

BAWSCA

Bay Area Water Supply & Conservation Agency

BOARD POLICY COMMITTEE

April 12, 2017

1:30 p.m.

BAWSCA Offices, 155 Bovet Road, San Mateo, 1st Floor Conference Room
(Directions on page 2)

AGENDA

<u>Agenda Item</u>	<u>Presenter</u>	<u>Page#</u>
1. <u>Call To Order, and Roll Call</u> Roster of Committee Members (<i>Attachment</i>)	(Larsson)	<i>Pg 3</i>
2. <u>Public Comment</u> <i>Members of the public may address the committee on any issues not listed on the agenda that are within the purview of the committee. Comments on matters that are listed on the agenda may be made at the time the committee is considering each item. Each speaker is allowed a maximum of three (3) minutes.</i>	(Larsson)	
3. <u>Consent Calendar</u> A. Approval of Minutes from the February 8, 2017 meeting (<i>Attachment</i>)	(Larsson)	<i>Pg 5</i>
4. <u>Comments by Chair</u>	(Larsson)	
5. <u>Action Items</u> A. Proposed Fiscal Year 2017-18 Work Plan and Results to be Achieved (<i>Attachment</i>)(Sandkulla) <u>Issue:</u> What critical results must be achieved in FY 2017-18 to accomplish BAWSCA's goals and water management objectives? <u>Information to Committee:</u> Memorandum presenting proposed FY 2017-18 Work Plan and Operating Budget incorporating comments from the February 8 th 2017 BPC meeting, and March 16 th , 2017 Board meeting. <u>Committee Action Requested:</u> That the Committee recommend Board approval of the: <ol style="list-style-type: none">Proposed FY 2017-18 Work Plan and Results to be Achieved;Proposed Operating Budget of \$3,704,572; andRecommended funding plan of a 5% assessment increase (\$3,612,770) and transfer of \$91,802 from the General Reserve.	(Sandkulla)	<i>Pg 19</i>
B. Consultant Selection to Develop Independent Regional Water System and Supply Modeling Tool (<i>Attachment</i>) <u>Issue:</u> What is required to ensure that a consultant is in place to begin work in July 2017, consistent with the proposed FY 2017-18 Work Plan? <u>Information to Committee:</u> Memorandum and oral report. <u>Committee Action Requested:</u> That the Board Policy Committee: <ol style="list-style-type: none">Confirm that the process conforms to agency practices and appropriate public process, and,Advise the CEO on whether additional information might be helpful to the Board for its consideration in May.	(Francis)	<i>Pg 39</i>

6. Report and Discussion

A. SWRCB's Draft SED

(Sandkulla)

7. Reports

(Sandkulla)

A. SF Regional Water System Water Supply Forecast and Water Supply Conditions

B. BAWSCA Planning Efforts with SCVWD

C. CEO's Letter (*Attachment*)

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D. Board Policy Committee Calendar (*Attachment*)

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E. Correspondence Packet ([Under Separate Cover](#))**8. Comments by Committee Members**

(Larsson)

**9. Adjournment to the next meeting on June 14, 2017 at 1:30pm in the 1st Floor
Conference room of the BAWSCA office building, at 155 Bovet Rd., San Mateo**

(Larsson)

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Directions to BAWSCA

From 101: Take Hwy.92 Westbound towards Half Moon Bay. Exit at El Camino Northbound (move into the far left Lane) Left at the 1st stop light which is Bovet Road (Chase Building will be at the corner of Bovet and El Camino). Proceed West on Bovet Road past 24 Hour Fitness to two tall buildings to your left. Turn left into the driveway between the two buildings and left again at the end of the driveway to the "Visitor" parking spaces in front of the parking structure.

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BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

BOARD POLICY COMMITTEE

Committee Roster:

Gustav Larsson, City of Sunnyvale (Chair)

Tom Zigterman, Stanford University (Vice Chair)

Jay Benton, Town of Hillsborough

Randy Breault, GVMID (BAWSCA Immediate Past Chair)

Rob Guzzetta, Cal Water Service Area

Al Mendall, City of Hayward (BAWSCA Chair)

Barbara Pierce, City of Redwood City (BAWSCA Vice Chair)

Dan Quiqq, City of Millbrae

Greg Schmid, City of Palo Alto

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

**February 8, 2017 – 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 Gustav Larsson called the meeting to order at 1:30 pm. A list of Committee members who were present (8) and other attendees is attached.

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

2. **Comments by the Committee Chair and Board Chair:** Committee Chair Larsson welcomed the members of the Committee for calendar year 2017. A new member is Director Zigterman from Stanford, and a returning member is Director Pierce from Redwood City. With the new composition of the Committee, Director Larsson reiterated the value the Committee provides BAWSCA. The committee reviews critical policy and non-policy matters before they go to the full Board. It provides the opportunity for both staff and members of the Committee to validate and provide feedback on the direction the agency is taking.

As a new member of the Board in 2014, Director Larsson noted that the Board Policy Committee Summary Report was a helpful way to get additional information beyond the staff report. He added that Committee discussions allow for a more thorough review of matters, which serve the BAWSCA staff, the Board, member agencies, and ultimately the water customers well.

BAWSCA Chair Mendall thanked Director Quigg for Chairing the Committee in 2016, and Directors Larsson and Zigterman for accepting the leadership roles in 2017. He stated the importance of having a mix of both new and long-standing members of the Board to compose the Committee. He believes the Committee can benefit from the new members' perspectives, and serve as the means for new Directors to learn about BAWSCA's purpose, as it did for him. He anticipates further changes to the composition of the Committee as new Directors are appointed to the Board in the coming months. Additionally, members can expect to serve up to a 2-year term.

3. **Public Comments:** There were no public comments received.
4. **Consent Calendar:** Approval of Minutes from December 14, 2016 meeting.

Director Breault made a motion, seconded by Director Benton, that the minutes of the December 14, 2016 Board Policy Committee meeting be approved.

The motion passed by roll call vote.

6. Reports and Discussion

- A. Governor's Executive Order B-37-16 on "Making Water Conservation a California Way of Life": Andree Johnson, BAWSCA Sr. Water Resources Specialist reported on the State's proposed new Long-Term Water Conservation requirements, its impacts to BAWSCA member agencies, and BAWSCA's proposed plan to assist member agencies in their compliance with the requirements.

The Governor issued Executive Order B-37-16 in May 2016 which, in addition to several short-term drought-related directives, included several long-term water conservation objectives. The State Water Resources Control Board (SWRCB) and the Department of Water Resources (DWR) are the Executive Order (EO) Agencies tasked to implement these objectives. In January 2017, the EO Agencies issued the "Making Water Conservation a California Way of Life" report (Report), which lays out the framework for implementing the long-term water conservation objectives of EO B-37-16.

The Report provides the framework to establish new water use targets for urban water suppliers that go beyond the existing requirements. Many of the BAWSCA agencies are subject to the 20x2020 conservation requirements adopted in 2009. The new targets require higher levels of conservation compared to the existing standards. The new targets are also designed to account for unique characteristics of each service area. In particular, BAWSCA's unique climate and land use characteristics.

The new requirements will require expanded statutory authority to implement, and legislative action is anticipated over the next several months.

Ms. Johnson went over key terminology in the Report to clearly convey the new requirements' potential impact to the agencies. **Water Use Target** is the overall maximum volume of water an agency is expected to use annually. The Water Use Target is developed from **Water Use Budgets**, which are the maximum volume of water use for specific water use sector. The 3 water use sectors with budgets are Indoor Residential, Outdoor Irrigation, and System Water Losses. The **Water Efficiency Standard** is the State's metric for defining efficient water use as needed to calculate the budget.

For the indoor residential sector, the Water Efficiency Standard would be expressed in gallons per capita per day (gpcd). An agency's Water Efficiency Standard multiplied by population establishes the Budget.

Ultimately, an agency's water use target would be calculated by adding the volumes from each sector.

Commercial Industrial and Institutional (CII) use was deliberately excluded in the budgets because the diversity of uses within this sector makes it very challenging to establish targets that are of equal comparison among the agencies.

Instead, the state is proposing to require water suppliers to implement specific performance measures such as water audits for accounts over a certain size, requiring standardized classification of CII accounts across the State, and requiring dedicated metering for irrigated area that exceeds a certain size.

Water suppliers' compliance with the long-term requirements would be based on achieving the overall water use target, and implementing required actions to target CII water use.

An agency does not have to meet the individual budget for each sector if it meets the overall total water use target.

Because the process for calculating the targets is extremely data intensive, the State is proposing a multi-year timeline that extends to 2020, with a set task for each year starting in 2017, to establish the targets.

Ms. Johnson reported that the most complex target is the calculation of the outdoor irrigation target. While the State's proposal requires agencies to look at parcel level landscape area data, there are a lot of questions in the industry surrounding the methodologies used to obtain this data, and the validity of the data obtained. To address these concerns, the State will conduct pilot projects in 2017 on the methods for landscape area measurements.

Also in 2017, each agency is required to submit their first validated water audits that are required as part of the separate SB 555 process. The information from these water audits will be used to inform the development of the water loss standards.

In 2018, the state is proposing to provide the provisional indoor and outdoor water use standards so agencies can set their interim targets, while the necessary work to develop the final indoor and outdoor water use standards is being completed.

The state will provide landscape area data, at the service area level, for the outdoor irrigation calculations, as well as the regulations and guidelines for the CII performance measure. The State is not expected to provide landscape area data at a parcel level.

In 2019, the State will provide guidance and methodologies for calculating the targets and would require agencies to submit their first limited annual progress report on their progress towards their targets.

The final standards will be subject to a separate rule making process, and would be finalized and adopted in 2019 or 2020.

In 2021, agencies would need to report, as part of their 2020 Urban Water Management Plan (UWMP), their final 2025 conservation targets and plan for meeting those targets. Urban Water Management Plans are required every five years to document each urban water supplier's water supply and demands for a 25-year period.

Starting in 2022, water suppliers are required to submit annual progress reports for their 2025 targets. As currently proposed in the Report, the State can adopt new lower water efficiency standards in 2025 for water supplier compliance by 2030.

In 2026, water suppliers would submit their final annual compliance reports as part of their UWMP.

To assist member agencies with their compliance with the State requirements, BAWSCA developed its 2017-18 work plan to include specific efforts that align with the State requirements and timeline.

There are three categories in BAWSCA's work plan to specifically address the long-term water conservation requirements.

First is BAWSCA's representation of the member agencies' interests by participating in the state level discussions regarding the development and implementation of the water efficiency standards.

The second is an assessment of the agencies' data and technical capabilities to comply with the state requirements, identifying the gaps in the capabilities, and determining the respective roles for BAWSCA and the member agencies in developing the information

needed to fill those gaps. This effort will be implemented as a BAWSCA core conservation program, which is an effort on behalf of all BAWSCA member agencies.

The third is BAWSCA's implementation of two subscription water conservation programs. One program is a 3rd party verification of the water audits agencies are required to submit to the State in October 2017. Another program is a verification of the landscape area measurements provided by the State. The measurements would be broken down on a parcel by parcel level, if necessary, to assist agencies in calculating their outdoor water budgets. Both programs will be implemented by BAWSCA, and offered to each member agency who would have the option to participate and fund their respective level of participation.

The State's multi-year timeline will require a multi-year effort by BAWSCA to support the member agencies in establishing and meeting their water use targets. The proposed result to be achieved in FY 2017-18 is the development of a plan that identifies BAWSCA's and the member agencies' respective roles in developing the necessary information.

The subsequent phases of work are expected to include the development of an implementation plan for the CII performance measures, developing a model for agencies to use in calculating individual sector budgets and overall annual water use targets, continuation of the 3rd party support to develop parcel-level landscape data, and updating the water demand projections through 2045.

Ms. Johnson explained that the efforts to update the water demand projections will look at how the new water efficiency targets impact the projections, identify what additional conservation activities will be needed for agencies to comply with the long-term requirements, and examine how to further push conservation.

The benefits gained from the data intensive effort is the acquisition of information that may be helpful in developing more accurate demand projections. BAWSCA's work plan schedule will be based on the State schedule. BAWSCA will adjust accordingly while maintaining the ultimate goal of assisting agencies with developing necessary information to calculate water use targets and a plan to achieve them.

In response to Director Benton, Ms. Sandkulla explained that unlike 20x2020, which imposed one target across nine hydrological regions, the new requirements will better reflect the various conditions of the individual service areas such as hydrological and land-use conditions. Each water supplier will develop their own water use targets based on the new efficiency standards. The standards will come through the state board process, and BAWSCA's involvement in the discussions to develop the standards will be critical. While BAWSCA cannot change the direction in which the State is going, BAWSCA can protect the interest of the agencies that already use very little water. As a region, BAWSCA is unique in having the lowest number of agencies with the lowest per capita in the State. BAWSCA will bring that perspective to the Statewide discussions.

The indoor gpcpd will be uniform across the State, which is 55mgd for the interim target, and will be lowered for the 2025 target. Ms. Sandkulla explained that BAWSCA member agencies should be able to achieve their targets. However, it is the required process of obtaining the data to develop the targets that is going to be complex for the agencies. The State wants the calculations from each water supplier. There are no regional compliance options.

Director Guzzetta asked if water loss will be a function of system size. Ms. Johnson stated that the water loss standards are being developed through the parallel process associated with SB 555. Not much information has been released by the State.

Director Guzzetta commented that the technology of satellite imagery to identify water requirements in landscape irrigation is improving rapidly. It will be an interesting calculation because the landscape area is difficult to measure and it varies significantly from region to region

Ms. Sandkulla stated that the technology will be applied to pilot projects because other regions are denser with tree canopies than others, and it can be difficult to know what occurs under the tree canopies. She noted that the base data is critically important in developing the final water budget, and must be accurate or it can have serious consequences for the agency.

Director Schmid noted the distinction between single family homes and dense apartment buildings, and their different impacts to outdoor irrigation. He commented that each city should think about what direction they want to move toward in terms of new residences.

He also noted the danger of commercial use impinging on residential use, and asked if there is a favorable bias toward CII, which might influence cities' abilities to build housing.

In terms of Plan Bay Area's projection of 28% more jobs in 2040, Director Schmid noted the conservation guidelines' potential impacts on cities' decisions about future growth. He commented that when agencies develop their budgets for each sector and CII, it would be important to keep in mind the implications on their plan for commercial growth.

Ms. Sandkulla explained that CII will have conservation measures instead of targets. Additionally, the long-term conservation requirements are not a question of having enough water, but rather a question of what is the allowable use for each sector.

In response to Director Schmid's question, Ms. Sandkulla explained that even though the SFPUC's WaterMAP is driven by the decisions SFPUC must make by 2018, and the water use efficiency guidelines and methodologies finalization is not until 2019, the development of the water use efficiency guidelines will inform the WaterMAP instead of the other way around.

Going through the multi-year process to develop new efficiency targets on a per capita basis and to update the population and commercial projections will provide a new demand forecast that reflect the higher level of efficiency and new population projections. This will inform decisions about future water supply planning.

Ms. Sandkulla added that while the WaterMAP's purpose is to inform SFPUC's 2018 decision about the 184mgd limited supply assurance and the status of San Jose and Santa Clara, San Francisco can potentially choose to make a decision in 2018 to defer that final decision until further information is available given that the water use is at record low.

The WaterMAP is informed by the current demand projections for the current projected population.

In response to Director Mendall, Ms. Johnson explained that the State's current proposal has no specific percentage required for CII usage. If a CII user in Hayward reduces its water use by 1mgd, the savings will not be included in Hayward's overall target, because CII is not included. This applies to all member agencies, except for smaller agencies such

as GVMID, Brisbane, Stanford and Purissima Hills, all of which are under a different category that will have less extensive requirements.

Ms. Johnson explained that the State intends to look at account classifications to gather more uniform data across the State to develop requirements on CII.

Director Mendall commented that agencies which are below the residential indoor component of 50-55mgd should not be subject to the data-intensive calculations to develop efficiency targets it is already achieving. He encouraged BAWSCA to continue to emphasize this case to the State to save BAWSCA the cost and time for the effort.

Ms. Sandkulla stated that the SWRCB remains unconvinced about this argument, and is determined to have an equivalent level of data for everyone across the state.

In response to Director Mendall's request for a sense of how much the multi-year cost will be over the next few years for BAWSCA and the member agencies, Ms. Sandkulla stated that she may be able to provide an estimate for BAWSCA's efforts, but it will be difficult to provide an estimate for the agencies.

She explained that the assessment planned for FY 2017-18 will look at the agencies' data capabilities to create the infrastructure needed to develop water use targets. She stated that the agencies' data capability is a critical part of the effort. Many agencies do not have connectivity between their GIS data and their billing systems, nor do they have parcel level data. This effort will be complicated because billing systems have historically remained separate from water utility systems.

In response to Director Quigg, Ms. Johnson clarified that CII include non-habitational commercial and industrial use. Habitational will be classified as multi-family, which will have the same indoor efficiency level as single family dwellings, on a per person basis. Outdoor use between single and multi-family dwellings will be based on the type and age of the landscaping.

Ms. Sandkulla noted that several factors will make the calculations complicated. For example, the more people there are per home, the less water is used because of communal use.

Director Guzzetta asked if the EPA is reconsidering the health and safety standards of 59 gpcpd given that some BAWSCA member agencies are below that number. Ms. Johnson stated that as part of the development of the standards, the State is looking to bring down the proposed 55 gpcpd in the long-term based on agencies', such as BAWSCA's, achievement of higher levels of efficiency.

Director Pierce asked if there have been discussions about the investment capabilities that agencies may or may not have, as well as considerations for the agencies' population. Additionally, she stated that, as done for the drought, a cohesive message from the State would be helpful when the efficiency standards are rolled out.

Ms. Johnson stated that the financial impacts have been something that water agencies have continued to bring up during the discussions, however, the State has not provided direct answers to.

Ms. Sandkulla added that the process to develop the standards will continue to highlight the questions regarding Prop. 218 and the support that SWRCB might offer in dealing with these issues.

In response to Director Larsson's questions, Ms. Johnson explained that for landscape calculations, the State will give consideration to the types and age of the landscaping

installed to accommodate communities with established trees versus communities with lawns. Landscapes that were installed under the newer water efficient landscape ordinance will be subject to higher efficiency standards.

Given that the State currently has no proposed credits for agencies with purified or recycled water, Director Larsson asked how that will affect BAWSCA's plans in pursuing alternative water supplies.

Ms. Sandkulla stated that the Bay Area region will be subject to drought as it continues to grow in population and become more water-efficient. Alternative supply remains a critical issue, and the member agencies have to look at the value of bringing in drought proof supply. Reliability is not seen as conservation.

Director Breault noted the significant amount of effort and money involved to comply with what the State Board is requiring, and asked whether the regulations fall under State Law or the State's enforcement of Federal law.

Ms. Sandkulla stated that many pieces of the regulations will require legislative actions that will put added responsibility on the DWR and SWRCB.

Committee discussions ensued on the impacts to agency rate structures, compliance with prop 218, and the financial impacts that potential political challenges and unintended consequences can create on agencies' overall system infrastructure.

Director Mendall commented that BAWSCA is on the right path to include activities in the FY 2017-18 work plan and budget to assist agencies in this effort. It would be important to the Board to have a sense of the estimated costs.

BAWSCA will continue to work closely with the agency staff at all levels, through the Water Management Representatives and the Water Resources Committee in developing the scope of implementation plan for the core and subscription programs.

Ms. Johnson clarified that the Report has been submitted to the Governor's office as an administrative final report.

- B. Preliminary Fiscal Year 2017-18 Work Plan and Results to be Achieved: Ms. Sandkulla presented the preliminary FY 2017-18 Work Plan which is driven by BAWSCA's legislated authority and goals of ensuring reliable supply of high quality water at a fair price. The work plan addresses the critical issues identified between now and 2040, and includes two highly essential program activities that will demand staff time: 1) development of an independent Regional Water System and Supply Modeling, and 2) supporting member agency efforts to meet new state requirements "Making Water Conservation a Way of Life".

Sixteen comments were received from the Board at the budget planning session held during the January 19, 2017 Board meeting. A list of those comments are in the preliminary work plan and budget memo with BAWSCA's response and recommendations. Of the sixteen comments, nine are included in the work plan, and three have already been addressed.

Ms. Sandkulla stated that the focus on alternative water supply and recycled and purified water projects has made significant strides in the past year, and BAWSCA will increase its efforts on this area by participating in statewide discussions.

Additional suggestions by Board members include addressing issues and impacts of increased conservation and recycling on wastewater facilities and operations, contingency planning, and having individual agency briefings at Board meetings.

Ms. Sandkulla stated that while BAWSCA will continue to defer activities associated with wastewater facilities and operations to the plant operators at this time, BAWSCA remains interested in advanced treated water and will continue to provide input as a stakeholder and participate in the master planning efforts of the industry. BAWSCA currently has MOUs with two wastewater entities, and anticipates a third.

Contingency planning among the member agencies would require significant increase in BAWSCA's scope of work that is not unique to the agency. BAWSCA will continue to regularly participate in emergency drills for the Regional Water System.

Lastly, staff members from different member agencies present their agency activities at the Water Management Representatives when time permits. BAWSCA will identify the opportunities, and discuss them with the Chair, for agencies to present to the Board.

The major tasks included in the work plan for FY 2017-18 heavily focus on reliable water supply.

The first area of focus includes the continued oversight of the SFPUC's WSIP, 10-year CIP, and Regional Water System Asset Management Program. There will be increasing focus on the CIP and Asset Management. While the WSIP nears completion, there remains three critical projects that will require BAWSCA's active involvement. They include the Regional Conjunctive Use Project on the Westside Basin, Alameda Creek Recovery Project, and Calaveras Dam Project. Each of these projects are critical to San Francisco's drought level of service goal, and they are complicated projects that BAWSCA will remain actively involved in.

The second area of focus is the implementation of the Long-Term Reliable Water Supply Strategy. The work plan will include completion of four pre-feasibility studies for potential purified water projects, finalizing the agreements necessary for the pilot water transfer project with EBMUD, completing the Bay Area Regional Reliability (BARR) drought action plan, participating in the Los Vaqueros Expansion Project, and facilitating the San Mateo Groundwater Plain partnership and other efforts in the basin.

The third area of focus is the near-term water supply solutions and addressing water conservation and drought response. BAWSCA will continue to implement its core and subscription conservation programs. BAWSCA is participating in a multi-year study with Alliance for Water Efficiency along with agencies in the Western US region. It is a study called, "Use and Effectiveness of Municipal Irrigation Restrictions During Drought" in which the City of Hayward has agreed to be the sample agency for the service area. The results of the study can provide valuable information for future droughts, and in supporting the efforts to meet the new State requirements.

BAWSCA's support for the agencies with the new State water efficiency requirements is a critical part of the work plan. As previously reported and discussed, BAWSCA's representation of the member agencies' interest at the State-level discussions to develop the standards will be critical. The assessment of all member agencies' data and technical capabilities to complete landscape area calculations and assess existing processes for CII account classifications will be extensive. BAWSCA will look for a consultant with the bandwidth to complete the analysis for all 26 member agencies. The development and

implementation of two new subscription programs for a 3rd Party Water Audit Verification, and a Landscape Area Measurements and Verification will be beneficial for agencies.

As done in 2009, when San Francisco first adopted the WSIP and agencies were required to achieve a certain level of conservation, BAWSCA and the member agencies developed a plan that set expectations and identified the roles between BAWSCA and the agencies to achieve the conservation commitments efficiently and cost effectively. A similar plan will be developed to support the member agencies in meeting the new State requirements.

Lastly, under the Water Supply Reliability, BAWSCA will continue to protect the member agencies' water supply interests as it administers the Water Supply Agreement. The drought allocation plans between SFPUC and the wholesale customers (Tier 1), and among the wholesale customers (Tier 2) will expire in 2018. The lack of information in the new State water use efficiency requirements provide no substantial indication of what should be considered in the renewal of the plans.

BAWSCA's recommendation is to work with legal counsel in looking at a temporary extension of the Tier 2 plan, and engaging in conversation among the agencies and the SFPUC to develop new principals for Tier 1 and Tier 2 as we go through the process of identifying the State water use efficiency standards.

BAWSCA will continue to be engaged with the SFPUC's WaterMAP, Restore Hetch Hetchy litigation, SWRCB Bay Delta Water Quality Control Plan, and the Don Pedro FERC relicensing process.

Ms. Sandkulla stated that efforts on water supply reliability has continued to grow in many ways as BAWSCA takes on ensuring long term supply for the member agencies and their customers.

Other critical areas in the work plan is water quality and fair price. Under the WSA, a Joint Water Quality Committee is conducted by both BAWSCA and the SFPUC. The role of Chair and Co-Chair alternates between the SFPUC and BAWSCA and are appointed by the SFPUC and BAWSCA CEO/General Manager. The committee historically had an operational focus with regards to State and Federal regulations, but has had an increasing role in addressing and in communicating recent water quality issues that have occurred in the past year and a half.

The protection of the member agencies' financial matters in the administration of the WSA has been BAWSCA's mainstay, as it was for its predecessor organization, BAWUA. It is a role that no other agency does, and remains a critical part of BAWSCA's work plan and budget under Fair Price.

Every year, BAWSCA reviews SFPUC's cost allocation to operate the Regional Water System. The annual review, and more recently, the administration of the bonds, are critically important tasks that ensures the member agencies' financial interests are protected. The task is unique to BAWSCA and takes a distinctive skill set that Christina Tang and her team of consultants successfully execute.

Director Breault added that the Wholesale Revenue Requirement was the reason BAWSCA's predecessor organization, BAWUA, was created.

Additional efforts to support agencies in their financial interests include the water utility best management practices workshop to address financial impacts of drought, and a benchmark study to evaluate the SFRWS operational efficiency and cost effectiveness. These activities were deferred from the FY 2016-17 work plan to accommodate the tasks associated with the SWRCB's SED.

Ms. Sandkulla stated that the work plan and budget will reflect increased level of efforts on water reliability, and will focus on two specific activities that tie back to what each individual agency have stated they want BAWSCA to do; develop the regional water supply model tool, and support member agencies in meeting the new State long-term water efficiency requirements. The current level of effort on Restore Hetch Hetchy and the SED will continue.

Given the increased level of work that are critical, the operating budget for FY 2017-18 will be slightly higher than last year's. Ms. Sandkulla stated that a preliminary budget number was not yet included because she was interested in the Committee's feedback on the proposed work plan and responses to the board comments received at the January budget planning session.

Ms. Sandkulla will examine the forecast for the year-end spending and its impacts on the General Reserve balance to develop a plan for funding the budget. The use of the General Reserve to fund a portion of the operating budget will be considered.

Comments received from the Committee will be incorporated into the preliminary work plan and budget report that will be presented to the Board in March. Based on the March Board report and discussion, a proposed work plan and budget will be presented to the Committee at its meeting in April for discussion and recommendation to the Board for action at its meeting in May.

Director Zigterman stated that the proposed efforts are critical and should be addressed despite a slight increase in the budget. He encouraged the CEO to state what is required to tackle the critical issues. BAWSCA should not constrict itself for the purpose of not increasing the budget.

Director Schmid supported Director Zigterman's comments and stated that the proposed work plan are worth spending what is necessary to stay ahead of the water supply issues.

Director Breault concurred with the comments and noted his support for funding the budget through the General Reserve as opposed to increasing assessments to avoid passing down the costs to the water customers who continue to use less water.

Director Zigterman suggested that it may be worth looking into formulating how to ask the tough, but well-founded and legally substantiated, questions to find out whether SWRCB can in fact enforce such regulations, and require agencies to incur all of the costs in order to comply with their requirements. This can leverage BAWSCA's efforts.

Director Guzzetta added that clearly thinking through what the impacts of the new conservation requirements will be on the average water user, and going to the State to provide input as an organization, is important. It may be information that the SWRCB, as policy makers, may not be considering.

Director Mendall acknowledged and appreciated the continued focus on recycled and purified water projects in the work plan given that comments expressed at the planning session highlighted those issues. He also complimented the BAWSCA staff for coming up to speed efficiently to take on significant efforts for next fiscal year at full load with the same staff size. He suggested that tagging tasks as multi-year versus non-multi-year would be helpful for the Board's decision-making process and consideration of the budget.

Director Benton commented that the work plan is extensive and asked how unexpected issues will be addressed and prioritized.

Ms. Sandkulla explained that the tasks of administering the WSA and financial cost monitoring of the SFPUC are BAWSCA's priorities. Engagement in the efforts of Restore Hetch Hetchy and the draft SED are critical because of the potentially significant impacts they present to the region in the absence of BAWSCA efforts. As done when the drought regulations were issued, tasks will be shifted or deferred to accommodate more crucial activities. This is one of the purposes of the mid-year budget review process.

The budget will not add staff, but will use more consultants for the development of the regional water system modeling and the analytics of the data associated with meeting the new State requirements.

Director Mendall added that there are items in the work plan that are most likely to be deferred if necessary.

7. Reports:

- A. Water Supply Update: Ms. Sandkulla reported that water supply conditions are very good. As of February 5th, Hetch Hetchy is at 86% of storage compared to 60% of normal year. There are no supplies being taken from Hetch Hetchy due to the Mountain Tunnel shutdown since January 3, 2017.

Precipitation is above average and is at the same level as the last wettest year experienced in 1983 during the month of February. Snowpack is above the median typically measured in April 1st. Tuolumne River water supply available to San Francisco is currently at 715 TAF compared to the 22 TAF achieved in the entire water year of 2014, and 50 TAF in 2015. The amount needed to achieve full storage capacity on July 1, 2017 is 373 TAF.

Water deliveries continue to be the same as in 2016, and below the 10% voluntary reduction target.

Ms. Sandkulla reported that the SWRCB is holding a workshop to consider re-adopting the drought-related emergency regulations that have been in effect for the past two years. These regulations require agencies to submit stress test data to the State Board to identify necessary cutbacks, as well as the limitations on outdoor water use. In the absence of the Board taking action, those regulations would expire February 28, 2017.

SWRCB has strongly indicated extending the regulation for an additional 270 days, or through October 2017.

Public comments strongly urge the SWRCB to let the regulations expire given the improved water supply conditions. BAWSCA was a signatory to a letter submitted by ACWA. While ACWA and the signatories of the letter support the regulations during drought and for long-term wise use of water, maintaining the integrity of the message to the public that there is a water-use emergency will be a hard sell. Ms. Sandkulla stated that the public response to the emergency drought regulations were so effective, it will be a shame to lose that kind of response the next time there is a drought, because they continued to be restricted despite the up-turn on water supply conditions.

In response to Director Schmid, Ms. Sandkulla will look into reports on temperatures and the effects of atmospheric river that can affect the snowpack.

B. State Water Resources Control Board (SWRCB) Recent Proposal in the Draft SED:

BAWSCA continues to support the objectives of the Bay Delta Plan, and in working with the stakeholders to achieve results, including supporting settlement conversations among all the participants to develop a lasting agreement, outside of the State Board process, as a substitute to meet those objectives.

BAWSCA is coordinating closely with the SFPUC in evaluating the SED and considering comments for submittal. SFPUC is hosting a meeting with BAWSCA to go over SFPUC's analysis of the economic impacts associated with the Draft SED. The Bay Area Water Stewards (BAWS) is a non-governmental group of environmental experts formed at the time the WSIP was adopted.

BAWSCA is also working closely with each member agency on their comment letter to effectively communicate to the State the extent of the impacts to each jurisdiction. The BAWSCA service area is a large part of the stakeholder group that will be impacted by the draft SED.

C. Mountain Tunnel Technical Advisory Panel Tour: Tom Francis, BAWSCA Water Resources Manager, provided a report on the tour of the Mountain Tunnel that the SFPUC conducted on February 7th. As it has been presented to the Board by both BAWSCA and the SFPUC, an inspection of the tunnel in 2008 revealed that there were several parts of the tunnel where the concrete lining was failing. BAWSCA has been heavily involved in accessing the risks of potential failure of the tunnel as well as pushing for a thorough inspection and evaluation of rehabilitation options.

On January 3, 2017, the Mountain Tunnel was shutdown to complete identified repairs and perform a thorough inspection of the failing concrete lining. A Technical Advisory Panel was put together by the SFPUC and tasked with making recommendations based on the findings of the inspection.

Mr. Francis reported that there are approximately 650 lining repairs that were identified along a nine-mile span of the tunnel, but approximately three-fourths of that number are small scale repairs. The large-scale repairs are few. Many of the required repairs Mr. Francis saw during the tour measured approximately 4ft long x 2ft wide and were found along the tunnel ceiling. He estimated that the crew can complete about 7-8 repairs of those larger-scale repairs per day.

The larger-scale failures in the lining are similar in nature all the way through and generally occurred halfway between the adits or the entrance areas. The panel suspects that the concrete did not mix and set well, as due to the construction technique at the time, mixing occurred outside the tunnel and due to the time and distance required to transport it to the tunnel's mid-point, some aggregate settlement occurred prior to placement.

The panel is made up of knowledgeable and well-respected professors and consultants in their field. There will be an analysis of the key findings, but the panel's initial assessment is that the tunnel is in excellent shape, and that there is no need to build a new bypass tunnel.

Some of the initial key findings of the tunnel inspection is that there are no significant further deterioration to the lining as compared with what was observed in 2008, the tunnel concrete has the strength of about 3,000 psi, and is as much as 36 inches thick as opposed to what was originally thought to be only 6 inches in some portions of the tunnel. Further, as the concrete that forms the tunnel lining is not exposed to elements it has an increased longevity. Also, the inspection showed that the invert, or the floor, of the tunnel is in good condition and are in no need of repairs.

The panel's recommendations for the SFPUC is to have routine maintenance in place every 5-10 years to inspect and repair.

The panel will meet in early April to receive a briefing on the results of all of the analyses performed so that a final decision can be made on what the ultimate repair will be.

- D. CEO's Letter: There were no discussions on the items.
- E. Board Policy Committee Calendar: There were no discussions on the items.
- 7. **Comments by Committee Members**: Director Guzzetta noted the failure of the Oroville Dam spillway.
- 8. **Adjournment**: The meeting was adjourned at 3:29 pm. The next meeting is April 12, 2017.

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 – February 8, 2017

Roster of Attendees:

Committee Members Present

Gustav Larsson, City of Sunnyvale (Chair)
Tom Zigterman, Stanford (Vice Chair)
Jay Benton, Town of Hillsborough
Randy Breault, City of Brisbane/GVMID (Immediate Past BAWSCA Chair)
Rob Guzzetta, California Water Service Company
Al Mendall, City of Hayward (BAWSCA Chair)
Barbara Pierce, City of Redwood City (BAWSCA Vice Chair)
Dan Quigg, City of Millbrae
Gregg Schmid, City of Palo Alto

BAWSCA Staff:

Nicole Sandkulla	CEO/General Manager
Tom Francis	Water Resources Manager
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	Management Communications

Public Attendees:

Karla Dailey	City of Palo Alto
Fan Lau	San Francisco Public Utilities Commission
Jan Lee	City of Hayward

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

BOARD POLICY COMMITTEE

Agenda Title: **Proposed Fiscal Year 2017-18 Work Plan and Results to be Achieved**

Summary:

This memorandum presents the proposed Fiscal Year 2017-18 Work Plan and Results to be Achieved, proposed Operating Budget, and recommended funding plan. No major changes have been made to the Work Plan or Operating Budget during the “preliminary” to “proposed” review process.

The proposed Work Plan remains aligned with BAWSCA’s legislated authority and its three goals: a reliable supply of high quality water at a fair price. Major work areas include increased activity in implementing the recommended Long-Term Reliable Water Supply Strategy (Strategy) actions, development of a new regional water supply reliability model for the BAWSCA service area, activities to support BAWSCA member agency efforts to meet new State of California “Making Water Conservation a Way of Life” requirements, participation in the State Water Resources Control Board (SWRCB) Bay Delta Water Quality Control Plan Update to ensure member agency interests are represented, and participation in the Restore Hetch Hetchy litigation in which BAWSCA is a named party.

The proposed FY 2017-18 Operating Budget is \$3,704,572, which is 6.8% above the current FY 2016-17 Operating Budget. The proposed Operating Budget represents approximately a 12-cent increase in annual cost per person in the service area for an estimated cost to the water customer of \$2.08 per person per year.

The recommended funding plan is to increase assessments by 5% to \$3,612,770 and transfer \$91,802 from the General Reserve for a total of available operating funds of \$3,704,572.

Recommendation:

That the Committee recommend the Board approve the:

- 1. Proposed Fiscal Year 2017-18 Work Plan and Results to be Achieved,**
- 2. Proposed Operating Budget of \$3,704,572, and**
- 3. Recommended funding plan of a 5% assessment increase (\$3,612,770) and transfer of \$91,802 from the General Reserve.**

Discussion:

Proposed Work Plan and Results to Be Achieved:

Next year’s Work Plan addresses all the forward-looking issues discussed with the Board Policy Committee in December and with the Board in January.

The proposed FY 2017-18 Work Plan includes the following major efforts:

- Oversight of the SFPUC’s WSIP, 10-Year Capital Improvement Program (CIP), and Regional Water System Asset Management Program;
- Implementation of BAWSCA’s Strategy, as documented in the Strategy Phase IIA Report, including the following actions:

- Complete pre-feasibility studies for up to four potential purified water projects in partnership with SFPUC, Silicon Valley Clean Water, Santa Clara Valley Water District and others. Engage with advocacy groups (e.g. WaterReuse) to access and exchange critical technical, legislative, and legal information to support these studies.
 - Finalize Pilot Water Transfer Agreements with EBMUD, Hayward, and others to implement a pilot water transfer in FY 2018-19.
 - Complete development of Bay Area Regional Reliability (BARR) Drought Action Plan in partnership with other Bay Area water agencies.
 - Participate in Los Vaqueros Expansion Studies to ensure participation in upcoming project decisions.
 - Promote the continued sustainable use of San Mateo Plain Groundwater Basin (Basin) for long-term water supply reliability through the Basin Partnership, participation in San Mateo County’s Basin Assessment Program, and other multi-party efforts.
- Develop a new regional water system and supply reliability modeling tool for project evaluation;
 - Support BAWSCA member agency efforts as related to meeting the new State of California “Making Water Conservation a Way of Life” requirements;
 - Implement regional conservation programs to support member agencies and their customers;
 - Take actions to protect members’ water supply interests in administration of the 2009 WSA, including addressing the upcoming 2018 decisions and contractual drought allocation methods;
 - Participate in the Restore Hetch Hetchy litigation in which BAWSCA is a named party;
 - Participate in the SWRCB’s Bay Delta Water Quality Control Plan Update to ensure member agency interests are represented.
 - Participate in the New Don Pedro and La Grange FERC proceedings to protect regional water supplies;
 - Administer the 2009 Water Supply Agreement (WSA), including development and adoption of up to three amendments to the 2009 WSA; and
 - Administer BAWSCA’s bonds.

Table 1 presents the proposed FY 2017-18 Work Plan and major results to be achieved. The activities are grouped according to the agency goals they support.

Table 2 lists the items that are not included in the proposed Work Plan. Any of these items could be added at a later date, if needed, following further discussion with the Board concerning available resources and priorities.

New or Significantly Re-Scoped Activities for FY 2017-18: There are two new or significantly re-scoped activities included in the proposed FY 2017-18 Work Plan. In each case, these activities relate directly to ensuring water supply reliability for the customers served by the BAWSCA member agencies.

**1. Develop Independent Regional Water System & Supply Modeling Tool
Estimated FY 2017-18 Cost \$135k**

This task would develop a new, independent water system and supply modeling tool that would improve BAWSCA's ability to analyze long-term water reliability in the BAWSCA service area, including potential impacts of availability of existing water supplies and development of additional regional water supplies. To date, BAWSCA has relied on SFPUC's modeling resources to inform long-term planning decisions. However, as BAWSCA's and the member agencies' needs have grown, it is no longer effective to rely on the SFPUC for modeling work to meet BAWSCA's analytical and schedule needs. Developing an independent model would allow BAWSCA to simulate SFPUC's reliability analysis, run independent alternative scenarios to meet BAWSCA's planning needs, investigate reliability of other regional water supplies (i.e., surface water from Santa Clara Valley Water District), and assess climate change impacts, given various climate scenarios.

Development of this model was included in the FY 2016-17 Work Plan and was anticipated to be developed in conjunction with Stanford's ReNUWIt program. Unfortunately, for this type of work, it was determined that the original contracting vehicle with Stanford was not viable. For this reason, as discussed at the January 2017 Mid-Year Budget Review, BAWSCA intends to issue a Request for Proposal for this work in Spring 2017, with work to begin in July 2017, subject to FY 2017-18 Work Plan and Budget approval.

Development of a model is a multi-year investment with initial model development to occur in FY 2017-18 and future years to include a budget allocation for ongoing consultant support for BAWSCA staff's use of the model.

**2. Support BAWSCA member agency efforts in meeting the new State of California
"Making Water Conservation a Way of Life" requirements
Estimated FY 2017-18 Cost: \$170k**

The primary goal of this activity is to support BAWSCA member agencies in meeting the new water use efficiency targets as established by the "Making Conservation a California Way of Life" Executive Order and subsequent legislative actions. Phasing of critical tasks over the next three fiscal years align with the proposed State schedule for implementation.

Phase I critical results included in the FY 2017-18 Work Plan include:

- Assessment of member agency existing data and technical capabilities to complete required landscape area measurement calculations and to assess their existing processes and capabilities for necessary Commercial, Industrial, and Institutional (CII) account classifications.
- Implement a new subscription conservation program, a Water Audit Third Party Validation Program, to meet new State conservation requirements.
- Implement a new subscription conservation program, a Landscape Measurement and Verification Program, to meet new State conservation requirements.
- Develop a plan that identifies respective BAWSCA and member agency roles in developing information necessary for compliance with new State conservation requirements.

A report documenting the results of Phase I will be completed and will provide the basis for a future Phase 2 scope of work in FY 2018-19 and FY 2019-20. Support of member

agencies' efforts in meeting these new State requirements is anticipated to be a multi-year commitment from BAWSCA of three years or more.

Alternatives to the Proposed Work Plan and Results to be Achieved: The proposed Work Plan includes (1) the development of a new Regional Water System & Supply Modeling Tool, and (2) the expansion of BAWSCA's activities to support the Governor's Executive Order related to water conservation. These two main work areas are budgeted with \$135k and \$170k respectively. If the goal is to reduce the proposed Operating Budget, an alternative to the proposed Work Plan would be to reduce effort or remove one or more of these new activities.

Another alternative to the proposed Work Plan related to reducing scope and staff efforts, but not necessarily the proposed Operating Budget, would be to remove one or more of the following task items: Item 10a "Organize workshop to review water utility financial best management practices", and Item 10b "Conduct a benchmarking study to evaluate SFPUC's RWS operational efficiency and cost effectiveness".

Proposed FY 2017-18 Operating Budget:

The proposed Operating Budget presented in Table 3 reflects the funding necessary to achieve the full Work Plan and includes the net increase to fund the Annual Required Contribution (ARC) for Other Post-Employment Benefits (OPEB). This value has been updated during the budget development process to reflect the recently completed actuarial study and is included as a separate line item to highlight its inclusion.

Explanation and Alternatives for Salaries and Benefits: The increase for salaries and benefits of \$86,472 shown in the proposed budget is a result of a variety of changes. These changes include increases in health benefit costs and salary adjustments. The proposed Operating Budget also includes the following for all employees except the CEO:

- \$23,981 for a COLA adjustment to existing FY 2016-17 salaries
- \$13,653 merit allowance separate from COLA adjustment

A Cost of Living Allowance (COLA) adjustment of 3.025% to the top step of salaries is included in the proposed Operating Budget and is consistent with the December value for the Consumer Price Index for Urban Wage Earners and Clerical Workers in the San Francisco-Oakland-San Jose area. COLA increases for employees are not automatic, but can be granted by the CEO on the basis of merit. The history of salary and benefit adjustments for BAWSCA is presented in Appendix B to this memo.

The size of the merit allowance would permit potential salary increases of up to 5%, or to top step for the position, whichever is less.

Consistent with practice over the past two years, a budget allowance of \$16,179 for a potential merit increase for the CEO has been included in the proposed Operating Budget. For budgeting purposes, this amount is consistent with the merit increase awarded to the CEO in FY 2016-17.

Funding the FY 2017-18 Operating Budget:

Four principles have historically been used by BAWSCA when considering how to fund the proposed Operating Budget:

1. Budget sufficient resources to achieve the desired Work Plan results.
2. Spend only what is needed to achieve the results.
3. Apply incremental and prudent increases in assessments as necessary.
4. Maintain a prudent General Reserve balance within Board guidelines.

The adopted FY 2016-17 funding plan increased assessments to \$3,440,734 (a 5 % increase) and used \$27,274 from the General Reserve to fund the FY 2016-17 Operating Budget, thereby enabling the General Reserve to remain within the budgetary guidelines established by the Board. BAWSCA's General Reserve Policy, reaffirmed by the Board in September 2015, identifies a range of 20% to 35% of the budget year's operating expense as a budgetary guideline for the General Reserve balance.

Each year, unspent funds (if available) are moved to the General Reserve to fund special needs and future budgets. Appendix E presents the historical use of the General Reserve to fund special studies, fund the Operating Budget, and provide a one-time refund to the member agencies in November 2011.

At this time, it is estimated that the FY 2016-17 Operating Budget will be 90-100% expended at year end. Any post-audit excess funds will be transferred to the General Reserve in Fall 2017.

As of January 31, 2017, the General Reserve balance is at the upper end of the budgetary guideline at \$1,202,592, or 35% of the FY 2016-17 Operating Budget. Given the outstanding legal issues facing BAWSCA next fiscal year and beyond, use of the General Reserve to fund a portion of the Operating Budget should be considered very carefully.

Recommended Funding Plan: A combination of a \$3,612,770 in assessments (a 5%, or \$172,036, increase), and a \$91,802 transfer from the General Reserve is recommended to fund the proposed FY 2017-18 Operating Budget. This combination of an assessment increase paired with a small use of the General Reserve balances the competing issues of limiting assessment increases while maintaining a strong General Reserve, which is especially important considering the significant challenges and threats faced by BAWSCA and the Regional Water System at this time. Table 4 presents the detail on how a 5% increase in assessments (\$172,036 increase) would be allocated among the member agencies.

Alternatives to the Recommended Funding Plan: Two primary funding alternatives to the recommended funding plan were reviewed and not selected:

- Alternative 1 would be to fund the Operating Budget with assessments only, resulting in an 7.7% assessment increase (\$263,836 increase).
- Alternative 2 would be to limit the assessment increase to 3%, similar to "cost-of-living", (\$103,223 increase) and the balance from the General Reserve (\$160,615).

Table 5 presents a comparison of the recommended funding plan and two alternatives evaluated. Alternative 1 and 2 are not recommended as they do not best meet the four objectives (presented above) that are used by BAWSCA in considering how to fund the budget.

Table 1. FY 2017-18 Work Plan and Results to be Achieved (Proposed)

(Percent of Proposed Operating Budget for Each Item Shown in Parenthesis, New/Expanded items shown in *blue italic font*)

RELIABLE WATER SUPPLY

- (7.6%) **1. Facility Reliability: Monitor the SFPUC’s WSIP, 10-Year CIP, and Asset Management Program**
 - a. Monitor WSIP scope, cost, and schedule as San Francisco continues an aggressive construction schedule through 2019. Press the SFPUC and the city's political leadership to meet the city's adopted schedule, satisfy the requirements of AB 1823, and respond promptly to BAWSCA's reasonable requests.
 - b. Review and monitor SFPUC’s Regional 10-Year Capital Improvement Program to ensure that identified projects and programs meet the needs of the BAWSCA member agencies in a cost-effective and appropriate manner.
 - c. Review and monitor SFPUC’s Asset Management Program to ensure long-term protection of system assets.

- (12.6%) **2. Long-Term Supply Solutions: Implement Long-Term Reliable Water Supply Strategy to Ensure a Reliable, High Quality Supply of Water is Available Where and When Needed**
 - a. *Complete pre-feasibility studies for up to four potential purified water projects in partnership with SFPUC, Silicon Valley Clean Water, Santa Clara Valley Water District and others. Engage with advocacy groups (e.g. WaterReuse) to access and exchange critical technical, legislative, and legal information to support these studies.*
 - b. Finalize Pilot Water Transfer Agreements with EBMUD, Hayward, and others necessary to implement a pilot water transfer in FY 2018-19.
 - c. Complete development of Bay Area Regional Reliability (BARR) Drought Action Plan in partnership with other Bay Area water agencies and investigate additional project opportunities including a federal grant for a pilot project.
 - d. Participate in CCWD’s Los Vaqueros Expansion Studies to ensure participation in upcoming project decisions.
 - e. Promote the continued sustainable use of San Mateo Plain Groundwater Basin (Basin) for long-term water supply reliability through the Basin Partnership, participation in San Mateo County’s Basin Assessment Program, and other multi-party efforts.
 - f. Facilitate development of other local water supply options including monitoring/tracking member agency efforts.
 - g. *Develop a new, regional water supply reliability model to improve BAWSCA’s ability to analyze long-term water reliability in the BAWSCA service area, including potential impacts of availability of existing water supplies and development of additional regional water supplies.*

- (14.4%) **3. Near-term Supply Solutions: Water Conservation and Drought Response**
 - a. Partner with Alliance for Water Efficiency to complete a study, “Use and Effectiveness of Municipal Irrigation Restrictions During Drought”.
 - b. *Support BAWSCA member agency efforts as related to meeting the new State of California “Making Water Conservation a Way of Life” requirements with the following specific BAWSCA results:*
 - *Assessment of member agency existing data and technical capabilities to complete required landscape area measurement calculations and to assess their existing processes and capabilities for necessary CII account classifications.*
 - *Implement new subscription conservation program, the Water Audit Third Party Validation Program, to meet new State conservation requirements.*

- *Implement a new subscription conservation program, the Landscape Measurement and Verification Program, to meet new State conservation requirements.*
 - *Develop a plan that identifies respective BAWSCA and member agency roles in developing information necessary for compliance with new State conservation requirements.*
 - *Represent member agencies in regional and State-level discussions relative to the development of regulations and guidelines as needed to implement the “Making Water Conservation a Way of Life” framework.*
 - c. Represent agencies in regional and State-level discussions related to water conservation-related regulations.
 - d. Administer, implement, and expand core water conservation programs that benefit all customers.
 - e. Administer subscription conservation rebate programs that benefit, and are paid for by, participating member agencies.
- (5.7%) **4. Take Actions to Protect Members’ Water Supply Interests in the Administration of the 2009 Water Supply Agreement**
- a. Prepare temporary extension of existing Tier 2 drought allocation plan that expires Dec. 2018.
 - b. Develop principles for a new Tier 1 and Tier 2 drought allocation plan that aligns with the proposed State Water Shortage Contingency Plan requirements and new State conservation requirements.
 - c. Protect members’ water supply and financial interests in the SFPUC’s upcoming 2018 decisions and associated Water Management Action Plan (MAP).
 - d. Protect members’ water supply interests to ensure that the SFPUC meets its adopted Water Supply Level of Service Goals.
- (10.9%) **5. Protect Members’ Interests in a Reliable Water Supply**
- a. Participate in the Restore Hetch Hetchy litigation in which BAWSCA is a named party.
 - b. *Participate in SWRCB Bay Delta Plan Update to ensure member agency interests are represented.*
 - c. Ensure that necessary legal & technical resources for participation in the Don Pedro Project/La Grange Project FERC licensing are sufficient to protect customers’ long-term interests in Tuolumne River water supplies.
- (0.1%) **6. Pursue Grant Opportunities Independently and in Coordination with Regional Efforts**
- a. Pursue and use grant funds for water conservation programs and for regional supply projects and programs, such as CCWD’s Los Vaqueros Enlargement Project.
 - b. Pursue, with regional partners, grant funding to support studies that aim to improve regional water supply reliability, such as BARR Phase 2 effort(s).
 - c. Investigate potential for grant funds to support the implementation of the Strategy, including 2014 California Water Bond.
- (0.5%) **7. Reporting and Tracking of Water Supply and Conservation Activities**
- a. Complete BAWSCA FY 2016-17 Annual Survey.
 - b. Complete BAWSCA FY 2016-17 Annual Water Conservation Report.
 - c. In partnership with member agencies, implement BAWSCA’s updated Water Conservation Database.

HIGH QUALITY WATER

- (1.3%) **8. Support Member Agencies in Receiving Reliable Communication of Water Quality Issues**
- a. *Coordinate member agency participation in Water Quality Committee established by the 2009 Water Supply Agreement to ensure it addresses Wholesale Customer needs.*

- b. *Relay important water quality information (notices as received from SFPUC) to BAWSCA member agencies when made aware of changes that have the potential to impact water quality (taste, odor, blending particulars, etc.).*
- c. Review and act on, if necessary, State legislation affecting water quality regulations.

FAIR PRICE

- (18.4%) **9. Perform Matters that Members Delegated to BAWSCA in the Water Supply Agreement**
 - a. Administer the Water Supply Agreement with SF to protect the financial interests of member agencies.
 - b. Support development and member agency adoption of up to two contract amendments to address resolution of FY 2010-11 WRR settlement and implementation of the Regional Groundwater Storage and Recovery Project.
 - c. Administer bonds issued by BAWSCA to retire capital debt owed to San Francisco.
- (2.0%) **10. Provide Other Support to Protect Financial Interests of Member Agencies**
 - a. Organize a workshop to review water utility financial best management practices to identify potential actions to better protect BAWSCA member agencies from the financial impacts of drought.
 - b. Conduct a benchmarking study to evaluate SFPUC's RWS operational efficiency and cost effectiveness.

AGENCY EFFECTIVENESS

- (2.4%) **11. Maintain Community Allies and Contacts with Environmental Interests**
 - a. Maintain close relationships with BAWSCA's local legislators and allies, and activate them if necessary, to safeguard the health, safety, and economic well-being of residents and communities.
 - b. Maintain a dialogue with responsible environmental and other groups, who will participate in the permitting and approval process for efforts to maintain system reliability.
 - c. Maintain effective communications with member agencies, customers, & others to achieve results and support goals.
 - d. In conjunction with San Francisco, conduct or co-sponsor tours of the water system for selected participants.
- (20.1%) **12. Manage the Activities of the Agency Professionally and Efficiently**

Table 2: Activities Not Included in Proposed Work Plan and Operating Budget for FY 2017-18

<p>RELIABLE SUPPLY</p> <ol style="list-style-type: none">1. Implement a pilot water transfer with EBMUD in FY 2017-18, following completion of the pilot transfer plan.2. Engage in extended or complex applications for State or Federal grant funds. Application for water conservation grants will continue to be made through or with the Bay Area Water Agency Coalition, the California Urban Water Conservation Council, or other agencies.3. Introduce major new legislation or supporting/opposing legislation initiated by others. If needed, the agency could support major legislative efforts by redistributing resources, using the contingency budget, or accessing the general reserve, subject to prior Board approval.4. Initiate litigation or support/oppose litigation initiated by others. If needed, the agency could support major litigation efforts by redistributing resources, using the contingency budget, or accessing the general reserve, subject to prior Board approval.
<p>FAIR PRICE</p> <ol style="list-style-type: none">5. Develop alternative wholesale rate structures that the SFPUC might consider. Actions will be limited to facilitating communication with SFPUC, development of goals and objectives relevant to Wholesale Customers, and addressing the potential relationship to alternative retail rate structures Member Agencies might consider to stabilize water rates and water revenues.6. Arbitrate issues related to the 2009 Water Supply Agreement.
<p>HIGH WATER QUALITY</p> <ol style="list-style-type: none">7. Perform technical studies of water quality or San Francisco’s treatment of the water it delivers to the BAWSCA agencies.8. Advocate changes to water quality regulations or the manner in which San Francisco treats water for drinking and other purposes.
<p>AGENCY EFFICIENCY</p> <ol style="list-style-type: none">9. Add resources to support additional Board, Board committee, or technical committee meetings.10. Conduct tours of member agency facilities to acquaint Board members with potential supply projects and their neighboring jurisdictions, <u><i>other than tours done in coordination with San Francisco.</i></u>

Table 3. Proposed FY 2017-18 Operating Budget by Major Expenditure Category

Cost Category	Approved FY 2016-17 Budget (\$)	Proposed FY 2017-18 Budget (\$)	Change from FY 2016-17 Budget, (\$)
Consultants/ Direct Expenditures			
Reliability	964,600	1,082,400	117,800
Fair Pricing	409,000	439,750	30,750
Administration	95,000	95,000	0
<i>Subtotal Consultants</i>	1,468,600	1,617,150	148,550
Administration			
Employee Salaries & Benefits	1,477,395	1,563,867	86,472
Other Post-Emp. Benefits (net)	103,263	80,505	(22,758)
Operational Expenses	356,450	373,250	16,800
<i>Subtotal Administration</i>	1,937,108	2,017,622	80,514
Total Operating Expenses	3,405,708	3,634,772	229,064
Capital Expenses	2,500	10,000	7,500
Budgeted Contingency	57,500	57,500	0
Regional Financing Authority	1,250	1,250	0
Bay Area Water Users Assn.	1,050	1,050	0
Grand Total Operating Budget	3,468,008	3,704,572	236,564

Table 4. Examination of an 5% Increase in BAWSCA Assessments

Members	Adopted FY2016-17 Annual Assessment	5% Increase for FY2017-18	Difference
ACWD	\$231,222	\$242,783	\$11,561
Mid-Peninsula	\$70,488	\$74,012	\$3,524
Brisbane	\$7,202	\$7,562	\$360
Burlingame	\$95,712	\$100,498	\$4,786
Coastside	\$30,471	\$31,995	\$1,524
Cal Water	\$730,195	\$766,705	\$36,510
Daly City	\$89,348	\$93,815	\$4,467
E. Palo Alto	\$42,161	\$44,269	\$2,108
Estero	\$115,885	\$121,679	\$5,794
GVMID	\$8,986	\$9,435	\$449
Hayward	\$361,292	\$379,357	\$18,065
Hillsborough	\$75,052	\$78,805	\$3,753
Menlo Park	\$67,948	\$71,345	\$3,397
Millbrae	\$54,005	\$56,705	\$2,700
Milpitas	\$138,899	\$145,844	\$6,945
Mtn. View	\$218,718	\$229,654	\$10,936
North Coast	\$67,620	\$71,001	\$3,381
Palo Alto	\$271,388	\$284,957	\$13,569
Purissima Hills	\$42,993	\$45,143	\$2,150
Redwood City	\$231,866	\$243,459	\$11,593
San Bruno	\$48,069	\$50,472	\$2,403
San Jose	\$94,733	\$99,470	\$4,737
Santa Clara	\$80,552	\$84,580	\$4,028
Stanford	\$53,042	\$55,694	\$2,652
Sunnyvale	\$192,989	\$202,638	\$9,649
<u>Westborough</u>	<u>\$19,898</u>	<u>\$20,893</u>	<u>\$995</u>
Total	\$3,440,734	\$3,612,770	\$172,036

Table 5. Comparison of an Alternative Funding Options Evaluated

	FY 2016-17	FY 2017-18		
Fund Source	Adopted Funding Plan	Recommended Funding Plan: 5% Assessment Increase	Alternative 1: 3% Assessment Increase	Alternative 2: 7.7% Assessment Increase
Assessments	\$231,222	\$3,612,770	\$3,543,957	\$3,704,572
Transfer from General Reserve	\$70,488	\$91,802	\$160,615	\$0
Total Available Operating Funds	\$7,202	\$3,704,572	\$3,704,572	\$3,704,572

APPENDICES

Appendices A through L present additional detail about the proposed Work Plan and Operating Budget.

Appendix A: Uses of Professional Services

Outside professional services are used to provide specialized services and augment staff:

1. Professional engineering services for: a) evaluating and monitoring SFPUC's asset management program; b) evaluating and monitoring SFPUC's 10-Year Capital Improvement Program (CIP) development and implementation; c) evaluating Water System Improvement Program project scopes during design and construction; d) monitoring WSIP project cost estimates, bids and schedules; e) monitoring and assessing San Francisco's performance in implementing the overall WSIP; f) assessing San Francisco's method for cost estimation, application of contingencies and addressing cost inflation during the WSIP; g) providing specific constructive recommendations for keeping the WSIP on or ahead of schedule; h) analyzing hydraulic records used by San Francisco in setting the wholesale water rates; and g) providing as needed groundwater technical assistance.
2. Water resources analysis and planning services to assist in: a) development of an expanded decision making process for implementing Strategy actions; b) development of a new, regional water system and supply modeling tool; and c) conducting an analysis of the service area response to the drought.
3. General legal services for BAWSCA and the RFA; specialized legal services to support administration of the Water Supply Agreement; specialized legal services for addressing matters related to water supply reliability.
4. Strategic counsel for identifying and addressing strategic and political issues associated with maintaining the progress of the Water System Improvement Program, assisting the Board and the CEO in developing and implementing an effective policy making process that supports the development of the Long-Term Reliable Water Supply Strategy, providing legislative and political support, and providing advice to the CEO and the Board on other issues significant to the water customers and the effectiveness of the agency.
5. Financial advisory services to conduct specified capital financing and rate impacts analyses on a task order basis.
6. Accounting/auditing expertise to assist with implementing the Water Supply Agreement, as well as an independent auditor to prepare and review annual financial statements.

Legal, strategic, financial, and engineering consultants provide professional services critical to BAWSCA's work in achieving the agency's goals and achieving critical results. Many of BAWSCA's consultants have been under contract with BAWSCA since its creation and a few of those consultants have been in place even longer, in that they served as consultants to Bay Area Water Users Association, BAWSCA's predecessor organization. Each year, the Board acts on each consultant contract following consideration of the annual Work Plan and Operating Budget. Information provided to the Board at that time relates to expertise, current scope of work, budget, and billing rates.

As part of this coming fiscal year's proposed budget preparation work, BAWSCA conducted an informal survey by using recent RFP responses and contacting other local public agencies and

asking them to share the billing rates they are currently being charged by comparable consulting service providers.

Table A-1 presents the results of that informal survey, providing a comparison of the rates for those consultants that BAWSCA uses on an annual basis to rates for similar service providers. In each case, the rates for BAWSCA's consultants compare favorably.

Table A-1: Informal Consultant Billing Rate Comparison

Task Category	Consultant Name	FY 2016-17 Approved Budget	Hourly Rate	Market Comparison
Legal	Hanson Bridgett, LLP	\$651,000	\$360	\$350-\$400
Strategic	Harlan Wendell	\$150,000	\$185	\$250
Financial	BLX Group (Arbitrage Rebate Compliance Service)	\$2,000	n/a	\$2,800
	Orrick, Herrington & Sutcliff (Bond Documents, Legal Support)	\$12,000	\$825	>\$800
	Public Trust Advisors (Investment Advisor)	\$10,000	8 basis pts.	10 basis pts.
	Burr Pilger Mayer (Auditing, 2009 WSA Admin.)	\$15,000	\$350	\$400
	Chavan & Assoc. (Financial Auditing Services) ⁽¹⁾	\$10,000	n/a	n/a
	Kelling Northcross Nobriga (Financial Counsel)	\$43,500	\$315	\$350
Engineering	Terry Roberts (WSIP, 10-Year CIP)	\$125,000	\$204	\$260-\$310
	Stetson Engineering (Water Use Analyses)	\$50,000	\$195	\$260-\$310
	Hilton Farnkopf Hobson (Engineering, Financial WSA)	\$20,000	\$229	\$262-\$300
	GeoSyntec (Groundwater)	\$15,000	\$200	\$233-\$300

Notes: (1) At its May 19, 2016 meeting, the BAWSCA board authorized a three-year contract with Chavan & Assoc. (C&A). In 2010, the last time BAWSCA issued a Request for Proposals for these services, C&A was the lowest cost proposal and the approved budget for FY 2016-17 remains below the next closest bid received in 2010.

Appendix B: History of Salary and Benefits Adjustments

The information below presents the history of salary and benefits adjustments for BAWSCA staff. Where Cost of Living Adjustments (COLA) to the salary ranges are considered by the Board, BAWSCA relies on the December value for the Consumer Price Index for Urban Wage Earners and Clerical Workers in the SF-Oak-SJ area. COLA increased for employees are not automatic but can be granted by the CEO on the basis of merit.

- FY 2009-10: There was no COLA adjustment. An allowance for merit adjustments was budgeted for employees not yet at top step.
- FY 2010-11: The Board approved a 3.01 percent COLA increase to the top step of staff salary ranges. An allowance for merit adjustments was budgeted for employees not yet at top step.
- FY 2011-12: The Operating Budget included no adjustment to the salary for any employee for COLA, merit or any other reasons.
- FY 2012-13: The Board approved a 3.10 percent COLA increase to the top step of staff salary ranges. An allowance for merit adjustments was budgeted for employees not yet at top step.
- FY 2013-14: The Board approved a 2.312 percent COLA increase to the top step of staff salary ranges. An allowance for merit adjustments was budgeted for employees not yet at top step.
- FY 2014-15: The Board approved a 2.60 percent COLA increase to the top step of staff salary ranges. An allowance for merit adjustments was budgeted for employees not yet at top step.
- FY 2015-16: The Board approved a 2.09 percent COLA increase to the top step of staff salary ranges. An allowance for merit adjustments was budgeted for employees not yet at top step.
- FY 2016-17: The Board approved a 3.15 percent COLA increase to the top step of staff salary ranges. An allowance for merit adjustments was budgeted for employees not yet at top step.

Appendix C: Proposed Budget for the Bay Area Water Users Association (BAWUA)

The proposed FY 2017-18 budget for BAWUA is \$1,050 and includes legal counsel support and a small operations budget allowance. This budget amount appears as a separate line item in the BAWSCA budget and is included in the BAWSCA proposed FY 2017-18 Operating Budget.

Appendix D: Proposed Budget for the Regional Financing Authority Budget

The BAWSCA Board of Directors has continued to agree to fund nominal administrative costs for the Regional Financing Authority (RFA), at least until it became more actively involved and required significant resources. Assuming a continued low level of activity in FY 2017-18, the proposed RFA budget is \$1,250. This budget amount includes legal counsel support and a small operations budget allowance. This budget amount appears as a separate line item in the BAWSCA budget and is included in the BAWSCA proposed FY 2017-18 Operating Budget. The RFA will formally consider and adopt this budget in July 2017.

Appendix E: Historical Use of the BAWSCA General Reserve

Table E-1 displays the historical use of the BAWSCA General Reserve.

Table E-1. Historical Use of the BAWSCA General Reserve

Date	Amount	Description of Use
3/19/2008	\$391,000	To fund FY 2007-08 Operating Budget
1/07/2009	\$349,000	To fund FY 2008-09 Operating Budget
2/09/2009	\$105,000	To fund Conservation Implementation Plan
1/13/2010	\$250,000	To fund FY 2009-10 Operating Budget
1/27/2011	\$163,394	To fund FY 2010-11 Operating Budget
11/30/2011	\$172,190	Refund to Member Agencies
9/30/2012	\$130,000	To fund Pilot Water Transfer Plan
3/31/2013	\$65,000	Initial funding for Water Demand Study
4/21/2014	\$300,000	Final funding for Water Demand Study
6/30/2014	\$98,000	To fund FY 2013-14 OPEB contribution
6/30/2014	\$66,000	To fund Pilot Water Transfer Plan
6/30/2015	\$296,436	To fund FY 2015-16 Operating Budget
6/30/2016	\$27,274	To fund FY 2016-17 Operating Budget

Appendix F: Funding for Subscription Conservation Programs

As in prior years, a portion of operating expenses would be reimbursed by agencies that participate in BAWSCA's subscription water conservation programs. The staff time to be devoted to those programs during FY 2017-18 is estimated to be 1,436 hours, including temporary staff time. Agencies participating in subscription programs pay for associated consultant support and direct expenses. As in prior years, those consultant costs and direct expenses are not included in the Operating Budget.

Appendix G: Select Financial Details Related to BAWSCA's Subscription Conservation Program

Table G-1 provides select financial information for BAWSCA's subscription conservation programs for the past five years including BAWSCA staff costs that are reimbursed by the participating member agencies. Other costs are not included in Table G-1, for example, rebates and other costs paid directly by the participating member agencies and quantification of grant funds used. More complete details on BAWSCA's subscription programs, cost, and level of activity, is included in BAWSCA's Annual Water Conservation Report.

**Table G-1: Select Financial Details Related to BAWSCA
Subscription Conservation Programs**

Fiscal Year and Program Name	Direct Program Cost - Reimbursed	BAWSCA Staff Cost - Reimbursed	BAWSCA Admin. Cost - Reimbursed
2012-13			
EarthCapades	\$64,110	\$1,900	
HET Rebate		\$6,675	\$300
Large Landscape Audit	\$66,045	\$1,332	
Lawn Be Gone		\$380	\$2,434
Water Wise Ed. Kits	\$65,922	\$5,368	\$1,494
Washing Machine Rebate	\$419,625	\$16,851	\$1,581
Total	\$615,702	\$32,506	\$5,808
2013-14			
EarthCapades	\$61,325	\$2,120	
HET		\$6,785	\$300
Large Landscape Audit	\$85,996	\$1,184	
Lawn Be Gone		\$2,420	
Water Wise Ed. Kits	\$89,864	\$2,668	
Washing Machine Rebate	\$325,775	\$9,964	\$1,104
Total	\$562,960	\$25,141	\$1,405
2014-15			
EarthCapades	\$53,380	\$1,980	
HET		\$9,066	\$319
Large Landscape Audit	\$92,521	\$1,332	
Lawn Be Gone		\$6,340	
Water Wise Ed. Kits	\$95,346	\$2,599	
Washing Machine Rebate	\$308,313	\$4,667	\$104
Watersense Giveaways	\$8,893		
Rain Barrel Rebate	\$22,164		
Total	\$580,617	\$25,984	\$423
2015-16			
EarthCapades	\$64,575	\$2,360	
Free Sprinkler Nozzles	\$2,988		
HET		\$9,965	\$300
Large Landscape Audit	\$99,808	\$1,332	
Lawn Be Gone		\$3,380	
Lawn Be Gone Inspections	\$7,704		
Water Wise Ed. Kits	\$101,701	\$2,393	
Washing Machine Rebate	\$157,945	\$4,546	\$1,170
Watersense Giveaways	\$10,930		
WaterSmart Reports	\$209,380		
Rain Barrel Rebate	\$11,144		
Total	\$666,175	\$23,976	\$1,470

Appendix H: Historical BAWSCA Operating Budgets and Assessments

BAWSCA's annual budget is developed to pay for the cost of the annual work plan, which is reviewed by the BPC and approved by the Board. Each year, the work plan is designed to achieve results that support BAWSCA's three goals – a reliable supply of high-quality water at a fair price – and to implement BAWSCA's purpose as stated in AB 2058. As a special district, BAWSCA is not like a city council or other community agencies. BAWSCA is an issue-driven organization that responds to the needs of its member agencies and the water users who pay for BAWSCA's work. BAWSCA uses experienced consultants to limit fixed costs.

Two historical examples of significant annual budget increases to address one-time or unexpected issues that required BAWSCA's actions in addition to its on-going programs are:

- In FY 2008-09, the approved budget was 10% higher than the previous year; issues included: increased conservation, new contract with San SF, and WSIP oversight.
- In FY 2013-14, the approved budget was 18% higher than the previous year; issues included: long-term water supply reliability, administration of bonds to accelerate paying off capital debt to save significant money for member agencies; administration of the Water Supply Agreement; an unexpected threat from Mountain Tunnel; and monitoring the SFPUC's Capital Improvement Plan and its Asset Management program.

Resolution of issues also reduces budgets as shown below in FY 2010-2011 (-3%), FY 2011-2012 (-2%), and FY 2014-2015 (-10%). Table H-1 displays the history of BAWSCA's Operating Budget, assessments and year-end reserves.

Table H-1. Historical Annual Assessments and Year-End Reserves

Fiscal Year	Approved Operating Budget	Budget Change	Assessments	Year-End Reserves
2003-04	\$1,821,350		\$1,668,550	\$276,480
2004-05	\$1,838,490	1%	\$1,641,995	\$246,882
2005-06	\$2,099,997	14%	\$1,953,998	\$240,000
2006-07	\$2,291,904	9%	\$2,117,904	\$654,000
2007-08	\$2,508,967	9%	\$2,117,904	\$691,474
2008-09	\$2,763,196	10%	\$2,309,000	\$507,474
2009-10	\$2,766,945	0%	\$2,517,000	\$407,192
2010-11	\$2,680,394	-3%	\$2,517,000	\$653,763
2011-12	\$2,619,705	-2%	\$2,517,000	\$916,897
2012-13	\$2,780,504	6%	\$2,517,000	\$985,897
2013-14	\$3,280,188	18%	\$2,517,000	\$521,897
2014-15	\$2,939,286	-10%	\$2,642,653	\$225,461
2015-16	\$3,201,679	9%	\$3,276,889	\$776,620
2016-17	\$3,468,008	8.3%	\$3,440,734	n/a

Appendix J: Value for the Cost

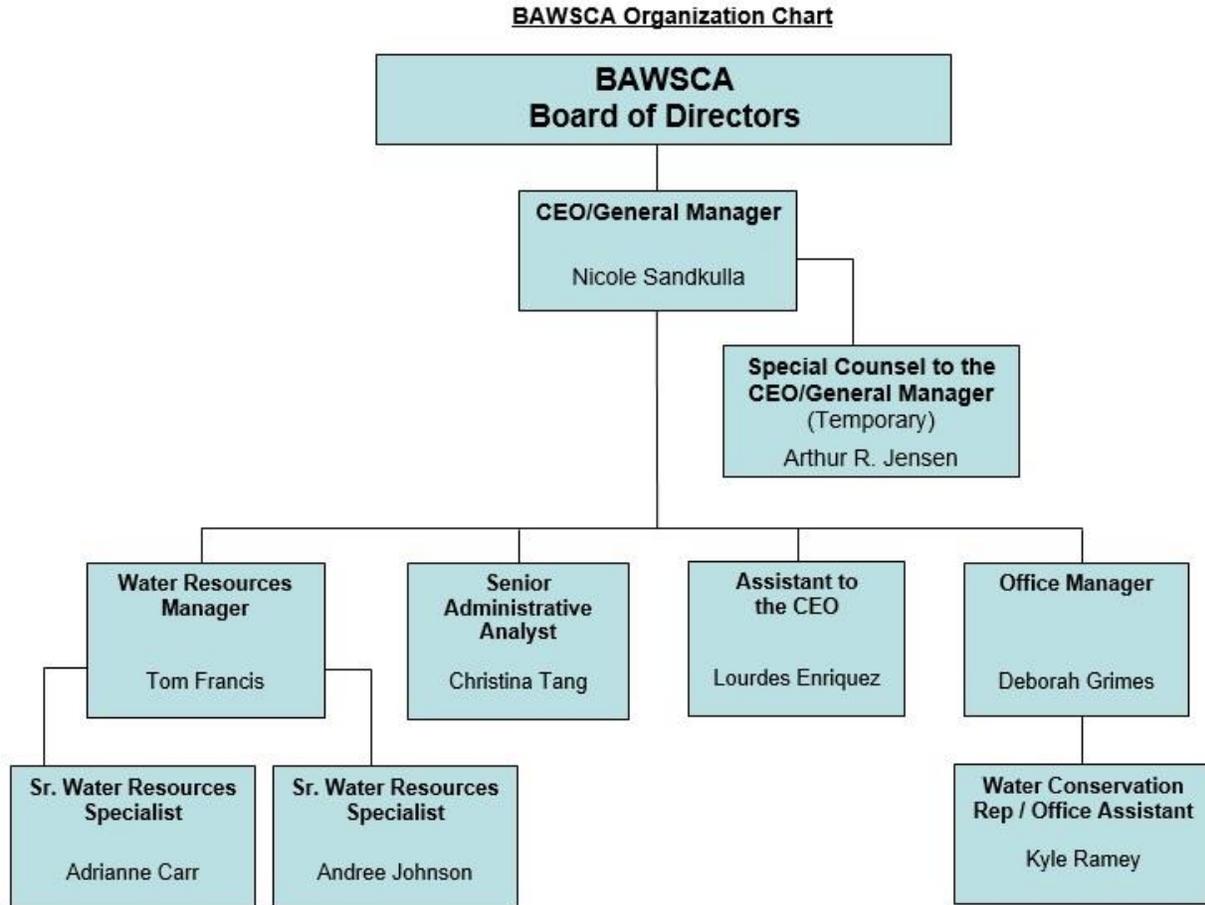
The formula for BAWSCA assessments results in equivalent cost per gallon throughout BAWSCA’s members. All BAWSCA costs are ultimately passed on to water customers through the water rates of the local city, district, or private utility. Table J-1 below provides the estimate annual cost per person and per household (assuming three persons per household) for BAWSCA’s Operating Budget.

**Table J-1. Historical Estimated Annual Cost of BAWSCA
Operating Budget Per Service Area Household**

Fiscal Year	Est. Annual Cost Per Person	Est. Annual Cost Per Household
2010-11	\$1.64	\$4.93
2011-12	\$1.53	\$4.60
2012-13	\$1.52	\$4.56
2013-14	\$1.82	\$5.47
2014-15	\$1.70	\$5.11
2015-16	\$1.84	\$5.51
2016-17	\$1.96	\$5.88
2017-18	\$2.08 <i>(proposed)</i>	\$6.24 <i>(proposed)</i>

Appendix K: Current Organization and Staffing

The figure below represents the current reporting relationships in the organization.



Appendix L: Future Challenges Facing BAWSCA, Member Agencies, and Their Customers

Each year, BAWSCA’s work plan development process starts by reviewing and updating the major activities over the next 20 years. These activities require coordinated action by BAWSCA and its member agencies to ensure a reliable supply of high quality water at a fair price.

Table L-1 lists these activities as they were updated as part of the FY 2017-18 proposed Work Plan development. In each case, the results identified in Table L-1 will take the form of agreements, legislation, or other legally enforceable work products. Development of these documents will result from skilled negotiations based on rigorous investigations of impacts and alternatives, costs, cost allocation, and other matters.

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

BOARD POLICY COMMITTEE MEETING

Agenda Title: **Consultant Selection to Develop Independent Regional Water System & Supply Modeling Tool**

Summary:

A key effort included in BAWSCA's proposed FY 2017-18 Work Plan and Operating Budget is the development of an Independent Regional Water System & Supply Modeling Tool (Model). To date, BAWSCA has relied on the SFPUC's modeling resources to inform long-term planning decisions. However, as BAWSCA's and the member agencies' needs have grown, it is not effective to rely on the SFPUC for modeling work to meet BAWSCA's analytical and schedule needs. Developing an independent modeling tool would allow BAWSCA to run independent alternative scenarios to meet BAWSCA's planning needs and understand the impacts of the reliability of other regional water supplies (e.g., surface water from Santa Clara Valley Water District, State Water Project supplies).

BAWSCA released the Request for Proposals (RFP) for this project on March 24, 2017. Proposals are due back to BAWSCA on April 24, 2017. This schedule will allow time for BAWSCA to review proposals, select a consultant, and bring a consultant under contract by the start of FY 2017-18.

At the May board meeting, the CEO will request authorization to negotiate and execute a professional services agreement with a recommended consultant for the identified services. This process is consistent with BAWSCA's policies and procedures for professional services contracts, and the schedule is consistent with the schedule anticipated in the proposed FY 2017-18 Work Plan.

Fiscal Impact:

The proposed FY 2017-18 budget includes \$135,000 for the development of an Independent Regional Water System & Supply Modeling Tool (Model). Further funding could be needed to complete development of the Model in FY 2017-18 or into FY 2018-19. In addition, funds will be needed in the following fiscal years for ongoing Model support.

Recommendation:

That the Board Policy Committee: 1) confirm that the process conforms to agency practices and appropriate public process, and 2) advise the CEO on whether additional information might be helpful to the board for its consideration in May.

Discussion:

A key effort included in BAWSCA's proposed FY 2017-18 Work Plan and Operating Budget is the development of the Model. Development of the Model was included in the FY 2016-17 Work Plan and was anticipated to be developed in conjunction with Stanford's Re-Inventing the Nation's Urban Water Infrastructure (ReNUWIt) program. In July 2016, the BAWSCA Board authorized the CEO to enter into a sole source contract with ReNUWIt to begin development of the Model. Unfortunately, for this type of work, it was determined that the original contracting vehicle with Stanford was not viable. For this reason, as discussed at

the January 2017 Mid-Year Budget Review, when the Model was removed from the FY 2016-17 Work Plan, BAWSCA recently issued an RFP for this work, with work to begin in July 2017, subject to FY 2017-18 Work Plan and Budget approval.

After receiving and reviewing proposals, BAWSCA will be able to determine if the proposed scope and schedule are feasible within the proposed budget. Ultimately, the scope or schedule may need to be changed in order to stay within the proposed budget.

Development of a model is a multi-year investment with initial model development to occur in FY 2017-18 and with future years anticipate to include a budget allocation for ongoing consultant support for BAWSCA staff's use of the model.

Consultant Selection Process

The selection and contracting process is consistent with BAWSCA's policies and procedures for acquiring professional services.

On March 24, BAWSCA issued an RFP for consultant services to develop the Model. Questions on the RFP were due on March 31 and BAWSCA will respond to those questions by April 7. The proposal deadline is April 24. During the week of April 24, a panel will review the proposals received and may interview a short list of firms on May 2. The panel will include BAWSCA staff and a representative from an outside agency.

Based on the evaluation of the written proposals and interviews, the panel will recommend a consultant. At the May board meeting, the CEO will request authorization to negotiate and execute a professional services agreement with the recommended consultant for the identified services, subject to legal counsel review.

This schedule is consistent with the proposed FY 2017-18 Work Plan and will ensure that the recommended consultant will be under contract at the beginning of FY 2017-18.

Scope of Work

BAWSCA is proposing development of the Independent Regional Water System & Supply Modeling Tool to be completed in FY 2017-18. Following completion of the Model, BAWSCA intends to seek ongoing support for investigating additional regional reliability questions and for BAWSCA staff's use of the Model. The project will include the following tasks:

1. **Formulate the appropriate modeling approach to evaluate regional-scale reliability considering all of the available supplies to the BAWSCA service area.**

This task will also include scenario planning, in which BAWSCA and the consultant will coordinate to list potential modeling scenarios to be performed after the Model is completed.

Deliverable - A technical memorandum summarizing the proposed modeling approach and outlining the potential scenarios to be analyzed.

2. **Develop the approach and capabilities to evaluate reliability of other water supplies.** The consultant will identify and become familiar with tools used to evaluate reliability of regional water supplies other than SFPUC supplies (e.g., State Water Project, local groundwater), as well as potential new supply projects (e.g. expanding

recycled water use) that directly or indirectly impact the reliability of BAWSCA’s member agencies.

Deliverable - A technical memorandum summarizing existing models and their underlying assumptions, identifying additional data needs or uncertainties in evaluating reliability of other supplies, and identifying methodologies to evaluate reliability of the other supplies.

- 3. Develop capabilities to evaluate the supply reliability of the SF Regional Water System (RWS).** The consultant will develop the approach to simulating reliability of the SF RWS. If a new or revised model is used, the consultant would verify the accuracy through a comparison to existing model results.

Deliverable - A technical memorandum summarizing the approach. If a new or revised model is created, BAWSCA would obtain the new model.

- 4. Construct and calibrate the Model.** Using the approach formulated in tasks 1-3, described above, the consultant will construct a numerical model that incorporates reliability of both SF RWS and other supplies that is capable of investigating regional reliability questions.

Deliverable – Results of two or more planning-level scenarios, as defined during work completed for Task 1, will be presented in a memorandum including descriptions of the modeling framework and quantitative performance metrics. In addition, BAWSCA will receive a copy of the model.

- 5. Use the modeling tool to evaluate additional scenarios.** If requested by BAWSCA after completion of tasks 1 through 4, the consultant will use the calibrated Model to investigate additional regional reliability questions formulated in task 1.

Deliverable – Results of the additional scenarios would be presented in a memorandum.

Schedule

BAWSCA anticipates commencing work at the start of Fiscal Year 2017-18, July 1, 2017, and proposes the following implementation schedule.

TASK	SCHEDULE
Memorandum on formulating the modeling approach for regional-scale reliability	Sept. 2017
Memorandum on evaluating the reliability of other water supplies	Nov. 2017
Memorandum on evaluating the reliability of the SF RWS	Jan. 2018
Memorandum on constructing and calibrating the regional reliability model	May 2018
Submit copy of regional reliability model	June 2018

Memorandum presenting evaluation results for additional scenarios	TBD
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Background:

As part of the Long-Term Reliable Water Supply Strategy (Strategy), BAWSCA’s modeling of potential future hydrologic conditions was performed by SFPUC staff through a cooperative agreement with SFPUC to analyze the probability of supply shortages on the San Francisco Regional Water System (SF RWS). The recent drought has highlighted the potential impacts that regional supply shortages can have on member agency reliability and potential SFRWS purchases, but the reliability analyses done thus far for the Strategy do not account for potential shortages in other supplies utilized by BAWSCA member agencies (e.g., State Water Project supplies or local groundwater).

As a result, BAWSCA wants to engage a consultant to develop a modeling tool to run independent alternative scenarios to meet BAWSCA’s planning needs. This Model will be intended to help understand the impacts of the reliability of other regional water supplies (e.g., surface water from Santa Clara Valley Water District, State Water Project supplies) on the BAWSCA agencies and on the reliability of the SFRWS. This Model will also be used to evaluate the benefits of developing additional regional water supplies. To ensure BAWSCA meets its goal of ensuring a reliable supply of high quality water at a fair price into the future, the impacts of projects identified in the Strategy, and other regional and local water supply projects, need to be analyzed under different demand scenarios and hydrologic conditions.

BAWSCA

Bay Area Water Supply & Conservation Agency

155 Bovet Road, Suite 650
San Mateo, California 94402
(650) 349-3000 tel. (650) 349-8395 fax

MEMORANDUM

TO: BAWSCA Board of Directors
FROM: Nicole Sandkulla, CEO/General Manager
DATE: April 7, 2017
SUBJECT: Chief Executive Officer/General Manager’s Letter

“Making Water Conservation A Way of Life” - Update

On November 30th, the California Department of Water Resources (DWR) and SWRCB released a Public Review Draft of the “Making Conservation a California Way of Life” Report (Draft Report) with the State agencies’ proposal for implementing new long-term water use targets and Water Shortage Contingency Plan (WSCP) requirements as called for in Governor Brown’s Executive Order B-37-16. The Final Report has not yet been released; however, several legislative proposals related to these items have been introduced.

An ACWA Work Group has developed legislative language that embodies the ACWA policy alternatives proposed in response to the Public Review Draft. These alternatives are documented in the December 2016 letter to the state agencies signed by BAWSCA and 113 other water suppliers and associations. The ACWA State Legislative Committee recently voted unanimously to support two legislative proposals related to the implementation of the EO-B-37-16 long-term water conservation directives. AB 1654 (Rubio) currently includes the Urban Water Management Planning provisions, and AB 968 (Rubio) will be amended to include the long-term water use efficiency target-setting. These legislative proposals are consistent with the ACWA policy alternatives and include the legislative language developed by an ACWA work group that embodies these policy alternatives.

BAWSCA is working closely with the SFPUC to evaluate positions and potential strategies for these legislative proposals and will continue to update the Board as legislation implementing the long-term conservation directives moves forward.

2014-2016 Drought Report - Update

As part of this year’s adopted Work Plan, BAWSCA is developing a Drought Report to document the experiences and lessons learned from the 2014 – 2016 drought period, and to prioritize actions to be taken in preparation for future droughts.

The initial task, a Drought Response Survey of the BAWSCA member agencies, has been completed, providing (1) information on individual agency drought response actions taken and (2) agency feedback on the perceived value of drought response actions taken by BAWSCA and by the respective agency. The Drought Report will be completed in June 2017.

SB 555 (Wolk) - Water Loss Management

California Senate Bill 555 (SB 555), passed in October 2015, requires all urban retail water suppliers in the state to submit a completed and validated water loss audit annually to the California Department of Water Resources (DWR) beginning October 2017. The purpose of these audits is to estimate how much water that is transmitted through a water supplier's distribution system is being lost as a result of meter errors, water theft, or system leaks. The proposed regulations are expected to result in reduced water losses by increasing the supplier's level of attention on how and where water losses occur.

As required by SB 555, DWR has developed draft regulations for validated water loss audit reporting requirements, which will be considered for adoption at a public hearing on April 17th.

Pilot Water Transfer Project - Update

BAWSCA continues to work with the City of Hayward to develop the necessary agreements to facilitate a pilot water transfer during the SFPUC's proposed Fall 2018 Mountain Tunnel / Hetch Hetchy shut down. Additional agreements are in development with EBMUD and the SFPUC. BAWSCA staff anticipate being able to share additional details regarding overall progress with the BPC at its June 2017 meeting.

SFPUC WSIP, and Hetch Hetchy and Water Enterprise 10-year CIPs - Update

SFPUC recently published its 2nd Quarterly Reports for FY 2016-17 for the WSIP, Water Enterprise Capital Improvement Program (CIP), and the Hetch Hetchy CIP. BAWSCA staff have reviewed the WSIP Quarterly Report and met with the SFPUC staff to discuss the results of BAWSCA's review. BAWSCA staff have also reviewed both CIP updates, and a subsequent meeting with the SFPUC staff is pending scheduling.

SFPUC continues to make progress toward completion of the WSIP. Several projects are facing delays that must continue to be tracked as the overall WSIP near its completion, including the Calaveras Dam Replacement Project and the Alameda Recapture Project. BAWSCA continues to closely monitor the budget that remains in WSIP for funding adequacy.

The Hetch Hetchy CIP report focused primarily on the preparation of the Mountain Tunnel shutdown that occurred in the 3rd quarter of FY 2016-17. While the final project report presenting the detailed results of the shut-down is not expected to be complete until later this spring, preliminary results indicate that work required to assure the long-term viability of the tunnel is expected to be significantly less than what was originally anticipated by the SFPUC. Specifically, preliminary results support the viability of repair of the existing tunnel, as opposed to a new bypass tunnel, to ensure necessary reliability.

The Water Enterprise CIP report highlighted six projects on the Regional Water System, listing one project as being over budget at this time (work as related to building and yard construction work at SFPUC's Sunol facilities). BAWSCA will continue to review this project closely. The SFPUC has indicated that further overruns are not anticipated.

As part of BAWSCA efforts in FY2017-18, BAWSCA staff will be working with SFPUC to review tracking procedures that are currently being used by the SFPUC to report on their CIP work efforts. BAWSCA's goal is to more directly take part in SFPUC's future CIP development effort regarding facilities that serve the Regional Water System, including those that fall within the Hetch Hetchy area. Further, BAWSCA staff seek a deeper understanding of the projects that comprise the SFPUC's CIP work efforts such that the interests of the water customers and member agencies can be served best.

Collaboration with SFPUC on the Regional Groundwater Storage and Recovery Project

The Regional Groundwater Storage and Recovery (GSR) Project is an essential WSIP project designed to provide 7.2 million gallons per day of water supply for the Regional Water System for up to 7.5 years during a drought. The concept of groundwater storage and recovery, also known as “conjunctive water management,” consists of storing water in wet years and recovering that water for use during dry years.

The GSR Project includes the construction of up to 16 new wells in the South Westside Groundwater Basin (located in northern San Mateo County) and associated facilities including chemical treatment equipment, tanks, pumping systems and pipelines. Thirteen wells are currently under construction, and SFPUC staff continue work on finding locations for the remaining well sites.

On March 30, 2017, Adrienne Carr, Senior Water Resources Specialist at BAWSCA, accompanied SFPUC staff in a meeting with leaders from San Mateo Union High School District to propose drilling a test well on the grounds of Capuchino High School in the City of San Bruno. SFPUC asked BAWSCA staff to attend such meetings to provide regional context for the GSR project and help site the remaining wells for the project.

Standard & Poor Review and Reaffirmation of BAWSCA’s Credit Rating

Standard & Poor (S&P) recently conducted a review of the credit rating on BAWSCA’s revenue bonds series 2013A and 2013B. The goal of the review process is to maintain current ratings by identifying matters that may affect the creditworthiness of an issuer or the credit quality of an issue. As a result of the review, S&P have reaffirmed BAWSCA’s existing “AA-” long-term rating with a stable outlook. Coincidentally, this is the same rating that San Francisco carries on its water revenue bonds issued on October 6, 2016.

FY 2015-16 Annual Survey

BAWSCA has published the FY 2015-16 Annual Survey, making it available to the public via BAWSCA’s website at the following link: <http://bawasca.org/water/supply/survey>.

The Annual Survey documents key BAWSCA service area information, including current and projected water supplies and demands, water use by customer type, population, per capita water use, and water rates structures. Highlights from the FY 2015-16 Annual Survey include:

- In FY 2015-16, total water use in the BAWSCA service area, including San Francisco Regional Water System (SF RWS) purchases and other sources, was 175.6 million gallons per day (mgd)- 22% less than water use in FY 2012-13, the year immediately preceding the Governor’s drought proclamation
- BAWSCA agencies reported SF RWS purchases of 112.6 mgd in FY 2015-16, 11% lower than the total of 126.5 mg purchased in FY 2014-15.
- Average residential per capita consumption in the BAWSCA service area was 55.9 gallons per capita per day (gpcd) in FY 2015-16. Fifteen BAWSCA member agencies had residential water use of less than 55 gpcd.

Key information from the Annual Survey can also be accessed interactively via the BAWSCA website.

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Board Policy Committee Policy Calendar through June 2017

Committee Meeting	Purpose	Issue or Topic
April 2017	D&A D&A R&D D	Presentation of Proposed FY 2017-18 Work Plan and Budget Consideration of Professional Services Contract For Development of Regional Water System and Supply Modeling Tool SWRCB SED Review of SF RWS Water Supply Forecast & Statewide Drought Conditions
June 2017	D&A D&A R&D	Consideration of New Water Management Consultant Contracts Discussion and possible action on CEO Performance Evaluation Procedure Review of SFPUC's Water Management Action Plan (MAP)
August 2017	D&A	Annual Review and Consideration of BAWSCA's Statement of Investment Policy