PUBLIC UTILITIES
REVENUE BOND OVERSIGHT COMMITTEE
CITY AND COUNTY OF SAN FRANCISCO
MINUTES - DRAFT

Public Utilities Commission Building
525 Golden Gate Ave., 2nd Floor
Yosemite Conference Room
San Francisco, CA 94102

September 19, 2016 - 9:00 AM

Regular Meeting

Purpose: The purpose of the RBOC is to monitor the expenditure of revenue bond proceeds related to the repair, replacement, upgrading, and expansion of the City's water collection, power generation, water distribution, and wastewater treatment facilities.

Mission: The goal of the RBOC is to make certain public dollars are spent according to authorization and applicable laws. Its purpose is to facilitate transparency and accountability in connection with the expenditure of revenue bond proceeds. The General Public is invited and welcomed to attend RBOC meetings and to provide input.

1. **Call to Order and Roll Call**

Seat 1 Holly Kaufman (Holdover status)
Seat 2 Kevin Cheng, Chair (Holdover status)
Seat 3 Vacant
Seat 4 Vacant
Seat 5 Dari Barzel
Seat 6 Christina Tang, Vice Chair
Seat 7 Jadie Wasilco, Co-Chair

Chair Cheng called the meeting to order at 9:25 a.m. On the call of the roll, Chair Cheng, Members Kaufman, Barzel, and Wasilco were noted present. Vice-Chair Tang was noted not present. There was a quorum.

2. **Agenda Changes**

Items 5 and 6 were called and heard together.

3. **Public Comment:** Members of the public may address the Revenue Bond Oversight Committee (RBOC) on matters that are within the RBOC's jurisdiction but are not on today's agenda.

Public Comment. Speaker: Tim Cronin; provided information on his professional background and expressed his interest in applying to a vacant seat on the Committee.

Vice-Chair Tang was noted present at 9:30 a.m.

4. **San Francisco Public Utilities Commission (SFPUC) Staff Report:** Water System Improvement Program (WSIP) Updates

Dan Wade, WSIP Director (SFPUC); provided an update on the Water System Improvement Program, including the following: program status; recent accomplishments; treatment, storage, and transmission projects; budget revisions, Alameda Creek Recapture project; Calaveras Dam Replacement project; fish passage facilities at Alameda Creek Division Dam project; regional groundwater storage and recovery projects; bioregional habitat restoration projects, and Peninsula non-native vegetation removal; active regional construction contracts; change orders and trends; risks and forecasts. Richard Morales, Debt Manager (SFPUC); and Mark Blake, Deputy City Attorney; provided information and responded to questions and answers throughout the discussion.

Public Comment. Speakers: None.

5. **Presentation of SFPUC Capital Financing Plan for FY2016-2017**

Richard Morales, Debt Manager (SFPUC); provided an overview of the Capital Financing Plan for FY2016-2017, including the following: debt management policies and procedures, debt administration; enterprise and debt overview; market opportunities; existing debt portfolio; new money needs; and proposed FY2016-2017 transactions. Mark Blake, Deputy City Attorney; provided information and responded to questions and answers throughout the discussion.

Public Comment. Speakers: None.

6. **Updated Debt Management Policies and Procedures Approved by the Public Utilities Commission (September 13, 2016)**

Richard Morales, Debt Manager (SFPUC); provided an overview of the Capital Financing Plan for FY2016-2017, including the following: debt management policies and procedures, debt administration; enterprise and debt overview; market opportunities; existing debt portfolio; new money needs; and proposed FY2016-2017 transactions. Mark Blake, Deputy City Attorney; provided information and responded to questions and answers throughout the discussion.

Public Comment. Speakers: None.

7. **Updates to RBOC Mission Statement**

Committee members are to send any edits to the Clerk, which will be included in the packet material for the next agenda.

Public Comment. Speakers: None.

By unanimous consent, this item was CONTINUED to the October 17, 2016, Revenue Bond Oversight Committee meeting.
Ayes: 6 - Cheng, Barzel, Kaufman, Pelosi, Tang, Wasilco

8. **Annual Report Preparation**

Committee members are to send any edits to the Clerk. A working draft will be complied and included in the packet material for the October 17, 2016, Revenue Bond Oversight Committee meeting agenda.

Public Comment. Speakers: None.

9. **Strategic Planning Follow Up: Identifying Studies for Initiation, Metrics for Measuring Committee Performance**

Clerk Derek Evans will reach out to strategic planning session facilitator Carmen Clark regarding a follow-up meeting to be held in January 2017.

Public Comment. Speakers: None.

10. **Announcements, Comments, Questions, and Future Agenda Items**

Chair Cheng requested that the October 17, 2016, Revenue Bond Oversight Committee agenda include a Mountain Tunnel 101 presentation that includes the following: overview of issue, how it is being addressed, project update, project scope and budget, why Mountain Tunnel was not included as part of WSIP, possibility of inclusion in WSIP, project going forward.

RBOC Clerk Derek Evans will work with Mike Brown (SFPUC) to setup next year's schedule, including WSIP presentations and follow-up tour of the Calaveras Dam Relocation project.

The Committee received the attached email from Steve Lawrence regarding the Calaveras Dam Replacement project, capital improvements and financing, ratepayer protection, whistleblowers, and the RBOC annual report.

Public Comment. Speakers: None.

11. **Adjournment**

There being no further business, the meeting adjourned at 11:06 a.m.

N.B. The Minutes of this meeting set forth all actions taken by the Revenue Bond Oversight Committee on the matters stated but not necessarily in the chronological sequence in which the matters were taken up.

Agenda Item Information

Each item on the agenda may include: 1) Department or Agency cover letter and/or report; 2) Public correspondence; 3) Other explanatory documents. For more information concerning agendas, minutes, and meeting information, such as these documents, please contact RBOC Clerk, City Hall, 1 Dr. Carlton B. Goodlett Place, Room 244, San Francisco, CA 94102 – (415) 554-5184.

Audio recordings of the meeting of the Revenue Bond Oversight Committee are available at: http://sanfrancisco.granicus.com/ViewPublisher.php?view_id=97

For information concerning San Francisco Public Utilities Commission please contact by e-mail RBOC@sfgov.org or by calling (415) 554-5184.

Meeting Procedures

Public Comment will be taken before or during the Committee's consideration of each agenda item. Speakers may address the Committee for up to three minutes on that item. During General Public Comment, members of the public may address the Committee on matters that are within the Committee's jurisdiction and are not on the agenda.

Procedures do not permit: 1) persons in the audience to vocally express support or opposition to statements by Commissioners by other persons testifying; 2) ringing and use of cell phones, pagers, and similar sound-producing electronic devices; 3) bringing in or displaying signs in the meeting room; and 4) standing in the meeting room.

The ringing of and use of cell phones, pagers and similar sound-producing electronic devices are prohibited at this meeting. Please be advised that the Chair may order the removal from the meeting room of any person(s) responsible for the ringing or use of a cell phone, pager, or other similar sound-producing electronic devices.

LANGUAGE INTERPRETERS: Requests must be received at least 48 hours in advance of the meeting to help ensure availability. Contact Peggy Nevin at (415) 554-5184. AVISO EN ESPAÑOL: La solicitud para un traductor debe recibirse antes de mediodía de el viernes anterior a la reunion. Llame a Derek Evans (415) 554-5184. PAUNAWA: Ang mga kahilingan ay kailangang matanggap sa loob ng 48 oras bago mag miting upang matiyak na matutugunan ang mga hiling. Mangyaring tumawag kay sa (415) 554-5184.

Disability Access

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翻譯 必須在會議前最少四十八小時提出要求
請電 (415) 554-7719

Know Your Rights Under the Sunshine Ordinance

Government's duty is to serve the public, reaching its decisions in full view of the public. Commissions, boards, councils, and other agencies of the City and County exist to conduct the people's business. This ordinance assures that deliberations are conducted before the people and that City operations are open to the people's review.

For more information on your rights under the Sunshine Ordinance (San Francisco Administrative Code, Chapter 67) or to report a violation of the ordinance, contact by mail: Sunshine Ordinance Task Force, 1 Dr. Carlton B. Goodlett Place, Room 244, San Francisco, CA 94102; phone at (415) 554-7724; fax at (415) 554-7854; or by email at sotf@sfgov.org.

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Lobbyist Registration and Reporting Requirements

Individuals and entities that influence or attempt to influence local legislative or administrative action may be required by the San Francisco Lobbyist Ordinance [SF Campaign & Governmental Conduct Code, Section 2.100, et. seq.] to register and report lobbying activity. For more information about the Lobbyist Ordinance, please contact the Ethics Commission at: 25 Van Ness Avenue, Suite 220, San Francisco, CA 94102; telephone (415) 581-3100; fax (415) 252-3112; website www.sfgov.org/ethics.

WSIP Update
Revenue Bond Oversight Committee

September 19, 2016
Daniel L. Wade, WSIP Director
Infrastructure

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

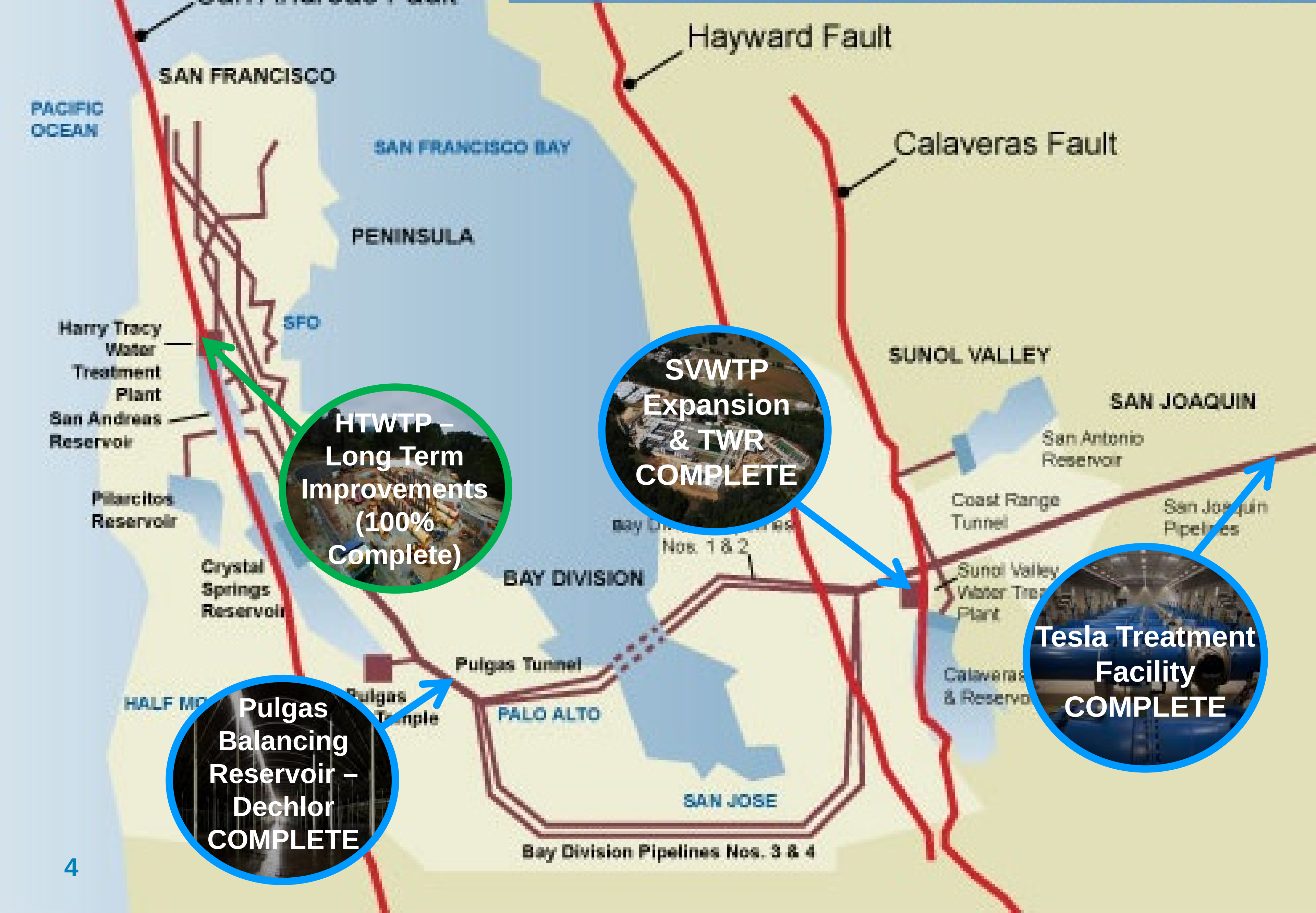
WSIP Program Status

- Regional: **91.4%**
- Local: **99.8%**
- Overall WSIP: **92.2%**

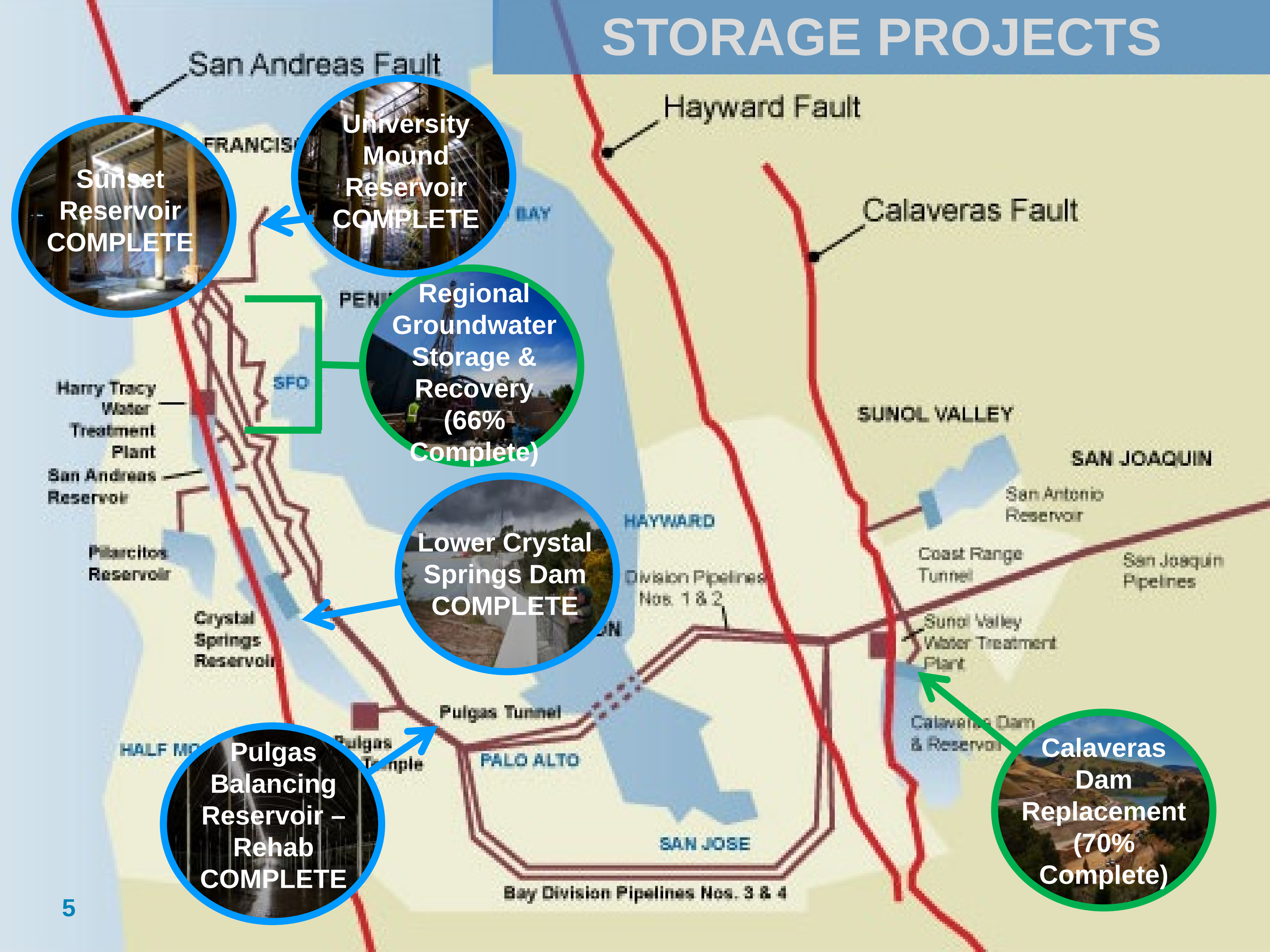
Recent Accomplishments (2016)

- Reached Final Construction Completion on two projects:
  - Peninsula Pipelines Seismic Upgrade
  - BDPL Reliability Upgrade - Tunnel
- Reached Final Project Closeout on four projects:
  - San Joaquin Pipeline System
  - BDPL Reliability Upgrade – Pipeline
  - San Antonio Backup Pipeline
  - Vegetation Restoration of WSIP Construction Sites
- Completed **196** of **206** system shutdowns to date
- Achieved Level of Service on **40** of **43** Regional Projects
- Safety record exemplary based on **8.4 million** recorded hours
- Won 52 Industry Awards in WSIP since 2010

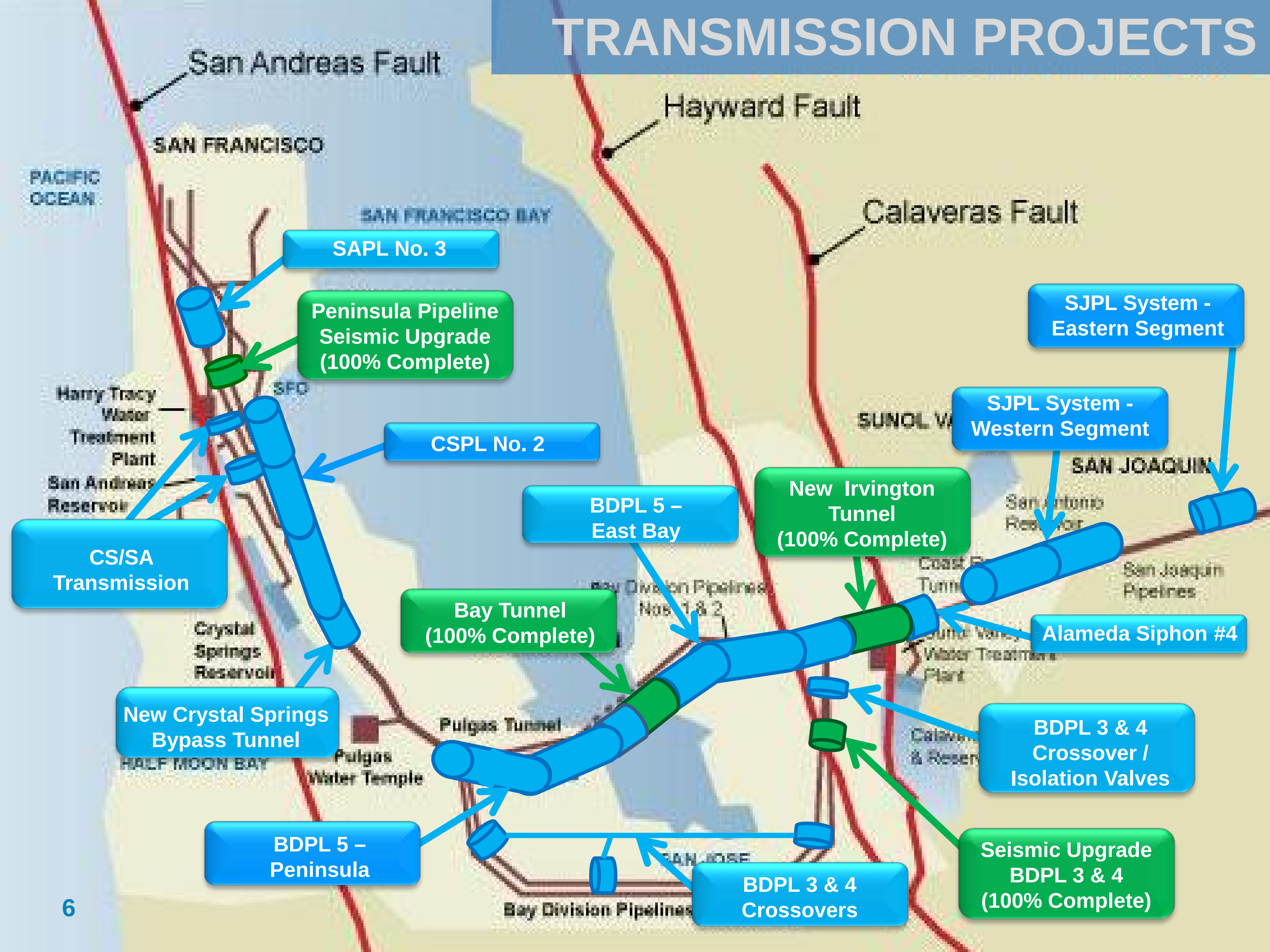
TREATMENT PROJECTS



STORAGE PROJECTS



TRANSMISSION PROJECTS



March 2016 Revised WSIP Summary

- **Scope refinements to four projects**:
  - Alameda Creek Recapture
  - Calaveras Dam Replacement
  - Bioregional Habitat Restoration
  - Watershed Environmental Improvement Program
- Added **WSIP Closeout Project** to each of following regions: San Joaquin, Sunol Valley, Bay Division and Peninsula
- **Revised Program Completion**: December 20, 2019
  - Seven months schedule extension
- **Revised Program Budget**: $4,845.5M
  - $80.0M budget increase (or 1.7%)

March 2016 WSIP Budget Revisions

WSIP Budget	March 2014 Budget	March 2016 Budget	Change
Regional Projects	$3,674,597,918	$3,761,065,661	($86,467,743)
Local Projects	$619,185,753	$612,718,010	$6,467,743
Financing	$471,700,000	$471,700,000*	$0
Program Total	$4,765,483,671	$4,845,483,671	($80,000,000)

*Actual financing costs will be revised downward in future reports based on favorable bond interest rates.

Alameda Creek Recapture (Rendering)

Calaveras Dam Replacement

Spillway Completion


Calaveras Dam
Replacement Project
Spillway Completion
April 2016

Final Dam Foundation Preparation

Whale Skull Fossil

Fish Passage Facilities at Alameda Creek Division Dam

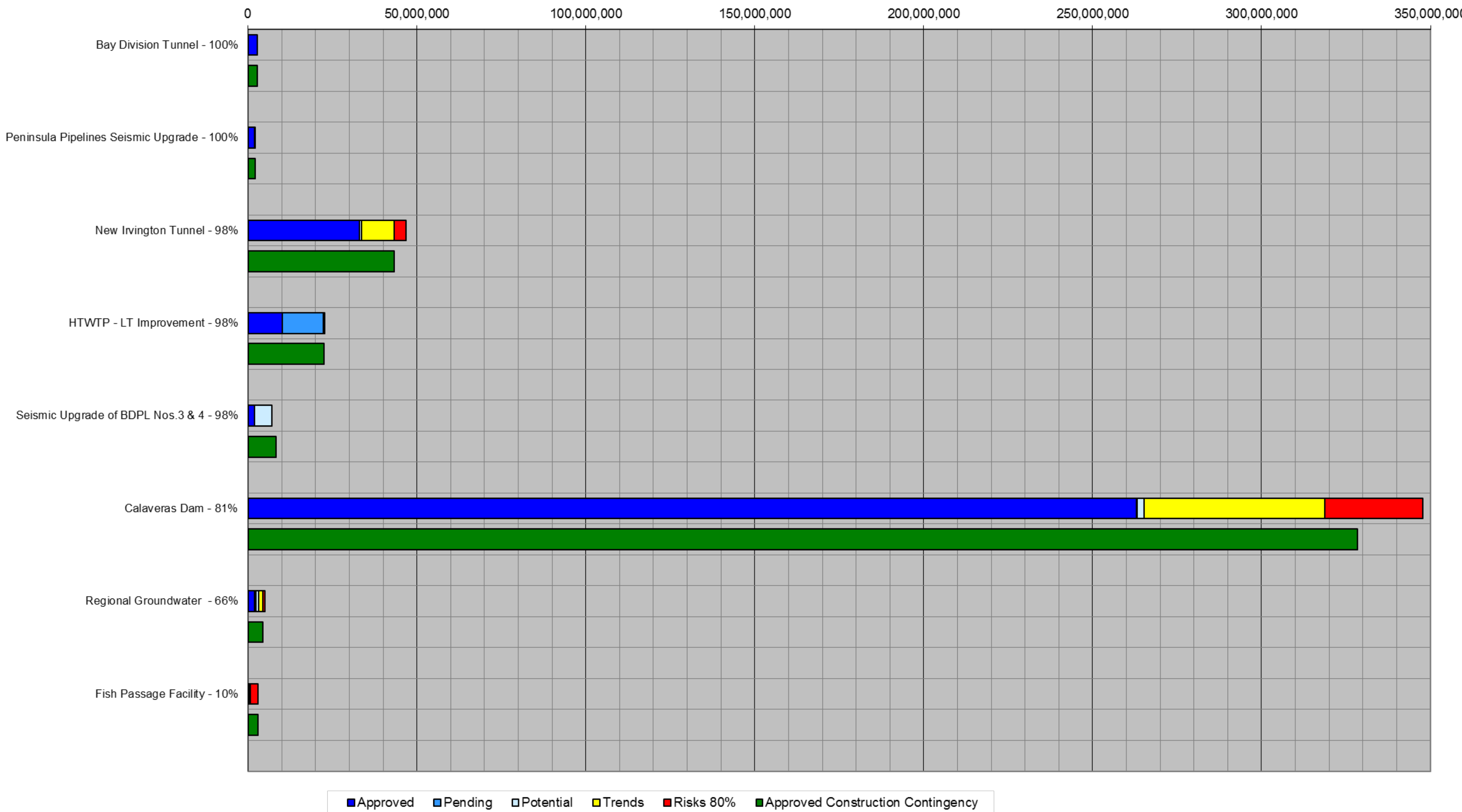
Regional Groundwater Storage & Recovery


BHR – Peninsula Non-Native
Vegetation Removal

WSIP Active Construction Contracts

Approved, Pending, Potential COs, Trends, & Risks vs. Contingency
Status as of 6/30/2016

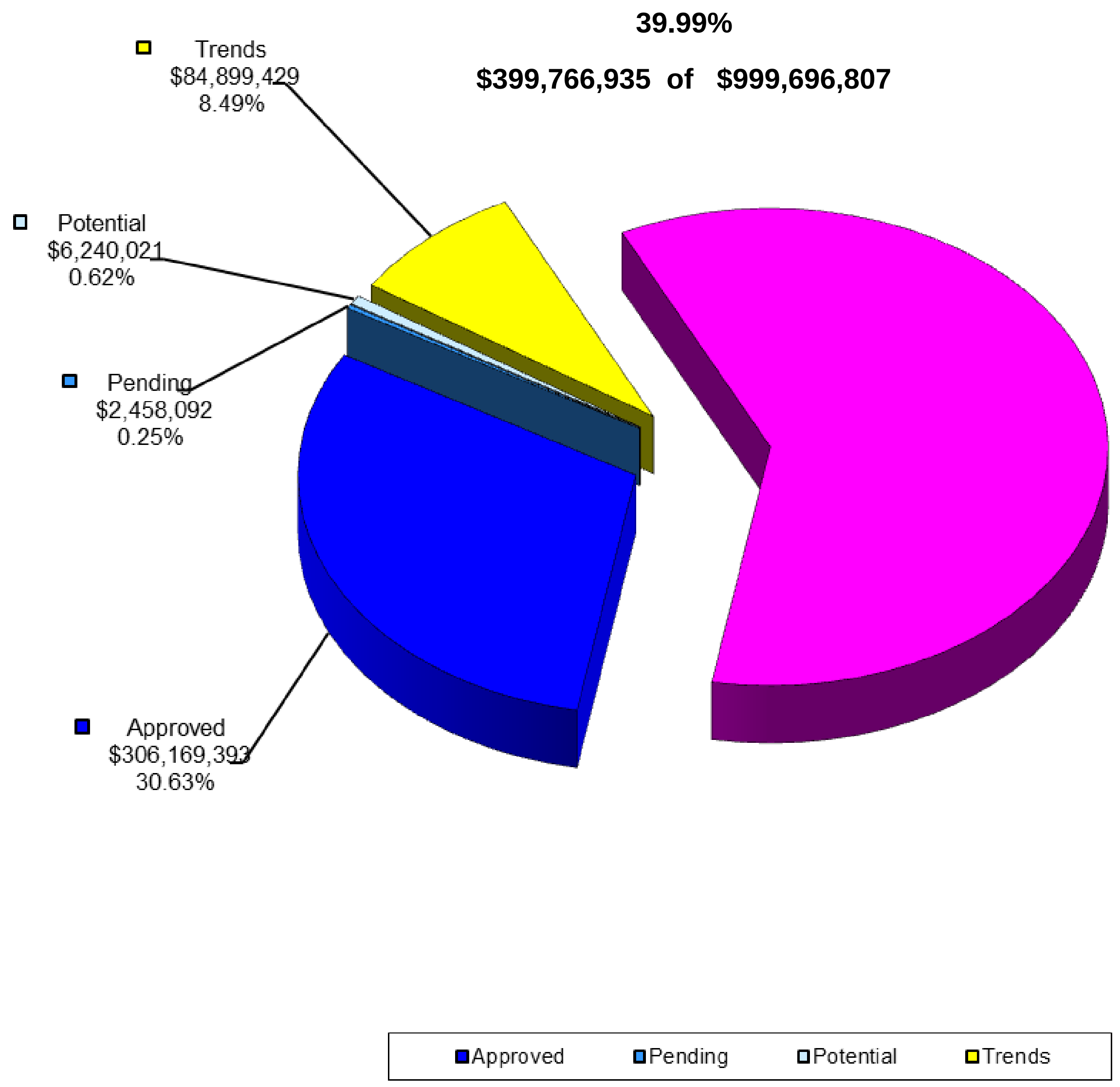
Note: Projects are ordered by Percent Complete



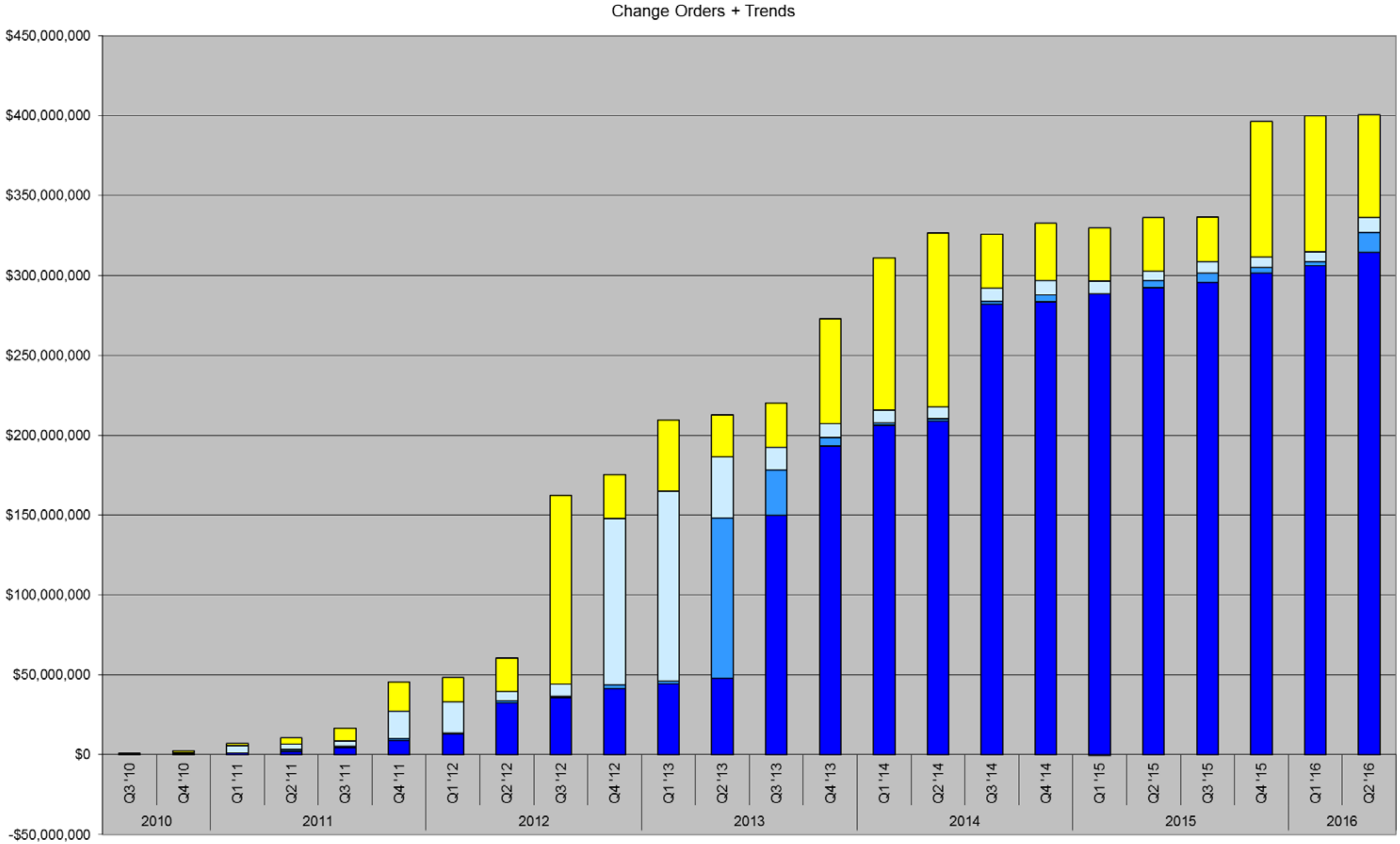
WSIP Active Regional Construction Contracts

Percentage of Projected Changes vs. Awarded Amount

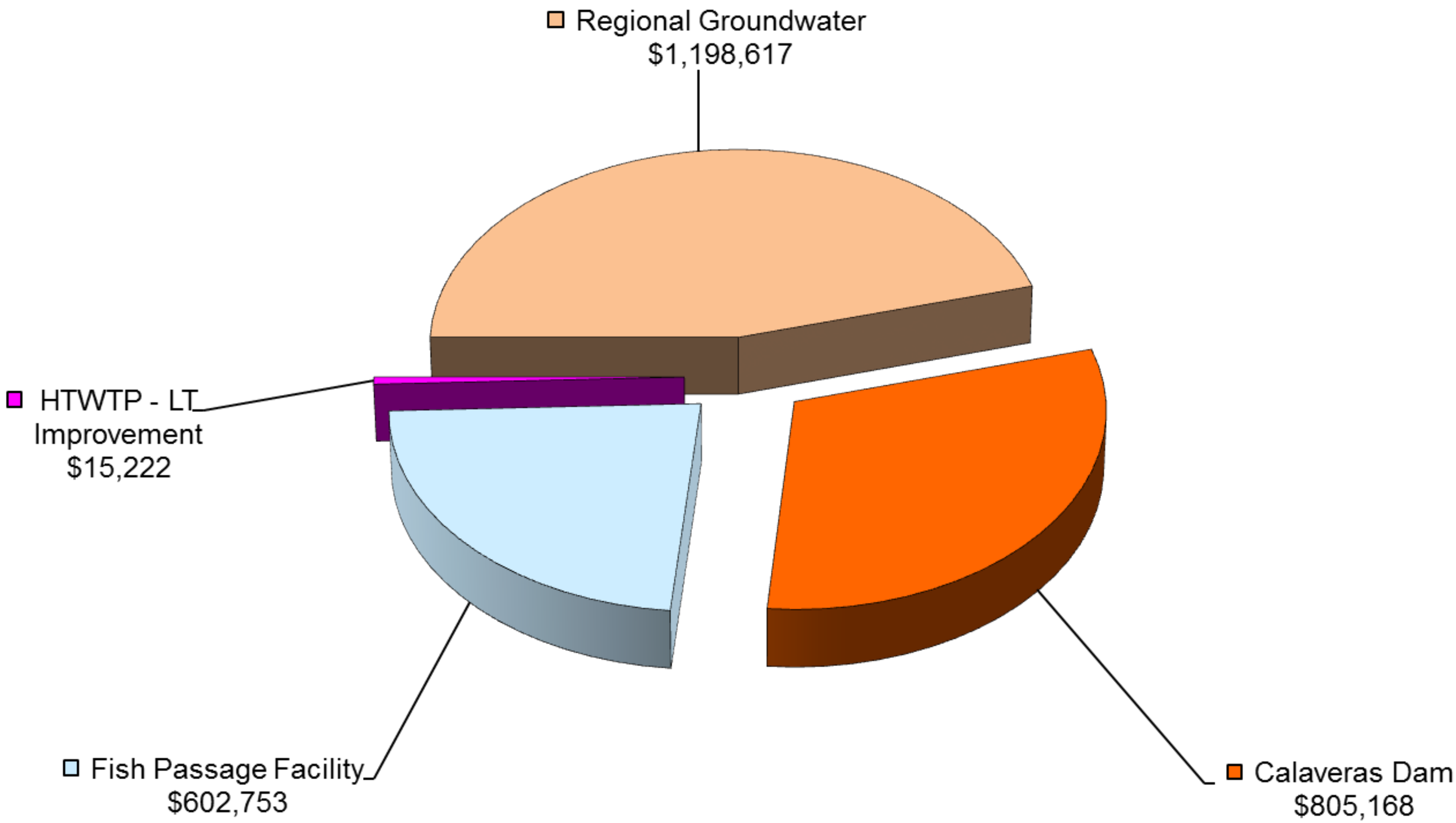
As of 3/31/2016



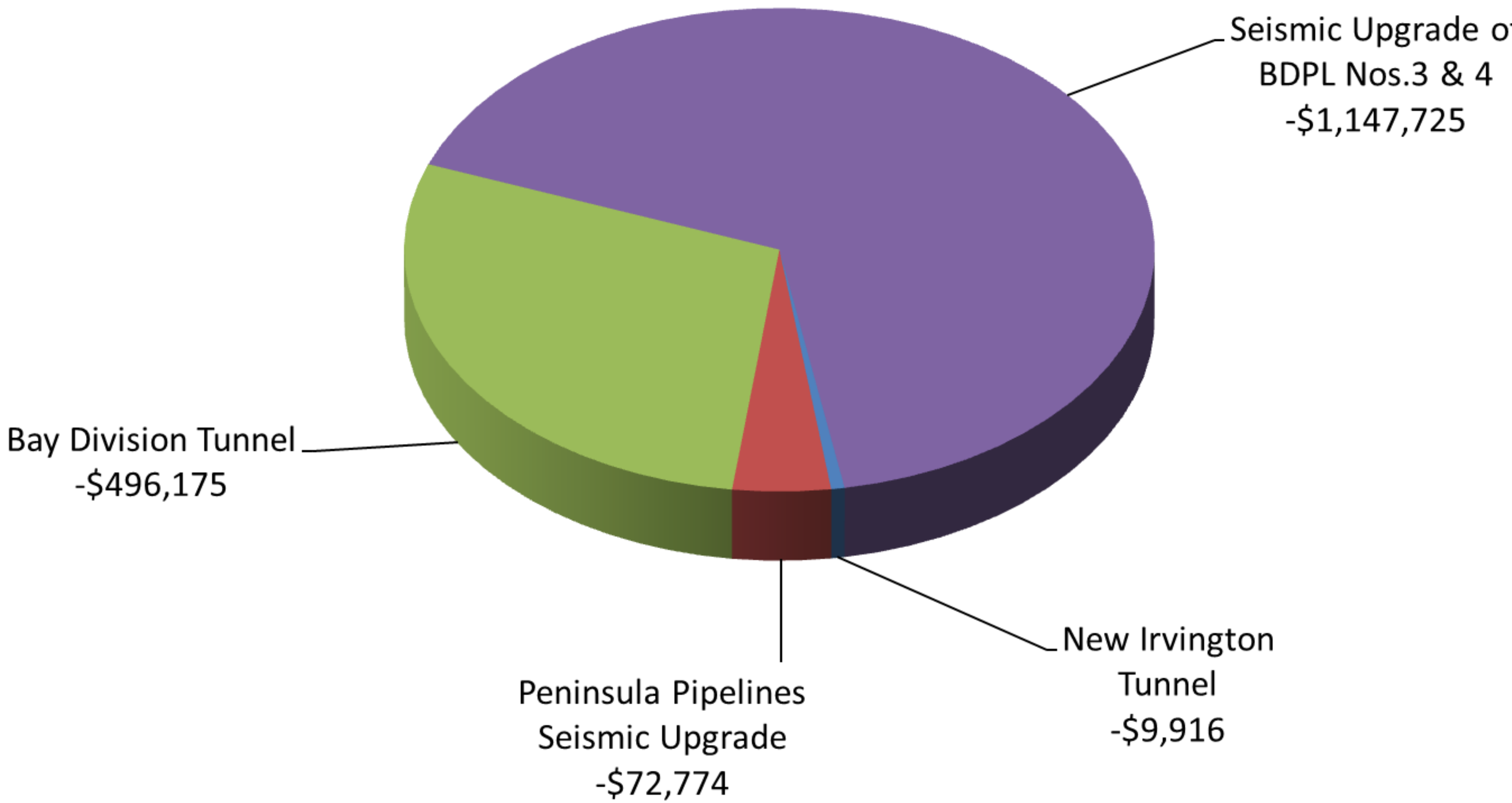
Change Order + Trends (June 2016)



Additions in Forecast
(Approved, Pending, Potential, & Trends)
Second Quarter 2016 = $2,621,760



Deductions in Forecast
(Approved, Pending, Potential, & Trends)
Second Quarter 2016 = -$1,726,590



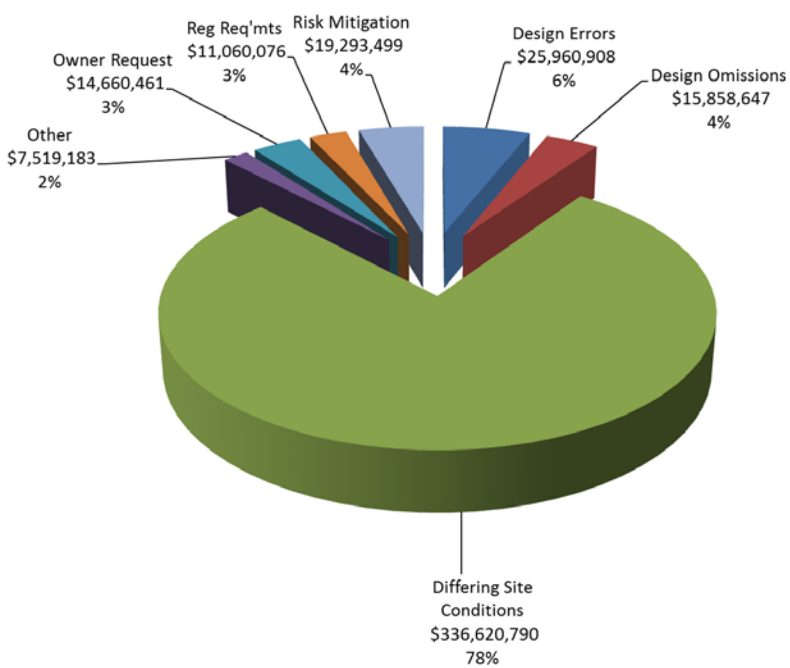
WSIP Active & Completed **including BHR**

Change Order Reason

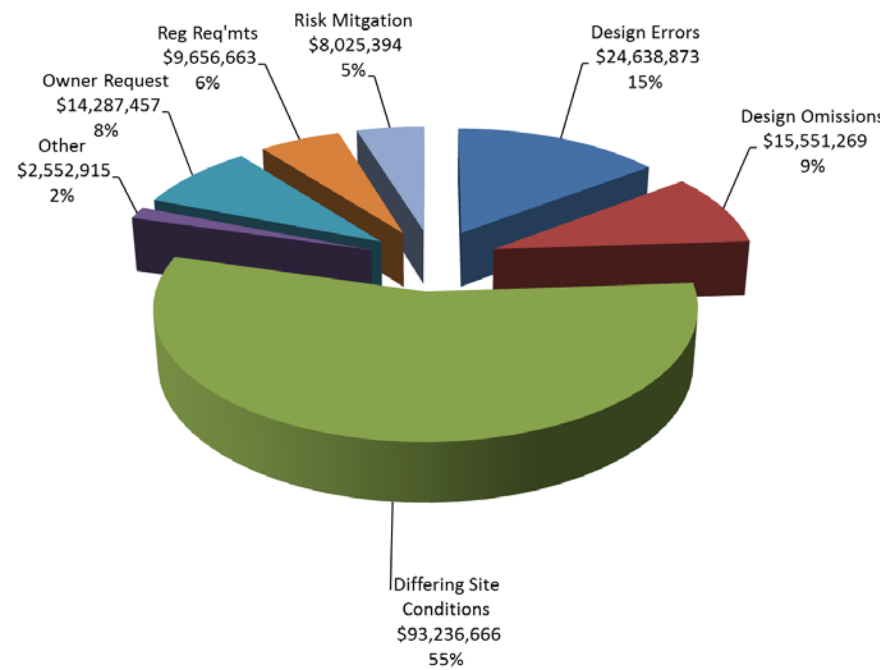
Approved Change Orders

June 2016

Total Approved CO
$430.9M 24%



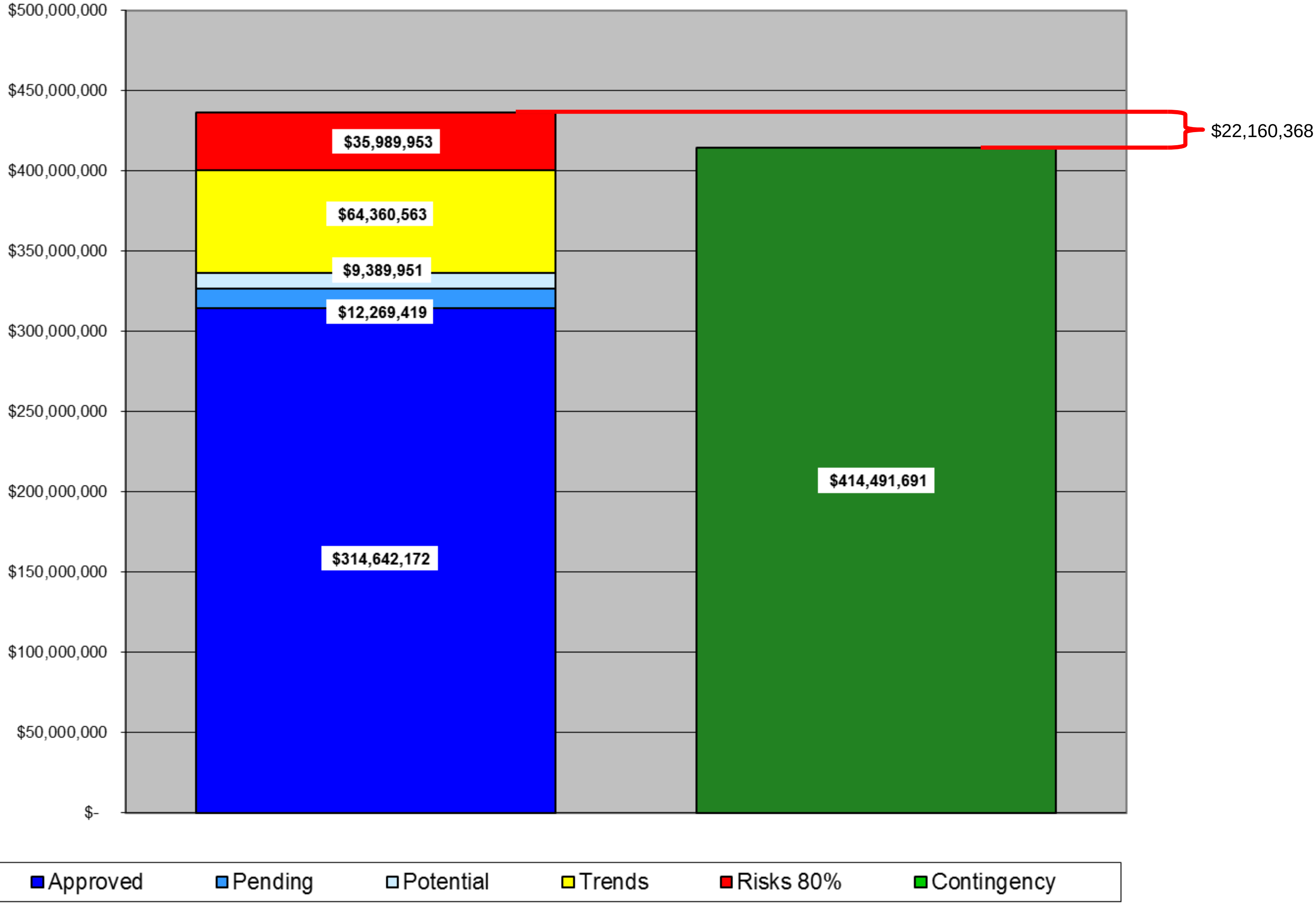
Total less CDRP
$167.9M 11%

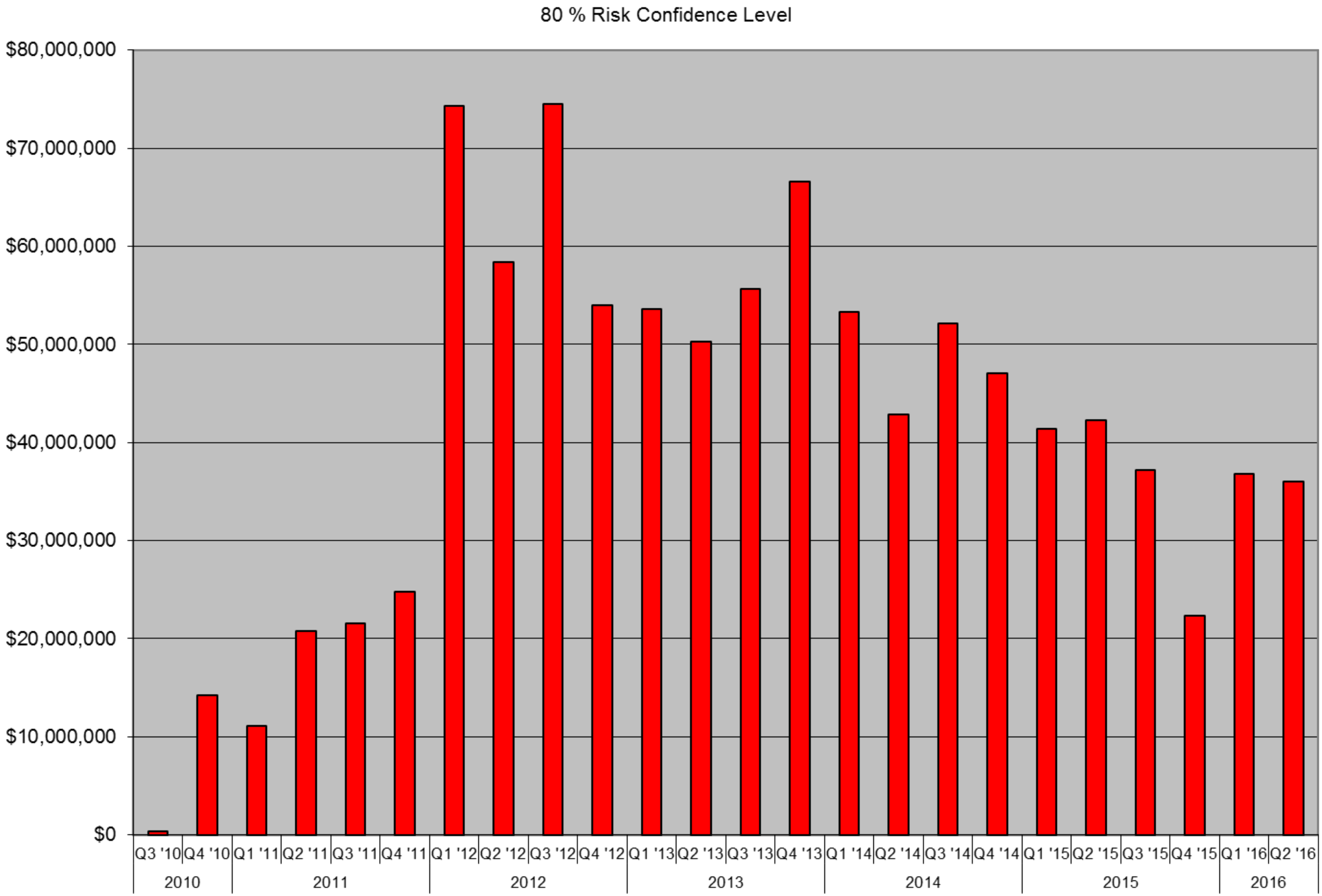


WSIP Active Regional Construction Contracts

Change Orders, Trends, and Risks vs. Contingency

As of 6/30/2016




80 % Risk Confidence Level
$80,000,000
$70,000,000
$60,000,000
$50,000,000
$40,000,000
$30,000,000
$20,000,000
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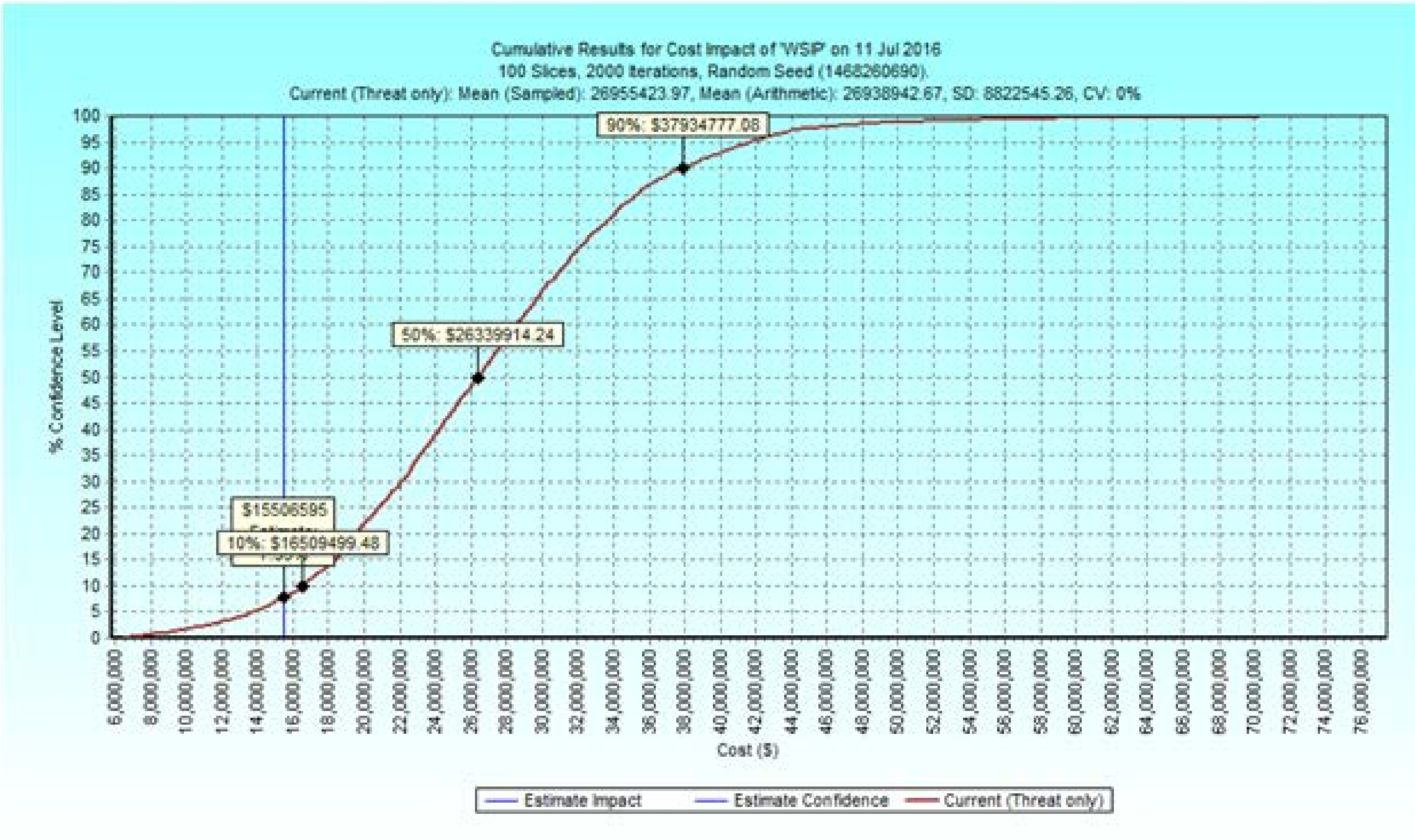
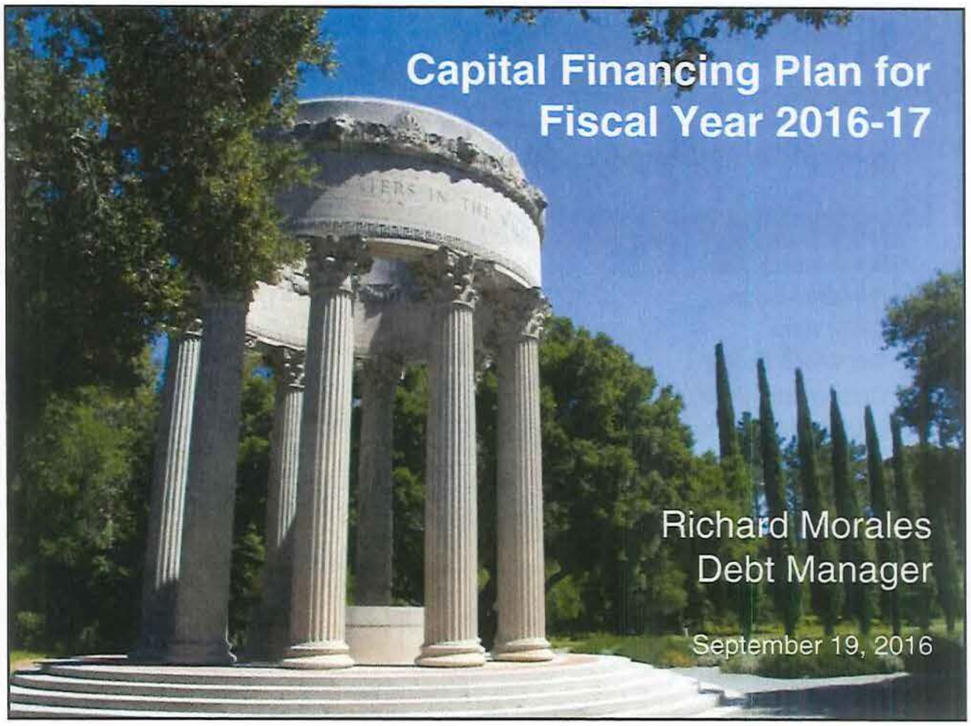
2015
2016


Cumulative Results for Cost Impact of 'WSIP' on 11 Jul 2016
100 Slices, 2000 Iterations, Random Seed (1468260690).
Current (Threat only): Mean (Sampled): 26955423.97, Mean (Arithmetic): 26938942.67, SD: 8822545.26, CV: 0%
90%: $37934777.08
50%: $26339914.24
$15506595
10%: $16509499.48
% Confidence Level
Cost ($)
Estimate Impact
Estimate Confidence
Current (Threat only)



San Francisco Water Power Sewer

Debt Management & Administration

- Large outstanding debt portfolio and significant projected future debt issuance
- Activities guided by Commission Policy
  - "Debt Management Policies & Procedures"
    - Reviewed annually
    - Proposed updates later this meeting
- Revenue Bond Oversight Committee (RBOC)
- Annual Capital Financing Plan
  - Provides the Commission and RBOC visibility regarding upcoming financing activity

2

Enterprise Debt Overview

Summary of Enterprise Debt Programs
(as of September 1, 2016)

	Water	Wastewater	Power
Outstanding Debt			
Revenue Bonds	$4.08B	$1.07B	$39.55M
SRF Loans	-	$7.40M	-
Tax Credit Bonds	-	-	$16.04M
Commercial Paper (Authorized/Issued)	$500M/$236M	$500M/$61M	$90M/$0
Ratings			
Long-Term	Aa3/AA-	Aa3/AA[1]	AA-/A+
Short-Term	P-1/A-1	P-1/A-1	F1/A-1

[1]Upgraded by S&P from AA- in April 2016

3

Three Types of Activities

Market Opportunities

- Active monitoring of credit markets
- Execute refundings that provide debt service savings for ratepayers

Administration of Existing Debt Portfolio

- Renew or replace bank credit facilities for Commercial Paper (CP) Programs
- Increase CP authorization, when needed

New Money Needs

- Issue debt to meet ongoing enterprise capital requirements
- Regular monitoring/analysis of how much and when funds are needed

4

Annual Capital Financing Plan—FY17

Description	Approximate Issue Size	Commission Action Date	Issuance Date
1. Authorize Credit Agreement for Water Bonds Reserve Fund Substitution	$87.4M	9/13/16	10/16
2. Authorize Refunding Bonds For Water Enterprise	$1.10B	9/13/16	10/16
3. Authorize Taxable Revenue Bonds for Water Enterprise	$295M	9/13/16	11/16
4. Approve SRF Loan & Grant for Water Enterprise	$186M	11/22/16	12/16
5. Authorize Revenue Bonds and/or Increase CP Program for Wastewater Enterprise	$300M - $500M	2/17	3/17
6. Approve renewal or replacement of six bank credit facilities for Water & Wastewater CP Programs	$75M - $200M	Various dates from 9/16 to 6/17	Various dates from 10/16 to 7/17

5

Proposed FY 2016-17 Transactions

- Three transactions on September 13th Commission agenda requesting authorization of...
  - Approve Credit Agreements Not-to-Exceed $87.4M to Replace Water Enterprise Debt Service Reserve Funds
  - Authorize the Issuance of up to $1.1 billion of 2016 Series AB Water Revenue Refunding Bonds to Achieve Savings
  - Authorize the Issuance of up to $295 million of 2016 Series C New Money Taxable Water Revenue Bonds
- Upcoming transactions...
  - SRF Loan & Grant for Water Enterprise project
  - New money Wastewater Bonds
  - Possible increase of Wastewater CP authorization
  - Renewal/replacement of 6 CP bank credit facilities

6

Questions

7

Debt Management Policies and Procedures

San Francisco Water Power Sewer

Richard Morales
Debt Manager

September 19, 2016

Debt Management Policies & Procedures

San Francisco Water Power Sewer

- Established March 2004, and updated in 2010, 2013 and 2015
- Consistent with GFOA best practice
- Policy areas covered:
  - Types and Purposes of Debt
  - Debt Authorization and Approval Process
  - Oversight Process
  - Debt Limitations, Methods of Sale & Structuring
  - Ongoing Administration & Disclosure Compliance
  - Post-Issuance Arbitrage / Rebate Tax Compliance
- Multiple benefits

2

Debt Management Policies & Procedures—Updates

- Board of Supervisors' (BOS) authorization
  - Seek BOS debt authorization and Commission delegation of transactions at time of capital appropriation approval
  - Provide BOS with debt report within 30 days of issuance
- Disclosure practices
  - Commission and staff disclosure training
  - Disclose non-public transactions—NCREBs, SRF Loans
  - Report on green bonds spending
- Refunding criteria
  - Advance refunding guidelines

3

Recommended Commission Action

- Adopt the Updated Debt Management Policies & Procedures

4

Questions

5

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

MEMORANDUM

DATE: September 13, 2016

TO: Francesca Vietor, Commission President
Anson Moran, Commission Vice President
Ann Moller Caen, Commissioner
Vince Courtney, Commissioner
Ike Kwon, Commissioner

THROUGH: Harlan L. Kelly, Jr., General Manager

FROM: Eric L. Sandler, CFO and AGM, Business Services

SUBJECT: Proposed Fiscal Year 2016-17 Capital Financing Plan

SUMMARY

Each of the San Francisco Public Utilities Commission's (SFPUC) enterprises relies on the regular issuance of debt to fund a portion of its capital improvement plan. As a result, the SFPUC has a substantial debt management function which is responsible for both managing a large portfolio of outstanding debt and for issuing additional debt to fund future capital improvements. The following table summarizes the outstanding debt and credit ratings of each of the SFPUC enterprises:

Summary of Enterprise Debt
(as of September 1, 2016)

	Water	Wastewater	Power
Outstanding Debt			
Revenue Bonds	$4.08B	$1.07B	$39.55M
SRF Loans	-	$7.40M	-
Tax Credit Bonds	-	-	$16.04M
Commercial Paper (Authorized/Issued)	$500M/$236M	$500M/$61M	$90M/$0
Credit Ratings			
Long-Term	Aa3/AA-	Aa3/AA[1]	AA-/A+
Short-Term	P-1/A-1	P-1/A-1	F1/A-1

[1]Upgraded by S&P from AA- in April 2016

During Fiscal Year 2016-17, the SFPUC is proposing to undertake several debt-related transactions for the Water and Wastewater Enterprises, and no debt-related transactions for the Power Enterprise. The proposed transactions fall into the following three basic categories:

A. Market Opportunities – Changes in bond interest rates may afford the SFPUC a number of opportunities to refund debt to achieve debt service savings and pass savings on to the ratepayers.

B. Administration of Existing Debt Portfolio – The SFPUC's debt portfolio requires renewal or replacement of existing commercial paper program bank credit facilities (ie - letters of credit or liquidity facilities).

C. New Money Needs – The SFPUC finances each enterprise's respective capital plans through a combination of cash and the issuance of debt. Periodically the SFPUC enters the debt markets to raise funds for "new money" capital needs or refund commercial paper.

The proposed transactions are summarized in the following table, including a description of the financing, an approximate size, and the projected timing of Commission action and transaction issuance. Detailed descriptions of the proposed transactions under each category are provided in the next section.

FY 2016-17 Capital Financing Plan

Description	Approximate Issue Size	Commission Action	Issuance
1. Authorize Credit Agreement for Water Bonds Reserve Fund Substitution	$87.4M	9/13/16	10/16
2. Authorize Refunding Bonds For Water Enterprise	$1.10B	9/13/16	10/16
3. Authorize Taxable Revenue Bonds for Water Enterprise	$295M	9/13/16	11/16
4. Approve SRF Loan & Grant for Water Enterprise	$186M	11/22/16	12/16
5. Authorize Revenue Bonds and/or Increase CP Program for Wastewater Enterprise	$300M - $500M	2/17	3/17
6. Approve renewal or replacement of six bank credit facilities for Water & Wastewater CP Programs	$75M - $200M	Various dates from 9/16 to 6/17	Various dates from 10/16 to 7/17

Note: Dates are approximate and subject to change.

DISCUSSION

The following discussion describes the Fiscal Year 2016-17 proposed transactions:

1. ***Authorize Credit Agreement for Water Bonds Reserve Fund Substitution—9/13/16***

Proceeds of certain Water Revenue Bond series were used to fund Debt Service Reserve Funds (DSRFs) that satisfied the Reserve Requirement of the bonds under the Indenture. These cash-funded DSRFs, totaling $87.4M over 5 bond series, are held and invested by the trustee bank. Due to low interest rates, the funds are invested in yields lower than the interest rates paid on the bonds, resulting in negative arbitrage to the SFPUC. The Indenture contains a provision that allows the DSRF cash to be released to the SFPUC and used for capital project spending if the SFPUC substitutes the cash with a credit agreement from a qualified high-grade bank that can be drawn on in a similar manner as cash.

On September 13, 2016, the Commission will be asked to approve a form of Credit Agreement with MUFG Union Bank, N.A. for a term of 6 years, which may be extended for an additional 3 years for each DSRF to be substituted. Upon closing of the Credit Agreement, the trustee will release the cash to the SFPUC. The funds will be used for Water Enterprise capital project spending, including approximately $84M for increased Water System Improvement Program (WSIP) spending, as included in the adopted FY 2016-17 Water Enterprise Capital Plan. It should be noted that the Credit Agreement will remain outstanding as long as the associated debt is outstanding. Should the debt remain outstanding after the 6-year term of the Credit Agreement, the SFPUC may either extend the agreement for up to 3 years or it may enter into a new agreement with another qualified bank. If none of this can occur, then the SFPUC would be required to appropriate and fund new DSRFs for the outstanding bonds. We anticipate closing the Credit Agreement with MUFG Union Bank, N.A. in October 2016.

2. ***Authorize Refunding Bonds for Water Enterprise—9/13/16***

On September 13, 2016, the Commission will be asked to authorize approximately $865M of refunding bonds (the "2016 Series A and B Bonds) that will refund all or a portion of the following outstanding Water Revenue Bonds:

2006 Series B Bonds

2006 Series C Bonds

2009 Series A Bonds

2009 Series B Bonds

2010 Series A Bonds

2010 Series F Bonds

The refunding is projected to result in debt service savings that will meet the SFPUC's Debt Management Policies & Procedures minimum threshold policy of 3% present value savings, and will also comply with the guidelines for issuing advance refunding bonds. Estimated present value savings, based on current market conditions, is in excess of 14% of refunded par which represents $121M projected savings over the remaining life of the debt. The refunding bonds are expected to be sold on a negotiated basis in early October 2016.

3. Authorize Taxable Revenue Bonds for Water Enterprise—9/13/16

On September 13, 2016, the Commission will be asked to authorize the issuance of approximately $250M of Taxable Water Revenue Bonds (the "2016 Series C Bonds"). Proceeds of the 2016 C Taxable Bonds will be used to refinance approximately $236M of outstanding Taxable Commercial Paper (CP). The Taxable CP was issued as part of the WSIP debt financing program. Unlike most of the Bonds that have been issued for WSIP on a tax-exempt basis, the Series 2016 C Bonds will be issued on a taxable basis due to IRS tax regulations requiring that any governmental purpose bonds that benefits non-governmental entities must be taxable. Since WSIP benefits the Wholesale Customers of the Water Enterprise, and since two of the Wholesale Customers are deemed to be non-governmental entities (California Water Service Co. and Stanford University), then a portion of the WSIP debt is required to be issued on a taxable basis based on the allocable portion of water purchases by these Wholesale Customers.

With long-term interest rates for taxable bonds at attractively low levels, staff recommends that the Taxable Water CP be refinanced with 30-year, fixed rate taxable water revenue bonds. In addition, by refinancing the Taxable Water CP, new capacity will be created under the Water Enterprise's $500M Water CP Program that will allow the budgetary encumbrance and expenditure needs of the Water Enterprise's capital improvement program to be met through FY 2017-18 using the lower-cost CP Program. The Series 2016 C Bonds are expected to be sold on a competitive basis in late October 2016.

4. Authorize SRF Loan & Grant for Water Enterprise—11/22/16

It is anticipated that on November 22, 2016 the Commission will be asked to approve an Installment Sale Agreement with the State Water Resources Control Board (the "State") for a Drinking Water SRF Loan & Grant for the $186M Westside Recycled Water Project, a Water Enterprise project. The SFPUC has applied to the State for the Drinking Water SRF Loan & Grant and expects approval in October 2016. The Installment Sale Agreement is expected to provide a 30-year, 1% fixed rate loan in the amount of $171M and a grant in the amount of $15M.

5. Authorize Revenue Bonds and/or Increase CP Program for Wastewater Enterprise—2/17

The SFPUC has budgeted approximately $1.2B of capital expenditures for the Wastewater Enterprise for Fiscal Years 2016-17 and 2017-18. Of this, $1.1B is budgeted to be debt-funded. The Wastewater Enterprise issued $308.4M of new money Wastewater Revenue Bonds in May 2016. Proceeds from this bond issue are projected to fund the Wastewater capital program through March 2017.

It is forecast that the Wastewater Enterprise will have capital expenditure needs of approximately $300M - $500M for the 12-month period after the proceeds of the May 2016 issue are expended. The SFPUC plans to meet these projected spending requirements by either issuing new money Wastewater Revenue Bonds and/or increase the Wastewater CP Program. Debt proceeds will be used to fund SSIP and local R&R projects.

Given the increased rate of spending of the Wastewater capital program, the current $500M CP authorization may not be sufficient to meet the interim spending and encumbrance requirements of the capital program, particularly as the SSIP spending ramps up. Staff will be closely analyzing spending and if necessary, staff will also seek Commission action to approve bank credit facilities to support the increased CP Program. It is expected that the Commission will be asked to take these actions in February 2017.

6. Renew or Replace Bank Credit Facilities for Water & Wastewater CP Programs

During Fiscal Year 2016-17, the Commission will be asked to approve the renewal or replacement of six expiring bank credit facilities (letters of credit or liquidity facilities) that support either the Water or Wastewater CP Program. The credit facilities expire at various times in Fiscal Year 2016-17, so it will be necessary to seek Commission approval for each during the course of the fiscal year. The following table summarizes the expiring bank credit facilities and when Commission action is anticipated to approve the renewal or replacement of each:

Summary of CP Bank Credit Facilities Expiring in FY 2016-17

Bank/Credit Facility	CP Series	Amount	Expiration Date	Commission Action
State Street Bank *Liquidity Facility*	WW Series A-6	$100M	10/20/16	9/27/16
Wells Fargo Bank *Letter of Credit*	WW Series A-1	$75M	2/11/17	1/17
US Bank *Liquidity Facility*	WW Series A-2	$75M	2/8/17	1/17
Bank of America *Letter of Credit*	WW Series A-3	$75M	7/7/17	6/17
Royal Bank of Canada *Letter of Credit*	Water Series A-1	$200M	6/30/17	6/17
US Bank *Liquidity Facility*	Water Series A-2	$100M	6/30/17	6/17

San Francisco Water Power Sewer

Services of the San Francisco Public Utilities Commission

SAN FRANCISCO PUBLIC UTILITIES COMMISSION CITY AND COUNTY OF SAN FRANCISCO

Debt Management Policies and Procedures

I. Scope and Application

The San Francisco Public Utilities Commission ("SFPUC" or "Commission") has established these Debt Management Policies and Procedures ("Policies") for debt financings associated with the Water, Wastewater and Power Enterprises.[1] These Policies are intended to enable the SFPUC to effectively manage its debt issuance and debt management practices. To the extent that any of the Policies contained herein conflict with the terms and conditions of the existing or subsequently adopted SFPUC legal requirements or agreements, such legal requirements or agreements will control. These Policies will be reviewed regularly, and revised or amended, as appropriate or desirable, with Commission approval. The last update was adopted by the Commission in March 2015.

This policy shall govern the issuance and management of all bonds and other forms of indebtedness of the SFPUC, together with any credit, liquidity, or other security instruments and agreements that may be executed in connection with the issuance of bonds and other forms of indebtedness ("Bonds").

These policies will be on file with the Commission, SFPUC's Financial Services Department (Financial Planning Group), the Public Utilities Commission Revenue Bond Oversight Committee (RBOC) and posted on the website of the SFPUC (www.sfwater.org) with copies delivered to the Office of Public Finance (OPF), the City Treasurer, the City Controller, and the Clerk of the Board of Supervisors (BOS).

II. SFPUC's Debt Management Mission

SFPUC's debt management mission is to serve, within the financial objectives and parameters established by the Commission, the capital financing needs of the respective enterprises in a cost effective, risk-appropriate and flexible manner, through the implementation of sound financial decision-making and the use of prudent debt management practices.

III. Debt Management Objectives

a. Finance capital projects of SFPUC's enterprises in a timely and cost-effective manner.

[1] The Policies are the same for each enterprise, unless otherwise noted.

b. Manage debt effectively within Commission objectives and parameters.

c. Achieve and maintain the highest practicable credit ratings to minimize total borrowing costs of SFPUC debt.

d. Retain financial flexibility.

e. Maintain compliance with all relevant laws, reporting, and disclosure requirements.

f. Ensure integrity of debt management process.

IV. Types and Purposes of Debt

The SFPUC may issue debt to finance the acquisition and/or construction of capital improvements, unless otherwise decreed by court order or adjudicated settlement. Debt financings are not to be used to fund SFPUC operating costs.

a. SFPUC revenue bonds are secured by a pledge that the rates of the applicable enterprise will generate net revenues sufficient to pay the principal of and interest on indebtedness.

b. The SFPUC may issue the following types of tax-exempt or taxable debt:

    i. Fixed rate bonds - long-term securities with serial and term maturities, including put-bonds. Interest rates are determined when the bonds are sold and are fixed to maturity.

    ii. Fixed rate notes - securities with short-term maturities (i.e. 1 to 5 years). Interest rates are determined when the notes are sold and fixed to maturity.

    iii. Variable rate bonds - long-term securities that do not bear a fixed interest rate to maturity, but instead bear rates adjusted at agreed upon intervals, such as daily, weekly or monthly. The holder of the variable rate security may be allowed to "put" the security to the SFPUC or to a bank credit facility provider retained by the SFPUC.

    iv. Commercial paper - short-term (1-270 days) security with fixed interest rates set depending on the term of the commercial paper within the 270-day period. Customarily, commercial paper is secured by a pledge of net revenues that is subordinate in lien to the pledge of net revenues for senior lien revenue bonds. In order to further secure and have market access for the commercial paper, some form of credit facility, such as a letter or line of credit or a liquidity facility, must be obtained from a high-grade bank. Commercial paper is designed to provide flexible, low-cost financing to meet the interim encumbrance and expenditure needs of capital projects.

Commercial paper is typically refunded with the issuance of long-term indebtedness.

v. Refunding bonds - issued to realize debt service savings, or for other debt restructuring purposes.

1. Absent significant non-economic factors, refunding transactions must produce aggregate net present value debt service savings of at least 3% of the par value of the refunded bonds, calculated using the refunding issue's true interest cost (TIC) as the discount rate.

2. Advance Refunding transactions in aggregate must also meet the 3% minimum debt service savings requirement as well as having a minimum 50% refunding efficiency or more. Refunding efficiency is defined as the ratio between the net present value savings and the refunding escrow negative arbitrage.

vi. Green Bonds - issued for any enterprise to fund qualified projects that have environmental and/or climate change mitigation or adaptation benefits. Proceeds from these bonds are earmarked for green projects and allow investors to invest directly in bonds which finance environmentally beneficial projects. The SFPUC will comply with the following when issuing Green Bonds:

1. For each issuance of Green Bonds, the SFPUC will make a determination whether to self-certify the Bonds, or retain an independent consultant to certify the Bonds.

2. The SFPUC will only issue Green Bonds if, during the life of the Bonds, they in no way impede or restrict the ability of the issuing enterprise to use the Green Bond-funded projects for other future business purposes that are not in keeping with "Green Bond" principles.

3. The SFPUC will annually report on its website the status of spending of Green Bond proceeds during the construction period of the funded projects.

4. The SFPUC will conform with established Green Bond international standards as they develop, such as the recently-established Water Climate Bonds Standard.

vii. State Revolving Fund (SRF) Loan program–

1. Managed by the California State Water Resources Control Board, Clean Water SRF loans provide alternative capital financing for certain facilities of the Wastewater Enterprise and certain Water Enterprise Recycled Water projects. The SFPUC will not enter into SRF loans with lien status senior to outstanding senior lien Wastewater Revenue Bonds.

2. Managed by the California State Water Resources Control Board, Drinking Water SRF loans provide alternative capital financing for certain facilities of the Water Enterprise. The SFPUC will not consider entering into SRF loans with lien status senior to outstanding senior lien water revenue bonds.

viii. Tax Credit Bonds

1. Clean Renewable Energy bonds (CREBs) – no- or low-interest bonds administered by the Federal government to finance renewable energy projects of the Power Enterprise. CREBs are part of the 2009 American Reinvestment and Recovery Act (ARRA) legislation designed to stimulate state and local government capital project construction and improvements.

2. Qualified Energy Conservation Bonds (QECBs) – also part of 2009 ARRA, this program authorized local communities to use some or all of their QECB allotment for funding municipal solar and energy efficiency projects, including capital expenditures of the Power Enterprise that reduce energy consumption on publicly-owned buildings by at least 20%, and implementing green community programs.

3. New Clean Renewable Energy Bonds (NCREBs) - established by Congress as part of the Energy Improvement and Extension Act of 2008 and capped at $2.4 billion by ARRA. These tax credit bonds allow certain issuers to receive subsidies, in the form of reimbursements, from the federal government when financing qualified renewable energy facilities.

ix. Build America Bonds (BABs) – also part of the 2009 ARRA, this program allows state and local governments to issue taxable bonds for capital projects and to receive a new direct federal subsidy payment for a portion of their borrowing costs. The SFPUC issued several BABs for the Water and Wastewater Enterprises in 2010. Federal authorization for this program expired on December 31, 2010.

x. Capital Lease Financing – equipment or facility lease financing as allowed by the Charter and Administration code.

V. Debt Financing Authorization

a. Charter

i. Section 8B.124 Revenue Bonds (Proposition E, approved by voters in November 2002): Authorizes the SFPUC to issue revenue bonds or other forms of indebtedness for the purpose of reconstructing, replacing, expanding, repairing or improving water facilities or clean water facilities when authorized by ordinance approved by a two-thirds vote of the BOS.

1. Required Certification: Bonds issued against Prop E require the certification of a Qualified Independent Consultant that estimated net revenues of the applicable enterprise will sufficiently meet debt service coverage and other Indenture requirements, as well as certification from an Independent Engineer that the projects to be financed by the bonds meet utility standards.

ii. Section 9.110 Power Revenue Bond Election by Initiative (Proposition B, approved by voters November 2001): Authorizes the issuing, subject to BOS approval, of up to $100 million in revenue bonds or other forms of indebtedness to finance solar energy, energy conservation, or renewable energy facilities and equipment.

iii. Section 9.110 Water Revenue Bond Election by Initiative (Proposition A, approved by voters November 2002): Authorizes the SFPUC, subject to BOS approval, to issue up to $1.628 billion in revenue bonds or other forms of indebtedness to finance the acquisition and construction of improvements to the City's water system.

iv. Section 9.107(6) Water and Power Revenue Bonds: Authorizes the SFPUC to issue revenue bonds or other forms of indebtedness for the purpose of the reconstruction or replacement of existing water facilities or electric power facilities or combined water and power facilities when authorized by resolution approved by three-fourths vote of the BOS.

v. Section 9.107(8) Power Revenue Bonds (Proposition H, approved by voters November 2001): Authorizes the issuance of revenue bonds to finance or refinance the acquisition, construction, installation, equipping, improvement or rehabilitation of equipment or facilities for renewable energy and energy conservation.

vi. Section 9.109 Refunding Bonds: Authorizes the issuance of refunding bonds that achieve aggregate net debt service savings on a present value basis without voter approval. Refunding bonds must be approved by the

Commission, and the Clerk of the BOS must be provided a report as more fully described in Section VI (e)(iii).

b. Commercial Paper Authorization

i. Wastewater Enterprise $500 million program:

1. $150 million authorized by SFPUC Resolution No. 06-0164 and BOS Ordinance Nos. 266-06/270-06.

2. Authorization to increase Wastewater CP authorization from $150 million to $300 million (SFPUC Resolution No. 11-0197, BOS Ordinance No. 91-12)

3. Authorization to increase Wastewater CP authorization from $300 million to $500 million (SFPUC Resolution No. 14-0139, BOS Resolution No. 378-14)

ii. Water Enterprise $500 million program

1. Authorization to issue up to $150 million (SFPUC Resolution No. 99-084 and BOS Ordinance No. 451-99)

2. Authorization to increase Water CP issuance from $150 million to $250 million (SFPUC Resolution No. 00-0234 and BOS Ordinance No. 953-00)

3. Authorization to increase Water CP issuance from $250 million to $500 million (SFPUC Resolution Nos. 08-0202/09-0175 and BOS Ordinance No. 311-08)

iii. Power Enterprise $90 million program

1. $90 million authorized by SFPUC Resolution No. 15-0183 and BOS Resolution No. 427-15.

VI. Debt Financing Approval Process

a. Voter Authorization and Ballot Procedure – SFPUC may, pursuant to Charter Section 9.107, seek voter approval for revenue bond issuance. Prior to placing any measure on the ballot, the SFPUC must submit the item to the Capital Planning Committee (CPC) for its review. Legislation requesting the submission of a proposal for the issuance of revenue bonds to the voters of the City must be submitted in the form of a resolution by the SFPUC at a regularly scheduled BOS meeting in sufficient time prior to the due date to the Department of Elections to account for a 30-day review period at the BOS and BOS Finance Committee meetings.

b. SFPUC – Two Commission approvals in the form of a resolution is required for all SFPUC debt financings, as follows:

    i. Bonding Authorization resolution approved by the Commission at the time of project appropriation.

    ii. Transaction Authorization resolution approved by the Commission at the time of the bond sale. The resolution incorporates the disclosure and legal documents of the transaction.

c. Capital Planning Committee (CPC) – Pursuant to the City's Administrative Code, Section 3.21, the CPC must review and submit a recommendation to the BOS on all proposed new long-term financing transactions for capital improvements. The SFPUC completes this CPC review during capital plan development.

d. BOS Budget Analyst Review –The BOS Budget Analyst prepares a report and recommendation for the BOS on any item submitted for consideration.

e. Board of Supervisors – BOS approval in the form of a resolution or ordinance is required for SFPUC financings, as follows:

    i. Pursuant to voter-approved debt a resolution passed by a majority of the BOS is required.

    ii. Pursuant to Charter Section 8B.124 (Proposition E), an ordinance passed by two-thirds vote of the BOS is required and is subject to referendum requirements of Charter Section 14.102. The ordinance does not become effective until 30 days after its adoption.

        1. Certification pursuant to administrative code section 8B.124, as follows:

            a. Certification by an independent engineer retained by the SFPUC that:

                i. Projects to be funded by the bonds, including the prioritization, cost estimates and scheduling, meet utility standards; and

                ii. 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.

b. Certification by the San Francisco Planning Department that facilitates under the jurisdiction of the Public Utilities Commission that projects funded with such bonds will comply with applicable requirements of the California Environmental Quality Act.

iii. Pursuant to BOS Ordinances No. 111-16, 112-16, and 113-16, within 30 days of a new money or refunding bond issuance, the SFPUC must file with the Clerk of the BOS the following:

1. New Money Bond Sale Report showing the results of the sale of the bonds, including (a) principal amount sold and method of sale, (b) true interest cost, (c) final maturity, (d) the facilities constructed and/or improved, and (e) a statement about the remaining bonding authorization under the applicable financing budget ordinance.

2. Refunding Bond Savings Report prepared by the SFPUC's financial advisor that reflects at least a 3% net present value debt service savings, together with a copy of the final Official Statement for the refunding bonds.

f. Revenue Bond Oversight Committee (RBOC) may review anticipated bond sales in advance of the issuance of the proposed financing transaction, including details with respect to amount, timing, and purpose of the issuance (Sec. 5A.30-36, Proposition P, approved by voters, November 2002). RBOC is scheduled to sunset on January 1, 2019, pursuant to extension legislation (Ordinance No. 189-15) by the Board of Supervisors on December 4, 2015.

VII. Debt Limitations

a. Adopted financial policies that effectively limits the amount of debt issued, include:

i. Fund Balance Reserve Policy: establishes minimum levels of fund balance reserves from an operations perspective and a minimum debt service Indenture Basis Coverage threshold. (SFPUC Resolution No. 10-0027, approved February 11, 2010)

ii. Rate policy: predictable and financially prudent rate increase policy (SFPUC Resolution No. 12-0027, approved February 14, 2012).

iii. Ratepayer Assurance Policy: ensure accountability to ratepayers in all aspects of SFPUC operations and management (SFPUC Resolution No. 12-0196, approved October 23, 2012).

b. Legal requirements and Indenture Limitations that place constraints on debt issuance include:

i. Additional Bonds Test: City Charter (Sec. 8B.124) requires an independent certification that Indenture Basis Coverage of 1.25 will be maintained for 3 years after issuance of additional bonds.

ii. Debt Service Coverage Requirements: for senior lien bonds, Indenture Coverage requires net revenues plus available fund balance equal to at least 125% of annual debt service; Current Basis Coverage requires net revenues, exclusive of available fund balance, equal to at least 100% of annual debt service.

VIII. Method of Bond Sale

a. General

i. Marketing – Bond sales shall be advertised, and the Preliminary Official Statement be distributed, as broadly as possible and receive a rating from at least one nationally recognized rating agency, with two ratings preferred. The financial advisors and/or the underwriters, if applicable, for each transaction shall undertake to market the bonds to prospective bidders and investors as appropriate or relevant.

ii. Amendments – Terms of the bonds shall be subject to amendment as late as practicable in the issuance process.

b. Competitive – New money and refunding fixed rate revenue bonds should be issued by competitive sale unless (i) there is significant deterioration in the SFPUC's overall credit rating or outlook, (ii) there are market issues specific to a transaction that are outside of the SFPUC's credit profile such as market volatility, threat of war or changes in taxation or sector risks, (iii) there is a financing structure that is not conducive to a successful competitive sale, or (iv) there are other factors which mitigate or make the use of the competitive sale process less attractive or likely to ensure a successful sale with the lowest total borrowing costs. The SFPUC may take bids in person, by facsimile or by electronic means, which is the preferred approach.

i. Cancellation – Bond sales shall be subject to cancellation at any time prior to the time bids are to be received.

ii. Award – The bonds shall be awarded to the bidder whose conforming bid represents the lowest true interest cost (TIC) to the SFPUC. The SFPUC's financial advisor will confirm the calculation of the TIC before any bonds are awarded. The SFPUC's bond counsel will confirm that the bids conform to the requirements of the Notice of Sale. The SFPUC may then restructure the bonds in accordance with the Official Notice of Sale. The General Manager or his/her designee shall award the sale of SFPUC bonds.

iii. Rejection - The SFPUC shall reserve the unfettered right to reject all bids or waive bid irregularities.

c. Negotiated Sale – Bonds, including fixed rate bonds, variable rate demand notes, put bonds, commercial paper, etc. may be issued by negotiated sale, at the discretion of the General Manager, if deemed necessary for a successful offering. One or more underwriters may be selected by the SFPUC for a negotiated bond sale pursuant to a competitive RFP solicitation process or from the approved Underwriter Pool of the Controller's Office of Public Finance. An independent pricing verification agent should also be selected to assist the SFPUC in a negotiated sale to provide further ratepayer assurance of lowest cost borrowing success. The SFPUC may retain one or more remarketing agents for each issuance of variable rate or put bond debt, or one or more dealers for each enterprise's commercial paper program. The SFPUC shall reserve the right to replace a dealer or remarketing agent with notice at any time for any reason in its sole discretion.

i. Independent Pricing Verification Agent-for each negotiated bond sale, the SFPUC will retain an Independent Pricing Verification Agent ("IPA") to oversee the pricing process and provide a letter to the SFPUC certifying whether the pricing results were fair and reasonable to the SFPUC in light of prevailing market conditions. The IPA will be a firm separate and independent from the SFPUC's financial advisors on the transaction.

d. Private Placement –The General Manager may issue obligations by means of a private placement pursuant to a bond purchase contract and placed with an accredited investor in Rule 501(a) of Regulation D (or such other investor restrictions appropriate to the transaction), subject to the General Manager finding that such a sale method would result in a lower overall cost than would be achieved by selling bonds at a public sale.

IX. Debt Structuring Policies

a. Standard terms – The following terms will apply to the SFPUC's transactions, as appropriate. Individual terms may change as dictated by the marketplace and/or by the unique characteristics of a given transaction.

i. Fixed Rate Revenue Bonds

1. Term	Up to 40 years per issue
2. Maximum interest rate	Not to exceed 12% (statutory)
3. Maximum premium or discount	Case by case as recommended by SFPUC's financial advisor(s)
4. Payment dates	Water and Power Revenue Bonds: November 1 for annual principal and semi-annual interest; May 1 for semi-annual interest Wastewater Revenue Bonds: October 1 for annual principal and semi-annual interest; April 1 for semi-annual interest The first payment of any revenue bond issue may be extended beyond the first November or October after the bond sale, if it is advantageous CWSRF Loans: Principal and interest paid annually on each December 31st Power tax credit bonds: December 15 for annual 2008 CREBs payments; December 15 and June 15 for semi-annual QECBs payments; April 25 and October 25 for semi-annual 2012 and 2015 NCREBs payments
5. Call provisions	Shortest possible optional call consistent with optimal pricing; no more than 30 days' notice Make Whole Call: Permitted if market conditions required to ensure lowest total borrowing costs
6. Structure of debt	Level debt service unless an alternative structure is advantageous, such as deferral of principal so as to achieve level overall enterprise debt service – principal payments may be serial and/or term bonds
7. Reserve funds	The lesser of what is required, including no reserve requirement, pursuant to indenture requirements, and as governed by current tax law, or acceptable to the

	marketplace; surety or other credit instrument may also be used, assuming availability
8. Capitalized interest	Up to three years or such other lower amount as may be legally permissible and advantageous
9. Good faith deposit	1% of par amount which may be satisfied by cash, surety or equivalent
10. Other, Federal, and State	Unique structures as appropriate such as federal subsidies or stimulus funding, as in the case of Build America Bonds, CREBs, NCREBs, and QECBs.

ii. Variable Rate Obligations – The SFPUC may elect to issue variable rate obligations, including variable rate demand obligations, auction rate securities and commercial paper.

1. Purpose	Lower net borrowing costs; match assets and liabilities; diversify debt portfolio
2. Portfolio allocation	No more than 25% of each enterprise's outstanding debt shall be variable rate
3. Term	Up to 40 years per issue, except commercial paper which has a maximum maturity of 270 days
4. Maximum interest rate	12%
5. Monitoring	SFPUC will monitor all variable rate bonds on a regular basis and shall determine, from time to time, whether to change modes, alter hedging strategies and/or replace a dealer or remarketing agent
6. Budgeting	SFPUC will recommend an annual budget of debt service on any variable rate obligations at a minimum of 1.5 times the rolling 3-year average of the Securities Industry and Financial Markets Association municipal swap index, or other appropriate index over a similar time frame.
7. Remarketing inventory	SFPUC may require that remarketing or

obligation	dealer agreements contain a provision requiring that the dealer or agent, in the event of a failed remarketing, inventory the securities, at prevailing interest rates, for up to 30 days.
8. Call/Conversion provision	On any date without penalty; no more than 20 days' notice or the minimum period allowed by the Depository Trust Company.
9. Liquidity	A bank credit facility, in the form of either a liquidity facility or letter of credit, will be obtained for all variable rate obligations as market conditions may require; Liquidity or letter of credit providers will maintain short-term ratings in the Tier 1 level of short-term ratings (P-1 and A-1 or higher).
10. Mode	Variable rate obligations, with the exception of commercial paper, may be issued as "multi-modal".

X. Derivatives Policy – See Appendix A

a. Permitted Investments All investments of bond proceeds shall be limited to the City's Investment Policy approved periodically by the Treasury Oversight Committee, unless otherwise required and approved apart from any debt authorization for the Commission. The "Permitted Investments" language of any debt issuance will be reviewed by the City Treasurer's office prior to closing.

b. The SFPUC intends to establish a segregated special long-term endowment fund for the Bioregional Habitat Restoration (BHR) Mitigation Program for the Water Enterprise. The Fund will not be subject to the above Permitted Investments requirements for bond proceeds. The Fund will be invested pursuant to investment policies, guidelines and strategies as developed by an investment advisor retained for the Fund. It is expected that the goal of the Fund will be to maximize long-term returns by investing in a combination of fixed income and equity securities.

c. Investment of bond proceeds that are held by the Trustee must be limited to those permitted in the financing documents or agreements.

d. Investment agreements which may be entered into from time to time. In general, uncollateralized investment agreements shall be executed with counterparties rated at least "AA". Collateral may be required upon a downgrade below a "AA" rating.

e. Repurchase agreements or forward delivery agreements shall be executed with counterparties rated at least "AA" with downgrade provisions requiring assignment or collateral upon a rating downgrade below the "A" level.

f. Investment agreements shall have the following general limitations:

1. Purpose	Preserve principal Maximize interest earnings thereby reducing net borrowing costs Match assets and liabilities
2. Counterparty	Minimum rating of AA from at least one major credit rating agency
3. Mandatory termination	Limited to credit-related events and non-payment.
4. Cure provisions	Timelines on SFPUC's obligations to cure must be adequate to accommodate City process.
5. Priority of payment	Termination payments shall be subordinate to related debt payments
6. Procurement	Award based on best bid as defined in bid form

XI. Professional Assistance—The SFPUC will maintain high standards of integrity in selecting professional service providers and conducting its debt management activities in a manner consistent with all applicable regulations as well as the City and County of San Francisco's Conflict of Interest Code.

a. Financial Advisors – SFPUC shall utilize the services of independent financial advisors in connection with financing-related issues. The financial advisors shall be selected via a competitive Request for Proposals (RFP) process or via the City-wide approved pool of financial advisors, and the services to be provided shall be documented by contract. Compensation shall be capped.

b. City Attorney's Office – SFPUC shall utilize the services of the City Attorney's Office when appropriate for legal support on financing-related matters to ensure all City and Charter requirements are fully met.

c. Bond Counsel – SFPUC, with the City Attorney's Office recommendation, shall select bond counsel for each transaction. Bond counsel shall be responsible for developing the legal documents required for each transaction.

d. Disclosure Counsel – SFPUC shall utilize the services of a disclosure counsel for each transaction, with the City Attorney's Office's recommendation. Disclosure counsel shall be responsible for assisting the SFPUC to prepare the Preliminary and Final Official Statements and any other disclosure documents.

e. Underwriters – Such firms shall be solicited pursuant to a competitive RFP basis utilizing the Underwriter's Pool of the City's Office of Public Finance. Selection will be based on a formal, scored evaluation process.

f. Dealers, Auction Agents and Remarketing Agents – Such firms shall be selected on a competitive RFP basis and performance will be monitored regularly. SFPUC shall retain the right to replace any such firm with due notice at any time.

g. Trustees – Trustee shall be selected on a competitive RFP basis and have a combined capital and surplus of at least $50 million and be subject to supervision or examination by relevant Federal or State regulatory bodies.

h. Letter of credit or liquidity facility providers – Selected via competitive RFP or from the City-wide pool of approved credit facility provider banks, or from banks who are HRC compliant, and subject to negotiations of its terms.

i. Investment agreement counterparties – Selected from pool approved by the Office of Public Finance, if one exists. If no pool exists, selected on the basis of a competitive bid process, with bidders subject to approval by the City's Human Rights Commission (HRC).

j. Arbitrage Rebate Consultant – Selected via competitive RFP process.

k. Independent pricing verification agent - Financial advisor not involved in transaction, engaged in negotiated transactions to provide independent pricing report and comparative sales details so as to reassure negotiated sale provided best possible pricing for the rate payers.

l. Other professional assistance may be secured as necessary or desirable.

XII. Ongoing Debt Administration

a. Continuing Disclosure – In connection with its publicly-offered bond financings, the SFPUC will provide timely information to the marketplace, as required by law, most notably SEC Rule 15(c)2-12 Disclosure information will be tracked in an annual binder, along with submission verification details.

i. Ongoing disclosure requirements established per continuing disclosure certificates and other financing documents and agreements shall be promptly met. See Appendix B for further disclosure requirements and reporting. In addition, the SFPUC shall post on EMMA and also provide to the rating agencies on a timely basis after transaction closing the financing documents associated with bonds or loans that have not been issued on a publicly offered basis and consequently do not have CUSIPs, but have instead been either privately-placed or directly entered into with a lender. Such transactions include tax credit bonds which have been privately-placed or State Revolving (SRF) Fund Loans entered into directly with the State Water Resources Control Board.

ii. Annual Disclosure Report – SFPUC covenants to provide its annual disclosure report no later than 270 days following the end of the fiscal year. However, SFPUC shall use its best efforts to issue the Annual Disclosure Report as soon as practical following the issuance of the City's annual Comprehensive Annual Financial Report (CAFR). The SFPUC has covenanted, per its Continuing Disclosure Certificates, to issue the Annual Disclosure Report electronically, post it on the Investor Relations page of its web site (www.sfwater.org), the Electronic Municipal Market Access (EMMA) site of the Municipal Securities Rulemaking Board (MSRB), the Main Library, and file with the Commission, the Office of Public Finance, the City Treasurer, the City Controller, and the Clerk of the Board of Supervisors. The report shall include CUSIPs, trustee and issuer contacts, and all other information as required pursuant to continuing disclosure certificates.

iii. Material Event – A material event notice will be filed, in accordance with the provisions of SEC Rule 15c2-12, on EMMA.

iv. Green Bonds Proceeds Spending Report: The SFPUC will, after the end of each fiscal year, post information on the Investor Relations page of its web site related to the progress of spending of Green Bond proceeds on the projects that have are being funded with "Green Bond" proceeds. This disclosure will continue until proceeds are substantially spent.

v. Official Statements – Existing continuing disclosure obligations shall be included in all official statements, which may exceed obligations enumerated in SEC Rule 15c2-12.

b. Disclosure Training: The SFPUC will conduct periodic disclosure training related to the drafting, review and approval of debt offering documents, such as Official Statements, for staff and members of the Commission. The training will be conducted by the City Attorney's Office and the SFPUC's Disclosure Counsel.

c. Arbitrage Rebate Compliance – The SFPUC shall calculate arbitrage annually in each year that the related project fund (or equivalent) has had an outstanding balance. Thereafter, the SFPUC shall calculate arbitrage on the fifth anniversary of the bond issuance in accordance with IRS recommended practices. Any arbitrage liabilities will be reflected in the SFPUC financial statements. See Appendix C for Arbitrage/Rebate Tax Compliance Policy.

d. Direct Pay Bond Compliance - This SFPUC shall comply with rules and regulations relating to Direct Pay Bonds, including Build America Bonds ("BABs") authorized under the American Recovery and Reinvestment Act. See Appendix D for Direct Pay Bond Compliance Policy.

e. Credit Ratings – SFPUC's policy is to secure underlying ratings on all newly issued obligations from at least one nationally recognized rating agency, though two is preferred.

vi. Annual Meetings – The SFPUC will meet (or formally communicate) with credit rating agencies when rating any outstanding obligations at least annually unless such meeting is deemed unnecessary by the rating agencies.

vii. Reporting – The SFPUC will promptly make Annual Audited Financial Statements, Adopted Budgets and other relevant documents available to rating agency personnel.

f. Citywide Ratings Notification – Any changes in ratings will be promptly noticed to the Commission, the Mayor, the Office of Public Finance, the Mayor's Budget Director and Press Secretary, the City Controller, City Treasurer, President of the Board of Supervisors, Chair of the Finance Committee of the Board of Supervisors, as relevant. Public Utilities Revenue Bond Oversight Committee (RBOC) - Provides oversight to ensure that the proceeds from revenue bonds authorized by the BOS and/or the voters after November 2002 are expended in accordance with the authorizing bond resolution and applicable law. (Administrative Code Chapter 5A and Proposition P, passed by voters in November 2002)

i. Reports at least annually to the Mayor, the BOS and the Commission regarding the SFPUC's expenditure of revenue bond proceeds. Such reports are filed with the Commission, the Clerk of the BOS and the Main Library.

ii. May prohibit further issuance or sale of authorized revenue bonds, pursuant to:

1. Independent audit of actual expenditures of revenue bond proceeds.

2. Consultation with the City Attorney.

3. Determination that proceeds are being or have been expended for unauthorized or illegal purposes.

4. Majority vote of all its members.

a. Determination may be appealed to the BOS within 30 days of the RBOC's decision.

b. BOS may overturn the decision of the RBOC by resolution approved by two-thirds vote of all its members.

iii. SFPUC will provide notice to the RBOC in advance of the issuance of a proposed financing transaction, including details with respect to the amount, timing and purpose of the issuance.

iv. To the extent permitted by law, one-twentieth of one percent of revenue bond proceeds fund the costs of the RBOC, except that costs associated with clerical, technical and administrative assistance in furtherance of its purposes and any compensation due the members are to be paid by the BOS. These amounts are subject to the applicable IRS rules associated with issuance of tax-exempt debt and generally must be spent within three years of issuance.

San Francisco Public Utilities Commission
Derivatives Policy

I. Derivatives (including swaps, swaptions, caps, floors and collars) – Purpose and Objectives

a. To achieve significant savings as compared to a product available in the bond market.

b. To prudently hedge risk in the context of a particular financing or the overall asset/liability management of the SFPUC's balance sheets for its respective enterprises.

c. To ensure flexibility in meeting overall financing objectives.

d. To generate increased net investment return.

II. Derivative Approval Process

a. Commission approval - The Commission, prior to SFPUC entering into a derivative product, shall approve the transaction. If a proposed derivative product meets the objectives of the SFPUC as described herein, SFPUC shall provide to the Commission for their review and approval, an analysis and evaluation of the proposal including all risk factors indicated below.

i. Risk/benefit analysis – Identification and evaluation of proposed benefit and potential risks and any mitigations thereto. Such potential risks shall include:

1. Counterparty Credit Risk – Risk of credit-worthiness of the counterparty. Mitigation is to include provisions in the documents that protect SFPUC from exposure to adverse changes in counterparty's credit standing.

2. Market or interest rate risk – Risk of exposure to fluctuations in interest rates.

3. Tax law risk – Risk of rate adjustments, extraordinary payments, termination or other adverse consequences in the event of a future change in federal income tax policy.

4. Termination risk – Risk of termination by the counterparty in an adverse market (other than at the option of the SFPUC). Mitigation is the maintenance of sufficient liquidity to cover this exposure.

5. "Put" risk – Risk of a future financing that is dependent upon third party participation. Mitigation is to obtain commitment that can be or have been secured for such participation.

6. Legal authority risk – Risk of removal of any party's legal authority to participate in the transaction.

7. Ratings Risk – Risk that the transaction could impact the SFPUC's current credit ratings or its desired future ratings and that the transaction could conflict with rating agency recommended practices today or in the future.

8. Basis Risk – Risk that the payments that SFPUC would make or receive would not match the payments that it seeks to hedge because of changes in relationships between floating rates.

9. Tax-exemption of SFPUC Debt Risk – Risk that the transaction is not in compliance with all federal tax law requirements with respect to the SFPUC's outstanding tax-exempt bonds.

10. Volatility Risk – The change of the mark-to-market value of a transaction resulting from a change in implied volatility.

11. Accounting Risk – Risk that the transaction is not compatible with internal accounting procedures and reporting practices. Related risk is the impact on SFPUC's rate covenant calculation or compliance.

12. Administrative Risk – Risk of counterparty's or SFPUC's failure to administer and monitor transactions consistent with the policies herein.

13. Subsequent Business Conditions – Risk of dependence on the continuation or realization of specific industry or business conditions.

ii. Savings Analysis – Independent analysis of potential savings from proposed transaction.

iii. Rate Exposure – Fixed versus variable rate and swap exposure on a project and for a counterparty before and after proposed transaction.

iv. Market Net Termination Exposure – Termination exposure on a per transaction and per counterparty basis for all existing and proposed transactions.

v. Notional Value – Total notional value of derivative products before and after proposed transaction.

b. Board of Supervisors Approval – When required, Board of Supervisors approval may be required.

III. Inappropriate Use of Derivative Products – SFPUC shall never enter into a derivative transaction for the following purposes or if certain conditions exist.

a. For speculative purposes, including potential trading gains.

b. To achieve extraordinary leverage.

c. If liquidity is insufficient to protect against early termination.

d. Insufficient price "transparency" wherein SFPUC is unable to reasonably value the instrument.

IV. Methods of Soliciting and Procuring Derivatives – Regardless of the method of procurement, the SFPUC shall obtain an independent finding that the terms and conditions of any derivative product entered into reflect a fair market value as of the date of its execution.

a. Competitive – SFPUC would pre-qualify prospective bidders and reserve the right to select one or more bidders for the transaction in addition to the winning bidder if deemed in SFPUC's best interest.

b. Negotiated – SFPUC may determine that negotiating a transaction is in its best interest if:

i. Due to size or complexity of the transaction, a negotiated process would result in the most favorable pricing or terms in which case an independent financial advisor would be assigned to assist in the process.

ii. Doing so will advance SFPUC's interests by encouraging and rewarding innovation and/or the substantial commitment of time and resources by a counterparty.

V. Counterparty Requirements

a. Minimum rating – At least one Aa3 or AA- from two rating agencies.

b. Minimum capitalization – $250 million or credit enhancement in one of the following forms:

i. Contingent credit support or enhancement.

ii. Collateral held by a 3rd party trustee and marked to market monthly.

iii. Ratings downgrade triggers.

c. Demonstrated record –

i. Successful track record and reputation for executing and performing derivative transactions.

ii. Creating and implementing innovative ideas in the derivative market.

VI. Standard Terms for Swaps and Derivatives

a. Term – Consistent with the purpose for which the derivative product is used while taking into account the call dates for the related debt or obligation. In no event shall the term extend beyond the existing debt (or other obligation being hedged).

b. Events of default – An event of default by the counterparty shall lead to SFPUC having the option to terminate the agreement with the termination payment being calculated on the side of the bid-offered spread most beneficial to SFPUC. Events of default of a counterparty include:

i. Failure to make payment when due.

ii. Material breach of representations and warranties.

iii. Failure to comply with downgrade provisions.

iv. Failure to comply with any other provision of the agreement after a specified notice period.

c. Termination provisions

i. Optional – All derivative transactions shall contain provisions granting the SFPUC the right to optionally terminate an agreement at any time over the term of the agreement.

ii. Mandatory – A termination payment to or from the SFPUC may be required in the event of termination of an agreement ONLY in the case of credit-related and non-payment events. Prior to entering into an agreement or making any such termination payment, as appropriate, SFPUC shall evaluate whether it would be financially advantageous for the SFPUC to enter into a replacement transaction as a means of offsetting any such termination payment or obtaining insurance to guarantee performance of the counterparty. Any termination payment due from the SFPUC shall be made from available SFPUC monies.

iii. Available liquidity - SFPUC shall consider the extent of the SFPUC's exposure to termination payment liability in connection with each transaction, and the availability of sufficient liquidity to make any such payments that may become due.

iv. Cure provisions - Timelines on SFPUC's obligations to cure must provide for adequate time to affect the cure.

v. Payment - Payments may be structured on a monthly, quarterly, semi-annual or annual basis.

vi. Security – The agreement shall identify the security attributable to the derivative.

vii. Collateral -

1. Required - The SFPUC shall require collateral or other credit enhancement to be posted by each counterparty if the credit rating of the counterparty or its guarantor falls below the "AA" category by two of the three nationally recognized rating agencies (Moody's, Standard & Poor's and Fitch).

2. Value –

    a. The amount of collateral posted shall be equal to the positive termination value of the agreement to the SFPUC.

    b. SFPUC will determine reasonable threshold limits for the initial deposit and for increments of collateral posted thereafter.

3. Features of Collateral –

    a. Cash, U.S. Treasury securities and U.S. Agency securities. The market value of the collateral shall be determined on at least a monthly basis.

    b. Deposited with a custodian, acting as agent for the SFPUC, or as mutually agreed upon between the SFPUC and the counterparty.

    c. The SFPUC shall determine on a case-by-case basis whether other forms of collateral are more beneficial to the SFPUC.

VII. Monitoring and Reporting - SFPUC shall report to the Commission at least annually and as requested

a. Agreements –

i. A summary of each swap agreement, including but not limited to: the type of swap; the rates and dollar amounts paid by the SFPUC and received by the SFPUC; the rate and amounts that were required to be paid and received; and current market value.

ii. Highlights of all material changes to the agreements or new agreements since the last report.

iii. Sensitivity analysis with net impact to the SFPUC of a 25 basis point movement (up or down) in the appropriate swap index or curve.

iv. Actual collateral posting by each counterparty, if any, under each agreement and in total by that counterparty.

v. Information concerning any default by a counterparty under a swap agreement with the SFPUC, and the results of the default, including but not limited to the financial impact to the SFPUC, if any.

vi. A summary of any agreements that were terminated.

vii. A summary of key terms of outstanding agreements, including notional amounts, interest rates, maturity and method of procurement.

viii. Values of early termination, shortening or lengthening the term to certain benchmarks, sale or purchase of options.

ix. Discussion of other risks associated with each transaction.

b. Counterparties –

i. Full name, description and credit ratings of each counterparty and credit enhancer insuring payments, if any.

ii. For each counterparty, the SFPUC shall provide the total notional amount position, the average life of each agreement, the available capacity to enter into a transaction, and the remaining term of each agreement.

iii. Listing of any credit enhancement, liquidity facility or reserves and accounting of all costs and expenses associated with the credit enhancement, liquidity facility or reserves.

iv. Aggregate marked to market value for each counterparty and relative exposure compared to other counterparties.

v. Calculation of SFPUC's net termination exposure for each counterparty.

c. Future transactions - A summary of any planned transactions and the projected impact of such transactions on the SFPUC.

VIII. Payments

a. Budgeting - Termination payment risk shall be determined annually and offset by a hedge or reserve to a predetermined limit.

b. Priority of payment –

i. Swap payments - no greater than parity with obligation being hedged

ii. Termination payments – If economically feasible, subordinate to related debt payments

c. Swap counterparty termination exposure limit –

i. AAA Counterparties: $40 million maximum collateralized net termination exposure; $40 million maximum uncollateralized net termination exposure; $40 million maximum total net termination exposure

ii. AA Counterparties: $40 million maximum collateralized net termination exposure; $10 million maximum uncollateralized net termination exposure; $40 million maximum total net termination exposure

iii. Disclosure and documentation –

1. Disclosure - Derivatives will be disclosed in the related Official Statement, if relevant, and in the SFPUC's annual financial statements in accordance with generally accepted accounting principles and in the Annual Disclosure Report.

2. Documentation – Each transaction must utilize International Swaps and Derivative Association approved documents.

Appendix B

Summary of Disclosure Requirements as of September 2016

ISSUE	SOURCE DOCUMENT	DISCLOSURE OBLIGATION	RECIPIENT	DUE
•All Water Bonds •All Wastewater Bonds All Power Bonds	Indenture •Section 6.07 •Section 6.08	•Audited Financials •No Default Certificate •Annual Budget	Trustee Bondholder	• Water November 30 • Wastewater January 30
•All Water Bonds •All Wastewater Bonds All Power Bonds	Continuing Disclosure Certificates	Annual Disclosure Report *Include for Water:* •audited financials •outstanding debt •obligations payable from revenues •water sales •rate increases •historical financials/coverage •WSIP budget and spending summary •status of WSIP projects *Include for Wastewater:* •audited financials •outstanding debt •sewer rates •sewer accounts by type •historical financials/coverage	EMMA, SFPUC Financial Management, CCSF Senior Managers	March 31
•All Water Bonds •All Wastewater Bonds •Water and Wastewater CP	Moody's Credit Report	Annual financial and statistical information for Water and Wastewater	Moody's Rating Analyst	Annually
•All Water Bonds •All Wastewater Bonds •Water and Wastewater CP	Standard & Poor's Credit Report	Annual audits and budgets and quarterly progress reports on projects for Water and Wastewater	S&P Rating Services	Annually
•Water 2006B (WSIP) Water Bonds	Provides volume cap to allow issuing some WSIP-related private activity debt on a tax-exempt basis	Annual Certification	California Debt Limit Allocation Committee (CDLAC)	March 1
•Water 2006B •Water 2006C	Financial Guaranty Agreement(s) Section 2.06 (a)-(c)	•Quarterly financials (if available) •Audited financials •Compliance Certificate	Syncora Guarantee, fka XL Capital (Surety)	•w/in 90 days •w/in 180 days •Annually
Water Commercial Paper	Letter of Credit Agreement Section 5.01/5.02	•Audited Financials •No Default Certificate •Annual Budget •Quarterly budget update	Bank of America (Standby LOC's) Royal Bank of Canada	•December 31 •December 31 •45 days from adoption •45 days from quarter end
Wastewater Commercial Paper	Letter of Credit Agreement Section 5.01	•Audited Financials •No Default Certificate •Annual Budget •Quarterly budget update	Wells Fargo	•December 31 •December 31 •45 days from adoption •45 days from quarter end
Water and Wastewater Commercial Paper	Liquidity Facility Agreements Section 7.1	•Audited Financials •Annual Budget •Water Bond Final OS •No Default Certificate •Quarterly Budget Update	US Bank Bank of Tokyo Barclays State Street	•December 31 •December 31 •w/in 10 days
Water and Wastewater Commercial Paper	Dealer Agreement Section 8	•Annual Disclosure Report for Water •Water Bond Final OS	Dealers	•March 31 •w/in 30 days
•Clean Renewable Energy Bonds (CREBs) •Qualified Energy Conservations Bonds (QECBs)	Master Lease/Purchase Agreement Section 2.01(g)	•Audited financials •Annual budget	Bank of America	•March 31 •Annually

*Green Bonds	Voluntary (does ***not*** fall under the continuing disclosure regulations of the SEC but subject to SEC Rule **10b-5**)	•Quarterly updates on the use of bond proceeds and environmental impact •Final report when proceeds are fully spent •Third party verification	EMMA Investors	•Quarterly •At project completion

Appendix C

San Francisco Public Utilities Commission
Arbitrage/Rebate Tax Compliance Policy

The SFPUC will bear primary responsibility for all ongoing tax compliance matters relating to the obligations (referred to herein as the "Bonds") issued by the SFPUC and subject to the terms of these Policies. The person(s) who hold the following title(s) shall be responsible for monitoring ongoing tax compliance matters relating to the Bonds, including compliance with the arbitrage rebate requirements of Section 148 of the Code, as set forth in these Procedures, which are intended to satisfy Section 7.2.3.4.4 of the Internal Revenue Manual:

I. External Advisors/Documentation

a. The Chief Financial Officer ("CFO"), to the extent necessary, will consult with bond counsel and other legal counsel and advisors following issuance of the Bonds to ensure that all applicable post-issuance requirements in fact are met. Such consultation will include, without limitation, questions about future contracts with respect to the use of Bond-financed or refinanced assets.

b. The CFO will from time to time engage expert advisors (each a "Rebate Service Provider") to assist in the calculation of arbitrage rebate payable in respect of the investment of Bond proceeds as required under the Code.

c. The CFO shall prepare (or cause to be prepared) regular, periodic statements regarding the investments and transactions involving Bond proceeds and such statements shall be delivered to the Issuer if it so requests.

II. Arbitrage Rebate and Yield – In connection with Bonds subject to these Policies the CFO shall be responsible for:

a. Engaging the services of a Rebate Service Provider and, prior to each rebate calculation date, causing the trustee or other account holder to deliver periodic statements concerning the investment of Bond proceeds to the Rebate Service Provider;

b. Providing to the Rebate Service Provider additional documents and information reasonably requested by the Rebate Service Provider;

c. Monitoring efforts of the Rebate Service Provider;

d. Assuring payment of required rebate amounts, if any, no later than 60 days after each 5-year anniversary of the issue date of the Bonds, and no later than 60 days after the last Bond of each issue is redeemed;

e. During the construction period of each capital project financed in whole or in part by Bonds, monitoring the investment and expenditure of Bond proceeds and consult with the Rebate Service Provider to determine compliance with any applicable exceptions from the arbitrage rebate requirements during each 6-month spending period up to 6 months, 18 months or 24 months, as applicable, following the issue date of the Bonds; and

f. Retaining copies of all arbitrage reports and account statements as described below under "Record Keeping Requirements" and, upon request, providing such copies to the Issuer.

III. Use of Bond Proceeds and Bond-Financed or Refinanced Assets – The CFO, together with applicable City departments, shall be responsible for:

a. Monitoring the use of Bond proceeds and the use of Bond-financed or refinanced assets (e.g., facilities, furnishings or equipment) throughout the term of the Bonds to ensure compliance with covenants and restrictions set forth in any tax agreement relating to the Bonds;

b. Maintaining records identifying the assets or portion of assets that are financed or refinanced with proceeds of each issue of Bonds, including a final allocation of Bond proceeds as described below under "Record Keeping Requirements";

c. Consulting with bond counsel and other legal counsel and advisers in the review of any contracts or arrangements involving use of Bond-financed or refinanced assets to ensure compliance with all covenants and restrictions set forth in the Tax Agreement relating to the Bonds;

d. Maintaining records for any contracts or arrangements involving the use of Bond-financed or refinanced assets as described below under "Record Keeping Requirements";

e. Conferring at least annually with personnel responsible for Bond-financed or refinanced assets to identify and discussing any existing or planned use of Bond-financed or refinanced assets, to ensure that those uses are consistent with all covenants and restrictions set forth in the Tax Agreement relating to the Bonds; and

f. To the extent that the Borrower discovers that any applicable tax restrictions regarding use of Bond proceeds and Bond-financed or refinanced assets will or may be violated, consulting promptly with bond counsel and other legal counsel and advisers to determine a course of action to remediate all nonqualified bonds, if such counsel advises that a remedial action is necessary.

IV. Record Keeping – The CFO shall be responsible for maintaining the following documents for the term of each issue of Bonds (including refunding Bonds, if any) plus at least three years:

a. A copy of the Bond closing transcript(s) and other relevant documentation delivered to the City at or in connection with closing of the issue of Bonds, including any elections made by the City in connection therewith;

b. A copy of all material documents relating to capital expenditures financed or refinanced by Bond proceeds, including (without limitation) construction contracts, purchase orders, invoices, trustee requisitions and payment records, draw requests for Bond proceeds and evidence as to the amount and date for each draw down of Bond proceeds, as well as documents relating to costs paid or reimbursed with Bond proceeds and records identifying the assets or portion of assets that are financed or refinanced with Bond proceeds, including a final allocation of Bond proceeds;

c. A copy of all contracts and arrangements involving the use of Bond-financed or refinanced assets; and

d. A copy of all records of investments, investment agreements, arbitrage reports and underlying documents, including trustee statements, in connection with any investment agreements, and copies of all bidding documents, if any.

San Francisco Public Utilities Commission
Direct Pay Bond Compliance Policy

This policy establishes procedures to ensure the San Francisco Public Utilities Commission (the SFPUC) complies with rules and regulations relating to Direct Pay Bonds, including Build America Bonds ("BABs") authorized under the American Recovery and Reinvestment Act. These procedures shall be reviewed and modified from time to time.

I. Pre-Issuance

a. The SFPUC will establish, prior to settlement of the Bonds, separate and discreet accounting codes for the following funds and accounts of the Bonds:

   i. Project Fund

   ii. Debt Service Fund

   iii. Debt Service Reserve Fund

   iv. Capitalized Interest Account

   v. Cost of Issuance Fund

b. The SFPUC will, in consultation with bond counsel engaged on the transaction and the City Attorney, determine the expected placed-in-service dates of capital improvements to be financed with Bonds. Placed-in-service date considerations shall be as follows:

   i. Placed-in-service dates will be estimated conservatively, with the early project completion date for any financed project used in formulating capitalized interest on the Bonds, to the extent capitalized interest is necessary, desirable and permissible.

   ii. The SFPUC's financial advisor(s) will use the above-information regarding placed in service dates to structure debt service on the Bonds and will provide detailed analyses of the methods and assumptions employed in determining the amount and duration of capitalized interest, if any.

   iii. The SFPUC, the City Attorney and the SFPUC's financial advisor(s) will present the analyses to bond counsel engaged on the transaction for tax compliance review and approval.

c. In coordination with its financing team, the SFPUC shall instruct bond counsel to draft an "Underwriter's Certificate" or "Purchase Price Certificate" or other appropriate document (singularly or collectively, "Underwriter's Certificate") to be included with the Bid Form or Notice of Sale, clearly setting forth the SFPUC's requirements for and expectations of a bona fide public offering of the Bonds and establishment of the "issue price" of the Bonds.

d. To the extent necessary and required, the SFPUC will coordinate with the SFPUC's financing team to ensure that all notices, bid forms and other documentation as may be necessary, clearly state limiting parameters relating to costs of issuance, capitalized interest, underwriters' discount, initial offering price and bona fide public offering for the Bonds.

II. Date of Issuance

a. The SFPUC will coordinate with its financing team and the underwriter of the Bonds for receipt of the Underwriter's Certificate attesting to the bona fide public offering and establishment of the "issue price" of the Bonds. The SFPUC shall rely on this certificate for purposes of complying with section 54AA(d)(2)(C) of the Code.

b. In coordination with its financial advisor(s), the SFPUC will determine that the underwriter has complied with all terms and provisions of the bond offering, including:

    i. Minimum and maximum bid and price parameters;

    ii. Permissible costs of issuance, including underwriters' discount, at or below 2% of the par amount of Bonds.

c. The SFPUC will receive from its financial advisor(s) and/or bond counsel, a computation of initial offering price for each maturity of the Bonds. Such computation shall include the maximum price Bonds may be sold to the public without violation of the de minimis premium limitation.

III. Post-Issuance

a. Beginning on the sale date and continuing until the settlement date, the SFPUC in coordination with its financial advisor(s) will track the secondary market prices of its Bonds to determine that the underwriter has complied with the provisions of the Underwriter's Certificate.

    i. All secondary market trades of the newly issued BABs as reported on EMMA (or other publicly available records and records) will be noted and kept in a file, in hard copy or in electronic form.

    ii. The SFPUC in coordination with its financial advisor(s) will track the principal amount and dollar price of all trades to determine if and when at least the first 10% of each maturity of Bonds has been sold to the general public at or below the initial offering price.

    iii. The SFPUC may cancel its sale or otherwise refuse to settle the Bonds if it determines that the underwriter is in violation of any provision of the Underwriter's Certificate or is otherwise unable to provide bond counsel with a sufficient certification as to the establishment of the "issue price" of the Bonds.

b. Immediately after issuance of the Bonds, the SFPUC and the City Attorney will meet with project staff and accounting staff to brief them on the federal tax rules and requirements regarding investment (including rebate), expenditure and recordkeeping relating to the Bonds (including BABs). All BABs proceeds, other than moneys in a reasonably required reserve fund, if any, or used to pay costs of issuance, must be spent on capital expenditures.

c. At least on a quarterly basis following the issuance of the Bonds, the SFPUC and the City Attorney shall review expenditures made with proceeds relating to BABs from the bond-related funds and accounts held with the Trustee and the City Treasurer to ensure compliance with all spend-down rules. Such review shall continue until all proceeds have been spent, after which no further reviews shall be necessary. If the SFPUC and the City Attorney determine that any violations of the Tax have occurred, such violations will be remedied through the "remedial action" regulations (Treas. Reg. Section 1.141-12) or the Voluntary Closing Agreement Program (VCAP) described in IRS Notice 2008-31 (or successor guidance). If any changes to the terms or provisions of Bonds are contemplated, the SFPUC and the City Attorney will consult bond counsel.

d. Immediately after issuance of any Bonds, the SFPUC shall engage a nationally-recognized arbitrage rebate consultant for purposes of complying with arbitrage restrictions on all issuances of the Bonds.

e. Quarterly, semi-annually or annually, as appropriate, the SFPUC shall confirm that investment earnings on all BABs-related funds and accounts are properly transferred to the Project Fund and spent on eligible capital projects. The Controller's Office will reconcile balances recorded by project accountants.

f. Not sooner than 90 days nor later than 45 days prior to each interest payment date on BABs, the SFPUC shall, in cooperation with the Trustee on the Bonds, BABs calculation agent, and other relevant parties, as applicable and necessary, calculate the amount of interest coming due on the immediately pending interest payment date and determine the amount of the refundable credit then due for inclusion on IRS Form 8038-CP for submittal to the US Treasury.

g. The SFPUC will coordinate with the Trustee on the Bonds, BABs calculation agent, and other relevant parties, as applicable and necessary, for completion and submittal of each IRS Form 8038-CP.

    i. The SFPUC shall cause the Trustee on the Bonds, BABs calculation agent, City departments, and other relevant parties, as applicable and necessary, to prepare the appropriate forms (including the IRS Form 8038-CP), which shall be signed by an appropriate officer of the SFPUC.

ii. The City Treasurer or his designee or the Trustee on the Bonds, as applicable, shall be the recipient of the refundable credit for deposit to the debt service fund of the appropriate series of the SFPUC's BABs.

h. No later than 15 days before each interest payment date, the SFPUC will coordinate with the Trustee on the Bonds, BABs calculation agent, and other relevant parties, as applicable and necessary, to confirm that the interest subsidy payment has been received and will be applied in compliance with the Tax Code for BABs.

    i. In the event that a partial interest subsidy payment or no interest subsidy payment is received, the SFPUC will coordinate with the Trustee on the Bonds, BABs calculation agent, and other relevant parties, as applicable and necessary, to

        1. determine the cause of the partial payment or no payment

        2. resolve disagreements, disputes, etc. with the IRS and/or US Treasury.

    ii. In the event that a partial interest subsidy payment or no interest subsidy payment is received, the SFPUC will coordinate with the Trustee on the Bonds, BABs calculation agent, and other relevant parties, as applicable and necessary, to budget the gross amount of interest due on the Bonds in the applicable fiscal year until the full amount of interest subsidy payments are received.

i. The SFPUC will create a monitoring record that tracks compliance with all applicable provisions of the Tax Code for BABs.

j. The SFPUC will maintain a copy of each Form 8038-CP that is submitted. In addition, the SFPUC will maintain copies of all relevant documents and records sufficient to support that the tax requirements relating to BABs have been satisfied, including the following: closing transcript; all records of investments, arbitrage reports, returns filed with the IRS and underlying documents; construction contracts, purchase orders, invoices and payment records; documents relating to costs reimbursed with bond proceeds; all contracts and arrangements involving private business use of the bond-financed property; all reports relating to the allocation of bond proceeds and private business use of bond-financed property; and itemization of property financed with bond proceeds. Records may be kept in any combination of paper or electronic form.

k. The SFPUC will confirm that no more than two percent (2%) of the proceeds of any issue of BABs will be used for costs of issuance.

SUMMARY NOTES

San Francisco Public Utilities Commission Revenue Bond Oversight Committee

2016 Strategic Planning Meeting

February 8, 2016

Attendees: Kevin Chang, Co-Chair
Joshua Low, Co-Chair
Holly Kaufman
Marina Pelosi
Christina Tang
Dari Barzel, Applicant for Committee appointment
Derek Evans, Assistant Clerk, SFBOS
Mark Blake, Deputy City Attorney
Mike Brown, SFPUC Finance staff

Discussion of Committee Mission

After a summary of the background legislation and purpose of the RBOC given by Mark Blake, the Committee members discussed and redrafted the mission statement as follows:

The purpose of the RBOC is to monitor the expenditure of revenue bond proceeds related to the repair, replacement, upgrade and expansion of the SFPUC's water, power and sewer infrastructure. The RBOC's goal is to ensure that SFPUC revenue bond proceeds are spent appropriately and according to authorization and applicable laws. The RBOC provides oversight to ensure transparency and accountability in connection with expenditure of the proceeds. The public is invited to attend RBOC meetings and provide input.

Members agreed to review the draft and plan to adopt a final revision at their next meeting.

Improvement of Committee Operations

After the discussion and redrafting above, Committee members agreed that they are clear on the mission of the Committee. They then discussed the strategic issues facing the group for the next 12-18 months. These issues and possible actions are summarized below:

1) The Committee needs a study of program comprehensiveness. There is a need to find out if the scope of the capital program is responsive to issues of recycling,

climate change, flooding. What other capital program components are mission critical and how does the Committee ensure that they are not omitted?

2) There is a need to stress test the overall budget, especially with the impact on the ability to pay off bonds due to current revenue decline.
3) How to best incorporate WISP lessons learned into sewer program? Should staff continue the annual peer review established for WISP or is it better to continue with independent audit? Request staff to provide the top 10 recommendations and what the results are of those that have been accepted and implemented. Need to coordinate and get recommendations from City Auditor and coordinate with their work plans.
4) The members agreed that a separate strategy session focused on the above 3 issues should be scheduled very soon.
5) Find a way to get staff time committed to implementation of the Committee's work plan
6) Consider bringing back subcommittees to improve ability to drill down into a topic.
7) Decide early if Committee wants a site visit/tour of facilities; Derek will request and coordinate.
8) Request staff to provide copies of the presentation materials prior to the RBOC meeting, preferably in the agenda packet.

<u>Preliminary 2016 Calendar Items</u>

Committee members drafted the preliminary work plan (Attachment 1).

<u>Performance Metrics</u>

Members discussed ways that they and the public would know that they were accomplishing the mission. Some of those discussed are listed below:

1) Member attendance
2) Member full participation/contribution of ideas, recommendations, solutions
3) Measure not only inputs (audits), but outputs (what difference/value added did it make that the Committee was doing its job?)
4) Transparency
5) Accountability
6) Level and type of monitoring activity
7) Efficiency

Evans, Derek

From: Steve Lawrence <steveinsf@outlook.com>
Sent: Sunday, September 18, 2016 12:37 PM
To: RBOC, (BOS); Evans, Derek
Subject: RBOC matters

(Derek, if you will and can, please provide copies and/or email; may this be considered in lieu of public comment?)

RBOC:

I have followed RBOC since inception. For this meeting I asked for proposed mission language; I was invited to ask or express any time, and by this do so.

Leaving aside RBOC's mission, which I understand to be to see that revenue bond proceeds are well spent, I ask:

1. Do you believe that money was well spent for Calaveras Dam? Change costs exceed the original contract price. Spending on changes is IMO highly inefficient; the contractor need not bid for the work, and is likely to take advantage. Spending hundreds of millions in this way is concerning. Additionally, where did all the excavated material go? The contractor was paid to dig out lots, and paid to import higher quality rock as well, I believe. He trucked the spoil somewhere; what happened to it? Did he sell it so that he not only made out well on the change work, but also profited from the disposition?

2. The largest WSIP project (Calaveras) more than doubled with changes. Half was not bid work. But the largest SSIP project is not to be bid at all. This billion dollar behemoth is to be let unconventionally to a construction manager. Perhaps this shelters change work from recognition as such. Without competitive bids, how are ratepayers to feel assured that the best price is paid? Are there solid plans and specs? Or will this work be design/build? If design/build, or similar, how does an Independent Engineer certify that the work is "to utility standard?" If the ultimate price is unknown, how does a Qualified Independent Consultant certify that revenues will be sufficient?

3. Both of the last two questions (and terms) are taken from the debt policies adopted by the Commission earlier this month. These policies generate questions. A few of mine are:
a) Must capital improvements financed by debt be owned by SFPUC? Apparently not; are there rules (which I don't find) governing when improvements not owned by SFPUC are permissible? Lease back arrangements are permitted; when, are there restrictions?
b) Bonds may be issued by negotiated sales or private placement at discretion of GM. Does this not invite corruption or favoritism? Should policy be designed to avoid or minimize temptation; "lead us not into temptation?"
c) Green Bonds are enabled. While perhaps not revenue bonds, these debts suck from revenues needed to pay for SSIP and like capital improvements. I remain unconvinced that the semi-political Commission is a sufficient check on over-issuance. What (presumably higher) interest rates are paid?

4. A Commissioner, Ike Kwon, is to protect ratepayers. What does he do in furtherance? Does or should RBOC coordinate?

5. Does or should RBOC enable whistleblowers? Should the RBOC annual report state how rates have risen over the last decade, and how they are projected to rise over the next? Should it address salaries, median and top, and the growth of them? of operating costs? Could the report or synopsis be press material?

These are a few questions I commend to you. Thank you for your consideration.

Steve Lawrence
steveinsf@outlook.com

Public Utilities Revenue Bond Oversight Committee Forward Calendar - 2016

Purpose: The purpose of the RBOC is to monitor the expenditure of revenue bond proceeds related to the repair, replacement, upgrading, and expansion of the City's water collection, power generation, water distribution, and wastewater treatment facilities.

Mission: The goal of the RBOC is to make certain public dollars are spent according to authorization and applicable laws. Its purpose is to facilitate transparency and accountability in connection with the expenditure of revenue bond proceeds. The General Public is invited and welcomed to attend RBOC meetings and to provide input.

October 17, 2016

1. SFPUC staff bimonthly update: Sewer System Improvement Program (SSIP)
2. Peer review program for wastewater – what is the plan?
3. Drafting annual report
4. Mountain Tunnel presentation: overview of issue, how it is being addressed, project update, project scope and budget, why Mountain Tunnel was not included as part of WSIP, possibility of inclusion in WSIP, project going forward.

November 7, 2016

1. SFPUC staff bimonthly update: Water System Improvement Program (WSIP)
2. Publish Final Annual Report

December 12, 2016

1. SFPUC staff bimonthly update: Sewer System Improvement Program (SSIP)
2. SFPUC staff bimonthly update: Water System Improvement Program (WSIP)