

**BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD POLICY COMMITTEE**

June 8, 2016 – 1:30 p.m.

BAWSCA Offices, 155 Bovet Road, San Mateo, 1st Floor Conference Room

MINUTES

1. **Call to Order: 1:30 p.m.:** Committee Chair Dan Quigg called the meeting to order at 1:32 pm. A list of Committee members who were present (9), absent (1) and other attendees is attached.

The Committee took the following actions and discussed the following topics:

2. **Comments by the Chair:** Committee Chair Dan Quigg announced the resignation of Kirsten Keith from the Board Policy Committee due to conflicts with her work. She will continue to serve on the BAWSCA Board.

Chair Quigg noted that there are two action items which the committee is asked to recommend to the Board for approval in July. The first is a demand reduction study that will analyze the significant water use reduction during the past several years. The second is a development of a water system modeling tool. Both are important to BAWSCA's critical work on future water supply planning.

3. **Public Comments:** There were no comments from the members of the public.
4. **Consent Calendar:** Approval of Minutes from April 13, 2016 meeting.

Director O'Connell made a motion, seconded by Director Vella, that the minutes of the April 13, 2016 Board Policy Committee meeting be approved.

The motion passed. Director Guzzetta abstained because he was not present at the April 13th meeting.

5. **Action Item:**

- A. **Professional Services Contract with ReNUWIIt to Complete a Demand Reduction Study as Part of BAWSCA's Drought Response Analysis:** Michael Hurley reported that BAWSCA's work plan in FY 2016-17 includes the initiation of a Demand Reduction Study as part of the Drought Response Analysis. The objective of the study is to better understand long-term implications on water use within the BAWSCA service area. Other elements of the Drought Response Analysis are the evaluation of drought preparedness and review of SFPUC and member agencies' shortage provisions. Collectively, these efforts will support the planning for future droughts and long-term water supply planning.

The Demand Reduction Study will investigate the impacts of various factors on demands such as media coverage, State Board regulations, climate, cost of water, and active conservation programs to name a few. The study will utilize existing records of "data rich" agencies such as Redwood City and Mountain View who have technology such as Advanced Metering Infrastructure (AMI).

Total estimated cost for this initial effort is \$20K.

BAWSCA will be working with Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt) on this effort. ReNUWIt is an applied research center at Stanford with researchers from UC Berkeley, Colorado School of Mines, and New Mexico State University.

In 2014, Dr. Newsha Ajami, Director of Urban Water Policy with Stanford's ReNUWIt initiative, reached out to BAWSCA to collaborate on regional water management strategies. BAWSCA has been successfully working with ReNUWIt since.

The partnership has proven to be successful as there is significant overlap between ReNUWIt's ongoing efforts and the analysis that BAWSCA seeks to develop in the demand reduction study. In particular, a media coverage analysis has been initiated, and a turf replacement effectiveness analysis has been completed by a group of Stanford undergraduate students. The results, however, can be improved with substantial data BAWSCA can readily provide.

In April 2016, BAWSCA became an Associate Member of ReNUWIt, which enables BAWSCA to collaborate with ReNUWIt and have access to educational and research expertise. Given the mutually beneficial relationship, staff recommends a sole source agreement with ReNUWIt to leverage ReNUWIt's ongoing work and expand it to achieve BAWSCA's desired results. This approach increases the overall cost-effectiveness of the work.

Director Larsson expressed his support for the contract with ReNUWIt, but inquired about BAWSCA's procurement process.

Legal Counsel, Allison Schutte, explained that BAWSCA's procurement policy does not require the same state mandated rules that cities have. For services, the CEO/General Manager can enter into a contract of \$25K or less without a defined process. Service contracts that exceed \$25K require approval of the board. The proposed contract amount of not to exceed \$20K with ReNUWIt does not require Board approval, however, staff is choosing to present it to the Board. Contracts for supplies do have a required process.

In response to Director Schmid's question about who will do the work, Mr. Hurley explained that ReNUWIt is a consortium of researchers and the work will be performed by PhD students under the direction of Dr. Newsha Ajami.

Ms. Sandkulla added that BAWSCA's working relationship with ReNUWIt started because of Dr. Ajami's interest in collaborating with BAWSCA. It developed into a mutually beneficial relationship today because of how closely each other's efforts are aligned.

Director Guzzetta suggested that the Board be provided with estimated hourly rate against the scope of work. Additionally, demand hardening should be carefully looked at given the multiple droughts the region has experienced. Indoor water use has changed significantly and outdoor use has been significantly reduced. Having a measure of where demand hardening currently is, would be helpful to water managers because the harder demand gets, the more critical increased reliability becomes.

Director Vella stated that he would like to see the final product put to use, and commented that the not-to-exceed cost should include legal review.

Ms. Sandkulla explained that legal counsel's budget anticipates their review of contracts according to BAWSCA's adopted work plan and operating budget.

Director Mendall expressed his support and made a motion, seconded by Director O'Connell, that the Committee recommend that the Board authorize the CEO/General Manager to negotiate and execute an agreement with ReNUWI, subject to legal counsel review, to complete the Demand Reduction Study of the Drought Response Analysis.

The motion passed unanimously.

- B. Professional Services Contract with ReNUWI to Develop Independent Regional Water System and Supply Modeling Tool:** As part of the Long-Term Reliable Water Supply Strategy (Strategy) BAWSCA has a cooperative agreement with the SFPUC to utilize its modeling tool to identify potential future hydrologic conditions for the service area. Under this agreement, the SFPUC analyzed the probability of supply shortages on the San Francisco Regional Water System that was published in the Strategy report.

Mr. Hurley reported that BAWSCA's reliance on SFPUC's supply reliability modeling has reached its limits, and is no longer efficient in meeting BAWSCA's needs for implementation of the Strategy. The development of an independent modeling tool would allow the analysis of different scenarios based on BAWSCA's needs, and the ability to expand the analysis to other regional supplies, therefore understanding their potential impacts to the service area's supply reliability. Having these features in an independent modeling tool is a critical element in the implementation of the Strategy.

The SFPUC's current model is reflective of their WSA obligations and has limited capabilities. The goal of BAWSCA's independent modeling tool is to replicate SFPUC's model and expand upon it to include incorporation of all supplies relied upon by BAWSCA member agencies.

Ms. Sandkulla added that the SFPUC will continue to have its modeling tool. BAWSCA will take SFPUC's tool as a component of a combined regional modeling tool that will include input from the State Water Project, Santa Clara Valley Water District (SCVWD) imported supplies, and other supplies relied upon in the BAWSCA service area.

Lessons learned from the region's experiences with the ongoing drought will be applied. For example, as part of BAWSCA's Strategy, member agencies wanted BAWSCA to keep focus on the water supply reliability of the SF RWS, and not look at the reliability of other supplies utilized by the agencies. This proved to be a failed assumption because the other systems significantly impacted the SF RWS during this current drought.

Additionally, BAWSCA's pilot water transfer plan demonstrated that while partnering agencies may be willing, and facilities may exist to execute a transfer, water supply or system capacity may not be available.

BAWSCA's regional representation of 26 water providers in three counties puts BAWSCA in a unique position to lead this kind of effort. The member agencies, SFPUC, and Santa Clara Valley Water District (SCVWD) recognize the benefit of understanding the interrelationships of the regional supplies, and all agencies are supportive of BAWSCA.

BAWSCA's opportunity to develop such independent modeling tool is to build on the ongoing efforts of ReNUWIt. Stanford's ReNUWIt researchers have started developing a water supply reliability modeling tool for their own research efforts using data from the BAWSCA service area. Because of the significant overlap in BAWSCA's and ReNUWIt's efforts to examine regional water management strategies, a sole source contract is recommended to leverage ReNUWIt's ongoing work and increase cost-effectiveness for BAWSCA.

BAWSCA anticipates this to be a multi-year effort with an estimated total cost of \$60-\$100K. The estimated cost for FY 2016-17 is \$40K.

The initial work in FY 2016-17 will 1) formulate the modeling approach and develop an outline of the potential scenarios to be analyzed, and 2) examine existing models and their underlying assumptions, identify additional data needs and uncertainties, as well as methodologies to evaluate reliability of the other supplies.

The deliverables for the work to be completed in FY 2016-17 will be two technical memos summarizing the findings.

The development of the approach to simulate the reliability of the SF RWS will begin in FY 2016-17, but will continue through FY 2017-18. This work will determine whether a new or revised model should be created. Status reports on this portion of the work will be provided throughout FY 2016-17.

In response to Director Larsson's question about the output of the model, Mr. Hurley explained that the model would serve as a mass-balancing model that would look at the available water against the service area demands, the excess water and available storage, as well as water deficiency and where supply can be pulled from. The operational functions are the different scenarios to be analyzed. The output would be whether the operational functions make sense, are possible, cost-effective, or involve risks.

Ms. Sandkulla stated that this tool will be instrumental in evaluating future investments and in determining whether those investments work with the system that the service area relies upon, which is not limited to the SF RWS. What became very clear with the ongoing drought and with the Pilot Water Transfer plan is that while BAWSCA may have a plan to implement a water transfer, it may not have access to the water supply due to the state of the other systems. With the modeling tool, both the transfer and the storage capabilities can be reviewed together.

Director Mendall commented that the service area's response to the emergency regulations proved that the assumption about demand hardening was inaccurate three years ago. While it is a difficult equation, it would be ideal to obtain a better sense of what can be expected in the next drought so the service area can be better prepared.

Mr. Hurley stated that both the drought analysis and development of a modeling tool will better inform BAWSCA so that future droughts and water supply shortages are addressed as realistically as possible.

Director Schmid believes that the development of an independent modeling capability is very valuable. However, he expressed his concern with ReNUWIt's commitment to the success of the project against the SFPUC's ability to make a bigger investment and develop a better modeling tool. He requested that regular progress reports be provided to the Board.

Ms. Sandkulla agreed to provide progress reports on a regular basis during the project timeline. She added that the SFPUC supports this effort because they recognize the value of the information it can provide. The expectation is to continue the partnership between BAWSCA and the SFPUC in developing the modeling tool as a regional tool with the input from the SFPUC and other water suppliers in the region.

Mr. Hurley added that BAWSCA takes the institutional commitment and continuity seriously. BAWSCA's key contact at ReNUWIt for this project along with Dr. Ajami is a graduate level student who is just starting her doctoral program and is committed to the effort for the next 3-5 years. There will be researchers and a core group of students who will be working on this project and will be interacting with BAWSCA as well.

Director Guzzetta commented that the power of this kind of institutional relationship comes when the university engages students so that there is an educational process for students to learn about the practical world and obtain hands-on training in finding solutions to the problems. This eventually leads to developing educated staff who become the leaders of the effort.

He added that it is important to have a solid context with the professors who are the main drivers of ReNUWIt's success with this effort, and who will want to seek out graduate level students who have an interest in this area.

Mr. Hurley agreed and stated that Dr. Ajami is committed to this effort and was the one who cultivated the mutually beneficial relationship with BAWSCA and ReNUWIt.

In response to Director Benton's inquiry, Ms. Sandkulla explained that BAWSCA's investment of \$40K with ReNUWIt will initiate the process to develop the framework of the model. The work plan and budget for FY 2017-18 will include the cost and efforts needed to complete the model and identify what kind of analysis should be done to obtain information BAWSCA and member agencies want.

Director Mendall made a motion, seconded by Director Vella, that the Committee recommend the Board authorize the CEO/General Manager to negotiate and execute a contract with ReNUWIt, subject to legal counsel review, to perform initial development of an Independent Regional Water System & Supply Modeling Tool, and entail regular progress reports from the CEO/General Manager to the Board.

The motion passed unanimously.

6. Reports

- A. Water Supply and Drought Update: Mr. Hurley reported that the storage level at Hetch Hetchy reservoir is slightly below normal due to the ongoing efforts of San Francisco to fill the Water Bank. The total system storage is at 84.5%, which is a significant improvement from previous months.

Precipitation is above median. Snowpack approached median in early February but remains slightly below since mid-February. Conditions, however, are better than previous years when runoff started earlier.

Tuolumne River water available to the City is currently at 523 TAF compared to 50 TAF in 2015. SFPUC projects a high forecast of 780 TAF, which remains below the 810 TAF needed to achieve full storage capacity. This is reflective of SFPUC's continued call for a voluntary 10% water use reduction.

Total deliveries continue to remain below the State's mandatory reduction target, which will be lifted in June. Mr. Hurley was pleased to report that all 26 BAWSCA member agencies are meeting or exceeding their mandatory reduction targets. Overall, the agencies achieved a savings of 20 billion gallons over a period of 11 months.

Committee members expressed interest in knowing how usage has gone down to 40 gpcd, which is way below the EPA's floor of 50 gpcd.

Director Breault stated his concern that the numbers indicate future inelasticity. He emphasized the importance of understanding demands and how much more elastic demand can be when the next drought comes.

As part of the demand reduction study, BAWSCA will aim at understanding what factors contributed to the demand reductions for each agency.

Mr. Hurley reported the changes the State Water Resource Control Board (SWRCB) made on the emergency drought regulations. The SWRCB added back the requirements for restaurants to offer water upon request and for hotels to provide the option of not having their towels replaced daily. The deadline for wholesalers to provide urban water suppliers with data to complete self-certification and to produce conservation standards was extended to June 15th.

The SWRCB also added the option for wholesalers and their retailers to submit an aggregated conservation standard. Member agencies can collectively submit a conservation standard which, BAWSCA discussed with the Water Management Representatives at its June meeting.

The new regulations went in effect as of June 1st. The SFPUC has indicated that it has sufficient supply to meet the region's demands with a 0% cutback per the SWRCB formulas, but will continue to call for a voluntary 10% water use reduction.

The SCVWD is expected to go to its Board with a recommendation of a continued water usage cutback at 20%, collectively.

BAWSCA will continue to provide assistance to its member agencies. The deadline for water retailers to complete the self-certification process is June 22nd.

BAWSCA will be participating in the “listening sessions” that state agencies will conduct regarding the implementation of the Executive Order, which will focus on the long-term implementation.

- B. Water System Improvement Program (WSIP) Update: Ms. Sandkulla reported that BAWSCA continues its involvement with the WSIP.

BAWSCA provided comments on SFPUC’s proposed changes to the WSIP scope, schedule and budget. The comments focused on SFPUC’s ability to meet demands and the drought level of service goals, the potential impacts to the system should Mountain Tunnel fails, and SFPUC’s commitment to complete the WSIP cost-effectively by shifting resources as the program comes to a close.

SFPUC staff was responsive to BAWSCA’s comments and committed to providing the Commission regular reports on its implemented cost-saving practices and procedures, as well as a plan that ensures best management practices of its finances. Ms. Sandkulla reported that at the beginning of the WSIP, an assumed number was allocated for bond financing based upon and assumed costs at the time. At BAWSCA’s request, the SFPUC agreed to compare the actual financing costs to date, recognize any cost savings achieved, and apply those cost savings to future changes needed for the program.

The Calaveras Dam Replacement Project continues to make progress. Ms. Sandkulla reported that the SFPUC requested BAWSCA’s assistance in obtaining a permit renewal from Alameda County to close Calaveras Dam Road. On June 2, 2016, BAWSCA wrote a letter to the Alameda County Board of Supervisors urging them to act on a permit renewal. The item is on the Transportation and Planning Committee agenda for June 23rd, and is expected to be presented to the Board of Supervisors on June 28th.

The initial permit provided periods for road closures for hauling materials on Calaveras Road. The delays experienced is causing the project to go outside of the dates of the original permit which expires July 1st. Without the permit renewal for the road closure, SFPUC would be limited to hauling materials for the Calaveras Dam project at night, therefore impacting the project schedule and costs due to time constraints and additional resources and safety precautions needed for night time operations. The estimated additional costs would be between \$5 to \$10 million.

- C. SFPUC’s Water Management Action Plan (Water MAP): Ms. Sandkulla reported that she spoke at the May 24th Commission meeting providing BAWSCA’s preliminary comments on SFPUC’s WaterMAP. While the Commission will not be presented with the WaterMAP until its meeting on June 14th, it was important to establish BAWSCA’s position on this effort by the SFPUC.

Ms. Sandkulla’s May 24th statement to the Commission emphasized 1) BAWSCA’s expectations for SFPUC to continue meeting its LOS goals adopted as part of the WSIP Program EIR, 2) BAWSCA’s support of East Palo Alto, Santa Clara, and San Jose’s efforts to secure additional permanent supplies from the Regional Water

System, and 3) BAWSCA Board, staff and member agencies' commitment to, and engagement with, the process.

The presentation to the Commission on June 14th will be for information only. The Commission will not be asked to act, but will be asked for input and feedback. Commission support would prompt development of an addendum to the WSIP Program EIR and likely project level EIR's. SFPUC's preliminary schedule indicates completion of necessary CEQA document in FY 2017-18, and action by the Commission in 2018.

Ms. Sandkulla stated that the questions being addressed in the WaterMAP have different timelines, therefore, BAWSCA's review of the document will look at how to break down the different issues to manageably address each of them.

BAWSCA's review of the document and the Commission's response will be reported to the Board at its July 21st meeting.

- D. Partnership on a Potable Reuse Study: Mr. Hurley reported that as part of BAWSCA's ongoing efforts to identify water resource opportunities for the Strategy, BAWSCA is partnering with Silicon Valley Clean Water (SVCW) along with Cal Water and SFPUC to develop a potable reuse exploratory plan.

SVCW operates waste water treatment facilities that serve communities in Belmont, San Carlos and Redwood City. In 2015, SVCW approached BAWSCA to explore partnership opportunities for the development of both direct potable reuse (DPR) and indirect potable reuse (IPR) supply. SVCW currently estimates 8-10 mgd of available capacity for an IPR/DPR project.

The parties are currently working to finalize a memorandum of understanding (MOU) to begin Phase 1 of the study in FY 2016-17.

Phase 1 would provide sufficient information to determine whether to proceed with further exploration of IPR potential. The study will focus on three elements which include 1) treatment requirements, 2) integration into and development of new transmission facilities, and 3) introduction of IPR supplies into existing storage. Each task will examine the potential with the SF RWS facilities including consideration of BDPL 1 or 2 for the isolated transmission required for IPR, and Crystal Springs Reservoir and San Mateo Plain groundwater basin as potential points of introduction for storage. The total cost for Phase 1 is \$56K. SVCW is committed to \$25K. The agencies are working on finalizing cost allocations.

Mr. Hurley explained that the study will extrapolate from other efforts to minimize the development of data specific to the service area, and obtain information that can be shared among, and used by, the member agencies.

Director Schmid expressed that the additional 8-10 mgd from SVCW would be a good addition given the requests for additional supply by East Palo Alto, San Jose and Santa Clara.

In response to Director O'Connell, Mr. Hurley stated that SVCW is aware of inflow reductions and will include that factor as part of the analysis.

Ms. Sandkulla added that the study is going to determine the cost-effectiveness of IPR and DPR in all aspects of what is required for treatment, transmission, and especially storage. Finding storage is key, as 8-10 mgd will require space that SVCW currently cannot accommodate.

- E. CEO's Letter: Committee members had no questions or comments on the items reported in the CEO letter.
- F. Board Policy Committee Calendar: Action items for the September Board meeting require no prior action by the Board Policy Committee. There will be no meeting in August 2016.

7. **Comments by Committee Members**: There were no comments from Committee Members

8. **Adjournment**: The meeting was adjourned at 2:54pm. The next meeting is October 12, 2016.

Respectfully submitted,

Nicole Sandkulla, CEO/General Manager

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Attachments: 1) Attendance Roster

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

BOARD POLICY COMMITTEE –June 8, 2016

Roster of Attendees:

Committee Members Present

Dan Quigg, City of Millbrae (Chair)
Gustav Larsson, City of Sunnyvale (Vice Chair)
Jay Benton, Town of Hillsborough
Randy Breault, City of Brisbane/GVMID (BAWSCA Chair)
Rob Guzzetta, California Water Service Company
Al Mendall, City of Hayward (BAWSCA Vice Chair)
Irene O’Connell, City of San Bruno
Gregg Schmid, City of Palo Alto
Louis Vella, Mid-Peninsula Water District

Committee Members Absent

Jerry Marsalli, City of Santa Clara

BAWSCA Staff:

Nicole Sandkulla	CEO/General Manager
Michael Hurley	Water Resources Manager
Adrienne Carr	Sr. Water Resources Specialist
Andree Johnson	Sr. Water Resources Specialist
Christina Tang	Sr. Administrative Analyst
Lourdes Enriquez	Assistant to the Chief Executive Officer
Deborah Grimes	Office Manager
Allison Schutte	Legal Counsel, Hanson Bridgett, LLP
Bud Wendell	Strategic Counsel, Management Communications

Public Attendees:

Karla Dailey	City of Palo Alto
Michelle Novotny	San Francisco Public Utilities Commission