Agenda

Sacramento Suburban Water District

Regular Board Meeting

3701 Marconi Avenue, Suite 100
Sacramento, California 95821

Monday, September 21, 2015
6:30 p.m.

Where appropriate or deemed necessary, the Board may take action on any item listed on the agenda, including items listed as information items. Public documents relating to any open session item listed on this agenda that are distributed to all or a majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection in the customer service area of the District's Administrative Office at the address listed above.

The public may address the Board concerning an agenda item either before or during the Board's consideration of that agenda item. Persons who wish to comment on either agenda or non-agenda items should fill out a Comment Card and give it to the General Manager. The President will call for comments at the appropriate time. Comments will be subject to reasonable time limits (3 minutes).

In compliance with the Americans with Disabilities Act, if you have a disability, and you need a disability-related modification or accommodation to participate in this meeting, then please contact Sacramento Suburban Water District Human Resources at 679.3972. Requests must be made as early as possible, and at least one full business day before the start of the meeting.

Call to Order

Roll Call

Announcements

Public Comment
This is the opportunity for the public to comment on non-agenda items within the Board's jurisdiction. Comments are limited to 3 minutes.

Consent Items
The Board will be asked to approve all Consent Items at one time without discussion. Consent Items are expected to be routine and non-controversial. If any Board member, staff or interested person requests that an item be removed from the Consent Items, it will be considered with the action items.

1. Minutes of the August 17, 2015 Regular Board Meeting
   Recommendation: Approve subject minutes.

2. Impaired Capital Asset Policy (PL - Fin 008)
   Recommendation: Adopt subject policy.

Items for Discussion and Action

3. Directors' Compensation and Expense Reimbursement Policy (PL - BOD 003)
   Receive written policy and direct staff as appropriate.

4. General Manager's Out of State Travel Request – American Water Works Association (AWWA) California-Nevada Section Annual Fall Conference
   Consider approving out of state travel request.

5. Claim - 7322 Yorktown Place #907
   Receive written report and direct staff as appropriate.

6. Sacramento River Water Reliability Study Update
   Receive written report and direct staff as appropriate.

7. Voluntary Watering Schedule Change
   Receive written report and direct staff as appropriate.

8. Sacramento LAFCo Election of Special District Commissioner
   Consider nominating a candidate for LAFCo's Special District Commissioner.

9. Project Agreement with RWA for Grant Management Services for 2014 Proposition 84 Drought Grant Projects
   Receive written report and direct staff as appropriate.

10. Board Direction to Convene a Stakeholder Advisory Group
    Provide additional staff direction.

Information Items

11. Water Conservation and Regional Water Efficiency Program Report

    a. Drought Report

    b. Summary of Activities to Date

    c. Water Conservation Program and Results

    d. Upcoming Events

12. District Activity Report
    a. Water Operations and Exceptions Report
    b. Customer Service Report
    c. Community Outreach Report
13. Engineering Report
    a. Major Capital Improvement Projects
    b. County and City Projects/Coordination
    c. McClellan Business Park
    d. Groundwater Quality Projects
    e. Developer Projects
    f. Other
14. Financial Report
    a. Financial Statements – August 2015
    b. Investments Outstanding and Activity – August 2015
    c. Cash Expenditures – August 2015
    d. Credit Card Expenditures – August 2015
    e. Directors Compensation and Expense Accounting – Through August 2015
    f. Market Report Yields – January 2010 through August 2015
    g. District Reserve Balances – August 2015
    h. Information Required by Bond Agreement
15. New Other Post Employment Benefits (OPEB) Valuation

16. General Manager's Report

    a. Hexavalent Chromium 6 Update

    b. District Hiring Practices

    c. McClellan Restoration Advisory Board (RAB) Meeting Update

    d. 2016 Benefits Renewal Analysis

17. Legislative and Regulatory Update

18. Order for Technical Report – Central Valley Regional Water Quality Control Board

19. ACWA/JPIA Liability, Property, and Workers' Compensation Risk Assessment

20. Fluoridation in the South Service Area

21. Succession Plan Update

22. Upcoming Policy Review

    a. Water Banking and Transfer Policy (PL – BOD 006)

    b. Reserve Policy (PL – Fin 004)

Committee Reports

23. a. Facilities and Operations Committee (Director Wichert)
    Revised notes from July 23, 2015 meeting. Notes from the September 3, 2015 meeting.

    b. Finance and Audit Committee (Director Locke)
    Notes from the August 28, 2015 meeting.

    c. Government Affairs Committee (Director Wichert)
    Notes from the August 21, 2015 meeting.

    d. Ad Hoc Water Banking and Transfer Committee (Director Locke)
    No report.

    e. Ad Hoc Water Rights Review Committee (Director Schild)
    No report.

Director's Reports (Per AB 1234, Directors will report on their meeting activities)

24. a. Regional Water Authority (Director Thomas)
Agenda from the September 10, 2015 meeting.

Regional Water Authority Executive Committee (General Manager Roscoe)
Agenda from the August 26, 2015 meeting.

b. Sacramento Groundwater Authority (Director Schild)
No report.

c. Water Forum Successor Effort (Assistant General Manager York)
No report.

Carryover Storage Working Group meeting, Agenda from the September 14, 2015 meeting.

Water Forum Dry Year Conference meeting
No report.

Water Caucus meeting, Agenda from the September 9, 2015 meeting.

d. Other Reports

Miscellaneous Correspondence and General Information

25. Correspondence received by the District

26. General Information

Director's Comments/Staff Statements and Requests
The Board and District staff may ask questions for clarification, and make brief announcements and comments, and Board members may request staff to report back on a matter, or direct staff to place a matter on a subsequent agenda.

Closed Session (Closed Session Items are not opened to the public)

27. Conference with real property negotiator involving the purchase, sale, lease or exchange of real property, Assessor's Parcel Numbers 203-0270-001-0000 & 203-0270-001-0000. Robert Roscoe, District negotiator, will negotiate with Polycomp Trust Co. Instructions to the negotiator may include price, terms of payment, or both. (See Government Code sections 54954.5(b) and 54956.8.)

Adjournment

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Upcoming Meetings
Monday, October 5, 2015 at 3:00 p.m., Board Workshop
Monday, October 19, 2015 at 6:30 p.m., Regular Board Meeting

* *

I certify that the foregoing agenda for the September 21, 2015 meeting of the Sacramento Suburban Water District Board of Directors was posted by September 17, 2015 in a publicly-accessible location at the Sacramento Suburban Water District office, 3701 Marconi Avenue, Suite 100, Sacramento, California, and was freely available to the public.

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Robert S. Roscoe
General Manager/Secretary
Sacramento Suburban Water District

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Agenda Item 1

Minutes

Sacramento Suburban Water District
Regular Board Meeting
Monday, August 17, 2015

Call to Order
President Schild called the meeting to order at 6:32 p.m.

Roll Call

Directors Present:	Frederick Gayle, Craig Locke, Neil Schild, Kevin Thomas and Robert Wichert.
Directors Absent:	None.
Staff Present:	General Manager Robert Roscoe, Dan York, Heather Hernandez-Fort, James Arenz, Greg Bundesen, David Espinoza, Dave Jones, John Valdes, Annette O'Leary and Lynne Yost.
Public Present:	Ted Costa, William Eubanks and Avery Wiseman.

Announcements
- Friday, August 21, 2015 at 4:00 p.m., Government Affairs Committee Meeting
- Friday, August 28, 2015 at 3:00 p.m., Finance and Audit Committee Meeting
- Thursday, September 3, 2015 at 5:00 p.m., Facilities and Operations Committee Meeting
- Monday, September 7, 2015 Labor Day – Office is closed due to Holiday
- Thursday, August 20, 2015 CSDA training session on understanding the Brown Act "Beyond the Basics"

Public Comment
None.

Consent Items

1. Minutes of the July 20, 2015 Regular Board Meeting

2. Catastrophic Leave Policy (PL - HR 008)

3. Resolution No. 15-16 Accepting Grant of Easement and Right of Way for 737 Treehouse Lane

4. Resolution No. 15-17 Accepting Grant of Easement and Right of Way for 1020 Jonas Avenue

5. Resolution No. 15-18 Accepting Grant of Easement and Right of Way for 2135 Butano Drive

6. Resolution No. 15-19 and 15-20 Accepting Two Grants of Easement and Rights of Way at 4845 Fair Oaks Boulevard and Rescinding Resolution 15-14

President Schild requested Item's 1 through 5 be pulled from the Consent calendar.

Director Thomas moved to accept Item number 6; Craig Locke seconded. The motion carried by unanimous vote.

AYES:	Gayle, Locke, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

Regarding Item 1, President Schild noted Jim Stalder's name was incorrect under Item 7 in the July 20, 2015 Board Minutes. Staff noted to correct this mistake.

Director Wichert mentioned that he previously requested to see the Northrop Enterprise Intertie sketch. Assistant General Manager York (AGM York) clarified to him that the sketch will be at the next Facilities & Operations (F&O) meeting on September 3, 2015. In addition, Director Locke requested to see the sketch.

Director Wichert made a motion to accept Agenda Item 1 as amended; Director Locke seconded. The motion carried by unanimous vote.

AYES:	Gayle, Locke, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

Regarding Item 2, President Schild commented on the Catastrophic Leave Policy, noting that the option to transfer floating holiday hours is not stated in the policy, as it is offered on the Catastrophic Leave Pledge Form. General Manager Robert Roscoe (GM Roscoe) clarified for the Board what a floating holiday is. Director Locke stated that it appears to be comparable to vacation hours, therefore, should remain as an option on the form. Director Wichert moved to strike the Floating Holiday option from the policy. President Schild seconded the motion. The motion carried by 4/1 vote (Locke opposed).

AYES:	Gayle, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:	Locke	RECUSED:	
ABSENT:			

Regarding Item 3, President Schild inquired about the existing County right of way. Mr. Dave Jones replied that the District does have the right on a public right of way; however, this particular easement ends at the County line, where the private roadway begins.

Director Locke inquired about the adjacent property easements. Mr. Jones responded that the two adjacent property easements have already been acquired at no cost to the District.

Director Thomas made a motion to accept the subject easement; Director Locke seconded. The motion carried by unanimous vote.

AYES:	Gayle, Locke, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

Regarding Item 4, President Schild commented on the proposed 10 foot easement, noting that this easement has been previously brought before the Board. GM Roscoe stated that the available property for this easement is larger than what staff expected at the time this easement was initially presented to the Board. GM Roscoe further stated that the existing change to the easement was presented to the F&O Committee, who directed staff to present it to the full Board with a recommendation of approval.

President Schild expressed that he believed it would cost more to maintain this property than others in the District and that the District should not have agreed to serve water to this small property.

GM Roscoe further explained that there is a 5 foot easement on the adjacent property, which combined makes for a total of a 15 foot easement.

Director Wichert reminded the Board that this person is also a customer of the District. He expressed that any grant of easement is basically taking land use from the customer. He further stated that the General Manager believes this easement is adequate; therefore, he supported adopting the resolution.

Director Gayle made a motion to accept the subject easement; Director Locke seconded the motion. The motion carried by 4/1 vote (Schild opposed).

AYES:	Gayle, Locke, Thomas and Wichert.	ABSTAINED:	
NOES:	Schild	RECUSED:	
ABSENT:			

Regarding Item 5, President Schild expressed that he didn't agree with the 10 foot easement, declaring he believed it would not be adequate. Staff expressed that with the proposed 10 foot easement for this property, added to the proposed 20 foot easement at the adjacent property, the combined easement width would be 30 feet.

Director Locke made a motion to accept the subject easement; Director Wichert seconded the motion. The motion carried by 4/1 vote (Schild opposed).

AYES:	Gayle, Locke, Thomas and Wichert.	ABSTAINED:	
NOES:	Schild	RECUSED:	
ABSENT:			

Items for Discussion and Action

7. **Resolution No. 15-21 Supporting the Nomination of Kathleen Tiegs for President of the Association of California Water Agencies (ACWA) Board of Directors**
A written report was provided.

Director Gayle made a motion to support the nomination of Kathleen Teigs for President of ACWA; Director Locke seconded. The motion carried by unanimous vote.

AYES:	Gayle, Locke, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

8. **ACWA Region 4 Election**
Director Thomas moved to nominate the recommended slate. President Schild expressed his disapproval of Pam Tobin. Director Thomas withdrew his motion. Director Wichert agreed to not support the slate.

President Schild designated himself as the ACWA voting delegate.

President Schild proceeded to review the slate one by one. A non-substantive discussion ensued regarding the voting process, as well as discussion on the individual candidates.

The Board agreed to select the following individual candidates:

GM Roscoe as Chair, Glen Grant as Vice Chair, then Mike Hardesty, Thomas McGurk, John Mesinger, Tim O'Halloran and Robert Roscoe for the individual Board candidates.

Director Thomas made a motion to support the nomination of amended slate; Director Locke seconded. The motion carried by unanimous vote.

AYES:	Gayle, Locke, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

9. **Resolution No. 15-22 Fixing the Employer Contribution Under the Public Employees' Medical and Hospital Care Act, and Resolution No. 15-23 Fixing the Employer Contribution Under Section 22893 of the Public Employees' Medical and Hospital Care Act**
Finance Director Dan Bills introduced the report. GM Roscoe added that the District offers a minimum of one PPO plan, and one HMO plan with a cap on the District's contribution. Mr. Bills explained that there is a 2.67% increase this year. President Schild suggested considering other providers such as JPIA. GM Roscoe reminded the

Board that if you leave CalPERS, there is a 5 year period in which you are unable to rejoin. Director Wichert commented that CalPERS appears to be the most reasonable choice, however, requested having a presentation by an alternate provider for next year so that the Board can better understand the benefits of their services.

Mr. William Eubanks commented on the subject of a supplemental plan.

Director Thomas made a motion to adopt the subject resolution; Director Locke seconded the motion. The motion carried by 4/1 vote (Schild opposed).

AYES:	Gayle, Locke, Thomas and Wichert.	ABSTAINED:	
NOES:	Schild	RECUSED:	
ABSENT:			

10. **Resolution No. 15-24 Supporting the Nomination of a Candidate for Vice President of the Association of California Water Agencies (ACWA) Board of Directors**

President Schild introduced the report. GM Roscoe clarified all of the options. Director Locke inquired if there was a disadvantage in supporting Mr. Bill George. Director Thomas noted that he is a part of RWA which would be supporting the District's region.

Director Locke made a motion to support Mr. George as the Vice Chair for ACWA; Director Thomas seconded. The motion carried by unanimous vote.

AYES:	Gayle, Locke, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

11. **Update on Reorganization Discussions**

GM Roscoe presented the staff report including a brief history of the topic. Director Wichert recommended assembling a meeting to discuss how this can move forward, line out any issues, and figure out how to resolve those issues. Director Thomas agreed.

Director Gayle suggested the District's Board President have a discussion with the Board President of San Juan Water District (SJWD) exclusively.

Mr. Eubanks inquired why the document produced by the Consultant, the Brenda Davis Law Group, was private. Director Wichert indicated that it was still a draft.

Mr. Eubanks stated his comments regarding the reorganization discussion. He also suggested that the District hire outside consultants instead of spending staff's time. Director Wichert responded that he would rather staff spend the time on working with the Districts neighbor agencies, than blindly proceeding with a possible merger.

Director Wichert made a motion that SSWD convene a stakeholder advisory committee to include one elected official from each of the following organizations; SJWD,

Carmichael Water District, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water District, Del Paso Manor Water District and City of Folsom; Director Thomas seconded the motion. The motion carried by 3/2 vote. (Gayle and Schild opposed)

AYES:	Locke, Thomas and Wichert.	ABSTAINED:	
NOES:	Gayle and Schild	RECUSED:	
ABSENT:			

12. **Main Replacement Program Project Substitution**
GM Roscoe introduced the report.

Director Wichert asked why staff chose the Barcelona project. Mr. Jones pointed out that this project was actually scheduled to be constructed in 2014, but was postponed due to a County asphalt project. He explained that this project is already pre-designed and fits within the approved budget. Discussion ensued regarding budgeting for Asset Management Plans. GM Roscoe explained that this is an example of substituting a project that was not specifically approved at budget time.

Mr. Eubanks commented that the Asset Management Plan should be a guide for decisions made by the General Manager, and that the Board should only be responsible for the budgeting of this Plan.

Director Locke made a motion to authorize the Barcelona Water Meter Replacement Project for the 2015 budget; Director Thomas seconded. The motion carried by unanimous vote.

AYES:	Gayle, Locke, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

13. **Surface Water Supply of Former Northridge Water District**
A written report was provided. President Schild suggested looking beyond Area D. GM Roscoe exhibited Area D on the map and gave a brief history of the Area D water rights contract.

Mr. Eubanks withdrew his comment.

Director Wichert made a motion authorizing staff to direct District legal counsel to arrange for a meeting with the City of Sacramento legal counsel to investigate the validity of surface water supply of the former Northridge Water District; Director Locke seconded the motion. The motion carried by unanimous vote.

AYES:	Gayle, Locke, Schild, Thomas and Wichert.	ABSTAINED:	
NOES:		RECUSED:	
ABSENT:			

14. **Joint Defense and Cost Sharing Agreement to Preserve and Protect American River Water Supplies**
President Schild presented the report and expressed his opinion against the Joint Defense Agreement. He believes that the District will not get to a reasonable end result and that this is not economical.

Director Wichert inquired what staff's expectations are of this Agreement. GM Roscoe replied that this Agreement would allow the District to provide technical comments, as well as preserve the District's position. He further clarified what the Agreement is, and explained the benefits to the District.

Director Wichert echoed the clarification from GM Roscoe, stating that this is a way to allow experts to testify or lobby on the District's behalf. Further stating that it is an effort to exert our influence over governmental entities which may take away things that the District believes are necessary. GM Roscoe added that it is also preserving the District's legal rights.

Director Wichert made a motion to approve the Joint Defense and Cost Sharing Agreement; Director Gayle seconded the motion. The motion carried by 3/2 vote (Locke and Schild opposed).

AYES:	Gayle, Thomas and Wichert.	ABSTAINED:	
NOES:	Locke and Schild	RECUSED:	
ABSENT:			

15. **Strategic Plan (PL – BOD 001)**
A written report was provided. The Board agreed to have staff try to schedule a special meeting.

Mr. Eubanks withdrew his comment. Mr. Avery Wiseman commented that he was in favor of a workshop.

16. **Rescheduling the Date for September 2015 Regular Board Meeting**
A written report was provided. The Board agreed to keep the meeting the at the regular date and time.

Information Items

17. **Water Conservation and Regional Water Efficiency Program Report**
A written report was provided. Mr. Greg Bundesen presented the staff report.

a. *Drought Report*
A written report was provided.

b. *Summary of Activities to Date*
A written report was provided.

c. *Water Conservation Program and Results*
A written report was provided. Mr. Eubanks expressed his opinion on the cash for grass rebate program.

d. *Upcoming Events*
A written report was provided.

18. **District Activity Reports**
A written report was provided.

a. *Water Operations and Exceptions Report*
A written report was provided.

b. *Customer Service Report*
A written report was provided.

c. *Community Outreach Report*
A written report was provided.

AGM York announced that Sacramento Metropolitan Fire District complimented District staff on their response time during a recent water main leak.

19. **Engineering Report**
A written report was provided.

a. *Major Capital Improvement Projects*
A written report was provided.

b. *County and City Projects/Coordination*
A written report was provided.

c. *McClellan Business Park*
A written report was provided.

d. *Groundwater Quality Projects*
A written report was provided.

e. *Developer Projects*
A written report was provided.

f. *Other*
A written report was provided.

20. **Financial Report**
A written report was provided.

Mr. Eubanks commented on payment garnishments.

a. *Financial Statements – July 2015*
A written report was provided.

b. *Investments Outstanding and Activity – July 2015*
A written report was provided.

c. *Cash Expenditures – July 2015*
A written report was provided.

d. *Credit Card Expenditures – July 2015*
A written report was provided.

e. *Directors Compensation and Expense Accounting – Through July 2015*
A written report was provided.

f. *Market Report Yields – January 2010 through July 2015*
A written report was provided.

g. *District Reserve Balances – July 2015*
A written report was provided.

h. *Information Required by Bond Agreement*
A written report was provided.

21. **General Manager's Report**
A written report was provided.

Mr. Wiseman commented about the Comprehensive Water Rate Study conducted by HDR Engineering, Inc.

a. Sacramento River Water Reliability Study Update
A written report was provided.

b. Newly Adopted Model Landscape Ordinance
A written report was provided.

c. 2016 Medical Insurance Rate Analysis
A written report was provided.

d. San Juan Capistrano Tiered Rates Update
A written report was provided.

e. 2015 Flexible Benefit Plan Discrimination Testing Results
A written report was provided.

22. **2016 CSDA Committee & Expert Feedback Team Participation**
A written report was provided.

23. **Call for Committee Assignments for the Association of California Water Agencies**
President Schild presented the report. He expressed his desire to remain on the Federal Affairs Committee and the Groundwater Committee.

Director Locke expressed his desire to be on the Groundwater Committee, as well as the Energy Committee.

Director Wichert expressed his desire to be on the Water Quality Committee.

Director Thomas expressed his desire to continue to be on the Outreach Committee and the Local Government Committee. He also expressed his desire to be on the Energy Committee.

GM Roscoe expressed his desire to remain on the Water Resources Committee and the Groundwater Committee.

24. **2016 Budget Preparation Schedule**
Mr. Bills presented the staff report. President Schild suggested holding the meeting on Monday, October 5, 2015 at 3:00 pm. The Board agreed.

25. **Order for Technical Report – Central Valley Regional Water Quality Control Board**
A written report was provided.

26. **ACWA Water Transfers Work Group**
A written report was provided.

27. **Legislative and Regulatory Update**
A written report was provided.

28. **Upcoming Policy Review**

a. *Impaired Capital Asset Policy (PL - Fin 008)*
A written report was provided. Directors' comments are due by September 1, 2015.

b. *Directors' Compensation and Expense Reimbursement Policy (PL - BOD 003)*
A written report was provided. Directors' comments are due by September 1, 2015.

Committee Reports

29. a. *Facilities and Operations Committee (Director Wichert)*
Notes from July 23, 2015 meeting were provided. Director Wichert requested a briefing to the full Board on the status of the Water Master Plan and the 2015 Urban

Water Management Plan. He also requested an update to the notes from the Facilities and Operations Committee to include the language where he requested for GM Roscoe to have discussions with Carmichael Water District regarding resource sharing.

b. *Finance and Audit Committee (Director Locke)*
No report.

c. *Government Affairs Committee (Director Wichert)*
Agenda for the August 21, 2015 meeting were provided.

d. *Ad Hoc Water Banking and Transfer Committee (Director Locke)*
No report.

e. *Ad Hoc Water Rights Review Committee (Director Schild)*
Agenda from the July 27, 2015 meeting were provided.

Director's Reports (Per AB 1234, Directors will report on their meeting activities)

30. a. *Regional Water Authority (Director Thomas)*
No report.

Regional Water Authority Executive Committee (General Manager Roscoe)
No report.

b. *Sacramento Groundwater Authority (Director Schild)*
Director Schild provided an oral report regarding the August 13, 2015 Sacramento Groundwater Authority meeting.

c. *Water Forum Successor Effort (Assistant General Manager York)*
GM Roscoe provided an oral report regarding the July 21, 2015 Carryover Storage Working Group meeting.

The Agenda for the July 29, 2015 Water Forum Dry Year Conference meeting was provided.

GM Roscoe provided an oral report regarding the August 12, 2015 Water Caucus meeting.

d. *Other Reports*

Miscellaneous Correspondence and General Information

1. Certain correspondence received by the District was provided.

2. General information related to District business was provided.

Director's Comments/Staff Statements and Requests
None.

Closed Session (Closed Session Items are not opened to the public)
The Board convened in closed session at 9:36 p.m.

1. Public employee performance evaluation involving the General Manager under Government Code section 54954.5(e) and 54957.

Return to Open Session
The Board convened in open session at 10:08 p.m. There was no reportable action.

Adjournment
President Schild adjourned the meeting at 10:09 p.m.

Robert S. Roscoe
General Manager/Secretary
Sacramento Suburban Water District

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 2

Date: September 1, 2015

Subject: Impaired Capital Asset Policy (PL - Fin 008)

Staff Contact: Daniel A. Bills, Finance Director

Recommended Board Action:
Approve the attached updated policy - Impaired Capital Asset Policy (PL - FIN 008).

Discussion:
At last month's board meeting, an update of the Impaired Capital Asset Policy (PL - FIN 008) was presented to the Board for review and comment (Exhibit 1). As of the date of this report, no director comments have been received. Staff is recommending one technical edit to the Policy.

Fiscal Impact:
None.

Strategic Plan Alignment:
Finance – 4.A. Monitor District operation through internal control procedures, documentation and such other processes necessary to ensure effective financial performance.

Sacramento Suburban Water District

Field Code Changed

Impaired Capital Asset Policy

Adopted: July 16, 2007
Amended: August 15, 2011, September 16, 2013, September XX, 2015

100.00 Purpose of the Policy

To implement the requirements of Governmental Accounting Standards Board (GASB) Statement No. 42, "Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries" (GASB 42).

200.00 Policy

The District will implement procedures to conform to the requirements of GASB 42.

GASB 42 established accounting and financial reporting standards for impairment of capital assets. A capital asset is considered impaired when its service utility has declined significantly and unexpectedly.

300.00 Capital Asset Impairment Evaluation

The requirements of GASB 42 only apply to capital assets with material carrying values. If the District has material capital assets that are impaired or potentially impaired, a determination needs to be made as to whether the impairment loss should be reported and disclosed.

400.00 Policy Review

This policy shall be reviewed at least biennially.

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 3

Date: September 11, 2015

Subject: Directors' Compensation and Expense Reimbursement Policy (PL - BOD 003)

Staff Contact: Christine Bosley, Executive Assistant to the General Manager

Recommended Board Action:
Approve the attached policy - Directors' Compensation and Expense Reimbursement Policy (PL - BOD 003).

Discussion:
At last month's Board meeting, the Directors' Compensation and Expense Reimbursement Policy (PL - BOD 003) was presented to the Board for review and comment (Exhibit 1). As of the date of this report, no director comments have been received. Staff is recommending no changes to the Policy.

Fiscal Impact:
None.

Strategic Plan Alignment:
Finance – 4.A. Monitor District operation through internal control procedures, documentation and such other processes necessary to ensure effective financial performance.

Sacramento Suburban Water District

Directors' Compensation and Expense Reimbursement Policy

Adopted: July 21, 2003
Revised: May 15, 2006; May 19, 2008; May 17, 2010; June 20, 2011; July 15, 2013; August 18, 2014

100.00 Purpose of the Policy

This document sets forth the policy of the Sacramento Suburban Water District concerning Directors' compensation and the payment of actual and necessary expenses incurred in the performance of official duties and is intended to comply with the requirements of Government Code sections 53232 through 53232.4.

200.00 Directors' Compensation

200.10 Amount of Compensation

Each member of the Board of Directors of the District will be entitled to receive $100 per day for each day's attendance at meetings of the Board, or for each day's service rendered as a member of the Board by request of the Board, as provided in article 200.20.

200.20 Types of Service for Which Compensation Will Be Provided

Applicable law (Government Code section 53232.1) permits the District to compensate Directors for each day's attendance at meetings of the Board, or for each day's service rendered as a Director, subject to a written policy adopted in a public meeting. A Director can be compensated for up to 10 days per calendar month of service in accordance with the Board's adoption of Ordinance No. 02-01. (Water Code section 20202.) The District encourages Directors to take advantage of opportunities to be informed concerning matters of interest to the District, and to inform others of the activities and interests of the District. The General Manager or his or her designee will provide to the Board on a monthly basis a list of meetings attended by each Director for which the Director was compensated under this policy. Directors will be compensated (for up to 10 days per calendar month) for attending the following types of meetings:

a. Meetings of the Board of Directors of the District and the Board of Directors of the Sacramento Suburban Water District Financing Corporation;

b. Committee meetings of the Board, attended as a member of the committee;

c. Other meetings necessary for the disposition of duties assigned to a Board committee, attended by a member of the committee;

d. Meetings of other governmental entities, associations or duly-recognized committees on which the District is officially represented, attended by the liaison representative of the Board and/or the liaison representative alternate who has been appointed to represent the District on the governmental entity or committee (both liaison representative and liaison representative alternate should attend all meetings to be informed on the issues and therefore both will be compensated for attending those meetings);

e. Conferences, seminars, workshops and other events held within the State of California that are sponsored by industry associations or nonprofit entities for the purpose of discussing relevant water issues, including days while attending the conference, seminar, workshop or event, but excluding days in transit to or from the conference, seminar, workshop or event (attendance at conferences, seminars, workshops and events held outside the State of California will be approved by the Board of Directors on a case-by-case basis);

f. Educational training, seminars, and courses designed to improve Directors' understanding of District business and their obligations as public officials, including ethics training mandated under Government Code section 53235(a) and harassment prevention training under Government Code section 12950.1;

g. Meetings, water industry events or office visits of a substantial duration concerning substantive District business as requested and approved for payment by the General Manager or the Board President; and

h. In connection with business, educational and ceremonial meetings, functions and conferences for which the District has prepaid for a Director's attendance, the Director shall attend such events. If the Director is unable to attend the pre-paid event, the Director shall immediately notify the District. If the District cannot obtain a refund of fees paid, then the District shall bill the Director for reimbursement for all amounts paid, unless the Director's failure to attend the event arises from circumstances beyond the control of the Director.

300.00 Reimbursement of Directors' Expenses

300.10 Policy and General Rules

The District encourages Directors to attend conferences, seminars and other meetings that require their participation or provide an opportunity to be informed concerning matters of interest to the District. Each Director is entitled to reimbursement for the amount of the reasonable and prudent expenditures (i.e., registration fees, travel, meals, lodging, and other actual and necessary expenses) incurred in the performance of his or her official duties. When a Director pre-pays expenses (e.g. registration, airfare, hotel), the Director may submit such items for expense reimbursement prior to the meeting occurrence as described in article 300.20.

A Director may use his or her personal funds for meeting registration. The District will reimburse the Director for the actual amount of the registration, if properly reported and documented in accordance with article 300.40. If requested, staff will register a Director for qualifying meetings as described in article 200.20.

The District's annual budget will set an appropriate level of funding for payment of Directors' expenses. A Director will not be entitled to receive in excess of $ 4,000 per fiscal year for reimbursable expenses, exclusive of registration fees, unless the Board of Directors preapproves a Director's request to increase this amount for the applicable fiscal year. A maximum of five paid meeting days per conference will be allowed with the following exception: ancillary programs that are not a part of the main conference (e.g. ACWA/JPIA meetings). The General Manager or his or her designee will be responsible for ensuring that the budgeted amount is not exceeded without prior approval of the Board.

Any exceptions for expenses that do not come within the District's expense reimbursement policy must be approved by the Board in a public meeting in advance of the time when the expense will be incurred. (Government Code, §53232.2, subd. (f).) Any question concerning the propriety of a particular expense should be resolved by the Board before the expense is incurred.

300.20 Reimbursable Expenses

Directors' direct expenses for attendance at meetings and events authorized by this policy, including registration fees, reasonable travel, lodging, and meal costs, and other actual necessary expenses, will be paid by the District in accordance with the guidelines and per diem rates for an accountable expense reimbursement plan as defined in the United States Internal Revenue Service's Publication 463 ("Travel, Entertainment, Gift and Car Expenses") and Publication 1542 ("Per Diem Rates (For Travel Within the Continental United States") (collectively, the "IRS Publications"). A copy of the current IRS Publications can be obtained from the Finance Director.

The following expenses are authorized business-related expenditures:

a. Personal Vehicle Mileage. A Director will be reimbursed for actual vehicle travel miles at the rate authorized under the IRS Publications for all meetings attended and services provided as defined in article 200.20, Director's Compensation, above. A Director will be considered to have accounted for personal vehicle expenses by indicating the actual miles traveled, the business purpose of the travel, and the date of travel on the approved District expense reimbursement form and submitted in accordance with article 300.40. The District will not reimburse Directors for any other personal vehicle expenses.

b. Hotel Expenses. A Director will be reimbursed for reasonable lodging expenses incurred in accordance with this Policy when a Director attends conferences, seminars or meetings, if the Director stays at the hotel or other lodging listed in the event's registration materials at the group rate obtained for the event. If a Director travels on District business for which no hotel is designated or is unable to book lodging at a specified conference rate, he or she may either (a) be reimbursed at the per diem hotel rate provided in the IRS Publications for the city in which the hotel is located; or (b) use the Director's personal funds to pay for hotel charges, in which case the District will reimburse the Director for actual charges, but only up to three times the maximum per diem hotel rate provided for in the IRS Publications for the event location.

c. Meals. A Director may be reimbursed for the cost of meals while attending authorized conferences, seminars or meetings away from the District based on the per meal rate provided for in the IRS Publications. A Director may either (a) report meals at the IRS per diem rate or (b) use the Director's personal funds to pay for meals, in which case the District will reimburse the Director for actual charges, but only up to three times the maximum per diem meal rates provided for in the IRS Publications. If a Director is not traveling for a full day, defined as from 12:01 a.m. to 12:00 Midnight, the per diem meal/incidental allowance will be prorated according to the actual hours of travel unless a Director uses his or her personal funds to pay for meals, in which case the District will reimburse the Director for actual charges for meals incurred while traveling, but only up to three times the maximum meal rate provided for in the IRS Publications. If the District pre-pays the cost of one or more meals with a meeting, function or conference registration, a Director must attend the prepaid meals. If a Director fails to attend a pre-paid meal, a Director may not submit a claim for reimbursement for an alternative meal taken in lieu of the pre-paid meal.

d. Incidental Allowance. Tips for meals will be reimbursed up to a maximum of 15% of the cost of the reimbursable portion of any meal in accordance with the tip shown on the receipt attached to an expense reporting form. The District will reimburse a Director for tips actually given to cabbies,

baggage porters, bellhops and hotel housekeepers that are reasonable and customary for the area. A Director may be reimbursed for toll charges and parking fees up to the actual amount expended.

e. Common Carrier Travel. When personal vehicle use for District business is impractical due to time and/or distance, a Director may use regularly-scheduled commercial carriers for travel. Consistent with scheduling needs and the most-direct route, a Director traveling by plane, train, rental vehicle, bus, or taxi will travel by the least-expensive fare actually available for the date and time of the travel. When possible, travel should be planned in advance to permit use of advance fares. Long-term parking must be used at airports for travel exceeding 24 hours. The District will reimburse the Director for the actual amount of the fare and related, necessary expenses (e.g., baggage fees), if properly reported in accordance with article 300.30.

f. Telephone/Fax/Cellular/Internet. A Director will be reimbursed for actual telephone, fax and reasonable internet expenses incurred for District business. Telephone bills should identify which calls were made for District business. For cellular calls when the Director has a particular number of minutes included in the Director's plan, the Director can identify the percentage of calls made for District business.

300.30 Types of Expenses for Which Reimbursement Will Not be Provided

Director expenses that are not deemed to be reimbursable business expenses may include, but are not limited to:

a. Barber and/or beauty shop charges
b. Fines for traffic or parking violations
c. Expenses of any person accompanying a Director on a District-approved trip or event
d. Personal telephone calls
e. Fitness/Health Facility or Massages
f. Alcoholic beverages
g. Entertainment expenses (movies, sporting events, etc.)
h. Non-Mileage vehicle expenses
i. Charitable contributions

300.40 Expense Reporting Procedures

In order to be reimbursed for any expense authorized under this Policy, within 60 days of incurring the expense, a Director must fill out and sign a District-provided expense report form available from the Finance Department. The expense report form is designed to ensure that Directors' expense reimbursements comply with the requirements of Government Code section 53232.3 and the IRS Publications. Accordingly, the General Manager will review each expense report form, and sign it

to indicate compliance with the requirements of this policy. In all cases when a Director seeks reimbursement for expenses incurred while attending a conference, seminar or other meeting, a copy of the conference registration form must either be attached to his or her expense report or on file at the District (e.g. copy attached to check request or purchasing card paperwork). In addition, a Director will be required to attach the following documentation to his or her expense reimbursement report as a condition of receiving reimbursement for an appropriately-incurred business expense:

a. Personal Vehicle Mileage. To verify mileage, the General Manager or designee will document personal vehicle mileage, using tools such as Google or MapQuest, which will be attached to the Director's expense report.

b. Lodging Expenses. If a Director wishes to be reimbursed for lodging expenses, he or she must attach to the expense report an itemized bill issued by the hotel and a copy of the credit card receipt or other proof of the Director's payment. Except when attending a conference, seminar or other meeting and using the available group rate booked for the event, the District will reimburse a Director only for the actual amount of the hotel expenses incurred up to a maximum amount equal to three times the applicable per diem rate shown in the IRS Publications.

c. Meal Expenses. If a Director wishes to be reimbursed for meal expenses at the IRS per diem rate, he or she may fill out the expense report form and claim the expense without further documentation. If a Director pays for meals with his or her own funds, he or she must attach to the expense report an itemized bill, copy of a credit card receipt or other proof of the Director's payment. In such cases, the District will reimburse a Director only for the actual amount of the meal expense incurred up to a maximum amount of three times the applicable per diem rate shown in the IRS Publications.

d. Common Carrier Travel. A Director must attach to his or her expense report the fare, coupon, or itemized bill from a travel agency, airline, rental vehicle, bus or train showing the actual amount expended for such travel. A boarding pass, conference badge, business receipt from the destination or other documentation indicating the travel occurred must be attached to the Director's expense report.

e. Incidental Expenses. Whenever possible, a Director should obtain a receipt for incidental expenses such as tolls and parking fees. For incidental expenses where no receipt is available, such as tips and parking meter costs, a reimbursement request for such expenses may be claimed on the District approved expense report. Certification that such expenses were related to District business, reasonable, appropriate, and actually incurred by the Director is made when signing the District approved expense report form.

In all cases, the Director will remain responsible for filing an expense report and attaching the appropriate documentation obtained by the Director in conformance with paragraphs a. through e. above. Flat-rate advances or payments of expenses are prohibited under Government Code section 53232.2, except for per diem payments authorized in accordance with the IRS Publications.

A Director must substantiate all expenses on an expense report with the appropriate documentation attached within 60 days of incurring or paying the expense. An expense report submitted after the 60 days will only be paid if approved by the Board at a regular meeting. Any mis- or late-reported expenses incurred by a Director will not meet the requirements of the IRS Publications and will be considered income to the affected Director. To comply with the applicable tax laws, the District will issue to a Director a Form W-2 including all mis- or late-reported expenses as income.

300.50 Disclosure

To comply with reporting requirements of Government Code section 53232.3, the District will prepare a list of the meetings attended by each Director for which the District provided compensation, and a list of the amount and purpose of each expense reimbursement paid by the District to each Director. This information will be included with the agenda materials for each regular monthly Board of Directors meeting. At the next regular Board meeting, Directors also must provide either an oral or written report of meetings and other authorized events attended for which they were compensated by the District. If multiple officials attended the same event, a joint report may be made.

All expenses are subject to verification that they comply with this Policy. Directors should keep in mind that some expenditures may be subject to reporting under the Political Reform Act and other laws. All District expenditures are public records subject to disclosure under the Public Records Act, except that the District will ensure that no Director personal information, such as credit card numbers and home addresses, is provided to the public in the event of a request for such records.

300.60 Penalties

Government Code Section 53232.4 defines the penalties for falsifying or misusing public funds. The penalties include: (1) loss of the violator's reimbursement privileges; (2) restitution of misused District funds; (3) civil penalties of up to $1,000 per day for each day of violation and three times the value of the public resources misused; and (4) criminal prosecution and lifetime bar from holding public office. The Board will report any violation of this Policy to the appropriate authorities.

400.00 Policy Review

This Policy shall be reviewed at least biennially.

SACRAMENTO SUBURBAN WATER DISTRICT

Back to Agenda

Agenda Item: 4

Date: September 11, 2015

Subject: General Manager's Out of State Travel Request – American Water Works Association (AWWA) California-Nevada Section Annual Fall Conference

Staff Contact: Robert S. Roscoe, General Manager

Recommended Board Action:

1. Approve the General Manager's out of state travel to attend the AWWA Fall Conference.

Discussion:

General Manager Robert Roscoe would like to attend the American Water Works Association's Annual Fall Conference in Las Vegas, Nevada, October 26 thru October 29, 2015. Pursuant to the General Manager's new employment contract, Board approval is now required for out of state travel. A copy of the Conference program is attached.

Fiscal Impact:

None.

Strategic Plan Alignment:

Leadership – 5.A. Engage in legislative affairs on issues affecting the District.

Leadership – 5.B. Engage in a leadership role with professional water industry groups to enhance proficiency in technical and policy matters.

Leadership – 5.C. Participate in regional, statewide and national water management partnerships.

Tuesday, October 27, 2015

Session 1 - Research

1:30PM
Simultaneous Removal of Cr(VI), Iron, and Manganese: Bench to Full Scale Treatment in Under A Year!

Craig Gorman, Corona Environmental Consulting

Participants will learn about advances in hexavalent chromium treatment, specifically with respect to the reduction coagulation filtration proces.

2:00 PM
Full Scale Strong Base Anion Exchange Chromium 6 Treatment Experience

Tarrah Henrie, Corona Environmental Consulting

Participants will learn about the schedule, permitting, start-up and validation testing, and waste brine minimization of full scale strong base anion exchange treatment for Chromium 6.

2:30 PM
Synthesis and Application of Highly Reactive TiO2 Nanocrystals to Catalytically Remove Hexavalent Chromium

Gongde Chen, University of California, Riverside

Participants in this session will learn a cost-effective and highly efficient chromium removal technology based on a novel TiO2 catalyst with high reductive power.

BREAK

4:00 PM
VOC Treatment and Future regulatory impacts

Katie Porter, ARCADIS

Participants will learn about the occurrence and removal of regulated and unregulated VOCs that are present in the surveyed water systems, and the types of changes that utilities may need to incur to comply with various future regulatory scenarios.

4:30 PM
PTA Modeling to Evaluate Potential Compliance with Future Federal cVOC Regulations

Richard Brown, EE&T, Inc.

Participants in this session will learn background information from Water Research Foundation project 4453 regarding possible federal cVOC regulatory scenarios and the ability of existing PTA facilities to meet these new criteria without modifications, or by a variety of modifications (higher A:W, different packing media PTA in series, PTA pre-treatment following by GAC).

Session 2 - Water Treatment

1:30 PM
High Recovery Water Treatment Facility at Fort Irwin

Jason Yoshimura, CDM-Smith, Mark Standriff

Participants in this session will learn about the treatment processes that will be used to achieve greater than 99 percent recovery with zero liquid discharge at the new Fort Irwin water treatment facility.

2:00 PM
The Use of Dye Adsorption Rate to Determine the Remaining Service Life of Activated Carbons

Adam Redding, Evoqua Water Technologies,

Participants in this session will learn about work to identify a method for determining the relative degree of exhaustion for GAC in fixed bed filters.

2:30 PM
NSF/ANSI 419: A New National Standard for Membrane Filtration

Stefan Buck, NSF International, Jonathan Cruz

Participants in this session will learn about a new standard and product certification program for membrane filtration products that will allow comparison of log removal rates between different products.

BREAK

4:00 PM
The Impact of biologically active filters

Brenda Marie R. Pena, City of San Diego

Participants will learn the effectiveness of Biologically Active Filters in THM reduction. Furthermore, understand the biological activity in the filters, identify possible hazardous waste streams, address performance of filters in the treatment process and alleviate concerns about pathogenic breakthrough.

5:00 PM
Biological Fixed-bed Treatment Process: An Effective Treatment Approach for the Removal of Multiple Contaminants from Groundwater Resources

Giridhar Upadhyaya, Gary Ho, Carollo Engineers,

Participants will learn about fixed-bed biological treatment process and its effectiveness for the removal of multiple contaminants from drinking water sources, including nitrate, perchlorate, hexavalent chromium, uranium, and VOCs.

Session 3 - Operator

1:30 PM
Reducing DBP Formation

Tom Coughlin, Chemtrade

Participants will learn that increased TOC removal often has a diminishing effect toward lowering DBP levels. The effect of different oxidants on DBP formation. The "unexpected consequences" associated with specific oxidants. The physical approaches for reducing DBP formation

2:30 PM
Tools and Methods for Filter Run Optimization

Larry Lyford, Helix Water District

Participants will learn how Helix Water District optimizes filters for performance, water quality, and costs using a wide vitiate of tools and processes.

BREAK

4:00 PM
Coagulant Overview

Tom Coughlin, Chemtrade

Participants will learn to provide plant operators with a better understanding of how inorganics work, the factors that affect their performance, how their treating characteristics differ, and what coagulants are best-suited for specific treatment

Session 4 - Financial Management

1:30 PM
Metropolitan Increases Incentives for Local Resources Development

Ray Mokhtari, Metropolitan Water District of Southern California

Metropolitan developed funding program, currently known as the Local Resources Program (LRP) This presentation will provide a brief history of the LRP, how it has evolved over the past three decades, 2014 program refinements, and lessons learned.

2:00 PM
PPP: Poseidon Water and Carlsbad Desalination Project

Graham Beatty, Poseidon Water,

Participants will about desalination in California, description of the Carlsbad Desalination Project, current status of the project, contract structure and future opportunities.
Another potential topic to explore could be the power/water nexus and desalination's role in renewable power initiatives.

2:30 PM
A look behind the wizard's curtain – How Riverside saved $23.5 million with Solar PV.

Matthew Bates, Riverside Public Utilities

Participants will learn the process for procuring a solar developer, the advantages and disadvantages of solar, the different tariff options for evaluating project size, and negotiating a solar contract. Participants will get a basic look behind the wizard's curtain to developing a successful, renewable, and low-cost alternative energy source that benefits their rate payers.

BREAK

4:00 PM
Tiers or Tears: Designing Cost-Based Increasing Block Rates

John Farnkopf, HF&H Consultants, LLC, Warren Back, Rancho California

Participants will learn how to evaluate tiered rate structures to determine whether they reflect the cost of service from lowest to highest use. Methods will be presented for determining the size of each tier, setting the rate for each tier and evaluating the price increments between tiers. These methods will be explained within the broader context of a conventional rate study that includes revenue requirement projections and cost of service allocations to each customer class

5:00 PM
Revisiting Fixed Charges

Speaker: Steve Gagnon, Raftelis Financial Consultants

Participants will learn how California's drought will substantially affect many water purveyor revenues as water agencies strive to meet Governor Brown's Executive Order B-29-15 to reduce water use by 25% through February 2016. Many water agencies will reconsider their fixed charges and resulting revenue in efforts to minimize revenue loss. This begs the question of what costs should the fixed charge cover and collect. We conclude with a review of typical fixed charges for several California water purveyors.

Session 5 - Communications

1:30 PM
"Total" Water - Connecting the Dots: Comprehensive Approach to Communicating about Water Supply, Infrastructure Investments, and Rates

Karen Snyder, Katz & Associates, Hillery Francis, Southern Nevada Water Authority

Participants will learn details about the challenges and benefits of promoting a comprehensive water management discussion, addressing the synergies of issues associated with supply, infrastructure, finance, construction, rates, maintenance, and operations. Fresno's "Recharge Fresno" campaign will be shared demonstrating a successful application of a comprehensive water management strategy.

2:30 PM
How to get a Regional Groundwater Project off the Ground! Lessons Learned from the San Francisco Public Utilities Commission

Greg Bartow, San Francisco Public Utilities Commission

Participants will learn about how the SFPUC overcame challenges through the planning and design for this project to implement this important regional groundwater project and how to apply the lessons learned to current and future groundwater projects.

BREAK

4:00 PM
Title: Alternative Construction Details for Extended Life of Welded Steel Storage Tanks Roofs

Leslie D. Scott, P.E., Paso Robles Tank,

Participants in this session will learn how to enhance their tank asset preservation strategies through the use of various options for roof construction details for new welded steel tanks or tank refurbishment projects.

5:00 PM
Where'd the Tank Go? Color Change, Lead Abatement, and Rehabilitation of a High Profile 2.25 MG Steel Reservoir

Tim Ross, Helix Water District,

Participants will learn lessons from the Johnstown Tank Improvement Project in Lakeside, CA. Highlights include successfully communicating the proposed project and reservoir color change with the surrounding retirement community, existing coating lead

abatement, and structural modification of a 75 foot tall tank.

Session 6 - Tanks, Reservoirs, & Structures

1:30 PM
California Zinc and Revised RCRA Regulated Heavy Metal Rules - Impact Water Storage Tanks

Marc Griffin P.E., Tank Industry Consultants,

Participants will learn to navigate the revised federal environmental regulations and California's revised heavy metal regulations regarding the definition of solid waste as pertain to environmental issues that must be considered when planning to rehabilitate an existing tank or construct a new tank.

2:00 PM
Water Storage Tank Asset Management: An Alternative Sustainable Approach to Traditional Water Storage Tank Maintenance Procurement

Kevin Barnes, Utility Service Co,

Participants will learn how Sustainable Tank Asset Management can:
- Assist with GASB 34 compliance
- Be renewable each year at tank owner's option
- Cover all aspects of tank asset management, including engineering services and renovations
- Extend tank service life
- Offer flat annual fee eliminating unplanned expenditures
- Transfer rehabilitation risk

2:30 PM
Replacing the Roof of an 80 year old Reservoir with a Prefabricated Aluminum Roof System

John Farley, Riverside Public Utilities

Participants in this session will learn about Riverside Public Utilities' Linden Reservoir Roof Replacement Project, which involved replacing the roof of a 16 million gallon reservoir that was originally built in the 1920's, including what factors were considered in assessing the condition of the existing reservoir and selecting the new roof system.

BREAK

4:00 PM
Replacement of Earthen Reservoir with Two Pre-stressed Concrete Tanks on a Challenging Site

Cindy Bertsch, Water Works Engineers

Participants will learn from one utility's experience of replacing an earthen reservoir with pre-stressed concrete tanks while keeping some storage on-line on a site with high groundwater, geotechnical instability, expansive soils, public scrutiny, and is located near earthquake faults.

4:30 PM
Successful Nitrification Control Using Chloramine Boosting and Mixing in Tanks: Results from Livermore, CA

Robert (Ryan) Brewer, California Water Service

Participants in this session will learn how active mixing, disinfectant boosting and water quality monitoring can substantially reduce the

frequency and magnitude of nitrification in chloraminated water distribution systems.

Session - 7 Water Well Technology

1:30 PM
Title: Water for Energy – How Water Supply Well Design Principles Assist Energy Production Operations

Kevin McGillicuddy, Roscoe Moss Company

Participants in this session will learn about well design and construction practices for energy production operations. A discussion comparing the different approaches in water supply and oilfield well design will be provided.

2:00 PM
Analysis and Evaluation of Aquifer Pumping Test Data - What Can We Learn and What is Relevant?

Russell John Kyle, Wood Rodgers, Inc.,

Participants will learn about the process of properly conducting aquifer pumping tests, analysis and evaluation of data, and the relevance of results to the end user.

2:30 PM
Assessing Groundwater resources using airborne geophysics

James C. Cannia, Exploration Resources International

Participants will learn application of airborne geophysics for siting well locations, developing hydrogeological frameworks, aquifer characterization and well head protection.

BREAK

4:00 PM
Mitigating an MCL through Well Modification

Scott L. Rogers, Indio Water Authority

Participants in this session will learn to determine a cost effective solutions for meeting the new MCL by examining alternative methods by the modification of the design for a well. The presentation will focus on the results of modifying the well to lower the level of hexavalent chromium produced by the well.

4:30 PM
A New Era: VFD Conversions in Times of Drought

Sean Maguire, Kennedy-Jenks Consultants

Participants will learn the City of Davis is in the process of introducing surface water to their City for the first time. Learn how converting key lead wells to VFD will help the transition and how this will all occur in times of drought.

5:00 PM
Mitigating Drought Conditions through Optimizing ASR Recovery

Nathan Nutter, Carollo Engineers,

Participants will learn how to maximize the operating efficiency of their ASR well/s. This is critical during current drought conditions, because maximizing water storage is imperative to not only water supply, but also the health of the well.

Session 8 - Material Performance

1:30 PM
U. S Pipe and the Ductile Iron Pipe Research Association Introduces New Products and Certifications

Dick Rowell, US Pipe & Foundry

Participants will learn about U.S. Pipe and the Ductile Iron Pipe Research Association's new products introductions and certifications.

2:00 PM
Approved Products List -- From Evaluation to Approval

Doa Meade, P.E., Las Vegas Valley Water District

Participants will learn why an on-line approved products list and an associated product evaluation process can be beneficial to the utility as well as the construction industry.

BREAK

4:00 PM
No-lead Brass Service Valve Performance in Colorado River Water

Holly McNaught, Southern Nevada Water Authority

Participants will learn in accordance with the Reduction of Lead in Drinking Water Act, no-lead (<0.25%) brass service valves must now be installed for new connections or as replacements throughout the distribution system. In this study, no-lead (<0.25%) and low-lead red brass (<8%) corporation stops and angle meter service valves were evaluated for ten-months using a flow-through pipe rig with Colorado River water. In both no-lead and low-lead valves, the fraction of tin increased from a minor (<10%) to a major (>40%) element on the wetted interior surface. Corrosion changes were consistent across valve and material types, except for the formation of a white precipitate of lead on the external surface of low-lead angle meter valves and non-wetted fittings. Copper enrichment from potential dezincification was identified in the pack joint fitting crevice of the angle meter valves. Changing to no-lead brass is not anticipated to result in an increased service valve failure rate..

Session 9 - SDWA Committee

1:30 PM
Federal Regulatory Update

Bruce Macler, USEPA,

The USEPA's Safe Drinking Water Act (SDWA) documents Federal regulations for drinking water systems. Current components of the SDWA regulations include Rules for monitoring, operation and communications for water systems. This presentation serves to provide updates on the status and implementation schedules for several Federal regulations, including the LT2, DBP2, UCMR, LCRr, TCRr and other relevant and current actions and activities which affect water systems in CA and NV.

2:00 PM
California Regulatory Update

Karen Larsen, State of California WQCB Division of Drinking Water

The California Water Quality Control Board's Division of Drinking Water (DDW) oversees the establishment and implementation of State regulations for drinking water systems. This

presentation serves to provide updates on the status and implementation schedules for several Federal regulations being implemented or managed at the State level, including the LT2, DBP2, UCMR, LCRr and TCRr regulations, as well as updates to recent or pending new State-specific regulations and actions such as the Hexavalent Chromium rule, 1, 2, 3-TCP proposed rule, water system fees and SRF program.

2:30 PM
Nevada Regulatory Update

Jennifer Carr, State of Nevada DEP,

The Nevada Division of Environmental Protection (DEP) oversees the establishment and implementation of State regulations for drinking water systems. This presentation serves to provide updates on the status and implementation schedules for several Federal regulations being implemented or managed at the State level, including the LT2, DBP2, UCMR, LCRr and TCRr regulations, as well as updates to recent or pending new State-specific regulations

BREAK

4:00 PM
AWWA Regulatory Update

American Water Works Association

The AWWA is the principal advocate for the water industry. Staff head up stakeholder workgroups tracking the developing of new Federal and State regulations. AWWA will provide a brief summary of political state of affairs in Washington DC as well as a summary of regulations in development at the Federal level and each one's anticipated impact on the industry.

4:30 PM
rTCR Implementation in California and Nevada

Karen Larsen, State of California DDW

Participants in this session will learn about the specific new rTCR requirements in California and Nevada which go into effect April of 2016.

Wednesday, October 28, 2015

Session 10 - Distribution System Water Quality

7:30 AM
Assessing DBP Occurrence: Impacts of the Stage 2 DBPR in California, Nevada, and the U.S.

Dr. Chad Seidel, Corona Environmental Consulting

Participants in this session will learn how regulated DBP concentrations have changed over time, particularly given the implementation of the Stage 1 and 2 DBP Rules.

8:00 AM
UCMR3 and implications for UCMR4

Dr. Andrew Eaton, Eurofins Eaton Analytical

Participants in this session will learn about what we have found in the UCMR3 monitoring program, with a focus on CA/NV regions and potential implications of UCMR3 findings for UCMR4 (2018)

BREAK

11:00 AM
Water Quality Degradation in Premise Plumbing

Jennifer Clancy, Corona Environmental Consulting LLC

Participants in this session will learn about opportunistic pathogens including Legionella and their role in waterborne disease. These common environmental organisms become pathogens when they amplify in building water systems and are released in aerosols in showers, spas, etc resulting in disease and often death.

11:30 AM
Distribution Water Quality Modeling - Another Tool in the Disinfection Toolkit

Polly Boissevain, West Yost and Associates

Participants in this session will learn how water quality modeling can be used to enhance distribution system disinfection strategies. With a well-calibrated hydraulic model, water quality modeling can provide insight into and improve practices that promote disinfection residual maintenance.

12:00 PM
Occurrence of UCMR Contaminants in Drinking Water Materials and Treatment Chemicals

David Purkiss, NSF International

Participants in this session will learn what UCMR Contaminants are in Drinking Water Materials and Treatment Chemicals

LUNCH

Session 11 - Source Water Quality

1:30 PM
The case for hypolimnetic oxygenation to control methyl mercury bioaccumulation in seasonally stratified reservoirs

Stephen McCord, McCord Environmental; John McHugh, Santa Clara Valley Water District

Participants in this session will learn how a major CA water district monitored mercury and related conditions in water and biota in four of its

reservoirs, the important role of oxygen in driving mercury cycling, and the effects of hypolimnetic oxygenation on methylmercury production and cycling.

2:00 PM
Water Quality Issues in the Tulare Lake Basin

Brian Shoener, Provost & Prichard

Participants will learn the scope of drinking water quality issues affecting disadvantaged communities in Fresno, Kern, Kings and Tulare counties .This presentation will identify the population affected by the water issues, treatment alternatives, and obstacles and barriers to implementation.

2:30 PM
LIMS for the Smaller Water Quality Laboratory

Jeff Koelewyn, Castaic Lake Water Agency

Participants in this session will learn about the benefits of implementing LIMS software in a smaller laboratory, selecting a LIMS vendor, and the process of transitioning from a legacy system to a new LIMS system.

BREAK

4:00 PM
An Innovative Method to Improve Calibration Accuracy of Online Ozone Residual Analyzers

Susan Yuskiewicz, MWD of Southern California

Participants will learn a time saving innovative method to calibrate ozone residual analyzers using a surrogate analyzer calibrated with ozone colutions from a self-contained ozone generating system.

Session 12 – Treatment Research

7:30 AM
Dwindling Supply Drives Southern California Water Supplier to Treat Groundwater Supply with Color, Methane, H2S, TOC and Ammonia

Andrew Borgic, Water Works Engineering

Participants will learn about groundwater treatment options for reducing concentrations of co-occurring contaminants including color, methane, H2S, ammonia, and moderate TOC with resulting high TTHMs when chlorine is utilized as a disinfectant. Participants of this session will gain knowledge from the "Lessons Learned" portion of the presentation covering lessons learned by the design team during the initial water quality sampling, technology evaluations, pilot testing, design, construction and startup.

8:00 AM
Indirect potable reuse with ozone, biofiltration and soil aquifer treatment

Fred Gerringer, Trussell Technologies

Participants in this session will learn about the water quality and regulatory benefits of combining ozonation and biofiltration with soil aquifer treatment for indirect potable reuse.

BREAK

10:00 AM
Regulatory and Research Aspects of the San Gabriel Valley Indirect Potable Reuse Groundwater Replenishment Project

Reymundo Trejo, Upper San Gabriel Valley Municipal Water District

Participants in this session will learn about Upper District's efforts to supplement water demands in the San Gabriel Valley with recycled water. Details will be provided on the process, which includes research efforts and a well thought out regulatory approach.

10:30 AM
Detection of Microplastics in Water and Wastewater Streams Using Fluorescence Spectroscopy

Cari Campbell, AWWA Student Chapter - San Diego State University

Participants in this session will learn why microplastics are a problem in water and wastewater streams, as well as the environment. Participants will hear a summary of our research procedures as well as the results, and why it is important.

11:00 AM
How to Develop Defensible Water Rates

Brian Jewett, Black & Veatch

Participants will learn how establishing cost-based rates, fees, and charges is an important component in a well-managed and operated water utility. This session will provide a substantive look at the M1 Manual in the context of rate setting during challenging times. Particular attention will be given to current topics facing today's utilities including but not limited to conservation pricing, drought restrictions, legal requirements for rate setting, and affordability.

Session 13 - Research

1:30 PM
Hydrogen Sulfide Removal from Groundwater by Granular Activated Carbon

Keisuke Ikehata, Pace

Participants in this session will learn some new insights about the low-cost, low-maintenance microbiologically-driven hydrogen sulfide and odor removal using granular activated carbon, which may be applicable to the treatment of otherwise good quality groundwater.

2:00 PM
Performance of various organic and inorganic flocculants in removing whiting particles as evaluated by a particle counter and a digital flow cytometer

Xuexiang He, Southern Nevada Water Authority

Participants in this session will learn the effectiveness of various organic or inorganic flocculants in removing calcite and therefore reducing particles that have a potential in adversely impacting water treatment efficiency.

2:30 PM
Use of High Resolution Accurate Mass spectrometry to identify additional analytes of concern

Andy Eaton, Eaton Eurofins Analytical

Participants in this session will learn about new tools to assist them with looking for emerging contaminants, particularly in reuse water.

BREAK

4:00 PM
Water Utilities Taking the Lead in Innovation John Arena, Kenya Henderson, Dave Rexing, Paul Gagliardo. MWD, LVVWD

Participants will learn the challenges that utilities face to find and evaluate innovative technology. Examples of projects and programs initiated by utilities to foster innovation, collaboration, and market uptake of new technology. What utilities need to assist them with their efforts to innovate.

5:00 PM
Bringing source water protection into the modern era by leveraging the latest web and data technologies

Josh Coefer, Corona Environmental Consulting

Participants in this session with learn how West Virginia American Water has modernized source water protection in response to the chemical spill that impacted source water.

Session 14 - Plant Operation Challenges and Training

10:00 AM
Coagulant Options

Tom Coughlin – Chemtrade

Participants will learn to provide plant operators with a better understanding of the various options that are available to improve the performance of their coagulation program. It is hoped that providing this information will make it easier for plant

11:00 AM
Development of a Comprehensive Operator Training Program

Michelle Berens, Helix Water District

Participants will learn in the face of looming retirements of highly experienced operators, it is critical to capture their knowledge and adequately train new operators to take their place. In answer to this challenge, a comprehensive operator training program was developed. The program covers all the basic knowledge needed to operate Helix Water District's state of the art conventional surface water treatment plant with intermediate ozone. Items covered in the program include plant hydraulics, flocculation and sedimentation, filtration, ozonation, chlorination, chemical feed, plant utility systems, and laboratory procedures among others. Written quizzes and hands-on skills demonstrations were developed for each section. In addition a set of scenario questions which require an operator in training to think about the plant and process as a whole were put together. This program allows for objective measurement of a trainee's progress and pinpoints areas for further study. How this program was developed and is being implemented will be covered in this session.

11:30 AM
Using Laboratory Charge Measurement for Quickly Determining Optimum Coagulant Dose

Mark Vandiver, Chemtrac, Inc., Dale Huntington, SOAR Technologies, Inc

Participants in this session will learn how laboratory charge analysis is used to find an optimum coagulant dosage in under 5 minutes (typical); and help supplement, confirm, or

replace their jar testing procedures. Newly developed testing methods to expand the application of this technology will be discussed.

Session 15 – Operator

1:30 PM
Operator Round Table

Russ Guilliams - City of Fresno, Colter Andersen - Zone 7 Water Agency

Participants in this session will interact with professionals in the Water Treatment Plant and Distribution System Operations. A wide variety of topics will be discussed. Bring your problems and solutions to the session and network with professionals in your field.

BREAK 3:00 PM - 4:00 PM

4:00 PM
Improved Jar Testing Optimization with Total Organic Carbon Analysis

Dondra Biller - Jean Ha Kushi

Participants in this session will better understand how to apply total organic carbon (TOC) analysis to optimize jar testing for surface water treatment. Laboratory and field test data from multiple utilities will be presented to support this testing.

Session 16 - Engineering & Construction

8:00 AM
Allocating Risk to the Party Best Able to Manage It: The Story of the Carlsbad Desalination Pipeline.

Steve Tedesco, Tetra Tech

Large pipeline projects oftentimes are complex and risky for owners. Using the Carlsbad Desalination Pipeline Project as an example, we will share how the design-build method may be used to assign risk to the party best able to manage it. Viewpoints from the owner, developer, design-builder and engineer will be presented.

BREAK

10:00 AM
Making the Right Decision to Rehabilitate: An 1894 Vintage Reservoir.
Carl A. Gowan, Marin Municipal Water District

Bringing an 1894 reservoir up to par with current standards is no small task. Come learn why the Marin Municipal Water District decided to rehabilitate a historic reservoir and what it took to bring it up to current AWWA and CA Drinking Water Standards.

11:00 AM
Boom without the Bust: Managing Demand Changes on Water Infrastructure Caused by San Francisco's Massive Development Boom

Catherine McCrimmon, SFPUC

How do you plan for the unexpected? Come learn how San Francisco is responding to rapid changes in water infrastructure demands caused

by the development boom and how they are creating clear communications with developers.

Session 17 - Engineering & Construction

1:30 PM
Gaining Public Support on a High-Profile Construction Project before Breaking Ground: A Success Story from the Santa Clara Valley Water District.

Mike Munson, Santa Clara Valley Water District

Constructing a $160M plant upgrade in a high value residential neighborhood is a daunting task. Come learn from the Santa Clara Valley Water District, CA how to get off on the right foot with a vocal public through an effective public outreach program that fostered public support, built long-term goodwill and smoothed the approvals process.

2:30 PM
A Long and Winding Road to a Sustainable and Diversified Water System: the City of Davis Story.

Tim Williams, Kennedy/Jenks Consultants

Over the last 15 years the City of Davis, CA has looked hard at ways to diversify its water system portfolio. This journey has culminated in developing the infrastructure and controls needed to meld the new surface water supply with existing groundwater supplies; a feat that provides reliable water quality in the distribution system.

Session 18 - Engineering & Construction Challenges

4:00 PM
Risky Business: What to Do When Three Essential Pipelines Cross an Earthquake Fault.

Darren Baune, Carollo Engineers

Participants will learn what do you do when you discover that three of your most critical pipelines are located in a landslide area and will move nine feet in an earthquake? Come learn how the Santa Clara Valley Water District enlisted a team of specialists and new technology to ensure that the pipelines would operate reliably after a major earthquake.

5:00 PM
What You Don't Know Can Hurt You: Rehabilitating Your Tank without Understanding CA Zinc and Revised RCRA Heavy Metal Rules

Mark Griffin, Tank Industry Consultants

Participants will learn navigating recent changes in federal and California state heavy metal and solid waste regulations is a challenge. Come learn from our experience what must be considered when planning to rehabilitate existing tanks and what testing is needed during construction to be in compliance.

Session 19 - Management Development and Leadership

10:00 AM
Bridging the Gap between Engineers and Operators

Doa Meade, P.E., Las Vegas Valley Water District

Participants will learn engineers try their best to design a functioning and efficient water distribution system but there are times when the operators shake their heads wondering what the engineers were thinking! This presentation will take you through several case studies where the engineering design has been changed and improved upon as a result of seeking and receiving feedback from the field. The construction inspectors and the distribution operators have an open line of communication with the engineers and those suggestions, comments and even frustrations are taken to heart and the designs are improved upon for future projects. Everything from how can a contractor construct the facilities to accessibility and how the operators and their equipment are going to maintain the facilities.

10:30 AM
Effective Succession Planning Strategies for Large Water Agencies

David Clark, Metropolitan Water District

This presentation presents an overview of MWD-Engineering Services' two-part approach to succession planning: Workforce Development, which focuses on developing existing staff, and "Career Launch," which focuses on hiring and training new employees.

11:00 AM
Solutions for Acceptance: Using Education to Reduce the Ick-Factor and Increase Understanding

Liz Moody, Cannon

Participants will learn if education really can eliminate the "ick-factor." We used a series of surveys to identify acceptance levels and areas of concern about water reuse among different ages, both before and after an educational outreach experience.

11:30 AM
Managing the Dark Side of Social Media

Darcy M. Burke, Watermark Associates

Participants will learn the best Management Practices in dealing with social media bullies, trolls and negative comments in general. These elements are usually the number one reason policymakers shy away from establishing social media presence for the utility/organization but here are tools and protocols available that make the management of the Dark Side, easier without damaging trust or credibility.

Session 20 - Recycled Water

1:30 PM
Potable re-use membrane research – A full scale study at Scottsdale Water Campus

Nathan Boyle, Hazen and Sawyer

Participants in this session will learn about reuse research completed at Scottsdale Water Campus in Arizona, examining the online monitoring response to the intentional integrity failures of ultrafiltration and reverse osmosis membranes.

2:00 PM
Use of O3/DOC and UV/DOC Ratios as Dosing Parameters for Advanced Oxidation Processes in Potable Reuse Applications

Daniel Gerrity, University of Nevada, Las Vegas

Participants in this session will learn how ozone- and UV-based AOPs can be employed in a variety of potable reuse treatment frameworks and how the systems can be operated to achieve consistent trace organic contaminant oxidation in diverse wastewater matrices.

2:30 PM
Evaluation of virus removal capabilities of MBR system in a full-scale water reclamation facility in Nevada

Julian Hoyle, CH2MHILL

Participants in this session will learn about the removal of viruses through a full-scale MBR process and how the City of Henderson gained state approval for the demonstrated removal.

BREAK

4:00 PM
CyberSecurity – What do I Need to Do?

Jeff M. Miller, Schneider Electric

Participants will learn to navigate the revised federal environmental regulations and California's revised heavy metal regulations regarding the definition of solid waste as pertain to environmental issues that must be considered when planning to rehabili

4:30 PM
Job Hazard Analysis for the Water Distribution System

Tonya Howard- Taylor, LADWP

Participants in this session will learn how to perform a basic Job Hazard Analysis and receive information on Job Hazard Analysis that have already been performed in the Water industry for Distribution Systems.

5:00 PM
Confined Space Entry: The Good, the Bad and the Ugly

Gil Mata & Leo Ferns, Las Vegas Valley Water District

Participants in this session will learn about the Las Vegas Valley Water District's confined space program. The briefing will include program highlights, challenges and innovative concepts employed by the company.

Session 21 - Environmental, Health & Safety

8:00 AM
Utility Perspective of New Statewide NPDES Permit

Brandy Hancocks, Golden State Water Company

Participants will learn what the new Statewide NPDES permit for drinking water discharges means for utilities across the state of California, including tips on submitting applications and areas of concern to watch out for while complying with the permit.

10:00 AM
Local Climate Change and Drinking Water Quality: A Case Study in Southern California

David Kimbrough, Pasadena Water & Power

Local Climate Change and Drinking Water Quality: A Case Study in Southern California

10:30 AM
Stacking it Up: Combining Gravel Infiltration Basin and Constructed Treatment Wetland for Process and Storm Water Treatment in San Jose, CA

Angela Liang Cutting, Roux Associates

Participants will learn about an approach that utilized constructed treatment wetlands to maximize evapotranspiration, treatment, and infiltration for storm water and blow-off water.

11:00 AM
Environmental Performance Improvement through EMS Implementation

Annalisa Helm, CHMM, Las Vegas Valley Water District

Participants in this session will learn about the challenges faced and lessons learned during the first four years of implementing and improving an ISO 14001 certified EMS as well as the environmental performance improvements that have resulted from doing so.

Session 22 - Tanks, Reservoirs, & Structures

2:30 PM
THM Reduction Using Spray Aeration

P. Lyle Mariam, Las Vegas Valley Water District

Participants in this session will learn the basic theory and design of spray aeration system to reduce Trihalomethane (THM) growth in potable water using low cost spray techniques.

BREAK

4:00 PM
An Innovative Method to Improve Calibration Accuracy of Online Ozone Residual Analyzers

Susan Yuskiewicz, Metropolitan Water District of Southern Cal

Participants will learn a time-saving innovative method to accurately calibrate ozone residual analyzers. Utilizing a surrogate analyzer calibrated with purified water and ozone solution produced by a self-contained ozone generating system, interferences with the indigo colorimetric method are eliminated.

4:30 PM
Pilot Testing and Evaluation of MF/UF Filtrations for a 30-MGD Water Treatment Plant

Todd Reynolds, Kennedy-Jenks Consultants

5:00 PM
Submerged Membranes to Replace Media Filters to Increase Capacity 4X for a Small Community

Richard Stratton, HDR Engineering

Participants will learn how an existing conventional water treatment plant can be upgraded and expanded to four times the capacity in the footprint of the original plant using membranes.

Session 23 - Meter

7:30 AM
Flexible & Affordable Meter Reading Technology

Michele Harvey, Badger Meter

Participants will learn advantages and Challenges of new metering technology and how new meter reading solutions allow mixing and matching of technology affordable via scalability and migratability

BREAK

10:00 AM
San Jose Water Company's Meter Obsolescence Program

Brian W. Dunbar, San Jose Water Company

Participants will learn to identify the pitfalls and challenges faced by San Jose Water Company during their large meter replacement program.

10:30 AM
Protecting Existing Revenues for the City of Angels: The Devil in Effective Large Meter Maintenance Program Details

Kenneth Molli,Veolia North America/ Cree Horner, LADWP

Participants will learn to identify and implement best practices for large meter management.

11:00 AM
Improving water system operations and customer service to the end user through use of an AMI deployment

Rich Sanders President Zenner USA

Participants will learn Improving water system operations and customer service to the end user through use of an AMI deployment.

Session 24 - Water Management & Efficiency

1:30 PM
Large Electronic Meter Technologies

Michele Harvey, Badger Meter

Participants will learn how Ultrasonic and Electromagnetic technology works in today's large meter offerings. Advantages and Disadvantages

2:00 PM
Analysis of Water Losses

Richard Relyea, MC Engineering & Rod Henmi, HKIT Architects

Participants will learn recognizing that losses are comprised of both Apparent Losses (losses due

to meter inaccuracy) and Real Losses (losses due to actual leakage),

2:30 PM
Analysis of Water Losses

Mark Carey, MC Engineering & Larry Kraemer, PE, Cannon

Participants will learn recognizing that losses are comprised of both Apparent Losses (losses due to meter inaccuracy) and Real Losses (losses due to actual leakage)

BREAK

4:00 PM
Revenue Impacts of Water Conservation

Ora Chaiken, WaterSmart Software

The presentation will benefit water utility managers who want greater confidence in demand management, financial forecasting, and investment horizons while simultaneously reducing capital costs for long-term infrastructure projects through improved customer communications and water-use education.

4:30 PM
Using Hydraulic Modeling to Determine Viable Emergency Water Supply Options for the City of San Francisco's Largest Reservoir and Pressure Zone

Brian Barry, San Francisco Public Utilities

Participants in this session will learn how the SFPUC utilized the hydraulic model to evaluate viable operational scenarios to supply adequate hydraulic pressure and storage for San Francisco's largest reservoir and pressure zone while multiple segments of the primary transmission main and the pump station used to supply the zone are out-of-service.

5:00 PM
Strategic Smart Metering to Achieve Water Conservation

Rachel Davis and Tai Tseng, Long Beach Water Department

Session 25 - Water Management & Efficiency

10:00 AM
Conserving Water is a Culture: The Monterey Peninsula Story

Stephanie Locke, Monterey Peninsula Water Management District

Participants will learn details of a highly successful water efficiency program resulting in local water savings of over 43%. Attendees will be inspired with solid and proven techniques for successful water efficiency, conservation and rationing programs, leaving with a toolbox of effective ideas.

11:00 AM
Davis Woodland Water Supply Project: One Sustainable Water Solution | Water – Wastewater – Groundwater

Lindsay Smith, West Yost Associates

Participants will learn how effective integrated water planning was used to solve the water supply and wastewater discharge compliance concerns of two northern California communities and how regional collaboration led to the successful implementation of a notable design-build-operate project.

Session 26 – Water Management & Efficiency

1:30 PM
Proactive pipeline assessment saves millions of gallons of water and prevents catastrophic pipeline failures

Randall L. Payton, City of Dallas

Participants in this session will learn innovative ways to minimize water loss, raw and potable, through the detection and repair of leaks in the water distribution system.

2:00 PM
SNWA Water Smart Contractor Program

Summer Ortiz, Southern Nevada Water Authority

Participants in this session will learn about the Southern Nevada Water Authority's Water Smart Contractor Program, which provides training on water efficient landscape practices, regulations, and incentive programs offered by the SNWA. They will also learn about our Smart Start process and how it helps these contractors and our customers benefit when participating in our Water Smart Landscapes Program.

BREAK

4:00 PM
Drought Demand Management: One Size Does Not Fit All

Drew Atwater, Moulton Niguel Water District

Participants in this session will learn about the economics of drought demand management, the policy options available to meet the supply constraints of drought, the effectiveness of some of those policy tools and case studies on the experiences of agencies throughout California in the current drought.

5:00 PM
The Alchemy of Reducing Per Capita Water Consumption and Increasing Utility Revenue with Data

Jason Bethke, FATHOM

Participants will learn how improved data management, investment in advanced metering infrastructure and active customer engagement can result in "found revenue" of 5-15% for the utility while at the same time decreasing demand by 8-10%.

Session 27 - Water Resources

10:00 AM
Validating Water Audits for Water Loss Control - Level 1 Top Down Review

Sue Mosburg, Sweetwater Authority
Will Jernigan, P.E. - Cavanaugh

Participants will learn desktop review of what is immediately available – supply reports, consumption reports, testing reports, etc. Brief interviews with pertinent utility staff members & documentation, focused on practices to make sure the data grades have been applied correctly and consistently. Through this discussion, anomalies are discussed and either confirmed, corrected, or noted for needing further investigation. Presentation will walk through this process using examples.

10:30 AM
Validating Water Audits for Water Loss Control - Level 2 Top Down Data Mining

Steve Cavanaugh, P.E., Cavanaugh

Participants will learn analysis of available data, including production database and reports from SCADA system to identify gaps in the data chain. Data mining in the billing system to confirm and cleanse consumption volumes to remove redundancies from the data mining process which can come about from record duplications. Also validates exclusion of non-potable volumes in the totals. Validates that consumption volumes from low mid and high level detail extractions are corroborated. Presentation will walk through this process using examples.

11:00 AM
Validating Water Audits for Water Loss Control - Level 3 - Bottom Up Field Investigation

Kate Gasner, WSO

Participants will learn field investigations and extensive data mining. Supply meter testing and in-field verification of meter-transmitter-SCADA data chain. In field customer meter testing. ICF & Night flow testing & analysis for leakage. Pressure data collection & analysis. Presentation will walk through this process using examples.

Session 28A - Pipeline Rehabilitation

1:30 PM
An Innovative Leak Detection Technology That May Bring a Paradigm Shift to Locating Leaks & Measuring Water Loss

Chuck Hansen, ElectroScan Inc.

Participants will learn a new technology that may cause a paradigm shift in the way utilities accurately assess the condition of their water mains and prioritize repairs and rehabilitation. Representing a breakthrough in the accuracy of locating and measuring leaks, a new innovation finds and quantifies all cracks, fissures, fractures, openings, and leaking joints that have the slightest opening between the inside of a pressurized pipe and ground. Utilizing a patent-pending low voltage electric current dispersed in a focused array from the inside of a water main, a tethered probe is able to detect all openings through the wall of the pipe.

2:00 PM
East Bay MUD's Experience with Premature Failure of Copper Water Service Laterals

Antonio Martinez, East Bay Municipal Utilities District

Participants will learn the prevalent use of non-metallic water main materials has left the copper tube service lines electrically disconnected from any other sacrificial metal in the ground. Over the last decade East Bay Municipal Utility District (EBMUD) has experienced an increase in copper service line failures. Data indicates EBMUD could have upwards of 32,000 service lines at risk within the distribution system. EBMUD is diligently investigating copper lateral leaks in those areas most at risk and collecting data on the premature failure rate of copper laterals.

This presentation will review EBMUD's copper service line evaluation and replacement program, including analysis of the data gathered on the existing system.

2:30 PM
Condition Assessment of a 1920's vintage 42-inch Diameter Water Transmission Pipeline

John Farley, Riverside Public Utilities Dept.

Participants in this session will learn about a project undertaken by the Riverside Public Utilities Department which involved the condition assessment of nearly 5-miles of 42-inch diameter water transmission pipeline, including the steps taken to determine the project approach, and what factors were considered in assessing the condition of the existing transmission pipeline. This project ultimately resulted in the deferral over $30M in pipeline replacement costs.

BREAK

4:00 PM
Acoustic Leak Inspection of Bar-Wrapped Concrete Cylinder Pipe

Drew McIntyre, North Marin Water District

Session 28B – Recycled Water

4:30 PM
FILL 'ER UP! Drought Relief through Recycled Water Fill Stations

Rhodora Biagtan, Dublin San Ramon Services District

Participants in this session will learn about a resource available to the public about locations and logistics associated with recycled water fill stations in the San Francisco Bay Area. Participants will also learn about the implementation of a Residential Recycled Water Fill Station Program, the first of its kind in the state of California, and public acceptance of the program.

5:00 PM
Los Carneros Water District Implements Reuse Water System for Irrigation

Anne Prudhel, PE, Carollo Engineers, Inc.

Participants in this session will learn how a water utility district with large agricultural irrigation demands is coping with limited groundwater volumes and water quality issues by effectively utilizing recycled water.

Thursday, October 29, 2015

Session 29 - Source Water Quality

8:30: AM
Algal Toxins – What's on the Horizon?

Andy Eaton, Eurofins

Participants will learn about the various methods available for testing for algal toxins and the directions that EPA is thinking about with respect to future algal toxins monitoring.

9:00 AM
Cyanotoxins - Occurrence and Analysis of Microcystin-LR in Drinking Water

Rudy Pante, Metro Vancouver-SCFP

Participants in this session will learn how to analyze Microcystin-LR (MC-LR) using Enzyme-Linked Immunosorbent Assay (ELISA). Also the participant will learn how to determine Limit of Detection (LOD), Limit of Quantitation (LOQ), and validate the MC-LR method, and interpret the data.

10:30 AM
Algal Toxin Removal at Ambient and high pH conditions

Jeff Neemann, Black & Veatch

The audience will learn about the effectiveness of different treatment technologies in removing algal toxins from drinking water. The audience will be able to take practical guidance and apply it to other situations.

11:00 AM
Cyanotoxin Treatment of South Bay Aqueduct Waters

Issam Najim, WQTS

Attendees will learn of the effectivenss of preozonation, intermediate ozonation, chlorine, chloramine, and powdered activated carbon (PAC) addition at treating algal toxins on SF Bay Area South Bay Aqueduct water.

11:30 AM
Microcystis/microcystin issues that have arisen in Lake Mead

Todd Tietjen, SNWA

Attendees will learn about the Microcystis issues that have arisen in Lake Mead during 2015 despite few changes in the underlying water chemistry and no measurable increase in the nutrients needed to support these blooms. I will also discuss the problems associated with trying to track and assess these blooms given the lack of a pronounced change in nutrients.

Session 30 - New Technologies

8:30 AM
Water Data Management during the Apocalypse or just another day at the office for a Water Data Manager

Curt James, Mojave Water Agency

Participants in this session will learn about various issues regarding California's drought, the differences between the State Water Resources Control Board standards and the Department of Water Resources Form 38 reports, and learn how to determine Percentage of Residential Use.

9:00 AM
Managing Groundwater Data Using Low Cost Cloud based GIS Solutions

Behrooz Mortazavi, Water Resources Engineers

Participants in this session will learn how they can manage and monitor groundwater data including wells, pumping, water level, groundwater quality, and Geographic Information System using cloud based services.

9:30: AM
Groundwater Management System at Santa Clara Valley Water District

Masoud Hoseyni , DCSE

Participants in this session will learn about Santa Clara Valley Water District's groundwater management module of Water Resources Information System (WRIS), and its components: water level, water quality, subsidence, groundwater modeling, and reporting and data export

BREAK

10:30 AM
A Portfolio Approach to Drought Demand Management

Drew , Moulton Niguel Water District

Participants will learn how Moulton Niguel Water District chose to comply with the State Water Resources regulations by demonstrating "superior" conservation savings through water use efficiency programs in conjunction with an allocation based rate structure. The District is also in the midst of a rate study to use its allocation based rate structure as a tool to ratchet down consumption as drought lowers supply. This portfolio of measures offers a comprehensive strategy to lower water use through sustainable, long-term water conservation without mandatory rationing.

11:00 AM
What's Behind Your Key Accounts: Understanding Revenue Risks and Capacity Planning for Non-Residential Customers

Christine Boyle, Valor Water Analytics

Participants will learn that studying customer behavior has become an essential financial management and research component for most commercial enterprises. The Urban Water Consortium (UWC) has funded research to collect, compile, and profile NON-residential water customers to better understand their demand, forecast their revenue, and compare their water use.

Session 31 - Communications

8:30 AM
Behind the scenes of locating a storage reservoir in a developed neighborhood

Lacy Carothers, California American Water

Participants will learn best management practices for communication and public outreach to successfully construct a 1.5 million gallon water storage reservoir that impacts multiple stakeholders in a fully developed neighborhood.

9:00 AM
Emergence of Software Technologies for Efficient Water Use and Distribution

Lance Brown, Smart Utility Systems
Participants will learn during this presentation we will discuss the upcoming Software and Data Analytics that water utilities can utilize to achieve water use efficiency on customer side and within the distribution system. We will discuss how combination of cloud software and metering has proven to deliver measurable results for California utilities.

BREAK

10:30 AM
Improving Water Quality by tank mixing and aeration for THM Control

David Summerfield,Medora Co.- SolarBee/ GridBee

Participants will learn the benefits of mixing and aeration to achieve a more consistent and higher quality of potable water for uniform residuals and THM control.

11:00 AM
Saipan Water Systems Get Whacked by Typhoon Soudelor

Bruce Macler,USEPA Region 9

Participants will learn typhoon Soudelor hit the island of Saipan in the Commonwealth of the Northern Mariannas Islands on August 2, 2015. Winds and flying debris knocked out the power grid and caused substantial structural damage on the island. Because Saipan's drinking water primarily comes from wells lacking backup power sources, essentially all piped water was disrupted. Saipan's isolation far out in the Pacific meant long delays before resources could arrive. FEMA involved US Army Corps of Engineers, USEPA and US Marine Corps for on-island and mainland support. Initial response involved provision of generators and fuel supplies to several water bottling facilities, followed by gradual restoration of utility wells as additional generators became available. Recovery efforts required rebuilding the power grid, by replacing hundreds of downed poles and transformers.

Session 32 - Desalination

8:30 AM
Analytical Strategies for Desalination Projects

Rick Zimmer, Eurofins Eaton Analytical, Inc.

This presentation serves to create awareness for those are involved with desalination projects as to the potential matrix interferences and appropriate adjustments that can be made within the laboratory to ensure the production of correct, complete and timely analytical data in support of project objectives.

9:00 AM
Is your facility performing? A look at the Richard A. Reynolds Groundwater Desalination Facility

Gabriela Handley, Separation Processes, Inc.

Participants will learn how to analyze normalized RO data, evaluate CIP effectiveness, and select a membrane preservation method for a long-term shutdown.

9:30 AM
Carlsbad Desalination WTP: Design and Delivery

Tom Visosky, ARCADIS

Participants will learn use of the successful tactics of early engagement, effective team structure, focused design management, and continuous quality control has positioned the project for success. This presentation provides a technical overview of the desalination treatment process and explains team structure/management systems that lead to the excellent schedule performance.

BREAK

10:30 AM
Lessons after the first year- Silicon Valley Advanced Water Purification Center

Pam John & Sam Bogale, Santa Clara Valley Water District

Participants in this session will learn about our operating experiences during the first year of the eight-million-gallon per day advanced water purification center, the difference between planned design and actual operations, and moving forward, are there things we would have built differently.

11:00 AM
West Basin's Ocean Water Desalination Subsurface Intake Study

Diane Gatza, West Basin Municipal Water District

Participants will learn about the seven types of ocean water desalination subsurface intakes and what technical criteria is required for ideal operation. Participants will also learn how to utilize a guidance manual that is being developed for the industry to utilize readily available site specific data to determine if subsurface intakes are feasible for a given site. West Basin will also be sharing the findings of the in-situ testing that will be performed as a part of this study and what the outcome is for the full scale ocean water desalination project.

11:30 AM
Monterey Penninsula Water Supply
Dennis E. Williams, Ph.D., GEOSCIENCE Support Services, Inc.
Participants will learn latest advances in subsurface intake technology to SWRO desalination systems. Current status and result of long term testing of a 724 ft long 19 deg below horizontal test slant well which is the first phase of the 22 mgd Monterey Peninsula Water Supply Project

Session 33 - Security Emergency and Planning

8:30 AM

Resource Typing - An Innovative Approach

Christine Herndon, Herndon Solutions Group

Participants will learn after completing a comprehensive review of emergency preparedness and making significant improvements over the past couple of years, the Long Beach Water Department found that it was imperative to integrate resource typing into its overall preparedness plan. The Department has taken an innovate approach to developing a tool that reflects AWWA Resource Typing Manual standards when creating the various teams. Furthermore, the teams were developed to ensure that deployment of would not impact

day-to-day operations. Finally, all costs were captured for easy documentation through FEMA's Requisition-A. At this session, you will learn how your utility can also comply with industry resource typing directives and apply it for both deployment, as well as if your utility is the requesting authority.

9:00 AM

Tunnel Vision: The Pros and Cons of Managing Infrastrucutre Inspection with Incident Command

Adrienne Arnold, San Francisco Public Utilities Commission

Participants will learn how the San Francisco Public Utilities Commission (SFPUC) has committed to inspecting and assessing its aging water infrastructure. In January 2015, the SFPUC dewatered the Coast Range Tunnel. The tunnel remained out of service for 34 days while SFPUC contractors and consultants inspected the entire length of the tunnel for any necessary repairs. The SFPUC activated an Incident Command organizational structure in order to help coordinate and manage the tunnel inspection. Although the inspection was ultimately successful, there were several lessons learned from the event that can be applied to various infrastructure inspections.

9:30 AM
Preparing for the Big One – Mitigating Seismic Risks to Water Infrastructure

David Clark, Metropolitan Water District

This session provides an overview of Metropolitan Water District's overall approach to earthquake preparedness and includes specific examples of actions Metropolitan has taken under each component of the program to strengthen overall system reliability. This includes a detailed study regarding the potential impacts to the CRA from a M 7.8 event on the San Andreas Fault and the mitigation measures that were identified through this study.

10:30 AM

Fire and Water working together to keep thirst at bay

Mary Ellen Carroll, San Francisco Public Utilities Commission

Participants in this session will learn about collaboration between the San Francisco Public Utilities Commission and San Francico Fire Department to address public information, water quality, and alternate water delivery after a disaster. Learn about this innovated training and edulcation partnership that can be adpated in any community to support water operations and ensure water alternative when the water system is disrupted due to disaster.

11:00 AM

Cyber Threats to Critical Infrastructure

Ronald T. Williams, Talon Companies

This presentation provides information on cyber attacks to Critical Infrastructure IT and SCADA systems. The information in this presentation will explain how cyber attacks are perpetrated and what Water Districts should do to detect, deter, and thwart cyber attacks with tiered and layer security.

11:30 AM

CyberSecurity – What do I Need to Do?

Jeff Miller, Schneider Electric

This presentation will discuss aging electrical system threats, vulnerabilities, and risks using forensic investigation examples of failed electrical equipment. Evidence is provided to show how proper maintenance, inspections, and assessments can prolong the life of electrical equipment while ensuring reliability and safety throughout its life. Real world project examples will be given highlighting the challenges and successes of these types of improvements.

Session 34 - Backflow

8:30 AM
Backflow Prevention Products Beyond the Usual

Rick Fields, Wilkins

Participants will learn and discuss many listed/approved backflow assmblies

9:00 AM
Backflow Prevention Enclosures: What Do They Do?

Jim Purzycki, BAVCO

Show different types of enclosures available and proper evaluation to ensure correct type used for application

9:30 AM
Why Testers fail their performance examination

Jeff Flynt, Palomar Backflow Inc.

Discuss reasons for possible failure of performance exam and how to avoid them

BREAK

10:30 AM
Backflow Prevention for Residential Fire Sprinkler Systems

Jim Tate, JG Tate Fire Protection Systems/AAA Tate Backflow

Participants will learn and discuss different backflow prevention requirements for residential fire sprinkler systems.

11:00 AM
How To Identify Future Capital Improvement Projects

Nick Lalonde, Encina Wastewater Plant

Participants will learn and discuss project to upgrade facility piping systems to become compliant with current backflow/cross connection requirements

Session 35 - Energy

8:30 AM
In-Conduit, Small Hydropower: Generating Value from the Water-Energy Nexus

Matthew Swindle, Nline Energy

Participants will learn how to turn water distribution systems into sources of clean,

renewable electricity through small hydropower. Participants will learn: A) Small hydropower site selection. B) Turbine technologies. C) Hydropower regulations. D) Funding mechanisms. And E) Project development steps.

9:00 AM
Hydropower Within Water Systems - Recovering Energy One Control Valve at a Time

Nathan Smith, SOAR Technologies, Inc.

Participants will learn energy recovery utilizing conduit hydropower within water system infrastructure can offset operational costs through power sales. Hydropower applications include pressure drops found in transmission lines, distribution systems, treatment plants, reservoirs, industrial processes and irrigation. Site evaluation, equipment selection and case studies are covered.

9:30 AM
Using Data Analytics to Monitor and Reduce Energy Consumption

Jeff Neeman, B&V

how data integration and data analytics to calculate or estimate energy use down to the asset level could improve the understanding of how much energy is being used and how it relates to the energy bill. Using real-time status and other sensor data on assets, data analytics can be used to estimate the energy use without installing many expensive energy meters and how to balance energy consumption and production with real-time energy market prices.

BREAK

10:30 AM
The Limits of Water Conservation and the Real Water-Energy Nexus

William B. DeOreo, Aquacraft Inc., Water Engineering and Management,

Attendees will lean what the practical limits are for water demand reduction by existing and new residential customers, and how municipal demands are certain to rise, even with the best water conservation measures. They will also learn how much energy is takes to treat water by conventional methods, coupled to co-generation of water by thermal desalination, and pumped to a point of use. Since use of traditional power supplies (coal, gas, wind and solar) is not a realistic option, given the enormity of the required power, they will be introduced to a nuclear power technology first developed in the 1970"s that might provide a way forward: the Molten Salt Thorium Breeder reactor.

Session 36 - Water Treatment

8:30 AM
Trihalomethanes Control Using A Simple Floating Spray Nozzle System

Mao Fang, Las Vegas Valley Water District

Participants in this session will learn a trihalomethanes (THMs) control alternative using a floating spray nozzle system commercially available for storage facilities. A full-scale case study will be presented to show its effectiveness, energy-efficiency, cost, and construction and operational simplicity.

9:00 AM
Controlling Trihalomethanes and the Costs Associated with their Minimization using Automated On-Line Monitoring with the THM-RR system

Gary L. Emmert, Corona Environmental Consulting, LLC

Participants in this session will learn how automated on-site monitoring of individual and total trihalomethane concentrations can be used first to map DBPs control practices, and then improve water quality through optimizing minimization strategies and decreasing associated costs.

9:30 AM
Reducing DBP Formation
Tom Coughlin, Chemtrade

Participants will learn why using coagulants is necessary.

BREAK

Time: 10:30:00 AM
Innovative WTP Upgrades to Reduce Disinfection By-Products

Nick Lazarakis, Kennedy-Jenks Consultants

Participants in this session will learn about the Lessalt WTP performance in comparison to expected results, lessons learned during start up, and treatment processes to reduce TOC, iron, manganese, and disinfection by-products.

11:00 AM
Controlling Trihalomethanes and the Costs Associated with their Minimization using Automated On-Line Monitoring with the THM-RR system

Gary L. Emmert, University of Memphis

Participants in this session will learn how automated on-site monitoring of individual and total trihalomethane concentrations can be used first to map DBPs control practices, and then improve water quality through optimizing minimization strategies and decreasing associated costs.

Session 37 - Asset Management

8:30 AM
Filter Media Asset Management: A New Sustainable Approach to Maintaining Filter Performance

Dawn Halpern, Utility Service Group

Participants will learn how a comprehensive Filter Asset Management Program can:
•Restore filter capacity and bed porosity
• Improve filtration ability
• Eliminate particle cohesion
• Reduce detrimental effects from biofilm and inorganic deposits
• Maintain regulatory compliance
• Fully recondition and extend system life
• Results in a cost-effective capital improvement

9:00 AM
Protecting Existing Revenues for the City of Angels: The Devil in Effective Large Meter Maintenance Program Details

Kenneth Molli, Veolia North America

Participants will learn the basic tenants of an effective meter asset management system, the results of its application to assess LADWP's large meter maintenance operations, and the process LADWP used to identify initiatives that best serve its strategic vision.

BREAK

10:30 AM
A New Approach to Water Leakage Using DYNAMIC SECTORIZATION

Dawn Halpern, Utility Service Group and Rebekah Oulton, PhD ,California Polytechnic State University

Participants will learn a novel approach to actively monitor night time flows in distribution systems has proven quite effective in identifying areas of water leakage for detection & repairs.

11:00 AM
Utilizing Tablets To Improve Your Work Order Process

Kurtis Warne, SEMS Tecnologies

Participants in this session will learn how mobile devices such as smartphones and tablets can help improve work order processes. We are tasked everyday with completing: customer call-ins, preventative maintenance, and daily repairs. This time consuming process of documenting this paper trail is frustrating. This session shows how field technology your city or district probably already has can be used to eliminate the paper and go electronic, while having your staff embrace it.

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 5

Date: September 14, 2015

Subject: Claim - 7322 Yorktown Place #907

Staff Contact: Jim Arenz, Operations Manager

Recommended Action:
Ratify staff's decision to follow direction from the District's insurance carrier Joint Powers Insurance Agency (JPIA) to respond to this subject claim as soon as possible with a Letter of Rejection (see Exhibit 1).

Discussion:
On September 11, 2015, staff received a District Claim Form from Tomasa Castro requesting approximately $10,000.00 for injuring herself as a result of stepping into an open meter box on June 12, 2015 (see Exhibit 2).

On June 12, 2015, the District received an e-mail through Feedback by Ms. Castro stating that she had trapped her foot in a meter box by a garage, located at 7322 Yorktown Place #907 (see map in Exhibit 3). In her e-mail Ms. Castro stated "Please have someone come out and repair this ASAP or I will have to call my attorney since I am in pain and injured my foot." Staff called Ms. Castro and she explained that she had attempted to straighten the meter box lid and her foot had fallen into the meter pit. The On-Call Technician was dispatched to assess whether there was a safety issue with the meter lid. The On-Call Technician determined that the lids were securely in place and there did not seem to be a safety issue with how they were installed. A field photograph taken by District staff is shown in Exhibit 4.

On August 24, 2015, Ms. Castro called the District to report that the meter box was open and she did not want to fall into it again. She reiterated that she had fallen into it once before and hurt her foot, knee, and back. Staff was again dispatched and found the meter box lid was in place, not broken, and did not appear to be a safety issue. Staff determined that the lid might move around slightly when driven over but the tabs under the metal lid keep it from moving too far and falling into the box.

Later the same day, staff returned Ms. Castro's call to discuss the findings at the location. Ms. Castro stated that she has lived at the location for a very long time and always finds the lid off of the meter box. She stated that she had never reported the issue before her e-mail on June 12th of this year. She stated that she believes that the car tire causes it to come off when entering and

exiting the garage. She stated that she has fallen into the box and driven into the box when the lid was off. A meeting at the location was scheduled for the following day.

On August 25, 2015, staff met Ms. Castro at the location. Staff used a meter hook tool to move the lid around the meter box vigorously but could not duplicate having the lid drop into the meter box. Staff asked Ms. Castro to pull her car in and out of the garage over the lid as another test but she stated that her car was not there. Staff determined that the metal lids sit on top of the meter boxes and can move from side to side. Staff once again noted that the lids do not fall into the meter box because the tabs welded under the lid limiting the amount of lateral movement. Staff informed Ms. Castro that the District would look into options for replacing the lids as a courtesy. A claim form was left with Ms. Castro as a result of her injury claim. She stated that she did not plan to submit it, and that her only interest was having the lids changed out.

The services in this older gated community are not installed to current District Standards. There are two (2) meters within each meter box and the metal lids do not have holes for mounting meter reading transponders, which affects the performance of the radio signal. Furthermore, the ¾" copper services in this community have a history of corrosion that often result in failures. As a result, the decision was made to completely upgrade the existing four (4) services in this immediate area to current District Standards. This work was outsourced to a contractor and the services, along with the meter boxes were completely replaced on September 9, 2015.

Staff contacted Dick Damon, JPIA Director of Casualty Operations, to inform him of the subject claim. He advised staff to follow protocol and send Ms. Castro a Letter of Rejection, which was mailed on September 14, 2015.

Recommendation
Based on the information above, staff recommends the following:
- Reject this claim as advised by the District's Insurance Carrier.

Fiscal Impact:
Final fiscal impact will not be known until resolution of the claim by ACWA/JPIA. The present claim amount is $10,000.

Strategic Plan Alignment:
Facilities and Operations – 2.D. Manage assets by implementing protective, preventive and predictive maintenance programs on all District assets to extend their life and reduce service interruptions.

Customer Service – 3.A. Operate in an open and public manner.

Exhibit 1

SACRAMENTO SUBURBAN WATER DISTRICT

CLEARLY REFRESHING SERVICE!

September 14, 2015

Tomasa Castro
7322 Yorktown Place #907
Sacramento, CA 95842

RE: Claim – 7322 Yorktown Place #907

Dear Ms. Castro:

This letter responds to the claim that you presented to the Sacramento Suburban Water District, which was received on September 11, 2015.

In accordance with the applicable provisions of the Government Claims Act, Government Code sections 810 through 935.8, your claim appears timely filed based on the date of the alleged incident. Notice is hereby given that the claim you presented to the District on September 11, 2015, was rejected by the District on September 14, 2015.

WARNING!

Subject to certain exceptions, you have only six months from the date this notice was personally delivered or deposited in the mail to file a court action on this claim. See Government Code Section 945.6

You may seek the advice of an attorney of your choice in connection with this matter. If you desire to consult an attorney, you should do so immediately.

This notice applies only to claims under the Government Claims Act, and it does not apply to or extend any other statutes of limitations or time limits as may be imposed upon the claim for pursuit of rights under other laws. By providing this notice, the Sacramento Suburban Water District does not intend to relinquish or waive any of its legal claims requirements or any rights or defenses potentially available to the District or its directors, officers, employees or agents.

If you have any questions about your claim, or this letter, please call our claims administrator ACWA/JPIA at (916) 786-5742.

Sincerely,

for RSR

Robert S. Roscoe, P.E.
General Manager

cc: Cece Wuchter, JPIA

Exhibit 2

SACRAMENTO SUBURBAN WATER DISTRICT

RECEIVED

SEP 1 1 2015

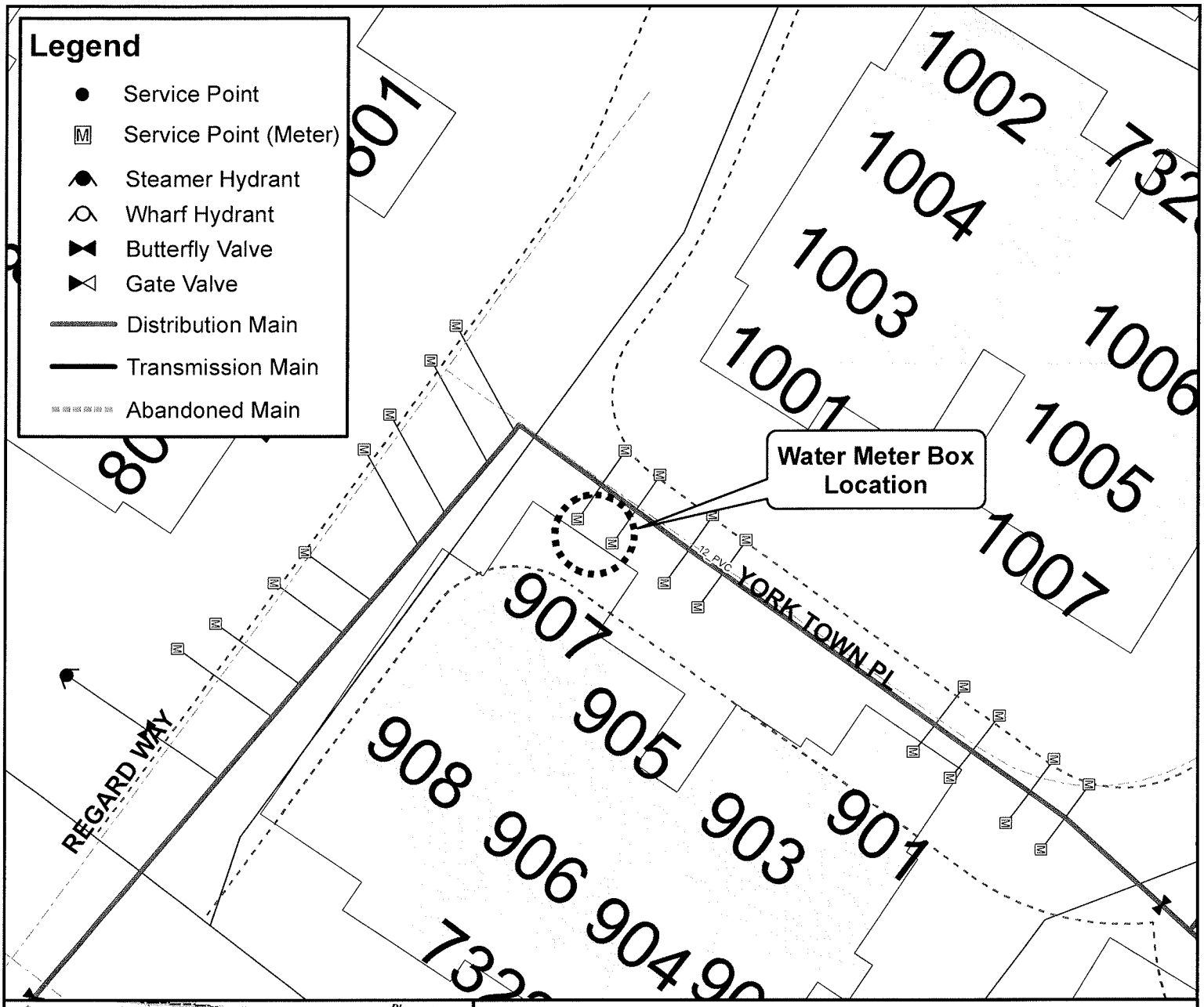
CLAIM FORM

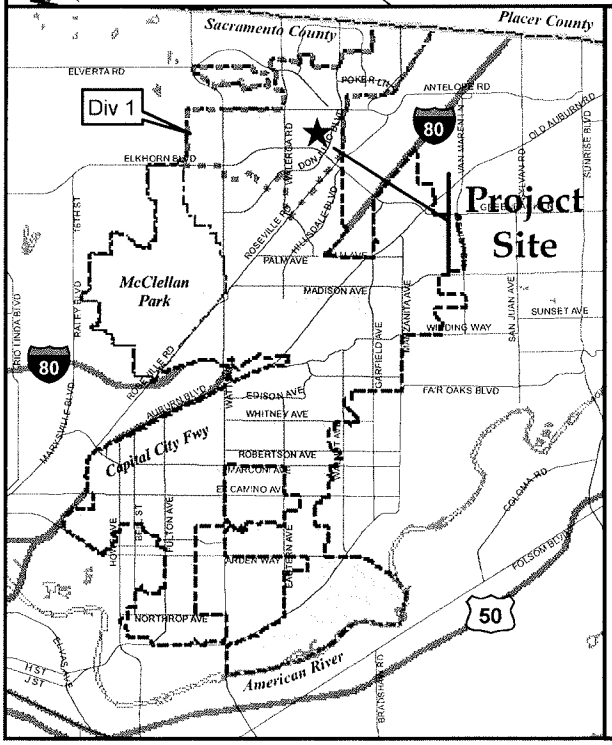
(A claim shall be presented by the claimant or by a person acting on their behalf)

1	**Claimant name, address (mailing address if different) phone number, social security number, and date of birth.** [illegible]
	Name: [illegible] Phone Number: [illegible]
	Address(es): 7322 YorkTown PL 907
	Sac CA [illegible]
	Social Security Number: [illegible] Date of Birth: [illegible]
2	**List name, address, and phone number of any witnesses.**
	Name: Brian Batson [illegible]
	Address: 7311 YorkTown PL # 807 Sac Ca
	Phone Number: (916) [illegible]
3	**List the date, time, place and other circumstances of the occurrence or transaction, which gave rise to the claim asserted.**
	Date: June 11 /15 Time: 1 PM Place: 7322 YorkTown PL 907
	Describe What Occurred (give complete information):
	I was leaving for lunch, when I took a step forward to go to my car. My foot stept on the corner of meter top, and suddenly opened, and my foot went inside the hole. It shook my whole body. I figured that was going to hurt my body. I had to go to my Dr.
	NOTE: Attach any photographs you may have regarding this claim.
4	**Give a general description of the indebtedness, obligation, injury, or loss incurred so far as it may be known at the time of the presentation of the claim.**
	This has caused back problems and had to get physical therapy and I'm currently in therapy.
5	**Give the name or names of the District employee(s) causing the injury, damage, or loss, if known.**
	Sacramento Suburban Water District
6	**The amount claimed if it totals less than ten thousand dollars ($10,000) as of the date of presentation of the claim, including the estimated amount of any prospective injury, damage or loss, insofar as it may be known at the time of the presentation of the claim, together with the basis of computation of the amount claimed. If the amount claimed exceeds ten thousand dollars ($10,000), no dollar amount shall be included in the claim. However, it shall indicate whether the claim would be a limited civil case.**
	I am claiming $10,000.

Date: 8/30/2015 Time: 7:00am Signature: [illegible]

ANSWER ALL QUESTIONS. OMITTING INFORMATION COULD MAKE YOUR CLAIM LEGALLY INSUFFICIENT





NO SCALE

Portion of Sacramento Suburban Water District

N
W E
S

EXHIBIT 3

Claim - 7322 York Town Place #907

(Voting Division 1)

SACRAMENTO SUBURBAN WATER DISTRICT

Base Data: Sacramento County Gis Base Map
Projection: CA State Plane 2, NAD83
Scale: No Scale
Prepared by: DAV SSWD
Sacramento, Ca. Sept., 2015
York Town Place_7322.mxd

Exhibit 4

This photograph is of the meter box related to 7322 Yorktown Place #907.

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 6

Date: September 4, 2015

Subject: Sacramento River Water Reliability Study Update

Staff Contact: Dan York, Assistant General Manager
John E. Valdes, Engineering Manager

Recommended Board Action:
Authorize the General Manager to execute a cost sharing agreement for participation in Phase 2 of the Sacramento River Water Reliability Study subject to final legal counsel review and approval, as recommended by the Facilities and Operations Committee.

Discussion:
A similar report was presented to the Facilities and Operations (F&O) Committee at their meeting on September 3, 2015. The F&O Committee recommended that staff provide a copy of the report with a recommendation to participate in Phase 2 of the Sacramento River Water Reliability Study.

West Yost Associates (WYA) has now completed a draft Sacramento River Regional Water Reliability Project Planning Phase I Report (Road Map). See the attached Exhibit 1for a copy of the draft report. The report covers the key work tasks performed by WYA: Review and summary of previous work; interviews with potential project partners; assessment of current conditions, issues, and scoping impacts; identification of potential feasible alternatives; and development of a preliminary project road map. The report is not written in a typical technical report format but is instead written in such a way that it can be discussed with a broader audience including Board or Council members and members of the general public.

A final Phase I project coordination meeting was held on August 19, 2015, to receive feedback on the draft report. Assistant General Manager Dan York attended on behalf of the District. At this workshop, the following items were discussed: 1) Status of West Yost's Final Report; 2) Update on WaterSMART Drought Contingency Planning Grant; 3) Update on Placer County Water Agency (PCWA)/United States Bureau of Reclamation (USBR) Basin Study Partnership; 4) Update on Project Name, Branding and Messaging; and 5) Discussion Regarding Scope and Cost for Next Phase of Work. Some review comments on the draft report were provided to WYA. They will incorporate these comments and prepare a final report.

As proposed, the next phase of the work would include environmental review, modeling, incorporation of pending USBR WaterSMART drought contingency planning work, and the framework for potential partners and potential funding obligations. This next phase could potentially cost up to $500,000 to be split among the project participants. The initial project participants are the Cities of Roseville and Sacramento, California American Water, Placer County Water Agency, Rio Linda/Elverta Community Water District, and Sacramento County Water Agency. These agencies are anticipated Annual Users, whereas the remaining agencies are Dry-Year-Only Users, which consist of Carmichael Water District, Citrus Heights Water District, City of Folsom, El Dorado County Water Agency, San Juan Water District and SSWD.

If the District chooses to participate in Phase 2 of the study, staff would need to include the funds in the CY2016 Budget. The contracted consultant working on the District's Water System Master Plan Update has been directed to analyze the project and submit a recommendation on whether or not it would benefit the District to participate in the Phase 2 study.

Fiscal Impact:

The estimated cost of Phase 2 of the study could be as much as $500,000. A total of twelve (12) agencies participated in Phase 1. Six (6) agencies are expected to receive water from the proposed regional treatment plant in all water years and these six agencies are expected to participate in Phase 2 of the study. Other agencies, including SSWD, are only expected to receive dry year water supplies from the proposed facility. If six agencies participate, the cost for each agency is estimated at approximately $83,000. If the District chooses to participate, the estimated cost would be reduced to approximately $71,000 per participant. If other agencies participate, the cost would be reduced proportionately.

Strategic Plan Alignment:

Water Supply – 1.B. Provide for the long-term future needs of the District through prudent planning that will ensure sufficient capacity to serve all customers.

Leadership – 5.C. Participate in regional, statewide and national water management partnerships.

This project aligns with the above two goals in that a separate Sacramento River water supply would provide a long term water supply for District customers and it is part of a regional partnership among interested parties.

Exhibit 1

SACRAMENTO RIVER

REGIONAL WATER RELIABILITY PROJECT

PLANNING PHASE I

AUGUST 2015

WEST YOST ASSOCIATES

SACRAMENTO RIVER

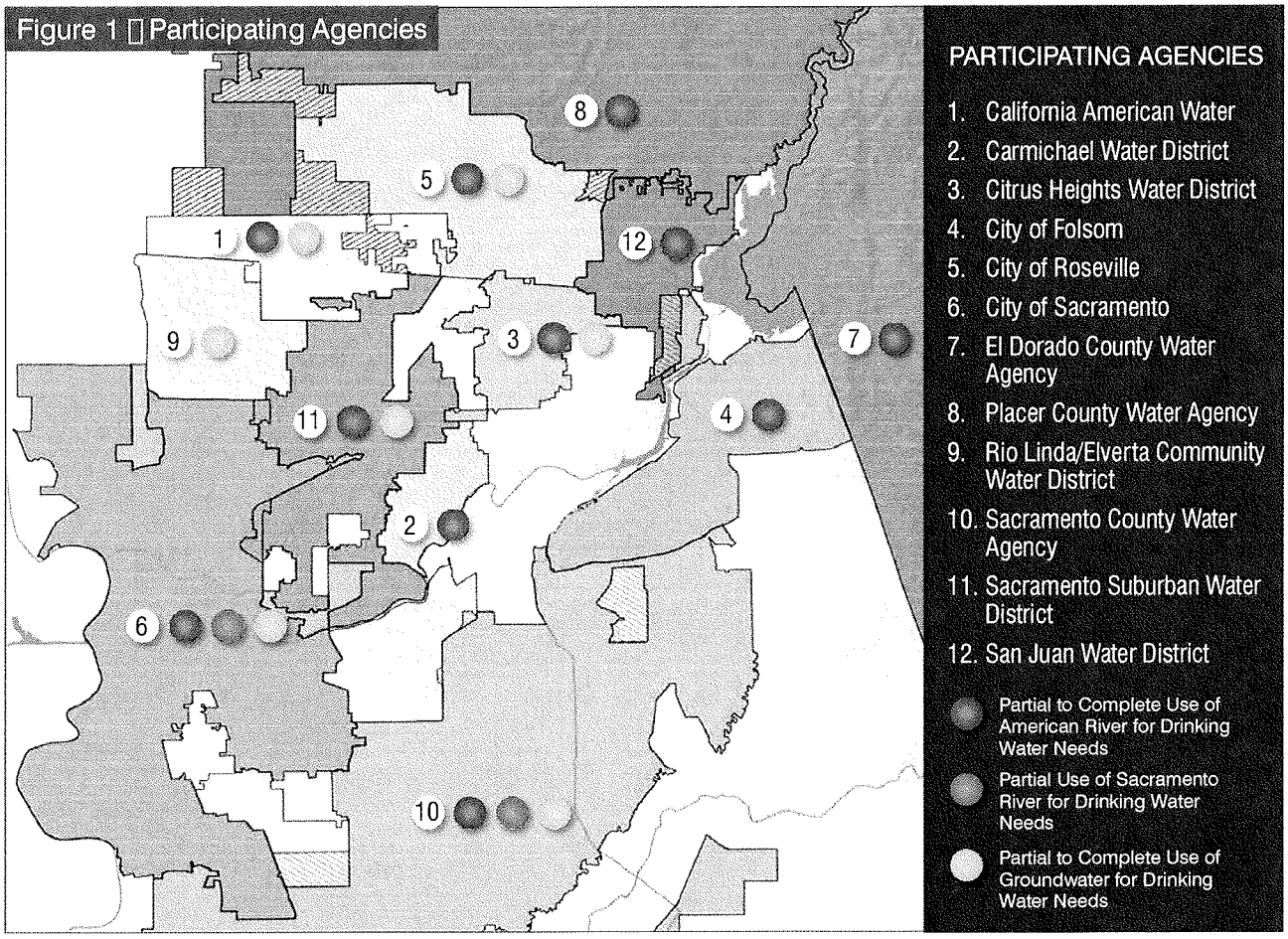
Regional Water Reliability Project

The ongoing drought in northern California spotlights the growing need for water supply agencies to work together to address their current and future water supply needs. The existence of reliable water supplies is fundamental to the future prosperity of the Sacramento region.

The Sacramento River Regional Water Reliability Project (Project) is a multi-agency undertaking, involving key stakeholders throughout the greater Sacramento area. The Project, which will enhance water supply diversity and reliability on a regional scale, will benefit regional water suppliers, increase the sustainability of regional groundwater supplies, and provide additional environmental protection in the American River watershed. Figure 1 shows the agencies currently considering participation in the Project and their current water supply sources.

The Project will divert water through existing intakes from the Sacramento River to offset water currently diverted from the American River, deliver that water via raw water pipelines to a new regional water treatment plant (WTP), and distribute the treated surface water through new and existing pipelines to local water agencies. The Project will also recharge depleted groundwater storage in wet years for recovery in years when surface water supplies are insufficient to meet the needs of the region.

Figure 1 – Participating Agencies



The risk of losing surface water supply is real for regional water agencies that use American River water, and many of these agencies rely on the American River for nearly all of their water supply needs. Most agencies plan to pump additional groundwater to meet drought demands.

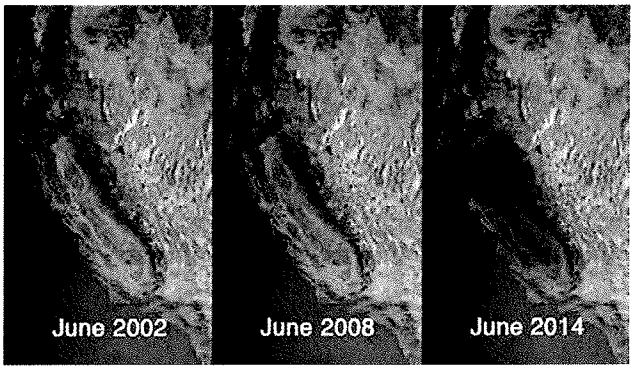
This Planning Phase I report (Phase I Report) lays out a conceptual plan for implementation of the Project. Background information is presented in this report to provide context for the Project, followed by a discussion of the benefits of the Project to the region and to the Participating Agencies (Agencies). Funding and financing opportunities are also discussed. Thereafter, a detailed implementation plan is included that describes how the Project will be phased, the Project alternatives under consideration, what the planning-level Project costs are expected to be, and what the next steps are to move the Project forward.

Background

Water supply in the western United States, and especially in California, is an important and complex issue. Current water supply and management practices are inadequate for the growing California population, and changing climate conditions are expected to exacerbate the reliability and water quality problems facing many communities. Reservoirs are at historic lows, and multiple years of above average precipitation will be needed to refill them. The entire state is currently under mandatory conservation measures, and fines for violating those requirements are at record highs. Many climate change studies predict that areas that have historically experienced drought conditions will have more frequent and severe droughts.

During the recent drought, levels in Folsom Lake have fallen to historic lows, which has reduced the amount of cold water storage available to be released into the lower American River (Figure 2). Average temperatures in the lower American River have risen significantly and flow volumes have been sharply reduced, both of which have created difficulties for local aquatic species. Reducing dependence on the American River for water supply purposes will allow flow and temperature conditions to remain more uniform during dry and normal years.

Figure 3 – Groundwater Depletion of California: 2002–2014

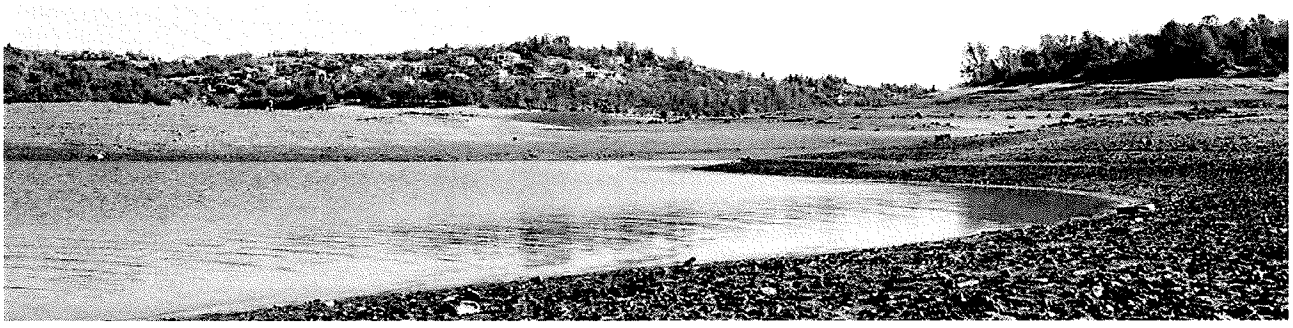


Measurements from the Gravity Recovery and Climate Experiment (a joint NASA-DLR mission) have shown groundwater depletion rates of over 4 trillion gallons (12 million acre-feet) per year in California.

Image Credit: NASA/JPL-Caltech/UC Irvine

In addition to reduced surface water availability, accelerated pumping of groundwater sources has greatly depleted the volume of water remaining in existing aquifers (as indicated in Figure 3), and has increased the concentrations of minerals and contaminants in water withdrawn from these aquifers. Reliable groundwater sources will be an important part of water supply

Figure 2 – Historically Low Levels in Folsom Lake (February 2014)



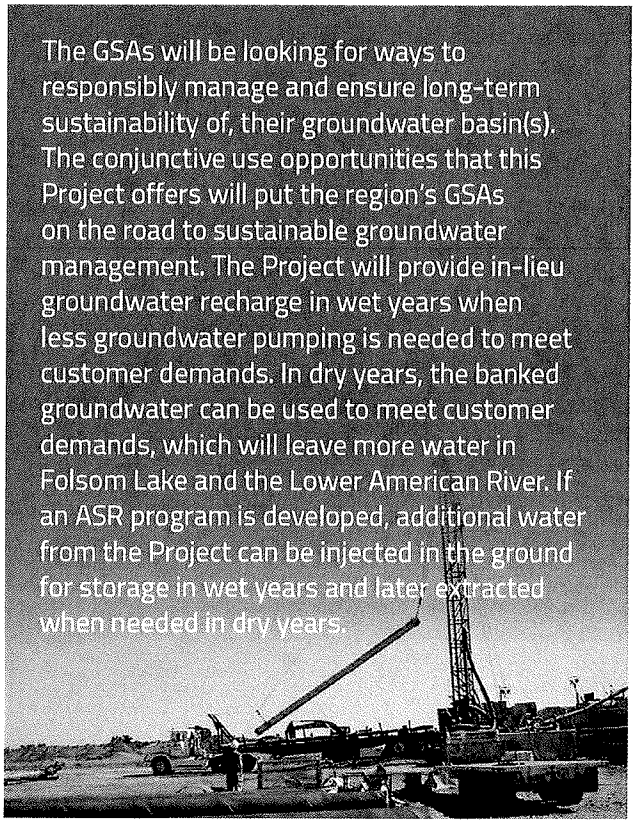
Extended drought conditions can significantly reduce the amount of cold water stored in Folsom Lake for discharge into the Lower American River to support native species.

portfolios in the future. The California legislature enacted the Sustainable Groundwater Management Act (SGMA) in 2014 to encourage long-term, managed groundwater usage. As mandated by SGMA for the state's medium- and high-priority groundwater basins, the Agencies will each be part of one or more of the newly formed Groundwater Sustainability Agencies (GSAs). Increased implementation of conjunctive use and aquifer storage and recovery (ASR) programs will strengthen groundwater resources (Figure 4).

The existing surface water and groundwater supply concerns need to be considered in light of increasing population throughout the region. By 2060, the total population in Sacramento, Placer, and El Dorado counties is expected to grow by approximately 50 percent, from roughly two million people to approximately three million (California Department of Finance, December 2014). The additional population will need reliable supplies of high-quality water.

The activities completed to date on the Project lay the groundwork for the steps that follow. As shown in the Summary of Key Work Elements, significant background work has already been completed, which has culminated in the issuance of this Phase I Report.

Figure 4 – The Project and Sustainable Groundwater Management



Summary of Key Work Elements

Reviewed and Summarized Previous Work
West Yost Associates (West Yost) compiled and reviewed previous Sacramento River Water Reliability Study planning documents and determined the applicability of the documents to the current regional needs. This task culminated in the Technical Memorandum "Review and Summary of Previous Work Related to the Sacramento River Water Reliability Study."

Interviewed Potential Project Partners
West Yost interviewed the 12 Agencies, the Natomas Mutual Water Company (NMWC)– the owner of the proposed raw water intakes, the environmental caucus (comprised of representatives of Save the American River Association, Friends of the River, and the Sacramento Regional Water Forum), and US Bureau of Reclamation (USBR) in December 2014 and January 2015. West Yost conducted four stakeholder workshops between January 2015 and June 2015.

Assessed Current Conditions, Issues, and Scoping Impacts
West Yost assessed current conditions and identified major factors that will likely impact project feasibility through Agency engagement at workshops. The collaborative decisions at the workshops resulted in developing solutions to current issues and identifying issues to be vetted in subsequent planning phases.

Identified Potential Feasible Alternatives
West Yost identified four initial alternatives and through collaborative decisions with the Agencies, refined them to three alternatives.

Developed Preliminary Project Road Map
West Yost prepared this final report which includes a Project road map, including project benefit statements, an implementation schedule, preliminary project costs, a cost sharing concept, and recommended next steps, completed in August 2015.

Regional Needs & Benefits

Because predictions indicate increasing frequency of California drought conditions, there is a growing need for a reliable regional water supply. The increased usage of groundwater during the drought, along with other factors, has led to declining quality of the groundwater.

The two overarching water supply-related needs of the region include reliable water supply and quality drinking water. The Project offers many opportunities to meet these needs. Using Sacramento River water will diversify the supplies of the region's water purveyors, leave more water in the American River, and increase the opportunities for conjunctive use. The new treated surface water made available through this Project will improve drinking water quality for Agencies that rely heavily on groundwater. As an added benefit, the Project will also improve environmental protections by reducing water demands on the American River and Folsom Lake.

There are plentiful opportunities to implement this Project. One is that local Agencies with excess water rights on the Sacramento River are willing to provide long-term leases of some of their rights to Agencies with needs. Many of the key Project elements are aligned with funding allocations from the Water Quality, Supply, and Infrastructure Improvement Act Water Bond that was passed as Proposition 1 in November 2014. Many organizations, including environmental groups and companies, have expressed support for a project that will offset American River water with water from the Sacramento River. There is also local Agency support as the Project will support planned development in western Placer County and the Natomas Vision Area.

Figure 5 summarizes the key needs, opportunities, and benefits for implementing the Project for the residents in Sacramento, Placer, and El Dorado Counties.

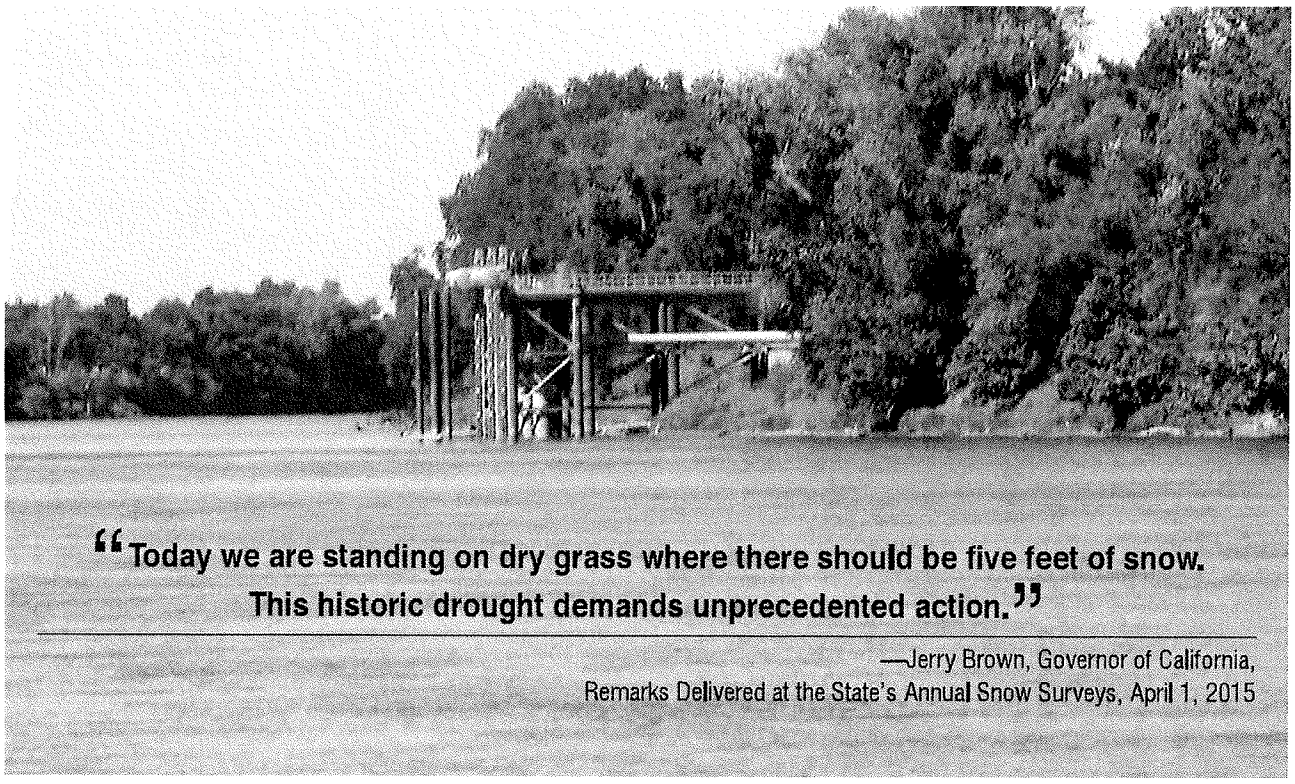
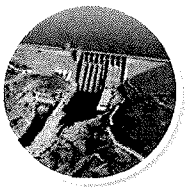
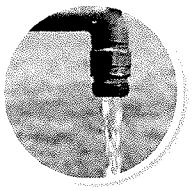


Figure 5 – Project Needs, Opportunities, and Benefits

Overarching Needs

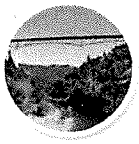


Reliable Water Supply



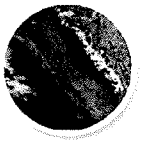
Quality Drinking Water

Opportunities



Leaving More Water in the Upper American River: Water from the Sacramento River will offset water otherwise diverted from the American River system.

Improving Environmental Protection: The Project will provide greater environmental protection by reducing water demands on the American River. Local environmental groups can support a plan that better manages the water and natural resources.



Diversifying Supply: The Project creates the opportunity to deliver water supply from two separate watersheds, each with diverse and distinct hydrological and meteorological conditions.

Capitalizing on Funding Opportunities: The Project's alignment with the objectives of the 2014 Water Bond (Proposition 1) make it favorable for funding.

Increasing Conjunctive Use: Supply diversity provides opportunities to bank surface water in the ground during wet years for use during dry years.

Increasing Availability of Treated Surface Water: The Project will provide higher quality drinking water to replace lower quality groundwater supplies.

Regional Benefits

Supply Reliability & Diversity
Strengthen the region's supply reliability and drought preparedness.

Environmental Protection
Reduced demands on the American River and Folsom Lake will lower temperatures and increase flow in the Lower American River and lead to a healthier river environment.

Groundwater Sustainability
Facilitates the sustainable management of groundwater through in-lieu banking and recharge opportunities, and supports compliance with SGMA.

Operational Flexibility
Increases operational flexibility for the USBR through the use of either the Sacramento River or American River to satisfy Central Valley Project (CVP) contractor demands as well as temperature, water quality, and other environmental needs in the Delta.

Water Quality
Use treated surface water from the Sacramento River to replenish poor-quality groundwater supply.

The opportunities that the Project brings to address the region's growing needs are undeniable. However, to move this Project from a concept to an implemented, real project, requires a great deal of political support along with viable avenues of funding. With the worsening drought, developing funding opportunities, and improving local economies, the Project has momentum and support now that may not resurface again for quite a while. Therefore, the time to move this Project from concept to reality is now. While the needs for the Project likely won't subside, the opportunities for funding and gaining political support for this large-scale project may fade.

Regional Participation

Twelve water agencies in the greater Sacramento area are engaged in this Project (see Figure 1) and are interested in the benefits to the region and their individual agencies. This alliance of regional water agencies has met throughout the last year and demonstrated a willingness to cooperate in further defining the Project.

Benefits to Participating Agencies

This Project will benefit the more than 2 million residents in Sacramento, Placer and El Dorado Counties.

Each Participating Agency, as well as NMWC, will enjoy specific benefits which are explained on the following pages, and summarized in Figures 6 and 7.

California American Water

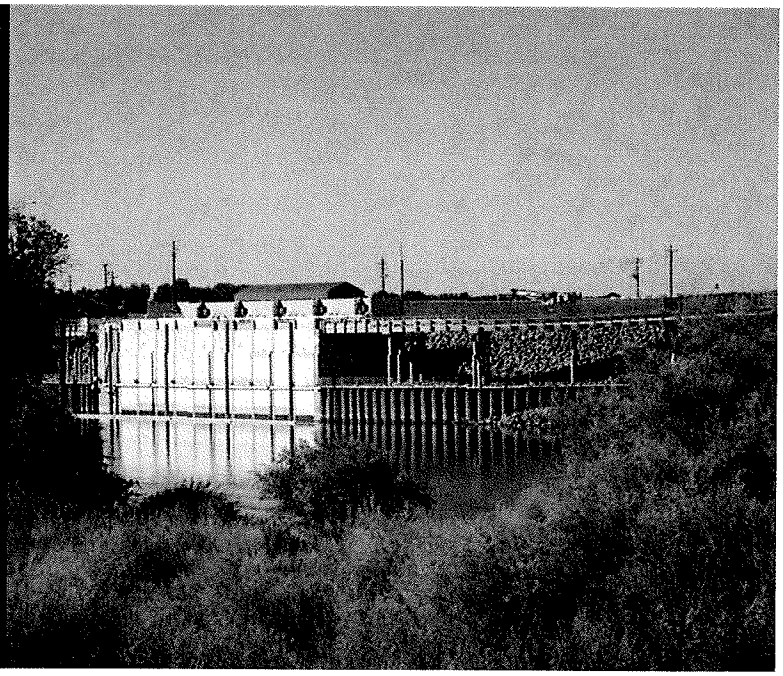
This Project will meet current and projected supply needs for California American Water (Cal Am). The proximity of this project to Cal Am's future service areas and the cost sharing associated with this regional Project could make this a more attractive supply alternative to Cal Am than receiving additional treated wholesale water from Placer County Water Agency (PCWA). Due to Cal Am's participation as a stakeholder and participant in this Project, this may elevate Cal Am as a regional player in the Placer County water supply arena, which could precipitate a discussion with Placer County concerning the current groundwater policy of not allowing groundwater to serve as supply to new development within the County.

The Project will add a new, reliable surface water supply to Cal Am's portfolio. Cal Am's participation in this Project might lead to a discussion with Placer County for the use of groundwater within the County.

Figure 6 – Additional Benefit – Natomas Mutual Water Company

The Project will likely include a water transfer of up to 8,000 acre-feet per year (AFY) to some Project Agencies and use diversion capacity at NMWC's existing intakes. The water rights and pumping capacity provided by NMWC would benefit NMWC by generating revenue, which would allow NMWC to maintain its fiscal viability and operational effectiveness.

Pictured: Sankey Road Intake on the Sacramento River



Carmichael Water District

This Project will create a diversified (new source), reliable long-term supply for the Carmichael Water District (CWD). The project will decrease water diversion from the American River by others in the region that could result in CWD's primary water supply being available more often from the American River in dry years.

The Project could result in greater reliability for CWD on American River supplies and provide an emergency supply for times when American River supplies are insufficient.

Citrus Heights Water District

This Project will create a firm, long-term, reliable water supply for the Citrus Heights Water District (CHWD). CHWD's water supply needs cannot be met in dry years with current groundwater supplies, and this Project will provide the reliability needed when Folsom Lake supplies are curtailed. This project could improve pumping reliability from Folsom Lake (via San Juan Water District) in a dry year.

The project will create a backup supply when groundwater supplies are insufficient and Folsom Lake supplies are curtailed.

City of Folsom

This Project will improve long-term, dry year reliability for the City of Folsom by reducing diversions from Folsom Lake by other Agencies who will divert water from the Sacramento River instead of the American River.

The project will increase reliability of American River supplies for the City of Folsom and could generate a reserve for times when American River supplies are insufficient.

City of Roseville

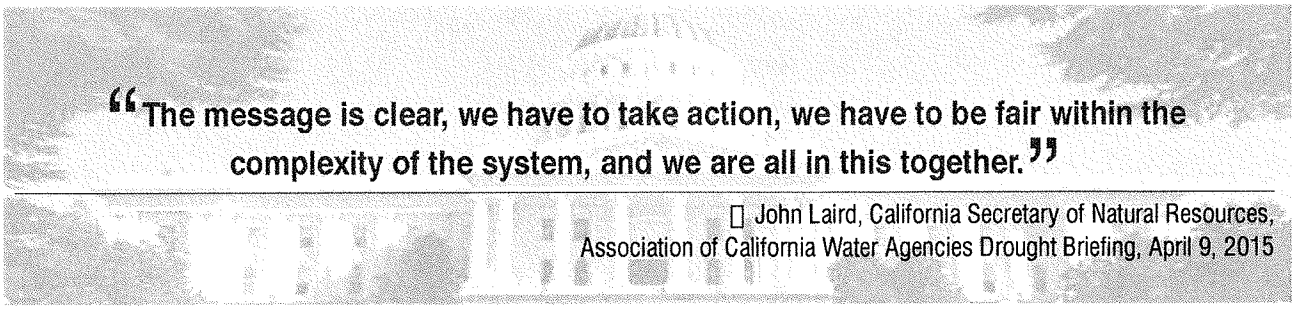
Water from this Project will diversify the City of Roseville's water supply portfolio and potentially could recover 7,100 AFY that was offered as part of the Water Forum Agreement to benefit the environmental needs of the Lower American River. The City will increase their reliable groundwater storage and enhance further their ongoing ASR program. ASR will provide western Roseville with groundwater storage and City customers with higher quality water.

The Project will allow the City of Roseville to recoup water supply that is restricted through the Water Forum Agreement (7,100 AFY).

City of Sacramento

This Project will increase water supply reliability and system-wide operational flexibility for the City of Sacramento. The design of the NMWC intakes allow for diversion from the river at lower water levels than the City's existing intake at the Sacramento Water Treatment Plant (WTP). An additional diversion on the Sacramento River will allow the City to continue to divert surface water when water restrictions are in effect on the American River. A new WTP located north of the City's current service area could be used as a peaking plant for the north Natomas service area.

The project will include an intake that allows pumping at lower river levels for the City of Sacramento and a new plant that could be used for peaking to increase water supply reliability.



"The message is clear, we have to take action, we have to be fair within the complexity of the system, and we are all in this together."

— John Laird, California Secretary of Natural Resources, Association of California Water Agencies Drought Briefing, April 9, 2015

El Dorado County Water Agency

This Project will create additional options for water deliveries off the Lower American River for other stakeholder agencies, which may allow the El Dorado County Water Agency (EDCWA) to work with Lower American River purveyors to maximize the use of EDCWA's American River water rights. This Project could also provide a mechanism for a larger regional groundwater banking program where EDCWA could provide water for banking, under their water rights, to other entities in the Lower American River watershed for interim and extended periods.

The project will increase the amount of water in the Lower American River which could benefit EDCWA's water rights.

Placer County Water Agency

This Project will provide the Placer County Water Agency (PCWA) and its wholesale customers (City of Lincoln, Cal Am, and potentially others) with more reliable and diverse water supplies to meet the needs of existing customers and expected development, to develop a sustainable conjunctive use program, and the possibility to establish a reliable groundwater use program in Placer County.

This Project will reduce dependence on the Yuba/Bear and American Rivers, allow the full use of PCWA's water rights in wet years, and allow PCWA to reduce curtailments in dry years. The new proposed supply source is located close to planned development in western Placer County for efficient delivery of treated surface water.

This Project will allow PCWA to sustainably manage the groundwater basin by, at a minimum, using the treated surface water conjunctively with groundwater under a regional in-lieu recharge program, or by injecting and storing Sacramento River water in the groundwater basin.

The project will allow PCWA to fully use its water rights in wet years and, in conjunction with conservation and groundwater, will help PCWA reduce curtailments in dry years.

Rio Linda/Elverta Community Water District

The current water supply for the Rio Linda/Elverta Community Water District (RLECWD) is obtained entirely from groundwater. Changing water quality regulations will require additional treatment of the low-quality groundwater, well replacement, or abandonment. The Water Forum buildout demand for RLECWD is 17,500 AFY. RLECWD plans to increase supplies from the existing 3,000 AFY up to 17,500 AFY as part of a long-term conjunctive use strategy to maximize supply reliability. The high-quality supplemental surface water supply that will be provided by this Project will also allow groundwater banking (in-lieu and direct recharge).

The project will introduce treated surface water into RLECWD's service area to augment and largely replace low-quality groundwater supplies.

Sacramento County Water Agency

This Project will provide surface water to the proposed Natomas Vision Project development, which will be serviced by the Sacramento County Water Agency (SCWA); provide water supply reliability to SCWA's Zone 40; and address groundwater quality concerns, including hexavalent chromium, iron, manganese and arsenic in northern Sacramento County. Approximately 25 percent of the demands in Zone 40 are met using treated surface water from the Vineyard Treatment Plant. This Project will provide SCWA a new treated water source north of the Sacramento and American River confluence and closer to the area of use.

The project will bring surface water to the Natomas Vision Project and provide more reliability to Zone 40.

Sacramento Suburban Water District

This Project will create a long-term water supply at a stable, reasonable cost to Sacramento Suburban Water District (SSWD) consumers. The project will provide flexibility among the region's water agencies by allowing water to move between the Sacramento River and San Juan Water District's Cooperative Transmission Pipeline. Increased reliability of the 29,000 AFY water supply from PCWA will allow SSWD to continue to maintain a sustainable groundwater basin. This Project will be the basis of a regional conjunctive use program necessary for realizing regional groundwater sustainability and allow SSWD to continue as a leader in regional groundwater banking and storage.

The Project will provide a more reliable water supply to SSWD from PCWA to continue with the development of a more sustainable groundwater basin.

San Juan Water District

This Project will increase water supply reliability in dry years for retail and wholesale customers of the San Juan Water District (SJWD). This project could improve pumping reliability from Folsom Lake in dry years and will provide more flexibility when handling potential emergency conditions related to existing surface water supply (spills, treatment issues, etc.). This Project will create a link between the Sacramento River and the SJWD's Cooperative Transmission Pipeline to create opportunities for flexible distribution to wholesale customers during dry years.

The Project provides an opportunity for SJWD to offer a diversity of supply options for its customers and family agencies in dry years.

Figure 7 – Key Benefits to Participating Agencies

AGENCIES	KEY BENEFITS: Supply Reliability & Diversity	Groundwater Sustainability	Development/ Economic	Water Quality	Operational Flexibility
California American Water	■	■	■	■	
Carmichael Water District	■				
Citrus Heights Water District	■				
City of Folsom	■				
City of Roseville	■	■	■	■	
City of Sacramento	■		■		■
El Dorado County Water Agency	■	■			
Placer County Water Agency	■	■	■		
Rio Linda/Elverta Community Water District	■	■	■	■	
Sacramento County Water Agency	■	■	■	■	
Sacramento Suburban Water District	■	■			■
San Juan Water District	■				■

Project Alignment with Funding and Financing Opportunities

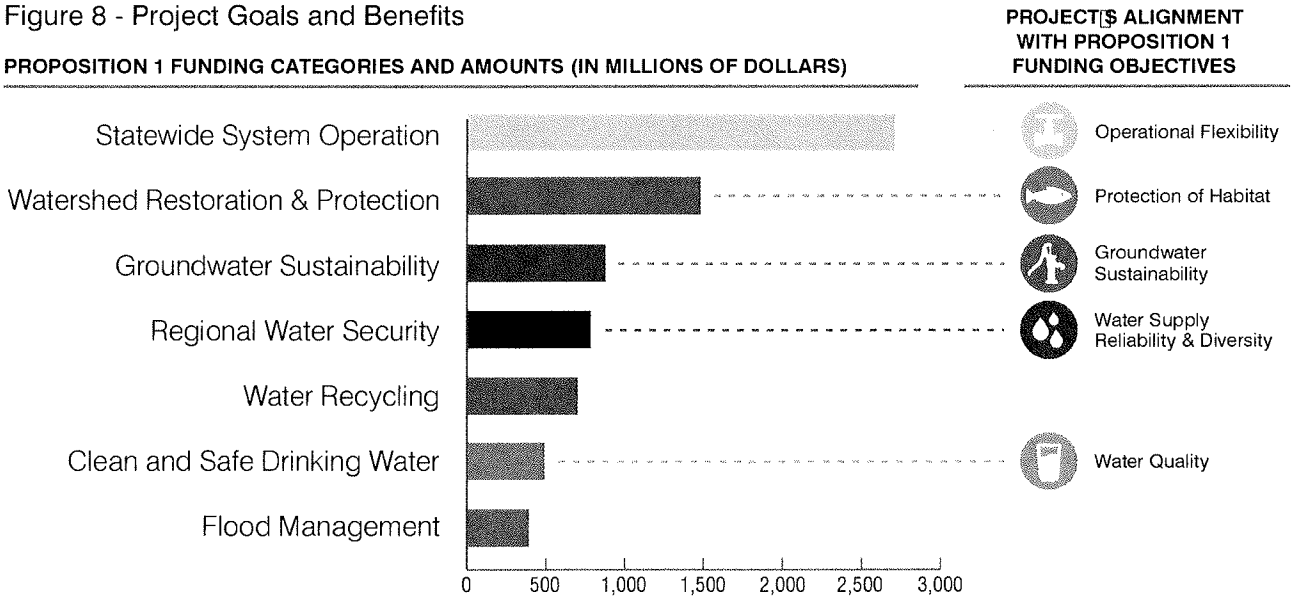
This Project is aligned with the objectives of the Water Quality, Supply, and Infrastructure Improvement Act of 2014 Water Bond (Proposition 1), the State Water Resources Control Board's (State Board) Safe Drinking Water State Revolving Fund (SRF) Program, and USBR's WaterSMART (Sustain and Manage America's Resources for Tomorrow) Program. Many Proposition 1 categories (safe and affordable drinking water, multi-benefit watershed projects, enhanced stream flows, watershed and urban river enhancements, integrated regional water management, and groundwater sustainability) match key elements of this Project (see Figure 8). For SRF funding, the State Board prefers projects that consolidate the needs of many agencies into one regional solution. This Project fits the SRF program requirements exactly. The goals of WaterSMART include stretching and securing water supplies for future generations and coordinating across agencies. This Project is in direct alignment with the WaterSMART grant program's goals.

While the Proposition 1 and WaterSMART grant programs have project funding caps, the Safe Drinking Water SRF Program does not and could be used to finance the bulk of the Project's costs at low interest rates. The SRF loan rate is half the standard municipal bond rate and can lead to significant savings. These loans can be used for planning, engineering, procurement and construction costs, and in most cases can be funded retroactively.

The State Board continuously accepts applications and requires one application per project and determines the most appropriate funding package. The funding package can include a combination of Proposition 1 funded grants, SRF loans, and grants and loans from other state funding programs. The State Board advises applicants to submit during the planning stages of the Project. As the Project moves into the implementation phases, the planning application would be used to initiate the construction funding application. USBR requires a separate application for each specific WaterSMART funding opportunity by the deadline specific to each opportunity.

Recent Funding Success Story: The Davis Woodland Water Supply Project in neighboring Yolo County secured federal and state grant funding for the raw water intake, SRF loans for the regional pipelines and WTP, and SRF loans for the local facilities. The expected grant funding to be received for the construction of the intake totals **$40.2 million,** while the SRF loans for the regional and local facilities will save Davis and Woodland customers **$133.5 million** in interest savings over the life of the project.

Figure 8 - Project Goals and Benefits



Project goals and benefits are closely aligned with Proposition 1 funding objectives and categories. This figure highlights the categories and funding amounts from Proposition 1, and areas where the Project objectives align with Proposition 1 funding objectives.

Project Implementation

Phasing

Interviews with the Agencies led to classifying agencies as either annual water users or dry-year-only water users (Table 1). Annual water users will use the Project to create or augment reliable water supply in wet and dry years, and dry-year-only water users will use the Project to create or augment required reliable water supply only in dry years.

Table 1 shows the desired annual capacities in million gallons per day (mgd) from this Project for each Agency. The capacities are identified as either annual or dry-year-only use, and were evaluated based on projected Agencies' needs by Project Phase. Phase 1 is planned to be implemented in 8–10 years, Phase 2 in about 15 years, and Phase 3 in about 25 years. Project capacity needs for annual users are based on maximum day demands. These numbers will be further refined as the Project progresses. Current projections assume a maximum day demand that is twice the average daily demand.

Both annual users and dry-year-only users will utilize the Project facilities during dry years. The expectation is that between 75% and 100% of the average annual supply will be provided from the Project during a dry year and that up to 25% will be provided through a combination of conjunctive use and conservation. Each Agencies' dry-year annual demand requirement will be further developed and refined in subsequent planning phases of the Project.

Table 1 □ Project Implementation Capacity by Phase for Agencies

		Capacity (in mgd)			
		PHASE 1	PHASE 2	PHASE 3	TOTAL
ANNUAL USERS					
A reliable water supply is needed annually to meet the demands of General Plan development, meet current state drinking water quality standards, and develop a sustainable conjunctive use program.	CALIFORNIA AMERICAN WATER	-	10	10	20
	CITY OF ROSEVILLE	-	10	-	10
	CITY OF SACRAMENTO	-	20	50	70
	PLACER COUNTY WATER AGENCY	-	45	45	90
	RIO LINDA/ELVERTA COMMUNITY WATER DISTRICT	10	-	10	20
	SACRAMENTO COUNTY WATER AGENCY	20	15	-	35
DRY-YEAR-ONLY USERS					
A diversified, long-term surface water supply is needed in dry years to ensure reliability, maintain a sustainable groundwater basin, and reduce reliance on Folsom Lake diversions.	CARMICHAEL WATER DISTRICT	-	-	2.7	2.7
	CITRUS HEIGHTS WATER DISTRICT	-	-	7.5	7.5
	CITY OF FOLSOM	-	-	10.7	10.7
	EL DORADO COUNTY WATER AGENCY	-	-	-	-
	SACRAMENTO SUBURBAN WATER DISTRICT	-	-	19.4	19.4
	SAN JUAN WATER DISTRICT	-	-	10.3	10.3

Description of Major Project Components

Table 2 summarizes the capacities and pipeline diameters anticipated for each Project Phase. The description of the major Project components follows. Figure 10 presents the conceptual implementation timeline for the Project.

Phase 1: The initial project facilities will include diverting water from the Sacramento River, conveying the water through a raw water pipeline to a regional treatment facility where water will be treated and distributed to the Agencies through finished water pipelines. The newly constructed Pritchard Lake intake facility, owned and operated by NMWC, will be upgraded to divert water for this initial phase of the Project.

Phase 2: Necessary modifications to NMWC operations will be completed to divert additional water from the Pritchard Lake intake. The capacity of the WTP will be expanded to provide more water to Agencies. Additional finished water pipelines will be installed to distribute water to different areas of Sacramento and Placer Counties.

Phase 3: Additional diversion capacity will be obtained from NMWC's existing Sankey Intake facility, and new raw water piping will connect this new diversion location to the WTP. The total WTP capacity after Phase 3 implementation is estimated to be 200 mgd, depending on the level of existing and new stakeholder participation. Phase 3 will continue to expand the finished water backbone transmission pipelines in order to deliver water to all Agencies.

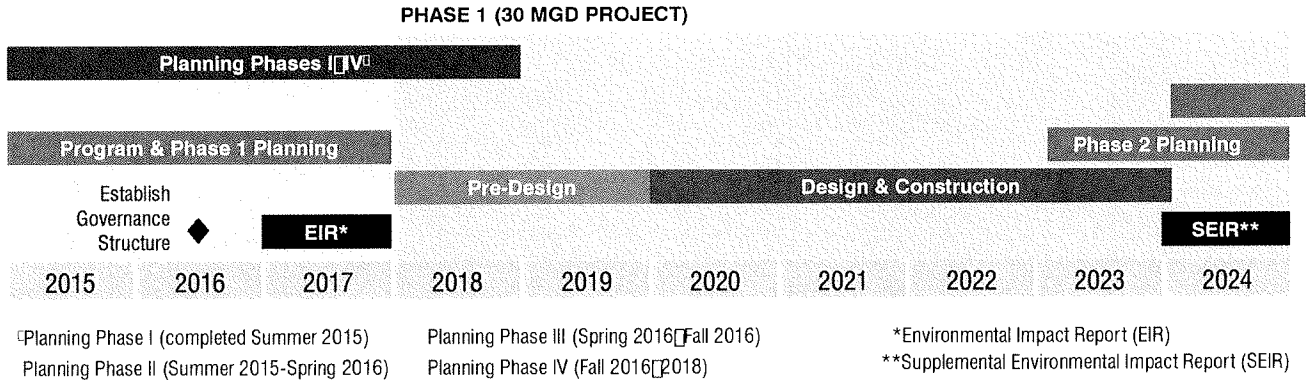
Conjunctive Use Program: This Project will provide in-lieu groundwater recharge in wet years as less groundwater pumping will need to occur to meet customer demands. In dry years, the banked groundwater can be used to meet customer demands, which will leave more water in Folsom Lake and the Lower American River. If an ASR program is developed, additional water from the Project can be injected in the ground for storage in wet years and later extracted when needed in dry years.

Table 2 – Project Infrastructure Capacities and Size by Phase

Incremental Capacity and Pipeline Size for Each Major Project Component by Phase					
PHASE	YEARS	NEW CAPACITY (MGD)	TOTAL CAPACITY (MGD)	NEW RAW WATER PIPELINE DIAMETER (INCHES)	NEW FINISHED WATER PIPELINE DIAMETER* (INCHES)
1	2018 - 2023	30	30	72	60 - 72
2	2025 - 2029	55	85	–	36 - 96
3	2030 - 2034	115	200	84	48 - 84

*Pipeline diameters are presented as a range because the finished water pipelines include multiple segments connecting the water treatment plant to the Agencies' distribution systems.

Figure 10 – Conceptual Implementation Timeline



Project Alternatives

Project facilities were sized to provide the best cost-sharing potential for each Agency while meeting preliminary capacity and schedule needs. Some project facilities will be constructed to anticipate future Agency participation and to maximize cost savings associated with economies of scale. For example, the raw water pipeline that is constructed in Phase 1 will be sized to accommodate the capacity needs of the Agencies participating in both Phases 1 and 2. This approach will save money and time by eliminating additional permitting, the acquisition of additional temporary construction easements, and the construction of an additional pipeline.

With participation from the twelve Agencies, three Project alternatives were defined for further development in subsequent planning. Each alternative includes use of an existing NMWC intake facility on the Sacramento River, phased installation of raw water pipelines, an approximate location for the new WTP, and phased construction of finished water pipelines for distribution of treated water to the Agencies' distribution systems. The three alternatives are shown in Figures 11 through 13.

Intake Facilities: The three alternatives use NMWC's Pritchard Lake intake facility for the water diversion in Phases 1 and 2, and use NMWC's Sankey intake facility for additional water diversion in Phase 3. The use of existing, screened intakes will significantly reduce the cost and complexity of the Project.

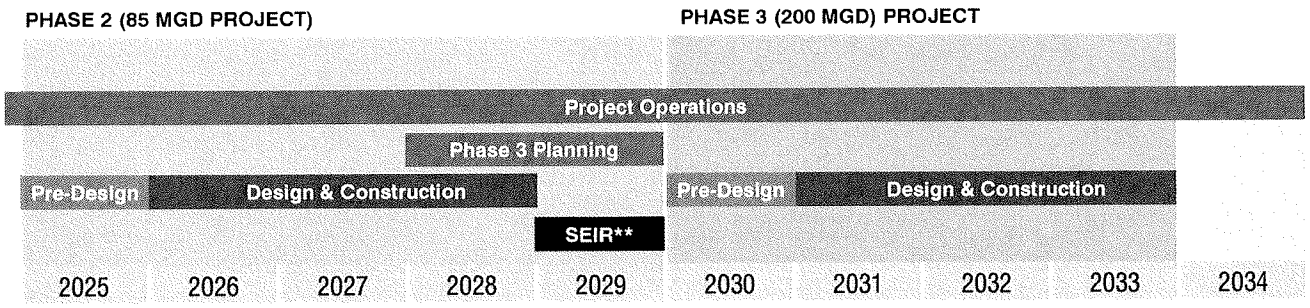
Surface Water Treatment Plant: The WTP location in all alternatives is east of the Sacramento International Airport to avoid concerns of attracting water fowl to uncovered water bodies and to reduce the required length for the finished water pipelines. The reduced length will limit potential chlorine residual and disinfection byproduct issues that can occur in aged water in longer pipelines. An approximate location for a 100-acre WTP site is depicted; however, available properties will need to be assessed for feasibility in subsequent Project phases.

Pipelines: The raw and finished water pipelines will be constructed in phases. Between the three alternatives presented in Figures 11 through 13, raw water pipeline lengths vary between a total of 80,000 and 86,000 feet, and finished water pipeline lengths vary between a total of 125,000 and 133,000 feet.

Table 3 □ Summary of Project Alternatives

Project Alternatives at a Glance						
	WTP LOCATION	RAW WATER PIPELINE	FINISHED WATER PIPELINE	TOTAL PIPELINE	MAJOR ADVANTAGE	MAJOR DISADVANTAGE
Alternative A	Sutter County	86,000 ft	125,000 ft	211,000 ft	Direct finished water pipeline route to Western Placer County	WTP located outside Agencies□ service areas
Alternative B	RLECWD	86,000 ft	133,000 ft	219,000 ft	Centralized WTP	Longest total pipeline length
Alternative C	RLECWD	80,000 ft	133,000 ft	213,000 ft	Centralized WTP and shortest length of raw water pipeline	Finished water pipeline alignment could be more expensive

This table summarizes the major differences between the three alternatives in the Project.



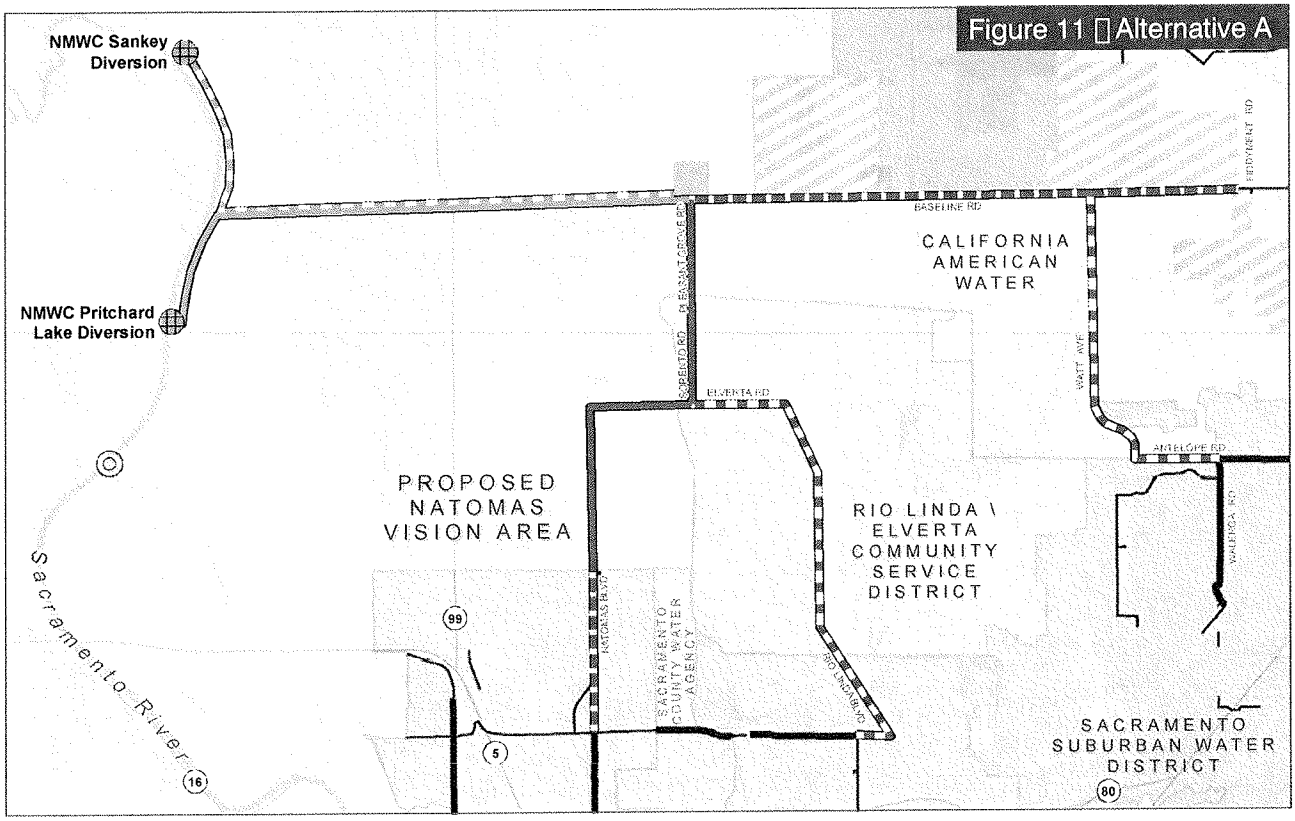


Figure 11 – Alternative A

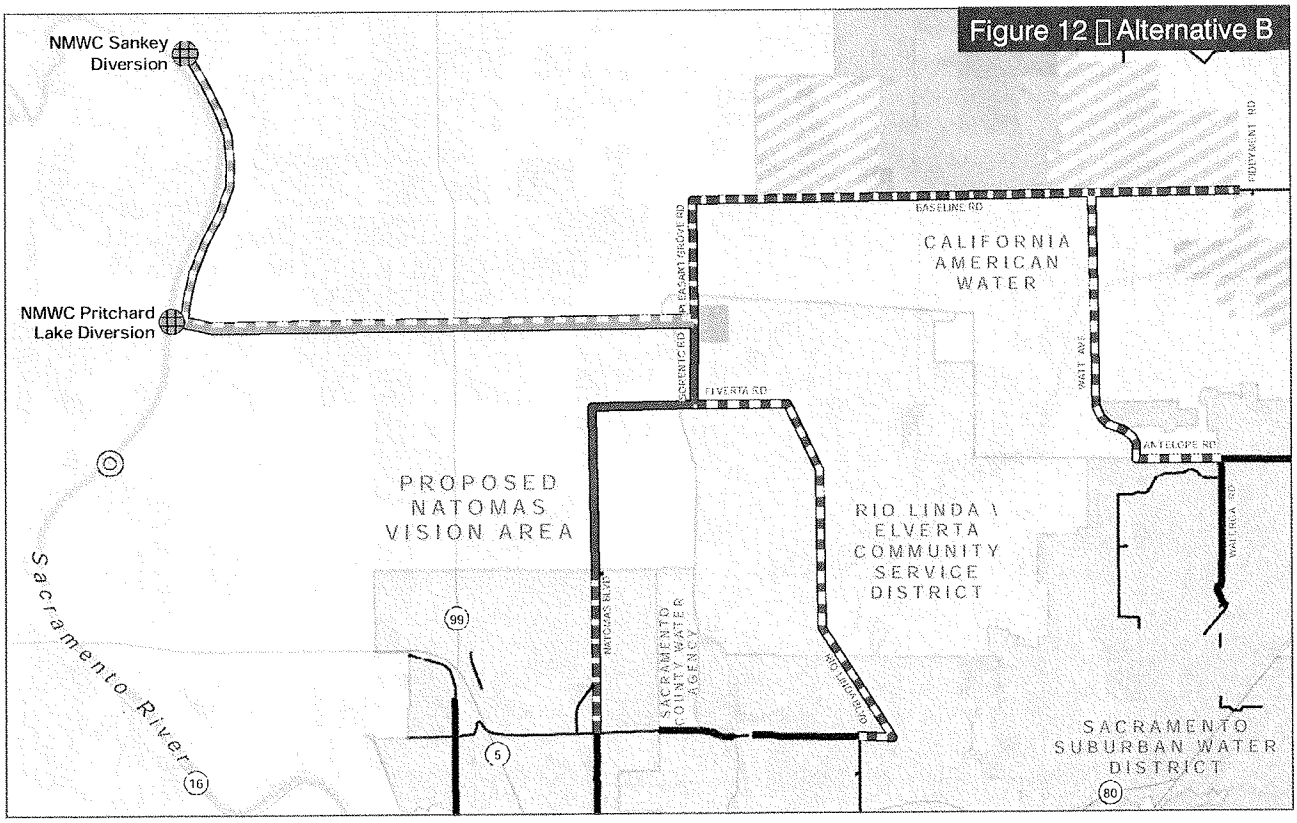
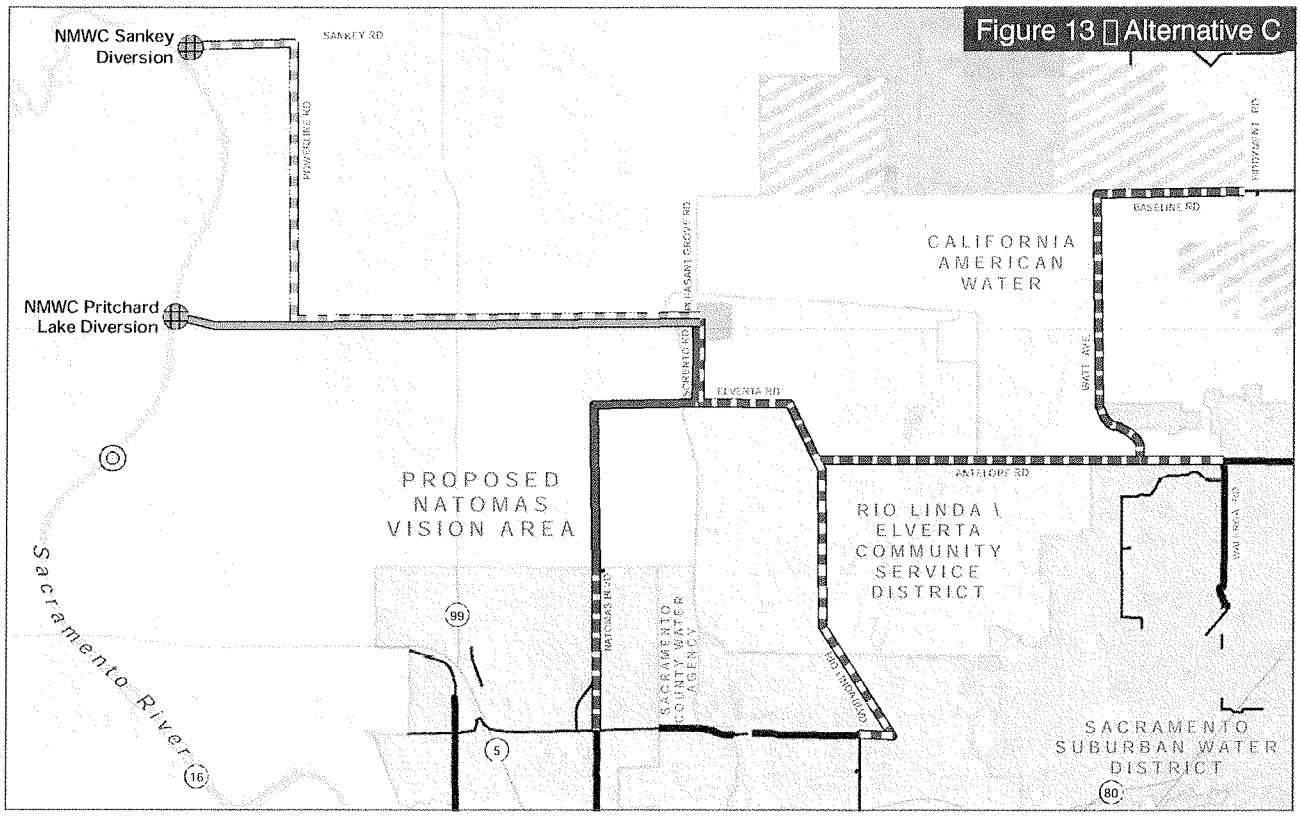


Figure 12 – Alternative B



Alternative A: The WTP will be located in Sutter County (not in the service area of any of the current Agencies). The WTP is the farthest from the Phase 1 Agencies and is inefficiently located for any possible future expansion into the NMWC Elkhorn Intake. This alternative has similar raw water pipeline lengths for Phases 1 and 3 and a direct route to provide finished water to Agencies in western Placer County. It also has the shortest total pipe length, with 86,000 feet of raw water pipeline and 125,000 feet of finished water pipeline for a total of 211,000 feet of pipeline.

Alternative B: The WTP will be located in the RLECWD service area. The WTP is close to the Phase 1 Agencies and is more central to the Agencies that are annual users. Expansion to use the NMWC Elkhorn Intake, should future needs require, could be efficiently accomplished. Construction of finished water pipelines will be in relatively undeveloped areas; however, Phase 3 raw water pipeline length will be longer. This alternative has the longest total pipeline length, with 86,000 feet of raw water pipeline and 133,000 feet of finished water pipeline for a total of 219,000 feet of pipeline.

LEGEND

- Non-Screened Diversion
- Screened Diversion
- Potential WTP Location
- Existing Pipeline (24□-36□ Dia)
- Existing Pipeline (36□ Dia+)
- Phase 1 Raw Water Alignment
- Phase 3 Raw Water Alignment
- Phase 1 Finished Water Alignment
- Phase 2 Finished Water Alignment
- Phase 3 Finished Water Alignment

Alternative C: The WTP will be located in the RLECWD service area. The WTP is close to the Phase 1 Agencies and is more central to the Agencies that are annual users. Expansion to use the NMWC Elkhorn Intake, should future needs require, could be efficiently accomplished. Finished water pipeline routes allow for Agencies to share capacity in the pipelines, which provides cost advantages from an economy of scale. Shared finished water pipelines will be evaluated for feasibility in later phases using pipeline flows and the schedule. This alternative has 80,000 feet of raw water pipeline and 133,000 feet of finished water pipeline for a total of 213,000 feet of pipeline.

Preliminary Estimated Capital Costs

Because the intake and WTP costs are the same for each alternative and the pipeline lengths are similar, a preliminary cost estimate has been prepared that covers all three project alternatives (Table 4). The total Project preliminary estimated cost is $1.2 billion. This total cost does not account for inflation or future operation and maintenance costs. Agency participation, facility capacities, schedule, detailed pipeline routes, discussions with NMWC on intake diversion capacity, WTP specifications, and other project elements will be refined to create a more detailed cost estimate in future planning. Elements included in developing the preliminary cost estimate are:

- Payment to NMWC for the purchase/long-term use of their existing, screened intake facilities,
- Construction costs for a Phase 1 WTP (30 mgd) on a greenfield site that includes accommodations for expanding the facility in Phases 2 and 3,
- Shared capacity in raw water and finished water pipelines that capitalizes on economies of scale to the greatest extent possible, and
- An escalation factor to cover costs other than construction, including permitting, engineering, legal, land acquisition, environmental, construction management, program management, and project procurement.

Potential Cost Sharing Concept

Cost sharing for this Project is complicated by the two types of water users: annual and dry-year-only. One of many possible cost sharing solutions is presented here. When the governance structure is formalized in Planning Phase II, Project cost sharing alternatives will be re-evaluated.

This cost sharing concept splits costs among annual users proportionally according to their capacity of each project component. Dry-year-only users reimburse annual users based on their proportional share of the dry-year use of each project component. The process of allocating costs to the Agencies has five steps:

Step 1. Allocate project component costs to annual users proportional to maximum daily demand.

Step 2. Allocate project component costs to all Agencies proportional to dry-year average daily demand.

Step 3. Reduce costs to dry-year-only users using estimated dry year frequency.

Step 4. Assess a premium to dry-year-only users for access to a reliable supply when water is scarce.

Step 5. Allocate dry-year-only users payments to the annual users.

Table 4 ▯ Estimated Project Costs by Implementation Phase, in 2015 dollars

	Project Component				
Project Phase	INTAKE	WATER TREATMENT PLANT*	RAW WATER PIPELINES	FINISHED WATER PIPELINES	TOTAL BY PHASE
1	$3M	$155M	$55M	$45M	$258M
2	$6M	$241M	-	$62M	$309M
3	$12M	$511M	$68M	$65M	$656M
Total	**$22M**	**$907M**	**$123M**	**$172M**	**$1,223M**

*Includes accommodations to allow for easy expansion in the next Project phase, and the use of ozone disinfection.

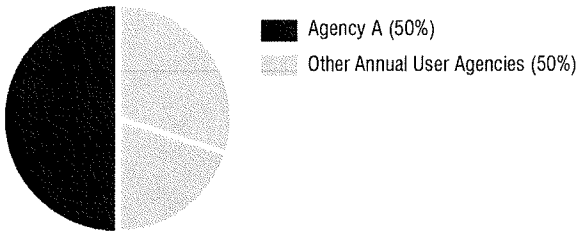
Figure 14 illustrates this cost sharing concept. A generic project component with a cost of $100 million is used in this example. Agency A (annual user) and Agency B (dry-year-only user) is highlighted to demonstrate how costs can be distributed to each Agency.

Figure 14 – Example Shared Cost of Project Component

Step 1:
Agency A (annual user) uses 50% of the project capacity in a normal/wet year. This capacity share is used to allocate the costs to the annual user agencies.

*$100 million * 50% = $50 million*

The initial cost for Agency A is $50 million.

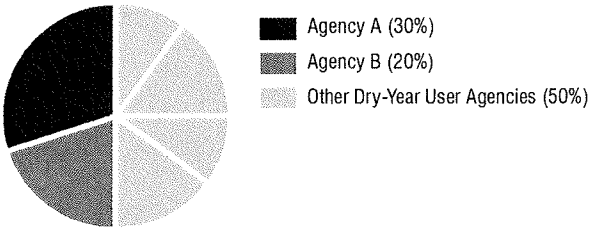


Proportion of capacity during normal/wet year (Step 1)

Step 2:
Agency B (dry-year-only user) uses 20% of the project capacity in a dry year.

*$100 million * 20% = $20 million*

The initial reimbursement to annual water users for Agency B is $20 million.



Proportion of capacity during dry year (Step 2)

Step 3:
Dry years are estimated to occur once every five years, so their frequency is 1/5 or 20%. The reimbursement to annual users from dry-year-only users is adjusted by this frequency.

*$20 million * 1/5 = $4 million*

The adjusted reimbursement to annual water users for Agency B is $4 million.

Step 4:
Water is more valuable during dry years than normal/wet years. In this example, a premium of 4 is assessed. The reimbursement to annual users from dry-year-only users is adjusted by this premium.

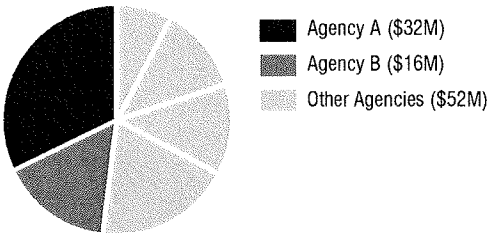
*$4 million * 4 = $16 million*

The final reimbursement to annual water users from Agency B, and the total cost for Agency B is $16 million.

Step 5:
Final reimbursements from all of the dry-year-only users to annual users total $36 million. This reimbursement is distributed to the annual users in proportion to their normal/wet year usage. Agency A would receive 50% of the reimbursement total ($18 million) because it uses 50% of capacity during a normal year.

*$50 million – ($36 million * 50%) = $32 million*

The final adjusted cost for Agency A is $32 million.



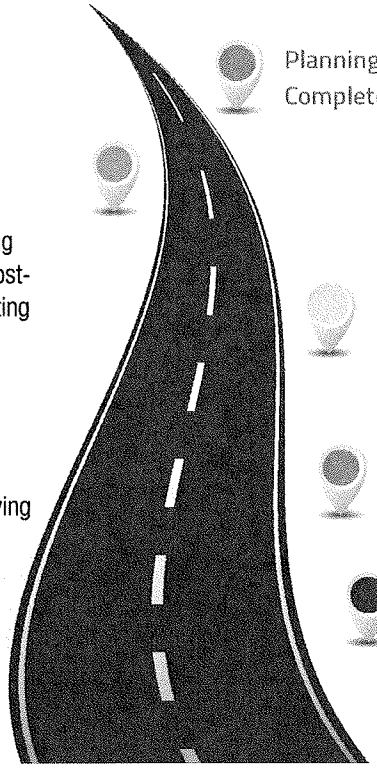
Final distributed costs (Step 5)

Project Road Map

The progress made in Planning Phase I to establish demands, develop alternatives, estimate capital costs, and identify a cost-sharing concept was possible because of the renewed communication and cooperation between the Agencies and important discussions with the NMWC and the USBR. Growing and formalizing these relationships is an important next step in this Project. The Project Road Map (Figure 15) summarizes the Phases of the Project.

In Planning Phase II, Agencies should formalize relationships in the form of a governance structure or Memorandum of Understanding, develop a strategic funding plan, perform an environmental fatal flaw analysis, and prepare a scope of work for Planning Phase III. In Planning Phase III, Project alternatives will be better defined by identifying specific pipeline routes and WTP sites, preparing cost estimates, identifying environmental requirements, and conducting a phasing analysis. In Planning Phase IV, preliminary design and environmental documentation (i.e. the development of an EIS/EIR) will be completed.

Figure 15 □ Project Road Map



Planning Phase I:
Completed

Planning Phase II:
Summer 2015-Spring 2016

Formalize stakeholder relationships by identifying participating agencies, creating a governance structure, establishing a cost-sharing arrangement, and further promoting the Project.

Advance the project by developing an informational brief, creating a specific funding strategy, conducting an environmental fatal flaw analysis, identifying a feasible schedule for future phases of the project, continuing discussions with NMWC, and engaging the USBR.

Planning Phase III: Feasibility Study
Spring 2016–Fall 2016

Planning Phase IV: EIS/EIR
Fall 2016–2018

Implementation Phase 1:
Pre-Design, Procurement, Design, and Construction
2018–2023

PLANNING PHASE II

Packaging and Promoting the Project

Benefit: Consistent Project information that can be used to garner additional support and funding.

Continue the packaging and promoting of the Project to create consistent communications for the many Agencies and stakeholders to use with their decision-making bodies, funding agencies, and the public. The Project will benefit from coordinated informational briefs targeted to specific audiences that include a uniform, concise project description with associated benefits.

Identifying Roles for Agencies

Benefit: **Identifying roles for Agencies will focus key decisions on phasing, costs, and governance structure to those Agencies with a commitment to move forward.**

Determining the roles of the Agencies based upon capacity needs and levels of commitment is the first step in establishing a governance structure. The Project should continue to identify other Agencies that may have an interest in participating in this important regional project.

Establishing a Governance Structure

Benefit: **An effective governance structure will improve efficiency for approving contracts, paying invoices, and moving the Project forward on the implementation schedule.**

A governance structure will formalize the Agencies relationships with each other and allow for efficient Project implementation. The Agencies will need to consider the various options for a governance structure such as a joint powers authority or memorandum of understanding, and consider details like the number and type of voting members, technical committee members, and voting procedures. A project governance structure needs to: (1) be fully supported by the Agencies, (2) adequately represent the Agencies, (3) be set up to efficiently make decisions, (4) communicate with the public and interested stakeholders, (5) have the ability to accept and disburse funds, and (6) have the ability to enter into contracts with consultants and contractors.

Formalizing the Agencies' relationships in a governance structure will strengthen collaboration, simplify the decision-making process, and empower promotion and advocacy efforts.

Developing a Strategic Funding Strategy

Benefit: **Leverage the current funding climate and position the Project for current and future funding opportunities.**

The Agencies identified conceptual ideas for funding the project, many with a focus on grants and low-interest SRF loans. Focused research of funding opportunities should be used to develop a Strategic Funding Plan that includes:

- Summary information regarding the available funding programs including:
  - Source/funding agency
  - Quantity of funds available
  - Type of funding (i.e. grants or low-interest loans)
  - Matching funds requirements, if applicable
  - Eligibility requirements
  - Application deadlines
- Competitiveness of the funding (i.e. percentage of projects funded), if available
- Comparison of Project to funding source ranking criteria
- Future Project Funding Action Plan

The funding strategy should begin with an application for State Revolving Funds and a meeting with the State Board's Division of Financial Assistance. The strategy should also include identifying federal funding possibilities.

Conducting Environmental Fatal Flaw Analysis

Benefit: **This analysis will identify fatal flaws associated with Project alternatives and guide the Project to more feasible alternatives. It will define the timing and efforts required for an EIS/EIR.**

The environmental fatal flaw analysis will use information from the previously-prepared administrative draft EIS/EIR and a Biological Assessment to determine what additional work will be necessary for the preparation of an EIS/EIR in Planning Phase IV. The bulk of the analysis will determine which alternatives are worth additional evaluation in the feasibility study in Planning Phase III.

Engaging the US Bureau of Reclamation

Benefit: Continuing to develop advocates from key staff at USBR who can identify or remove hurdles for water right transfers and federal funding access will strengthen the Project.

Transferring CVP water from the American River to the Sacramento River will provide flexibility to the USBR in operating the CVP system. Developing supporters from key USBR staff who understand this benefit and will internally advocate this Project should simplify water right transfer approvals and may identify potential funding opportunities.

Drafting an Agreement with NMWC

Benefit: Formalizing the Agencies' intent to utilize capacity at NMWC's existing intakes will help avoid the permitting and construction of a new intake on the Sacramento River.

An agreement between NMWC and the Agencies for the long-term use/ownership of capacity at NMWC's existing intakes will allow the Project to avoid permitting and the construction of new water intake on the Sacramento River. Drafting a letter of intent between the Agencies and NMWC, obtaining confirmation from the United States Fish and Wildlife Service for modifying a portion of the NMWC intake from an agricultural diversion to a municipal & industrial diversion, and identifying acceptable terms and a schedule for determining the appropriate monetary compensation are important steps in developing this agreement. Finalization of the agreement will be completed in Planning Phase III.

Refining the Schedule for Each Future Phase of the Project

Benefit: A realistic schedule will keep this Project moving toward successful completion.

It is important to prepare an implementation schedule that accurately reflects the phasing needs of the Agencies. Each Agency will have to determine when capacity from this Project will be required to support their operational needs. The planning and implementation schedule will be tied to Project costs and a need for a financial commitment from the Agencies.

Refining Cost Sharing

Benefit: Developing a cost sharing agreement will allow for an equitable distribution of cost for existing and potential future Agencies, and it will provide a mechanism for reimbursements if some of the cost for the preliminary studies can be recouped.

As part of establishing a governance structure, an initial cost sharing arrangement amongst the Agencies needs to be outlined. A capital cost sharing agreement may involve water use type and frequency (i.e. annual water use vs. dry-year-only water use), facility capacity, schedule, or other factors.

Developing Scope for Planning Phase III

Benefit: Developing a Planning Phase III scope during Planning Phase II will create an efficient transition to maintain Project momentum.

During Planning Phase II, the scope for the next Project planning phase needs to be developed. Planning Phase III should include a feasibility study of the developed alternatives. This work will include further refinement of the alternatives and include phasing, facility sizing, raw and finished water pipeline alignments, and environmental evaluations.

Conclusion

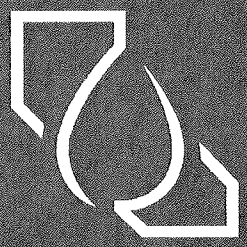
Interest in this project has been enhanced through the Planning Phase I process. The Project has been redefined to better match today's issues and challenges. With the State's current drought condition, it is more important than ever to free up American River water for environmental use, while diversifying the region's supply portfolio. It is also more apparent than ever that this Project is needed to ensure water supply reliability in the region and is vital to California's long-term economic and environmental future.

The conclusions of Planning Phase I demonstrate that timing is everything. This project has opportunities and momentum now that may not exist in the future. The momentum of the Project must continue to take advantage of the opportunity that the Agencies have now with the USBR and the State. The Project has the right elements to support the region's ability to meet the requirements of the State's new Sustainable Groundwater Management Act. The Project is aligned with the objectives of the voter-enacted Proposition 1 Water Bond and as such is well-positioned for funding.

The Agencies have an opportunity collectively to develop one of the most diverse supply portfolios in the State that will take advantage of two completely distinct and diverse watersheds. Now is the opportune time to leverage the public focus on water within the region and throughout the State to assist the Agencies in developing a successful Project that will benefit this region for decades to come. The climate for cooperation, funding and political support have never been better. Continuing with the Planning Phase II should be initiated as soon as possible so that there is no loss in support or momentum.

"All the water that will ever be is, right now."

— *National Geographic*



WEST YOST ASSOCIATES

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SACRAMENTO SUBURBAN WATER DISTRICT

Agenda Item: 7

Date: September 9, 2015

Subject: Voluntary Watering Schedule Change

Staff Contact: Greg Bundesen, Water Conservation Supervisor

Recommended Action

Staff is recommending that the Sacramento Suburban Water District (District) Board of Directors (Board) endorse a message that promoting customers voluntarily reduce their watering schedule from two days per week to one day per week beginning on October 1, 2015.

Discussion

As the fall season begins, staff is recommending that the Board endorses a message that calls for customers to voluntarily reduce their number of watering days from two (2) days per week to one (1) day per week. Staff is not recommending which day of the week customers voluntarily water on, only that District customers choose one of their allowable watering days to water and only water on that one day. As the day light hours become shorter and the temperatures cool off the need for supplemental irrigation decreases. On average, evapotranspiration in October falls by 57% when compared to July (the hottest month of the year on average). The need for supplemental irrigation also falls as cooler mornings bring morning dew which will provide additional moisture. Rainfall increases from 0.04 inches on average in July to 0.94 inches in October which will also provide an offset to supplemental irrigation (see Exhibit 1 for Sacramento weather data).

If approved by the Board, staff will generate a postcard for customers indicating the voluntary changes, as well as, update the District's website.

Fiscal Impact

Staff is estimating that outreach to customers regarding the voluntary change in the watering schedule from two (2) days per week to one (1) day per week (single post card sent to all District customers) would cost approximately $30,000. Staff will use funds remaining in the emergency drought response budget that was approved in May 2015.

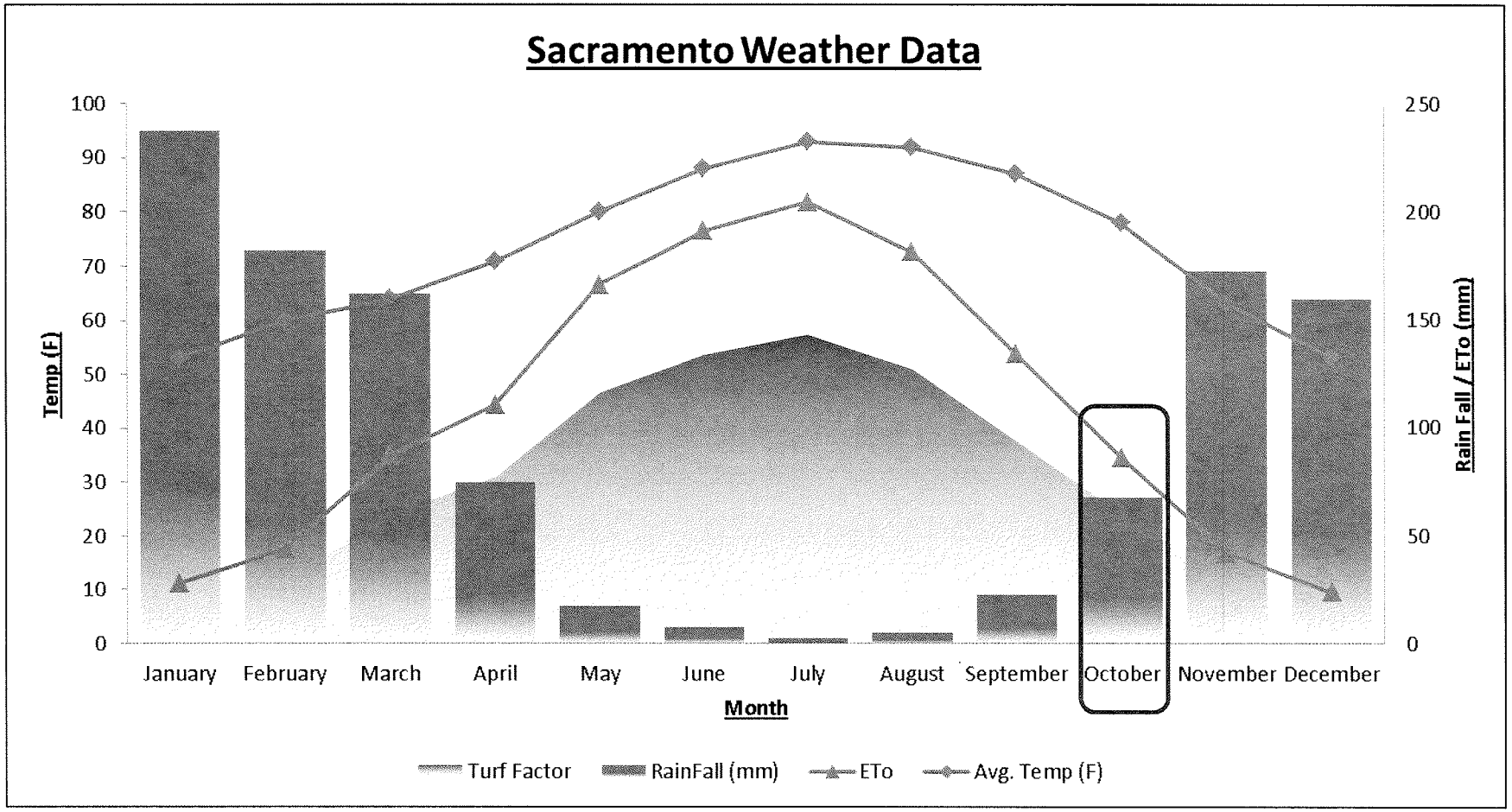
Strategic Plan Alignment

Water Supply – 1.C. Continue to implement and support demand management strategies and water conservation that comply with federal, state and regional4 programs; support Water Forum Agreement5 goals and efficiently meet the needs of the District customers.

Facilities and Operations – 1.H. Implement water conservation programs that efficiently utilize potable water supplies.

Customer Service – 3.D. Provide effective customer and community relations by communicating, educating, and providing information on District operations, drinking water issues, resource sustainability and environmental stewardship.

EXHIBIT 1


Sacramento Weather Data
Temp (F)
Rain Fall / ETo (mm)
100
90
80
70
60
50
40
30
20
10
0
250
200
150
100
50
0
January
February
March
April
May
June
July
August
September
October
November
December
Month
Turf Factor
RainFall (mm)
ETo
Avg. Temp (F)