885,623	<b>129,549,671</b>
2043						37,821,600	16,045,900	4,524,600	16,635,000	13,677,500	7,165,800	<b>95,870,400</b>	11,799,673	21,885,623	<b>129,555,696</b>
2044							16,048,700	4,525,300	11,673,900	9,537,625	16,265,100	<b>58,050,625</b>	11,799,673	39,719,176	<b>109,569,474</b>
2045							16,044,200	4,524,700			37,478,200	<b>58,047,100</b>	11,799,673	39,724,277	<b>109,571,050</b>
2046							16,046,500	4,522,600			37,480,200	<b>58,049,300</b>	11,799,673	39,724,075	<b>109,573,048</b>
2047							16,044,600	4,523,700			37,475,100	<b>58,043,400</b>	11,799,673	39,724,877	<b>109,567,950</b>
2048											37,475,800	<b>37,475,800</b>	11,799,673	60,293,176	<b>109,568,649</b>
2049											37,479,900	<b>37,479,900</b>	9,396,154	60,293,176	<b>107,169,230</b>
2050													7,660,243	64,060,730	<b>71,720,972</b>
2051													7,660,243	64,060,729	<b>71,720,972</b>
2052														64,374,723	<b>64,374,723</b>
2053														64,374,723	<b>64,374,723</b>
2054														64,374,723	<b>64,374,723</b>
2055														64,374,723	<b>64,374,723</b>
2056														64,374,723	<b>64,374,723</b>
2057														64,374,723	<b>64,374,723</b>
2058														64,374,723	<b>64,374,723</b>
2059														64,374,723	<b>64,374,723</b>

Note: Excludes subordinate 2009 Wastwater COPs.