



San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102
T 415.554.3155
F 415.554.3161
TTY 415.554.3488

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:

- Water Enterprise: File No. 200838 and Board of Supervisors Ordinance No. 0174-20.

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 Water Revenue Bonds and Other Forms of Indebtedness in an amount not to exceed \$347,141,218, exclusive
of financing costs, 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 Water Revenue Bonds and Other Forms of Indebtedness in an amount not to exceed **\$347,141,218**, exclusive of financing costs, to finance certain improvements to the Water Enterprise of the City and County of San Francisco (the "City") to finance certain improvements to the Water Enterprise-related infrastructure of the SFPUC's Hetch Hetchy Water and Power System (the "Bonds").
3. The improvements proposed for financing include those projects described in the following document, attached to this Certificate as Exhibit A.
4. I understand that Section 8B.124 of the City Charter grants authority to the City's Board of Supervisors to approve the issuance of indebtedness, including revenue bonds, by ordinance upon two-thirds vote of its members and under certain conditions. A draft of an ordinance relating to the Bonds is attached hereto as Exhibit B (the Ordinance).
5. I understand that one of the conditions to the Board of Supervisor's authorization of such indebtedness is the delivery of a certificate of the Planning Department regarding the additional projects to be financed.
6. 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.
7. 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 Bonds, as described in the Ordinance, (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 Bonds funds to finance the acquisition or construction of such facilities.

In witness whereof, the undersigned has executed this certification as of this 17 day of December, 2020.



Lisa M. Gibson
Environmental Review Officer

EXHIBIT A
WATER 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
Regional Water	19056	Regional Water Treatment Program	CUW272010; Tesla UV R&R – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW2720202; East Bay Field R&R – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW2720202; SVWTP R&R – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW2720301; HTWTP R&R – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW27203; West Bay Field R&R – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Regional Water	15481	Sunol Valley Water Treatment	CUW272TBD/10033123; SVWTP Ozone – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW2720204/10015064; SVWTP Phase 3 – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW2720202; SVWTP Phase 4 – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW2720205; SVWTP Polymer Feed Facility – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Regional Water	19058	Water Supply and Storage	CUW27403XX; Purified Water & Other Supplies – Planning report only. The individual projects are projects under CEQA and will undergo CEQA review prior to approval.

EXHIBIT A
WATER 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
			<p>CUW27403XX; Daly City Recycled Water Expansion Project – Planning report only. The individual projects are projects under CEQA and will undergo CEQA review prior to approval.</p> <p>CUW-TBD; Crystal Springs Purified Water Project – Planning report only. The individual projects are projects under CEQA and will undergo CEQA review prior to approval.</p> <p>CUW-TBD; SFPUC-ACWD-USD Purified Water Partnership – Planning report only. The individual projects are projects under CEQA and will undergo CEQA review prior to approval.</p> <p>CUW-TBD; Bay Area Brackish Water Desalination (Regional) – Planning report only. The individual projects are projects under CEQA and will undergo CEQA review prior to approval.</p> <p>CUW-TBD; Los Vaqueros Reservoir Expansion Project – Work activities included in the project are covered in the Final Environmental Impact Report for the Los Vaqueros Expansion Project, which was certified by the Contra Costa Water District on March 31, 2010.</p> <p>CUW-TBD; Conveyance Alternatives – Planning report only. The individual projects are projects under CEQA and will undergo CEQA review prior to approval.</p> <p>CUW-TBD; Calaveras Reservoir Expansion Project – Planning report only. The individual projects are projects under CEQA and will undergo CEQA review prior to approval.</p>
Regional Water	15503	Bay Area Watershed and ROW Protection Program	<p>10015108; Sneath Lane Gate/North San Andreas – This is a project under CEQA and will undergo CEQA review prior to approval.</p> <p>CUW2751401; Watershed and ROW Protection - Land Acquisition – This is a project under CEQA and will undergo CEQA review prior to approval.</p>
Regional Water	15505/10015110	EBRPD Water System	An Addendum to the Calaveras Dam Replacement Project EIR (Case Number 2005.0161E) that addressed the EBRPD water system was approved on October 6, 2020.

EXHIBIT A
WATER 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
Regional Water	15507/10015110	ROW Gaps Project	This is a project under CEQA and will undergo CEQA review prior to approval.
Regional Water	15508/10015113	Southern Skyline Boulevard Ridge Trail Extension Project	This is a project under CEQA and will undergo CEQA review prior to approval (Case Number 2016-016100ENV).
Regional Water	15512/10030771	SA-1 Service Road/Ingoing Road	This is a project under CEQA and will undergo CEQA review prior to approval.
Regional Water	CUW2760201/10015121	Water Supply and Treatment Security System	CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Regional Water	15519	Millbrae Yard Upgrade	CUW2770304/10015128; Millbrae Yard Lab & Shops – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW27703XX/10033555; Rollins Road Building Renovation – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Regional Water	CUW28600/10015233	Long Term Monitoring and Permit Program	This is the long-term monitoring of permit conditions for numerous previous projects where CEQA has already been completed.
Local Water	20711	Water Diversification Projects	CUW278N04; Groundwater - Irrigation Well Decommission – This action was covered in the San Francisco Westside Recycled Water Project Final Environmental Impact Report (EIR), which was certified by the Planning Commission September 3, 2015 (Case No. 2008.0091E). CUW-TBD; Sunset Boulevard Recycled Water Irrigation Project – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW-TBD; San Francisco Zoo Recycled Water Pipeline Project – CEQA

EXHIBIT A
WATER 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
			Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW-TBD; SF Eastside Satellite Recycled Water Project – CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	15527/10015135	New Services	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	15528	Renew Services	10015136; Renew Services – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW-TBD; GIS Program – This is not a project under CEQA §15378. CUW-TBD; Lead Component Services Program – This is not a project under CEQA §15378. CUW-TBD; Water Loss Reduction Program – Planning report only. CUW- TBD; Water Quality Distribution System – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	15526/10015526	Local Water Conveyance - distribution	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	15531	Pipeline Replacement	CUW280; Local Water Conveyance / Distribution System – The project scope is currently being defined; environmental review will proceed once the project scope has been identified. CUW28002; Local Water Conveyance Better Market Street – The Planning Commission certified the Final Environmental Impact Report (EIR) on October 10, 2019 (Case No. 2014.0012E). CUW28003; Local Water Conveyance Joint Transit Project – CUW280-05; Van Ness BRT Project – The SFMTA Board certified the

EXHIBIT A
WATER 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
			Final Environmental Impact Report (EIR) on September 17, 2013 (State Clearinghouse Number 2007092059). 10033816; Sunset Pipeline Potable AWSS – A Categorical Exemption was approved on June 3, 2019 (2019-000535ENV).
Local Water	10033817	New Services Connection Program	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	CUW26308/10033818	Town of Sunol Pipeline	A Categorical Exemption was approved on November 19, 2020 (Case Number 2020-008988ENV).
Local Water	CUW283-06	Summit Reservoir Roof and Tank Coatings	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	CUW28301/10015223	College Hill Reservoir Outlet	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	CUW-N03/10033819	Lombard Reservoir Geotechnical Improvements	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	CUW28403/10015230	Bay Bridge West Pump Station	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Local Water	CUW30201/10015242	San Francisco Westside Recycled Water Project	The Planning Commission certified the Final Environmental Impact Report (EIR) on September 3, 2015 (Case No. 2008.0091E).
Local Water	15612	Automated Meter Reading System	10015425; Automated Meter Reading System – This is not a project under CEQA §15378. TBD; AWMP Renewal and Meters - This is not a project under CEQA §15378. TBD; Large Meter Renewals - This is not a project under CEQA §15378. TBD; BCC Meter Program - This is not a project under CEQA §15378.
Local Water	15617	Buildings and Grounds Improvements	CUW688/10015427; Buildings & Grounds Improvement – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.

EXHIBIT A
WATER 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
			CUW688-12/10032373; Additional Newcomb Yard Improvements – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.

[San Francisco Public Utilities Commission Water Revenue Bond and Other Forms of Indebtedness Issuance - Various Capital Water Projects Benefitting the Water Enterprise - Not to Exceed \$347,141,218]

Ordinance authorizing the issuance and sale of tax-exempt or taxable Water 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 \$347,141,218 to finance the costs of various capital water projects benefitting the Water 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 Water Revenue Refunding Bonds and the retirement of outstanding Water 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.

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

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

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

A. On November 5, 2002, the voters of the City and County of San Francisco ("City") approved Proposition E ("Proposition E"), which among other things, authorized the

1 San Francisco Public Utilities Commission ("Commission") to issue revenue bonds, including
2 notes, commercial paper or other forms of indebtedness, when authorized by ordinance
3 approved by a two-thirds vote of the Board of Supervisors, for the purpose of reconstructing,
4 replacing, expanding, repairing or improving water facilities or clean water facilities or
5 combinations of water and clean water facilities under the jurisdiction of the Commission; and

6 B. On November 5, 2002, a majority of voters voting on the measure further
7 approved, under the authority of Charter Section 9.107, Proposition A ("Proposition A") which,
8 among other things, authorized the Commission to issue its revenue bonds and/or other forms
9 of revenue financing for the purpose of financing the costs of acquisition and construction of
10 improvements to the City's water system; and

11 C. The Commission adopted the Amended and Restated Water Indenture dated as
12 of January 1, 2002, as further amended and supplemented from time to time ("Indenture"),
13 between the Commission and U. S. Bank National Association and in connection therewith,
14 has from time to time issued revenue bonds to finance projects benefitting the Water
15 Enterprise; and

16 D. Pursuant to Section 43.5 of the San Francisco Administrative Code ("Article V"),
17 enacted by Ordinance No. 203-98 adopted by the Board on June 8, 1998, and signed by the
18 Mayor of the City on June 19, 1998, as amended by Ordinance No. 270-06, adopted on
19 October 24, 2006 by the Board and signed by the Mayor on October 31, 2006, the Board
20 established a procedure pursuant to which the Commission may issue short-term
21 indebtedness, including the issuance of commercial paper in anticipation of the issuance of its
22 revenue bonds; and

23 E. Pursuant to Ordinance No. 311-08, adopted by the Board of Supervisors on
24 December 16, 2008, and Resolution No. 09-175, adopted by this Commission on October 27,
25 2009, the Water Enterprise's commercial paper program ("Water CP Program") was increased

1 to an aggregate principal amount of \$500,000,000, and the Commission has caused its Water
2 Enterprise Commercial Paper to be issued from time to time; and

3 ~~EE~~. By Resolution 20-0031, adopted by the Commission on February 11, 2020
4 ("Commission Resolution") the Commission has determined to issue Water Revenue Bonds
5 ("Water Revenue Bonds") and other forms of indebtedness (including without limitation State
6 Revolving Fund (SRF) Loans as described below), as well as interim funding vehicles such as
7 commercial paper, revolving credit agreements, bond anticipation notes or other forms of
8 notes, which interim funding vehicles will be issued in advance of being paid off by either
9 Water Revenue Bonds and other forms of indebtedness (including without limitation SRF
10 Loans) to finance the costs of various capital projects benefitting the Water Enterprise (the
11 "Capital Improvement Projects" such projects being more fully described in the Commission
12 Resolution), pursuant to Proposition E, and has formally requested this Board to authorize the
13 issuance and sale of Water Revenue Bonds and other forms of indebtedness for such
14 purposes, such Commission Resolution being on file with the Clerk of the Board in File No.
15 200838; and

16 ~~EG~~. In order to finance the costs of the Capital Improvement Projects, the Board now
17 desires to authorize the issuance and sale of Water Revenue Bonds and other forms of
18 indebtedness, as described above, for such purposes, including obtaining SRF Loans and/or
19 grants from the State Water Resources Control Board; and

20 ~~GH~~. The Commission has paid, beginning no earlier than 60 days prior to the
21 adoption of this Ordinance and will pay, on and after the date hereof, certain expenditures
22 ("Expenditures") in connection with the acquisition, construction and/or equipping of the
23 Capital Improvement Projects; and

24 ~~HI~~. This Board is concurrently considering with this Ordinance, another Ordinance
25 approving a Capital Improvement Program and related supplemental appropriation totaling

1 \$344,846,164 for fiscal years ending 2021 and 2022, including expenditures of the proceeds
2 of the Water Revenue Bonds and other forms of indebtedness (including, without limitation
3 and for illustrative purposes only, SRF Loans, commercial paper, revolving credit agreements,
4 and bond anticipation notes); and

5 IJ. This Board, on behalf of the Commission, adopts this Ordinance as official
6 action of the Commission in order to comply with Treasury Regulation §1.150-2 and any other
7 regulations of the Internal Revenue Service relating to the qualification for reimbursement of
8 Commission expenditures incurred prior to the date of issue of the Water Revenue Bonds and
9 other forms of indebtedness (including, without limitation and for illustrative purposes only,
10 SRF Loans, commercial paper, revolving credit agreements, and bond anticipation notes)

11 K. In order to refinance the costs of any water system or clean water system
12 facilities or improvements financed with bonds issued pursuant Proposition E or Proposition A,
13 the Board now desires to authorize the issuance and sale of Water Revenue Refunding
14 Bonds.

15 Section 2. Authorization to Issue Water Revenue Bonds and other forms of
16 indebtedness. The Board hereby authorizes the issuance and sale of Water Revenue Bonds
17 or other forms of indebtedness (including, SRF Loans, commercial paper, revolving credit
18 agreements, and bond anticipation notes) in one or more series from time to time by the
19 Commission pursuant to Proposition E and in accordance with the Commission Resolution, in
20 an aggregate principal amount not to exceed \$347,141,218 (inclusive of financing costs, but
21 exclusive of refunding indebtedness), bearing a maximum rate or rates of interest of not to
22 exceed twelve percent (12%) per annum, to finance a portion of the costs of the design,
23 acquisition and construction of the Capital Improvement Projects. Without limiting the
24 foregoing, the Commission shall be authorized to incur SRF Loans at such time, in such
25 amounts, and upon such other terms and conditions as the Commission may deem

1 advantageous, and to approve any financing documentation related thereto consistent with
2 this Ordinance. The Commission is hereby further authorized to determine the timing, amount
3 and manner of sale (i.e., competitive or negotiated) of each series of Water Revenue Bonds,
4 bond anticipation notes, revolving credit agreements, or commercial paper, pursuant to this
5 authorization; provided however, the Commission's authorization to issue Water Revenue
6 Bonds, bond anticipation notes, revolving credit agreements, or commercial paper is subject
7 to approval by the Commission of the form of substantially final offering document related to
8 such obligations (if any) and the approval of any related agreements, financing documents
9 and the filing with its Board and the Clerk of the Board any certifications required by
10 Proposition E prior to the issuance of any bonds or incurrence of any indebtedness herein
11 authorized. The Commission shall also file, within 30 days of closing any Water Revenue
12 Bond or other form of indebtedness (including SRF Loans and bond anticipation notes)
13 transactions) authorized hereby, with the Clerk of the Board of Supervisors a report showing
14 the results of the transaction, including (i) principal amount sold and method of sale, (ii) true
15 interest cost, (iii) final maturity, (iv) the facilities constructed and/or improved, and (v) a
16 statement about the remaining bonding authorization under this Ordinance ("Bond Report"),
17 provided that the failure to file such Bond Report shall not affect the validity of any debt
18 authorized hereunder.

19 Section 3. Authorization to Retire Commercial Paper. In furtherance of the purpose
20 of managing the Commission outstanding indebtedness, the General Manager is hereby
21 authorized and directed, in consultation the City Attorney, from Available Water Enterprise
22 Revenues to retire outstanding Water Enterprise Commercial Paper at such times and in such
23 amounts advantageous to the Commission.

24 Section 4. Authorization to Issue Water Revenue Refunding Bonds and ~~Retire~~
25

1 ~~Commercial Paper.~~ The Board further authorizes and approves the issuance by the
2 Commission of Water Revenue Refunding Bonds ("Refunding Bonds") without limitation as to
3 principal amount, in one or more series on one or more dates, at a maximum interest rate or
4 rates of interest not to exceed twelve percent (12%) per annum, provided that each such
5 Refunding Bond issue is permitted under the applicable policies and procedures of the City
6 and authorized by Section 9.109 of the Charter (including related ordinances and resolutions
7 of the Board). The Refunding Bonds may be issued as tax-exempt or taxable obligations, or
8 any combination thereof. Refunding Bonds authorized hereunder shall be subject to the
9 further following conditions, that: (i) three percent (3%) net present value debt service savings
10 or greater is achieved to ensure ratepayer savings (exclusive of any issuance to refund
11 commercial paper, revolving credit notes, or bond anticipation notes); (ii) that the maturity of
12 the refunded bonds is not extended; ~~(iii) this authorization is subject to a 5-year term through~~
13 ~~June 30, 2025, at which time this Board may consider an extension;~~ provided that principal
14 payments and term may be adjusted, where permitted under federal and state tax law, only if
15 and when the underlying capital asset funded through said refunded bonds has a useful life
16 not in excess of any limit permitted under federal and state tax law than the refunded term; ~~(iii)~~
17 this authorization is subject to a 6-year term through June 30, 2026, at which time this Board
18 may consider an extension; and (iv) the Commission shall within 30 days of any executed
19 refunding transaction provide a refunding savings report ("Bond Refunding Savings Report")
20 prepared by its financial advisors (that reflects at least a three percent (3%) net present value
21 debt service savings) to the Board, together with a copy of the final Official Statement (if any)
22 with respect to such series of Refunding Bonds, provided that the failure to deliver such Bond
23 Refunding Savings Report shall in no way affect the validity of any Refunding Bonds.

24 Section 5. Certain Other Refunding Bonds. Notwithstanding the foregoing, the
25 Commission is authorized to issue Refunding Bonds for non-economic factors, including by

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

9 Section 46. Declaration of Official Intent. The Board, on behalf of the Commission,
10 hereby declares the official intent of the Commission to reimburse the Commission with
11 proceeds of the Water Revenue Bonds or other forms of indebtedness (including SRF Loans,
12 commercial paper, revolving credit notes, or bond anticipation notes) for the Expenditures with
13 respect to the Capital Improvement Projects made on and after a date that is no more than 60
14 days prior to the adoption of this Ordinance. The Commission reasonably expects on the date
15 hereof that it will reimburse the Expenditures with proceeds of the Water Revenue Bonds or
16 other forms of indebtedness (including, without limitation and for illustrative purposes only,
17 SRF Loans, commercial paper, revolving credit notes or bond anticipation notes). Each said
18 Expenditure was and will be either (A) of a type properly chargeable to a capital account
19 under general federal income tax principles (determined in each case as of the date of the
20 Expenditure), (B) a cost of issuance with respect to such obligations, (C) a nonrecurring item
21 that is not customarily payable from current revenues, or (D) a grant to pay a party that is not
22 related to or an agent of the issuer so long as such grant does not impose any obligation or
23 condition (directly or indirectly) to repay any amount to or for the benefit of the Commission.
24 The Commission will make a reimbursement allocation, which is a written allocation by the
25 Issuer that evidences the Commission's use of proceeds of the Water Revenue Bonds or

1 other forms of indebtedness to reimburse an Expenditure, no later than 18 months after the
2 later of the date on which the Expenditure is paid or the component of the Capital
3 Improvement Projects is placed in service or abandoned, but in no event more than three
4 years after the date on which the Expenditure is paid. The Commission recognizes that
5 exceptions are available for certain "preliminary expenditures," costs of issuance, certain de
6 minimis amounts, expenditures by "small issuers" (based on the year of issuance and not the
7 year of expenditure) and expenditures for construction projects of at least 5 years.

8 Section 57. General Authority. The Controller, Treasurer, the City Attorney and other
9 officers of the City, including the Director of the Office of Public Finance, and their duly
10 authorized deputies and agents are hereby authorized and directed, jointly and severally, to
11 take such actions and to execute and deliver such certificates, agreements, requests or other
12 documents, as they may deem necessary or desirable to facilitate the issuance, sale and
13 delivery of the Water Revenue Bonds or other forms of indebtedness, including Refunding
14 Bonds, and to obtain bond insurance or other credit or liquidity enhancements with respect to
15 any such obligations, and otherwise to carry out the provisions of this Ordinance. The
16 Commission is hereby directed to provide the final form to the Clerk of the Board of any
17 disclosure document prepared in connection with the execution of any Water Revenue Bonds,
18 other forms of indebtedness, or Refunding Bonds, and the final executed Installment Sale
19 Agreement or other document reflecting the incurrence of an SRF Loan, within 30 days of the
20 closing of such transactions provided that the failure to deliver such document shall not affect
21 the validity of the obligations authorized hereunder. The Commission is further directed as a
22 part of the two-year budget review to provide to this Board of Supervisors a written report
23 about Water Revenue Bonds authorized hereunder, detailing the total amount authorized, the
24 total amount sold, the remaining authorized but unissued amount, and the bond authorization
25 no longer necessary due to changes in projects and project financing.

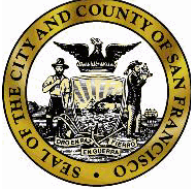
1 Section 68. Ratification of Prior Actions. All actions authorized and directed by this
2 Ordinance in connection with the issuance of the Water Revenue Bonds, other forms of
3 indebtedness (including, without limitation and for illustrative purposes only, SRF Loans,
4 commercial paper, revolving credit notes, or bond anticipation notes) or Refunding Bonds and
5 heretofore taken are hereby ratified, approved and confirmed by this Board.

6 Section 79. File Documents. All documents referred to as on file with the Clerk of the
7 Board are in File Nos. 200838.

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

13
14 APPROVED AS TO FORM:
15 DENNIS J. HERRERA, City Attorney

16
17 By: /s/ Mark D. Blake
18 Mark D. Blake
19 Deputy City Attorney
20
21
22
23
24
25



City and County of San Francisco
Tails
Ordinance

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

File Number: 200838

Date Passed: September 29, 2020

Ordinance authorizing the issuance and sale of tax-exempt or taxable Water 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 \$347,141,218 to finance the costs of various capital water projects benefitting the Water 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 Water Revenue Refunding Bonds and the retirement of outstanding Water 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. 200838

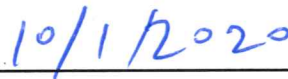
I hereby certify that the foregoing
Ordinance was FINALLY PASSED on
9/29/2020 by the Board of Supervisors of
the City and County of San Francisco.



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 Water Revenue Bonds and / or Other Forms of Indebtedness, including
Commercial Paper**

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 Water 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 Water 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”), including the prioritization, cost estimates and scheduling, appear to meet generally accepted utility standards.

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

- Water System Improvement Program, Quarterly Report, Regional Projects, Q2 FY 2020-2021
- Water Enterprise 10-Year Capital Improvement Plan, FY 2021-2030
- Certificate of City and County of San Francisco Planning Department Regarding Proposed Sale of Water Revenue Bonds and Other Forms of Indebtedness in an amount not to exceed \$347,141,218 for Capital Projects budgeted in Fiscal Years 2020-21 and 2021-22, San Francisco Planning Department, December 17, 2020.
- Water Financial Projections, March 9, 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, appear to meet generally accepted utility standards.

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

While developing the Certificate, AECOM reviewed the pertinent portions of 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

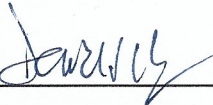
information. AECOM makes no certification and gives no assurances except as explicitly set forth in this document.

SECTION A:

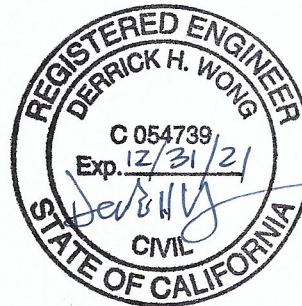
AECOM's review of the Documents, references and data for Section A included a "programmatic approach" such that AECOM certifies that the revenue bonds and/or commercial paper proceeds are intended to be used by the SFPUC to fund the capital projects included in the Water Enterprise's CIP and other portions of the Water 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.

Dated this 22th day of March, 2021

AECOM Technical Services, Inc.

By: 

Derrick Wong, PE (CA 54739)
Assoc. Vice President



SCHEDULE I

Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
Regional Water	CUW272010 (19056)	Tesla UV R&R	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW2720101 - Tesla UV R&R.
Regional Water	CUW2720202 (19056)	East Bay Field R&R	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Regional Water	CUW2720202 (19056)	SVWTP R&R	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Regional Water	CUW2720301 (19056)	HTWTP R&R	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Regional Water	CUW27203 (19056)	West Bay Field R&R	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW272031 - West Bay Field R&R.
Regional Water	CUW272TBD/ 10033123	SVWTP Ozone	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW2720210 - SVWTP Ozone.
Regional Water	10015110 (15505)	SVWTP Phase 3	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Regional Water	CUW2720202 (15481)	SVWTP Phase 4	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	

Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
Regional Water	CUW2720205 (15481)	SVWTP Polymer Feed Facility	CEQA compliance pending - The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Regional Water	CUW27403XX (19058)	Purified Water & Other Supplies - Planning report only	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW2740301 - Purified Water & Other Supplies
Regional Water	CUW27403XX (19058)	Daly City Recycled Water Expansion Project - Planning report only	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW2740301 - Daly City Recycled Water Expansion Project.
Regional Water	CUW-TBD (19058)	Crystal Springs Purified Water Project - Planning report only	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.	
Regional Water	CUW-TBD (19058)	SFPUC-ACWD-USD Purified Water Partnership - Planning report only	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.	
Regional Water	CUW-TBD (19058)	Bay Area Brackish Water Desalination - Planning report only	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.	
Regional Water	CUW-TBD (19058)	Los Vaqueros Reservoir Expansion Project - Planning report only	Work activities included in the project are covered in the Final Environmental Impact Report for the Los Vaqueros Expansion Project, which was certified by the Contra Costa Water District on March 31, 2010.	
Regional Water	CUW-TBD (19058)	Conveyance Alternatives – Planning report only	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.	

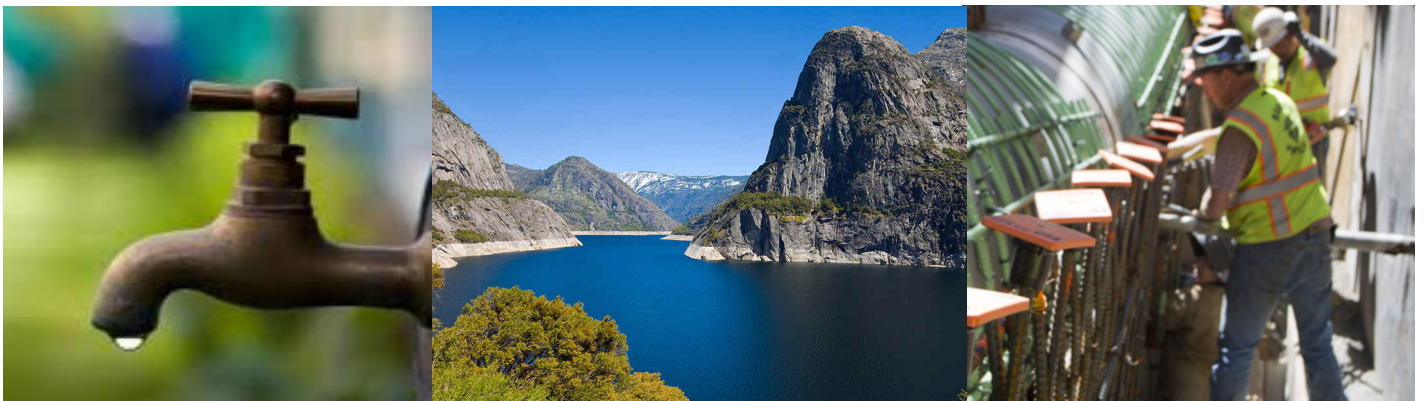
Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
Regional Water	CUW-TBD (19058)	Calaveras Reservoir Expansion Project - Planning report only	The individual projects are projects under CEQA and will undergo CEQA review prior to approval.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as 10015098 (FSP project number) - Calaveras Reservoir Expansion Project
Regional Water	10015108 (15503)	Sneath Lane Gate/North San Andreas	This is a project under CEQA and will undergo CEQA review prior to approval.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW2751401 - Sneath Lane Gate/North San Andreas
Regional Water	CUW2751401 (15503)	Watershed and ROW Protection - Land Acquisition	This is a project under CEQA and will undergo CEQA review prior to approval.	
Regional Water	10015110 (15505)	EBRPD Water System	An Addendum to the Calaveras Dam Replacement Project EIR (Case Number 2005.0161E) that addressed the EBRPD water system was approved on October 6, 2020.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW2751401 - EBRPD Water System.
Regional Water	10015110 (15507)	ROW Gaps Project	This is a project under CEQA and will undergo CEQA review prior to approval.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW2751401 - UW ROW "gaps" Project. The FSP project number has been referenced as 10015112.
Regional Water	10015113 (15508)	Southern Skyline Boulevard Ridge Trail Extension Project	This is a project under CEQA and will undergo CEQA review prior to approval (Case Number 2016-016100ENV).	
Regional Water	10030771 (15512)	SA-1 Service Road/Ingoing Road	This is a project under CEQA and will undergo CEQA review prior to approval.	
Regional Water	CUW2760201/10015121	Water Supply and Treatment Security System	CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	

Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
Regional Water	CUW2770304/ 10015128 (15519)	Millbrae Yard Lab & Shops	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Regional Water	CUW27703XX/ 10033555 (15519)	Rollins Road Building Renovation	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Regional Water	CUW28600/10 015233	Long Term Monitoring and Permit Program	This is the long-term monitoring of permit conditions for numerous previous projects where CEQA has already been completed.	
Local Water	CUW278N04 (20711)	Groundwater - Irrigation Well Decommission	This action was covered in the San Francisco Westside Recycled Water Project Final Environmental Impact Report (EIR), which was certified by the Planning Commission September 3, 2015 (Case No. 2008.0091E).	
Local Water	CUW-TBD (20711)	Sunset Boulevard Recycled Water Irrigation Project	CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	CUW-TBD (20711)	San Francisco Zoo Recycled Water Pipeline Project	CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	CUW-TBD (20711)	SF Eastside Satellite Recycled Water Project	CEQA Compliance Pending – The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	10015135 (15527)	New Services	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as 10015135 - UW New Services.
Local Water	10015136 (15528)	Renew Services	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as 10015136 - UW Renew Services.

Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
Local Water	CUW-TBD (15528)	GIS Program	This is not a project under CEQA §15378	
Local Water	CUW-TBD (15528)	Lead Component Services Program	This is not a project under CEQA §15378	
Local Water	CUW-TBD (15528)	Water Loss Reduction Program - Planning report only		
Local Water	CUW-TBD (15528)	Water Quality Distribution System	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	10015526 (15526)	Local Water Conveyance - distribution	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	Based on Water 10-year CIP Summary, no funding for FY 20-21/FY 21-22.
Local Water	CUW280 (15531)	Local Water Conveyance / Distribution System	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	CUW28002 (15531)	Local Water Conveyance Better Market Street	The Planning Commission certified the Final Environmental Impact Report (EIR) on October 10, 2019 (Case No. 2014.0012E).	
Local Water	CUW28003 (15531)	Local Water Conveyance Joint Transit Project		
Local Water	CUW280-05 (15531)	Van Ness BRT Project	The SFMTA Board certified the Final Environmental Impact Report (EIR) on September 17, 2013 (State Clearinghouse Number 2007092059).	
Local Water	10033816 (15531)	Sunset Pipeline Potable AWSS	A Categorical Exemption was approved on June 3, 2019 (2019-000535ENV).	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as the Potable Emergency Firefighting Water System. Based on Water 10-year CIP

Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
				Summary, no funding for FY 20-21/FY 21-22.
Local Water	10033817	New Services Connection Program	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	CUW26308/10 033818	Town of Sunol Pipeline	A Categorical Exemption was approved on November 19, 2020 (Case Number 2020-008988ENV).	
Local Water	CUW283-06	Summit Reservoir Roof and Tank Coatings	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as CUW283-06 - Reservoir Roof and Tank Coatings.
Local Water	CUW28301/10 015223	College Hill Reservoir Outlet	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	CUW-N03/10033819	Lombard Reservoir Geotechnical Improvements	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	CUW28403/10 015230	Bay Bridge West Pump Station	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	
Local Water	CUW30201/10 015242	San Francisco Westside Recycled Water Project	The Planning Commission certified the Final Environmental Impact Report (EIR) on September 3, 2015 (Case No. 2008.0091E).	
Local Water	10015425 (15612)	Automated Meter Reading System	This is not a project under CEQA §15378.	
Local Water	TBD (15612)	AWMP Renewal and Meters	This is not a project under CEQA §15378.	

Program	Project No. (from Planning Certificate Exhibit A)	Title (from Planning Certificate Exhibit A)	CEQA Compliance (from Planning Certificate Exhibit A)	Notes/References
Local Water	TBD (15612)	Large Meter Renewals	This is not a project under CEQA §15378.	In the Water Enterprise 10-year CIP (2021-2030), this project has been referenced as 10015138 (FSP project number) - Large Meter Renewals.
Local Water	TBD (15612)	BCC Meter Program	This is not a project under CEQA §15378.	
Local Water	CUW688/1001 5427 (15617)	Buildings and Grounds Improvements	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	Based on Water 10-year CIP Summary, no funding for FY 20-21/FY 21-22.
Local Water	CUW688- 12/10032373 (15617)	Additional Newcomb Yard Improvements	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.	



Water Financial Projections

March 9, 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 9, 2021

ATTN: Mike Brown, Environmental Finance Manager

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

RE: Water Financial Projections for Proposition E Compliance

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 Water Enterprise will generate net revenues (as defined per the Indenture securing the SFPUC’s outstanding Water 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 Water 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 table estimates annual debt service on future bonds per each \$100 million of project funding.
- **Table 5 - Projected Bond Issues: Water** – This table shows projected debt issuances by fiscal year and calculates annual debt service for each bond issue for Local and Regional Water debt.
- **Table 6 - Projected Debt Service on Future Financings: Water** – This table projects debt service by fiscal year for each water debt issue and shows a schedule of projected debt payments for Local and Regional Water debt.
- **Table 7 - Projected Bond Issues: Hetchy Water** – This table shows projected debt issuances by fiscal year and calculates annual debt service for each bond issue for Hetchy Water debt.
- **Table 8 - Projected Debt Service on Future Financings: Hetchy Water** – This table projects debt service by fiscal year for each water debt issue and shows a schedule of projected debt payments for Hetchy Water debt.
- **Table 9 - 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



Alex Handlers
Principal/Vice President



Douglas R. Dove, P.E.
President



Table 1 - SFPUC Water Cash Flow Projections

Years 1 - 5

	2020/21	2021/22	2022/23	2023/24	2024/25
Retail Water Rate Adjustments	7.8%	7.9%	8.0%	7.0%	6.0%
Change in Retail Demand	-	0.87%	0.87%	0.87%	-0.75%
Retail Water Sales (ccf)	27,970,000	28,210,000	28,460,000	28,710,000	28,490,000
Change in Wholesale Demand	-	0.2%	0.2%	0.2%	0.2%
Wholesale Water Sales (ccf)	62,830,000	62,960,000	63,090,000	63,220,000	63,350,000
Wholesale Water Rate (\$/ccf)	\$4.10	\$4.10	\$4.22	\$4.67	\$4.97
Wholesale Blended Water Rate (\$/ccf)	\$4.10	\$4.10	\$4.21	\$4.63	\$4.95
Net Interest Earnings Rate	-	-	1.0%	1.0%	1.0%
O&M Cost Escalation	-	-	3.0%	3.0%	3.0%
Beginning Fund Reserves					
Unappropriated Fund Reserves (After Budget)	\$131,929,000	\$115,124,000	\$125,245,000	\$101,764,000	\$118,177,000
Fund Reserves Budgeted as Revenues	27,313,000	22,096,000	0	0	0
Wholesale Coverage Reserves	3,910,000	34,836,000	38,751,000	42,180,000	42,396,000
Total	163,152,000	172,056,000	163,996,000	143,944,000	160,573,000
Revenues					
Retail Water Charges	309,404,000	336,751,000	366,855,000	395,950,000	416,559,000
Wholesale Volumetric Charges	258,102,000	258,136,000	265,609,000	292,709,000	313,583,000
Wholesale Fixed Service Charges	4,283,000	4,300,000	4,300,000	4,300,000	4,300,000
Interest Income	5,051,000	4,460,000	4,110,000	2,909,000	3,076,000
Capacity Charges & Other Capital Revenues	1,554,000	1,520,000	1,520,000	1,520,000	1,520,000
Rental Income	12,479,000	12,916,000	13,303,000	13,702,000	14,113,000
Other Miscellaneous Income	15,384,000	15,911,000	16,401,000	16,905,000	17,426,000
Programmatic Revenues	8,308,000	8,382,000	8,521,000	8,643,000	8,760,000
BABs Interest Subsidies (Net of Sequest.)	21,828,000	21,621,000	21,290,000	20,841,000	20,370,000
Subtotal	636,393,000	663,997,000	701,909,000	757,479,000	799,707,000
Operation & Maintenance Expenses					
Personnel	102,999,000	104,842,000	107,987,000	111,227,000	114,564,000
Utilities	10,127,000	10,478,000	10,792,000	11,116,000	11,449,000
Non-Personal Services	19,309,000	20,306,000	20,915,000	21,542,000	22,188,000
Materials/Supplies/Equipment	20,073,000	19,319,000	19,899,000	20,496,000	21,111,000
Services of SFPUC Bureaus	54,382,000	56,211,000	57,897,000	59,634,000	61,423,000
Services of Other Departments	14,540,000	14,825,000	15,270,000	15,728,000	16,200,000
Hetch Hetchy Assessment	44,242,000	45,010,000	46,360,000	47,751,000	49,184,000
Other Operating Expenses	6,213,000	6,251,000	6,439,000	6,632,000	6,831,000
Programmatic Projects (Excl 525GG Ls +TI Maint)	25,619,000	20,199,000	22,189,000	21,883,000	24,906,000
Subtotal	297,504,000	297,441,000	307,748,000	316,009,000	327,856,000
Debt Service, Net of Capitalized Interest					
Outstanding Parity Debt	270,314,000	307,605,000	334,984,000	339,208,000	338,680,000
BAWSCA Prepayment Defeasance	0	0	0	0	0
Projected Debt: Local & Regional Water	0	0	0	1,207,000	20,822,000
Projected Debt: Hetchy Water	0	0	0	193,000	3,377,000
Subtotal	270,314,000	307,605,000	334,984,000	340,608,000	362,879,000
Non-Operating Expenses					
Local Projects	182,154,000	37,219,000	43,620,000	48,620,000	53,620,000
Less GO Bond Contribution	(153,000,000)	0	0	0	0
Regional Projects	20,000,000	19,959,000	25,000,000	25,000,000	25,000,000
Wholesale Projects	0	0	0	0	0
Hetchy Water Projects	0	0	0	0	0
Treasure Island Facilities Maintenance	1,350,000	0	1,431,000	1,474,000	1,518,000
525 Golden Gate Lease	9,167,000	9,833,000	9,178,000	9,139,000	9,063,000
Subtotal	59,671,000	67,011,000	79,229,000	84,233,000	89,201,000
Total Expenses	627,489,000	672,057,000	721,961,000	740,850,000	779,936,000
Revenues Less Expenses	8,904,000	(8,060,000)	(20,052,000)	16,629,000	19,771,000
Transfer to Wholesale Coverage Reserve	(30,926,000)	(3,915,000)	(3,429,000)	(216,000)	(2,208,000)
Ending Fund Reserves					
Unappropriated Fund Reserves	137,220,000	125,245,000	101,764,000	118,177,000	135,740,000
Wholesale Coverage Reserves	34,836,000	38,751,000	42,180,000	42,396,000	44,604,000
Total	172,056,000	163,996,000	143,944,000	160,573,000	180,344,000
Annual Revenues	636,393,000	663,997,000	701,909,000	757,479,000	799,707,000
Plus Reserves Budgeted as Revenues	27,313,000	22,096,000	0	0	0
Less Revs Excluded from Coverage Calc	(7,166,000)	(7,206,000)	(7,310,000)	(7,395,000)	(7,512,000)
Less Operating & Maintenance Expenses	(297,504,000)	(297,441,000)	(307,748,000)	(316,009,000)	(327,856,000)
Less Operating Carryforwards/Adjustments	(44,314,000)	0	0	0	0
Net Revenues (Current Basis)	314,722,000	381,446,000	386,851,000	434,075,000	464,339,000
Plus Beginning Fund Rsrvs (Excl Budgeted Rsrvs)	135,839,000	149,960,000	163,996,000	143,944,000	160,573,000
Other Adjustments (per SFPUC)	(28,968,000)	0	0	0	0
Net Revenues (Indenture Basis with Reserves)	421,593,000	531,406,000	550,847,000	578,019,000	624,912,000
Annual Debt Service	270,314,000	307,605,000	334,984,000	340,608,000	362,879,000
Debt Service Coverage, Current Basis	1.16	1.24	1.15	1.27	1.28
Debt Service Coverage, Indenture Basis	1.56	1.73	1.64	1.70	1.72

Table 1 - SFPUC Water Cash Flow Projections

Years 6 - 10

	2025/26	2026/27	2027/28	2028/29	2029/30
Retail Water Rate Adjustments	6.0%	4.0%	4.0%	4.0%	4.0%
Change in Retail Demand	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
Retail Water Sales (ccf)	28,350,000	28,210,000	28,070,000	27,930,000	27,790,000
Change in Wholesale Demand	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
Wholesale Water Sales (ccf)	63,030,000	62,710,000	62,400,000	62,090,000	61,780,000
Wholesale Water Rate (\$/ccf)	\$5.26	\$5.40	\$5.70	\$6.07	\$6.30
Wholesale Blended Water Rate (\$/ccf)	\$5.25	\$5.38	\$5.66	\$6.04	\$6.26
Interest Earnings Rate	1.0%	1.0%	1.0%	1.0%	1.0%
O&M Cost Escalation	3.0%	3.0%	3.0%	3.0%	3.0%
Beginning Fund Reserves					
Unappropriated Fund Reserves	\$135,740,000	\$147,479,000	\$181,963,000	\$228,008,000	\$259,250,000
Fund Reserves Budgeted as Revenues	0	0	0	0	0
Wholesale Coverage Reserves	44,604,000	47,841,000	48,974,000	52,172,000	55,587,000
Total	180,344,000	195,320,000	230,937,000	280,180,000	314,837,000
Revenues					
Retail Water Charges	439,345,000	454,634,000	470,455,000	486,827,000	503,769,000
Wholesale Volumetric Charges	330,908,000	337,380,000	353,184,000	375,024,000	386,743,000
Wholesale Fixed Service Charges	4,300,000	4,300,000	4,300,000	4,300,000	4,300,000
Interest Income	3,273,000	3,423,000	3,779,000	4,022,000	4,118,000
Capacity Chgs & Other Capital Revs	1,520,000	1,580,000	1,644,000	1,644,000	1,634,000
Rental Income	14,536,000	14,972,000	15,421,000	15,884,000	16,361,000
Other Miscellaneous Income	17,962,000	18,515,000	19,084,000	19,671,000	20,276,000
Programmatic Revenues	8,682,000	8,707,000	8,738,000	8,800,000	8,870,000
BABs Interest Subsidies (Net of Sequest.)	19,876,000	19,345,000	18,772,000	18,164,000	17,524,000
Subtotal	840,402,000	862,856,000	895,377,000	934,336,000	963,595,000
Operation & Maintenance Expenses					
Personnel	118,001,000	121,541,000	125,187,000	128,943,000	132,811,000
Utilities	11,792,000	12,146,000	12,510,000	12,885,000	13,272,000
Non-Personal Services	22,854,000	23,540,000	24,246,000	24,973,000	25,722,000
Materials/Supplies/Equipment	21,744,000	22,396,000	23,068,000	23,760,000	24,473,000
Services of SFPUC Bureaus	63,266,000	65,164,000	67,119,000	69,133,000	71,207,000
Services of Other Departments	16,686,000	17,187,000	17,703,000	18,234,000	18,781,000
Hetch Hetchy Assessment	50,660,000	52,180,000	53,745,000	55,357,000	57,018,000
Other Operating Expenses	7,036,000	7,247,000	7,464,000	7,688,000	7,919,000
Programmatic Projects (Excl 525 GG Lease)	25,919,000	26,389,000	25,752,000	26,319,000	26,902,000
Subtotal	337,958,000	347,790,000	356,794,000	367,292,000	378,105,000
Debt Service, Net of Capitalized Interest					
Outstanding Parity Debt	343,647,000	342,223,000	340,167,000	339,567,000	339,720,000
BAWSCA Prepayment Defeasance	0	0	0	0	0
Projected Debt: Local & Regional Water	42,106,000	50,302,000	64,371,000	87,134,000	112,313,000
Projected Debt: Hetchy Water	7,550,000	11,295,000	17,687,000	24,667,000	30,732,000
Subtotal	393,303,000	403,820,000	422,225,000	451,368,000	482,765,000
Non-Operating Expenses					
Local Projects	58,620,000	40,125,000	31,644,000	43,644,000	41,962,000
Less Projected GO Bond Funding	0	0	0	0	0
Regional Projects	25,000,000	25,000,000	25,000,000	28,643,000	21,357,000
Wholesale Projects	0	0	0	0	0
Hetchy Water Projects	0	0	0	0	0
Treasure Island Facilities Maintenance	1,560,000	1,600,000	1,650,000	0	0
525 Golden Gate Lease	8,985,000	8,904,000	8,821,000	8,732,000	8,639,000
Subtotal	94,165,000	75,629,000	67,115,000	81,019,000	71,958,000
Total Expenses	825,426,000	827,239,000	846,134,000	899,679,000	932,828,000
Revenues Less Expenses	14,976,000	35,617,000	49,243,000	34,657,000	30,767,000
Transfer to Wholesale Coverage Reserve	(3,237,000)	(1,133,000)	(3,198,000)	(3,415,000)	(2,943,000)
Ending Fund Reserves					
Unappropriated Fund Reserves	147,479,000	181,963,000	228,008,000	259,250,000	287,074,000
Wholesale Coverage Reserves	47,841,000	48,974,000	52,172,000	55,587,000	58,530,000
Total	195,320,000	230,937,000	280,180,000	314,837,000	345,604,000
Annual Revenues	840,402,000	862,856,000	895,377,000	934,336,000	963,595,000
Plus Reserves Budgeted as Revenues	0	0	0	0	0
Less Revs Excluded from Coverage Calc	(7,434,000)	(7,422,000)	(7,414,000)	(7,476,000)	(7,546,000)
Less Operating & Maintenance Expenses	(337,958,000)	(347,790,000)	(356,794,000)	(367,292,000)	(378,105,000)
Less Operating Carryforwards/Adjustments	0	0	0	0	0
Net Revenues (Current Basis)	495,010,000	507,644,000	531,169,000	559,568,000	577,944,000
Plus Beginning Fund Rsrvs (Excl Budgeted Rsrvs)	180,344,000	195,320,000	230,937,000	280,180,000	314,837,000
Other Adjustments (per SFPUC)	0	0	0	0	0
Net Revenues (Indenture Basis with Reserves)	675,354,000	702,964,000	762,106,000	839,748,000	892,781,000
Annual Debt Service	393,303,000	403,820,000	422,225,000	451,368,000	482,765,000
Debt Service Coverage, Current Basis	1.26	1.26	1.26	1.24	1.20
Debt Service Coverage, Indenture Basis	1.72	1.74	1.80	1.86	1.85

Table 2
SFPUC Water Financial Projections
Cash Flow Assumptions

SFPUC Model Basis	Financial projections are based on SFPUC's <i>FY21 Water 10 Year Plan-2020EFGH</i> .
Retail Water Rate Adjustments	Retail water rate adjustments are based on the SFPUC's adopted and projected rate increases.
Retail Water Sales	Retail water sales are based on SFPUC estimates for paying customers for FY 2020/21 and assume future retail water sales change as shown on the table, with future changes roughly based on SFPUC projections.
Wholesale Water Sales	Wholesale water sales projections based SFPUC estimates for FY 2020/21 and assume future wholesale water sales change as shown on the table, with future changes roughly based on SFPUC projections.
Wholesale Water Rates	Based on SFPUC wholesale water rate projections.
BABs Subsidies	BABs subsidies are accounted for as a revenue and are calculated based on a 35% federal reimbursement on interest coming due each fiscal year, adjusted to account for a 5.7% reduction of the 35% reimbursement due to sequestration starting FY2020/21.
Beginning Fund Reserves	Beginning fund reserves based on SFPUC estimates.
Retail Water Charges	Based on SFPUC revenue estimates for FY 2020/21, and subsequently escalate to account for projected rate increases and changes in projected water sales.
Wholesale Water Charges	Based on SFPUC revenue estimates for FY 2020/21, and subsequently are calculated based on volume of wholesale water sales multiplied by the projected wholesale rate.
Interest Income	Interest income is based on SFPUC projections for FY 2020/21 and 2021/22 and subsequently based on the projected interest rate multiplied by estimated fund reserves, which include beginning fund reserves, outstanding debt reserve funds, and an estimate of unspent bond project funds.
Other Revenues	Other revenues are based on SFPUC projections.
Operation & Maintenance Expenses	Most Operation & Maintenance Expenses are based on SFPUC projections for the first two years and subsequently escalate at the annual rate of 3.0% thereafter. Services of Other Departments, Other Operating Expenses, and Programmatic Expenses are based on SFPUC 10-year projections. Programmatic Expenses exclude the 525 Golden Gate Lease Payment and Treasure Island Facilities Maintenance expenses, which are non-operating expenses.
Capital Projects	Capital Project expenses and sources of funding are based on SFPUC projections.
Debt Service Assumptions	Debt assumptions are shown on Table 4, which calculates debt service per \$100 million of project funding. Basic assumptions for most future issues include: a) roughly 30-year terms, b) 5% average annual interest rate, c) debt issuance on Oct-1 with May-1 and Nov-1 payment dates, d) capitalized interest for 2.5 years, e) principal payments amortized over 28 years starting year 3, f) level annual debt service, g) no debt service reserve fund. Future debt service projections are based on SFPUC estimates of annual debt financing requirements and BWA debt service 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 Payments	Note that pursuant to the Indenture, as a procedural requirement the SFPUC is required to make monthly prepayments to the trustee of 1/12th principal and 1/6th semi-annual debt service toward each upcoming bond payment. Debt service payments in the cash flow projections reflect the amount coming due each fiscal year; not the amounts procedurally required to be prepaid each fiscal year.
Non-Operating Expenses	Non-Operating Expenses are based on SFPUC projections and include pay-go capital funding plus 525 Golden Gate Lease Payments and Treasure Island Facility Maintenance.
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 Water Projected Revenues & Expenses (\$ Millions)

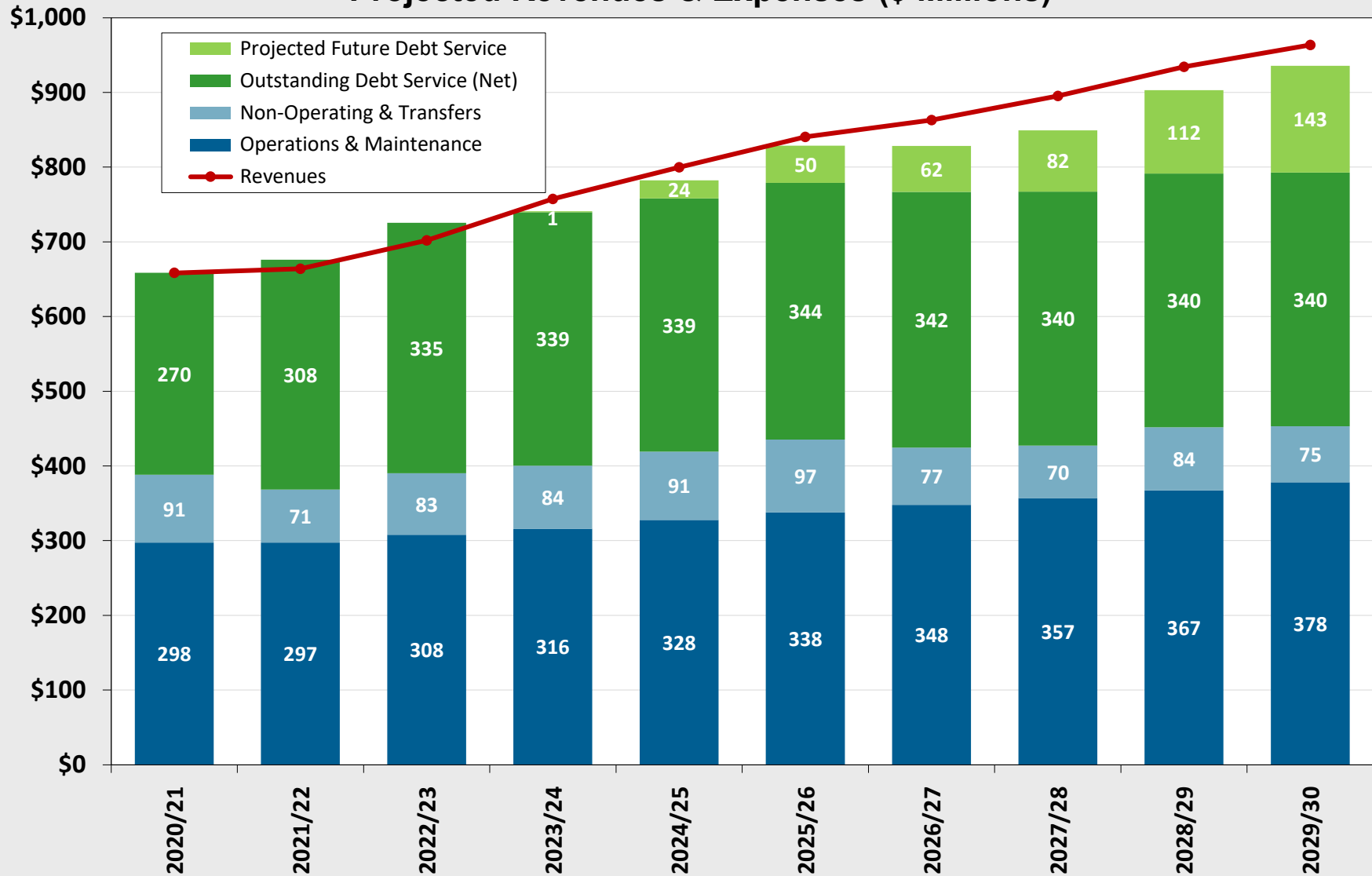


Table 3
San Francisco Public Utilities Commission
10-Year Water Capital Improvement Program & Funding Sources (New Projects)

	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
REGIONAL WATER IMPROVEMENTS										
Water Treatment Program	9,225,000	12,546,000	136,614,000	89,891,000	16,079,000	10,841,000	1,292,000	1,408,000	1,316,000	1,243,000
Water Transmission Program	-	-	15,629,000	26,955,000	23,379,000	22,829,000	18,159,000	21,623,000	8,913,000	5,019,000
Water Supply & Storage Program	-	29,842,000	35,280,000	35,710,000	56,371,000	60,280,000	25,280,000	28,280,000	34,301,000	28,187,000
Watersheds & Land Management	37,720,000	14,861,000	2,812,000	2,350,000	2,350,000	2,355,000	2,355,000	2,355,000	2,360,000	2,360,000
Communication & Monitoring Program	500,000	482,000	500,000	725,000	1,515,000	565,000	565,000	1,570,000	580,000	580,000
Buildings and Grounds Programs	3,000,000	2,000,000	11,967,000	74,930,000	59,462,000	2,200,000	2,200,000	2,205,000	2,210,000	2,225,000
Long Term Monitoring & Perm	4,043,000	4,000,000	3,457,000	3,374,000	1,782,000	1,538,000	1,596,000	1,621,000	1,665,000	1,710,000
Facilities Maintenance - WSTD	-	-	-	-	-	-	-	-	-	-
Subtotal	54,488,000	63,731,000	206,259,000	233,935,000	160,938,000	100,608,000	51,447,000	59,062,000	51,345,000	41,324,000
OTHER CAPITAL IMPROVEMENTS										
Local Water	65,199,000	125,651,000	79,202,000	205,943,000	217,705,000	98,273,000	60,193,000	56,435,000	59,071,000	60,961,000
Auxiliary Water Supply System	153,000,000	-	-	-	-	-	-	-	-	-
Subtotal	218,199,000	125,651,000	79,202,000	205,943,000	217,705,000	98,273,000	60,193,000	56,435,000	59,071,000	60,961,000
HETCH HETCHY PROJECTS: WATER USES	28,368,000	63,965,000	100,102,000	81,726,000	76,692,000	54,678,000	51,362,000	33,567,000	32,714,000	22,110,000
TOTAL	301,055,000	253,347,000	385,563,000	521,605,000	455,335,000	253,559,000	163,002,000	149,064,000	143,130,000	124,395,000
FUNDING SOURCES										
<u>Water Bond Financing</u>										
Water Revenue Bonds (Local)	36,045,000	88,432,000	35,582,000	157,323,000	164,085,000	39,653,000	20,068,000	24,791,000	15,427,000	18,999,000
Water Revenue Bonds (Regional)	34,488,000	43,772,000	181,259,000	208,936,000	135,938,000	75,608,000	26,447,000	34,062,000	22,702,000	19,967,000
Water Revenue Bonds (Hetchy)	28,368,000	63,965,000	100,102,000	81,726,000	76,692,000	54,678,000	51,362,000	33,567,000	32,714,000	22,110,000
Subtotal	98,901,000	196,169,000	316,943,000	447,985,000	376,715,000	169,939,000	97,877,000	92,420,000	70,843,000	61,076,000
<u>Cash Funding & Contributions</u>										
Proceeds from General Obligation Bonds	153,000,000	-	-	-	-	-	-	-	-	-
Pay-Go Revenue Funding: Local	27,600,000	35,699,000	42,100,000	47,100,000	52,100,000	57,100,000	38,545,000	30,000,000	42,000,000	40,328,000
Pay-Go Revenue Funding: Regional	20,000,000	19,959,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	28,643,000	21,357,000
Capacity Charges	1,554,000	1,520,000	1,520,000	1,520,000	1,520,000	1,520,000	1,580,000	1,644,000	1,644,000	1,634,000
Subtotal	202,154,000	57,178,000	68,620,000	73,620,000	78,620,000	83,620,000	65,125,000	56,644,000	72,287,000	63,319,000
TOTAL	301,055,000	253,347,000	385,563,000	521,605,000	455,335,000	253,559,000	163,002,000	149,064,000	143,130,000	124,395,000

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

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

Repayment Term		Water Bonds 30 Years	Hetchy Bonds 30 Years
Funding Target		Per each \$100,000,000	Per each \$100,000,000
Assumed Issuance & Payment Dates			
Bond Issuance Date		Oct-1	Oct-1
Principal Payment		Nov-1	Nov-1
Total Debt Issue		\$115,300,000	\$115,300,000
Project Funding		\$100,000,000	\$100,000,000
Issuance Costs & Reserve Requirement			
Underwriter Discount	0.50%	\$577,000	\$577,000
Issuance Costs	Est.	300,000	300,000
Reserve Requirement		0	0
Capitalized Interest	2.50	14,413,000	14,413,000
Rounding/Contingency		<u>10,000</u>	<u>10,000</u>
Total		15,300,000	15,300,000
Financing Terms			
Term (Years)		30	30
Interest Only (Years)		2.50	2.50
Principal Amortization (Years)		28	28
Est. Average Interest Rate		5.00%	5.00%
Annual Debt Service			
Interest Only Period		5,765,000	5,765,000
Principal Amortization Period		7,739,000	7,739,000
Financing costs and interest rates estimated for financial planning purposes.			

Table 5
SFPUC Water Enterprise
Projected Bond Issues: Water

Debt Issuance by FY	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Future Bond Funding Needs for CIP Projects Budgeted in Year										
Water Revenue Bonds (Local)	34,488,000	43,772,000	181,259,000	208,936,000	135,938,000	75,608,000	26,447,000	34,062,000	22,702,000	19,967,000
Water Revenue Bonds (Regional)	36,045,000	88,432,000	35,582,000	157,323,000	164,085,000	39,653,000	20,068,000	24,791,000	15,427,000	18,999,000
Total	70,533,000	132,204,000	216,841,000	366,259,000	300,023,000	115,261,000	46,515,000	58,853,000	38,129,000	38,966,000
Bond Funding in Year (per SFPUC Projections)										
Water Revenue Bonds (Local)	-	116,767,000	134,789,000	62,238,000	62,007,000	96,452,000	160,704,000	101,869,000	29,861,000	22,429,000
Water Revenue Bonds (Regional)	-	134,493,000	151,737,000	39,130,000	112,515,000	195,097,000	172,437,000	105,773,000	51,027,000	30,255,000
Total	-	251,260,000	286,526,000	101,368,000	174,522,000	291,549,000	333,141,000	207,642,000	80,888,000	52,684,000
Financing Terms										
Bond Funding Proceeds		251,260,000	286,526,000	101,368,000	174,522,000	291,549,000	333,141,000	207,642,000	80,888,000	52,684,000
Total Issue Size		289,700,000	330,360,000	116,880,000	201,220,000	336,160,000	384,110,000	239,410,000	93,260,000	60,740,000
Issuance Date		Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1
Issuance Year		2021	2022	2023	2024	2025	2026	2027	2028	2029
Interest Payments		May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1
Principal Payments (Year 3+)		Nov-1	Nov-1	Nov-1	Nov-1	Nov-1	Nov-1	Nov-1	Nov-1	Nov-1
Average Interest Rate		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Repayment Term (Years)		30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50
Capitalized Interest (Years)		2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Debt Service per \$100M										
Interest Only Period (2.5 Yrs)		5,765,000	5,765,000	5,765,000	5,765,000	5,765,000	5,765,000	5,765,000	5,765,000	5,765,000
Principal Amort Period (28 Yrs)		7,739,000	7,739,000	7,739,000	7,739,000	7,739,000	7,739,000	7,739,000	7,739,000	7,739,000
Annual Debt Service										
Interest Only Period		14,485,000	16,518,000	5,844,000	10,061,000	16,808,000	19,206,000	11,971,000	4,663,000	3,037,000
Principal Amort Period		19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000
Cumulative MADS		19,445,000	41,619,000	49,464,000	62,970,000	85,533,000	111,315,000	127,384,000	133,644,000	137,721,000

Table 6
SFPUC Water Enterprise
Projected Debt Service on Future Financings: Water

Fiscal Year Ending June 30	2021/22 Bonds	2022/23 Bonds	2023/24 Bonds	2024/25 Bonds	2025/26 Bonds	2026/27 Bonds	2027/28 Bonds	2028/29 Bonds	2029/30 Bonds	Total Net of Cap I
2023										0
2024	1,207,000									1,207,000
2025	19,445,000	1,377,000								20,822,000
2026	19,445,000	22,174,000	487,000							42,106,000
2027	19,445,000	22,174,000	7,845,000	838,000						50,302,000
2028	19,445,000	22,174,000	7,845,000	13,506,000	1,401,000					64,371,000
2029	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	1,601,000				87,134,000
2030	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	998,000			112,313,000
2031	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	389,000		127,773,000
2032	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	253,000	133,897,000
2033	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2034	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2035	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2036	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2037	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2038	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2039	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2040	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2041	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2042	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2043	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2044	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2045	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2046	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2047	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2048	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2049	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2050	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2051	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2052	19,445,000	22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	137,721,000
2053		22,174,000	7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	118,276,000
2054			7,845,000	13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	96,102,000
2055				13,506,000	22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	88,257,000
2056					22,563,000	25,782,000	16,069,000	6,260,000	4,077,000	74,751,000
2057						25,782,000	16,069,000	6,260,000	4,077,000	52,188,000
2058							16,069,000	6,260,000	4,077,000	26,406,000
2059								6,260,000	4,077,000	10,337,000
2060									4,077,000	4,077,000

Table 7
SFPUC Water Enterprise
Projected Bond Issues: Hetchy Water

Debt Issuance by FY	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Future Bond Funding Needs for CIP Projects Budgeted in Year										
Water Revenue Bonds (Hetchy)	28,368,000	63,965,000	100,102,000	81,726,000	76,692,000	54,678,000	51,362,000	33,567,000	32,714,000	22,110,000
Bond Funding in Year (per SFPUC Projections)										
Water Revenue Bonds (Hetchy)		40,256,000	54,441,000	46,166,000	82,033,000	90,914,000	79,209,000	65,685,000	53,020,000	42,465,000
Financing Terms										
Bond Funding Proceeds		40,256,000	54,441,000	46,166,000	82,033,000	90,914,000	79,209,000	65,685,000	53,020,000	42,465,000
Total Issue Size		46,420,000	62,770,000	53,230,000	94,580,000	104,820,000	91,330,000	75,730,000	61,130,000	48,960,000
Issuance Date		Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1	Oct-1
Issuance Year		2021	2022	2023	2024	2025	2026	2027	2028	2029
Interest Payments		May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1	May-1 & Nov-1
Principal Payments (Year 3+)		Nov-1	Nov-1	Nov-1	Nov-1	Nov-1	Nov-1	Nov-1	Nov-1	Nov-1
Average Interest Rate		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Repayment Term (Years)		30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50
Capitalized Interest (Years)		2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Debt Service per \$100M										
Interest Only Period (2.5 Yrs)		5,765,000	5,765,000	5,765,000	5,765,000	5,765,000	5,765,000	5,765,000	5,765,000	5,765,000
Principal Amort Period (28 Yrs)		7,739,000	7,739,000	7,739,000	7,739,000	7,739,000	7,739,000	7,739,000	7,739,000	7,739,000
Annual Debt Service										
Interest Only Period		2,321,000	3,139,000	2,661,000	4,729,000	5,241,000	4,566,000	3,787,000	3,057,000	2,448,000
Principal Amort Period		3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000
Cumulative MADS		3,115,000	7,328,000	10,901,000	17,250,000	24,286,000	30,416,000	35,499,000	39,602,000	42,888,000

Table 8
SFPUC Water Enterprise
Projected Debt Service on Future Financings: Hetchy Water

Fiscal Year Ending June 30	2021/22 Bonds	2022/23 Bonds	2023/24 Bonds	2024/25 Bonds	2025/26 Bonds	2026/27 Bonds	2027/28 Bonds	2028/29 Bonds	2029/30 Bonds	Total Net of Cap I
2023										0
2024	193,000									193,000
2025	3,115,000	262,000								3,377,000
2026	3,115,000	4,213,000	222,000							7,550,000
2027	3,115,000	4,213,000	3,573,000	394,000						11,295,000
2028	3,115,000	4,213,000	3,573,000	6,349,000	437,000					17,687,000
2029	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	381,000				24,667,000
2030	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	316,000			30,732,000
2031	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	255,000		35,754,000
2032	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	204,000	39,806,000
2033	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2034	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2035	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2036	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2037	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2038	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2039	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2040	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2041	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2042	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2043	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2044	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2045	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2046	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2047	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2048	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2049	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2050	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2051	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2052	3,115,000	4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	42,888,000
2053		4,213,000	3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	39,773,000
2054			3,573,000	6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	35,560,000
2055				6,349,000	7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	31,987,000
2056					7,036,000	6,130,000	5,083,000	4,103,000	3,286,000	25,638,000
2057						6,130,000	5,083,000	4,103,000	3,286,000	18,602,000
2058							5,083,000	4,103,000	3,286,000	12,472,000
2059								4,103,000	3,286,000	7,389,000
2060									3,286,000	3,286,000

Table 9
SFPUC Water Enterprise
Outstanding Debt

Fiscal Year Ending	2010 BEG Bonds (BABs)	2011 BC Bonds	2015 A Bonds	2016 ABC Bonds	2017 ABCDEFG Bonds	2019 ABC Bonds
2021	78,055,698	1,618,700	33,759,094	88,121,202	25,374,673	34,474,694
2022	77,837,563	1,611,600	33,755,319	85,350,514	26,500,755	45,304,279
2023	90,029,785	0	33,753,344	95,387,839	46,825,105	24,133,272
2024	89,554,429	0	44,712,944	84,798,189	46,799,983	24,134,234
2025	89,051,478	0	44,706,569	84,818,317	46,759,969	24,136,204
2026	88,525,873	0	44,709,944	78,432,089	57,423,300	24,131,369
2027	87,962,528	0	33,366,569	88,909,216	57,422,175	24,134,162
2028	87,356,778	0	31,914,694	90,496,316	55,836,050	24,135,354
2029	86,714,665	0	31,911,944	90,475,997	55,905,300	24,135,836
2030	86,036,065	0	31,910,319	90,464,536	56,754,425	24,136,358
2031	85,330,365	0	31,908,381	90,442,122	46,259,175	24,135,417
2032	95,270,230	0	31,913,568	64,737,580	26,987,150	50,521,743
2033	94,234,614	0	31,911,568	64,723,039	55,309,125	25,553,858
2034	93,155,810	0	31,914,768	64,722,929	65,660,875	25,555,318
2035	92,023,979	0	31,912,768	64,744,534	64,290,500	25,541,023
2036	90,858,609	0	31,908,659	64,787,884	12,039,375	84,031,293
2037	89,634,039	0	31,913,375	64,796,082	13,463,375	98,388,042
2038	88,359,781	0	0	64,797,526	0	101,103,947
2039	87,034,701	0	0	64,791,304	0	51,392,414
2040	85,657,340	0	0	64,787,837	0	51,249,695
2041	84,216,263	0	0	14,568,121	0	51,197,132
2042	31,702,560	0	0	14,569,946	0	51,139,406
2043	31,266,850	0	0	14,568,654	0	62,619,981
2044	30,818,976	0	0	14,572,644	0	62,618,816
2045	30,341,333	0	0	14,569,557	0	0
2046	29,846,313	0	0	14,568,558	0	0
2047	29,330,789	0	0	14,568,600	0	0
2048	28,786,808	0	0	0	0	0
2049	28,221,241	0	0	0	0	0
2050	27,625,789	0	0	0	0	0
2051	27,006,975	0	0	0	0	0
2052	0	0	0	0	0	0
2053	0	0	0	0	0	0
2054	0	0	0	0	0	0
2055	0	0	0	0	0	0

Table 9
SFPUC Water Enterprise
Outstanding Debt

Fiscal Year Ending	2020 ABCD Bonds	2020 EFGH Bonds	SRF Loans	Total Net of Cap I	BABs Interest	BABs Subsidies 35% w/ 5.7% Seq.	Junior Lien 2009 CD Bonds
						33.01%	
2021	0	8,909,732	0	270,313,792	66,135,698	21,828,087	9,167,143
2022	0	30,613,076	6,632,026	307,605,130	65,507,563	21,620,771	9,168,660
2023	15,250,650	22,972,148	6,632,026	334,984,169	64,504,785	21,289,804	9,169,820
2024	15,250,650	27,325,180	6,632,026	339,207,634	63,144,429	20,840,819	9,130,617
2025	15,250,650	27,324,988	6,632,026	338,680,200	61,716,478	20,369,523	9,054,144
2026	15,250,650	28,542,090	6,632,026	343,647,340	60,220,873	19,875,899	8,975,953
2027	15,250,650	28,545,657	6,632,026	342,222,982	58,612,528	19,345,065	8,895,589
2028	15,250,650	28,545,108	6,632,026	340,166,975	56,876,778	18,772,180	8,812,600
2029	15,250,650	28,540,410	6,632,026	339,566,829	55,034,665	18,164,191	8,723,073
2030	15,250,650	28,536,068	6,632,026	339,720,447	53,096,065	17,524,356	8,630,239
2031	15,250,650	38,029,039	6,632,026	337,987,176	51,080,365	16,859,074	8,534,374
2032	15,250,650	47,276,287	6,632,026	338,589,234	48,600,230	16,040,506	8,431,226
2033	15,250,650	38,642,667	6,632,026	332,257,547	45,634,614	15,061,704	8,322,944
2034	15,250,650	29,453,584	6,632,026	332,345,960	42,545,810	14,042,245	8,212,519
2035	15,250,650	29,453,908	6,632,026	329,849,386	39,328,979	12,980,529	8,099,257
2036	15,250,650	29,443,359	6,632,026	334,951,854	35,978,609	11,874,740	7,975,553
2037	15,250,650	16,649,332	6,632,026	336,726,921	32,489,039	10,723,007	7,851,539
2038	15,250,650	30,102,025	6,632,026	306,245,955	28,854,781	9,523,521	7,719,381
2039	15,250,650	80,016,711	6,632,026	305,117,806	25,069,701	8,274,255	7,582,069
2040	15,250,650	80,015,696	6,632,026	303,593,245	21,127,340	6,973,079	7,438,908
2041	15,250,650	80,022,518	6,632,026	251,886,709	17,021,263	5,617,868	7,289,204
2042	15,250,650	80,005,763	6,632,026	199,300,351	14,322,560	4,727,161	7,135,717
2043	15,250,650	22,993,908	6,632,026	153,332,069	13,086,850	4,319,315	0
2044	15,250,650	21,488,890	6,632,026	151,382,002	11,793,976	3,892,602	0
2045	39,109,525	21,484,578	6,632,026	112,137,019	10,441,333	3,446,162	0
2046	39,610,825	21,482,110	6,632,026	112,139,832	9,026,313	2,979,134	0
2047	40,129,225	21,475,947	6,632,026	112,136,586	7,545,789	2,490,488	0
2048	55,229,925	21,485,316	6,632,026	112,134,074	5,996,808	1,979,246	0
2049	79,135,050	0	6,632,026	113,988,317	4,376,241	1,444,378	0
2050	79,730,175	0	6,632,026	113,987,990	2,680,789	884,794	0
2051	80,352,450	0	6,632,026	113,991,451	906,975	299,347	0
2052	0	0	0	0	0	0	0
2053	0	0	0	0	0	0	0
2054	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0