Water Quality Instrumentation Panel at Rainbow 7. These panels monitor and ensure that we maintain high quality water at all times.
NOTICE TO THE PUBLIC

BOARD OF DIRECTORS’ AND STANDING COMMITTEES’
REGULAR MEETING
MAY 25, 2017
BOARD ROOM
WATER AUTHORITY HEADQUARTERS BUILDING
4677 OVERLAND AVENUE, SAN DIEGO, CALIFORNIA

1. **UNIFIED AGENDA:** This unified agenda provides a brief description of each item to be considered by the Board and its Administrative and Finance, Engineering and Operations, Imported Water, Legislation, Conservation and Outreach, and Water Planning Committees. For convenience, the agenda for each of the Committees and for the formal Board meeting are stated separately; however, all agendas shall be considered as a single agenda and any item listed on the agenda of any Committee may be acted upon by the Board. All items on the agenda of any Committee, including information items, may be deliberated and become subject to action by the Board.

2. **DOCUMENTS:** Staff reports and any other public information provided to the Board or Committee before the meeting relating to items on the agenda are available for public review at the San Diego County Water Authority 4677 Overland Avenue San Diego, CA 92123 during normal business hours. Additional documents may be distributed at the meeting. Copies of individual items, including the background information, are available through the Clerk of the Board at (858) 522-6614.

3. **MEETING TIMES:** The morning session of Standing Committees will commence at 9:00 a.m. on May 25, 2017 the afternoon session of Standing Committees may commence at the conclusion of the morning session and earlier than 1:00 p.m. Please see the meeting schedule. The meeting of the full Board may begin as early as 3:00 p.m. or as soon thereafter as the last Committee meeting is completed.

4. **ACTION AT COMMITTEE MEETINGS:** Committee meetings are also noticed as meetings of the Board because a quorum of the Board may be present. Members of the Board who are not members of the Committee may participate in the meeting, but only members of the Committee may make, second or vote on any motion or other action of the Committee unless the Board determines to convene for consideration of action on an item or items on the Committee agenda. Items receiving substantive review by a standing committee are generally included on the Consent Calendar for action at the meeting of full Board. Persons interested in an item and wishing to hear the staff report, present oral or written comments, and hear the deliberations should attend the Committee meeting. Closed Sessions also occur at Committee meetings and may not be repeated at the formal Board meeting.

5. **CONSENT CALENDAR:** The agenda contains items listed on a consent calendar which is for matters considered routine or otherwise not requiring further deliberation. A committee or the Board will take action as recommended by one motion. There will be no individual discussion on such items prior to the vote unless an item is removed for discussion. If a member of the public
wishes to talk about a consent calendar item, please notify the Chair before the calendar is called. Persons who wish to be heard on an item are encouraged to speak before the assigned committee.

6. **PUBLIC HEARINGS:** It is not necessary to notify the Chair if a member of the public wishes to speak on items listed on the agenda as public hearings. Public hearings will begin at the time stated in the notice, or as soon thereafter as the matter can be heard. When the Chair opens the hearing, upon invitation of the Chair, step to the podium and begin by giving your name and address for the record. Each speaker has 3 minutes to address the Board.

7. **PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA:** The agenda provides an opportunity for members of the public to address the Committees and Board on matters of interest within the jurisdiction of the Committee or Board that are not listed on the agenda. The Brown Act does not allow any discussion or action by the Board or staff on matters raised during public comment except: 1) to briefly respond to statements made or questions posed; 2) ask a question for clarification; 3) receive and file the matter; 4) if it is within staff’s authority, refer it to them for a reply; or, 5) direct that it be placed on a future board agenda for a report or action.

A reasonable amount of time will be allocated by the Chair for public comment. Persons wishing to speak should notify the Chair before the meeting by filling out a "Speaker Request Form" and give it to the secretary. Individual speakers are requested to be as brief as possible and are encouraged to address the appropriate committee who is best able to respond. When the Chair calls, please immediately step to the podium and begin by giving your name and address for the record. Each speaker has 3 minutes to address the Board.

8. **PUBLIC COMMENT ON AGENDA ITEMS:** Persons wishing to speak to an item that is listed on the agenda should notify the Chair before the meeting by filling out a speaker request form and giving it to the secretary. Step to the lectern when asked to do so by the Chair and begin by giving your name and address for the record. Remarks should be limited to three minutes.

9. **INFORMATION ITEMS:** Items are listed on the agenda as information based on staff's judgment. Circumstances or the committee's or Board's judgments may require deliberation or, if necessary, action on these items. Any member of the public with an interest in one of these items should review the background material and request information on the possible action that could be taken.

10. **ASSISTANCE FOR THE DISABLED:** If you are disabled in any way and need accommodation to participate in the Board meeting, please call the Clerk of the Board at (858) 522-6614 for assistance at least three (3) working days prior to the meeting so the necessary arrangements can be made.

11. **RULES GOVERNING MEETINGS:** The Water Authority’s Administrative Code Chapter 2.00 governs conduct of meetings of the Board and the Committees. The Administrative Code is available on line at [www.sdcwa.org](http://www.sdcwa.org) or at the Water Authority Headquarters.
MEETING SCHEDULE
MAY 25, 2017

MORNING SESSION
Engineering & Operations Committee 9:00 a.m. to 12:00 p.m.
Water Planning Committee Estimated time: 40 minutes
Imported Water Committee Estimated time: 40 minutes

LUNCHEON FOR DIRECTORS 12:00 p.m. to 1:00 p.m.

AFTERNOON SESSION
Administrative & Finance Committee 1:00 p.m. to 3:00 p.m.
Legislation & Public Outreach Committee Estimated time: 1 hour
Estimated time: 50 minutes

FORMAL BOARD MEETING 3:00 p.m.

* Time estimates are for convenience only and do not constitute part of the schedule. The first morning session will commence at 9:00 a.m., and the following morning sessions may start at any time after 9:00 a.m. The first afternoon session will commence at 1:00 p.m., and the following afternoon sessions may start at any time after 1:00 p.m. The Board meeting will start no earlier than 3:00 p.m., or following the conclusion of the last committee meeting.
ENGINEERING AND OPERATIONS COMMITTEE

AGENDA FOR

MAY 25, 2017

Tony Heinrichs – Chair
Frank Hilliker – Vice Chair
Marty Miller – Vice Chair
Brian Boyle
Brian Brady
Jerry Butkiewicz
Lois Fong-Sakai
Michael Hogan

Ron Morrison
Ken Olson
Jose Preciado
Halla Razak
John Simpson
Tim Smith
Ron Watkins


2. Additions to Agenda (Government Code Section 54954.2(b)).

3. Public Comment – opportunities for members of the public to address the Committee on matters within the Committee’s jurisdiction.

4-A Directors’ comments.

I. CONSENT CALENDAR

II. ACTION/DISCUSSION/PRESENTATION

1. Notice of Completion for the Pipeline 4 Relining at Lake Murray project.
   Staff recommendation: Authorize the General Manager to accept the Pipeline 4 Relining at Lake Murray project as complete, record the Notice of Completion, and release funds held in retention to L.H. Woods and Sons, Inc. following the expiration of the retention period. (Action)

2. Energy Task Force Update. (Presentation)

3. Treated Water Optimization. (Presentation)

III. INFORMATION

IV. CLOSED SESSION
V. ADJOURNMENT

NOTE: This meeting is called as an Engineering & Operations Committee meeting. Because a quorum of the Board may be present, the meeting is also noticed as a Board meeting. Members of the Board who are not members of the Committee may participate in the meeting pursuant to Section 2.00.060(g) of the Authority Administrative Code (Recodified). All items on the agenda, including information items, may be deliberated and become subject to action. All public documents provided to the committee or Board for this meeting including materials related to an item on this agenda and submitted to the Board of Directors within 72 hours prior to this meeting may be reviewed at the San Diego County Water Authority headquarters located at 4677 Overland Avenue, San Diego, CA 92123 at the reception desk during normal business hours.

Melinda Cogle
Clerk of the Board
May 17, 2017

Attention: Engineering and Operations Committee

Notice of Completion for the Pipeline 4 Relining at Lake Murray project. (Action)

Staff recommendation
Authorize the General Manager to accept the Pipeline 4 Relining at Lake Murray project as complete, record the Notice of Completion, and release funds held in retention to L.H. Woods and Sons, Inc. following expiration of the retention period.

Alternative
Do not approve staff recommendations and provide direction to staff relative to issues requiring resolution.

Fiscal Impact
There are sufficient funds to support this recommendation within the project budget and fiscal years 2016 and 2017 Capital Improvement Program appropriation. The rate category for this project is transportation.

Background
This project is part of the program to rehabilitate and reline pre-stressed concrete cylinder pipe within the Water Authority’s conveyance system to ensure continued reliability. The Water Authority’s Asset Management Program detects and monitors deterioration of the aqueducts using an acoustic fiber optic monitoring system and internal inspections during aqueduct shutdowns. Based on the condition assessment, this portion of the aqueduct was prioritized for rehabilitation due to the pipeline’s diminishing service life and the potential impacts to water deliveries in the event of a pipeline failure.

The project included relining approximately 5,400 linear feet of Pipeline 4 (an existing 72-inch diameter pre-stressed concrete cylinder pipe) along Lake Murray to the terminus of Pipeline 4 at the City of San Diego’s Alvarado Treatment Plant using collapsible steel liners. This project brings the total relining of the Water Authority’s existing pre-stressed concrete cylinder pipe to 50 percent complete. One aqueduct shutdown was required to accomplish the reline work, which was coordinated with the affected member agencies.

This project also included removal of damaged equipment from the Water Authority’s existing Alvarado Hydroelectric Facility located adjacent to the Pipeline 4 connection to the Alvarado Water Treatment Plant. The hydroelectric facility was built in 1984 but operations were suspended in 2007 due to flood damage. While economic analysis at that time did not favor rehabilitation of the facility, recent analyses performed by the Water Authority’s Energy Program, that considered changes in energy rate structures and usage, now confirm rehabilitating the hydroelectric facility is viable. The Alvarado Hydroelectric Facility rehabilitation is currently in
the design phase. Since the original equipment was damaged it cannot be re-used. However, the building was left in place for the rehabilitation project.

**Previous Board Action:** On August 22, 2016, the Board authorized the General Manager to award a construction contract to L.H. Woods and Sons, Inc. in the amount of $6,777,000 for the Pipeline 4 Relining at Lake Murray project.

**Discussion**
Change Orders 1 through 4 were executed under staff’s authority, decreasing the construction contract by $348,601. These items are summarized below and detailed in Table 1.

**Administrative:** Staff executed change orders for a total credit of $323,601. The items included credits for in-plant fabrication inspection costs, partnering, and unused contract unit price bid items.

**Design Modifications:** Staff executed a change order for a total credit of $25,000 for relocating a temporary bulkhead and deleting an access shaft to facilitate the work.

The contractor has no open claims. The current construction contract price, including Change Orders 1 through 4, is $6,428,398, which is approximately a 5.1 percent decrease from the original contract value.

The small business participation on this project is 54 percent. This information is provided for statistical purposes.

During construction, 5 percent of the total contract amount was retained in accordance with the contract terms. The retention will be released after the General Manager’s acceptance, expiration of the 60-day period following recording of the Notice of Completion, and receipt of a signed Conditional Waiver and Release of Liens and Claims from the contractor. L.H. Woods and Sons, Inc. provided a bond for faithful performance at the time of bidding, which will remain in full force and effect for the contract’s two-year post-construction warranty period.

Prepared by: Neena Kuzmich, Principal Engineer
Reviewed by: Jerry Reed, Director of Engineering
Approved by: Sandra L. Kerl, Deputy General Manager

Attachments:
**Figure 1 - Location Map**
**Table 1 - Summary of Construction Change Orders**
LAKE MURRAY INTERCONNECT
BEGIN PIPELINE 4 RELINING
STA 4362+04

ALVARADO TREATMENT PLANT
END PIPELINE 4 RELINING
STA 4416+08
<table>
<thead>
<tr>
<th>Change Order</th>
<th>Item No.</th>
<th>Classification</th>
<th>Description</th>
<th>Amount</th>
<th>Contract Time Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 18: Partnering</td>
<td>(20,000.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Design Modification</td>
<td>Value Engineering Change Proposal to Relocate temporary Bulkhead and Delete Access Shaft</td>
<td>(25,000.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>Administrative Change</td>
<td>Violation of Working Hour Requirements</td>
<td>(1,000.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>Administrative Change</td>
<td>Credit for Delay of Engineer's Field Office</td>
<td>(1,000.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Administrative Change</td>
<td>Credit for Deleting Weld Procedures and Welder Performance Qualifications</td>
<td>(3,420.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>Administrative Change</td>
<td>Inspection of Off-Site Fabrication</td>
<td>(232,769.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 8: Fiber Rolls</td>
<td>200.00</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 9: Hydraulically Applied Erosion Control Blanket with Seed</td>
<td>(8,868.30)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 10: Move In/Move Out for Erosion Control</td>
<td>(1,400.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 11: Temporary Erosion Control Soil Binder</td>
<td>(3,400.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 12: Temporary Stabilized Construction Entrance</td>
<td>(16,000.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 13: Temporary Silt Fence</td>
<td>(9,360.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 14: Temporary Straw Wattles</td>
<td>(6,980.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>Administrative Change</td>
<td>Reconcile Bid Item 15: Temporary Gravel-Filled Bags</td>
<td>(224.00)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>Administrative Change</td>
<td>Reconcile Allowance Bid Item 17: Soil Amendment Materials</td>
<td>(17,951.36)</td>
<td>0 days</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>Administrative Change</td>
<td>Extension of Time for Inclement Weather</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Administrative Change</td>
<td>Construction Water Usage</td>
<td>(1,429.00)</td>
<td>0 days</td>
</tr>
</tbody>
</table>

Total change order amount through Change Order 4: $ (348,601.66)
Total time extension: 5 Days
Original Board authorized contract amount: $6,777,000
New executed contract amount: $6,428,398.34
-5.14%
May 17, 2017

Attention: Engineering and Operations Committee

Treated Water Optimization. (Presentation)

Purpose
This informational item provides an overview of how the Water Authority’s Operations staff has adapted new operational strategies to optimize treated water sources while continuing to operate the aqueduct system in a safe and reliable manner.

Discussion
When balancing each of the treated sources against system demands, Operations must consider the minimum operating requirements of each source to safely operate and convey the water requested. This can be impacted by mechanical, hydraulic, system, and water quality limitations. Additionally, Operations must ensure compliance with agreement and contractual obligations with each source.

While maximizing local treated water sources from the Claude “Bud” Lewis Carlsbad Desalination Plant and the Twin Oaks Valley Water Treatment Plant, and reducing imported water requests from Metropolitan Water District’s Skinner Water Treatment Plant, water quality becomes a major factor in determining how to balance all treated sources. The addition of five new water quality analyzers strategically located along the first and second aqueducts provide “real-time” data to help monitor water quality and determine if operational changes are needed. This helps to ensure that water quality is maintained at a high level for our member agencies.

At the May Engineering and Operations Committee meeting, staff will present an overview of how the treated aqueduct operation has evolved to optimize treated water sources and continues to operate in a safe and reliable manner.

Prepared by: Chris Castaing, Operations and Maintenance Manager
Reviewed by: James E. Fisher, Director of Operations and Maintenance
Approved by: Sandra L. Kerl, Deputy General Manager

CC/JF:mmr
1. Roll call – determination of quorum.

2. Additions to agenda (Government Code Section 54954.2(b)).

3. Public comment – opportunities for members of the public to address the Committee on matters within the Committee’s jurisdiction.

4. Chair’s report.
   4-A Directors’ comments.

I. CONSENT CALENDAR

II. ACTION/DISCUSSION/PRESENTATION

1. Extension of Water Conservation Garden Operation Agreement.
   Staff recommendation: Approve a one-year extension of the current Operation Agreement between the Water Conservation Garden Authority and the Friends of the Water Conservation Garden (IRS 501(c)(3)) for the continued operation and maintenance of the Water Conservation Garden through June 30, 2018. (Action)

   Jason Foster / Betty Evans

2. Annual Storage Assessment. (Presentation)

   Jeremy Crutchfield

III. INFORMATION


   Dana Friehauf

IV. CLOSED SESSION
V. ADJOURNMENT

NOTE: This meeting is called as a Water Planning Committee meeting. Because a quorum of the Board may be present, the meeting is also noticed as a Board meeting. Members of the Board who are not members of the Committee may participate in the meeting pursuant to Section 2.00.060(g) of the Authority Administrative Code (Recodified). All items on the agenda, including information items, may be deliberated and become subject to action. All public documents provided to the committee or Board for this meeting including materials related to an item on this agenda and submitted to the Board of Directors within 72 hours prior to this meeting may be reviewed at the San Diego County Water Authority headquarters located at 4677 Overland Avenue, San Diego, CA 92123 at the reception desk during normal business hours.
May 17, 2017

Attention: Water Planning Committee

Extension of Water Conservation Garden Operation Agreement. (Action)

Recommendation

Approve a one-year extension of the current Operation Agreement between the Water Conservation Garden Authority and the Friends of the Water Conservation Garden (IRS 501(c)(3)) for the continued operation and maintenance of the Water Conservation Garden through June 30, 2018.

Alternative

Do not approve the extension of the Operation Agreement between the Garden Authority and the Friends of the Water Conservation Garden. If the extension is not approved, Garden operations and programs could be significantly impacted as there would be no contractor in place to provide these services after the current agreement expires on June 30, 2017.

Fiscal impact

Funds in the amount of $137,632 are included in the General Manager’s recommended operating budget for fiscal years 2018 and 2019 in Public Outreach and Conservation Department to cover the Water Authority’s share of Water Conservation Garden operations through June 30, 2018. The rate category is Customer Service.

Background

The Water Authority has been a member of the Water Conservation Garden Joint Powers Authority and supported the Garden’s efforts to promote outdoor water efficiency since 2001. For years, the Garden operated essentially as a public agency under the auspices of the JPA.

In September 2009, the Garden finished development of a Strategic Plan. It concluded the Garden would benefit by reorganizing as a non-profit entity organized under IRS Code Section 501(c)(3). At that time the Garden received approximately two-thirds of its operating expenses from JPA member dues and the other third from private donations. The primary reason to have a non-profit run the Garden was to encourage even greater fiscal sustainability through increased funding from private sources.

In the fall of 2010, the Water Authority and other Water Conservation Garden JPA agencies (city of San Diego, Helix Water District, Otay Water District, Sweetwater Authority and Cuyamaca College) negotiated and approved a five-year Operation Agreement for the non-profit Friends of the Water Conservation Garden to operate the Garden as an independent contractor. The Friends of the Water Conservation Garden was a significant contributor to the Garden’s private fund-raising efforts and participated in the Strategic Plan process. The parties also agreed to a multi-year funding plan to help support fiscal stability at the Garden during this period.

The Friends of the Water Conservation Garden has operated the Garden in accordance with the agreement since it took effect on Jan. 1, 2011. Key terms of the agreement include:
The Friends’ operation of the Garden is subject to the License Agreement between the Garden Authority and the Grossmont Cuyamaca Community College District. The District is the underlying land owner and leases approximately 5 acres at no cost to the Garden Authority for the Garden facilities.

The Friends are responsible for all aspects of the operations and maintenance of the Garden, including the employees.

The Friends must obtain approval from the JPA in advance for any buildings or exhibits that exceed $35,000 in value.

The JPA will annually review the budget for the Garden, and it can request revisions.

The JPA can audit the Friends’ operation of the Garden at any time.

During this time the Garden, under the leadership of the Friends and the Garden’s executive director, have taken a number of steps to broaden the Garden’s sources of financial support and reduce long-term reliance on JPA funds. These steps include creating new fund-raising activities such as the annual Enchanted Garden Gala, establishing an endowment fund, creating a new structure for corporate sponsorships and increasing educational contracts and facility rentals.

In August 2016, the JPA agencies and the Friends began discussions regarding updating and extending the Operating Agreement. Both parties expressed interest in amending the agreement to better define how JPA dues and other funds are to be used and facilitate more-efficient operations of the Garden. They also discussed developing a new multi-year funding plan as part of this agreement that would continue to reduce the Garden’s reliance on JPA dues.

In November 2016, the Friends and the JPA agencies agreed to extend the current agreement for six months, to June 30, 2017. This allowed the continued operation of the Garden while both parties began to negotiate the terms of the new agreement with the goal of completing the new agreement by spring 2017.

Previous Board Action: On December 8, 2016, the Board approved a six-month extension of the current Operation Agreement between the Water Conservation Garden Authority and the Friends of the Water Conservation Garden (IRS 501(c)(3)) for the continued operation and maintenance of the Water Conservation Garden through June 30, 2017.

On December 9, 2010, the Board Approved the key components of Operation Agreement between the Water Conservation Garden Authority and the Friends of the Water Conservation Garden (IRS 501(c)(3)), approved the inclusion of $368,871 in the Fiscal Years 2012 and 2013 budget and indicate support for future funding levels when the Board establishes the budget for Fiscal Years 2014 and 2015.

Discussion
In April 2017, the JPA Board met to review a proposal for an amended operating agreement. The proposal still called for the Friends to operate the Garden as an independent contractor, but limited the JPA agencies’ financial role as funding ongoing operations and maintenance
of the Garden only. Funds raised by the Friends through donations, educational contracts and other income sources would largely support educational programming.

The JPA Board also reviewed the Garden’s operating and maintenance costs, including deferred maintenance costs, and a potential funding plan that would cover daily operations and pay for the deferred maintenance needs over five years. The funding plan called for maintaining fiscal 2018 JPA dues at fiscal 2017 levels as the Garden completed a study to identify an appropriate maintenance reserve fund. Starting in fiscal 2019, JPA dues would be reduced to reflect the lower costs of only paying for operations and maintenance (including deferred maintenance).

While the JPA Board expressed support for the proposal’s general direction, its members determined they needed to perform more due diligence before voting on it. This included:

- Determining a more exact scope of work and terms for the new operating agreement
- Conducting more analysis of the Garden’s operating costs
- Reviewing the results of the Garden’s pending reserve study
- Reviewing and considering updates to the terms and bylaws of the original Garden JPA agreement

The JPA Board voted to extend the current operating agreement for one year at its current funding level, and to complete the additional review and negotiations necessary to vote on the new operating agreement and funding plan by November 2017.

The JPA Board also selected a Governance Committee to work on these issues over the next six months and present the refined operating and funding proposal to the JPA Board. The committee consists of JPA Board representatives from the Water Authority (Betty Evans), Helix Water District (DeAna Verbeke) and Otay Water District (Mark Robak), along with the Garden’s Executive Director (Elyssa Robertson) and the president of the Friends of the Water Conservation Garden (Harold Bailey). The Governance Committee began meeting in early May and is scheduling meetings every few weeks to ensure timely progress toward the November 2017 goal.

Prepared by: Jason Foster, Director, Public Outreach and Conservation
Reviewed by: Betty Evans, Board representative, Water Conservation Garden JPA
Approved by: Dennis A. Cushman, Assistant General Manager

Attachment: 1. Proposed second amendment to Water Conservation Garden Operation Agreement
SECOND AMENDMENT TO
WATER CONSERVATION GARDEN OPERATION AGREEMENT
CUYAMACA COLLEGE WATER CONSERVATION GARDEN

The Water Conservation Garden Operation Agreement dated October 13, 2010 between the Water Conservation Authority and Friends of the Water Conservation Garden (collectively Parties) is amended as follows.

1. Paragraph 1, DEFINITIONS, section 1.58 SCHEDULED EXPIRATION DATE is amended to mean June 30, 2018. The Agreement is amended for continued operation and maintenance services, and to align the Friends of the Water Conservation Garden’s Operations budget with the budgets of the agencies which make up the Joint Powers Agency. Also to allow time to discuss specific tasks and terms of the Agreement.

2. Paragraph 4, TERM, is amended to reflect the extension of the Agreement.

3. Pursuant to Paragraph 14, INSURANCE, Friends of the Water Conservation Garden shall provide updated insurance documents to the Water Conservation Authority as required.

4. All other terms, covenants, and conditions in the original Agreement as amended shall remain in full force and effect, and shall be applicable to this Amendment.

The individuals executing this amendment to Agreement represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

IN WITNESS WHEREOF, the Parties have executed this Second Amendment to the Agreement on the date set forth below.

AUTHORITY
WATER CONSERVATION AUTHORITY, a Joint Powers Authority

By: __________________________
    Board President

DATED: ______________________

OPERATOR
FRIENDS OF THE WATER
CONSERVATION GARDEN, a California nonprofit benefit corporation

By: __________________________
    Name: __________________________
    Title: ___________________________

ATTEST:

By: __________________________
    Board Secretary

By: __________________________
    Name: __________________________
    Title: ___________________________
May 17, 2017

Attention: Water Planning Committee

Annual Storage Assessment (Presentation)

Purpose
Annual Evaluation of Carryover Storage and Emergency Storage Reserves

Background
On December 8, 2016, the Board approved policy guidelines for managing Water Authority carryover storage supplies (see attachment). The guidelines are intended to provide guidance to staff on management of carryover supplies during non-shortage conditions and supply shortage events to minimize or avoid potential supply cutbacks to member agencies. The guidelines identify a target volume of 70,000 acre-feet and a maximum volume of 100,000 acre-feet for carryover storage in San Vicente Reservoir. The policy guidelines also call for staff to report to the Board annually, by May of each year, with a review of the Water Authority’s carryover storage and Emergency Storage Project (ESP) storage reserves.

Discussion
In evaluating the adequacy of carryover storage and ESP storage reserves, there are numerous factors that influence management of these storage reserves. Variables for consideration include current hydrologic conditions and uncertainty, availability of Water Authority and member agency supplies, water demand trends and storage levels. The following is an assessment of current conditions and staff’s planned management of the Water Authority’s storage reserves.

Hydrologic Conditions
Northern California experienced a series of significant atmospheric river events this water year that ultimately brought about the end to California’s multi-year drought. Through April 30, 2017, over 90 inches of rain fell in northern California, setting a new record for annual precipitation, and statewide snow water content for this date exceeded 196 percent of normal. These conditions prompted the Department of Water Resources (DWR) to forecast statewide runoff for water year 2017 at 220 percent of average. Hydrologic conditions in the Upper Colorado River Basin have also improved over last year with accumulated precipitation for this region totaling 118 percent of average and snow water equivalents at 107 percent of normal at the end of April 2017.

With statewide storage levels near capacity and no shortages projected for the Colorado River for 2017 and 2018, the concern turns to longer term uncertainty; with variability of the state’s hydrology and a potential abrupt return to dry weather - as experienced in 2010-2011 when an above average rainfall year was immediately followed by the emergence of a multi-year drought.

Imported and Local Water Supply
Consistent with the state’s record hydrology this year, the Department of Water Resources increased the State Water Project (SWP) Table A allocation to 85 percent of requested water for long-term
contractors, totaling almost 4.2 million acre-feet. At this allocation level, Metropolitan will receive over 1.6 million acre-feet of SWP supplies. With Metropolitan’s estimated Colorado River supplies for 2017 amounting to 960,000 acre-feet, comprised of Metropolitan’s Basic Apportionment (550 thousand acre-feet) and established Colorado River supply programs, Metropolitan estimates that, under current SWP and Colorado River supply conditions, over one million acre-feet of dry-year storage will be added to reserves.

Consistent with the Quantification Settlement Agreement delivery schedule, the Water Authority will receive 100,000 acre-feet of conserved agricultural water transfers from the Imperial Irrigation District (IID) in calendar year 2017. The IID transfer volume is scheduled to increase by 30,000 acre-feet per year over the next two-year period. Water Authority imported supplies also include 80,200 acre-feet per year of water conserved from the lining of the All-American Canal and Coachella Canal. On the local supply side, Water Authority anticipated supplies from the Claude “Bud” Lewis Carlsbad Desalination Plant (Carlsbad Project) are estimated at 48,000 acre-feet per year – pursuant to the Water Purchase Agreement contractual obligation.

Member agency local surface water supplies also benefited from the wet winter conditions this water year. Combined member agency reservoir storage increased by over 120,000 acre-feet since October 1, 2016.

With the availability of imported and local water supplies this year, coupled with the replenishment of dry-year storage reserves by Metropolitan, it is highly unlikely that the region will see a water supply shortage, due to hydrology, in the next two years.

**Water Demand**

As a result of the Governor’s emergency drought proclamation in January 2014 and the State Water Resources Control Board’s implementation of mandatory conservation standards in May 2015, water demands across the state and in the Water Authority’s service area plummeted in fiscal years 2015 and 2016. Total water demand in the San Diego region dropped by almost 140,000 acre-feet between fiscal year 2014 and fiscal year 2016, and total potable demand in fiscal year 2016 remained at approximately 20 percent below the state-established 2013 base year. Although member agencies are no longer required to implement conservation standards due to Governor Brown’s April 7, 2017, action to rescind the emergency drought declaration, retail consumptive water use remains below the 2013 base year demand. However, staff anticipates a modest uptick in water demand over the next several years due to the end of the drought emergency and projected economic growth in the region.

**Carryover Storage**

Water Authority carryover storage consists of surface water storage in San Vicente Reservoir and out-of-region groundwater storage in the Central Valley. The San Vicente Dam raise was completed in 2014 at a final crest elevation of 776 feet, which officially created 105,563 acre-feet of in-region carryover storage capacity. Central Valley groundwater agreements were executed in 2008 and provide 70,000 acre-feet of groundwater carryover storage capacity. Table 1 summarizes the characteristics of the two carryover storage pools.
Table 1: Water Authority Carryover Storage Program Summary

<table>
<thead>
<tr>
<th></th>
<th>San Vicente Reservoir</th>
<th>Central Valley Out-of-Region Groundwater</th>
<th>Semitropic-Rosamond</th>
<th>Semitropic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Stored Water Recovery</td>
<td>Antelope Valley</td>
<td>Semitropic</td>
</tr>
<tr>
<td>Capacity (AF)</td>
<td>105,563¹</td>
<td>15,000</td>
<td>25,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Losses (evaporation and</td>
<td>Approx. 6% per year</td>
<td>One time 10% delivery amount</td>
<td>One time 10% delivery amount</td>
<td>One time 10% delivery amount</td>
</tr>
<tr>
<td>seepage)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Put Capacity (AFY)</td>
<td>105,563 (potential)²</td>
<td>5,000</td>
<td>1,666</td>
<td>2,715</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Take Capacity</td>
<td>105,563¹</td>
<td>5,000</td>
<td>5,000</td>
<td>4,200</td>
</tr>
<tr>
<td>(AFY)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Storage (AF)</td>
<td>98,457</td>
<td>0</td>
<td>0</td>
<td>16,117</td>
</tr>
<tr>
<td>(as of March 31, 2017)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹Carryover storage capacity was increased from 100,000 AF to 105,563 AF based on final elevation of the raised dam
²The rate at which San Vicente can be filled is dependent upon member agencies’ demands at the time

As a result of member agencies’ extraordinary conservation efforts during the recent drought emergency, carryover storage fill operations were completed ahead of schedule in June 2016, with the Water Authority storing approximately 100,000 acre-feet of conserved supplies in San Vicente Reservoir. Carryover storage reserves in San Vicente Reservoir as of March 31, 2017, totaled 98,457 acre-feet, and stored water in the Semitropic Groundwater Storage Bank sits at 16,117 acre-feet.

Management of Carryover Storage through May 2018

After a thorough review of supply and demand conditions, no supply shortages are reasonably foreseen over the next two-year period. However, staff is concerned about an abrupt return to dry conditions, similar to 2012. As such, staff does not plan to withdraw carryover storage reserves through May 2018. Additionally, no storage puts will occur to offset San Vicente Reservoir carryover storage evaporation and seepage losses.

Should another average-to-wet year occur in 2018, staff would likely propose in May 2018 to incrementally draw down carryover storage reserves in San Vicente Reservoir to approach the target volume of 70,000 acre-feet.

Staff also does not plan to make any changes to the Central Valley groundwater storage accounts. Over the long-term, with the development of updated demand and supply forecasts for the 2020 Urban Water Management Plan, staff plans to address the long-term storage need for Central Valley groundwater storage.

Emergency Storage

ESP background and storage requirements were presented to the Board in April and August 2016 (see attachment). In summary, two emergency scenarios were analyzed in the development of required ESP facilities and delivery guidelines: a six-month partial imported supply outage and a two-month total imported supply outage. The constructed ESP capacity was sized to meet peak demand projections –
May through October for the six-month scenario, and July through August for the two-month scenario. The established policy objective for both scenarios is to provide a 75 percent Level of Service to the region. The evaluation performed as part of the 1996 ESP Final EIR/EIS environmental document concluded that the required ESP capacity was 90,100 acre-feet in planning year 2030.

The volume of water held in ESP storage at any given time is based on projected demand, seasonal fluctuations in demand, delivery system constraints, and supplies that would be available during an emergency, including local surface storage, recycled water, groundwater, and seawater desalination supplies. Table 2 shows the capacity and stored volume by reservoir for Water Authority emergency storage.

<table>
<thead>
<tr>
<th>Emergency Storage Dedicated Capacity (AF)</th>
<th>San Vicente Reservoir</th>
<th>Olivenhain Reservoir</th>
<th>Lake Hodges</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Storage Volume (AF)</td>
<td>52,100</td>
<td>18,000</td>
<td>20,000</td>
<td>90,100</td>
</tr>
<tr>
<td>Current Emergency Storage Volume (AF)</td>
<td>32,711</td>
<td>18,000</td>
<td>0</td>
<td>50,711</td>
</tr>
</tbody>
</table>

With current water demands well below the projected demands used to originally size ESP storage capacity, and with the introduction of the Carlsbad Project, forecasted storage requirements to meet ESP delivery obligations are significantly reduced. Staff recently conducted an updated ESP storage requirement modeling analysis and determined that the current emergency storage volume held in San Vicente Reservoir, Olivenhain Reservoir, and Lake Hodges, totaling 50,711 acre-feet, exceeds the calculated ESP storage requirement of 24,000 acre-feet by 26,711 acre-feet.

Management of ESP Storage through May 2018

After consideration of the operational flexibility required to efficiently operate the Water Authority’s storage system, projected growth in water demand, and the need to be conservative when considering the appropriate amount of emergency storage to hold, staff plans to bring ESP storage reserves more in-line with the current modeled requirements by withdrawing 10,000 acre-feet from emergency storage pools during calendar year 2018.

Finally, consistent with carryover storage policy guidelines, staff will conduct the next regularly scheduled carryover storage and ESP storage assessment by May 2018. This evaluation will focus on the appropriateness of carryover and emergency storage levels based on demand and supply conditions at that time.

Prepared by: Tim Bombardier, Principal Water Resources Specialist
Jeremy Crutchfield, Senior Engineer
Reviewed by: Dana Friehauf, Water Resources Manager
Robert R. Yamada, Director of Water Resources
Approved by: Sandra L. Kerl, Deputy General Manager

Attachment: November 30, 2016, Board Memo with supporting attachments from the December 8, 2016, Board Meeting
Policy Guidelines for Managing Carryover Storage Supplies and Revisions to the Stored Water Fund Policy (Action)

Staff recommendation
Water Planning Committee Recommendation:
Approve policy guidelines for managing the Water Authority’s carryover storage supplies.
(Attachment 3)

Administrative and Finance Committee Recommendation:
Adopt the recommended Stored Water Fund Policy.

Alternative
Do not approve the policy guidelines or the recommended Stored Water Fund Policy and direct staff to make modifications and bring them back to the Board for consideration.

Fiscal Impact
The recommended Stored Water Fund policy results in the transfer of $9.7 million from the Stored Water Fund to the Operating Fund for beneficial use. Staff recommends that the transferred funds be used to fund existing capital projects. This provides future rate relief by delaying future debt issuance and the incidence of the associated debt service.

Background
At the October 2016 Water Planning Committee, the action item on the proposed carryover storage policy guidelines was tabled. Board members requested that the item be brought back in December, together with the recommended stored water fund policy. Board members also requested that the associated report also address the other types of Water Authority storage including emergency and operational storage. As such, in an integrated fashion, this report addresses Water Authority operational, emergency and carryover storage in addition to addressing the proposed carryover storage policy guidelines and the recommended stored water fund policy.

Member agency and Water Authority storage capacity represents key part of the water reliability infrastructure for the region. The region has 746,385 acre-feet (AF) storage capacity in 24 reservoirs, as shown in Figure 1. Eight of these reservoirs provide the capability to store imported untreated water delivered from the First or Second Aqueduct and include San Vicente, Lower Otay, Sweetwater, Olivenhain and Miramar Reservoirs as well as Lake Murray, Lake Poway and Lake Dixon.

In total, the Water Authority owns 196,889 AF of regional storage capacity. The Water Authority utilizes its regional storage capacity for different purposes including operational storage, emergency storage and now, with the completion of the San Vicente Dam Raise, carryover storage. In total, the Water Authority has currently available 168,019 AF in its local operational, emergency and carryover storage pools. As an example, Figure 2 depicts the various storage pools in a reservoir.
Figure 1 – Reservoirs of San Diego County
Operational Storage
Operational storage has three primary functions including: 1) pre-planned, temporary storage for use during aqueduct shutdowns linked with inspection/maintenance activities or in support of large CIP projects (such as pipeline relining); 2) support for pump-storage operations at Lake Hodges; and 3) terminal reservoir deliveries that are required to safely operate the Water Authority’s treated and untreated pipelines on the Second Aqueduct. Specific uses for each reservoir are noted below:

- San Vicente Reservoir - Operational storage is used to deliver water to member agencies when segments of the first or second aqueduct are temporarily removed from service. It can also be used to raise or lower emergency and carryover levels based on calculated storage requirements.

- Lake Hodges/Olivenhain Reservoir – Operational storage is used to maintain minimum reservoir levels in support of pumped-storage operations. Similar to San Vicente Reservoir, this storage can be used to raise or lower emergency storage levels based on calculated requirements.

- Member Agency Agreements – Agreements with member agencies such as the Sweetwater Authority and the City of San Diego are established on an as-needed basis in anticipation of upcoming inspection/maintenance activities and CIP projects that impact the Water Authority’s ability to deliver untreated water for a period of time. Terminal reservoir agreements are also established in order to address minor amounts of water delivered into terminal reservoir storage, resulting from the safe operation of the aqueduct.

Emergency Storage
The Water Authority’s Emergency Storage Program (ESP) consists of a system of reservoirs, pipelines, pump stations, and other conveyance facilities that provide regional water storage capacity and allow delivery of stored emergency water to member agencies during a prolonged regional supply interruption.
An informational Board report from April 2016, (Attachment 1) describes in detail ESP facilities, emergency scenarios and sizing as well as emergency water delivery policies. In summary, two emergency scenarios were analyzed in the development of required ESP facilities and delivery guidelines: a six-month partial imported supply outage and a two-month total imported supply outage. The constructed ESP capacity was sized to meet peak demand projections – May through October for the six-month scenario and July through August for the two-month scenario.

The established policy objective for both scenarios is to provide a 75 percent Level of Service to the region. The evaluation performed as part of the 1996 ESP Final EIR/EIS environmental document concluded that the required ESP capacity was 90,100 AF in the planning year 2030.

An informational Board report from August 2016 (Attachment 2), explains how ESP storage requirements are developed and shows the projected, required ESP storage volumes, based on the 2015 Urban Water Management Plan. As such, the volume of water held in ESP storage, at any given time, accounts for projected demand, seasonal fluctuations in demand, delivery system constraints and member agency supplies that would be available during an emergency including local surface storage, recycled water and groundwater supplies.

Given that current and projected regional water demands are lower than the projections used to size the ESP, and with the Lewis Carlsbad Desalination Plant now in commercial operation, the Water Authority has ample storage capacity to meet ESP delivery requirements well beyond 2040. Consistent with the Water Authority’s Emergency Water Delivery Plan, staff continues to monitor demands and ESP storage levels to ensure that sufficient ESP storage is held, while also considering average storage pool loss due to evaporation and seepage and system delivery capabilities. Current emergency storage levels are sufficient to meet projected demands are are shown below:

- San Vicente Reservoir: 38,150 acre-feet
- Olivenhain Reservoir: 18,000 acre-feet
- Lake Hodges: 8,024 acre-feet

**Carryover Storage**

To more effectively manage supplies and increase reliability during shortage periods, the Water Authority invested in carryover storage. With this storage capacity, the Water Authority can store water when it is available for use during times of drought, to avoid or minimize the impact of supply shortages. The Water Authority’s carryover storage consists of surface water storage in San Vicente Reservoir and out-of-region groundwater storage in the Central Valley.

Construction of the San Vicente Dam raise was completed in 2014 and provides 100,000 AF of dedicated carryover storage capacity. Since May 2015, the Water Authority has stored approximately 100,000 AF of conserved water. The Central Valley out-of-region groundwater agreements were executed in 2008 and provide 70,000 AF of storage capacity. Currently, 16,117 AF is stored in the Semitropic Groundwater Storage Bank.

For the October 2016 Water Planning Committee meeting, staff provided a written report and a presentation on the proposed carryover storage policy guidelines. The report provided a detailed accounting of the Water Authority’s carryover storage reserves, discussed the development of the
policy guidelines and provided an example of how the proposed policy guidelines would be used. A summary of the proposed policy guidelines and analysis of the current carryover storage levels in San Vicente Reservoir is presented below.

Proposed Carryover Storage Policy Guidelines
The purpose of the proposed guidelines is to provide policy guidance to staff on how the Water Authority’s carryover storage supplies should be managed during supply shortage events and normal (non-shortage) periods to help minimize or avoid potential cutbacks to member agencies during drought.

Below is a list of the proposed policy guidelines. Attachment 3 contains a detailed description of each policy.

1. The trigger to evaluate utilization of carryover supplies during shortage events is when any of the Water Authority’s supplies are cutback and supplies are insufficient to meet projected demand.
2. Any evaluation will initially plan for carryover storage surface supplies to be utilized over five consecutive dry-years.
3. The amount of carryover surface supplies used annually over the five-year period will be handled on a case-by-case basis, with a general guideline of withdrawing surface storage supplies evenly over the five-year period.
4. Supplies taken from carryover storage will be considered a regional supply to be combined with other Water Authority’s supplies for delivery to the member agencies’ municipal and industrial customers.
5. Carryover storage supplies will not be available to TSAWR customers.
6. The necessary carryover storage levels maintained during normal periods will be evaluated following a shortage event when carryover supplies have been withdrawn. During normal periods, the evaluation will be conducted once a year by May when hydrologic conditions are more certain. As part of this annual evaluation, staff will also conduct a review of emergency storage and provide the Board with an informational report that includes a discussion on both carryover and emergency storage reserves.
7. Maintain a target volume of 70,000AF and maximum volume of 100,000AF in San Vicente carryover storage reserves during normal (non-shortage) periods to ensure the region is prepared for extended shortages due to drought.

As previously discussed with the Board, staff discussed the proposed policy guidelines at the Member Agency Managers’ Meeting on September 13, 2016. The Member Agency Managers supported Board consideration of the guidelines.

Analysis of Current Carryover Storage Levels in San Vicente Reservoir
Until there is more clarity and certainty regarding implementation of the Governor’s May 2016 Executive Order and potential new regulations, staff does not plan to alter current San Vicente carryover storage levels (approximately 100,000 AF) and storage puts will not be made into San Vicente Reservoir to cover evaporation and seepage losses. The Water Authority will also maintain the 16,000 AF in the Central Valley Semitropic Groundwater Storage Bank.
Consistent with the proposed policy guidelines, the carryover storage levels will be evaluated again by May 2017, to determine if reserves are at an appropriate level. By May 2017, hydrologic conditions will be more certain and the State Water Resources Control Board would have taken action regarding emergency conservation regulation in 2017. The state’s framework regarding updating the requirements of the Water Shortage Contingency Plans will also be completed and potentially on its way to being implemented.

**Stored Water Fund Policy**

On January 28, 2016, the Board adopted the Water Authority’s 2015 Long-Range Financing Plan (LRFP). The 2015 LRFP highlights the Water Authority’s transition to an operations and asset management focused agency from a construction-oriented agency. In addition, the 2015 LRFP provides a summary of key financial policies and objectives as well as important financial and operational information. When the 2015 LRFP was adopted, the Water Authority’s Board of Directors instructed staff to return with an operations and financial management plan for carryover storage in San Vincente Reservoir.

The San Vincente Dam Raise Project was completed in the Fall of 2014 and the initial fill was completed in June 2016. With the initial fill completed, the Stored Water Fund is set to sunset. However, as was discussed during the Fiscal Sustainability and Long Range Financing Plan processes, the financial resources or working capital that are required to manage the carryover storage facilities are significant and need to be carefully administered.

Staff is recommending that the Stored Water Fund continue as a Board designated fund thereby capturing and isolating the Water Authority storage inventory activities. This would also serve to eliminate large potential swings in the Operating Fund due to inventory rebalancing requirements. Such volatility would occur when stored water is purchased, causing drops in available Operating Fund monies, or, conversely, increasing Operating Fund monies when sales of stored water inventory occurs. These large fluctuations would make it difficult to manage the Operating Fund’s target balance of 45-days of operating expenditures as well as track the monies required to maintain Stored Water Fund balances.

In addition, by maintaining the Stored Water Fund, the financial management of storage water is transparent and minimizes the potential for cross rate subsidization. The transferred revenues collected from the sale of stored water and the recording of Other Deposits for seepage, evaporation and inventory cost escalation into the Stored Water Fund will only be used for stored water purchases. Without the Stored Water Fund, the amounts would be comingled with general operating funds that could be used for other purposes which could benefit other customer classes (i.e., used to fund a transportation-related activity).

The SWF’s primary purpose is to support the Water Authority’s ability to execute the proposed carryover storage policy guidelines. However, the Stored Water Fund will also be used to manage the Emergency Storage inventory and account for sales and purchases of emergency storage inventory. While the Stored Water Fund will support both carryover and emergency storage, the fund management parameters for carryover and emergency storage will be different.
Under the recommended new policy, the flow of funds dedicated to carryover storage in the Stored Water Fund are described below.

1. **Purchase of Stored Water** – Water purchases for carryover storage will be paid out of the Stored Water Fund.

2. **Sale of Stored Water** – Water revenues from the sale of water in the amount of the cost of the inventory sold will be deposited into the Stored Water Fund and the remainder of the revenues left in the Operating Fund.

3. **Other Deposits** – Required deposits to the fund would be made for seepage, evaporation and inventory cost escalation, which many Board members have pointed out that maintaining the purchasing power of the Stored Water Fund requires some level of inventory cost escalation. Staff is recommending that planned deposits for cost escalation over time be made.

Similar to the Rate Stabilization Fund, staff is recommending that the Stored Water Fund have a Target and Maximums for funds dedicated to carryover storage.

- **Stored Water Fund Target** – The target sets the optimal amount of water to be held in storage in an average year. Based upon the proposed carryover storage policy guidelines, the target carryover storage volume is 70,000 acre feet.

- **Stored Water Fund Maximum Balance Maintenance** – At least annually a rebalancing of the value of inventory and cash to equal the cost of 70,000 acre feet plus escalation, seepage and evaporation costs will be performed.

In addition, if Emergency Storage inventory is sold, the cost of replacement water will be transferred into the Stored Water Fund and the cost and inventory will be tracked separately from the carryover storage inventory.

The expected cost to purchase 70,000 acre feet of water including inventory cost escalation, seepage and evaporation is approximately $49 million. The updated value of carryover storage inventory is approximately $59 million. Based upon the recommended Stored Water Fund Policy, no additional monies are required in the Stored Water Fund for carryover storage. Once the October and November 2016 accounting transactions are recorded, a balance of approximately $9.7 million held in the Stored Water Fund for carryover storage will be excess and available for other uses. Staff recommends using the excess monies to pay for existing capital projects and reduce the amount of future debt issued. This will provide an estimated annual savings of $159,000.

The recommendations for the Stored Water Fund Policy are:

1) Continue the Stored Water Fund as a separate Board designated fund.

2) Establish a maximum calendar year-end balance threshold based on a target carryover storage volume of 70,000 acre-feet.

3) Utilize the excess Stored Water Fund monies to pay for existing capital projects or reduce debt costs.
Finally, the recommended Stored Water Fund Policy methodology has been reviewed by an independent consultant to ensure compliance with cost of service principles and California law.

**Next Steps**
Staff plans to update the Water Authority’s Water Shortage Drought Response Plan (Plan) for Board consideration in 2017, based on lessons learned during the last drought and potentially new statutory requirements. Should the Board approve the staff recommendations, applicable revisions will be incorporated into the updated Plan.

Prepared by: Dana L. Friehauf, Water Resources Manager
Prepared by: David Shank, Financial Planning Manager
Prepared by: Robert R. Yamada, Director of Water Resources
Prepared by: Lisa Marie Harris, Director of Finance
Approved by: Sandra L. Kerl, Deputy General Manager

Attachment 1: April 2016 Board memo on Emergency Storage and Carryover Storage
Attachment 2: August 2016 Board memo on ESP Storage Requirements
Attachment 3: Proposed Policy Guidelines for Managing Carryover Storage Supplies
April 20, 2016

Attention: Water Planning Committee

Report on Water Authority Emergency and Carryover Storage (Presentation)

Purpose
This information item provides an accounting and status of water storage related to the Emergency Storage Project (ESP) and carryover storage.

Background
Beginning in 1965, the Water Authority entered into the first of several agreements with a member agency (City of San Diego) to store water and supplement regional supplies during periods of potential shortage caused by either drought or significant pipeline service outages. As the San Diego region experienced rapid growth into the 1980s, the Water Authority advocated that more regional storage was necessary to enhance the reliability of supplies during emergencies and droughts. In the 1980s, new regional storage focused on the Pamo Valley near Ramona. That effort ultimately did not move forward due to permitting concerns related to endangered species located in the valley.

In 1989, the Water Authority began a major effort through the Optimal Storage Study to investigate the need and potential locations for new regional storage in San Diego County. The drought of 1987-1992 only reinforced that additional regional storage was required to buffer the effects from future imported water shortages. After experiencing significant supply cutbacks in 1991-1992, it became clear that there was insufficient storage capacity in the county to maintain water reliability.

Completion of the Claude “Bud” Lewis Carlsbad Desalination Plant (CDP) provides additional local, drought-proof supply capacity available for both emergency and supply shortage events. Total CDP capacity is 50 million gallons per day (56,000-acre feet annually). Vallecitos Water District has executed, and Carlsbad will execute a contract with the Water Authority acquiring 3,500-acre feet (AF) and 2,500 AF, respectively, of desalinated water from CDP annually as a local supply, leaving 50,000 AF annually of local, drought proof supply for the region. This drought-proof supply reduces the need for emergency and carryover storage programs discussed below.

Discussion

Emergency Storage Project (ESP)
The analysis performed as part of the aforementioned Optimal Storage Study determined that the most pressing need for storage in the region was for emergency purposes.

In 1996, the Water Authority Board of Directors (Board) certified the ESP Final EIR/EIS and in 1998 added ESP to the Capital Improvement Program at a cost of $1.2 billion. The ESP consists of a system of reservoirs, pipelines, pump stations, and other conveyance facilities intended to improve regional water storage capacity and allow delivery of stored emergency...
water to member agencies during a prolonged regional supply interruption. Figure 1 shows the location of key ESP components. In total, there are 17 distinct projects as listed below:

- San Vicente Dam Raise
- San Vicente Pump Station
- San Vicente Pipeline & Aqueduct Interconnect
- San Vicente/Moreno-Lakeside Interconnect Pipeline
- San Vicente 3rd Pump Drive & Power
- Olivenhain Dam and Reservoir
- Olivenhain Pump Station
- Olivenhain Pipeline & Interconnect
- Lake Hodges Pump Station and Inlet/Outlet
- Lake Hodges to Olivenhain Pipeline
- North County ESP Pump Stations
- Operations Center Upgrade
- Diversion Structure Modifications
- Modifications to Valley Center Pump Station
- Pump Station at Twin Oaks Valley Water Treatment Plant
- Planning & Support Services
- Post Construction Activities

Two emergency scenarios were analyzed in the development of required ESP facilities and delivery guidelines: a two-month total imported supply outage and a six-month partial imported supply outage. The two-month scenario considers a maximum credible earthquake on the Elsinore Fault severing all five imported water conveyance pipelines serving the Water Authority from Metropolitan and the repair time to restore aqueduct deliveries. The six-month scenario considers a maximum credible earthquake on either the San Andreas Fault or San Jacinto Fault damaging the California State Water Project and/or Colorado River aqueducts serving Metropolitan, resulting in partial reductions of imported deliveries to the Water Authority over the six-month period while repairs are completed. The established objective for both scenarios was to provide a 75 percent Level of Service to the region.

The required ESP capacity was sized to meet peak demand projections (May through October for the six-month scenario and July through August for the two-month scenario) at the 75 percent Level of Service minus available local supplies. The evaluation performed as part of the ESP Final EIR/EIS concluded the required ESP capacity was 90,100 AF in the planning year 2030.

The following reservoirs provide the approved ESP capacity:

<table>
<thead>
<tr>
<th>Storage Location</th>
<th>Storage Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Vicente Reservoir</td>
<td>52,000 AF</td>
</tr>
<tr>
<td>Olivenhain Reservoir</td>
<td>18,100 AF</td>
</tr>
<tr>
<td>Lake Hodges</td>
<td>20,000 AF</td>
</tr>
<tr>
<td></td>
<td><strong>90,100 AF</strong></td>
</tr>
</tbody>
</table>

Based on the 2015 Draft Urban Water Management Plan demand analysis, ESP demands through the 2040 planning horizon are projected to be well below ESP capacity. As such, the total ESP capacity of 90,100 AF is sufficient to serve the region through 2040 and beyond.
With the completion of the San Vicente Dam Raise in July 2014, all ESP capacity has been established along with delivery capability to a significant portion of the region. The final project to be completed, the ESP-North County Pump Stations, will allow ESP delivery of treated water to the northernmost member agency service connections and is anticipated to be complete by 2019.

The actual amount of ESP water to be delivered to a particular member agency during an emergency event depends on many factors, including: member agency demands, local supplies, condition of Water Authority and member agency infrastructure, availability of supplies from Metropolitan, estimated duration of the emergency, and participation in the Transitional Special Agricultural Water Rate (TSAWR). The TSAWR established a class of service differential for ESP supplies, where participating agricultural customers do not pay the Water Authority Storage Charge and therefore receive a reduced level of service compared to Municipal and Industrial (M&I) customers during an emergency event. TSAWR customers also do not receive any benefit from carryover storage supplies. TSAWR customers, do however, pay for a portion of ESP costs through the Water Authority’s Infrastructure Access Charge. During an emergency event, reductions for TSAWR customers are twice that of M&I customers, with the difference allocated back to Commercial and Industrial customers.

To help clarify the Water Authority’s ESP delivery obligations to each member agency, Water Authority Operations and Maintenance Department generated the Emergency Water Delivery Plans. These plans are updated periodically to provide guidance on required ESP deliveries to member agencies based on type and timing of the emergency event.

The Water Authority’s current storage portfolio for emergency storage is as follows:

<table>
<thead>
<tr>
<th>Location</th>
<th>Capacity – Total (AF)</th>
<th>Volume Stored (AF)</th>
<th>Capacity – Remaining (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Vicente Reservoir</td>
<td>52,100</td>
<td>33,595</td>
<td>18,505</td>
</tr>
<tr>
<td>Lake Hodges</td>
<td>20,000</td>
<td>7,936</td>
<td>12,064</td>
</tr>
<tr>
<td>Olivenhain Reservoir¹</td>
<td>18,000</td>
<td>18,000</td>
<td>0</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td><strong>90,100</strong></td>
<td><strong>59,531</strong></td>
<td><strong>30,569</strong></td>
</tr>
</tbody>
</table>

¹ Actual Olivenhain Reservoir capacity is 24,000 AF, but includes 6,000 AF of operational storage obtained from Olivenhain Municipal Water District under a separate agreement.

During an ESP event, the level of service is calculated at 75 percent of the estimated rolling demand at the time of the event, with further reductions for agricultural customers. At current levels, the current ESP storage is approximately 66 percent of total capacity and is sufficient to meet ESP delivery obligations. Staff will continue to monitor demands and ESP storage levels to ensure that sufficient ESP storage is held, while also considering average storage pool loss due to evaporation and seepage.
**Carryover Storage**

Unlike emergency storage that is intended to sustain the region for a defined period of time, in the event of a catastrophic event such as an earthquake, carryover storage is intended to supplement regional water supplies during potential extended periods of drought and water supply shortages.

There are three primary benefits for carryover storage: 1) enhanced reliability with a readily available source of water, 2) increased system efficiency with the flexibility to serve from locally stored water rather than by the over-sizing of the Water Authority’s imported water transmission facilities, and 3) improved management of water supplies allowing the Water Authority to accept additional deliveries during wet periods to increase water availability during periods of shortage.

The concept of carryover storage was first approved in 2003, when the Board certified the Final Programmatic Environmental Impact Report for the *Regional Water Facilities Master Plan* (Master Plan), which included an additional 100,000 acre-foot carryover storage component as part of the San Vicente Dam Raise.

In 2008, the Final EIR/EIS for the Carryover Storage and San Vicente Dam Raise Project was certified by the Board and was added to the Capital Improvement Program at a cost of $300 million. In addition, the Water Authority also established agreements for groundwater storage in the Central Valley. These accounts with the Semitropic-Rosalind Water Bank Authority and the Semitropic Original Water Bank, allow for up to 70,000 AF of additional carryover storage capacity. Withdrawals from these water banks are limited to 14,000 AF per year. The funds for acquiring this groundwater storage were provided by the State as part of the Quantification Settlement Agreement in 2003.

The Water Authority’s current storage portfolio for carryover storage is as follows:

**Table 2. Current Water Authority Carryover Storage Pools (as of April 4, 2016)**

<table>
<thead>
<tr>
<th>Location</th>
<th>Capacity – Total (AF)</th>
<th>Volume Stored (AF)</th>
<th>Capacity – Remaining (AF)</th>
</tr>
</thead>
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<tr>
<td>San Vicente Reservoir</td>
<td>100,000</td>
<td>83,304</td>
<td>16,696</td>
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<tr>
<td>Semitropic-Rosalind Water Bank Authority</td>
<td>40,000</td>
<td>0</td>
<td>40,000</td>
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<tr>
<td>Semitropic Original Water Bank</td>
<td>30,000</td>
<td>16,117</td>
<td>13,883</td>
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<tr>
<td><strong>Sub Total</strong></td>
<td><strong>170,000</strong></td>
<td><strong>99,421</strong></td>
<td><strong>70,579</strong></td>
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</tbody>
</table>

In the Board approved 2010 *Urban Water Management Plan* and 2013 *Regional Water Facilities Optimization and Master Plan Update* (Master Plan Update), the basic planning assumption was that, when needed to offset an identified shortage, carryover storage would be withdrawn over a three-year period in equal increments.
As the Water Authority looks ahead to the long-term management and potential use of its carryover storage reserves, staff plans to develop, for Board consideration, a policy regarding carryover storage. Such a policy involves two central issues:

1. **The number of consecutive dry years over which carryover storage would be used.** The Water Authority’s current planning assumption is that carryover storage would be withdrawn over a three-year period in equal increments. However, given the recurring length of recent drought cycles as well as anticipated hydrologic changes due to climate change, it may be appropriate to extend the number of years that carryover storage should be available. For example, the last three dry cycles, using Sacramento River runoff, a key measurement in categorizing annual hydrology within the state, have lasted 6 years (1987-92), 4 years (2007-2010) and 4 years running for the current drought (2012-2015). In addition, this issue also encompasses the level of supply cutback that would even trigger access to regional carryover storage supplies. This level will be impacted by gains in water use efficiency over time that will “harden” demand and make it more challenging to reduce demand in response to a call for mandatory conservation.

2. **The appropriate target volume of carryover storage.** With the approval of the 2015 Urban Water Management Plan, planned for June 2016, new supply and demand forecasts will be adopted for the region. These updated forecasts, including projected dry-year demands and supplies, the impact of planned member agency drought-resilient local supplies coupled with need for flexibility to respond to expected highly variable hydrologic conditions to store water when it is available, and stored water loss due to evaporation and seepage will all impact the volume of carryover storage that should be maintained.

Staff plans to conduct an evaluation of carryover storage, considering these two policy issues, and return to the Board in the fall with a recommendation for a carryover storage policy. The policy recommendation will also address any impacts to the current carryover storage program as well as any financial implications for the Water Authority’s Stored Water Fund.

Prepared by: Jeremy Crutchfield, Senior Engineer
Eric Rubalcava, Senior Water Resource Specialist
Reviewed by: Robert R. Yamada, Director of Water Resources
Approved by: Sandra L. Kerl, Deputy General Manager

Attachment: Figure 1 - Emergency Storage Project Components
Emergency Storage Project Highlights

- Provides up to six months of emergency water storage in the San Diego region (90,100 acre-feet)
- Establishes emergency water storage at Hodges, Olivenhain, and San Vicente Reservoirs
- Expands the aqueduct system to allow emergency water distribution throughout the county

LEGEND

- Emergency Storage Project Pump Station
- Emergency Storage Project Pipeline
- Water Authority Aqueducts

FIGURE 1 - EMERGENCY STORAGE PROJECT COMPONENTS
August 17, 2016

Attention: Water Planning Committee

Emergency Storage Project Storage Requirements (Information)

Purpose
This information item expands upon the Report on Water Authority Emergency and Carryover Storage provided at the April 2016 Water Planning Committee Meeting, focusing on local storage and updated emergency storage requirements for the region based on the Water Authority’s adopted 2015 Urban Water Management Plan (UWMP).

Background
Each month, staff provides the Water Planning Committee with the Water Resources Report. This report provides monthly information on rainfall, water deliveries, water use and storage. The report includes updated storage amounts in each reservoir within the Water Authority’s service area. The region has 746,385 acre-feet (AF) storage capacity in 24 reservoirs shown in Figure 1. Eight of these reservoirs provide the capability to store imported untreated water delivered from the First or Second Aqueduct and include San Vicente, Lower Otay, Sweetwater, Olivenhain and Miramar Reservoirs as well as Lake Murray, Lake Poway and Lake Dixon. Despite continued drought conditions and higher temperatures, storage is nearly twenty percent higher than it was at this time last year (328,820 AF). Reductions in water use driven by on-going drought and emergency water conservation regulations imposed by the state, combined with supply development efforts including the commencement of commercial operations of the Claude “Bud” Lewis Carlsbad Desalination Plant, allowed the Water Authority to store available imported water supplies in the newly expanded San Vicente Reservoir, thus increasing available regional storage.

In total, the Water Authority owns 196,889 AF of regional storage capacity and currently has available 167,682 AF in its local carryover, emergency and operational storage pools. An informational report on the Water Authority’s emergency and carryover storage programs was provided for the April 2016 Water Planning Committee Meeting, and is included as an attachment to this update. In particular, the report described the Water Authority’s emergency storage facilities and service objectives. The Emergency Storage Project (ESP) consists of a system of reservoirs, pipelines, pump stations, and other conveyance facilities that increase regional water storage capacity and allow delivery of stored emergency water to member agencies during a prolonged regional supply interruption. The objective of the ESP is to maintain a 75 percent level of service following an emergency event that severs, either partially or completely, the Water Authority’s imported water delivery pipelines.

Discussion
In June 2016, the Board adopted the 2015 Urban Water Management Plan (UWMP) that projects regional supplies and demands through planning year 2040. These updated forecasts were used to update the Water Authority’s ESP Model developed as part of the Emergency Water Delivery
Plans. The model evaluates net demands and member agency local supplies (i.e.: groundwater, recycling, seawater desalination and conservation) to determine the required Water Authority deliveries out of ESP storage should an emergency event occur. Table 2 below compares the required ESP storage volumes based on forecasts made during the 1996 ESP Final Environmental Impact Report/Environmental Impact Statement (ESP Final EIR/EIS) and those resulting from the 2010 and 2015 UMWP.

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Original</strong> (based on 1996 ESP Final EIR/EIS)</td>
<td>76,700</td>
<td>83,400</td>
<td>90,100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Previous</strong> (based on 2010 UMWP)</td>
<td>39,571</td>
<td>44,953</td>
<td>49,551</td>
<td>53,474</td>
<td>-</td>
</tr>
<tr>
<td><strong>Current</strong> (based on 2015 UWMP)</td>
<td>30,778</td>
<td>35,139</td>
<td>38,115</td>
<td>40,376</td>
<td>43,124</td>
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</tbody>
</table>

As shown in the table, the amount of forecasted ESP storage required has significantly decreased from the time the guiding analysis was performed as part of the ESP Final EIR/EIS to the most recent forecast in the 2015 UWMP. In fact, demands for planning year 2030 were 56 percent higher in the 1996 forecast (993,400 AF) as compared to 636,900 AF in the 2015 UWMP. The result is that the Water Authority has ample storage capacity to meet ESP delivery requirements well beyond 2040. Staff will continue to monitor demands and ESP storage levels to ensure that sufficient ESP storage is held.

Finally, staff plans to return to the Board in October with a recommendation for a carryover storage policy that will address two central issues:

1. The number of consecutive dry years over which carryover storage would be used.
2. The appropriate target volume of carryover storage.

The policy recommendation will also address any impacts to the current carryover storage program as well as any financial implications for the Water Authority’s Stored Water Fund.

Prepared by: Jeremy Crutchfield, Senior Engineer  
Reviewed by: Toby Roy, Water Resources Manager  
Robert R. Yamada, Director of Water Resources  
Approved by: Sandra L. Kerl, Deputy General Manager  
Attachments: Figure 1 – San Diego County Reservoirs  
Attachment 1 - April 20, 2016, Report on Water Authority Emergency and Carryover Storage
San Diego County Water Authority
Proposed Policy Guidelines for Managing Carryover Storage Supplies
November 30, 2016

Water Authority carryover storage capacity includes 100,000 acre-feet (AF) of in-region surface storage at San Vicente Reservoir and also an out-of-region groundwater banking program at 70,000 acre-feet (AF) capacity in the Central Valley. Through these efforts, the Water Authority can store water available during wet periods for use during dry-year shortages to minimize or avoid cutbacks to its member agencies.

The following proposed guidelines provide policy direction to staff on how the Water Authority’s carryover storage supplies should be managed during supply shortage events and normal (non-shortage) periods to help minimize or avoid potential cutbacks to its member agencies during drought.

A. Withdrawal of Carryover Supplies during Dry-Year Shortage Events

1. **The trigger to evaluate utilization of carryover supplies during shortage events is when any of the Water Authority’s supplies are cutback and supply is insufficient to meet projected demand**

   Should any of the Water Authority’s supplies experience a cutback or reduction in deliveries, staff will evaluate the need to withdrawal supplies from carryover storage. This includes potential supply allocations from Metropolitan, reduction in Colorado River transfers or decrease in deliveries from the Claude “Bud” Lewis Carlsbad Desalination Project.

2. **Any evaluation will initially plan for carryover storage surface supplies to be utilized over five consecutive dry-years**

   Under the Urban Water Management Planning Act, agencies are currently required to evaluate supply reliability over three consecutive dry years. The basic planning assumption in the Water Authority’s 2015 Urban Water Management Plan (UWMP) is that carryover storage be withdrawn over a three-year period in equal increments. As stated in the Department of Water Resources (DWR) 2013 California Water Plan Update: “Climate change could extend California’s drought periods and make them worse. Warming temperatures and changes in rainfall and runoff patterns may exacerbate the frequency and intensity of droughts.” Using the Sacramento River runoff index to measure annual hydrology within the state, the last three dry cycles have lasted six years (1987-1992), four years (2007-2010) and five years running for the current drought (2012-2016). Without above average runoff in year 2011, the state would have experienced a dry cycle lasting nine years. In identifying ways to improve shortage contingency planning throughout the state, Governor Brown’s May 2016 Executive Order requires DWR to update plan requirements to include planning for at least a five-year drought. To ensure that the Water Authority and its member agencies are adequately planning for and responding to future droughts, withdrawal of carryover supplies will be evaluated under five consecutive dry-years of shortage.
3. The amount of carryover surface supplies used annually over the five-year period will be handled on a case-by-case basis, with a general guideline of withdrawing surface storage supplies evenly over the five-year period.

As stated in the Water Authority’s 2015 UWMP there are a number of factors to consider when determining the utilization of carryover supplies to reduce or eliminate shortages. The plan states that the storage take amount should be handled on a case-by-case basis, considering such items as, current demand trends, regional and local supply availability, hydrologic conditions, and storage supply available for withdrawal. There are other political issues that could also impact the operation of carryover storage supplies during a shortage event, such as state drought response regulations and activities. For these reasons, the carryover storage policy guidelines should be flexible to allow for the uncertainties and complexities associated managing supplies during a drought.

As a starting point in the detailed analysis, the general rule will be that surface storage supplies be withdrawn evenly throughout the five year period. This is a conservative and reliable drought management approach that helps avoid depletion of storage reserves in the early years and lessen severe cutbacks in subsequent years of the shortage event. It is important to note that this is just a general guideline to begin the analysis and actual withdrawals may differ from this rule, providing the Board with flexibility in responding to specific shortage situations.

At the end of five years, if carryover surface water supplies from San Vicente Reservoir are no longer available, deliveries could be made from the Central Valley Groundwater Bank and Emergency Storage Program storage reserves. Deliveries from the Groundwater Bank are made after carryover surface water supplies, because the costs associated with withdrawing supplies from groundwater bank are higher and there are no losses due to evaporation.

4. Supplies taken from carryover storage will be considered a regional supply to be combined with the Water Authority’s supplies for delivery to the member agencies’ municipal and industrial customers.

Carryover storage supplies are combined with long-term Colorado River transfers and seawater desalination supplies in the Water Authority’s system to provide additional regional reliability to each of the Water Authority’s member agencies. When determining member agencies’ M&I allocations during a shortage, the supplies available to allocate will total both the Water Authority’s core supplies and dry-year supplies, such as carryover storage and potential dry-year transfers.

5. Carryover storage supplies will not be available to TSAWR customers

In March 2015, the Water Authority Board approved extending the TSAWR program until December 31, 2020. As part of the program, TSAWR deliveries to the member agencies are exempt from the Storage Charge calculation. In return, agricultural customers receive half the municipal and industrial (M&I) level of service under the Emergency Storage Program and no delivery under the Carryover Storage Program.
(CSP). The cutback to TSAWR deliveries during a shortage is equivalent to the cutback level from Metropolitan. In April 2012, the Board approved modifications to the Water Authority’s Water Shortage and Drought Response Plan allocation methodology. This included a methodology to ensure that during shortages, CSP deliveries go just to M&I customers.

B. Evaluation of Carryover Storage Levels during Normal Periods

6. The necessary carryover storage levels maintained during normal periods will be evaluated following a shortage event when carryover supplies have been withdrawn and at least annually by May of each year.

It is important to often conduct an evaluation of carryover storage levels using updated information to ensure adequate reserves for potential dry-year shortages. If a prolonged shortage situation could be reasonably foreseen within the next two years, staff would work to ensure that carryover storage reserves are full going into a potential drought period. The analysis would be conducted consistent with these policy guidelines and be conducted at the following times:

- After a shortage event to determine how much water, if any, should be put into storage to replenish reserve levels.
- During normal periods, the evaluation will be conducted once a year by May when hydrologic conditions are more certain. As part of this annual evaluation, staff will also conduct a review of emergency storage reserves and provide the Board with an informational report that includes a discussion on both carryover and emergency storage reserves.
- More frequently, if conditions warrant the evaluation.

7. Maintain a target volume of 70,000AF and maximum volume of 100,000AF in San Vicente carryover storage reserves during normal (non-shortage) periods to ensure the region is prepared for extended shortages due to drought.

For financial and supply planning purposes, a target volume is being proposed to ensure the region has stored water, or the ability to purchase additional water for storage, to manage shortage events. The target volume will be re-evaluated on a periodic basis to determine if the amount is appropriate taking into account current water demand trends and supply availability. The initial 70,000AF target is based on a number of factors, including current regional water demand trends, available local, regional and imported water supplies and the recent shortage evaluation conducted for the region under the State Water Resources Control Board May 2016 Emergency Regulation.
May 17, 2017

Attention: Water Planning Committee

Water Resources Report

Purpose
This report includes the following exhibits for April 2017:

- Rainfall totals for the month and water year to date
- Deliveries to Member Agencies (Exhibit A)
- Water Use by Member Agencies (Exhibit B)
- Potable M&I Water Use (Exhibit C)
- Storage Available to Member Agencies (Exhibit D)
- Firm Water Deliveries to Member Agencies (Exhibit E)
- Summary of Water Authority Member Agency Operations (Exhibit F)

<table>
<thead>
<tr>
<th>Station</th>
<th>April 2017</th>
<th>Normal</th>
<th>2016-2017 WATER YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(October 2016 through September 2017)</td>
</tr>
<tr>
<td></td>
<td>Actual</td>
<td>Normal</td>
<td>Actual</td>
</tr>
<tr>
<td>Lindbergh Field (N.O.A.A.)</td>
<td>0.01</td>
<td>0.78</td>
<td>11.71</td>
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<tr>
<td>Ramona Airport (Helix W.D.)</td>
<td>0.00</td>
<td>1.40</td>
<td>21.58</td>
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<tr>
<td>Lake Cuyamaca (Helix W.D.)</td>
<td>0.06</td>
<td>2.67</td>
<td>32.25</td>
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<tr>
<td>Lake Henshaw (Vista I.D.)</td>
<td>0.00</td>
<td>1.86</td>
<td>31.68</td>
</tr>
</tbody>
</table>

Sources: National Weather Service, Helix Water District, Vista Irrigation District.
### MONTHLY WATER RESOURCES REPORT

**Water Deliveries to Member Agencies**

**(acre-feet)**

**APRIL 2017**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlsbad M.W.D.</td>
<td>1,424.9</td>
<td>1,110.5</td>
<td>14,548.5</td>
<td>13,409.8</td>
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<td>Del Mar, City of</td>
<td>74.2</td>
<td>71.0</td>
<td>907.9</td>
<td>891.8</td>
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<td>189.2</td>
<td>2,578.3</td>
<td>2,286.4</td>
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<td>National City, City of</td>
<td>112.3</td>
<td>104.8</td>
<td>3,839.4</td>
<td>2,414.7</td>
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<td>Oceanside, City of</td>
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<td>1,587.3</td>
<td>21,011.4</td>
<td>19,329.7</td>
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<td>Olivenhain M.W.D.</td>
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<td>1,311.7</td>
<td>17,177.4</td>
<td>15,673.4</td>
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<td>Otay W.D.</td>
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<td>2,148.5</td>
<td>26,782.9</td>
<td>25,233.7</td>
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<td>San Diego, City of</td>
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<td>21,420.4</td>
<td>216,722.0</td>
<td>259,701.1</td>
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<td>San Dieguito W.D.</td>
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<td>405.8</td>
<td>4,356.1</td>
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<td>7,776.8</td>
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<td>South Bay I.D.</td>
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<td>915.2</td>
<td>13,955.1</td>
<td>10,142.4</td>
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<td>1,096.6</td>
<td>14,156.4</td>
<td>12,674.4</td>
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<td>4,467.3</td>
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<td><strong>Deliveries To SDCWA Agencies</strong></td>
<td>36,957.7</td>
<td>42,550.3</td>
<td>481,254.1</td>
<td>502,000.9</td>
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<tr>
<td><strong>Less: Deliveries to SDCWA Storage</strong></td>
<td>574.7</td>
<td>8,291.8</td>
<td>56,745.2</td>
<td>100,141.4</td>
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<td><strong>TOTAL MEMBER AGENCY DELIVERIES</strong></td>
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<td>34,258.5</td>
<td>424,508.9</td>
<td>401,859.5</td>
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<td>Deliveries to South Coast Water District</td>
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<td>9.9</td>
<td>89.2</td>
<td>141.1</td>
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<td>Deliveries From SDCWA Storage</td>
<td>3,708.7</td>
<td>-</td>
<td>34,064.4</td>
<td>4,801.5</td>
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</tbody>
</table>

1 April 2017 storage account deliveries totaled 221 AF to San Vicente Reservoir and 353 AF to Lower Otay Reservoir through city of San Diego connections. April 2016 storage account deliveries totaled 8,264 AF and 27 AF to San Vicente and Lower Otay Reservoirs, respectively, through city of San Diego connections.

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# MONTHLY WATER RESOURCES REPORT

## Estimated Water Use by Member Agency

### APRIL 2017

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<th>AGENCY</th>
<th>Imported Source S.D.C.W.A.</th>
<th>Surface</th>
<th>Groundwater</th>
<th>Recycled</th>
<th>Desalination</th>
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<td>-</td>
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<td>-</td>
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<td>-</td>
<td>65.2</td>
<td>62.2</td>
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<td>1,311.7</td>
<td>-</td>
<td>-</td>
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<td>1,674.0</td>
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<tr>
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<td>2,414.8</td>
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<td>-</td>
<td>-</td>
<td>320.8</td>
<td>2,735.6</td>
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<tr>
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<td>846.3</td>
<td>685.2</td>
<td>-</td>
<td>-</td>
<td>47.8</td>
<td>894.1</td>
</tr>
<tr>
<td>Pendleton M.C.B. 2</td>
<td>9.3</td>
<td>12.7</td>
<td>-</td>
<td>460.0</td>
<td>461.3</td>
<td>-</td>
</tr>
<tr>
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<td>850.1</td>
<td>667.7</td>
<td>-</td>
<td>-</td>
<td>15.0</td>
<td>865.1</td>
</tr>
<tr>
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<td>1,654.3</td>
<td>1,446.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,654.3</td>
</tr>
<tr>
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<td>375.7</td>
<td>314.2</td>
<td>-</td>
<td>-</td>
<td>70.0</td>
<td>445.7</td>
</tr>
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<td>452.5</td>
<td>373.1</td>
<td>-</td>
<td>-</td>
<td>154.6</td>
<td>607.1</td>
</tr>
<tr>
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<td>11,872.6</td>
<td>12,406.9</td>
<td>2,564.1</td>
<td>47.7</td>
<td>35.3</td>
<td>14,924.4</td>
</tr>
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<td>305.1</td>
<td>405.9</td>
<td>239.5</td>
<td>-</td>
<td>84.6</td>
<td>629.2</td>
</tr>
<tr>
<td>Santa Fe I.D.</td>
<td>551.2</td>
<td>667.1</td>
<td>321.8</td>
<td>-</td>
<td>61.6</td>
<td>934.6</td>
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<td>South Bay I.D. 1</td>
<td>706.5</td>
<td>899.8</td>
<td>433.6</td>
<td>-</td>
<td>166.4</td>
<td>1,140.1</td>
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<td>765.2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>291.7</td>
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<td>1,519.0</td>
<td>-</td>
<td>-</td>
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<td>1,338.6</td>
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<td>1,343.9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,518.0</td>
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<tr>
<td>Yuima M.W.D. 4</td>
<td>426.0</td>
<td>265.6</td>
<td>-</td>
<td>520.2</td>
<td>415.2</td>
<td>946.2</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td><strong>32,989.6</strong></td>
<td><strong>32,711.8</strong></td>
<td><strong>5,790.1</strong></td>
<td><strong>1,360.0</strong></td>
<td><strong>1,667.5</strong></td>
<td><strong>42,320.3</strong></td>
</tr>
<tr>
<td><strong>PERCENT CHANGE</strong></td>
<td><strong>1%</strong></td>
<td><strong>1820%</strong></td>
<td><strong>-18%</strong></td>
<td><strong>5%</strong></td>
<td><strong>-</strong></td>
<td><strong>16%</strong></td>
</tr>
</tbody>
</table>

1. Brackish groundwater use included in groundwater totals.
2. Pendleton's imported water use includes water delivered by South Coast Water District.
3. Poway recycled use is reported quarterly; 1/3 of quarterly estimate is used as a current monthly estimate.
4. Includes supplemental groundwater use in Improvement District A and other private water companies.

[Generated: 5/10/17 12:22 PM]
## MONTHLY WATER RESOURCES REPORT

**Potable M&I Water Use for State Water Resources Control Board Emergency Regulation Tracking**

### (acre-feet)

#### April 2017

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>April 2017</th>
<th>April 2013</th>
<th>23 Months Ended April 2017</th>
<th>CY 2013 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlsbad M.W.D.</td>
<td>1,348.9</td>
<td>1,479.3</td>
<td>26,835.7</td>
<td>33,370.3</td>
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<tr>
<td>Del Mar, City of</td>
<td>74.2</td>
<td>84.4</td>
<td>1,728.0</td>
<td>2,142.3</td>
</tr>
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<td>Escondido, City of</td>
<td>1,541.6</td>
<td>1,620.0</td>
<td>30,241.3</td>
<td>40,628.3</td>
</tr>
<tr>
<td>Fallbrook P.U.D.</td>
<td>641.7</td>
<td>670.1</td>
<td>12,624.3</td>
<td>15,971.5</td>
</tr>
<tr>
<td>Helix W.D.</td>
<td>2,410.7</td>
<td>2,787.8</td>
<td>52,818.0</td>
<td>65,563.9</td>
</tr>
<tr>
<td>Lakeside W.D.</td>
<td>289.9</td>
<td>355.7</td>
<td>6,241.2</td>
<td>8,002.5</td>
</tr>
<tr>
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<td>2,402.5</td>
<td>42,585.4</td>
<td>53,629.7</td>
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<tr>
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<td>1,718.0</td>
<td>31,386.1</td>
<td>39,696.8</td>
</tr>
<tr>
<td>Otay W.D.</td>
<td>2,414.8</td>
<td>2,680.9</td>
<td>49,886.2</td>
<td>61,303.3</td>
</tr>
<tr>
<td>Padre Dam M.W.D.</td>
<td>846.3</td>
<td>911.7</td>
<td>16,681.7</td>
<td>21,407.7</td>
</tr>
<tr>
<td>Pendleton Military Reservation</td>
<td>469.3</td>
<td>677.1</td>
<td>11,129.6</td>
<td>14,846.7</td>
</tr>
<tr>
<td>Poway, City of</td>
<td>850.1</td>
<td>1,012.1</td>
<td>16,471.5</td>
<td>22,978.9</td>
</tr>
<tr>
<td>Rainbow M.W.D.</td>
<td>923.9</td>
<td>1,031.1</td>
<td>17,516.7</td>
<td>21,015.1</td>
</tr>
<tr>
<td>Ramona M.W.D.</td>
<td>259.9</td>
<td>404.9</td>
<td>6,368.8</td>
<td>9,171.1</td>
</tr>
<tr>
<td>Rincon Del Diablo M.W.D.</td>
<td>452.5</td>
<td>546.9</td>
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<td>12,364.4</td>
</tr>
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<td>15,815.1</td>
<td>309,100.9</td>
<td>374,882.7</td>
</tr>
<tr>
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<td>544.6</td>
<td>697.9</td>
<td>10,153.3</td>
<td>12,525.5</td>
</tr>
<tr>
<td>Santa Fe I.D.</td>
<td>873.0</td>
<td>852.6</td>
<td>16,201.3</td>
<td>21,560.0</td>
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<tr>
<td>Sweetwater Authority</td>
<td>1,513.8</td>
<td>1,762.9</td>
<td>33,072.3</td>
<td>40,581.9</td>
</tr>
<tr>
<td>Vallecitos W.D.</td>
<td>1,298.5</td>
<td>1,351.6</td>
<td>24,371.7</td>
<td>30,586.1</td>
</tr>
<tr>
<td>Valley Center M.W.D.</td>
<td>628.4</td>
<td>701.8</td>
<td>13,060.5</td>
<td>17,561.9</td>
</tr>
<tr>
<td>Vista I.D.</td>
<td>1,518.0</td>
<td>1,556.0</td>
<td>31,193.4</td>
<td>36,707.9</td>
</tr>
<tr>
<td>Yuima M.W.D.</td>
<td>599.3</td>
<td>1,036.4</td>
<td>11,204.9</td>
<td>18,386.6</td>
</tr>
</tbody>
</table>

**TOTALS**                      | 37,700.4   | 42,156.8   | 780,784.1                  | 974,888.1 |

**PERCENT CHANGE**               | -11%       | -20%       |                           |

**NOTES:**

1. **SWRCB emergency regulation went into effect June 2015.**
2. **The 2013 baseline is utilized to be consistent with the May 2015 SWRCB emergency drought regulation, which was partially rescinded on April 26 2017.**
3. **Excludes recycled water use and Transitional Special Agricultural Water Rate program deliveries. TSAWR deliveries are estimated for months where agencies have not reported.**
4. **Baseline includes January-April 2013 and June-December 2013, twice, in order to establish a base period of 23 months.**
### MONTHLY WATER RESOURCES REPORT

#### Reservoir Storage

**(acre-feet)**

#### APRIL 2017

<table>
<thead>
<tr>
<th>Member Agency</th>
<th>Reservoir</th>
<th>Capacity</th>
<th>APRIL 2017</th>
<th>% of Capacity</th>
<th>APRIL 2016</th>
<th>% of Capacity</th>
<th>Change During Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlsbad M.W.D.</td>
<td>Maerkle</td>
<td>600</td>
<td>178</td>
<td>30%</td>
<td>70</td>
<td>12%</td>
<td>69</td>
</tr>
<tr>
<td>Escondido, City of 1</td>
<td>Dixon</td>
<td>2,606</td>
<td>2,352</td>
<td>90%</td>
<td>2,365</td>
<td>91%</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Wohlford</td>
<td>6,506</td>
<td>2,042</td>
<td>31%</td>
<td>2,006</td>
<td>31%</td>
<td>(264)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>9,112</td>
<td>4,394</td>
<td>48%</td>
<td>4,371</td>
<td>48%</td>
<td>(191)</td>
</tr>
<tr>
<td>Fallbrook P.U.D.</td>
<td>Red Mountain</td>
<td>1,335</td>
<td>493</td>
<td>37%</td>
<td>443</td>
<td>33%</td>
<td>32</td>
</tr>
<tr>
<td>Helix W.D.</td>
<td>Cuyamaca</td>
<td>8,195</td>
<td>2,748</td>
<td>34%</td>
<td>856</td>
<td>10%</td>
<td>(1,003)</td>
</tr>
<tr>
<td></td>
<td>Jennings</td>
<td>9,790</td>
<td>8,734</td>
<td>89%</td>
<td>8,729</td>
<td>89%</td>
<td>9</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>17,985</td>
<td>11,482</td>
<td>64%</td>
<td>9,584</td>
<td>53%</td>
<td>(1,844)</td>
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<tr>
<td>Poway, City of</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6)</td>
</tr>
<tr>
<td></td>
<td>Poway</td>
<td>3,330</td>
<td>3,006</td>
<td>90%</td>
<td>3,108</td>
<td>93%</td>
<td>(59)</td>
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<td>Rainbow M.W.D.</td>
<td>Morro Hill</td>
<td>465</td>
<td>164</td>
<td>35%</td>
<td>117</td>
<td>25%</td>
<td>(50)</td>
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<td></td>
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<td>2,838</td>
<td>24%</td>
<td>2,448</td>
<td>20%</td>
<td>(105)</td>
</tr>
<tr>
<td>San Diego, City of 2</td>
<td>Barrett</td>
<td>34,806</td>
<td>12,687</td>
<td>36%</td>
<td>2,166</td>
<td>6%</td>
<td>(538)</td>
</tr>
<tr>
<td></td>
<td>El Capitan</td>
<td>112,807</td>
<td>50,171</td>
<td>44%</td>
<td>25,339</td>
<td>22%</td>
<td>(374)</td>
</tr>
<tr>
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<td>Hodges</td>
<td>10,633</td>
<td>14,746</td>
<td>139%</td>
<td>4,476</td>
<td>42%</td>
<td>(526)</td>
</tr>
<tr>
<td></td>
<td>Lower Otay</td>
<td>47,067</td>
<td>44,663</td>
<td>95%</td>
<td>34,142</td>
<td>73%</td>
<td>(821)</td>
</tr>
<tr>
<td></td>
<td>Miramar</td>
<td>6,682</td>
<td>5,577</td>
<td>83%</td>
<td>5,424</td>
<td>81%</td>
<td>2,022</td>
</tr>
<tr>
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<td>Morena</td>
<td>50,694</td>
<td>4,736</td>
<td>9%</td>
<td>1,394</td>
<td>3%</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Murray</td>
<td>4,684</td>
<td>3,499</td>
<td>75%</td>
<td>4,106</td>
<td>88%</td>
<td>(224)</td>
</tr>
<tr>
<td></td>
<td>San Vicente</td>
<td>91,695</td>
<td>65,494</td>
<td>71%</td>
<td>49,108</td>
<td>54%</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>Sutherland</td>
<td>29,508</td>
<td>13,582</td>
<td>46%</td>
<td>2,492</td>
<td>8%</td>
<td>790</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<td>388,576</td>
<td>215,155</td>
<td>55%</td>
<td>12,847</td>
<td>33%</td>
<td>(2,279)</td>
</tr>
<tr>
<td>San Diego W/D/Santa Fe I D</td>
<td>San Diego</td>
<td>883</td>
<td>385</td>
<td>44%</td>
<td>396</td>
<td>45%</td>
<td>4</td>
</tr>
<tr>
<td>Sweetwater Authority</td>
<td>Loveland</td>
<td>25,400</td>
<td>13,683</td>
<td>54%</td>
<td>7,558</td>
<td>30%</td>
<td>(704)</td>
</tr>
<tr>
<td></td>
<td>Sweetwater</td>
<td>28,079</td>
<td>12,775</td>
<td>45%</td>
<td>3,385</td>
<td>12%</td>
<td>(429)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>53,479</td>
<td>26,458</td>
<td>49%</td>
<td>10,943</td>
<td>20%</td>
<td>275</td>
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<tr>
<td>Valley Center M.W.D.</td>
<td>Turner</td>
<td>1,612</td>
<td>1,612</td>
<td>100%</td>
<td>1,200</td>
<td>74%</td>
<td>-</td>
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<tr>
<td>Vista I.D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(540)</td>
</tr>
<tr>
<td><strong>MEMBER AGENCY TOTAL WATER IN STORAGE</strong></td>
<td></td>
<td>541,151</td>
<td>281,360</td>
<td>52%</td>
<td>167,004</td>
<td>31%</td>
<td>(91)</td>
</tr>
<tr>
<td>Water Authority 4</td>
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<tr>
<td>Olivenhain</td>
<td>24,774</td>
<td>19,351</td>
<td>20,983</td>
<td>187</td>
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<tr>
<td>San Vicente - Comprised of:</td>
<td>157,663</td>
<td>131,072</td>
<td>123,710</td>
<td>(4,336)</td>
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<td>Emergency</td>
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<td>33,334</td>
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<td>Carryover</td>
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<td>(254)</td>
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<td>Operating</td>
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<td>176</td>
<td>(3,496)</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td>182,437</td>
<td>150,423</td>
<td>144,693</td>
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<td>(4,149)</td>
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<td>Water Authority Storage Accounts 5</td>
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<tr>
<td>El Capitan</td>
<td>20,000</td>
<td>7,113</td>
<td>8,013</td>
<td>(479)</td>
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<td></td>
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<tr>
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<td>2,199</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Lower Otay</td>
<td>2,843</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweetwater (Temporary)</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL WATER IN STORAGE</strong></td>
<td>743,588</td>
<td>442,839</td>
<td>60%</td>
<td>321,909</td>
<td>43%</td>
<td>(4,541)</td>
<td></td>
</tr>
</tbody>
</table>

| OTHER AGENCIES | | | | |
| Metropolitan Water District | Skinner | 44,264 | 36,441 | 82% | 38,264 | 86% | (953) |
| Diamond Valley | 810,000 | 673,834 | 83% | 336,770 | 42% | (12,061) |
| State Water Project | Oroville | 3,537,577 | 2,621,552 | 74% | 3,399,820 | 96% | (59,570) |
| **TOTAL OTHER WATER IN STORAGE** | 4,391,841 | 3,331,827 | 76% | 3,774,854 | 86% | (48,462) |

1 Includes storage allocated to Escondido Mutual Water Co. or its rights to a portion of the unallocated water in Lake Henshaw.
2 Includes reserves subject to city’s outstanding commitments to San Diego W/D, and California American Mutual Water Co. (Cal-Am).
3 Includes allocated and unallocated water in Lake Henshaw.
4 Water Authority carryover, emergency and operating pools in San Vicente Reservoir were established in June 2015. City of San Diego presently states total capacity in San Vicente at 249,358 AF, with the Water Authority portion being 157,663 AF and the remaining capacity, 91,695 AF, allocable to the city. Figures for April 2017 include evaporation/seepage estimates.
5 No defined capacities for storage accounts in city and Sweetwater Authority reservoirs. Figures for March 2017 include evaporation/seepage estimates.
## Tier 1 Estimated Deliveries to Member Agencies

**Calendar Year 2017 to Date (April)**

<table>
<thead>
<tr>
<th>Member Agency</th>
<th>CY2017 Tier 1 Threshold</th>
<th>CYTD Firm Deliveries</th>
<th>% of Tier 1 Threshold (Pre-QSA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlsbad M.W.D.</td>
<td>12,376.0</td>
<td>3,077.5</td>
<td>24.9%</td>
</tr>
<tr>
<td>Del Mar, City of</td>
<td>935.0</td>
<td>211.7</td>
<td>22.6%</td>
</tr>
<tr>
<td>Escondido, City of</td>
<td>17,859.0</td>
<td>2,256.4</td>
<td>12.6%</td>
</tr>
<tr>
<td>Fallbrook P.U.D.</td>
<td>10,325.0</td>
<td>2,038.0</td>
<td>19.7%</td>
</tr>
<tr>
<td>Helix W.D.</td>
<td>25,519.0</td>
<td>5,364.3</td>
<td>21.0%</td>
</tr>
<tr>
<td>Lakeside M.W.D.</td>
<td>3,168.0</td>
<td>633.1</td>
<td>20.0%</td>
</tr>
<tr>
<td>Oceanside, City of</td>
<td>19,383.0</td>
<td>5,272.7</td>
<td>27.2%</td>
</tr>
<tr>
<td>Olivenhain M.W.D.</td>
<td>13,071.0</td>
<td>3,889.5</td>
<td>29.8%</td>
</tr>
<tr>
<td>Otay W.D.</td>
<td>21,390.0</td>
<td>6,910.0</td>
<td>32.3%</td>
</tr>
<tr>
<td>Padre Dam M.W.D.</td>
<td>9,939.0</td>
<td>2,399.9</td>
<td>24.1%</td>
</tr>
<tr>
<td>Pendleton M.C.B./South Coast W.D.</td>
<td>758.0</td>
<td>27.0</td>
<td>3.6%</td>
</tr>
<tr>
<td>Poway, City of</td>
<td>9,348.0</td>
<td>1,403.3</td>
<td>15.0%</td>
</tr>
<tr>
<td>Rainbow M.W.D.</td>
<td>19,018.0</td>
<td>3,337.1</td>
<td>17.5%</td>
</tr>
<tr>
<td>Ramona M.W.D.</td>
<td>8,052.0</td>
<td>901.0</td>
<td>11.2%</td>
</tr>
<tr>
<td>Rincon Del Diablo M.W.D.</td>
<td>5,482.0</td>
<td>1,136.0</td>
<td>20.7%</td>
</tr>
<tr>
<td>San Diego, City of</td>
<td>144,555.0</td>
<td>41,575.6</td>
<td>28.8%</td>
</tr>
<tr>
<td>San Dieguito W.D.</td>
<td>3,116.0</td>
<td>716.5</td>
<td>23.0%</td>
</tr>
<tr>
<td>Santa Fe I.D.</td>
<td>5,226.0</td>
<td>929.3</td>
<td>17.8%</td>
</tr>
<tr>
<td>Sweetwater Authority</td>
<td>9,650.0</td>
<td>3,898.0</td>
<td>40.4%</td>
</tr>
<tr>
<td>Vallecitos W.D.</td>
<td>10,557.0</td>
<td>2,443.0</td>
<td>23.1%</td>
</tr>
<tr>
<td>Valley Center M.W.D.</td>
<td>29,774.0</td>
<td>3,781.3</td>
<td>12.7%</td>
</tr>
<tr>
<td>Vista I.D.</td>
<td>11,876.0</td>
<td>4,454.2</td>
<td>37.5%</td>
</tr>
<tr>
<td>Yuima M.W.D.</td>
<td>2,165.0</td>
<td>532.4</td>
<td>24.6%</td>
</tr>
</tbody>
</table>

**MEMBER AGENCY TOTALS**

<table>
<thead>
<tr>
<th>CYTD Firm Deliveries</th>
<th>% of Tier 1 Threshold (Pre-QSA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>393,542.0</td>
<td>24.7%</td>
</tr>
</tbody>
</table>

Less: QSA deliveries-calendar year 2017  
Deliveries to CWA storage-calendar year 2017  
MWD Under-10% Flows-calendar year 2017  
Deliveries from CWA storage-calendar year 2017  
Water Authority WPA desalination deliveries-calendar year 2017

**Estimated Tier 1 deliveries calendar year to date**

<table>
<thead>
<tr>
<th>CYTD Firm Deliveries</th>
<th>% of Tier 1 Threshold (Pre-QSA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>27,226.2</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

**Invoiced Tier 1 deliveries calendar year to date**

<table>
<thead>
<tr>
<th>CYTD Firm Deliveries</th>
<th>% of Tier 1 Threshold (Pre-QSA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26,060.0</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

---

1 Tier 1 threshold is 60% of a member agency's historic maximum year firm demand.
2 Carlsbad MWD and Vallecitos WD deliveries exclude local desalination supply transported via Water Authority system.
3 Includes storage puts to San Vicente Reservoir, forced deliveries or deliveries to Olivenhain Reservoir.
4 Includes sales from Water Authority storage accounts, including Olivenhain Reservoir.
5 Estimated Tier 1 deliveries are based on member agency deliveries net of QSA deliveries, seawater desalination and storage puts/takes. Invoiced deliveries are as reported on Metropolitan's invoice. Difference between Estimated and Invoiced Deliveries is explained by storage puts or takes of pre-deliveries in Twin Oaks Valley Water Treatment Plant (TOVWTP) or member agency treatment plants.
MONTHLY WATER RESOURCES REPORT
Summary of Water Authority Member Agency Operations

APRIL 2017

Member Agency Deliveries (AF)

<table>
<thead>
<tr>
<th></th>
<th>March</th>
<th>Previous 12 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imported &amp; Desal</td>
<td>36,383</td>
<td>34,259</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well &amp; Brackish Recovery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycled &amp; Local Desal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Member Agency Water Use

<table>
<thead>
<tr>
<th></th>
<th>April 2017</th>
<th>Previous 12 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imported &amp; Desal</td>
<td>78%</td>
<td></td>
</tr>
<tr>
<td>Surface</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Well &amp; Brackish Recovery</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Recycled &amp; Local Desal</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

Member Agency Storage (AF)

<table>
<thead>
<tr>
<th></th>
<th>April 2017</th>
<th>12 Month Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>281,360</td>
<td>180,373</td>
</tr>
<tr>
<td>2016</td>
<td>167,004</td>
<td>164,883</td>
</tr>
</tbody>
</table>

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IMPORTED WATER COMMITTEE
AGENDA FOR
MAY 25, 2017

Mark Weston – Chair
Lois Fong-Sakai – Vice Chair
Tom Kennedy – Vice Chair
David Barnum
Kristin Gaspar
Michael Hogan
Keith Lewinger
Jim Madaffer
Marty Miller
Jim Murtland
Ken Olson
Elsa Saxod
Joel Scalzitti
Fern Steiner
Doug Wilson

1. Roll call – determination of quorum.

2. Additions to agenda (Government Code Section 54954.2(b)).

3. Public comment – opportunities for members of the public to address the Committee on matters within the Committee’s jurisdiction.

4. Chair’s report.
   4-A Directors’ comments.

I. CONSENT CALENDAR

II. ACTION/DISCUSSION/PRESENTATION

1. MWD issues and activities update.
   1-A Metropolitan Water District Delegates’ Report. (Supplemental Materials) (Discussion) MWD Delegates
   1-B Metropolitan Water District’s Treatment Fixed Charge Discussion. (Presentation) Amy Chen
   1-C Poll Results on Knowledge and Attitudes Toward the Metropolitan Water District of Southern California’s Fiscal Decisions and Water Rates. (Presentation) David Binder Research
2. Colorado River Programs.

   2-A Colorado River Board Representative’s Report. (Discussion)  
       Doug Wilson

   2-B Colorado River hydrology update. (Presentation)  
       Kara Mathews

3. Canal Lining Post Construction Mitigation Update. (Presentation)  
       Mojgan Poursadighi

III. INFORMATION

1. Metropolitan Water District Program Report.  
       Amy Chen

IV. CLOSED SESSION

1. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   SDCWA v. Metropolitan Water District of Southern California;
   Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004;
   CPF-16-515282; CPF-16-515391; A146901; and A148266  
       Mark Hattam

V. ADJOURNMENT

       Melinda Cogle
       Clerk of the Board

NOTE: This meeting is called as an Imported Water Committee meeting. Because a quorum of the Board may be present, the meeting is also noticed as a Board meeting. Members of the Board who are not members of the Committee may participate in the meeting pursuant to Section 2.00.060(g) of the Authority Administrative Code (Recodified). All items on the agenda, including information items, may be deliberated and become subject to action. All public documents provided to the committee or Board for this meeting including materials related to an item on this agenda and submitted to the Board of Directors within 72 hours prior to this meeting may be reviewed at the San Diego County Water Authority headquarters located at 4677 Overland Avenue, San Diego, CA 92123 at the reception desk during normal business hours.
May 17, 2017

Attention: Imported Water Committee

Metropolitan Water District’s Treatment Fixed Charge Discussion (Presentation)

Purpose
This memo reports on the Metropolitan Water District’s (MWD) recent action on a proposed fixed charge for treated water service.

Background
MWD has historically relied on a uniform volumetric rate called the treatment surcharge to recover its treatment costs. In recent years, demands for MWD’s treated water were lower than MWD had projected. Because MWD still needs to recover its sunk treatment capital costs, MWD’s treatment rates have been increasing at a faster pace than its other rates.

The rapid increase in MWD treatment rate caused several member agencies to question MWD’s long-standing method of recovering treatment costs entirely through a volumetric rate without regards to member agencies’ variable need for MWD’s treatment services.1 Last April, when the proposed biennial rates were presented, MWD staff moved some of the expenses previously recovered through the treatment rate to other rates, and thus lowered revenues recovered by the treatment rate by about 10 percent;2 in addition, it recommended a rate option that included a new fixed treatment charge3 to recover a portion of MWD’s treatment costs. MWD’s staff-recommended fixed treatment charge failed to gain majority Board support; instead, the Board voted to continue MWD’s volumetric treatment rate for calendar years 2017 and 2018.

The Board also voted to further analyze a fixed treatment charge for future implementation. The Water Authority Delegates advocated that the MWD Board take a stronger role in the policy discussions of the cause of current problem, developing objectives of a fixed charge, and discussion of what costs may properly be recovered as treatment fixed or variable charges based on cost-causation. However, MWD instead delegated the discussion to a Treatment Charge Workgroup (Workgroup) composed of MWD and member agency staff. Sixteen member agencies, including the Water Authority, participated in the Workgroup, which met from September 2016 through February 2017.4

Discussion
Thomas Chesnutt (A&N Technical Services) was retained to facilitate the Workgroup discussion. Although a well-known expert in water rate design, Chesnutt’s role was limited to “facilitating” the comments of member agencies and trying to develop consensus among them, rather than providing technical rate design expertise.

1 MWD member agencies have varying demand for MWD treatment, including demand, peaking, and standby needs.
2 MWD staff said it had in the past mistakenly allocated costs unrelated to treatment to the treatment rate, and was “correcting” the cost misallocation during the current rate cycle. However, since MWD refuses to make its rate model available for review, the described reallocation of costs could not be independently verified.
3 The proposed fixed treatment charge was presented primarily through PowerPoint presentations and included an initial recommendation that would fix the charge based on an arbitrary time period that would have substantially and significantly disadvantaged the Water Authority.
4 See Water Authority’s memo MWD’s Treatment Fixed Charge (September 14, 2016) for further background details.
Although the Water Authority provided detailed input at the outset of the Workgroup process, MWD staff placed significant limitations on both the scope of the Workgroup’s assigned tasks, and the data and information that would be provided to the Workgroup (Dr. Chesnutt described it as having to stay within the “sandbox”). The Workgroup was therefore not provided with MWD’s rate model, making it impossible to confirm how MWD allocated the treatment costs and set rates. Significantly, the Workgroup was required to follow the existing cost of service allocation methodology and could not make changes. Information on individual agencies demand on MWD was also not provided, making it impossible to assess which agency is causing which treatment investment and to properly assign MWD’s costs to the services it provides. MWD staff made conflicting comments about whether any of the treatment costs sought to be recovered were actually “stranded” in the sense that there is capacity that will likely never be used in the future.

Water Authority staff attended each and every one of the Workgroup meetings; however, it was made known this January that an unannounced “subgroup” of the Workgroup, to which the Water Authority staff was not invited, met at the November Association of California Water Agencies meeting to develop a “fairly concrete proposal.” The proposal was subsequently discussed at the Workgroup, and a majority of the Workgroup participants agreed to recommend a new fixed treatment charge similar to MWD’s existing Capacity Charge to the MWD Board.

In April, staff recommended the adoption of the new fixed treatment charge as proposed by the Workgroup. Rather than approving the recommendation, the Board instead adopted only the policy principles as described below:

1. Treatment rates and charges shall align treatment costs with treatment services and benefits received consistent with cost of service principles;
2. Treatment services shall be recognized to include physical water treatment, as well as operational benefits such as available treatment capacity used by member agencies; and
3. To contain overall treatment costs on an on-going basis, MWD shall programmatically identify opportunities to partially or fully decommission unneeded treatment infrastructure and minimize future operations, maintenance, and capital expenditures. MWD should obtain member agency commitment to utilize new or expand future treatment capacity.

Because these policy principles are based on cost of service principles and set forth a path to contain MWD’s treatment costs, the Water Authority Delegates supported the adoption of the policy principles. It is important to note that MWD’s treatment costs in recent years represent only about 15 percent of its total spending. As MWD considers and makes investments in large supply programs without a clear mutual understanding and agreement that individual member agencies

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5 See Water Authority’s “Supplement to Metropolitan Water District Program Report Regarding MWD’s Treatment Fixed Charge update” presented to the Imported Water Committee dated January 25, 2017 for further details.
6 Prior to the Workgroup’s final decision, the Water Authority staff submitted a modified proposal that it believes was consistent with what the Workgroup had discussed and would meet legal requirements. The Water Authority’s suggestions were not accepted by the Workgroup.
7 The new fixed charge would have moved about 16 percent of the volumetric treatment revenue requirement to be recovered through a fixed charge formula similar to MWD’s existing capacity charge. The new charge would have been assessed on member agencies’ proportional share of non-coincidental three-year trailing maximum peak day flow through treated water service connections during May through September. The charge would have been imposed no sooner than 2021 to provide time for member agencies to plan for potential “operational and financial impacts” as a result of the new charge. (http://edmsidm.mwdh2o.com/idmweb/cache/MWD%20EDMS/003737439-1.pdf)
want MWD to develop those supplies and plan to pay for such investments, a far greater risk of stranded costs exists in MWD’s untreated supply. Due to the order of magnitude of such costs against a shrinking demand for MWD water, MWD would likely be forced to increase property taxes to the extent allowed by law, increase existing or impose new fixed charges such as it is considering now, or impose a combination of rates and fixed charges.

Prepared by: Amy Chen, Director of MWD Program
Approved by: Dennis A. Cushman, Assistant General Manager
May 17, 2017

Attention: Imported Water Committee

Poll Results on Knowledge and Attitudes Toward the Metropolitan Water District of Southern California’s Fiscal Decisions and Water Rates (Presentation)

Purpose
This presentation will highlight key findings from a recent poll conducted by David Binder Research on behalf of the Water Authority to measure knowledge and attitudes of Southern California residents toward fiscal decisions by the Metropolitan Water District of Southern California.

Background
In addition to regular public opinion polling to gauge local attitudes about water issues and chart progress toward Business Plan goals, the Water Authority has periodically conducted supplemental polling to gather information about specialized issues.

Discussion
In April 2017, the Water Authority contracted with David Binder Research to conduct an online poll of 1,000 Southern California residents. The nationally recognized firm was selected for its expertise in sophisticated and complex public opinion research and its experience managing simultaneous polls in multiple markets. Binder’s research on water issues in Southern California was managed by Southwest Strategies, which has been contracted by the Board to oversee the Water Authority’s outreach in Southern California aimed at increasing awareness of MWD’s fiscal management issues and questionable spending decisions.

Binder Research’s online poll was conducted April 18-23, 2017. It asked respondents about their attitudes and knowledge of a wide range of water-related issues, including whether they believe drought conditions still exist, the importance of water supply reliability in relation to other priorities and support for MWD’s spending on unbudgeted items. Respondents also were asked to rate their approval or disapproval of potential MWD spending decisions that could result in higher water rates, such as building facilities for which there is no documented need. Poll topics included other MWD fiscal governance issues such as long-range financial planning, borrowing to replenish reserves and collecting more revenue than necessary.

A representative from David Binder Research will present the findings at the Imported Water Committee.

Prepared by: Denise Vedder, Senior Public Affairs Manager
Reviewed by: Amy Chen, Director of MWD Program
Approved by: Dennis A. Cushman, Assistant General Manager
May 17, 2017

Attention: Imported Water Committee

Colorado River Board Representative’s report. (Discussion)

Purpose
The Colorado River Board (CRB) Representative’s report summarizes monthly activities of the Colorado River Board of California.

Discussion
This report covers activities from the May 10, 2017 CRB meeting in Monterey, California.

Agency Updates
CRB agencies provided updates, including:

- **Department of Water Resources (DWR)** – DWR stated snowpack levels are very high in the Sierras this year and flooding could be an issue if melting occurs at a high rate in the coming months.

- **Los Angeles Department of Water and Power (LADWP)** – LADWP reported that this is the wettest year in 100 years for the LA aqueduct with one million acre-feet of water. There is about $1 billion invested into the Owens Valley dust suppression infrastructure so it might be necessary to deliver excess water to MWD under the new emergency water supply agreement to avoid flooding.

- **Metropolitan Water District of Southern California (MWD)** – MWD reported that Diamond Valley Lake will be full at the end of the year.

- **Imperial Irrigation District (IID)** – Norma Galindo is the new CRB Alternate member representing IID.

CRB Budget
The proposed fiscal year 2018 budgets for the CRB, Six Agency Committee (SAC), and Colorado River Authority (CRA) include:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SAC (includes CRB)</td>
<td>$2,100,000</td>
</tr>
<tr>
<td>CRA</td>
<td>$50,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,150,000</strong></td>
</tr>
</tbody>
</table>

The SAC funds the Governor’s Budget for the CRB. The Water Authority’s cost share is ten percent of the SAC and CRA budgets. The final fiscal year 2018 budgets will be presented for adoption at the June CRB, SAC, and CRA meetings.

Colorado River Basin Water Report
The Bureau of Reclamation released the results of the April Colorado River Simulation (CRSS) on April 28, 2017. The results project there will not be a Lower Basin shortage in 2018. Total system storage is at 51 percent, compared to 48 percent this time last year, and Lake Mead’s elevation is currently at 1,084 feet. Precipitation was below normal across the Basin in April and significant snow melt occurred in March due to above normal temperatures. Weekly Water Supply Report figures are shown in Table 1.
Table 1. Colorado River Reservoir Conditions

<table>
<thead>
<tr>
<th>Conditions as of May 8</th>
<th>Volume (million acre-feet)</th>
<th>Percent of Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total System Storage</td>
<td>30.44</td>
<td>51%</td>
</tr>
<tr>
<td>Lake Powell</td>
<td>12.15</td>
<td>50%</td>
</tr>
<tr>
<td>Lake Mead</td>
<td>10.42</td>
<td>40%</td>
</tr>
<tr>
<td>Upper Colorado River Snowpack</td>
<td></td>
<td>110% of average</td>
</tr>
<tr>
<td>Water Year 2017 Precipitation</td>
<td></td>
<td>117% of average</td>
</tr>
<tr>
<td>Forecasted Inflows to Lake Powell in Water Year 2017</td>
<td></td>
<td>119% of average</td>
</tr>
</tbody>
</table>

Negotiations of Minute 32X
A near-final draft of Minute 32X was developed in December by U.S. and Mexican representatives. Mexico has indicated they are ready to execute Minute 32X as soon as the U.S. is ready. The Basin states are working with the Department of Interior and the International Boundary and Water Commission to finalize the various domestic agreements needed before Minute 32X can be completed. Minute 32X is anticipated to be executed in August or September of 2017.

Drought Contingency Plan (DCP)
The DCP modeling group is moving closer to developing plans that would prevent shortage triggers. The completion of a DCP is not required before the finalization of Minute 32X, but it would be required once Minute 32X is finalized. Both are likely to occur in August or September of 2017. A Seven Basin States consensus-based Lower Basin DCP would then be implemented upon congressional authorization, likely in 2018.

Salinity Control Program
The CRB submitted written testimony in support of fiscal year 2018 appropriations to fund Reclamation’s salinity control program. The Paradox Valley Unit Well Replacement EIS continues to move forward and a final EIS is scheduled for July 2019. As of May 5, all Federal Advisory Act (FACA) Committees are currently on hold and under review to make sure they align with the current administration going forward. This would impact the Salinity Control Advisory Counsel and Glen Canyon Dam Adaptive Management Program. All meetings and activities associated with these programs will be on hold until September 2017.

Lower Colorado River Multi-Species Conservation Program (LCR MSCP)
The new Mojave Valley Conservation Area near Needles, California is under construction and is expected to be completed in late 2018. The 50-acre backwater area will be connected to the river to provide habitat for endangered fish species, marsh habitat, and recreational opportunities. A resolution to add the Northern Mexican Gartersnake to the program will come to the steering committee for action in June. The LCR MSCP met at the San Diego County Water Authority May 10-11 to discuss its FY18 budget and work plan.

Prepared by: Kimberlyn Velasquez, Assistant Water Resources Specialist
Reviewed by: Doug Wilson, CRB Representative
May 17, 2017

Attention: Imported Water Committee

Colorado River hydrology update. (Presentation)

Purpose
This report provides an update on current Colorado River hydrology and shortage predictions.

Background
Prolonged drought conditions have plagued the Colorado River Basin since 2000, but heavy storms and above average inflows in recent months established an improved outlook for expected release volumes from Lake Powell this year and reduced probability of Lower Basin shortage allocations for the upcoming five years. Current reservoir operations and shortage procedures were established in the “2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead” (2007 Interim Guidelines). The 2007 Interim Guidelines set criteria for balancing storage levels in the river’s two major reservoirs, Lake Powell and Lake Mead, based on annual runoff projections and existing storage levels. Reservoir releases from Lake Powell (which supplies Lake Mead) and Lake Mead (which supplies California, Arizona, Nevada, and Mexico) are determined based on hydrology modeling performed by the Bureau of Reclamation (Reclamation) in August for the upcoming year. There is also a mid-year review based on April projections which has the potential to adjust the release volume for the current year. The 2007 Interim Guidelines also define cutbacks to certain users at three distinct Lake Mead shortage trigger elevations. A shortage declaration under the 2007 Interim Guidelines would result in reduced allocations to Arizona and Nevada, but no cuts to California users, and is determined based on Reclamation’s August projections of Lake Mead’s elevation relative to the shortage triggers. In addition to the U.S. shortage criteria defined in the 2007 Interim Guidelines, an amendment to the 1944 Treaty between the United States and the Republic of Mexico known as Minute 319 authorized a period from 2013–2017 in which Mexico also agreed to share in cutbacks to its annual Colorado River apportionment of 1.5 million acre-feet based on the same Lake Mead elevation triggers. Additionally, as the chance of Lower Basin shortage increased significantly over the past couple of years, the seven Colorado River Basin States began collaborating on a drought contingency plan (DCP) to help build elevation in Lake Mead and reduce the chance of a shortage declaration in upcoming years. The proposed plan includes voluntary cuts to Lower Basin users, including California.

Discussion
The combination of hydrology projections, system storage conditions, and reservoir operational decisions feed into the determination of a Lower Basin shortage, which is ultimately triggered by Lake Mead elevation projections falling below specified trigger levels. This year’s improved hydrology and reservoir conditions will likely result in an above average release volume from Lake Powell. The storage volumes in Lakes Powell and Mead are coordinated as part of the 2007 Interim Guidelines to balance contents in the two reservoirs via annual releases from Lake Powell determined by projected elevations of both reservoirs. Typically, 8.23 million acre-feet is released from Lake Powell each year, but depending on conditions, more or less water can be released. In April, the release volume for water year 2017 was finalized at 9.0 million acre-feet, indicating an above average release. This year, there have been larger than normal side inflows to Lake Mead, which are flows from tributaries that come into the river below Lake Powell, that will help bolster Lake Mead’s elevation above the first shortage trigger of 1,075 feet.
Total system storage as of May 1 is 30 million acre-feet or 51 percent of capacity. System storage has been on a downward trend during the drought period, as annual inflows were supplemented with storage reserves to meet annual Colorado River allocations. In May 2016, Lake Mead fell to its lowest elevation since its formation and dropped below elevation 1,075 feet, which is the first shortage trigger elevation. A shortage is not automatically triggered when the lake drops below 1,075 feet (or the other defined shortage triggers of 1,050 feet and 1,025 feet). Per the procedures in the 2007 Interim Guidelines, an official shortage declaration is based on the projected elevation of Lake Mead on January 1 of the upcoming year established in Reclamation’s August modeling results. Reclamation’s most recent modeling from April 2017 indicates that Lake Mead’s elevation will be above the shortage trigger of 1,075 feet on January 1, 2018. Reclamation also performs five-year projections approximately quarterly that indicate the likelihood of a Lower Basin shortage and surplus conditions. The most recent projections from April 2017 indicate a 31 to 39 percent chance of shortage in the next five years and a 5 to 21 percent chance of surplus during the same period (Table 1). The April modeling shows a large reduction in shortage probabilities from August 2016 projections, which indicated up to a 60 percent chance over the same timeframe.

| Table 1. Five-Year Outlook of Projected Shortage and Surplus Probabilities |
|---------------------------|----------------|----------------|----------------|----------------|----------------|
| Shortage                  | 0%             | 31%            | 32%            | 34%            | 39%            |
| Surplus                   | 0%             | 5%             | 13%            | 18%            | 21%            |

Even though the chance of shortage has decreased significantly in recent months, Colorado River stakeholders are still moving forward on DCP’s for both the Upper and Lower Basin with the goal of building elevation in Lake Mead. According to the draft Lower Basin DCP, California could experience cutbacks by as much as 200,000 to 350,000 acre-feet per year. Sixty percent of the water contributed from California under the DCP would come from Imperial Valley farming through additional efficiency-based conservation. This additional conservation will have a direct impact on the Salton Sea ecosystem and serve to worsen existing air quality problems in the Imperial Valley if left unmitigated, as is currently proposed. The Water Authority believes the DCP is a valuable effort, however unless its impacts at the Salton Sea and surrounding community are addressed it appears inconsistent with prior policy established as part of the Quantification Settlement Agreement (QSA) where exhaustive environmental review and State and Federal approvals carefully balanced ecosystem and public health needs with those of consumptive water users. As such, this lack of environmental review and plan to mitigate DCP project impacts is being viewed by a broad group of stakeholders as a significant impediment to executing the necessary agreements amongst the parties. If an agreement on the DCP is reached, the Water Authority believes there must be a clear delineation between impacts to the Salton Sea caused by the QSA and new impacts caused by the DCP.

As Minute 319 expires in 2017, a new binational agreement referred to as Minute 32X is under negotiation. This agreement would extend Mexico’s shortage sharing component and includes a new binational scarcity component, which is the equivalent of a binational DCP. The binational scarcity component will be contingent on the adoption of the Lower Basin DCP.
May 17, 2017

Attention: Imported Water Committee

Canal Lining Post Construction Mitigation Update. (Presentation)

Purpose
This report provides an update on the status of post construction mitigation projects for the Canal Lining Projects.

Background
The Coachella Canal and All American Canal Lining Projects (CCLP and AACLP) are critical components of the Quantification Settlement Agreement (QSA) and the Water Authority’s long-term supply reliability and diversification efforts. Construction work on CCLP and AACLP was completed in 2007 and 2010, respectively. The Water Authority began receiving approximately 80,000 acre-feet of conserved water annually, which will represent 14% of the Water Authority’s supply by 2020 and is guaranteed for 110 years. The Water Authority does not pay a supply cost for water received; however approximately $13-$15 per acre-foot is necessary for operations and maintenance of both canals. The total project construction cost of the CCLP was $129 million of which $87 million was available from the State General Fund and Proposition 50 funds. The total project cost for the AACLP was $319 million of which $170 million was available from the State General Fund, Proposition 50 funds, and Proposition 87 funds. The Water Authority financed the costs that exceeded State funding, which are collected on the Melded M&I Supply Rate.

Although construction of canal linings is complete, mitigation measures required by the Environmental Impact Report / Environmental Impact Statement (EIR/EIS) continue to be implemented to mitigate project impacts. Those impacts were required to be mitigated by state and federal resource agencies and are identified in the Mitigation Monitoring and Reporting Program (MMRP) and Environmental Commitment Plan (ECP) adopted for the canal lining projects. Of the 73 original mitigation measures required for AACLP, only two remain to be completed. As for the CCLP, only five of the original 34 mitigation measures remain to be completed. Description and status of each of the remaining mitigation projects are provided below. It is the overall goal of the Water Authority to transfer the remaining seven projects to third-parties for long term maintenance and monitoring.

Discussion
As part of QSA, the Water Authority lined 23 miles of Coachella Canal and 35 miles of All American Canal in exchange for the conserved water previously lost to seepage. U.S. Bureau of Reclamation (USBR) approved the Final EIR/EIS Reports certified by Coachella Valley Water District (CVWD) for CCLP and Imperial Irrigation District (IID) for AACLP. These agencies also adopted the MMRP and ECP, which detail the project’s environmental mitigation commitments. Since the completion of CCLP and AACLP, the project has implemented the majority of the 107 mitigation commitments amongst the two projects, which include the planting of 2,468 mature trees adjacent to Coachella Canal, installation of safety ladders and buoys and successful monitoring of large mammals along All American Canal, construction of 60 miles of fencing and 57 wildlife watering ponds along the length of Coachella Canal, and construction of the 50-acre Wister Sport Fishery Pond in Imperial Valley.
The remaining elements of CCLP are primarily biological habitat preservation and restoration on public lands located in the Dos Palmas Area of Critical Environmental Concern (Dos Palmas), which is mostly managed by the U.S. Bureau of Land Management (BLM) and is located near the northeastern shore of the Salton Sea within Riverside County. Below is a description of the remaining CCLP biological resources mitigation requirements:

- **Dos Palmas Water Supply System**, consisting of a series of pipeline, valves, monitoring wells, and percolation ponds, which fulfills the requirement to develop a replacement water source to maintain the existing core marsh/aquatic habitat including various ponds, oases and springs, as well as newly created desert riparian and marsh habitat, as described below.

- **Preservation of 105 acres of existing Core Marsh/aquatic habitat** that supports two species of endangered rail birds is required. Annual monitoring of the Core Marsh over the past seven years has demonstrated the success of this mitigation requirement. However, continued annual monitoring is needed until the project receives regulatory wildlife agency approval.

- **Creation and preservation of 17 acres of marsh/aquatic habitat**: Construction and vegetation planting of the marsh was completed in 2010. Annual monitoring will continue in an effort to demonstrate sustainability of the project until regulatory wildlife agency approval is received.

- **Maintenance and preservation of existing aquatic habitat** that currently support endangered desert pupfish within Dos Palmas is required. All sites have maintained suitable habitat for pupfish with stable/increasing population numbers for the past seven years. Continued annual monitoring is required until the project is accepted by the regulatory wildlife agencies.

- **Creation of 352.5 acres of desert riparian habitat**, which is being implemented in partnership with the BLM through a 10-year Memorandum of Agreement. A combination of passive and active approaches has been utilized at identified restoration sites to encourage natural recruitment of desert riparian plants. So far, over 400 acres of non-native habitat (salt cedar) has been removed and approximately 240 acres of desert riparian habitat has been established through passive restoration methods. Staff continues work on identifying additional restoration areas to meet the required acreage.

Long-term management and maintenance activities associated with the above mitigation projects will begin once regulatory agency approval is obtained and the projects are deemed suitable for transition to a third-party. Because the preponderance of mitigation will involve water and habitat management on BLM property, BLM may be the logical entity to manage and monitor these sites in perpetuity through a project endowment.
As for the AACLP mitigation requirements, only two projects remain as described below:

- **Chanan Remington Memorial Wetland Enhancement**: A 44-acre riparian and wetland habitat created along the All American Canal and has been maintained and monitored since its completion in December 2007. After 2017, the responsibility for the long-term maintenance of this project will be turned over to California Department of Fish and Wildlife.

- **Dune Restoration**: A 45-acre portion of the abandoned alignment of the Canal was identified to create 30 acres of sand dune habitat. After three years of passive restoration, a project survey concluded that although the site met the minimum vegetation coverage, it didn’t meet the sand accumulation requirement of the performance criteria. Staff is currently exploring several options for meeting this requirement within the next couple of years, including the purchase of private dune parcels and an endowment to BLM for protection of existing critical habitat and target species.

Prepared by: Mojgan Poursadighi, Engineer P.E.
Reviewed by: Dan Denham, Colorado River Program Director
Approved by: Maureen A. Stapleton, General Manager
May 17, 2017

Attention: Imported Water Committee

Metropolitan Water District Program Report (Information)

Purpose
This report summarizes activities of interest associated with the Metropolitan Water District of Southern California (MWD) and MWD Member Agencies.

Discussion
This section provides a summary of key issues at the May 8 and 9, 2017 meetings of the MWD Board of Directors. The MWD Board will meet next on June 12 and 13, 2017.

Water Supply Watch Resolution
Due to significant improvements in supply outlook, the MWD Board adopted a resolution to declare a “Condition 1 – Water Supply Watch.” MWD had been in a “Condition 2 – Water Supply Alert” level since May 2016 when the Board downgraded the condition from a “Condition 3 – Water Supply Allocation” status. In May 2008, the MWD Board adopted a system of “conditions” to communicate the water supply situation and the level of required conservation practices. Condition 1 calls for “local agency voluntary dry-year conservation measures and use of regional storage reserves.” Staff reported that declaring Condition 1 is fitting because even with a forecasted increase of more than 1 million acre-feet in storage, MWD’s storage reserves will not return to pre-drought levels. “Baseline – Water Use Efficiency” condition calls for “ongoing implementation of conservation, recycling and outreach programs to achieve permanent increase in water use efficiency and build storage reserves.” MWD is storing water currently and plans to store more than 1 million acre-feet by end of calendar year 2017.

Introduction of Ordinance to Issue Future Debt
The MWD Board approved the introduction by title only of an ordinance determining that it is in MWD’s interest to use $400 million in revenue bonds to finance a portion of its Capital Investment Plan. Introducing this ordinance is a procedural requirement for MWD to issue debt; per Section 237 of the MWD Act, an ordinance must be introduced prior to the Board taking action to adopt the ordinance. The adoption of the ordinance is a prerequisite to authorizations to issue revenue bonds. MWD’s scheduled actions include: 1) May – the introduction of an ordinance by title only; 2) June – adoption of an ordinance determines the interests of MWD require the use of revenue bonds for up to $400 million to finance capital expenditures; and 3) June – adoption of board resolutions, up to an aggregate amount of $400 million, to authorize future bond issuance, including the consideration to issue $80 million of revenue bonds. No financial details were provided this month to describe why it is in MWD’s interest to issue $400 million of new debt.

Legislative Priorities Related to Implementing the Governor’s Executive Order B-37-16
The MWD Board also adopted legislative priorities related to implementing the Governor’s Executive Order B-37-16, “Making Water Conservation a California Way of Life,” which aims to promote urban water use efficiency. Since the executive order was issued, the California Legislature has introduced seven bills and Governor Brown released two proposed budget trailer
bills related to implementing the order. Because the legislation and trailer bills are not compatible, MWD staff recommended the Board adopt legislative priorities related to the executive order to guide staff in MWD’s efforts to review and respond to the bills. Staff reported that the proposed legislative priorities are consistent with Board’s adopted State Legislative Priorities.

The MWD Committees and Board also:

- Authorized contract amendment with Macias Gini O’Connell, LLP to increase maximum payable amount by $324,715, from $915,096 to $1,239,811 and extend the term by one-year for external audit services;
- Adopted resolution to continue Metropolitan’s Water Standby Charge for fiscal year 2017/18;
- Appropriated $10.39 million and awarded two contracts to CopperTop Enterprises, Inc., both in the amounts of $1,219,809 to construct four houses at Hinds and Eagle Mountain Pumping Plants and another four houses at Iron Mountain and Gene Pumping Plants; and authorized: design to add two new desert houses; refurbish approximately 89 desert houses; and design to improve short-term accommodations at two pumping plants;
- Authorized contract increase of $160,000 (new not to exceed amount of $235,000) with GeoPentech, Inc., to continue monitoring the groundwater basin lying westerly of Diamond Valley Lake and development of groundwater management plan;
- Approved entering into 2017-2021 Memorandum of Understanding between MWD and Association of Confidential Employees;
- Heard oral reports on:
  - Legislative activities related to Oroville Dam facilities and proposed dam safety program enhancements;
  - Renewal status of Metropolitan’s Property and Casualty Insurance Program;
  - Capital Investment Plan Quarterly Report for period ending March 2017;
  - Conservation Program;
  - Surplus Property;
  - Equal Employment Opportunity Policy and Affirmative Action Program;
  - Records Management Program;
  - Department Head Evaluation Process; and
  - In closed session, the rate litigation.

MWD Member Agencies.
Municipal Water District of Orange County (MWDOC)
On April 26, MWDOC held a special meeting of its Board of Directors to brief elected officials and representatives from its member agencies on “key regional issues and key Orange County issues.” MWDOC’s General Manager’s presentation focused on three issues: 1) MWDOC’s proposed fiscal year 2018 budget; 2) the Governor's Executive Order B-37-16, “Making Water Conservation a California Way of Life;” and 3) the Water Authority’s outreach program. Similar to the discussions by the Water Authority’s Board of Directors on the Governor’s Executive Order B-37-16, MWDOC staff and member agency representatives expressed support for legislation that would promote water use efficiency while maintaining local decision-making and continue to implement long-term water use standards through a transparent, legislative process. As related to the Water Authority’s Outreach Program, MWDOC encouraged its member agencies to advise MWDOC if they are contacted and to also reach-out to their MWD representatives with questions on these and other MWD issues.
May 17, 2017

Attention: Imported Water Committee

CLOSED SESSION:
Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1)
Name of Case: SDCWA v. Metropolitan Water District of Southern California;
Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004;
CPF-16-515282; CPF-16-515391; A146901; and A148266

Purpose
This memorandum is to recommend a closed session, pursuant to Government Code §54956.9(d)(1), to discuss the above-referenced matter at the May 25, 2017 meeting.

A closed session has also been included on the agenda of the formal Board of Directors’ meeting. Unless the Board desires additional discussion, it is not staff’s intention to ask for a closed session with the full Board at that time, but staff may request action to confirm directions given or action recommended by the committee.

Prepared by: Mark J. Hattam, General Counsel
ADMINISTRATIVE AND FINANCE COMMITTEE

REVISED
AGENDA FOR

MAY 25, 2017

Elsa Saxod – Chair
Gary Arant – Vice Chair
Doug Wilson – Vice Chair
Jimmy Ayala
David Cherashore
Gary Croucher
Ed Gallo

Christy Guerin
Matt Hall
Kathleen Coates Hedberg
Tony Heinrichs
Jim Murtland
John Simpson
Ron Watkins

1. Roll call – determination of quorum.

2. Additions to agenda (Government Code Section 54954.2(b)).

3. Public comment – opportunities for members of the public to address the Committee on matters within the Committee’s jurisdiction.

   4-A  Directors’ comments.

I. CONSENT CALENDAR

   Staff recommendation: Note and file monthly Treasurer’s Report. (Action)

II. ACTION/DISCUSSION/PRESENTATION

1. Presentation of the General Manager’s Recommended Budget for Fiscal Years 2018 and 2019 for review by the Administrative and Finance Committee and the Board of Directors. (Presentation) Maureen Stapleton
1-A Transfer Balance from Stored Water Fund for CalPERS Unfunded Liability.
Staff recommendation: Authorize the General Manager to transfer balance of $9.5 million from the Stored Water Fund for an unfunded accrued liability payment to the California Public Employees Retirements System (CalPERS). (Action)

2. Resolution setting a Public Hearing date for the Water Authority’s proposed calendar year 2018 Rate and Charge increases.
Staff recommendation: Adopt Resolution No. 2017-__ setting the time and place for a public hearing on June 22, 2017, at or after 9:00 a.m., or as soon thereafter as may practicably be heard, during the Administrative and Finance Committee meeting, to receive comments regarding proposed rates and charges to be effective January 1, 2018. (Action)

3. Agreement for Carlsbad Desalination Project Sales Tax Recovery.
Staff recommendation: Authorize the General Manager to execute a professional services agreement with DuCharme, McMillen and Associates to pursue the recovery of sales tax paid as part of the construction of the Carlsbad Desalination Project. (Action)

4. Approve the Refinancing of the Claude “Bud” Lewis Carlsbad Desalination Project Conveyance Pipeline and the Update of the Water Authority’s Debt Management Policy.
Staff recommendation:
1) Adopt Resolution No. 2017-__ approving the refunding of California Pollution Control Financing Authority $203,215,000 Water Furnishing Revenue Bonds, Series 2012 (San Diego County Water Authority Desalination Project Pipeline) via negotiated sale; a Preliminary Limited Offering Memorandum, a Bond Purchase Agreement and other documents and agreements necessary to accomplish tax exempt project refinancing through the California Pollution Control Financing Authority (CPCFA); and

2) Approve the updated Statement of Debt Management Policy to reflect recent regulatory changes. (Action)

III. INFORMATION

2. Board calendar.

IV. CLOSED SESSION

1. Conference with Legal Counsel – Anticipated Litigation
   Government Code §54956.9(d)(4)
   Deciding to Initiate Litigation – One Case

Mark Hattam

V. ADJOURNMENT

Melinda Cogle
Clerk of the Board

NOTE: This meeting is called as an Administrative and Finance Committee meeting. Because a quorum of the Board may be present, the meeting is also noticed as a Board meeting. Members of the Board who are not members of the Committee may participate in the meeting pursuant to Section 2.00.060(g) of the Authority Administrative Code (Recodified). All items on the agenda, including information items, may be deliberated and become subject to action. All public documents provided to the committee or Board for this meeting including materials related to an item on this agenda and submitted to the Board of Directors within 72 hours prior to this meeting may be reviewed at the San Diego County Water Authority headquarters located at 4677 Overland Avenue, San Diego, CA 92123 at the reception desk during normal business hours.
May 17, 2017

Attention: Administrative and Finance Committee

Monthly Treasurer’s Report on Investments and Cash Flow

Purpose
The purpose of the Treasurer’s Report is to provide monthly financial information to the Board of Directors.

Attached for review by the Administrative and Finance Committee and the Board of Directors is the Treasurer’s Report as of April 30, 2017. The reports are formatted to provide information as required by the California Government Code and the San Diego County Water Authority’s Annual Statement of Investment Policy, which was last adopted by the Board on December 8, 2016. A brief description of each report follows:

Portfolio Master Summary: This one-page report summarizes all cash and investments held by the Water Authority.

Portfolio Characteristics: This one-page snapshot shows the Water Authority’s portfolio holdings by type and percentage; the maturity distribution of the portfolio; the portfolio yield for the past twelve months, compared to a rolling average yield of the Board adopted benchmark; the credit quality of the portfolio’s holdings; the cash flow projections for the next six months; and relevant market information.

Chandler Portfolio Summary: This one-page snapshot shows the Chandler Asset portfolio holdings including average duration, coupon, yield and ratings; account summary; top issuers; issuer allocation; maturity distribution; and the managed portfolio yield compared to the benchmark.

Portfolio Details - Investments: This report takes the summary information listed in the Portfolio Master Summary and provides details of active investments.

Activity Summary: This one-page report produces a thirteen-month rolling summary of portfolio investment activity.

The Water Authority’s portfolio is diversified among investment types, with a current concentration toward short-term maturities. This concentration is the result of cash flow needs, as well as the current historic low interest rate environment. The portfolio is comprised of high quality investments, with 72 percent currently invested in AAA rated or AAA/AA+ split-rated securities. In April 2017, the Water Authority’s overall portfolio yield increased slightly from 1.22 percent to 1.30 percent and continues to exceed the investment benchmark of 0.87 percent.
All investments have been made in accordance with the San Diego County Water Authority Statement of Investment Policy. This report provides documentation that the Water Authority has sufficient funds to meet the financial obligations for the next six months. The market value information is provided by Bloomberg L.P. and is as of the report date.

Lisa Marie Harris, Director of Finance/Treasurer
## PORTFOLIO MASTER SUMMARY

**as of April 30, 2017**

### PORTFOLIO PERCENTAGES

<table>
<thead>
<tr>
<th>Investment Type</th>
<th>Permitted By Board Policy</th>
<th>Portfolio Percentage</th>
<th>Book Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Agency Investment Fund (LAIF)</td>
<td>$50 Million</td>
<td>12.21%</td>
<td>$40,140,553</td>
</tr>
<tr>
<td>Banker's Acceptances</td>
<td>20%</td>
<td>0.00%</td>
<td>-</td>
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<tr>
<td>Treasury Securities</td>
<td>15% - Minimum</td>
<td>19.79%</td>
<td>65,040,352</td>
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<tr>
<td>Agency Securities</td>
<td>85%</td>
<td>36.38%</td>
<td>119,557,208</td>
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<tr>
<td>Supranational Securities</td>
<td>10%</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>Repurchase Agreements</td>
<td>20%</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>Reverse Repurchase Agreements</td>
<td>20%</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>Placement Service Certificates of Deposit</td>
<td>15%</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>Negotiable Certificates of Deposit</td>
<td>15%</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>Commercial Paper</td>
<td>25%</td>
<td>8.15%</td>
<td>26,783,002</td>
</tr>
<tr>
<td>Medium Term Notes/Corporates</td>
<td>30%</td>
<td>9.17%</td>
<td>30,147,043</td>
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<tr>
<td>Municipal Securities</td>
<td>20%</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>JPA Pools (CAMP)</td>
<td>25%</td>
<td>14.15%</td>
<td>46,501,713</td>
</tr>
<tr>
<td>Money Market Funds</td>
<td>15%</td>
<td>0.15%</td>
<td>502,691</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100.00%</strong></td>
<td><strong>$328,672,562</strong></td>
</tr>
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</table>

Accrued Interest (unavailable for investing)
Checking/Petty Cash/Available Funds (unavailable for investing)

Subtotal for Pooled Funds: $331,268,785

Debt Service Reserve (DSR) Funds Excluded from Portfolio Percentages:
- Trinity Plus - Reserve (GIC) - Series 1998A COPs

Subtotal for Debt Service Reserve Funds (unavailable for CIP expenditures): $12,240,775

Total Cash and Investments $343,509,560

### PORTFOLIO INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>Pooled Funds **</th>
<th>Debt Service Reserve</th>
<th>Total *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Yield to Maturity - 365 Days</td>
<td>1.14%</td>
<td>5.55%</td>
<td>1.30%</td>
</tr>
<tr>
<td>Average Term</td>
<td>739</td>
<td>1</td>
<td>713</td>
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<tr>
<td>Average Days to Maturity (730 Days Maximum)</td>
<td>389</td>
<td>1</td>
<td>375</td>
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</table>

* "The weighted average days to maturity of the total portfolio shall not exceed 730 days (two years) to maturity" per Water Authority Investment Policy.
** Pooled Funds include Operating, Pay Go, RSF, Equipment and Stored Water funds.
**Portfolio Characteristics**

**Pooled Funds**

**Asset Allocation**

- JPA Pools (CAMP) 14.2%
- Money Market 0.2%
- Treasuries 19.8%
- FHLB 8.1%
- FHLMC 8.1%
- Agencies 36.3%
- FNMA 9.6%
- Commercial Paper 8.1%
- Medium Term Notes/Corporates 9.2%
- LAIF 12.2%
- FFCB 2.2%

**Maturity Distribution**

- 0-3 Month
- 3-6 Month
- 6-9 Month
- 9-12 Month
- 1-2 Year
- 2-3 Year
- 3-5 Year

**Credit Quality**

<table>
<thead>
<tr>
<th>Pooled Funds</th>
<th>% of Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Treasury (AAA/AA+)</td>
<td>19.8%</td>
</tr>
<tr>
<td>Agency (AAA/AA+)</td>
<td>36.3%</td>
</tr>
<tr>
<td>Other (AAA)*</td>
<td>16.2%</td>
</tr>
<tr>
<td>AA**</td>
<td>14.9%</td>
</tr>
<tr>
<td>A ***</td>
<td>0.6%</td>
</tr>
<tr>
<td>not rated ****</td>
<td>12.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

* Includes money market funds, JPA pools (CAMP) and medium term notes/corporates

**Portfolio Yield: May 2016 - April 2017**

**Projected Cash Flows in Millions**

<table>
<thead>
<tr>
<th>Month End</th>
<th>Investment Maturities</th>
<th>Projected Receipts</th>
<th>Projected Disbursements</th>
<th>Reinvestment/Use of Liquid Funds</th>
<th>Projected Cash &amp; Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$331.27</td>
</tr>
<tr>
<td>May 17</td>
<td>5.00</td>
<td>53.96</td>
<td>41.67</td>
<td>17.29</td>
<td>343.56</td>
</tr>
<tr>
<td>June 17</td>
<td>0.00</td>
<td>69.47</td>
<td>64.26</td>
<td>5.21</td>
<td>348.77</td>
</tr>
<tr>
<td>July 17</td>
<td>0.00</td>
<td>64.65</td>
<td>58.69</td>
<td>5.96</td>
<td>354.74</td>
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<tr>
<td>Aug 17</td>
<td>5.00</td>
<td>62.57</td>
<td>53.38</td>
<td>14.19</td>
<td>363.92</td>
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<tr>
<td>Sep 17</td>
<td>5.00</td>
<td>61.30</td>
<td>50.91</td>
<td>15.39</td>
<td>374.31</td>
</tr>
<tr>
<td>Oct 17</td>
<td>26.46</td>
<td>70.71</td>
<td>95.41</td>
<td>1.75</td>
<td>349.61</td>
</tr>
</tbody>
</table>

* Numbers may not foot due to rounding

**Market Notes**

On March 15th the FOMC raised the federal funds rate 25 basis points setting the range to 75-100 basis points. The next meeting is May 3rd.
<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Investment #</th>
<th>Issuer</th>
<th>Average Balance</th>
<th>Purchase Date</th>
<th>Par Value</th>
<th>Market Value</th>
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**Managed Pool Accounts**

**Medium Term Notes**

**Commercial Paper - Discount**

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**Subtotal and Average**

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<th>Par Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>Stated Rate</th>
<th>S&amp;P</th>
<th>YTM</th>
<th>Days to Maturity</th>
<th>Maturity Date</th>
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<tr>
<td>65,000,000.00</td>
<td>64,906,445.00</td>
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**Total and Average**

<table>
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<th>Par Value</th>
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<th>Book Value</th>
<th>Stated Rate</th>
<th>S&amp;P</th>
<th>YTM</th>
<th>Days to Maturity</th>
<th>Maturity Date</th>
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<td>414,207,350.55</td>
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### SDCWA - Fiscal Year 2017
Portfolio Management
Portfolio Details - Cash
April 30, 2017

#### Portfolio Details - Cash

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Investment #</th>
<th>Issuer</th>
<th>Purchase Date</th>
<th>Par Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>S&amp;P Rate</th>
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<tr>
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<td>PETTY CASH</td>
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<tr>
<td>CASH02</td>
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<td>WELLS FARGO - PAYROLL ZBA</td>
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<td>CASH39</td>
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<td>WELLS FARGO - 2010B BONDS-BABS</td>
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<td>0.00</td>
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**Average Balance**
- **Passbook/Checking Accounts**: 0.00
- **Total Cash and Investments**: 414,207,350.55

**Average Balance**

- **Portfolio Management**: 342,277,533.51
- **Portfolio Management**: 342,459,906.65
- **Portfolio Management**: 343,509,559.16

- **YTM**: 1.300
- **Days to Maturity**: 375
## SDCWA - Fiscal Year 2017
### Portfolio Management
#### Activity Summary
April 2016 through April 2017

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
<th>Number of Securities</th>
<th>Total Invested</th>
<th>Yield to Maturity</th>
<th>Managed Pool Rate</th>
<th>Number of Investments Purchased</th>
<th>Number of Investments Redeemed</th>
<th>Average Term</th>
<th>Average Days to Maturity</th>
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<tr>
<td>April 2016</td>
<td>80</td>
<td>421,354,725.53</td>
<td>1.000</td>
<td>360 Equivalent</td>
<td>0.986</td>
<td>4</td>
<td>15</td>
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<td>May 2016</td>
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<td>428,695,694.17</td>
<td>1.035</td>
<td>365 Equivalent</td>
<td>1.050</td>
<td>4</td>
<td>1</td>
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</tr>
<tr>
<td>June 2016</td>
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<td>410,038,087.40</td>
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<td>1.147</td>
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<td>August 2016</td>
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<td>2</td>
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<tr>
<td>October 2016</td>
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<td>1.219</td>
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<td>6</td>
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<tr>
<td>November 2016</td>
<td>75</td>
<td>377,233,445.31</td>
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<td>365 Equivalent</td>
<td>1.237</td>
<td>3</td>
<td>0</td>
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<td>December 2016</td>
<td>77</td>
<td>366,279,521.27</td>
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<td>360 Equivalent</td>
<td>1.455</td>
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<tr>
<td>January 2017</td>
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<td>365 Equivalent</td>
<td>1.409</td>
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<td>1</td>
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<tr>
<td>February 2017</td>
<td>77</td>
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<td>360 Equivalent</td>
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<tr>
<td>March 2017</td>
<td>81</td>
<td>404,602,430.59</td>
<td>1.202</td>
<td>365 Equivalent</td>
<td>1.454</td>
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<tr>
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<td>713</td>
<td>375</td>
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<tr>
<td><strong>Average</strong></td>
<td>78</td>
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<td><strong>1.116%</strong></td>
<td><strong>1.131%</strong></td>
<td><strong>1.241</strong></td>
<td><strong>2</strong></td>
<td><strong>4</strong></td>
<td><strong>773</strong></td>
<td><strong>373</strong></td>
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</tbody>
</table>
May 17, 2017

Attention: Administrative & Finance Committee

Presentation of the General Manager’s Recommended Budget for Fiscal Years 2018 and 2019 for review by the Administrative and Finance Committee and the Board of Directors. (Presentation)

Purpose
The General Manager’s Recommended Budget for Fiscal Years 2018 and 2019 reflects the Water Authority’s commitment to continued leadership on water issues statewide, upholding the public trust with our member agencies and community stakeholders, and maintaining operational excellence of the region’s large-scale water infrastructure. The budget includes the resources necessary to achieve goals in the 2017-2021 Business Plan and align with Board-adopted fiscal sustainability policies. We will continue focus on maintaining facilities while making prudent investments to maximize the value of the region’s water supply diversification.

The budget document will be delivered to Board members at the Administrative and Finance Committee meeting on May 25, and the General Manager will present an overview of the Recommended Budget for Fiscal Years 2018 and 2019 at that committee meeting. For reference purposes, the General Manager’s message at the front of the document summarizes the key aspects of the fiscal plan for the next two years. The schedule below outlines key dates and activities in the consideration and adoption of the General Manager’s Recommended Budget.

May 25, 2017
General Manager to present budget overview
Set public hearing for Calendar Year 2018 rates and charges

June 6 & 8, 2017
Special Administrative and Finance Committee Meetings – budget hearings 1:30 to 3:30 p.m.
Review the General Manager’s recommended budget in greater detail, including water sales and purchases, capital improvement program, debt service, and operating departments budget.

June 22, 2017
Consideration to adopt Fiscal Years 2018 and 2019 budget
Hold public hearing on Calendar Year 2018 proposed rates and charges
Consideration to adopt Calendar Year 2018 proposed rates and charges

Prepared by: Liana M. Whyte, Budget & Analysis Manager
Reviewed by: Lisa Marie Harris, Director of Finance/Treasurer
Approved by: Sandra L. Kerl, Deputy General Manager
May 22, 2017

Attention: Administrative & Finance Committee

Transfer Balance from Stored Water Fund for CalPERS Unfunded Liability. (Action)

Staff recommendation
Authorize the General Manager to transfer balance of $9.5 million from the Stored Water Fund for an unfunded accrued liability payment to the California Public Employees Retirement System (CalPERS).

Alternative
Do not approve staff recommendation and provide direction relative to CalPERS unfunded liability.

Fiscal Impact
A balance of $9.5 million is available in the Stored Water Fund. A payment of $9.5 million to CalPERS for unfunded accrued liability will increase the Water Authority’s funded ratio by approximately 5 percent and decrease future unfunded accrued liability.

Background
The Water Authority funds employer contributions to CalPERS on an annual basis. As part of this contribution, the Water Authority also makes payments to the unfunded liability. Beginning in Fiscal Year 2018 CalPERS will collect unfunded accrued liability payments as whole dollar amounts rather than a percentage contribution rate. This change addresses potential funding that can lead to underfunding of the plan. This payment would improve the funding level of the Water Authority’s CalPERS plan.

CalPERS recently notified the Water Authority that payment made prior to May 31, 2017 would be reflected in the upcoming annual actuarial valuation report to be released in August 2017 (for Fiscal Year 2016). Annual actuarial valuation reports are released by fiscal year for the prior year’s period.

Previous Board action: On December 8, 2016, the Board adopted the Stored Water Fund Policy resulting in a transfer from the Stored Water Fund to the Operating Fund for beneficial use.

Discussion
Utilizing the Stored Water Fund balance to contribute to the CalPERS unfunded accrued liability will decrease the overall unfunded accrued liability. The August 2016 (FY2015) annual actuarial valuation report from CalPERS estimated the Water Authority’s funded ratio status at 70 percent. Excluding any changes to the Water Authority’s present value of projected benefits with CalPERS, this payment will increase the funded ratio by approximately 5 percent.

Prepared by: Liana M. Whyte, Budget & Analysis Manager
Reviewed by: Lisa Marie Harris, Director of Finance/Treasurer
Approved by: Sandra L. Kerl, Deputy General Manager
May 17, 2017

Attention: Administrative and Finance Committee

Resolution setting a Public Hearing date for the Water Authority’s proposed calendar year 2018 Rate and Charge increases (Action)

Purpose
The purpose of this report is to review the proposed rates and charges for calendar year 2018 and to adopt a resolution setting a time and place for a public hearing for the consideration and adoption of the proposed rate and charge increases for water, services and facilities.

Staff recommendation
1. Adopt Resolution Number 2017-__ setting the time and place for a public hearing on June 22, 2017, at or after 9:00 a.m., or as soon thereafter as may practicably be heard, during the Administrative and Finance Committee meeting, to receive comments regarding proposed rates and charges to be effective January 1, 2018.

Alternative
Direct staff to set a different time or date for the public hearing.

Fiscal Impact
The proposed water rates and charges, in combination with reserves, existing taxes, the System Capacity Charge, the Water Treatment Capacity Charge, the Infrastructure Access Charge (IAC), investment income, the Standby Availability Charge, and the Supply Reliability Charge (SRC), are expected to raise revenues sufficient to meet the Water Authority’s revenue requirement, bond covenants and other key fiscal policy goals. The proposed M&I total cost of water\textsuperscript{1} increase for CY 2018 is $47/AF or 3.7% for untreated water and $57/AF or 3.7% for treated water. These increases are mitigated by rate relief measures that included debt refundings during the current budget period that have saved $78.3 million on a present value basis over the lifetime of the refunded bonds, and a projected draw of approximately $5 million from the Rate Stabilization Fund (RSF) in FY 2018.

Background

Metropolitan Water Rate Increases
On April 12, 2016, MWD’s Board of Directors adopted rate and charge increases for calendar years 2017 and 2018 resulting in a reported 4% annual “average” rate increase in each year. Based upon MWD’s adopted rate and charge schedule, the cost of treated and untreated water in CY 2018 will increase by 3.7% and 4.4%, respectively (this excludes the impact of MWD’s fixed charges). While

\textsuperscript{1} The total cost of water includes the Melded Supply, Melded Treatment and Transportation Rates and the fixed Customer Service, Storage and Supply Reliability Charges expressed as a $/AF cost. The total cost of water excludes the Water Authority’s IAC and MWD’s RTS and Capacity Charges.
the overall cost of MWD supplies increased 4%, the costs of transporting the Quantification Settle Agreement (QSA) water to the region will increase by 4.5% in CY 2018.

**Prudent Financial Management and Long-Range Planning**

The Water Authority has a long history of prudent financial planning. In 2006, the Board strengthened the Water Authority’s key financial ratios by setting a Senior Lien Debt Service Coverage Ratio (DSCR) target of 1.50x and establishing a target funding level for the RSF that better protects the Water Authority against the financial impact of 2.5 years of wet weather (3.5 years max). These early actions reduced rate and charge volatility, increased protection against wet weather and mandatory water use restrictions, created a transparent and flexible RSF framework, and increased cash funding of the CIP just prior to the great recession of 2008. These early actions helped the Water Authority navigate the recession and continue to support the maintenance of the Water Authority’s AAA/Aa2/AA+ credit ratings and access to lower interest rates.

In 2014, the Board, member agencies and Water Authority staff engaged in an 18-month collaborative process that identified issues related to the long-term fiscal sustainability of the Water Authority. Central to this effort was a detailed review of the Water Authority’s revenue structure and evaluating potential enhancements that would further strengthen the Water Authority’s future fiscal health. One of the key actions taken as part of the fiscal sustainability review was the creation of the Supply Reliability Charge (SRC). This charge, implemented in CY 2016, recognizes the importance of equitably recovering the cost of the Water Authority’s investments in long-term water supply reliability in accordance with cost of service principals and California law. As adopted by the Board, the SRC recovers a portion of the water supply costs associated with the Carlsbad Desalination Plant (the Plant) and the Imperial Irrigation District’s (IID) water transfers. In addition to recovering a proportionate share of the cost of water supply reliability, the SRC also helps to reduce water sales revenue volatility by increasing the amount of fixed revenues.

In January 2016, the Board adopted the 2015 Long-Range Financing Plan (LRFP). The 2015 LRFP highlights the Water Authority’s transition to an operations and asset management focused agency from a construction oriented agency. The baseline $582 million ten-year CIP is a much more modest spending level when compared to the 2008 LRFP. The largest component of the CIP is Asset Management, which makes up more than 40% of the ten-year CIP. The Asset Management program includes the Relining and Pipe Replacement Program and other infrastructure rehabilitation.

The Water Authority’s 2015 LRFP requires the revenues of the Water Authority be sufficient to; pay operating expenses, provide for maintenance and repair of facilities, provide for payment of principal and interest on debt, and provide reasonable reserves consistent with bond covenants and sound fiscal management. As a public agency enterprise, the Water Authority does not generate a profit. Revenues are set to meet the reasonably anticipated costs of providing service to the member agencies and do not generate revenues that are unrelated to the accomplishment of the Water Authority’s purposes. While there are a large number of assumptions embedded in the 2015 LRFP, the core assumptions are those that have significant financial impacts and include water
sales, local supplies, cost of imported water and transportation and the CIP. These assumptions are incorporated into the high and low rate and charge guidance provided in the document.

**Comprehensive Cost of Service Reviews**
Consistent with best management practices, the Water Authority retained Carollo to perform four independent comprehensive cost of service studies. The first engagement with Carollo included a comprehensive cost of service study to determine the Water Authority’s CY 2014 rates and charges. The second engagement with Carollo included a comprehensive cost of service study to ensure proper implementation of the Board policies for the recovery of the costs related to the Carlsbad Desalination Project and setting CY 2015 rates and charges. The third Carollo engagement was the comprehensive cost of service study to ensure the proper implementation of the Fiscal Sustainability policy recommendations and the setting of CY 2016 rates and charges. The fourth and final Carollo engagement was to ensure the proper implementation of the updated annexation and capacity charges, as well as the setting of the CY 2018 rates and charges.

In each of these engagements, Carollo independently verified that the rates and charges were established in compliance with California legal requirements, cost of service standards, and Water Authority Board policies.

**Special Agricultural Water Rate Program**
On March 26, 2015, the Board approved the extension of the TSAWR program through December 31, 2020 based on the recommendation to continue the TSAWR program for the next five years and revisit the value of the program in conjunction with the review of the new Supply Reliability Charge. The recommendation recognized: 1) the benefits the M&I customers have been paying for by supporting the TSAWR program occur during supply shortages; 2) the new Supply Reliability Charge allocation methodology is impacted by the treatment of agricultural water demands; and 3) addressing the issue in one year increments is not efficient and doesn’t provide a sufficient planning window for customers. The five-year period will also provide a track record to ascertain what the frequency of shortage cutbacks would be over an extended time period (since the 2009 cutbacks) and allow for a better understanding of the cost and benefits of the program.

**Annexation Fees**
The current annexation fee structure includes two components; the Administrative Fee and the Annexation Fee. The Administrative Fee, which was last adjusted in 1983, is a flat $3,000 charge per annexation application intended to recover the Water Authority’s administrative costs associated with processing an annexation. The Annexation Fee is currently $2,929/Acre of land annexed and recovers the cost of the existing system capacity. System and Treatment Capacity charges for meters that serve the annexed land receive a credit for any Annexation Fee paid. To streamline the administration of the annexation process and reduce member agency administrative activities, the Annexation Fee will be discontinued and the Administrative Fee replaced by the Annexation Application Fee. While the former Administrative Fee will increase from the $3,000 set in 1983 to an updated $10,340 Annexation Application Fee. Under the new system, persons seeking annexation do not pay an Annexation Fee ($2,929/acre) as they would have under the prior system. In the past, the Annexation Fee generally resulted in a majority of fees being collected at the time the annexation was approved. Now, the cost of the
Water Authority’s existing system capacity will only be recovered via the System and Treatment Capacity Charges when meter charges are imposed.

A task by task based cost of service analysis was conducted and the administrative costs associated with processing an annexation application was on average $10,340. Therefore, the proposed Annexation Application Fee is $10,340 per application. The proposed fee is expected to fully recover the Water Authority’s costs associated with processing an annexation application and is a non-refundable fee paid when the application is filed with the Water Authority. The Water Authority’s Annexation Policy Guidelines will be updated at the July Board meeting.

Previous Board Actions
On June 23, 2016, the Board Adopted Ordinance No. 2016-02 setting rates and charges for the delivery and supply of water, use of facilities, and provision of services; adopted Resolution No. 2016-08 continuing the Standby Availability Charge.

Discussion
There are three primary drivers behind the recommended CY 2018 rate and charge increases. The drivers are:

- **MWD rate and charge increases** – While MWD’s rates and charges are reported to be going up an average of 4%, the cost of untreated water increased 4.4% or $29/AF and the cost to transport QSA water to the service area went up 4.5% or $21/AF. Combined MWD’s CY 2018 rates increased the Water Authority’s untreated cost of water by approximately 2.1%

- **Increase in QSA water deliveries** – Starting in CY 2018, the IID water transfer deliveries will begin the final ramp up from 100,000 AF to 200,000 AF. In CY 2018, the IID water transfer deliveries will increase 30,000 AF. The increased level of deliveries results in an increase of the total cost of water.

- **Reduced water sales environment** – The CY 2018 water sales projection is for sales to have a modest 4.3% increase over CY 2017 levels. Demand is expected to remain flat over the near term due to the long-term impact of the emergency water use regulations and member agency local supply and development will mitigate any near term rebound in water demand.

The recommended CY 2018 rate and charge increase is being mitigated by a projected $5M draw from the RSF in FY 2018, which is approximately $13/AF of rate relief. The draw is offsetting both the impact of a continued reduced sales environment and cost impact of increased QSA deliveries. Additional rate relief is also being realized from the debt refundings executed during the current budget cycle that have reduced debt service payments by $78.3 million on a present value basis over the life of the refinanced bonds.

As part of the 2015 LRFP, staff developed a high/low rate and charge forecast to support member agency financial planning efforts. The high/low rate and charge forecasts were based upon scenarios varying the level of water sales, MWD rate and charge increases, and CIP
expenditures. The rate guidance assumed a resolution of the MWD lawsuit and a MWD rate restructuring in CY 2018. Given a decision on the lawsuit is still pending, the rate guidance has been modified to assume a resolution of the lawsuit and rate restructuring in CY 2019. The CY 2018 proposed rates and charges are within that guidance. The Water Authority’s total cost of untreated water is increasing by 3.7% and the cost for treated water is increasing by 3.7%. It should be noted that the actual cost of water will vary by member agency based upon each agency’s fixed charge allocations.

Setting Water Rates and Charges
On an annual basis, the Water Authority staff develops proposed water rates and charges, which it presents to the Board of Directors for adoption. Water rates and charges include the Melded Supply, Melded Treatment, Transportation rates and the Customer Service, Storage and Supply Reliability charges. Each year the Water Authority undertakes the following cost of service analysis to determine water rates and charges.

- Step 1. Establish the revenue requirement—determine the total amount of revenue needed to recover the Water Authority’s annual operating (operations and maintenance of facilities, cost of water, treatment costs, etc.) and capital expenditures (cash and short and long-term debt)
- Step 2. Allocate the revenue requirement and offsetting non-commodity revenues (i.e. investment income, property tax, IAC, etc.) to rate categories (Melded Supply, Melded Treatment, Transportation, Storage, Customer Service and SRC) to determine the net revenue requirement for each rate category
- Step 3. Determine rates and charges based upon the net revenue requirements, water sales projections and other key financial management metrics (i.e. senior lien debt service coverage, fund deposits and withdrawals)
- Step 4. Allocate fixed charges (Storage, Customer Service and SRC) to member agencies based on specified allocation methodologies

Consistent with best management practices, the Water Authority retained Carollo to perform a comprehensive and independent Cost of Service Study to determine CY 2018 rates and charges to ensure that they are set in compliance with California legal requirements, cost of service standards, and Water Authority Board policies. The Carollo report is provided as Attachment B.

Description of Proposed Rates and Charges
Table 1 summarizes the Water Authority’s proposed CY 2018 rates and charges. A description of the Water Authority’s rates and charges is provided in subsequent sections. In addition to the Water Authority’s rates and charges shown in Table 1, certain MWD rates and charges are passed through to the member agencies.
Table 1 – Summary of Water Authority Rates and Charges

<table>
<thead>
<tr>
<th>Water Authority Rates and Charges</th>
<th>CY 2016 Previous</th>
<th>CY 2017 Current</th>
<th>CY 2018 Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melded Supply Rate ($/AF)</td>
<td>$780</td>
<td>$855</td>
<td>$894</td>
</tr>
<tr>
<td>Melded Treatment Rate ($/AF)</td>
<td>$280</td>
<td>$290</td>
<td>$300</td>
</tr>
<tr>
<td>Transportation Rate ($/AF)</td>
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<tr>
<td>Untreated Transitional Special Agricultural Water Rate ($/AF)</td>
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<tr>
<td>Treated Transitional Special Agricultural Water Rate ($/AF)</td>
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<td>Infrastructure Access Charge</td>
<td>$2.76/ME</td>
<td>$2.87/ME</td>
<td>$3.01/ME</td>
</tr>
<tr>
<td>Customer Service Charge</td>
<td>$26,400,000</td>
<td>$26,400,000</td>
<td>$26,400,000</td>
</tr>
<tr>
<td>Storage Charge</td>
<td>$63,200,000</td>
<td>$65,000,000</td>
<td>$65,000,000</td>
</tr>
<tr>
<td>Supply Reliability Charge</td>
<td>$26,000,000</td>
<td>$24,800,000</td>
<td>$28,600,000</td>
</tr>
<tr>
<td>Standby Availability Charge per parcel or acre, whichever is greater</td>
<td>$10</td>
<td>$10</td>
<td>$10</td>
</tr>
<tr>
<td>System Capacity Charge</td>
<td>$4,840/ME</td>
<td>$5,029/ME</td>
<td>$5,099/ME</td>
</tr>
<tr>
<td>Treatment Capacity Charge</td>
<td>$123/ME</td>
<td>$128/ME</td>
<td>$141/ME</td>
</tr>
<tr>
<td>Annexation Application Fee (Per Application)</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$10,340</td>
</tr>
</tbody>
</table>

1 Per current Board Policy, TSAWR is set to end December 31, 2020.
2 The Supply Reliability Charge was effective January 1, 2016.
3 Fiscal Year Charge.
4 ME means meter equivalent as defined in the resolution establishing the Infrastructure Access Charge.
5 New fee is effective July 1, 2017.

Table 2 summarizes MWD’s rates and charges that the Water Authority passes through to its member agencies.

Table 2 – Summary of Water Authority Pass Through Rates and Charges

<table>
<thead>
<tr>
<th>MWD Rates and Charges</th>
<th>CY 2016 Previous</th>
<th>CY 2017 Current</th>
<th>CY 2018 Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated Tier 2 Supply Rate $/AF(^1)</td>
<td>$728</td>
<td>$760</td>
<td>$781</td>
</tr>
<tr>
<td>Replenishment Water Rate Untreated ($/AF)(^2)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Replenishment Water Rate Treated ($/AF)(^2)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>MWD Capacity Charge</td>
<td>$12,406,380</td>
<td>$9,105,600</td>
<td>$9,902,340</td>
</tr>
<tr>
<td>Readiness-to-Serve Charge(^3)</td>
<td>$22,145,912</td>
<td>$18,623,577</td>
<td>$16,291,858</td>
</tr>
</tbody>
</table>

1 Agencies exceeding their Tier 1 allocation are subject to the MWD Tier 2 Supply Rate.
2 Discussions on the future of the replenishment program are continuing.
3 Fiscal Year Charge.
The following rates and charges will be effective July 1, 2017:

**Standby Availability Charge.** The County Water Authority Act limits the maximum annual Standby Availability Charge to $10 per acre or parcel, whichever is greater. Beginning before November 6, 1996, the Water Authority has determined that the maximum annual Standby Availability Charge should be levied on property within the Water Authority’s service area. To provide necessary funding for the CIP, the General Manager recommends that the charge continue at the $10 maximum for fiscal year 2017-2018. The Standby Availability Charge rate is effective July 1, 2017.

**Annexation Application Fee.** The Annexation Application Fee recovers the full administrative cost of service associated with an application for annexation and recovers the costs incurred throughout the annexation process. The Annexation Application Fee has not been adjusted since 1983. The Water Authority retained Carollo to conduct a review and update of the fee. The updated Annexation Processing Fee of $10,340 per application will go in effect July 1, 2017.

The following rates and charges are being proposed effective on January 1, 2018:

**Melded Untreated Supply Rate (exclusive of TAWR deliveries).** The Melded Untreated Supply Rate (Melded Supply Rate) will be set to recover the costs of purchasing Tier 1 water from MWD, water purchases from IID, payments in connection with the All-American and Coachella Canal lining projects, payments to MWD under the 2003 Exchange Agreement for conveyance of IID and Canal Lining water, desalinated water and the portion of the Water Authority’s revenue requirement allocated to the supply rate. The revenue requirement may include other costs specifically associated with the acquisition of the IID supply source, cost recovery for supply costs previously incurred but not charged, reserve withdrawals/deposits and coverage requirements. Table 3 on the following page shows the calculation of the Melded Supply Rate.
Table 3 – Untreated Melded Supply Rate Calculation

<table>
<thead>
<tr>
<th>Acre-Foot Sales (000's)</th>
<th>CY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD Tier I Deliveries</td>
<td>141.8</td>
</tr>
<tr>
<td>IID Deliveries</td>
<td>130.0</td>
</tr>
<tr>
<td>Canal Water Deliveries</td>
<td>78.7</td>
</tr>
<tr>
<td>Operational Storage Utilization</td>
<td>10.0</td>
</tr>
<tr>
<td>Carlsbad Desalination Production</td>
<td>42.0</td>
</tr>
<tr>
<td><strong>TOTAL A/F SALES</strong></td>
<td><strong>402.5/AF</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Purchase Cost (in Millions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD Tier 1 Water Purchases</td>
<td>$98.6</td>
</tr>
<tr>
<td>QSA Exchange with MWD Costs</td>
<td>101.4</td>
</tr>
<tr>
<td>IID Water Purchases</td>
<td>85.9</td>
</tr>
<tr>
<td>Canal Water Purchases</td>
<td>1.1</td>
</tr>
<tr>
<td>Operational Storage Utilization</td>
<td>5.9</td>
</tr>
<tr>
<td>Desalinated Water Supply Costs</td>
<td>85.0</td>
</tr>
<tr>
<td><strong>Subtotal Water Purchases</strong></td>
<td><strong>$377.9</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Costs (in Millions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Revenue Requirement</td>
<td>$16.3</td>
</tr>
<tr>
<td>QSA Environmental*</td>
<td>0.0</td>
</tr>
<tr>
<td>Groundwater Storage</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Subtotal Other Costs</strong></td>
<td><strong>$16.8</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offsetting Revenues (in Millions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Reliability Charge Revenues</td>
<td>($28.6)</td>
</tr>
<tr>
<td>Cash and Reserves</td>
<td>(6.1)</td>
</tr>
<tr>
<td><strong>Total Net Supply Costs</strong></td>
<td><strong>$360.0</strong></td>
</tr>
</tbody>
</table>

| A/F RATE (Total Net Supply Cost /Total AF Sales) | $894/AF |

*Cost recovery deferred to provide CY 2018 rate relief.

Based upon these options, the Melded Supply Rate will increase from its current level of $855/AF to $894/AF in CY 2017.

**Transitional Special Agricultural Water Program Rates.**

With the extension of the TSAWR program through December 31, 2020, the untreated TSAWR will be set to MWD’s Tier 1 rate and increase from its current level of $666/AF to $695/AF in CY 2018. In addition, the treated TSAWR will increase from $956AF in CY 2017 to $995/AF in CY 2018. The TSAWR program rates correspond to a lower level of water supply reliability for its participants.

**Melded Treatment Rate.** The Melded Treatment Rate will be set to recover the costs of treating water for the Water Authority and may include costs of purchasing treated water from MWD, the Levy and Olivenhain treatment plants, the Water Authority’s Twin Oaks Valley Water Treatment
Plant, desalinated water costs allocated to this rate and may recover certain other costs associated with the delivery of treated water. For CY 2018, the Melded Treatment Rate will increase from its current level of $290/AF to $300/AF. Table 4 shows the calculation of the Melded Treatment Rate.

### Table 4 – Melded Treatment Rate Calculation

<table>
<thead>
<tr>
<th>Acre-Foot Sales (A/F) (000's)*</th>
<th>CY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD</td>
<td>49.0</td>
</tr>
<tr>
<td>Water Authority</td>
<td>51.8</td>
</tr>
<tr>
<td>Helix</td>
<td>16.0</td>
</tr>
<tr>
<td>Carlsbad Desalination Production</td>
<td>42.0</td>
</tr>
<tr>
<td><strong>TOTAL A/F SALES</strong></td>
<td><strong>158.8/AF</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost (in Millions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD</td>
<td>$15.7</td>
</tr>
<tr>
<td>Water Authority</td>
<td>16.1</td>
</tr>
<tr>
<td>Helix</td>
<td>3.3</td>
</tr>
<tr>
<td>Desalinated Water**</td>
<td>12.6</td>
</tr>
<tr>
<td><strong>TOTAL TREATMENT COSTS</strong></td>
<td><strong>$47.7</strong></td>
</tr>
</tbody>
</table>

A/F RATE (Total Treatment Costs/Total A/F Sales) $300/AF

* Includes treated water deliveries intended for agriculture

**Based on proposed cost of treated water (42,000AF*$300 = $12.6M)

**Transportation Rate.** The Transportation rate is set to recover capital, operating, and maintenance costs of Water Authority-owned water delivery facilities, including facilities used to physically transport the water to member agency meters. The Transportation Rate is charged to each acre-foot of water delivered by the Authority as it occurs. For CY 2018, the Transportation Rate will increase from its current level of $110/AF to $115/AF.

**Infrastructure Access Charge.** The infrastructure access charge is imposed on member agencies as a condition of maintaining connections to Water Authority facilities. It is apportioned based on water meters within each member agency. For CY 2018, the infrastructure access charge will increase from its current level of $2.87/ME to $3.01/ME.

**Customer Service Charge.** The Customer Service Charge is set to recover costs that are necessary to support the functioning of the Water Authority. The Customer Service Charge will be allocated among the member agencies on the basis of each agency’s three-year rolling average of member agency supply purchases from the Water Authority. For CY 2018, the Customer Service Charge will remain unchanged at $26.4M.

**Storage Charge.** The Storage Charge is set to recover costs associated with the Emergency Storage Program and the Carryover Storage Program. Because agricultural users that participate in the SAWR program agree to reduced or interrupted service during times of water emergencies, they will not receive benefit from the storage program; therefore, the Storage Charge is based on all non-SAWR water deliveries and will be allocated among the member agencies using a pro rata share of
each agency’s three-year rolling average deliveries. For CY 2018, the Storage Charge will remain constant at its CY 2017 level of $65.0M.

**Supply Reliability Charge.** The Supply Reliability Charge (SRC) is a fixed charge established in 2016 to recover a portion of the costs associated with the Water Authority’s highly reliable water supplies, which includes desalinated and IID transfer waters. The charge is allocated to member agencies based upon their pro rata share of the Water Authority’s 5-year rolling M&I deliveries (agricultural deliveries are not included). For CY 2018, the SRC will increase from its current level of $24.8M to $28.6M.

**Capacity Charges.** Capacity charges are one time fees charged to new system connections. The fee is set to recover the proportionate cost of the system necessary to serve that connection.

- **System Capacity Charge.** This charge recovers a portion of the capital costs for the conveyance and storage facilities necessary to operate the delivery system. The current charge of $5,029/ME for each new meter equivalent will be administratively adjusted to $5,099/ME for effective January 1, 2018.

- **Water Treatment Capacity Charge.** This charge recovers a portion of the regional water treatment facility to be collected from all future users of the facility. In keeping with the Water Authority’s policy of exempting agencies that cannot benefit from a service, the Water Treatment Capacity Charge excludes customers from the City of Del Mar, City of Escondido, and City of Poway. The current charge of $128/ME for each new meter equivalent will be administratively adjusted to $141/ME effective January 1, 2018.

Table 5 presents a summary of the CY 2018 Capacity Charge schedule that will be go in effect January 1, 2018.

<table>
<thead>
<tr>
<th>Meter Size (Inches)</th>
<th>Factor</th>
<th>System Capacity Charge</th>
<th>Water Treatment Capacity Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1&quot;</td>
<td>1</td>
<td>$5,099</td>
<td>$141</td>
</tr>
<tr>
<td>1&quot;</td>
<td>1.6</td>
<td>8,158</td>
<td>226</td>
</tr>
<tr>
<td>1.5&quot;</td>
<td>3</td>
<td>15,297</td>
<td>423</td>
</tr>
<tr>
<td>2&quot;</td>
<td>5.2</td>
<td>26,515</td>
<td>733</td>
</tr>
<tr>
<td>3&quot;</td>
<td>9.6</td>
<td>48,950</td>
<td>1,354</td>
</tr>
<tr>
<td>4&quot;</td>
<td>16.4</td>
<td>83,624</td>
<td>2,312</td>
</tr>
<tr>
<td>6&quot;</td>
<td>30</td>
<td>152,970</td>
<td>4,230</td>
</tr>
<tr>
<td>8&quot;</td>
<td>52</td>
<td>265,148</td>
<td>7,332</td>
</tr>
<tr>
<td>10&quot;</td>
<td>78</td>
<td>397,722</td>
<td>10,998</td>
</tr>
<tr>
<td>12&quot;</td>
<td>132</td>
<td>673,068</td>
<td>18,612</td>
</tr>
</tbody>
</table>
The following MWD rates and charges are passed on directly or allocated to the Water Authority’s member agencies in the same manner as MWD applies them to the Water Authority.²

**MWD Capacity Charge.** For CY 2018, the Capacity Charge is $8,700 per cubic foot second (cfs) of maximum daily flow requested by a MWD member agency. The Capacity Charge is a fixed charge levied on an agency’s maximum daily flows over the three previous fiscal years. It recovers the cost of providing peak capacity within the distribution system, and is designed to encourage member agencies to shift demands and avoid placing large daily peaks on the MWD system during the summer months. Daily flow measured between May 1 and September 30 for purposes of billing the Capacity Charge will include deliveries (except long-term seasonal storage deliveries) made by MWD to a member agency or member agency customer including water transfers, exchanges and agricultural deliveries. As part of a separate surface storage operating agreement to manage seasonal peaking, the Authority is expected to reserve its full available capacity. The Capacity Charge will be set at $9,902,340. The Authority’s Board has directed that the Capacity Charge will be recovered proportionally based on a five-year rolling average of member agency flows during coincident peak weeks.

**Readiness-to-Serve Charge.** MWD’s Readiness-to-Serve Charge differs from the other MWD charges in that it is set on a Fiscal Year basis. The total Readiness-to-Serve Charge will increase from its current level of $135 million to $137.5 million. The Authority’s share is set at $28,956,726 for Fiscal Year 2017-2018. After credits from the MWD Standby Charge, and administrative costs, the net Water Authority share is $16,291,858. MWD’s Readiness-to-Serve Charge will recover costs associated with standby and peak conveyance capacity and system emergency storage capacity. The Readiness-to-Serve Charge will be allocated among MWD member agencies on the basis of each agency’s ten-year rolling average of firm demands (including water transfers and exchanges conveyed through system capacity). This allocation will be revised each year. Revenues equal to the amount of MWD Standby Charges will continue to be credited against the member agency’s Readiness-to-Serve Charge obligation unless a change is requested by the member agency. The Board has directed that the Authority’s Readiness-to-Serve Charge will be passed through proportionally to member agencies on the basis of each agency’s ten-year rolling average of firm demands (including water transfers and exchanges conveyed through system capacity).

**Summary**
Staff is seeking Board direction for which rate and charge increases should be considered at the Public Hearing on June 22, 2017.

Prepared by: David G. Shank, Financial Planning Manager
Reviewed by: Lisa Marie Harris, Director of Finance/Treasurer
Approved by: Sandra L. Kerl, Deputy General Manager

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² The Water Authority has opposed MWD’s cost of service methodology associated with these charges.
Attachments:

A) Resolution of the Board of Directors of the San Diego County Water Authority fixing the time and place for a public hearing to consider: (1) Changes to the rates and charges for delivery and supply of water; (2) Continuing the existing Standby Availability Charge; and (3) Changes to the system and treatment capacity charges.

B) Carollo’s Cost of Service Study for Calendar Year 2018 Rates and Charges
RESOLUTION NO. 2017-

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY FIXING THE TIME AND PLACE FOR A PUBLIC HEARING TO CONSIDER: (1) CHANGES TO THE RATES AND CHARGES FOR DELIVERY AND SUPPLY OF WATER, AND (2) CONTINUING THE EXISTING STANDBY AVAILABILITY CHARGE (3) CHANGES TO THE SYSTEM AND TREATMENT CAPACITY CHARGES.

WHEREAS, pursuant to the County Water Authority Act, the Board of Directors has adopted resolutions and ordinances setting rates and charges for delivery and supply of water, use of facilities and provision of other services; and

WHEREAS, the Director of Finance has provided a report recommending increases of Water Authority rates and charges a copy of which has been filed with the Clerk of the Board; and

WHEREAS, the Board of Directors desires to set a public hearing to consider comments regarding continuing the existing rates and charges

NOW, THEREFORE, IT IS HEREBY RESOLVED by the Board of Directors of the San Diego County Water Authority as follows:

1. The foregoing recitations are true and correct.

2. A public hearing will be held by the Board of Directors of the San Diego County Water Authority Administrative and Finance Committee on June 22, 2017, at 9:00 a.m., or as soon thereafter as the matter may be heard, in the Board Room of the Water Authority at 4677 Overland Avenue, San Diego, California 92123, to consider changes to the rates and charges for delivery and supply of water, use of facilities, and provision of other services as determined necessary by the Director of Finance

3. The Clerk of the Board is directed to cause the following notice to be published pursuant to Government Code Section 6066 in the newspapers of general circulation stated in paragraph 5, below:

Legal Notice

Notice is hereby given that the San Diego County Water Authority Board of Directors Administrative and Finance Committee will hold a public hearing at June 22, 2017, at 9:00 a.m. or as soon thereafter as may practicably be heard, at its offices located at 4677 Overland Avenue, San Diego, CA 92123. The purpose of the hearing is to hear objections, protests or comments from the public about proposed and recommended water rates and charges as specified below. The Water Authority also intends to continue the water standby availability charge at it existing level, and to levy property taxes as authorized by law. For further details see the memorandum dated May 17, 2017 on file with the Clerk of the Board.
The following rates and charges will be effective July 1, 2017:

**Standby Availability Charge.** The County Water Authority Act limits the maximum annual Standby Availability Charge to $10 per acre or parcel, whichever is greater. Beginning before November 6, 1996, the Water Authority has determined that the maximum annual standby availability charge should be levied on property within the Water Authority’s service area. To provide necessary funding for the CIP, the General Manager recommends that the charge continue at the $10 maximum for fiscal year 2017-2018. The Standby Availability Charge rate is effective July 1, 2017. The amount of this charge has not changed since the adoption of Proposition 218 in 1996. The justification for imposition of this charge is the same as for when the charge was initially levied and as it was imposed before November 6, 1996.

**Annexation Application Fee.** The Annexation Application Fee recovers the full administrative cost of service associated with an application for annexation, to recover the costs incurred throughout the annexation process. The Annexation Processing Fee has not been adjusted since 1983. The Water Authority retained Carollo to conduct a 2017 review and update of the Water Authority’s Annexation Fee. The updated Annexation Processing Fee of $10,340 per application will go in effect July 1, 2017.

The following rates and charges are being proposed effective on January 1, 2018:

**Melded Untreated Supply Rate.** The Melded Untreated Supply Rate will be set to recover the costs of purchasing Tier 1 water from MWD, water purchases from IID, payments in connection with the All-American and Coachella Canal lining projects, payments to MWD under the 2003 Exchange Agreement for conveyance of IID and Canal Lining water, and may include other costs specifically associated with the acquisition of the IID supply source, cost recovery for supply costs previously incurred but not charged, costs for acquisition of desalinated water pursuant to a water purchase agreement, and other supply costs. For CY 2018, the Melded Supply Rate may increase from its current level of $855/AF to $894/AF.

**Melded Treatment Rate.** The Melded Treatment Rate will be set to recover the costs of treating water for the Water Authority and may include costs of purchasing treated water from MWD, and the Levy and Olivenhain treatment plants and may recover certain other costs associated with the delivery of treated water, including certain costs of desalinated water. For CY 2018, the Melded Treatment Rate may increase from its current level of $290/AF to $300/AF.

**Transportation Rate.** The Transportation Rate is a uniform rate set to recover capital, operating and maintenance costs of the Water Authority’s aqueduct system including all facilities used to physically transport the water to member agency meters. The Transportation Rate is charged to each acre-foot of water delivered by the Water Authority as it occurs. For CY 2018, the Transportation Rate may increase from its current level of $110/AF to $115/AF.
Transitional Special Agricultural Water Program Rates (TSAWR). The untreated TSAWR may increase from its current level of $666/AF to $695/AF in CY 2018. The treated TSAWR may increase from $956/AF in CY 2015 to $995/AF in CY 2018.

Infrastructure Access Charge. The infrastructure access charge is imposed on member agencies as a condition of maintaining connections to Water Authority facilities. It is apportioned based on retail water meters within each agency. For CY 2018, the infrastructure access charge may increase from its current level of $2.87/ME to $3.01/ME. ME means meter equivalent as defined in the resolution establishing the Infrastructure Access Charge.

Customer Service Charge. The Customer Service Charge is set to recover costs that are necessary to support the functioning of the Water Authority, to develop policies and implement programs that benefit the region as a whole. The Customer Service Charge will be allocated among the member agencies on the basis of each agency’s three-year rolling average of member agency purchases from the Water Authority (excludes member agency wheeled water). For CY 2018, the Customer Service Charge is recommended to remain at its current level of $26.4M.

Storage Charge. The Storage Charge is set to recover costs associated with the Emergency Storage Program. The Storage Charge is based on all non-agricultural water deliveries and will be allocated among the member agencies using a pro rata share of each agency’s three-year rolling average deliveries (including all users, member agencies and third-party wheeling throughput). For CY 2018, the Storage Charge will remain constant at its CY 2017 level of $65.0M.

Supply Reliability Charge. The Supply Reliability Charge (SRC) is a fixed charge established in 2016 to recover a portion of the costs associated with the Water Authority’s highly reliable water supplies, which includes desalinated water and IID transfer water. The charge is allocated to member agencies based upon their pro rata share of the Water Authority’s 5-year rolling M&I deliveries (agricultural deliveries are not included). For CY 2018, the SRC may increase from its current level of $24.8M to $28.6M.

System Capacity Charge. This charge recovers a portion of the capital costs for the conveyance and storage facilities necessary to operate the delivery system. The current charge of $5,029/ME for each new meter equivalent will be administratively adjusted to $5,099/ME. The adjustment will be effective January 1, 2018.

Water Treatment Capacity Charge. This charge recovers a portion of the regional water treatment facility to be collected from all future users of the facility. In keeping with the Water Authority’s policy of exempting agencies that cannot benefit from a service, the Water Treatment Capacity Charge excludes customers from the City of Escondido, City of Del Mar, and City of Poway. The current charge of $128/ME for each new meter equivalent will be administratively adjusted to $141/ME. The adjustment will be effective January 1, 2018.
The following MWD rates and charges are passed on directly or allocated to the member agencies as follows;

**MWD Capacity Charge.** For CY 2018, the Capacity Charge is $8,700 per cubic foot second (cfs) of maximum daily flow requested by a MWD member agency. The Capacity Charge is a fixed charge levied on an agency’s maximum daily flows over the three previous fiscal years. It recovers the cost of providing peak capacity within the distribution system, and is designed to encourage member agencies to shift demands and avoid placing large daily peaks on the MWD system during the summer months. Daily flow measured between May 1 and September 30 for purposes of billing the Capacity Charge will include deliveries (except long-term seasonal storage deliveries) made by MWD to a member agency or member agency customer including water transfers, exchanges and agricultural deliveries. As part of a separate surface storage operating agreement to manage seasonal peaking, the Water Authority is expected to reserve its full available capacity. The Capacity Charge will be set at $9,902,340. The Water Authority’s Board has directed that the Capacity Charge will be recovered proportionally based on a five-year rolling average of member agency flows during coincident peak weeks.

**Readiness-to-Serve Charge.** MWD’s Readiness-to-Serve Charge differs from the other MWD charges in that it is set on a Fiscal Year basis. The total Readiness-to-Serve Charge will increase from its current level of $135 million to $137.5 million. The Water Authority’s share is set at $28,956,726 for Fiscal Year 2017-2018. After credits from the MWD Standby Charge, and administrative costs, the net Water Authority share is $16,291,858. MWD’s Readiness-to-Serve Charge will recover costs associated with standby and peak conveyance capacity and system emergency storage capacity. The Readiness-to-Serve Charge will be allocated among MWD member agencies on the basis of each agency’s ten-year rolling average of firm demands (including water transfers and exchanges conveyed through system capacity). This allocation will be revised each year. Revenues equal to the amount of MWD Standby Charges will continue to be credited against the member agency’s Readiness-to-Serve Charge obligation unless a change is requested by the member agency. The Board has directed that the Water Authority’s Readiness-to-Serve Charge will be passed through proportionally to member agencies on the basis of each agency’s ten-year rolling average of firm demands (including water transfers and exchanges conveyed through system capacity).

The Water Authority also intends to continue the Water Standby Availability Charge at the existing level, and to levy property taxes as authorized by law.
By Order of the Board of Directors of the San Diego County Water Authority

Melinda Cogle,
Clerk of the Board

5. The newspapers in which said notice is to be published are:

San Diego Union-Tribune
350 Camino de la Reina
San Diego, CA 92108

North County Times
1722 S. Coast Hwy
Oceanside, CA 92054

PASSED, APPROVED AND ADOPTED, this 25th day of May 2017.

AYES: Unless noted below all Directors voted aye.

NOES:

ABSTAIN:

ABSENT:

Mark Muir, Chair

ATTEST:

____________________________
Gary Croucher, Secretary

I, Melinda Cogle, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution No. 2017-__ was duly adopted at the meeting of the Board of Directors on the date stated above.

____________________________
Melinda Cogle
Clerk of the Board

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1 Executive Summary

The San Diego County Water Authority (Water Authority, or SDCWA) is a public agency serving the San Diego region as a wholesale supplier of water. The Water Authority’s mission is to provide a safe and reliable supply of water to its 24 member agencies. The Water Authority purchases water from the Metropolitan Water District of Southern California (MWD), and obtains and produces additional supplies pursuant to agreements commonly referred to as the Quantification Settlement Agreement (QSA). The Water Authority also has a water purchase agreement with Poseidon Resources, LLC, for desalinated water produced at Poseidon’s Carlsbad Desalination Plant.

The Water Authority engaged Carollo Engineers (Carollo) to perform a Cost of Service Study to review and validate the Proposed Calendar Year (CY) 2018 water rates and charges. In meeting this scope, Carollo developed an independent rate model and reviewed the Water Authority’s existing cost of service methodology and financial model for compliance with American Water Works Association (AWWA) cost of service standards, industry best practices, Board policies, as described in Report Section 2.3, and California legal requirements, as described in Report Section 2.4. Together, these establish the cost of service standard that is referenced throughout this report.

Based on Carollo’s independent review, Carollo has determined that the amount of money reasonably anticipated to be generated through the Water Authority’s proposed CY 2018 water rates and charges, when combined with other Water Authority revenues, is reasonable to recover the costs of the Water Authority’s activities. This is consistent with the findings of Carollo’s 2014 and 2016 Cost of Service Reports. It is Carollo’s professional opinion that the Water Authority’s allocation of rates and charges to each of the member agencies bears a fair, reasonable, and logical relationship to each member agency’s burdens on or benefits from Water Authority services. This allocation complies with legal requirements, cost of service standards, industry best practice, and Board policy requirements as discussed in this report.

1.1 Fiscal Sustainability Process

The SDCWA Board of Directors, member agencies, and Water Authority staff engaged in an 18-month collaborative process to identify and address issues necessary to maintain the long-term fiscal sustainability of the Water Authority. A detailed review of the Water Authority’s revenue structure, and evaluation of potential enhancements that would strengthen the Water Authority’s future fiscal health, was central to this effort. From this process, three rates and charges recommendations were unanimously approved by the Board and were implemented in CY 2016. The modifications are as follows:

Supply Reliability Charge (SRC) – This charge recognizes the importance of equitably recovering the cost of the Water Authority’s investments in long-term water supply reliability in accordance with cost of service principals and California law. As adopted by the Board, the SRC recovers a portion of the water purchase agreement costs associated with the Carlsbad Desalination supply and the Imperial Irrigation District’s (IID) water transfers. In summary, the SRC is designed to:

- Recognize the cost and benefit of supply diversification
- Balance with local supply development
Ensure member agency and inter-generational equity

The adopted SRC establishes a rate that benchmarks the cost differential between MWD water, the Water Authority’s least reliable water supply, and the new, firm supply.

**Non-Commodity Revenue Offsets** – The CY 2014 Cost of Service recommended that the Treatment Rate should proportionally benefit from offsetting revenues to which the rate contributes. The Treatment Rate was implemented after the other four rate categories had been established and was originally considered as a separate, stand-alone charge. Beginning in CY 2016, the Treatment Rate receives a revenue offset similar to all other rate categories.

**Transitional Special Agricultural Water Rate (TSAWR) Program** – The TSAWR provides a discounted cost of water to participating agricultural customers in exchange for a reduced level of water reliability. There are two special components to the TSAWR rates – an exemption of the storage charge; and a supply discount. TSAWR participants are exempt from funding the storage charge as they have agreed to curtail water demands during shortages. The supply discount also allows participants to purchase water at MWD’s Tier 1 rate, because these customers would be required to reduce demands to stay within the Tier 1 allocation.

Based on Carollo’s review of the three rates and charges recommendations proposed as part of the Fiscal Sustainability Process, and adopted by the Board, the Water Authority’s rates align with cost of service principles, and reflect the cost of providing services to different system users.

### 1.2 RATE AND CHARGES

The Water Authority imposes several different types of water rates and charges that are collected from the member agencies. These include volumetric commodity rates that are collected monthly per unit of metered water delivered to each agency (e.g., the supply, transportation, and treatment rates) and service charges that are apportioned among the member agencies according to their respective three or five-year rolling average of water purchases from the Water Authority (e.g., three years for customer service and storage, and five years for supply reliability charges). The water rates are set as a unit price per acre-foot for actual water delivered. The customer service and storage charges recover costs for facilities and services that are provided generally and are apportioned in a manner that is designed to account for annual fluctuations in water demands and demand patterns commonly resulting from weather conditions and conservation requirements.  

In addition to these water rates and charges, the Water Authority recovers at least 25 percent of fixed annual expenditures through a combination of ad valorem property taxes and water availability standby charges imposed on properties within the Water Authority’s service area; and an Infrastructure Access Charge (IAC). The IAC is an annual service charge imposed on member agencies and apportioned based on their respective total connected meter capacity, a measure of an agency’s maximum potential to take

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1 Customer Service Charge allocation excludes member agency wheeled water.
water from the Water Authority. The Water Authority also imposes System Capacity and Treatment Capacity Charges on ultimate users of water obtaining new and updated water meters which fairly and reasonably recovers the cost to provide system capacity for new users and collects revenues through the Standby Availability Charge and property taxes.

A description of each water rate and charge category is as follows:

**Customer Service:**
The Customer Service charge is a commodity-based fixed charge set to recover costs that are necessary to support the functions of the Water Authority, to develop policies and to implement system-wide programs.

**Storage:**
The Storage charge is a commodity-based fixed charge set to recover costs associated with the Emergency Storage Program (ESP) and Carryover Storage Program (CSP). The ESP and CSP are a system of reservoirs, interconnected pipelines, and pumping stations designed to make water available to the San Diego region in the event of an interruption in imported water deliveries and in the case of the CSP to provide operational flexibility and drought protection.

**Supply Reliability Charge:**
The Supply Reliability Charge is a new commodity-based fixed charge established to recover a portion of the Carlsbad Desalination Plant and the IID transfer water costs. The charge is set equal to the difference between the supply cost of desalination and IID transfer water purchases and a like amount of water purchased at the MWD Tier 1 rate multiplied by 25 percent and apportioned according to a five-year rolling average of water purchases.

**Supply:**
The Supply rate is a volumetric charge that recovers the cost of water supply incurred by the Water Authority including the full cost of purchase of water from MWD at the delivery point, payments to the IID for transfer of conserved water, costs associated with obtaining conserved water from the Coachella and All-American Canal Lining Projects, costs of MWD wheeling for non-MWD water supplies (e.g. QSA supply exchange costs), other costs associated with acquisition of supplies and implementation of the Quantification Settlement Agreement (QSA), and supply and acquisition costs related to the Poseidon water purchase agreement associated with the Carlsbad Desalination Project.

**Transportation:**
The Transportation rate is a volumetric charge set to recover capital, operating, and maintenance costs of the Water Authority’s water delivery facilities including all facilities used to physically transport the water to member agency meters.  

**Treatment:**
The Treatment rate is a volumetric charge designed to recover the Water Authority’s cost of treating

2Costs associated with facilities covered by the East County Facility Agreements are not included in Transportation, but relate to treatment services in connection with the Helix Water District’s Levy Water Treatment Plant and are recovered through the Treatment rate.
water. The Melded M&I Treatment Rate includes the costs of purchasing treated water from MWD, the operating and capital costs associated with the Water Authority’s agreement with Helix Water District’s Levy Water Treatment Plant, operating costs associated with the Olivenhain Treatment Plant, and the operating and capital costs associated with the Twin Oaks Valley Treatment Plant.

1.3 WATER AUTHORITY RATE-SETTING PROCESS
The Water Authority develops proposed rates and charges on an annual basis, which it presents to the Board of Directors for adoption. Each year, the Water Authority undertakes the following cost of service processes to determine water rates and charges:

- **Step 1:** Establish the revenue requirement – determine the total amount of revenues needed to recover the Water Authority’s annual operating and capital expenditures.
- **Step 2:** Allocate the revenue requirement and offsetting non-commodity revenues to rate categories to determine the net revenue requirement for each category.
- **Step 3:** Determine the legal rates and charges based upon the net revenue requirements, water sales projections, and other key financial management metrics.
- **Step 4:** Allocate fixed charges to member agencies based on specific allocation methodologies.

The Water Authority’s methodology and application remains consistent with the American Water Works Association (AWWA) cost of service guidelines, as well as existing Board policies and legal requirements stated herein. Rates are designed to recover all direct, indirect, and other costs of providing water and water services that are not recovered through other revenues such as taxes, assessments, or other charges. Throughout the process, the Water Authority identifies major cost drivers and allocates them to specific rate and charge categories.

1.4 CAROLLO INDEPENDENT REVIEW PROCESS
Carollo independently performed Steps 2 through 4 above, when developing the proposed CY 2018 rates and charges. The purpose of this cost of service process is to: (1) identify which costs are recovered through water rates and charges; (2) allocate the Water Authority costs into functional rate categories; (3) update the rates and use of offsetting revenues to fairly and reasonably recover system expenditures from member agencies; and, (4) appropriately calculate non-commodity revenues.
In order to determine the costs to be recovered by water rates and charges, Carollo relied upon cost projections, reserve requirements, and revenue policies provided by the Water Authority. Source data for this review included the proposed Fiscal Years (FY) 2018 and 2019 budget cost projections provided by the Water Authority’s Finance Department; the 2016 Comprehensive Annual Financial Report; debt service schedules and bond official statements; Board policy documents; and summary outputs from the Water Authority’s rate model. Additionally, Carollo worked with the Water Authority’s Finance staff to review the cost of service methodology and process.

In Carollo’s 2014 and 2016 Cost of Service reviews, Carollo conducted interviews with select divisions within the Water Authority to discuss the functional allocation approach and metrics for assigning operating costs to rate categories. While the overall percentages will change from year-to-year, the Water Authority’s allocation approach remains consistent and continues to be valid.

The results of this independent review and analysis confirm the CY 2018 rates and charges calculated by the Water Authority. The details of this analysis are presented within the body of this report.

1.5 SUMMARY OF FINDINGS

The Water Authority has developed a clear and defensible process to allocate system expenditures to rate categories and fairly and reasonably recover those expenditures from member agencies. The analysis performed by Carollo has confirmed that the Water Authority’s cost of service approach and the proposed CY 2018 rates and charges as determined in this report comply with cost of service principles, industry best practices, and applicable legal requirements.

Based on Carollo’s independent review and rate development, the proposed CY 2018 cost of service water rates and charges are illustrated in Table 1-1 below.

<table>
<thead>
<tr>
<th>TABLE 1-1 SUMMARY OF PROPOSED CY 2018 WATER RATES AND CHARGES</th>
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<tbody>
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<td>Customer Service Charge ($M)</td>
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<tr>
<td>Storage Charge ($M)</td>
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<tr>
<td>Supply Reliability Charge ($M)</td>
</tr>
<tr>
<td>Melded M&amp;I Supply Rate ($/AF)</td>
</tr>
<tr>
<td>Melded M&amp;I Treatment Rate ($/AF)</td>
</tr>
<tr>
<td>Transportation Rate ($/AF)</td>
</tr>
</tbody>
</table>
INTRODUCTION

Carollo conducted an independent review of the Water Authority’s CY 2018 water rates and charges. The purpose of this Cost of Service Study was to calculate and affirm the proposed CY 2018 water rates and charges consistent with cost of service principles and the AWWA M1 guidelines, Board policy, and legal requirements. The results of this study are outlined within the body of this report.

The cost of service and rate development review process consisted of the following steps:

- **Revenue Requirement Analysis**
  - Reviewed the total revenues required to fund operations, capital, debt service and coverage, and policy requirements.

- **Functional Allocation by Rate Category**
  - Allocate the revenue requirements and offsetting revenues to the Water Authority’s five water rate and charge categories in a fair and equitable manner.

- **Water Rates and Charges**
  - Set rates to recover the revenue requirements from member agencies based on water sales projections.

- **Member Agency Allocation**
  - Allocate expenditures to each member agency based on water demand patterns and other key metrics.

Based on this study review and in Carollo’s professional opinion, the Water Authority’s CY 2018 rates and charges are consistent with AWWA cost of service principles, Board policies and legal requirements, and appropriately recover costs from Member Agencies as described herein.

2.1 BACKGROUND ON EXISTING RATES AND CHARGES

The Water Authority sets water rates and charges which, when combined with other revenues, are sufficient to pay operating expenses, provide for maintenance and repair of facilities, provide for payment of principle and interest on debt, and provide reasonable reserves consistent with bond covenants and sound fiscal management. As a public agency, the Water Authority sets rates and collects other revenues to meet all reasonably anticipated costs of its operations as required by law.

On June 27, 2002, the Water Authority adopted Ordinance No. 2002-03 establishing the current revenue structure, which consists of ad valorem property taxes, including payments of member agencies in-lieu of taxes; a Water Standby Availability Charge levied pursuant to § 5.2 of the County Water Authority Act;
an Infrastructure Access Charge imposed on member agencies as a condition of maintaining connections to Water Authority facilities; a capacity charge levied pursuant to § 5.9 of the County Water Authority Act; and rates and charges for delivery and supply of water, use of facilities, and provision of other services. This revenue structure is reflected in § 5.00.050 of the Water Authority Administrative Code.

The June 2002 Board action unbundled the then uniform commodity rate, creating separate commodity rates and charges for customer service, storage, supply, and transportation. This action was the result of a multi-year work effort involving the member agencies, Water Authority staff, and consultants. The unbundled rates and charges took effect January 1, 2003. With the development of the Twin Oaks Water Treatment Plant, treatment was later added as the final functional rate category in 2006. In March 2015, the Board added a Supply Reliability Charge as described in this report.

2.2 CRITERIA FOR FINDINGS AND RECOMMENDATIONS

To confirm the appropriateness and general application of AWWA cost of service principles, Board policies, and legal requirements, Carollo applied the following framework throughout the review:

- Does the cost allocation approach result in a fair, reasonable, and quantifiable connection between the cost of services made available, and the benefits received by each ratepayer?
- Is the allocation approach and methodology consistent with standards established in the AWWA M1 manual, meet Board policies, and adhere to applicable legal requirements?
- Have the policies and standards been applied consistently by the Water Authority? Is it likely that the allocation approach will be appropriate for use by the Water Authority in the future?
- Are there issues or processes that may be appropriate to highlight for possible financial review?

The review presented in this report applies these criteria to the existing revenue requirement and water rate and charge methodology utilized by the Water Authority.

2.3 KEY GOVERNING BOARD POLICIES

In setting its rates and charges, the Water Authority must first meet cost of service requirements, in which rates and charges may not exceed the reasonable cost of providing the services, as well as clearly demonstrate the nexus between the costs allocated and services provided to customers. As this requirement is achieved, the rates must also adhere to adopted Board policies, which serve as the basis for the determination of the total revenue requirement as well as the proportion of the revenue requirement to be recovered by fixed charges and variable commodity rates. Several key Board Policies are highlighted below and can be found in the appendix of this report.

2.3.1 Infrastructure Access Charge

In 1998, under Resolution No. 98-26, the Board established the Infrastructure Access Charge (IAC). The intent of the IAC is to provide the Water Authority with a more appropriate balance of fixed and commodity revenues. Prior to the implementation of the IAC, the Water Authority’s revenues had a greater dependency on variable revenues that fluctuated with demand and did not adequately align with the existing cost structure. As such, the IAC was designed to be independent of commodity sales and the new
business development cycle and generate a minimum 25 percent ratio of fixed revenues to fixed expenditures. Resolution No. 98-26 is included as Appendix A.

2.3.2 Ordinance No. 2002-03

Following development and implementation of the IAC, the Water Authority reviewed the existing rate structure and redesigned the rate structure in 2002. Ordinance No. 2002-03 transitioned the rate structure from a historical unit price ("postage stamp") water rate to assigning the revenue requirements to functional categories. The rate structure was split into fixed and variable components. The fixed water rate categories are comprised of the Storage and Customer Service charges. The variable water rate categories encompass the Transportation, Melded M&I Treatment, and Melded M&I Supply rates. This transition further aligned the Authority’s expenditure and cost recovery nexus. The ordinance in its entirety is included as Appendix B.

2.3.3 Financial Management Amendment (2006)

In 2006, following the recommendations of the Rate Model Workgroup (RMWG) and Administrative and Finance Committee, the Board amended the Water Authority’s financial policies regarding the Rate Stabilization Fund (RSF) and Debt Service Coverage Ratio (DSCR). As part of the amendments, the Board established a target funding level for the RSF that better protects the Water Authority against the financial impact of 2.5 years of wet weather (3.5 years max) where water sales are moderated. In addition, it established a target DSCR of 1.50x, which is above the minimum legal bond covenant of 1.20x.

The overall benefits of the amendments include reduced rate volatility, increased protection against wet weather, a transparent and flexible RSF framework, and increased cash funding of the Capital Improvement Program (CIP). The RSF also provides a mechanism for rate smoothing and source of emergency funding, as necessary. Furthermore, it strengthened key financial ratios—higher debt service coverage ratio, decreased debt ratio and increased cash days—to support the maintenance of the Water Authority’s AA+ credit ratings and access to lower rates. The Board Action, implementing the RMWG Financial Policy Proposal is included as Appendix C.

2.3.4 Administrative and Finance Committee Recommendations (2015)

Following a collaborative effort over the previous 18 months, the Board approved the Administrative and Finance Committee’s Fiscal Sustainability and Transitional Special Agricultural Water Rate Program recommendations on March 26, 2015. The committee was tasked with identifying issues related to the long-term fiscal sustainability of the Water Authority’s revenue structure and evaluating enhancements that would strengthen the Water Authority’s fiscal health.

The resulting and approved recommendations included: (1) the addition of the Supply Reliability Charge, as defined in the A&N Technical Services memorandum to the Water Authority’s rate and charge structure; (2) the allocation of non-commodity revenues to all rate and charge categories including treatment, as recommended in the 2014 Cost of Service Report; (3) the permanent application of the debt and equity payments for the Carlsbad Desalination Plant to the Supply Rate; and (4) the extension of the Transitional Special Agricultural Water Rate Program through December 31, 2020.
2.4 OVERVIEW OF LEGAL COST OF SERVICE REQUIREMENTS

The Water Authority’s rates must adhere to California constitutional and statutory requirements. California law requires agencies imposing water rates and charge to demonstrate a nexus between the cost of providing services and the service or benefits received.

Beyond the cost of service requirements imposed by the constitution and general statutory law, the Water Authority must also adhere to the County Water Authority Act. Section 7 (j) of the County Water Authority Act states that the “board of directors, so far as practicable, shall fix such rate or rates for water as will result in revenue which will pay the operating expenses of the authority, provide for repairs and maintenance, and provide for the payment of interest and principal of the bonded debt.” The revenue requirement (e.g., “costs”) described in this report is grounded on this statutory requirement, the Water Authority’s General Resolution, and sound fiscal management. These costs are then apportioned to the member agencies through the allocation of fixed charges and variable rates described in the adopted rate structure according to service function. The apportionment is accomplished in accordance with standards established by California law, including the provisions summarized below which, while paraphrased, essentially describe the same cost of service standard.

Proposition 26

This proposition was adopted by the voters in November 2010. Among other things, it amended California Constitution article XIII C, section 1 to add a definition of “tax.” As defined by Proposition 26, a tax means “any levy, charge, or exaction of any kind imposed by a local government” with certain enumerated exceptions. There are two applicable exceptions:

- The exception for a “charge imposed for a specific benefit conferred or a privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege,” and
- The exception for a “charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.”

Proposition 26 establishes that: “The local government bears the burden of proving by a preponderance of evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor’s burdens on, or benefits received from, the governmental activity.”

Government Code Section § 50076

This section of the Government Code was adopted in 1979, following the adoption of Proposition 13 in 1978. It provides that special taxes “shall not include any fee which does not exceed the reasonable cost of providing the service or regulatory activity for which the fee is charged.”

Government Code Section § 54999.7

This is another section that grounds public agency rate-setting on cost of service principles and states that fees “for public utility service, other than electricity or gas, shall not exceed the reasonable cost of
providing the utility service.” It also provides that the fees will be “established in consideration of service characteristics, demand patterns, and other relevant factors.”

**County Water Authority Act Section 5 (13)**

This provision of the County Water Authority Act provides that in setting rates, “the board may establish reasonable classifications among different classes and conditions of service, but rates shall be the same for similar classes and conditions of service.” The Water Authority’s General Counsel has advised Carollo that this provision requires that rates be non-discriminatory and that differences in rates or rate apportionment be based on service differences, such as with the non-allocation of storage charge to agricultural customers. The General Counsel has also advised that this section may be construed consistently with the Constitutional and statutory cost of service requirements described above.

### 2.5 OVERVIEW OF GENERALLY ACCEPTED RATE-SETTING STANDARDS

In addition to formal Board policies and objectives, the AWWA established a general set of principles used to guide the development of water rates. These principles were developed and published in the AWWA *M1 Manual – Principles of Water Rates, Fees, and Charges (M1 Manual)*. These guiding principles outline a consistent, universal approach and minimum standard that is employed by most agencies when setting rates and charges. The M1 Manual denotes that there is no prescribed single approach for establishing cost-based rates. Rather, agencies must exercise judgment to align rates and charges with local conditions and requirements, as well as applicable state law.

These guidelines, along with applicable California law, the Board’s policies, and industry best practices have been utilized within the Water Authority’s rate-setting framework to help develop water rates and charges that are cost based and fairly, reasonably, and lawfully quantified and allocated to comply with the legal requirements outlined in Report Section 2.4. Throughout this report, compliance with industry standards shall refer to the AWWA M1 manual and industry best practices.
3 Revenue Requirements

A revenue requirements analysis defines the annual system revenue needed to be recovered through water rates and charges. The revenue requirement is typically derived from five components: Operations & Maintenance Expenditures; Annual Debt Service; Policy Requirements & Coverage; Capital Expenditures; and, Offsetting Revenues.

Table 3-1 outlines the Water Authority’s CY 2018 revenue requirements.

<table>
<thead>
<tr>
<th>REVENUE COMPONENT</th>
<th>CY 2018 TOTAL</th>
<th>DESCRIPTION</th>
<th>REPORT SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Costs</td>
<td>$51.41</td>
<td>The Operating Departments Budget funds the day-to-day operations of the Water Authority.</td>
<td>3.1</td>
</tr>
<tr>
<td>Debt Service (LTD + STD)</td>
<td>$142.33</td>
<td>The Water Authority uses debt to fund capital and refund previous debt (long-term debt only).</td>
<td>3.3.1</td>
</tr>
<tr>
<td>Offsetting Revenues</td>
<td>$(83.52)</td>
<td>Additional revenues generated from sources, outside traditional water rates and charges are applied as a credit to reduce required rates and charges revenues. Includes the IAC, standby availability charges, system and treatment capacity charges, property taxes, interest earnings, and miscellaneous revenues.</td>
<td>3.4</td>
</tr>
<tr>
<td>Operating Rev Req Before Coverage</td>
<td>$110.22</td>
<td>Revenue requirements associated with the Water Authority’s operating costs, debt service, and offsetting revenues.</td>
<td></td>
</tr>
<tr>
<td>Misc. Cost Recovery</td>
<td>$17.99</td>
<td>Miscellaneous Cost Recovery includes seepage and evaporation, recovery of working capital for the San Vicente dam raise, local supply development, and Twin Oaks Valley WTP reimbursement</td>
<td>3.2</td>
</tr>
<tr>
<td>Rev Req Before Coverage</td>
<td>$128.21</td>
<td>Revenue requirements including miscellaneous cost recovery.</td>
<td></td>
</tr>
<tr>
<td>Remaining Coverage &amp; Reserve Driven Needs</td>
<td>$24.99</td>
<td>Revenue requirements associated with meeting the Water Authority’s Financial Management Policies.</td>
<td>3.7</td>
</tr>
<tr>
<td>Water Sales Rev Req</td>
<td>$153.20</td>
<td>Total required revenues including coverage and reserve needs.</td>
<td></td>
</tr>
</tbody>
</table>

The following section of this report delineates the cost categories included in the Water Authority’s annual revenue requirement analysis.
3.1 OPERATIONS AND MAINTENANCE COSTS

As part of the multi-year budget, an operating forecast is developed by the Water Authority’s various departments. For the Water Authority, operating budget expenditures account for most of the day-to-day expenditures for operation. The operating budget expenditures include: Administrative Services, Colorado River Program, Engineering, Finance, General Counsel, General Manager, MWD Program, Operations and Maintenance, Public Outreach and Conservation, and Water Resources. For CY 2018, the Water Authority’s operating costs are projected to be $51.41 million.

### TABLE 3-2 DETERMINATION OF OPERATING COST

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>FY 2018 &amp; 2019 EXPENDITURES(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2018 Operating Budget</td>
<td>$51.10</td>
</tr>
<tr>
<td>FY 2019 Operating Budget</td>
<td>$51.72</td>
</tr>
<tr>
<td>Total FY 2018 and 2019 Operating Costs used for rates and charges</td>
<td>$102.82</td>
</tr>
<tr>
<td>Calculated CY 2018 Operating Costs(2)</td>
<td>$51.41</td>
</tr>
</tbody>
</table>

**Notes:**

1. Presented in million dollars, calculations in tables may not sum due to rounding.
2. CY 2018 Operating Costs are calculated by dividing the Total FYs 2018 and 2019 Operating Costs used for rates and charges by two, as the calendar year rates will collect half of each fiscal year costs.

3.2 MISCELLANEOUS COST RECOVERY

Miscellaneous Cost Recovery consists of expenses not included in annual Operating Costs and other cost recoveries to the Water Authority. Miscellaneous Cost Recovery is an important element of the Water Authority’s annual revenue requirements.

Miscellaneous Cost Recovery totals $17.99 million in CY 2018, which is allocated to rate categories based on the nature of the cost that was incurred. Miscellaneous Cost Recovery includes the following:

**Stored Water Fund:** This is the working capital cost to purchased water for the filling of the San Vicente Dam. Due to the long-term benefit of water reliability, the cost of the dam fill is amortized over 6 years in order to fairly and reasonably spread the expenditure across member agencies based on a multi-year water demand trend. Costs are allocated to the storage rate component to adequately recover the associated cost while mitigating the overall rate impact. A total of $3.68 million will be recovered through the CY 2018 rates.

**Emergency Storage Project Evaporation:** This cost accounts for the cost of purchased water that is lost due to surface water evaporation. As this is a function of storage, the $8.15 million cost has been allocated to the storage rate component and will be recovered through the CY 2018 rates.

**Local Water Supply Development:** This is the cost to implement local water supply projects within the Water Authority’s service area in order to provide a long-term reliable and sustainable supply. The cost is recovered through the Customer Service charge to recognize the general region benefit. A total of $5.42 million will be recovered through the CY 2018 rates.

**Twin Oaks Reimbursement:** This reimbursement reflects a 25-year payback to customer service for the upfront investment in the implementation of the Twin Oaks Valley Water Treatment Plant. This original
investment was funded through use of Pay-as-you-Go (PAYGO) funds, which had been historically collected from the non-treatment functional rate categories. The cost is recovered through the treatment charge. A total of $0.74 million will be recovered through the CY 2018 rates.

3.3 CAPITAL COSTS

The Water Authority’s existing CIP is based on the results of planning studies, including the 2015 Urban Water Management Plan (UWMP) and the 2003 Regional Water Facilities Master Plan and extends through 2030. The CIP is also based on the Water Authority’s 2013 Regional Water Facilities Optimization and Master Plan Update, the agency’s new roadmap for infrastructure investments through 2035. These CIP projects include a mix of new facilities that will add capacity to existing conveyance, storage, and treatment facilities, as well as repair and replace aging infrastructure. The Water Authority utilizes both PAYGO and debt financing to fund capital improvements.

3.3.1 Annual Debt Service

The Water Authority has adopted a comprehensive set of financial policies. During the current year, three of these policies were of most significance. The Debt Management Policy sets forth comprehensive guidelines for the issuance and management of the Water Authority’s debt. Guided by this policy, in Fiscal Year 2016 the Board approved the issuance of $50 million in extendable commercial paper, $184,795,000 of Senior Lien Water Revenue Refunding Bonds Series 2015A, $87,685,000 of Subordinate Lien Water Revenue Refunding Bonds Series 2016S-1, and $296,340,000 of Water Revenue Refunding Bonds, Series 2016AB.

The Water Authority finances major capital improvements, in part, by issuing debt for two primary reasons. First, given the size of recent capital projects, the Water Authority does not have the financial reserves available that would otherwise be required to solely fund the CIP nor would it be reasonable to increase the water rates and charges in order to cash fund these improvements. Secondly, spreading the debt service costs for the project over the repayment period provides intergenerational equity by effectively spreading the financial burden between both existing and future users of the system. This approach allows the Water Authority to better match the cost of improvements with those benefitting from the improvements. This methodology is internally consistent with the development of the Water Authority’s System and Treatment Capacity Charges.

Finally, as an auxiliary benefit to the use of debt, the cash generated from meeting the Water Authority’s coverage requirements provides additional cash that can be used to fund PAYGO projects.

Excluding the Build America Bonds (BABs) subsidy and Helix apportioned debt, the net FY 2018 long-term debt service expenditure for allocation is $102.16 million. Short-term debt service expenditures, excluding Helix, for FY 2018 are projected at $10.10 million. Helix related debt is $1.35 and $0.21 million for long-term and short-term debt service, respectively. The sum of these debt obligations reflect the Water Authority’s recent debt restructuring and ability to take advantage of optimal market conditions in order to reduce its debt burden.

3.3.2 Non-Debt Capital Expenditures

To maintain its targeted capital structure, the Water Authority augments its use of short and long-term debt by funding a portion of its capital program with cash through its PAYGO Funds. The Water Authority
amortizes the cash funds used for capital to reduce the immediate and cyclical impact on rates. In addition, as stated above, excess funds derived from meeting the Water Authority’s targeted debt coverage ratio enables cash funding of capital projects. The Water Authority is projecting an estimated $27.90 million in cash expenditures for capital projects.

3.3.3 Depreciation and System Replacement

The Water Authority does not adjust rates to recover system depreciation. Rather, the Water Authority operates on a cash basis and the cost to rehabilitate and improve the system is accounted for through direct capital reinvestments. The cost of renewing the system over time is captured in the on-going renewal and replacement related CIP as included in the 30-year budget. This approach also creates consistency with the Water Authority’s capacity charge methodology, which excludes depreciated asset values from the buy-in cost basis of the charge, and then recovers a proportionate share of the CIP through the charge. It is important to note that once a meter is connected to the system, the user is then obligated to fund a proportionate share of future capital improvements and ongoing debt obligations through the water rates and charges.

3.4 OFFSETTING REVENUES TO REDUCE REVENUE REQUIREMENTS

Beyond water rates and charges, the Water Authority collects revenues through other various funding sources. These revenues provide a credit against the total revenues that must otherwise be collected annually from rates. Offsetting revenues include the IAC, standby availability charges, system and treatment capacity charges, property taxes, interest earnings, and miscellaneous revenues.
Table 3-3 details the offsetting revenues and provides a brief description of the source of revenue.

<table>
<thead>
<tr>
<th>REVENUE COMPONENT</th>
<th>CY 2018 REVENUES</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital Offsets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Capacity Charge</td>
<td>$16.29</td>
<td>The charge is designed to recover a proportionate share of the capital costs associated with providing services to new connections in the Water Authority’s service area.</td>
</tr>
<tr>
<td>Treatment Capacity Charge</td>
<td>$0.72</td>
<td>Helps fund the Water Authority’s regional water treatment facility. The charge recovers a portion of the capital costs from the future users of the Treatment facility.</td>
</tr>
<tr>
<td>Standby Availability Charge</td>
<td>$11.12</td>
<td>This fixed charge, which is in the nature of a special assessment, is limited by statute and funds some of the capital costs associated with maintaining the system and is $10 per acre per year, or $10 for a parcel less than one acre per year. The charge was first established prior to the adoption of Proposition 218, and has been continuously levied pursuant to law at pre-Proposition 218 levels.</td>
</tr>
<tr>
<td>PAYGO Earnings</td>
<td>$1.69</td>
<td>Interest earnings on the Water Authority’s PAYGO Fund.</td>
</tr>
<tr>
<td><strong>Operating Offsets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Tax</td>
<td>$12.68</td>
<td>The Water Authority receives a portion of the 1% property tax pursuant to the Revenue and Taxation Code.</td>
</tr>
<tr>
<td>IAC</td>
<td>$33.14</td>
<td>The IAC is an annual service charge that is imposed on member agencies and apportioned based on all retail water meters within the Water Authority’s service area. The IAC maintains a minimum ratio of projected fixed revenues to projected fixed expenditures of 25% in any future fiscal year, excluding fixed water rate revenues.</td>
</tr>
<tr>
<td>Interest Earnings</td>
<td>$3.40</td>
<td>Interest earnings on operating funds.</td>
</tr>
<tr>
<td>Twin Oak Reimbursement</td>
<td>$0.74</td>
<td>Cost reflects a 25-year payback to customer service for the upfront investment in the implementation of the Twin Oaks Valley Water Treatment Plant.</td>
</tr>
<tr>
<td>Misc. Revenue</td>
<td>$3.80</td>
<td>Misc. Revenues primarily consists of revenues from the Water Authority’s long-term agreements to sell hydroelectric power generated from two locations to San Diego Gas and Electric (SDG&amp;E). In addition, it includes reimbursements for operating grants and other nominal revenues.</td>
</tr>
<tr>
<td><strong>Total Offsets</strong></td>
<td>$83.59</td>
<td></td>
</tr>
</tbody>
</table>
3.5 INFRASTRUCTURE ACCESS CHARGE

In addition to revenues generated through the five rate and charge categories, the Water Authority have additional revenues used to meet the annual rate revenue requirements. The most significant of these offsetting revenues is the IAC. The IAC was implemented in 1998 by Board policy to reduce financial vulnerability due to fluctuations in annual Water Authority revenues. This is accomplished by increasing the amount of fixed expenditures recovered through fixed charges. The IAC was designed to generate a minimum 25 percent ratio of fixed revenues to fixed expenditures.

Consistent with the Board policy, the IAC is comprised of 25 percent of the forecasted four-year average of debt service (long- and short-term debt) and 80 percent of forecasted four-year average O&M costs, times 110 percent. Based on the results of an expenditures analysis at the time of implementation, the Water Authority concluded that roughly 80 percent of the agency’s operating costs were fixed (e.g., personnel costs) and did not vary based on water sales. Additionally, the level of fixed expenditures to be recovered through the IAC was established to mitigate fluctuations in net revenues due to water sales volatility that the Water Authority had experienced. Finally, in establishing the IAC Policy, the Board increased the 25 percent fixed expenditure recovery by 10 percent to account for potential fluctuations in expenditures and offsetting revenues, as well as cost yet to be identified in the four-year budget forecast.

From this, the forecasted four-year average of the Water Authority’s Standby Availability Charge and property tax revenues are credited to recognize other fixed revenues. As detailed below, the IAC provides $33.14 million in revenue offsets against the required water rate and charges required revenues. The IAC is allocated to each member agency based upon the previous year’s total household meter equivalents (as reported by the member agencies). A meter equivalent is based on a meter size less than one-inch. For CY 2018, the monthly IAC is proposed at $3.01 per household meter equivalent.
Table 3-4 illustrates the calculation of the proposed IAC.

<table>
<thead>
<tr>
<th>TABLE 3-4 INFRASTRUCTURE ACCESS CHARGE CALCULATION ($ IN MILLIONS)</th>
<th>4-YEAR AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-Term Debt Service</td>
<td>$125.77</td>
</tr>
<tr>
<td>Misc. LTD Fees</td>
<td>0.02</td>
</tr>
<tr>
<td>Total Short Term Debt Service and Costs</td>
<td>17.72</td>
</tr>
<tr>
<td>Administration and Maintenance times 80%</td>
<td>42.19</td>
</tr>
<tr>
<td>Transportation O&amp;M times 80%</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Local Supply Development Costs times 80%</td>
<td>4.19</td>
</tr>
<tr>
<td>ESP Evaporation and System Losses times 80%</td>
<td>8.81</td>
</tr>
<tr>
<td>Desalination FY Pipeline Cost</td>
<td>9.40</td>
</tr>
<tr>
<td><strong>Total Fixed Costs</strong></td>
<td><strong>$208.10</strong></td>
</tr>
<tr>
<td>Total Fixed Costs Times 110% Times 25%</td>
<td>$57.23</td>
</tr>
<tr>
<td><strong>Less:</strong></td>
<td></td>
</tr>
<tr>
<td>Other Tax Receipts</td>
<td>($12.94)</td>
</tr>
<tr>
<td>Standby Availability Charge Rev</td>
<td>(11.15)</td>
</tr>
<tr>
<td><strong>Remaining Fixed Cost Need (IAC Revenue)</strong></td>
<td><strong>$33.14</strong></td>
</tr>
<tr>
<td>Average Number of Meters Used in Calculation</td>
<td>917,831</td>
</tr>
<tr>
<td>Proposed CY 2018 IAC Per Meter Equivalent (Monthly in dollars)</td>
<td>$3.01</td>
</tr>
</tbody>
</table>
3.6 REVENUE SUFFICIENCY

Water Authority revenues must be sufficient on a fiscal year basis to meet two tests – (1) cash flow and (2) bond coverage. These sufficiency tests are commonly used to determine the amount of annual revenue that must be generated from an agency’s rates.

- **Cash Flow Sufficiency Test:**
  The cash flow test defines the amount of annual revenues that must be generated in order to meet annual expenditure obligations of the utility. These needs can include direct cash expenditures as well as planned transfers or additions to reserves.

- **Bond Coverage Sufficiency Test:**
  Bond coverage refers to the collection in revenues to meet all operating expenses and debt service obligations plus an additional multiple of that debt service. The Water Authority has a legally required minimum bond coverage ratio of 1.20x and a policy target of 1.50x. The Water Authority, as do many utilities, established a policy target in excess of legal requirements to retain or attain high bond ratings with correspondingly lower interest costs.

The revenue requirement analysis sets water rate and charge revenues at a level sufficient to pass both tests. Revenue requirements are considered to be driven by either “cash flow” or “coverage” based on the test that requires a greater adjustment. The Water Authority’s current annual revenue requirements are coverage driven – it must generate revenues in excess of its cash needs in order to meet its legal and policy debt requirements. These excess revenues then become available to fund future capital projects, non-cash items, and reserves.

3.7 FINANCIAL POLICIES

The Water Authority has a legally required minimum bond coverage ratio of 1.20x on senior lien debt service. In order to maintain strong bond ratings and mitigate the impacts of annual water demand fluctuations, the Board sets rates to meet a senior lien debt service coverage target of 1.50x, inclusive of RSF transfers, and 1.00x excluding capacity charge revenues.

As shown on the figure below, the Water Authority is projected to meet the Board policy target of 1.50x for FY 2018 after having allowed short-term deviations from the Board target in order to mitigate rate increases due to water demand reductions associated with statewide drought conditions and water pumping restrictions from the Bay-Delta. Although the coverage ratio fell below the Board target, the Water Authority’s coverage ratio remained above its legal requirement.

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3 This requirement is established by the Water Authority General Resolution as amended. This resolution and amendments are attached as Appendix D of this report.
In addition to annual bond coverage requirements, the Water Authority sets aside money into the RSF (as available), which, by covenant, may be used to meet the Water Authority’s legal bond coverage requirement in a year that other revenues are insufficient. Use of the RSF is a critical short-term water rate management tool and helps the Water Authority manage weather and timing related revenue risks and stabilize annual revenue needs through rate smoothing. As a result of continued dampened water demands, increase in QSA supply costs, and an extended timeframe for MWD lawsuit resolution, the Water Authority has forecasted a withdrawal of nearly $5.0 million in FY 2018. This equates to roughly $13 per acre foot of rate relief.

Finally, for CY 2018, the Water Authority’s revenue requirements are coverage driven. In order to meet this policy bond coverage target, the Water Authority must collect an additional $24.99 million above its operating costs and debt service obligations. The bond coverage target is calculated based on net revenues, excluding capital expenses and policy requirements, such as additions to reserves. Revenues collected to fund these excluded expenditures help to meet the annual bond coverage requirement.

Rate setting cannot be viewed as a single year process nor in a vacuum. There are many variables that fluctuate from year-to-year causing changes to demands as well as expenditures. Additionally, there may be known costs in the future that need to be proactively funded to prevent rate shock. Reserve and rate smoothing policies provide a mechanism to normalize and smooth rates over a multi-year process. These policies prevent a whipsaw effect of rates and provide greater predictably to its member agencies.
4 Allocation of Revenue Requirements to Functional Categories

The purpose of a cost of service analysis is to provide a reasonable basis for distributing the full costs of the Water Authority’s operations and capital investments to rate categories and then the member agencies in proportion to the demands placed on or benefits received from the system. The Water Authority currently maintains five functional rate categories. These components are developed and designed to mirror the nature in which expenditures are incurred. The Water Authority’s operating budget is allocated, by division, to a specific rate category as a part of the development of the two-year budget process. This process is based on clear, concise, and consistent rate and charge category definitions. In the allocation process, if work performed in a department or program is not specifically applicable to one of the five rate categories defined below, it is considered General and Administrative (G&A). This category is applicable to departments that support the internal operations of the Water Authority, such as Finance and Administrative Services.

Debt issuances and the associated annual debt services are allocated to rate categories based on the specific capital improvement projects financed through bond sales. Additionally, the Water Authority utilizes a combination of cash and PAYGO reserves to pay for capital projects. However, in an effort to minimize the immediate impact to rates, the Water Authority amortizes cash expenditures directly to the related rate category. The Water Authority uses its calculated weighted cost of capital as the interest rate on cash used for capital expenditures in each respective year. The Water Authority assumes a 1.5 percent reserve factor and a 30-year amortization term to calculate the projected annual cash payment stream. The annual cash payments are allocated to rate categories based on the same percentages developed to allocate long-term debt service.

4.1 Allocation Categories

The Water Authority allocates its annual operating budget to the five functional rate categories. As applicable and identifiable, these expenditures are assigned directly to rate categories. For expenditures incurred for the general operations of the Water Authority, costs are allocated to G&A and then redistributed to five functional categories based on their weighted average of directly assignable operating costs. A description of each category is as follows:

4.1.1 Customer Service

The Customer Service charge is set to recover costs that are necessary to support the functioning of the Water Authority, to develop policies and to implement system-wide programs. Cost recovered through the customer service charge include, but are not limited to customer billing, public relations, and expenses associated with the Board of Directors.

4.1.2 Storage

The Storage charge is set to recover costs associated with the ESP and CSP. The ESP is a system of reservoirs, interconnected pipelines, and pumping stations designed to make water available to the San Diego region in the event of an interruption in imported water deliveries. An example of expenditures or programs allocated to this category would be a division which works in support of the ESP projects such as
Olivenhain Dam and Reservoir Operations in the Operations and Maintenance Department. Agriculture customers do not benefit from the Storage charge as addressed in Report Section 5.3.

4.1.3 Supply
The Supply rate recovers the cost of water supply incurred by the Water Authority, including the purchase of water from MWD, the IID, the Coachella and the All-American Canals, costs of MWD wheeling for non-MWD water supplies, desalination water costs, and certain other costs associated with the Quantification Settlement Agreement (QSA).

4.1.4 Transportation
The Transportation rate is set to recover capital, operating, and maintenance costs of the Water Authority’s aqueduct system, including all facilities used to physically transport the water to member agency meters, excluding certain distribution facilities covered under the East County Treatment Agreement. An example of this category would be the maintenance division in the Operations & Maintenance Department. This division maintains the valves, pipelines, and facilities that are integral to the aqueduct system.

4.1.5 Treatment
The Treatment rate is designed to recover the Water Authority’s cost of treating water. The Melded M&I Treatment Rate includes the costs of purchasing treated water from MWD, the operating and capital costs associated with the Water Authority’s agreement with Helix Water District’s Levy Water Treatment Plant, operating costs associated with the Olivenhain Treatment Plant, and the operating and capital (debt service) costs associated with the construction of the Twin Oaks Valley Treatment Plant.

4.1.6 General & Administrative
Expenditures that cannot reasonably be allocated directly to a rate category are assigned to G&A, which supports the general function of the Water Authority. An example of a cost that is assigned to G&A is accounting. Approximately 27 percent of the operating budget is allotted to the G&A allocation category for the CY 2018 rates. As no rate component directly relates to G&A, these costs are reallocated to the other rate components based on total direct budget allocation to customer service, storage, supply, transportation, and treatment.

4.2 Allocation Summary
As part of the 2014 rate setting process, Carollo held interviews with select departments and divisions in order to confirm the methodology and the appropriateness of application of cost of service principals during the annual budget process. The interviews evaluated the methodology and basis of the percentage allocations and developed the reasoning that allocations varied from the previous process, if applicable. In most cases, costs were allocated based on the historical and forecasted employee utilization and direct expenditures.

As a part of the FY 2018 budget process, the allocations were updated consistent with historical practices; however, the updated allocations include the recent internal reorganization of various departments and divisions. This internal review accounted for changes in processes and day-to-day operations. Given changes to the organizational structure and a general review of the allocation methodology, allocations
shifted more than past updates. Based on Carollo’s review of FY 2018 and 2019 operating expenditures, the provided allocations appear reasonable and continue to be based on sound and defensible definitions.

### 4.2.1 Allocation of Operating Costs

Table 4-1 illustrates the allocation of CY 2018 operating costs to each rate category based upon the total weighted average FY 2018 and FY 2019 expenditure allocation.

<table>
<thead>
<tr>
<th>CY 2018 &amp; 19 ALLOCATION</th>
<th>CY 2018 EXPENDITURES</th>
<th>CUSTOMER SERVICE</th>
<th>STORAGE</th>
<th>SUPPLY</th>
<th>TRANSPORTATION</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Allocation</td>
<td>100%</td>
<td>35.4%</td>
<td>8.1%</td>
<td>17.8%</td>
<td>37.1%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Cost Allocation</td>
<td>$51.41</td>
<td>$18.22</td>
<td>$4.16</td>
<td>$9.14</td>
<td>$19.16</td>
<td>$0.84</td>
</tr>
</tbody>
</table>

### 4.2.2 Allocation of Debt Service

For each debt issuance, the Water Authority actively allocates its use of long-term and short-term debt. Each issuance is apportioned to rate components based on specific projects funded. As a result, the Water Authority’s debt service is allocated in a defensible and equitable manner. Table 4-2 provides a summary allocation of the total FY 2018 debt service by functional rate category.

<table>
<thead>
<tr>
<th>REVENUE REQUIREMENT</th>
<th>FY 2018 TOTAL</th>
<th>CUSTOMER SERVICE</th>
<th>STORAGE</th>
<th>SUPPLY</th>
<th>TRANSPORTATION</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTD Service</td>
<td>$113.70</td>
<td>$11.89</td>
<td>$50.03</td>
<td>$7.27</td>
<td>$38.91</td>
<td>$5.59</td>
</tr>
<tr>
<td>STD Service</td>
<td>9.10</td>
<td>0.78</td>
<td>3.98</td>
<td>0.96</td>
<td>2.38</td>
<td>0.99</td>
</tr>
<tr>
<td>Total Debt Service</td>
<td>$122.80</td>
<td>$12.67</td>
<td>$54.01</td>
<td>$8.24</td>
<td>$41.29</td>
<td>$6.59</td>
</tr>
</tbody>
</table>

Notes:
(1) Includes Super Subordinate rate for Desalination Pipeline (Transportation - LTD)

### 4.2.3 Allocation of Offsetting Revenues

Offsetting revenues provide a credit against rate revenue needs. Operating revenue offsets are allocated to each functional rate category proportionate to the two-year average expenditures by rate category. Based on the finding of the 2014 Report and the Board approved recommendations, these revenue offsets
now incorporate treatment. As the treatment rate was implemented after the other four rate categories had been established, it was originally considered as a separate, stand-alone charge. However, this rate is now handled in a similar fashion to all other rate components.

Table 4-4 provides the allocation factors that are used to distribute each offsetting revenue.

**TABLE 4-3 ALLOCATION FACTORS FOR OFFSETTING REVENUES**

<table>
<thead>
<tr>
<th>METHODOLOGY</th>
<th>APPLICABLE OFFSETTING REVENUES</th>
<th>CUSTOMER SERVICE</th>
<th>STORAGE</th>
<th>SUPPLY</th>
<th>TRANSPORTATION</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Excluding Treatment</td>
<td>System Capacity Charges</td>
<td>9.63%</td>
<td>45.85%</td>
<td>8.96%</td>
<td>35.56%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total Capital</td>
<td>Water Standby Charges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PAYGO Earning</td>
<td>9.12%</td>
<td>43.42%</td>
<td>8.48%</td>
<td>33.67%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>IAC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Property Taxes &amp; In-Lieu Charges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investment Income</td>
<td>16.11%</td>
<td>38.07%</td>
<td>9.80%</td>
<td>31.88%</td>
<td>4.14%</td>
</tr>
<tr>
<td></td>
<td>Other Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Operating revenue offsets include property taxes, IAC revenue, interest earnings, and miscellaneous revenues. The Water Authority also accounts for system capacity charge revenue, water standby availability charges, and interest earning on PAYGO reserves. These capital related offsets are allocated to the Water Authority’s customer service, storage, supply, transportation, and treatment rate components based on its respective share of the total capital expenditures for the two-year budget period. System capacity charge revenue continues to exclude treatment as no treatment costs are recovered in this charge. Finally, treatment capacity charges are allocated directly to the Water Authority’s treatment rate category as a reimbursement for treatment-related capital expenditures.
Table 4-4 illustrates the offsetting revenues and allocated offsets to each rate component.

### TABLE 4.4 OFFSETTING REVENUES (IN $ MILLION)

<table>
<thead>
<tr>
<th>Capital Offset</th>
<th>TOTAL REVENUE OFFSETS</th>
<th>CUSTOMER SERVICE</th>
<th>STORAGE</th>
<th>SUPPLY</th>
<th>TRANSPORTATION</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Capacity Charge</td>
<td>$16.29</td>
<td>$1.57</td>
<td>$7.47</td>
<td>$1.46</td>
<td>$5.79</td>
<td>$-</td>
</tr>
<tr>
<td>Standby Availability Charge</td>
<td>11.12</td>
<td>1.01</td>
<td>4.83</td>
<td>0.94</td>
<td>3.75</td>
<td>0.59</td>
</tr>
<tr>
<td>Treatment Capacity Charge</td>
<td>0.42</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.42</td>
</tr>
<tr>
<td>PAYGO Earnings</td>
<td>1.69</td>
<td>0.15</td>
<td>0.74</td>
<td>0.14</td>
<td>0.57</td>
<td>0.09</td>
</tr>
</tbody>
</table>

| Operating Offsets                 |                       |                  |         |        |                |           |
| Property Tax                      | $12.68                | $2.04            | $4.83   | $1.24  | $4.04          | $0.53     |
| IAC                               | 33.14                 | 5.34             | 12.62   | 3.25   | 10.57          | 1.37      |
| Interest Earnings                 | 3.40                  | 0.55             | 1.30    | 0.33   | 1.09           | 0.14      |
| Twin Oak Reimbursement            | 0.74                  | 0.74             | -       | 0.33   | 1.09           | -         |
| Misc. Revenue                     | 3.80                  | 3.58             | 0.10    | 0.03   | 0.08           | 0.01      |
| Desal Offset                      | 0.23                  |                  |         |        |                |           |
| **Total Offsets**                 | **$83.52**            | **$14.99**       | **$31.87** | **$7.48** | **$26.00**   | **$3.17** |

**4.2.4 Additional Expenses**

As described in Report Section 3.1, the Water Authority incurs costs beyond those captured within the core budget, such as expenditures which were initially funded using reserves and then recovered from member agencies over time through rates, such as with the filling of the San Vicente Dam. When developing the rates and charges, the Water Authority accounts for these additional expenditures separately from the base operating expenditures, allocating these expenditures directly to each rate category based on direct benefit.
Table 4-5 details the additional expenditures that are incurred by each rate category outside the operating budget.

### Table 4-5 Additional Expenses (in $ Million)

<table>
<thead>
<tr>
<th></th>
<th>Total Expense</th>
<th>Customer Service</th>
<th>Storage</th>
<th>Supply</th>
<th>Transportation</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twin Oak Reimbursement</td>
<td>$0.74</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$0.74</td>
</tr>
<tr>
<td>Local Water Supply</td>
<td>5.42</td>
<td>5.42</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESP Evaporation</td>
<td>8.15</td>
<td>-</td>
<td>8.15</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Stored Water Fund</td>
<td>$3.68</td>
<td>-</td>
<td>3.68</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Expense</strong></td>
<td><strong>$17.99</strong></td>
<td><strong>$5.42</strong></td>
<td><strong>$11.83</strong></td>
<td>$-</td>
<td>$-</td>
<td><strong>$0.74</strong></td>
</tr>
</tbody>
</table>

#### 4.2.5 Coverage Driven Requirements

The bond coverage target is calculated based on net revenues, excluding capital expenses and policy requirements, such as additions to reserves. Although the bond coverage requirement applies to all Water Authority rates and charges revenues in aggregate, the Water Authority establishes rates to separately meet the 1.50x coverage test by rate category, proportionate to its share of overall debt. This approach is designed to fairly and reasonably recover bond coverage and reserve costs by rate category.

Based on the revenues requirements defined above, the Water Authority must generate an additional $21.43 million through rates to achieve a 1.50x debt service coverage ratio and provide funding for the RSF. This is illustrated in Table 4-6.

### Table 4-6 Remaining Coverage & Reserve Allocation Summary (in $ Million)

<table>
<thead>
<tr>
<th>Revenue Requirement</th>
<th>2018 Total</th>
<th>Customer Service</th>
<th>Storage</th>
<th>supply</th>
<th>Transportation</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remaining Coverage &amp; Reserve Driven Needs</td>
<td>$24.99</td>
<td>$4.02</td>
<td>$15.61</td>
<td>$(7.42)</td>
<td>$9.23</td>
<td>$3.56</td>
</tr>
</tbody>
</table>

#### 4.2.6 Summary of Allocation

Table 4-7 provides a summary of the Water Authority’s revenue requirements and rate component allocations. The water sales revenue requirements reflect only the portion of water rates and charges related to direct Water Authority operating activities and do not include expenditures such as purchased water costs.
### REVENUE REQUIREMENTS SUMMARY (IN $ MILLION)

<table>
<thead>
<tr>
<th>REVENUE REQUIREMENT</th>
<th>CY 2018 TOTAL</th>
<th>CUSTOMER SERVICE</th>
<th>STORAGE</th>
<th>SUPPLY</th>
<th>TRANSPORTATION</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Costs</td>
<td>$51.41</td>
<td>$18.22</td>
<td>$4.16</td>
<td>$9.14</td>
<td>$19.06</td>
<td>$0.83</td>
</tr>
<tr>
<td>Debt Service (LTD + STD)</td>
<td>$142.33</td>
<td>$13.74</td>
<td>$65.27</td>
<td>$11.77</td>
<td>$45.52</td>
<td>$6.04</td>
</tr>
<tr>
<td>Offsetting Revenues</td>
<td>$(83.52)</td>
<td>$(14.99)</td>
<td>$(31.87)</td>
<td>$(7.48)</td>
<td>$(26.00)</td>
<td>$(3.17)</td>
</tr>
<tr>
<td>Operating Rev Req Before Coverage</td>
<td>$110.22</td>
<td>$16.97</td>
<td>$37.56</td>
<td>$13.42</td>
<td>$38.57</td>
<td>$3.70</td>
</tr>
<tr>
<td>Additional Expenses</td>
<td>$17.99</td>
<td>$5.42</td>
<td>$11.83</td>
<td>$-</td>
<td>$-</td>
<td>$0.74</td>
</tr>
<tr>
<td>O&amp;M Rev Req Before Coverage</td>
<td>$128.21</td>
<td>$22.38</td>
<td>$49.39</td>
<td>$13.42</td>
<td>$38.57</td>
<td>$4.44</td>
</tr>
<tr>
<td>Remaining Coverage &amp; Reserve Driven Needs</td>
<td>$24.99</td>
<td>$4.02</td>
<td>$15.61</td>
<td>$(7.42)</td>
<td>$9.23</td>
<td>$3.56</td>
</tr>
<tr>
<td>Water Sales Rev Req</td>
<td>$153.20</td>
<td>$26.40</td>
<td>$65.00</td>
<td>$6.00</td>
<td>$47.80</td>
<td>$8.00</td>
</tr>
</tbody>
</table>
5 WATER RATES AND CHARGES

Based on the resulting revenue requirements analysis and detailed cost of service allocations, the revenue requirements for each rate and charge category are recovered from the member agencies based on water demand and usage factors. The Water Authority serves two classes of customers: Full Service and Transitional Special Agricultural Water Rate (TSAWR) customers. The following section of this report summarizes the proposed CY 2018 water rates and charges and discusses the TSAWR rates.

5.1 COMMODITY BASED FIXED CHARGES

Fixed revenues are distinguished from variable revenues as they provide a known and predictable annual source of revenue for an upcoming calendar year. The fixed commodity charges are allocated to each agency based on their proportionate share of a three-year rolling average of water demands.

5.1.1 Customer Service Charge

Based on the cost of service analysis, $26.40 million must be recovered through the customer service water rate in CY 2018. These costs are recovered as an annual charge, as these costs do not vary based on current year water demand. Specifically, the costs are allocated among the member agencies based on each agency’s three-year rolling average of all deliveries, excluding member agency wheeled water.

<table>
<thead>
<tr>
<th>TABLE 5-1</th>
<th>CY 2018 CUSTOMER SERVICE REVENUE REQUIREMENT (IN $ MILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD &amp; STD)</td>
<td>$13.74</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures</td>
<td>$23.63</td>
</tr>
<tr>
<td>Gross Revenue Requirements</td>
<td>$37.37</td>
</tr>
<tr>
<td>Less: Offsetting Revenues</td>
<td></td>
</tr>
<tr>
<td>Capital Related</td>
<td>$(2.74)</td>
</tr>
<tr>
<td>Operating Related</td>
<td>$(11.51)</td>
</tr>
<tr>
<td>Specific Offsets - Treatment Payback</td>
<td>$(0.74)</td>
</tr>
<tr>
<td>RR before Coverage and RSF Support</td>
<td>$22.38</td>
</tr>
<tr>
<td>Additional Coverage</td>
<td>$4.02</td>
</tr>
<tr>
<td>Total Revenue Requirement</td>
<td>$26.40</td>
</tr>
</tbody>
</table>
5.1.2 Storage

Based on the cost of service analysis, $65.00 million is to be recovered through the storage charge in CY 2018. The storage charge is a flat annual charge that is applied to non-agricultural water deliveries. The storage charge is allocated among the member agencies using a pro rata share of each agency’s three-year rolling average of non-agricultural deliveries (including all users, member agencies, and third-party wheeling throughput). In return for not paying for storage, agricultural customers agree to receive a level of service during an emergency that is less than that received by the Water Authority’s municipal and industrial (M&I) customers.

The Water Authority’s ESP and Carryover Projects are designed to make water available to the San Diego region in the event of an interruption in imported water deliveries. Because agricultural users that participate in the TSAWR program agree to reduced or interrupted service during times of water emergencies, they will not receive benefit from the Water Authority’s investment in its long-term storage program. It is therefore appropriate to exclude agricultural deliveries from the calculation of the storage rate.

<table>
<thead>
<tr>
<th>TABLE 5-2</th>
<th>CY 2018 STORAGE REVENUE REQUIREMENT (IN $ MILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD + STD)</td>
<td>$65.27</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures</td>
<td>$15.99</td>
</tr>
<tr>
<td>Gross Revenue Requirements</td>
<td>$81.26</td>
</tr>
<tr>
<td>Less Offsetting Revenues</td>
<td></td>
</tr>
<tr>
<td>Capital Related</td>
<td>$(13.03)</td>
</tr>
<tr>
<td>Operating Related</td>
<td>$(18.84)</td>
</tr>
<tr>
<td>RR before Coverage and RSF Support</td>
<td>$49.39</td>
</tr>
<tr>
<td>Additional Coverage</td>
<td>$15.61</td>
</tr>
<tr>
<td>Total Revenue Requirement</td>
<td>$65.00</td>
</tr>
</tbody>
</table>

5.1.3 Supply Reliability Charge

Based on recommendations from the A&F Committee and approval of the Board, the CY 2016 rates were adjusted to include the addition of a Supply Reliability Charge. This charge recovers the functional incremental supply costs allocated to enhanced supply reliability. The Committee recognized the importance of equitably recovering the cost of the Water Authority’s investments in long-term water supply reliability in accordance with the cost of service requirements. The concept of a fixed charge for supply reliability was to balance the impact of the fixed costs on member agencies with the allocation of costs associated with long-term investments in supply reliability to member agencies based on a rolling average of M&I deliveries. Access to reliable supply benefits all member agencies regardless of whether the agency uses water every day or intermittently.
The approved methodology for determining the Supply Reliability Charge is as follows:

\[
\text{Supply Reliability Charge} = \left[ (\text{Desal Water Cost} + \text{IID Water Transfer Costs}) - \text{MWD Tier 1 Equivalent Cost} \right] \times 25\%
\]

For a full detailing of the calculation, the Supply Reliability Charge Report prepared by A&N Technical Services, Inc. is provided as Appendix E. Following this methodology, Table 5-3 details calculation of the proposed CY 2018 Supply Reliability Charge.

<table>
<thead>
<tr>
<th>TABLE 5-3</th>
<th>PROPOSED CALENDAR YEAR 2018 SUPPLY RELIABILITY CHARGE (IN $ MILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desal Deliveries (TAF)</td>
<td>42.0</td>
</tr>
<tr>
<td>IID Transfer Deliveries (TAF)</td>
<td>130.0</td>
</tr>
<tr>
<td>Desal Supply Cost ($/AF)</td>
<td>$2,024</td>
</tr>
<tr>
<td>IID Transfer Cost ($/AF)</td>
<td>$1,147</td>
</tr>
<tr>
<td>MWD Tier 1 Untreated Rate ($/AF)</td>
<td>$695</td>
</tr>
<tr>
<td>Reliable Water Cost ($M)</td>
<td>$234.12</td>
</tr>
<tr>
<td>MWD Comparison Cost ($M)</td>
<td>$119.54</td>
</tr>
<tr>
<td>Differential ($M)</td>
<td>$114.58</td>
</tr>
<tr>
<td>Supply Reliability Needs</td>
<td>$28.60</td>
</tr>
</tbody>
</table>

As used in the above formula, Desalination Deliveries are 42,000 AF/Y and IID Water Transfer Deliveries are 130,000 AF/Y in CY 2018. The IID Deliveries will continue to ramp up to 200,000 AF/Y according to the transfer schedule in the Transfer Agreement.

The revenue generated from this charge will only be applied to the supply revenue requirement prior to determining the volumetric Melded Supply Rate. This charge will be allocated to member agencies based on a five-year rolling average of applicable historical water deliveries. This charge will be zero when MWD’s Tier 1 costs are equal or greater than the combined Desalination and IID Water Transfer Costs.

The calculated Supply Reliability Charge follows general water industry cost of service-based rate-setting principles. By design, it cannot recover more than the costs allocated to the supply functional costs, as it is calculated as a portion of those functional supply costs. Further, it constitutes a reasonable allocation of functional supply costs in that it better aligns the fixed incremental supply costs incurred by the Water Authority to make highly reliable potable water supplies available to its member agencies with the benefits available to all water customers connected to the Water Authority integrated water system.

As detailed in the A&F findings, the rate addresses fairness by allowing for predictability of incurred charges (based on a rolling five-year average of historical deliveries) and adjustments to future charges imposed on each member agency as demand requirements change in the future due to local supply development or demand management. As approved, the Water Authority spreads the Supply Reliability cost to member agencies based upon their share of the rolling five-year average M&I deliveries.
5.2 COMMODITY BASED VARIABLE RATES

The commodity based variable water rates and charges are distinguished from fixed revenues as they are recovered based on annual water sales.

5.2.1 Supply (Melded M&I Supply Rate)

The Melded Untreated M&I rate is a volume rate assessed on an acre-foot basis. The rate is a combination of direct and indirect costs. The revenue requirement apportioned to the supply rate component is $6.00 million and is detailed in Table 5-4.

<table>
<thead>
<tr>
<th>Table 5-4 CY 2018 MELDED SUPPLY REVENUE REQUIREMENT (IN $ MILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD + STD)</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures</td>
</tr>
<tr>
<td>Gross Revenue Requirements</td>
</tr>
<tr>
<td>Less Offsetting Revenues</td>
</tr>
<tr>
<td>Capital Related</td>
</tr>
<tr>
<td>Operating Related</td>
</tr>
<tr>
<td>RR before Coverage and RSF Support</td>
</tr>
<tr>
<td>Additional Coverage and RSF Support</td>
</tr>
<tr>
<td>Total Revenue Requirement</td>
</tr>
</tbody>
</table>

For CY 2018, the total supply costs are projected to total $351.05 million. The Water Authority projected sales of 402,500 acre-feet at a cost of $377.90 million. An additional $16.84 million must be recovered through rates to fund the supply’s revenue requirements and costs associated with the IID socioeconomic payment, storage, and QSA costs. Additionally, the Supply Reliability Charge provides a revenue offset of $28.6 million. The Water Authority also assumes a use of reserves of $6.14 million to provide rate smoothing. By dividing the total supply cost by total water sales, an acre-foot cost of $894 is calculated.
### TABLE 5-5 PROPOSED CALENDAR YEAR 2018 MELDED SUPPLY RATE

<table>
<thead>
<tr>
<th>Acre-Foot Sales (A/F) (000’s)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD Tier I Deliveries</td>
<td>141.80</td>
</tr>
<tr>
<td>Carlsbad Desalination Water Production</td>
<td>42.00</td>
</tr>
<tr>
<td>IID Deliveries</td>
<td>130.00</td>
</tr>
<tr>
<td>Operational Storage</td>
<td>10.00</td>
</tr>
<tr>
<td>Canal Water Deliveries</td>
<td>78.70</td>
</tr>
<tr>
<td>Total A/F Sales</td>
<td>402.55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Purchase Costs ($ Millions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD Tier 1 Water Purchases</td>
<td>$98.58</td>
</tr>
<tr>
<td>Carlsbad Desalination Water Supply Cost</td>
<td>85.01</td>
</tr>
<tr>
<td>IID Water Purchases</td>
<td>85.92</td>
</tr>
<tr>
<td>Operational Storage</td>
<td>5.87</td>
</tr>
<tr>
<td>Canal Water Purchases</td>
<td>102.43</td>
</tr>
<tr>
<td>Subtotal Water Purchase Costs</td>
<td>$377.90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Costs($ Millions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>QSA Environmental</td>
<td>$0.0</td>
</tr>
<tr>
<td>Supply Revenue Requirement &amp; Canal Cost Differential</td>
<td>16.33</td>
</tr>
<tr>
<td>Supply Augmentation Costs (Short and Long Term)</td>
<td>0.51</td>
</tr>
<tr>
<td>Total Additional Costs</td>
<td>$16.84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offsetting Revenues ($ Millions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Reliability Credit</td>
<td>$(28.60)</td>
</tr>
<tr>
<td>Cash &amp; Reserves(1)</td>
<td>(6.14)</td>
</tr>
<tr>
<td>Total Supply Cost</td>
<td>$360.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed A/F Rate (Total Supply Cost /Total A/F Sales)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$894/AF</td>
</tr>
</tbody>
</table>

**Notes:**

(1) Consists of operating funds and rate stabilization funds

### 5.2.2 Treatment (Melded M&I Treatment Rate)

The Treatment rate is a volumetric rate, assessed on an acre-foot basis, designed to recover the Water Authority’s cost of treating water. The Water Authority’s direct cost related to Treatment is $8.00 million. In addition, the rate will be set to recover the costs of purchasing treated water from MWD, the Levy and Olivenhain treatment plants, the Water Authority’s Twin Oaks Valley Water Treatment Plant, desalinated water costs allocated to this rate and may recover certain other costs associated with the delivery of treated water.
Table 5-6 outlines the Water Authority’s forecasted treated acre-foot demand, incurred treatment costs, and corresponding melded treatment rate. Similar to the melded supply rate, the costs associated with the operation of the Twin Oaks Water Treatment Plant ($8.10 million) will be recovered through the CY 2018 rates outside the revenue requirements outlined in Table 5-6.

Table 5-7 outlines the Water Authority’s proposed CY 2018 melded treatment rate. The proposed CY 2018 Melded Treatment rate is $300 per acre-foot.
5.2.3 Transportation

The Transportation rate is a uniform rate set to recover capital, operating and maintenance costs of the Water Authority’s aqueduct system, including all facilities used to physically transport the water to member agency meters. The transportation rate is charged to member agencies based on water deliveries.

<table>
<thead>
<tr>
<th>Table 5-8 Proposed Calendar Year 2018 Transportation Rate (in $ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD + STD)</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures</td>
</tr>
<tr>
<td>Gross Revenue Requirements</td>
</tr>
<tr>
<td>Less Offsetting Revenues</td>
</tr>
<tr>
<td>Capital Related</td>
</tr>
<tr>
<td>Operating Related</td>
</tr>
<tr>
<td>RR before Coverage and RSF Support</td>
</tr>
<tr>
<td>Additional Coverage &amp; RSF Support</td>
</tr>
<tr>
<td>Total Revenue Requirement</td>
</tr>
</tbody>
</table>

The Water Authority spreads the Transportation cost over all forecasted acre-feet demands, less water taken directly from MWD, to generate the Transportation rate. The proposed CY 2018 Transportation rate is $115 per acre-foot.

5.3 SPECIAL AGRICULTURAL WATER RATE PROGRAM

In October 2008, faced with a prolonged drought and rising water costs, the MWD Board voted to terminate the Interim Agricultural Water Program (IAWP) through a five-year phase-out of the program ending December 31, 2012. The IAWP was discounted rate for surplus system supplies available for the purpose of growing agricultural, horticultural, or floricultural products.

In response to MWD’s phase-out of IAWP, in October 2008, the Water Authority Board approved the Transitional Special Agricultural Water Rate (TSAWR) and formed a SAWR Board Workgroup to develop a recommended permanent program. In March 2010, the Board approved the Workgroup recommendation for a permanent TSAWR that would begin January 1, 2013 and only include the storage charge exemption. On April 26, 2012, the Board voted to extend the TSAWR program for two additional years to provide agricultural customers with additional time to transition to the higher cost of water. On March 26, 2015, the Board again voted to extend the TSAWR program through December 31, 2020.

Agricultural customers participating in the TSAWR program receive a reduced melded supply rate by agreeing to reduce or suspend water usage during shortages. These customers pay the MWD Tier 1 rate and do not share in the benefits of the QSA or Carlsbad Desalination supplies during water shortages. The second component of the TSAWR exempts agricultural customers from being subject to a member agency’s share of the Storage Charge. In return, agricultural customers receive half the level of service under the Emergency Storage Program (ESP) and no service under the Carryover Storage Program (CSP). This approach of providing a rate reduction is consistent with cost of service principles, as the agricultural
customers receive a commensurate reduced level of service. The customers are not provided supply reliability and do not contribute to storage costs.

Under the TSAWR program, agricultural users receiving raw water are charged the MWD Full Service Untreated Tier 1 water rate. In CY 2018, this rate is $695 per acre-foot. Agricultural users receiving treated water are also charged the MWD rate plus the Water Authority’s Melded Treatment Charge, which is proposed at $300 per acre-foot in CY 2018, as shown above. Transportation and customer service related costs are recovered through each member agency’s Transportation and Customer Service rates.
6 FINDINGS

Based on the independent review performed for this rate study, Carollo confirms the Water Authority’s existing methodology, cost allocations, rate-setting principles, and proposed CY 2018 rates are reasonable and consistent with the AWWA cost of service principles, Board policies, and California legal requirements. Carollo’s finding for this study are as follows:

- The Water Authority has significant detail and a sound basis for existing and proposed water rates and charges.

- The resulting cost of service allocations and existing methodology provide a clear, reasonable, and defensible nexus between the cost of service provided and rates charged.

- Board policies and cost of service guidelines are applied alongside industry best practices and AWWA M1 standards.

- The Water Authority’s rates and charges adhere to the legal requirements as described within this report.

- The IAC was calculated in compliance with Board policies and adheres to the legal requirements as described within this report.

- The existing methodology yields an appropriate and reasonable method for allocating costs, which could be sustained absent substantial changes in cost drivers or customer discharge patterns occur.

- Revenue adjustments are necessary to cover the Water Authority’s budget requirements. The revenue requirements for CY 2018 are coverage driven, as existing revenues fall below the desired DSCR target of 1.50x and necessary deposits into the RSF.

- The proposed CY 2018 water rates and charges necessitate roughly a $5.0 million utilization of the RSF and continue to meet the Board’s DSCR target of 1.50x.
7 Capacity Charge Study

7.1 Background
As part of the Cost of Service process, Carollo was also tasked to review and update the Water Authority’s capacity charges. Building from Carollo’s 2013 review of the capacity charges, the objective of the capacity charge review process is to affirm the calculation methodology for the Water Authority’s System Capacity Charge and Treatment Capacity Charge, and to update the charges as appropriate based on current system values and proposed capital improvements. The capacity charge analysis is based upon a point in time calculated based on the 2016 Comprehensive Annual Financial Report (CAFR), the Water Authority’s current capital improvement program (CIP), and forecasted meter equivalents.

In order to determine conformance with industry standards and principles, legal requirements, and the Water Authority Board policy, Carollo developed the following criteria to use in evaluating specific issues examined during the review:

- Do the capacity charges represent a reasonable nexus to the costs incurred by the Water Authority on behalf of future customers and the benefits received?
- Is the capacity charge methodology consistent with standards established in the American Water Works Association (AWWA) M1 manual, and does it meet Board policies and adhere to applicable legal requirements?
- Is the allocation approach consistent with industry practices and California Government Code §54999.7 and §66013?
- Is it expected that the allocation approach will remain appropriate for use by the Water Authority in the future?

This report presents Carollo’s findings and proposed adjustment to the System and Treatment Capacity Charges.

7.2 Overview
The Water Authority is a public agency serving the San Diego region as a wholesale supplier of water from the Colorado River and Northern California. The Water Authority’s mission is to provide a safe and reliable supply of water to its 24 member agencies serving the San Diego region. The Water Authority owns, operates, and maintains a system comprised of pipelines, pumping stations, and storage facilities (including hydroelectric generation). Water customers connecting to or upsizing a connection within the Water Authority’s service area are assessed a System Capacity Charge in order to equitably recover a portion of the cost to provide capacity to serve that customer. Additionally, a Treatment Capacity Charge is imposed on new or expanded retail connections capable of receiving treated water from the Water Authority.

Section §5.9 of the County Water Authority Act permits the Water Authority to fix and impose capacity charges on each of its member agencies or upon ultimate users of water delivered by the Water Authority to the member agencies. Capacity charges are a one-time payment for new or upsized meters to fund the cost to construct capacity to serve that meter. These capacity charges may include components for water
resources, production, storage, distribution, treatment, and financial reserves. However, the Water Authority must demonstrate a reasonable nexus between the amount of the charge and the cost of capacity to serve new development.

In May 1990, the Water Authority’s Board of Directors adopted a System Capacity Charge on all new or up-sized retail water meters installed. The charge was designed to recover a proportionate share of future capacity-related capital expenditures required to provide service to new connections in the Water Authority’s service area. In May 2005, the Board approved a change in the System Capacity Charge calculation methodology. The new methodology not only recovers the costs of future improvements, but accounts for unused capacity available within the existing system funded by existing customers and future capital improvements that will benefit future users. The Board also approved the creation of a Treatment Capacity Charge to help fund the Water Authority’s regional water treatment facility. The Treatment Capacity Charge was implemented in 2008 and recovers a proportionate share of capital expenditures incurred by the Water Authority for the Twin Oaks Valley and Levy Water Treatment Plants. Both the System and Treatment Capacity Charges are imposed based upon the size of the meter installed.

7.3 STATUTORY REQUIREMENTS

The Water Authority may levy a capacity charge pursuant to Section §5.9 of the County Water Authority Act. A capacity charge that is levied on ultimate users of water is subject to the requirements of Chapter 13.7 (commencing with Section §54999) of Part 1 of Division 2 of Title 5 of the California Government Code relating to the imposition of charges on customers that are public agencies, such as school districts. Capacity charges are also subject to the requirements of Government Code §66013. Capacity charges are “charges for facilities in existence at the time the charge is imposed or charges for new facilities to be constructed in the future which are of benefit to the person or property being charged.” Section §66013 provides that capacity charges “shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed.” Section §54999.7 establishes a similar cost of service requirement. Capacity charges are not subject to the provisions of California Constitution article XIII D (Proposition 218) (Richmond v. Shasta Community Services Dist. (2004) 32 Cal. 4th 409.). A capacity charge is imposed on new connections in order to recover a fair and equitable share of the costs of capacity within the utility facilities. A key tenet in adopting these connection fees is: “growth pays for growth.” This means that the costs associated with building excess capacity to serve new customers ultimately should be borne by those new users who benefit from this available capacity.
8  CAPACITY CHARGE OVERVIEW

Capacity charges are designed to recover a proportionate share of system capacity costs from future users. The Water Authority’s system currently has unused capacity that is available to serve future users. The Water Authority will also continue to maintain, improve, and expand the system with future capital improvements. The capacity charge methodology implemented by the Water Authority in 2005 accounts for the benefit that future users will receive from both the existing system and future improvements. This methodology was later affirmed in Carollo’s 2013 Capacity Charge Report.

There are two basic components to the Water Authority’s capacity charge – the “buy-in component” (or existing cost basis); and the “future component” (or future cost basis). For the purposes of this study, the term “buy-in component” shall refer to the value of existing system assets (i.e., facilities already in service) that may be recovered through the capacity charge. The term “future component” shall refer to future facilities (i.e., facilities in the CIP) that may be recovered through the capacity charge.

The buy-in component of the capacity charge is based on replacement cost new less depreciation (RCNLD). Outstanding debt principal and monetary reserves are also accounted for in this cost basis as described in Report Section 8.1 below. The future component incorporates the present value (in 2016 dollars) of the Water Authority’s CIP. Costs are fairly and reasonably spread over both existing and future users by dividing the total system value by the total number of equivalent household meters that are projected to receive water service through 2035. The methodology for calculating both the System and Treatment Capacity Charges is illustrated in Figure 2.1 below:

\[
\text{Capacity Charge} = \frac{\text{Adjusted RCNLD of Existing System} + \text{Present Value of Future CIP}}{\text{Existing + Future Customers}}
\]

RCNLD = Replacement Cost New Less Depreciation

8.1  BUY-IN COST BASIS

Utilities often construct excess infrastructure capacity to meet projected future demands. The purpose of the buy-in component of the Water Authority’s capacity charges is to recover costs that have already been incurred by the Water Authority. Existing customers have paid for this system over time through their user rates (through direct capital financing or retired debt). The buy-in component of a capacity charge provides a mechanism to reimburse existing system users for the carrying costs of constructing system capacity that is available to be used by future users.

There are further considerations when calculating the buy-in component of the capacity charge. Given that the existing system was constructed over time, the original cost of constructing the system does not accurately reflect its current value nor the cost to construct the facilities today. Consequently, original costs were escalated to 2016 dollars using the Engineering News-Record Construction Cost Index (ENR CCI). The
Water Authority’s fixed asset records were used as the basis for this analysis, which included original costs, acquisition dates, and estimated useful lives.

Replacement costs alone might not be the best estimate of system value, because system assets have a finite lifespan and must be replaced and/or rehabilitated in time. The Water Authority adjusts the existing cost basis by deducting straight-line depreciation. Accumulated depreciation is determined by dividing the age of each asset by the projected useful life and reducing the asset value by that percentage. By accounting for accumulated depreciation in the buy-in cost basis, the Water Authority may recover a proportionate value of capital improvements that will replace depreciated assets or will be undertaken to extend the useful lives of these assets through the future cost component of the capacity charge.

The existing cost basis should not include costs of assets that were grant-funded or donated and should only include those costs incurred by the Water Authority’s ratepayers for the development of the existing system. For this reason, contributed assets are removed from the existing cost basis.

Finally, the buy-in component is reduced by outstanding debt principal on existing assets net of available reserves. While there is no statutory requirement to do so, the Water Authority recognizes that customers connecting to the system will pay for these assets through the debt service component of their utility rates and therefore deducts outstanding debt principal from the existing cost basis. However, because the Water Authority maintains reserves that are essentially assets in the form of cash that could also be used to retire outstanding debt service, reserves are accounted for as a credit against the outstanding debt principal.

8.2 FUTURE COST BASIS

In addition to the value of the existing system, the Water Authority recovers a proportionate share of future capital improvements that will benefit future customers. Projects included in the Water Authority’s CIP have two primary purposes – maintain reliability of existing infrastructure and increase system capacity. Existing and future users will benefit generally in the same manner and to the same extent from these projects. As noted above, accumulated depreciation is deducted from the buy-in component of the capacity charge. This allows for the inclusion of future rehabilitative and upgrade projects, in order to equitably recover system value from future users and prevent a double counting of assets through the buy-in and future components of the capacity charges.

The future cost basis accounts for capital improvements that will be constructed through 2035. The costs of these improvements are estimated based on mid-point of construction and stated in future dollars. Costs are brought back to present value terms (2016 dollars) using a capital discount rate.

8.3 EXISTING AND FUTURE CUSTOMER BASE

The capacity charge methodology spreads the buy-in and future cost bases over the projected customer base (existing and future) through 2035. As meter size dictates the maximum instantaneous water demand a customer can put on the system, it provides a reasonable estimate of the overall demand a new user will place on the system. As such, the Water Authority uses meter size as the basis for assessing capacity charges.
To accommodate for different sized meters and uses, meter equivalency factors are applied to larger meters to generate the number of Meter Equivalents (MEs) in the system. Existing MEs are based on each member agency’s total number of meters multiplied by the meter size’s corresponding equivalency factor.

The San Diego Association of Governments (SANDAG) Series 13 report projects an increase in population, reaching approximately 3.85 million by 2035. The Water Authority uses this population estimate to project the number of new meters and meter equivalents that will be installed within its service area through 2035. To forecast future MEs, the Water Authority utilizes a combination of SANDAG population forecasts and a calculated historic persons per meter charge metric.

Based on 2017 population estimates, the Water Authority provides service to an estimated 3.31 million residents. Based on nearly 690,000 meters, this equates to a ratio of 4.76 people per meter. By applying this metric forward and utilizing the projected SANDAG population growth of 0.54 million by 2035 (2017 to 2035), the Water Authority would expect 113,736 new meters or 151,401 new meter equivalents. The calculation of forecasting new meter equivalents is shown in Table 8-1.

<table>
<thead>
<tr>
<th>TABLE 8-1</th>
<th>PROJECTION OF ADDED EQUIVALENT METERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE</td>
<td>CALCULATION FACTOR</td>
</tr>
<tr>
<td>A</td>
<td>Estimated 2017 Population</td>
</tr>
<tr>
<td>B</td>
<td>Meters (as of 12/31/2016)</td>
</tr>
<tr>
<td>C</td>
<td>Persons Per Meter (Rounded) (A ÷ B)</td>
</tr>
<tr>
<td>D</td>
<td>Population Growth (SANDAG Estimate 2018-2035)</td>
</tr>
<tr>
<td>E</td>
<td>Persons Per Meter (as of 2016)</td>
</tr>
<tr>
<td>F</td>
<td>New Meters (D ÷ E)</td>
</tr>
<tr>
<td>G</td>
<td>Weighted Meter Factor (ME/Meters)</td>
</tr>
<tr>
<td>H</td>
<td>Forecasted Meter Equivalents (F × G)</td>
</tr>
</tbody>
</table>
9 SYSTEM CAPACITY CHARGE CALCULATION

The System Capacity Charge is applicable to any new development requiring water service or upsize in water meter within the Water Authority’s service area. The charge is designed to recover a proportionate share of the capital costs associated with providing water supplies and services, including storage and conveyance facilities. The System Capacity Charge excludes all treatment related costs.

9.1 EXISTING SYSTEM COST BASIS

The cost to buy into the existing system is determined based on the total value of existing assets, net of liabilities (the buy-in cost basis). The following items are included as part of the buy-in cost basis.

9.1.1 Value of Infrastructure in Service

The infrastructure portions of existing capital assets, excluding treatment plants, are valued based on the replacement cost of existing conveyance infrastructure (escalated to January 2017 dollars based on ENR-LA CCI), less straight-line depreciation. The Water Authority’s asset records, which provide the install date of each asset (prior to 2017), were used to determine the RCNLD of the following asset types:

- Pipelines
- Flow control facilities
- Tunnels
- Pump stations
- Hydroelectric
- Flow regulating structures
- Olivenhain Dam
- Rancho Penasquitos
- Miscellaneous

Updated through 2016, the RCNLD of existing system infrastructure is $5.1 billion.

9.1.2 Adjustments to Value of Water Infrastructure in Service

The value of system infrastructure in service is adjusted to account for land value and construction work in progress.

- The value of land owned by the Water Authority is added to the value of the existing system. This value includes land, easements, and mitigation banks.
- “Construction work in progress” (CWIP) is separately tracked and added to the value of the existing system to avoid double counting with the CIP.
- Contributed Capital, assets that were not funded by existing users, is deducted from existing assets to provide equal footing with existing users.

The total value of these adjustments is $208 million. This reflects a significant decrease from prior years as many of the high value CWIP projects have since been completed.
9.1.3 Liability and Asset Related Adjustments

The Water Authority’s outstanding debt principal is deducted from the asset base, as it represents an outstanding liability that will be paid by future ratepayers through the Water Authority’s annual rates and charges. Tax Exempt Commercial Paper (TECP) is also deducted as a liability. As an offset to these deductions, and as applicable, the Water Authority’s existing cash assets were added back. This approach assumes that the Water Authority could retire or defease the outstanding debt with their reserves/cash on hand. Existing cash assets include the following funds:

- Debt Service Reserve Fund
- Construction Fund (proceeds still available)
- PAYGO Fund (excluding Water Standby Availability Charge revenues)
- Operating Fund (Facilities portion)
- Rate Stabilization Fund

Additionally, non-infrastructure assets (e.g., Participation and Capacity Rights, and reserves) have been included as asset-related adjustments. As of June 30, 2016, there are $1.3 billion in total liability and asset related adjustments, accounting for the debt associated with the significant CIP undertaken by the Water Authority.

9.2 Future System Cost Basis

The future system cost basis of the System Capacity Charge is based on the Water Authority’s Board adopted CIP. The current list of projects included in the CIP is based on the results of planning studies, including the 2015 Urban Water Management Plan (UWMP) and the 2013 Regional Water Facilities Master Plan, and extends through 2035. These CIP projects include a mix of new facilities that will add capacity to existing conveyance, storage, and treatment facilities, as well as repair and replace aging infrastructure. The System Capacity Charge excludes any projects related to treatment improvements, which will be recovered through the Treatment Capacity Charge. Based on the existing information, future CIP (2017-2035) accounts for nearly $1.5 billion in costs. The CIP contains no forecasted capital costs associated with the Treatment Capacity Charge.

9.3 Existing and Future Customer Base

As discussed in Report Section 8.3 the capacity charges are calculated by dividing the total system value by the total number of existing and future equivalent meters projected to be served by the Water Authority’s system in 2035. Approximately 1.1 million meter equivalents are projected through 2035.
9.4 SYSTEM CAPACITY CHARGE CALCULATION

The table below summarizes the various inclusions and adjustments related to the development of the CY 2018 System Capacity Charge.

<table>
<thead>
<tr>
<th>LINE</th>
<th>SYSTEM CAPACITY CHARGE</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>RCNL of Water Infrastructure in Service</td>
<td>$5,100,558,005</td>
</tr>
<tr>
<td>B</td>
<td>Sub-Total of Adjustments</td>
<td>208,148,270</td>
</tr>
<tr>
<td>C</td>
<td>Total Value of Capital Assets (A + B)</td>
<td>$5,308,706,274</td>
</tr>
<tr>
<td>D</td>
<td>Total Liability and Asset-Related Adjustments</td>
<td>(1,331,594,114)</td>
</tr>
<tr>
<td>E</td>
<td>Total Value of Existing Assets Net of Liabilities (C + D)</td>
<td>$3,977,12,161</td>
</tr>
<tr>
<td>F</td>
<td>Infrastructure Related Future CIP Costs</td>
<td>1,474,996,900</td>
</tr>
<tr>
<td>G</td>
<td>Total Value of Existing and Future Assets (E + F)</td>
<td>$5,452,109,061</td>
</tr>
<tr>
<td>H</td>
<td>Total Number of Meter Equivalents (Existing and Future)</td>
<td>1,069,232</td>
</tr>
<tr>
<td>I</td>
<td>Proposed System Capacity Charge (Per ME) (G ÷ H)</td>
<td>$5,099</td>
</tr>
</tbody>
</table>

The System Capacity Charge is calculated to increase to $5,099 from the current charge of $5,029, an increase of $70 per meter equivalent.
10 TREATMENT CAPACITY CHARGE

The Treatment Capacity Charge is applicable to any new connection within the Water Authority service area that will receive treated water. The charge recovers a portion of the capital costs from the future users of treatment facilities. Similar to the System Capacity Charge, the charge is based upon the size of the meter installed.

10.1 EXISTING SYSTEM COST BASIS

The existing capital assets are valued based on the replacement cost of existing treatment infrastructure (escalated to 2016 dollars based on ENR CCI), less straight-line depreciation and outstanding debt principal. Treatment capital costs include the leased capacity at the Levy Water Treatment Plant and the Twin Oaks Valley Water Treatment Plant. The Water Authority’s asset records were used to determine the depreciated replacement cost of leased capacity at the Levy Water Treatment Plant. The replacement value of the Twin Oaks Valley Water Treatment Plant was determined by escalating the 2008 construction cost through 2016 and deducting straight-line depreciation. The existing cost basis of the treatment facilities is $261 million.

10.1.1 Liability and Asset Related Adjustments

The Water Authority’s outstanding debt principal related to treatment is deducted from the asset base, as it represents an outstanding liability the will be paid for by future ratepayers through the Water Authority’s annual rates and charges. As of June 30, 2016, there is roughly $119 million in total liability and asset related adjustments. As the Water Authority continues to pay off treatment related debt, this value has decreased since the 2013 review.

10.2 FUTURE SYSTEM COST BASIS

The future system cost basis of the Treatment Capacity Charge is based on projected expansions in the Water Authority and member agency water treatment facilities and excludes all non-treatment costs that are otherwise recovered through the System Capacity Charge. The current list of projects included in the CIP is based on the results of planning studies, including the 2015 UWMP and the 2013 Regional Water Facilities Master Plan. Following the completion of the Twin Oaks Valley Water Treatment Plant, the Water Authority has no planned treatment related projects.

10.3 METER EQUIVALENTS

The capacity charges are calculated by dividing the total treatment system value by the total number of existing and future equivalent meters projected to be served by the Water Authority’s treatment system in 2035. Meters from Escondido, Del Mar, and Poway that are not connected to the treated water system are excluded from the Treatment Capacity Charge calculation. Approximately 1,005,000 meter equivalents are projected through 2035.
10.4 TREATMENT CAPACITY CHARGE CALCULATION

The table below summarizes the various inclusions and adjustments related to the development of the CY 2018 Treatment Capacity Charge.

<table>
<thead>
<tr>
<th>LINE</th>
<th>TREATMENT CAPACITY CHARGE</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Total Existing Cost Basis</td>
<td>$261,148,151</td>
</tr>
<tr>
<td>B</td>
<td>Sub-Total of Adjustments</td>
<td>-</td>
</tr>
<tr>
<td>C</td>
<td>Total Value of Capital Assets (A + B)</td>
<td>261,148,151</td>
</tr>
<tr>
<td>D</td>
<td>Total Liability and Asset-Related Adjustments</td>
<td>(118,851,946)</td>
</tr>
<tr>
<td>E</td>
<td>Total Value of Existing Assets Net of Liabilities (C + D)</td>
<td>142,460,021</td>
</tr>
<tr>
<td>F</td>
<td>Total Future Cost Basis</td>
<td>-</td>
</tr>
<tr>
<td>G</td>
<td>Total Value of Existing and Future Assets (E + F)</td>
<td>$142,460,021</td>
</tr>
<tr>
<td>H</td>
<td>Total Number of Meter Equivalents</td>
<td>1,005,826</td>
</tr>
<tr>
<td>I</td>
<td>Proposed System Capacity Charge (per ME) (G ÷ H)</td>
<td>$141</td>
</tr>
</tbody>
</table>

The Treatment Capacity Charge is calculated to increase to $141 from the current charge of $128, which is an increase of $13 per meter equivalent.
11 FINDINGS AND RECOMMENDATIONS

Carollo finds that the Water Authority methods for calculating the System Capacity Charge and the Treatment Capacity Charge continue to be consistent with applicable AWWA and industry standards, Board policy, and applicable legal requirements as defined in Report Section 7.3 above. The Water Authority capacity charge methodology spreads the value of the current system and future improvements fairly and reasonably to all customers, existing and future, creating a nexus between the cost of capacity and the benefit received. This approach accounts for the fact that all customers will benefit generally in the same manner and to the same extent from the current system and future CIP improvements. Future users are required to pay for a proportionate share of system costs through the capacity charges, while existing users have paid through their past rates and will continue to contribute through future rates.

In years between capacity charge reviews, Carollo recommends that the Water Authority continue its policy to escalate the implemented System and Treatment Capacity Charges by an appropriate inflationary metric such as the ENR CCI. As there is no ENR CCI for the San Diego region, we suggest that the Water Authority use 20-City Average as a reasonable proxy. The use of the 20-City average provides significantly less year-to-year volatility while providing near identical long-term averages.
12 Annexation Application Fee - Introduction

The final piece of the Cost of Service review was to conduct a review and update of the Water Authority’s Annexation Application Fee (currently referred to as a Processing Fee). The purpose of the Water Authority’s Annexation Application Fee is to recover the administrative costs incurred throughout the annexation process. The purpose of this study is to identify the costs associated with processing the application to annex and develop an updated Application Fee to equitably recover these costs from the applicant.

12.1.1 Background

Periodically, the Water Authority receives requests from its member agencies to expand the Water Authority’s boundary through the annexation of property. A property is annexed concurrently into the member agency, the Water Authority, and the Metropolitan Water District of Southern California (MWD), by meeting the terms and conditions fixed by each agency’s board or council and in accordance with each agency’s policies and procedures.

Table 12-1 provides a summary of the existing Processing (Application) Fee.

<table>
<thead>
<tr>
<th>TABLE 12-1</th>
<th>CURRENT PROCESSING FEE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COST</td>
</tr>
<tr>
<td>Processing Fee</td>
<td>$3,000</td>
</tr>
</tbody>
</table>
13 ANNEXATION APPLICATION FEE CALCULATION

Updating the Annexation Application Fee requires determining those direct costs (staff and materials) and indirect costs (overhead and other support services) that the Water Authority incurs during the annexation process. The Application Fee is a user fee, which recovers the cost to provide a service performed by an agency on behalf of a private individual or group. This approach assumes that those services directly benefit the individual — and not the overarching service area — and therefore should be fully borne solely by the individual receiving the benefit. The approach presented in the memorandum below is an industry accepted approach for calculation of user fees.

13.1.1 Methodology

For most development-related user fees, state law establishes that “fees may not exceed the estimated reasonable cost of providing the service for which the fee is charged.” Additionally, Proposition 26 states that the fee charged must “not exceed the reasonable costs” to provide the service. The methodology and other efforts of the study are intended to establish compliance with this principle. The costs identified in this study represent the estimated reasonable full cost and, therefore, the maximum fee the Water Authority may charge for processing the application.

The proposed Application Fee is based on Water Authority staff time and cost required to process a request for annexation. The Water Authority will accept applications for annexation upon payment of the required annexation Application Fee, and the Board of Directors retains discretion to consider each annexation on a case-by-case basis and approve, conditionally approve, or deny the annexation based on the circumstances at that time. Water Authority staff provided time estimates that reasonably represent an average level of effort to support the entire annexation process. The estimated time for the fee is then multiplied by an average hourly rate to determine the direct labor portion of the fee.

Two key concepts for the Application Fee calculations are direct costs and overhead (indirect) costs: Direct costs are the salaries and benefits of personnel directly involved in the annexation application process. Overhead costs could include the costs of division and department personnel who supervise and support the annexation process, portions of division and department operations costs, and the costs of central service functions (such as accounting and information technology). For the purposes of this analysis only direct labor costs were included in the proposed Application Fee calculation.

13.1.2 Application Fee Calculation

Staff reviewed the existing annexation process and provided estimated hours by task. These estimated hours reflect the average staff time required during an annexation process and are not expected to vary significantly between typical annexations. As the average annexation is completed over an approximate 18-month process, the primary effort is related to meetings, coordination, and confirmation of the accuracy of the application.
Table 13-1 details the time estimates as provided by Water Authority staff.

<table>
<thead>
<tr>
<th>TABLE 13-1 ADMINISTRATIVE HOURS BY TASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>8a</td>
</tr>
<tr>
<td>8b</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

In order to calculate the total administrative cost to process an annexation, Carollo multiplied the total time required by the Water Authority’s average hourly wage plus benefits. Average retirement and health care costs are added to the base hourly wage; however, this does not reflect a “fully burdened” hourly rate as overhead costs were not identified. This approach yields an average hourly rate of $60. As detailed in Table 13-2, applying this hourly rate to the estimated staff time yields a cost of $10,140.

<table>
<thead>
<tr>
<th>TABLE 13-2 ADMINISTRATIVE COST CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCULATION</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>Estimated Water Resource Staff Time</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>Average Hourly Rate</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>Annexation Application Fee (A × B)</td>
</tr>
</tbody>
</table>

---

4 Includes cost of overhead and indirect costs (such as printing, technology, etc.), above salary and benefits.

5 State Controller’s Government Compensation in California website identified an average salary of $90,375 and retirement and health costs of $32,599. Dividing by 2,080 annual work hours yields $60/hour.
In addition to the Water Resource staff costs, Legal Counsel reviews the annexations. Based on a typical process, this time is minimal. The Water Authority estimates that the total costs for legal review is $200 based on one hour review at $200 per hour. As a result, the total Application Fee totals $10,340 per annexed parcel. This fee is shown in Table 13-3 below:

<table>
<thead>
<tr>
<th>TABLE 13.3</th>
<th>APPLICATION FEE CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CALCULATION</td>
</tr>
<tr>
<td>A</td>
<td>Administrative Costs</td>
</tr>
<tr>
<td>B</td>
<td>Legal Review</td>
</tr>
<tr>
<td>C</td>
<td>Total Application Fee</td>
</tr>
</tbody>
</table>
14 Survey of Annexation Fees

As part of the review process, Carollo surveyed other agencies throughout California, both retail and wholesale, which maintain an application fee (or similar) associated with the annexation process. The fees are outlined in the table below.

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>APPLICATION (OR SIMILAR) FEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Diego County Water Authority (existing)</td>
<td>$3,000 per application</td>
</tr>
<tr>
<td>Metropolitan Water District</td>
<td>$5,000 per application</td>
</tr>
<tr>
<td>East Bay Municipal Utilities District</td>
<td>$1,060 per application</td>
</tr>
<tr>
<td>Calleguas Municipal Water District</td>
<td>$74.77/hour Staff $235/hour Legal</td>
</tr>
<tr>
<td>Western Municipal Water District (Type A)</td>
<td>$3,750 per application</td>
</tr>
<tr>
<td>Vallecitos Water District</td>
<td>$1,000 for 0-10 acres</td>
</tr>
<tr>
<td></td>
<td>$2,000 for 11-50 acres</td>
</tr>
<tr>
<td></td>
<td>$3,000 for 50+ acres</td>
</tr>
<tr>
<td>Los Angeles County Sanitation District</td>
<td>$1,450 for 0-1.5 acres</td>
</tr>
<tr>
<td></td>
<td>$1,950 for &gt;1.5-5.0 acres</td>
</tr>
<tr>
<td></td>
<td>$390/acre for &gt;5-20 acres</td>
</tr>
<tr>
<td></td>
<td>$7,900 +$75/acre over 20 acres</td>
</tr>
</tbody>
</table>

As the survey reveals, not only do the fees vary but the collection methodology varies. The most common Application Fee methodology is a flat fee per application. This is likely due to the simple and clear nature of the fee.

Both Vallecitos Water District and Los Angeles County Sanitation District graduate the fee based on the size (number or acres) of the annexation, albeit with varying levels of granularity. As discussed above, this approach was evaluated; however, for the Water Authority’s specific process, it was the consensus of staff was there was no strong correlation between size of the annexation and time required for processing. Instead, they noted the greatest reason for variation (additional effort) was the quality of the application.

Yet another approach is an hourly (or time and materials) approach utilized by Calleguas Municipal Water District. This approach might yield greater cost recovery; however, additional effort is required to track time. Also additional uncertainty from the applicant is created as there is no limit or upfront understanding of the effort required. The Agency does address this in their fee schedule by suggesting a

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6 The survey revealed there is no consistent naming convention. Agencies may refer to the Application Fee as an “administrative” or “processing” or “annexation” fee. In all cases the fee is designed to recover the costs associated with review and processing of the submitted annexation application.
“simple” annexation may require 35 hours of staff time (35 hours * $74.77 = $2,625) plus legal review (6 hours * $235 = $1,410). They do, however, include the caveat hours may vary widely.

Based on the results of the survey and discussions with staff, no changes to the collection methodology are recommended at this time. The Water Authority should continue to monitor the staff time necessary to perform this function and process required.
**15 Conclusion and Recommendation**

The calculated Application Fee of $10,340 reflects the identified full administrative cost of service associated with an application for annexation. Based on the identified effort at this time, this indicates the maximum fee that the Water Authority Board could enact for the administrative costs of processing a potential annexation. While this is an increase from the existing $3,000 charge, the existing fee has not been adjusted since 1983. If the fee had been adjusted annually by inflation (US CPI), it would be nearly $8,300. Furthermore, it is not known what level of cost recovery was identified in 1983. It is also recommended that in between periodic fee analyses, the Water Authority should annually index the Application Fee based on the change in the CPI index for San Diego as of January of each year.
A. INFRASTRUCTURE ACCESS CHARGE RESOLUTION
RESOLUTION NO. 98-26

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY SETTING THE AMOUNT OF THE INFRASTRUCTURE ACCESS CHARGE PURSUANT TO SECTION 15.3.5 OF THE ADMINISTRATIVE CODE

WHEREAS, on January 8, 1998, the Board of Directors adopted an Implementation Plan for Proposed Changes to the Authority's Revenue Structure; and

WHEREAS, on March 12, 1998, the Board of Directors conducted a public hearing duly noticed by publication to consider a revised revenue structure including a proposed infrastructure access charge; and

WHEREAS, on March 26, 1998, the Board of Directors adopted Resolution No. 98-10, amending Article 15 of the Administrative Code adding Section 15.3.5 establishing an infrastructure access charge the amount of which would be determined by later action of the Board of Directors; and

WHEREAS, Section 15.3.5 of the Administrative Code provides that the infrastructure access charge shall be set at an amount which, when added to the Authority's Water Standby Availability Charge and property tax revenues, will provide funding for at least 25 per cent of the Authority's estimated annual fixed costs, and further, that member agencies shall pay the infrastructure access charge based on the number and size of retail water meter connections within their respective jurisdictions; and

WHEREAS, on April 9, 1998, the Board of Directors established June 11, 1998, as the date for a public hearing to consider protests to the infrastructure access charge; and

WHEREAS, notice of the hearing to consider protests regarding the amount of the infrastructure access charge was mailed to owners of real property, as referred to in Articles XIII C and XIII D of the California Constitution, not less than 45 days prior to the public hearing; and

WHEREAS, on June 11, 1998, the Board of Directors held a public hearing and considered the protests regarding the amount of the infrastructure access charge; and

WHEREAS, the Board of Directors did not receive a majority protest to the amount of the infrastructure access charge; and

WHEREAS, pursuant to Section 15.3.5 of the Administrative Code and as recommended by the "Final Report, Revenue Plan Review (Including Implementation
Steps dated December 1997 prepared by R. W. Beck, consulting engineers, the Board of Directors hereby declares that the annual fixed costs of the Authority for the purposes of calculating the infrastructure access charge shall include annual payments of principle and interest on debt of the Authority, eighty percent of all operation and maintenance expenses as established by the Board in the annual budget, and payments to member agencies for generation of reclaimed water.

WHEREAS, the Board of Directors has considered the information relating to the infrastructure access charge and has determined that the revenue derived from the charge will, when combined with standby charges and property tax revenues, provide the sum necessary to pay at least twenty-five percent of the estimated annual fixed costs of the Authority, including but not limited to debt service; and

WHEREAS, the Board of Directors has determined that the amount of the infrastructure access charge for each member agency charge as set forth in this resolution complies with the requirements of Section 15.3.5 of the Authority’s Administrative Code; and

NOW, THEREFORE, IT IS HEREBY RESOLVED by the Board of Directors of the San Diego County Water Authority as follows:

1. The foregoing recitations are true and correct.

2. The monthly amount of the infrastructure access charge to be collected from each member agency pursuant to Section 15.3.5 of the Authority’s Administrative Code, commencing on January 1, 1999, is established as follows:

<table>
<thead>
<tr>
<th>Agency</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlsbad Municipal Water District</td>
<td>$25,385</td>
</tr>
<tr>
<td>City of Del Mar</td>
<td>$2,442</td>
</tr>
<tr>
<td>City of Escondido</td>
<td>$30,744</td>
</tr>
<tr>
<td>Fallbrook Public Utilities District</td>
<td>$10,261</td>
</tr>
<tr>
<td>Helix Water District</td>
<td>$62,433</td>
</tr>
<tr>
<td>City of National City</td>
<td>(See Sweetwater Authority)</td>
</tr>
<tr>
<td>City of Oceanside</td>
<td>$49,222</td>
</tr>
<tr>
<td>Olivenhain Municipal Water District</td>
<td>$17,125</td>
</tr>
<tr>
<td>Otay Water District</td>
<td>$37,988</td>
</tr>
<tr>
<td>Padre Dam Municipal Water District</td>
<td>$24,678</td>
</tr>
<tr>
<td>City of Poway</td>
<td>$14,829</td>
</tr>
<tr>
<td>Pendleton Military Reservation</td>
<td>$0</td>
</tr>
<tr>
<td>Rainbow Municipal Water District</td>
<td>$11,157</td>
</tr>
<tr>
<td>Ramona Municipal Water District</td>
<td>$9,967</td>
</tr>
<tr>
<td>Rincon del Diablo Municipal Water District</td>
<td>$8,938</td>
</tr>
<tr>
<td>City of San Diego</td>
<td>$354,539</td>
</tr>
<tr>
<td>San Dieguito Water District</td>
<td>$14,591</td>
</tr>
<tr>
<td>Santa Fe Irrigation District</td>
<td>$10,269</td>
</tr>
</tbody>
</table>
South Bay Irrigation District (See Sweetwater Authority)  
Sweetwater Authority $ 43,373  
Vallecitos Water District $ 17,194  
Valley Center Municipal Water District $ 12,889  
Vista Irrigation District $ 31,946  
Yuima Municipal Water District $ 564

Pursuant to Section 15.3.5 of the Administrative Code, the Board of Directors, by resolution, may establish a system of credits that member agencies may offset against the charge set by this section.

3. The amount of the monthly infrastructure access charge for each member agency has been determined based upon information provided by member agencies summarized in the table attached hereto as Attachment 1, and is apportioned based upon anticipated water delivery measured by the number of “household meter equivalents” served by each member agency. The infrastructure access charge for the Pendleton Military Reservation has been established at $0.00 due to the unique circumstances and limitations of its current receipt of service from the Authority.

4. The General Manager shall require each member agency to provide sufficient information to permit the Manager, or the Manager's designee, to evaluate the water use potential of a member agency based upon the number and types of water meters within the member agency as of December 31 of each year. Thereafter the General Manager shall determine the infrastructure access charge according to the procedures set forth in Attachment 2 to this resolution and shall recommend any adjustments to the charge to the Board of Directors.

5. The Board of Directors, by resolution, may from time-to-time adjust the infrastructure access charge to account for changes in capital improvement costs, operation and maintenance expenses, and other fixed costs to assure revenue from the charge, when combined with revenue from property taxes and stand-by charges, is sufficient to pay at least twenty-five percent of the Authority's fixed costs as defined in this resolution. Based upon current capital improvement plans, it is estimated that the infrastructure access charge will increase to $2.00 per month per household meter equivalent over the next ten years. Further, the charge is subject to future adjustments for inflation and modifications of capital improvement plans. The procedure by which the Board of Directors established and set the infrastructure access charge, or adopted this resolution, shall not be deemed to establish a precedent for future proceedings of the Authority to establish, levy, set, or increase any fee or charge.

PASSED, APPROVED, AND ADOPTED this 11th day of June, 1998.

AYES: Unless noted below, all Directors voted aye.
NOES: Chenelle, Mason, & Pocklington

ABSTAIN:

ABSENT: Fowler, Krauel, Madigan, & McMillan

Chris Frahm, Chair
Board of Directors

ATTEST:

Harold W. Ball, Secretary
Board of Directors

I, Janet R. Maltman, Board Secretary of the Board of Directors of the San Diego County Water Authority, do hereby certify that the above and foregoing is a full, true and correct copy of said resolution No. 98-26 of said Board and that the same has not been amended or repealed.

Janet R. Maltman, Board Secretary
Board of Directors
<table>
<thead>
<tr>
<th>Agency ID</th>
<th>C. Yr.</th>
<th>5/8&quot;</th>
<th>3/4&quot;</th>
<th>1&quot;</th>
<th>1 1/2&quot;</th>
<th>2&quot;</th>
<th>2 1/2&quot;</th>
<th>3&quot;</th>
<th>4&quot;</th>
<th>5&quot;</th>
<th>6&quot;</th>
<th>8&quot;</th>
<th>10&quot;</th>
<th>12&quot;</th>
<th>16&quot;</th>
<th>Subtotal</th>
</tr>
</thead>
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<tr>
<td>Carlsbad</td>
<td>1997</td>
<td>14,340</td>
<td>1,374</td>
<td>1,174</td>
<td>1,503</td>
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<td>270</td>
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<td>25,385</td>
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<td>0</td>
<td>52</td>
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<td>0</td>
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<td>Escondido</td>
<td>1997</td>
<td>18,712</td>
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<td>0</td>
<td>31,946</td>
</tr>
<tr>
<td>Yuima</td>
<td>1997</td>
<td>50</td>
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<td>18</td>
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<td>47</td>
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<tr>
<td>CWA Total Mtr. Eqv.</td>
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<td>5,850</td>
<td>792</td>
<td>572</td>
<td>790,531</td>
<td></td>
</tr>
</tbody>
</table>
PROCEDURES FOR DETERMINING THE INFRASTRUCTURE ACCESS CHARGE

The Infrastructure Access Charge shall be adjusted each year to maintain an estimated income, when combined with estimate income from taxes and standby charges, sufficient to pay at least twenty-five percent of the Authority's annual fixed costs. The annual fixed costs of the Authority for the purposes of calculating the infrastructure access charge shall include annual payments of principle and interest on debt of the Authority, eighty percent of all operation and maintenance expenses as established by the Board in the annual budget, and payments to member agencies for generation of reclaimed water. The adjustment shall occur as a part of, and in the same manner as, the Authority's regular rate-setting process.

The steps for setting the IAC will be as follows:

1) In January of each year, the Authority will request each member agency to provide a count of retail water meters serviced by that agency and active as of December 31 of the previous year. The meter count shall be based on the number of equivalent household meters, using multiplication factors established by the Authority's Director of Engineering for each meter size to determine the number of household meter equivalents. (Criteria for including a meter in the active retail meter count are given later.)

2) The estimated average annual fixed capital and operating expenditures for the following four fiscal years will be established through the annual budgeting process by the end of March of each year.

3) The estimated average annual fixed capital and operating expenditures for the next four years will be multiplied by 25% to establish the minimum level of fixed revenues required for the next fiscal year. Since actual expenditures can vary from the budget estimates upon which the IAC will be based, the estimate of the minimum level of required fixed revenues will be increased by 10% to provide increased assurance that actual fixed revenues will be at least 25% of actual fixed expenditures.

4) Estimated income from the Authority's other fixed income sources (standby charges and property taxes) will be subtracted from the estimated minimum level of fixed revenues to establish the total revenue required from the IAC.

5) The total revenue required from the IAC will be divided by the sum of the meter counts of all the member agencies to establish the IAC for a household meter equivalent (the per-meter IAC).
6) The amount of the IAC charge to be levied against each member agency will be established by multiplying the member agency's meter count times the per-meter IAC.

7) The Board will adopt the fixed IAC charge for each member agency and the per-meter IAC at the same time the capacity charge and the water rate is set, typically in April.

8) Changes in the IAC will be effective the same date in the fiscal year that changes in the commodity rate are normally effective.

9) Meters will be counted using the following criteria and definitions:

- All active retail water meters will be included in the meter count.
- The meter count will be expressed as the number of household meter equivalents based on the same factors used for the capacity charge to compute the household meter equivalent for meters 1-inch and larger.
- Active meters are defined as those meters which took water at any time during the preceding 12 months. If a meter is officially listed as inactive on a member agency's books on December 31, but has taken any amount of water during the previous 12 months, it must be included in the meter count.
- Fire service and similar types of emergency meters are not counted, even if they have taken water during the previous 12 months.
- Reclaimed water meters are not counted unless they are connected to a reclaimed water system that has used water from the Authority's system to meet more than 20% of that reclaimed water system's total demand during the past 12 months.
- Meters of local distributors other than member agencies which receive water through a master meter from a member agency are not separately counted if the annual amount of water attributable to the Authority is less than or equal to 20% of the total annual amount of water distributed by the local distributor.
- Mutual support meters between member agencies are not counted.
- Master meters within a member agency are counted if they are used by a member agency to bill retail customers.
- Individual meters within a master metered area are not counted unless they are used by the member agency to bill retail customers in lieu of the master meter.
- Meters in areas outside the Authority's service area are not counted unless they are a net recipient of imported water through one of the member agencies.
- Meters receiving the Special Agricultural Rate will be counted.
B. ORDINANCE NO. 2002-03
ORDINANCE NO. 2002-03

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY SETTING RATES AND CHARGES FOR THE DELIVERY AND SUPPLY OF WATER, USE OF FACILITIES AND PROVISION OF SERVICES.

WHEREAS, Subdivision (13) of Section 5 of the County Water Authority Act provides that the Authority may: "Fix, revise, and collect rates or other charges for the delivery of water, use of any facilities or property, or provision of services. In fixing rates the board may establish reasonable classifications among different classes and conditions of service, but rates shall be the same for similar classes and conditions of service." and

WHEREAS, Subdivision (11) of Section 5 of the County Water Authority Act provides, in part that, the Authority's Board of Directors, "as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs;" and

WHEREAS, the Long-Range Financing Plan adopted by the Board of Directors contemplates the establishment of sufficient rates and charges, when considered along with taxes and other revenues of the Authority, to provide revenues for accomplishment of the Authority's purposes and programs as determined by the Board of Directors; and

WHEREAS, pursuant to the County Water Authority Act, the Board of Directors has adopted ordinances and resolutions levying and fixing property taxes, water availability standby charges and other rates and charges for delivery and supply of water, use of facilities and provision of other services by the Authority, including, without limitation, a capacity charge, an infrastructure access charge, a readiness to serve charge and a water rate; and

WHEREAS, under direction of the Board and its Rate Structure Subcommittee, the Authority's staff and consultants have been working with member agencies over the past several years to develop a new rate structure; and

WHEREAS, the Rate Structure Subcommittee has recommended a new structure of rates and charges is designed to ensure that the Authority has sufficient revenue to fulfill its role as the regional wholesale water provider, support local resources development and provide a new class of service for agencies with connections not using Authority facilities; and

WHEREAS, under the new structure of rates and charges, taxes, the water availability standby charge, the infrastructure access charge, and the capacity charge are not affected and will continue as currently levied; and

WHEREAS, under the new structure revenue formerly collected from a uniform water rate for raw and treated water of $95 per acre foot and a special agricultural water rate of $80 per acre foot will instead be collected from rates and charges fixed according to four categories called: Customer Service, Storage, Transportation, and Supply; and
WHEREAS, pursuant to Resolution No. 2002-06 adopted May 23, 2002, the Clerk of the Board has caused legal notice of a public hearing to hear objections protests or comments from the public about the proposed new rate structure; and

WHEREAS, the Director of Finance has presented a report dated June 19, 2002 describing the proposed structure of fees and charges, including, without limitation, the revenue requirement, the reasonable allocation of the revenue requirement among the appropriate functional categories, and the reasonable apportionment of revenue requirement allocated to the four functional categories to rates and charges to be collected from the member agencies (the "Report"); and

WHEREAS, the Director of Finance has recommended approval of the new structure of rates and charges as set forth in the Report; and

WHEREAS, on May 21, 2002 the Authority filed a Notice of Exemption pursuant to the California Environmental Quality Act for the project described as "Establishment of water supply and delivery rates and charges including: Customer Service Charge, Emergency Storage Program Charge, Transportation Rate and Supply Service Charge, Capacity Reservation Charge and Readiness-to-Serve Charge, and maintaining the Infrastructure Access Charge and Standby Availability Charge" stating the project is exempt from the requirements of CEQA pursuant to the statutory exemption of Public Resources Code Section 21080(b)(8) and stating as the reason therefore: "Project involves establishment of water rates, tolls, fares, or other charges for the purpose of meeting operating expenses, including employee wages and benefits; purchasing and leasing supplies, equipment, or materials; meeting financial reserve needs and requirements; or obtaining funds for capital projects within existing service areas.", and

WHEREAS, the Board of Directors has considered the information contained in the Report, the testimony and other evidence presented during the public hearing, the recommendations of the Rate Study Subcommittee, the recommendations of the Fiscal Policy Committee, and other information presented to the Board during its consideration of a new rate structure; and

WHEREAS, the Board of Directors hereby makes the following legislative findings and determinations:

1. The foregoing recitals are true and correct;
2. The rates and charges as proposed and recommended in the Report are exempt from the requirements of the California Environmental Quality Act pursuant to Public Resources Code Section 21080(b)(8);
3. Any and all protests to the rates and charges as proposed and recommended in the Report are overruled;
4. The Report is approved;
5. The rates and charges as proposed and recommended in the Report are reasonable, fair, proper and necessary to meet the Authority's revenue requirements and fund its capital, operation, maintenance and other costs.

NOW, THEREFORE, the Board of Directors of the San Diego County Water Authority does ordain as follows:
1. The Authority's revenues from taxes, water rates and charges consists of: ad
valorem property taxes, including payments of member agencies in lieu of taxes; a standby
availability charge levied pursuant to Section 5.2 of the County Water Authority Act, including
payments of such charges pursuant to Section 5.3 if the County Water Authority Act; an
infrastructure access charge levied and established pursuant to Resolution No. 98-10; a capacity
charge levied pursuant to Section 5.9 of the County Water Authority Act and established by
Ordinance No. 97-1 in an amount as amended by Ordinance No. 99-2; and water rates and
charges having the following components as described in this ordinance: customer service,
storage, transportation and supply.

2. Ad valorem taxes, the standby availability charge and the capacity charge are not
affected by this ordinance. All other water rates and charges shall continue to be paid pursuant
to existing authority until January 1, 2003.

3. Pursuant to Resolutions Nos. 98-10 and 2001-26, the Infrastructure Access Charge
is based on a fixed amount per month per equivalent meter. The current charge of $1 per month per
equivalent meter unit is not changed by this ordinance. Commencing January 1, 2003, the amount
of the infrastructure access charge to be paid monthly by each member agencies of the Authority,
shall be determined according to Table 1 attached hereto and made a part hereof.

4. Effective January 1, 2003, the Customer Service Charge is fixed at $13,753,401.
Commencing January 1, 2003 the amount of the monthly Customer Service Charge to be paid by
each member agency shall be determined according to Table 2 attached hereto and made a part
hereof.

5. Effective January 1, 2003, the Storage Charge is fixed at $13,375,295.
Commencing January 1, 2003 the amount of the monthly Storage Charge to be paid by each rate
to the Authority for Storage as set forth in Table 3 attached hereto and made a part hereof.

6. Effective January 1, 2003, the Transportation Rate is fixed at $55 per acre-foot of
water delivered by the Authority through Authority facilities. Member agencies shall pay the
Transportation Rate in accordance with the procedures and processes of the Administrative Code
relating to billing and payment of the Municipal and Industrial Water Rate.

7. (a) Effective January 1, 2003, as a Supply Charge, each member agency shall
reimburse the Authority on a per-acre foot of water delivered basis, except as otherwise provided
in subdivisions (b) and (c), for rates, fees and charges of the Metropolitan Water District of
Southern California.

(b) Effective January 1, 2003 as part of the Supply Charge, each member agency
shall pay to the Authority a Capacity Reservation Charge determined according to Table 4
attached hereto and made a part hereof.

(c) Effective July 1, 2002 to January 1, 2003 each member agency shall pay a
Readiness-to-Serve Charge determined according to Table 5 attached hereto and made a part
hereof, and effective January 1, 2003 as part of the Supply Charge, each member agency shall
pay a Readiness-to-Serve Charge determined according to Table 5.
(d) The Authority has apportioned the Capacity Reservation Charge and the Readiness-to-Serve charge to member agency based upon historic water delivery information provided by the Metropolitan water district and historic water delivery information of the Authority. Any member agency, by October 1, 2002, may submit information to the Authority challenging the basis upon which the Capacity Reservation Charge and the Readiness-to-Serve Charge have been allocated. If justified by the information submitted by an agency, the board of directors may adjust the amount charged the agency. The information used to make an adjustment shall be used as the basis for future allocations.

(e) This section shall be administered in accordance with the Report approved by this Ordinance.

8. For the purposes of this ordinance, including the tables, the City of National City and the South Bay Irrigation District are collectively referred to as Sweetwater Authority. Any reference in this ordinance to Sweetwater Authority as a member agency shall be construed as a reference to the City of National City and the South Bay Irrigation District.

9. This ordinance shall be effective upon adoption. In lieu of publication of the text of this ordinance, the Clerk of the Board may publish a summary prepared by the General Counsel.

10. The provisions of this ordinance shall prevail over any provisions of the Administrative Code relating to rates and charges to the extent of any conflict. All existing rates and charges shall continue in effect until superseded on January 1, 2003 as provided in this ordinance.

11. To the greatest extent possible the provisions of this ordinance shall be construed to be compatible with the provisions of Section 8.2 (e) of the Agreement Between the San Diego County Water Authority and the City of San Diego for the Emergency Storage Project (Joint Use of Lake Hodges Dam and Reservoir and of Section 8.2 (e) of the Agreement Between the San Diego County Water Authority and the City of San Diego for the Emergency Storage Project (Expansion of San Vicente Reservoir; however, the contract provisions shall control in the event of a conflict.

12. For the purposes of Section 6 of this ordinance, water delivered by the Authority through the following turnouts is deemed not to be "water delivered by the Authority through Authority facilities" -- DeLuz 1, Fallbrook 3, Fallbrook 6, Rainbow 1, Rainbow 8, Rainbow 9 and Rainbow 10.
PASSED, APPROVED AND ADOPTED, this 27th day of June 2002.

AYES: Unless noted below all Directors voted aye.

   Broomell,
   Knutson, Mason, Quist, Williams

NOES:

ABSTAIN:

ABSENT: Croucher, Haddad, Irvin, Jacob, Lopez, Tu


James F. Turner, Chairman
Board of Directors

ATTEST:

James Bond, Secretary

I, Vernice R. Hartman, Clerk of the Board of the San Diego County Water Authority, do hereby certify that the above and foregoing is a full, true and correct copy of Ordinance No. 2002-03 of said Board and that the same has not been amended or repealed.

Vernice R. Hartman
Clerk of the Board
<table>
<thead>
<tr>
<th>Agency</th>
<th>Meters</th>
<th>Per Meter</th>
<th>Months</th>
<th>Annual Charge</th>
<th>Monthly Charge</th>
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<td>14,312</td>
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Grand Totals: 846,566 $10,158,792 $846,566
<table>
<thead>
<tr>
<th>Table 2. Customer Service Charge Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Carlsbad M.W.D.</td>
</tr>
<tr>
<td>Del Mar, City of</td>
</tr>
<tr>
<td>Escondido, City of</td>
</tr>
<tr>
<td>Fallbrook P.U.D.</td>
</tr>
<tr>
<td>Helix W.D.</td>
</tr>
<tr>
<td>Oceanside, City of</td>
</tr>
<tr>
<td>Olivenhain M.W.D.</td>
</tr>
<tr>
<td>Otay W.D.</td>
</tr>
<tr>
<td>Padre Dam M.W.D.</td>
</tr>
<tr>
<td>Pendleton M.R.</td>
</tr>
<tr>
<td>Poway, City of</td>
</tr>
<tr>
<td>Rainbow M.W.D.</td>
</tr>
<tr>
<td>Ramona M.W.D.</td>
</tr>
<tr>
<td>Rincon M.W.D.</td>
</tr>
<tr>
<td>San Diego, City of</td>
</tr>
<tr>
<td>San Dieguito W.D.</td>
</tr>
<tr>
<td>Santa Fe I.D.</td>
</tr>
<tr>
<td>Sweetwater Authority</td>
</tr>
<tr>
<td>Vallecitos W.D.</td>
</tr>
<tr>
<td>Valley Center M.W.D.</td>
</tr>
<tr>
<td>Vista I.D.</td>
</tr>
<tr>
<td>Yuima M.W.D.</td>
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</table>

552,408 $ 13,753,401 $ 1,146,117

Note: Values in table contain greater precision than displayed.
<table>
<thead>
<tr>
<th>Agency</th>
<th>Fiscal Years 1999-2001 Average Total Non-Agr AF</th>
<th>Calendar Year Storage Charge Due</th>
<th>Monthly Charge</th>
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<td>Carlsbad M.W.D.</td>
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<td>18,674</td>
<td>531,208</td>
<td>44,267</td>
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<td>727</td>
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| TOTALS                        | 470,189                                       | $13,375,295                      | $1,114,608    |

Note: Values in table contain greater precision than displayed.
## Table 4. Capacity Reservation Charge

<table>
<thead>
<tr>
<th>Agency</th>
<th>Coincident Peak Week Flows (cfs)</th>
<th>Annual CY 2003 Capacity Reservation Charge</th>
<th>Monthly CY 2003 Capacity Reservation Charge</th>
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<td>9/12/97</td>
<td>9/1/98</td>
<td>7/20/99</td>
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<td>2.31</td>
<td>1.81</td>
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<td>63.14</td>
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<td>4.96</td>
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<td>-</td>
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**TOTALS**                  |         |         |          |          |          | $7,905,600                                  | $658,800                                  |

Note: Values in table contain greater precision than displayed.
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<thead>
<tr>
<th>Agency</th>
<th>Current MWD Allocation Method</th>
<th>New MWD Allocation Method</th>
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<th>Net Stand-by Charge Credit*</th>
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<td>Average Firm Deliveries</td>
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**TOTALS** $10,774,798 $10,141,374 $20,918,172 $(12,153,428) $8,762,744

*Net of MWD Standby Charge Program Administrative Costs of $175,689.

Note: Values in table contain greater precision than displayed.
C. FINANCIAL POLICY AMENDMENT
August 16, 2006

Attention: Board of Directors

Adopt the Rate Model Work Group Financial Policy Proposal. (Action)

Purpose
To amend Water Authority financial policies regarding the Rate Stabilization Fund (RSF) and Debt Service Coverage Ratio (DSCR) as recommended by the Rate Model Work Group Proposal and the Administrative and Finance Committee.

Administrative and Finance Committee Recommendation
Adopt the Rate Model Work Group Proposal to amend financial policies regarding the RSF and DSCR.

Fiscal impact
The Rate Model Work Group (RMWG) Proposal will be phased in over a three-year period starting January 1, 2008. The phase-in will require that by June 30, 2011, the RSF have a balance approximately $10 million higher than the projected balance under the current policy. Starting January 1, 2008, water rates will need to include an additional increase of approximately one percent per year on average for the next three years; however, Infrastructure Access Charges (IAC) will decrease by approximately $3 per year per meter. Looking out to 2020-2021, the IAC will be approximately $6 per year per meter lower than projected under current policies, and the average annual increase in the water rate will decrease by approximately 0.40 percent.

Background
In December 2004, the Water Authority created the RMWG to promote financial transparency, to foster member agency relations and to create an open and collaborative process for discussing financial and rate management issues. The RMWG is made up of member agency general managers and finance officers. In 2005, the RMWG’s focus centered on understanding the inputs and outputs of the Financial Rate Modeling Program and how these were used to set rates and charges and prepare the Long Range Financing Plan. A workshop was then conducted with the member agencies to share this information. From this process, a list of parking lot items resulted. The analytical work surrounding these items formed the basis of the Proposal currently before the Board.

The Proposal is the result of six months of intensive, collaborative work among RMWG members, staff and Water Authority financial advisors. RMWG members included: Keith Lewinger (Fallbrook); Joe Beachem (Otay); Augie Caires and Doug Wilson (Padre Dam); Tom Brammell (Ramona); Charles Yackly, Christine Ruess and Cathy Pieroni (San Diego); Dennis Bostad and Debra Farrow (Sweetwater); Eldon Boone and Farrokh Shahamiri (Vista): and Linden Burzell (Yuima). The group met six times between January and June 2006. In these meetings, the group analyzed quantitative data related to Water Authority financial risks, reviewed studies of comparable agency financial ratios, evaluated 35 rate runs, identified common interests and barriers regarding policy development, developed and voted on specific recommendations, and drafted the policy recommendations contained in Attachment A. Staff presented the RMWG Proposal at the member agency general managers’ meeting on July 18, 2006 and at the quarterly meeting of member agency finance officers on August 3, 2006. Staff
also held a workshop on the RMWG Proposal at a special meeting of the Administrative and Finance Committee on August 10, 2006. At this meeting, by a unanimous vote, the Committee recommended adoption of the RMWG Proposal to the Board.

Previous Board Action: On August 10, 2006, the Administrative and Finance Committee recommended adoption of the RMWG Proposal.

Discussion
The key findings that drove the development of the Proposal are the result of a comprehensive risk analysis (including quantitative hydrologic data) and a comparative analysis of the financial ratios of other AA-rated water agencies. The risk analysis showed not only that hydrologic risk was significant, but also that the existing RSF minimum provides only one year of protection against the negative financial impacts of extreme wet weather. The RMWG considered this level of protection to be insufficient and chose to implement a target funding level that provides 2.5 years of protection against wet weather. In addition to the risk analysis, the comparative financial analysis revealed that with respect to the three financial ratios of greatest importance to investors and rating agencies, the Water Authority placed below the average of its AA rating category. After analyzing different scenarios and with extensive input from the Water Authority’s financial advisor, the RMWG recommended a DSCR policy target of 1.50x.

Attachment A contains the RMWG recommendations relating to the RSF and DSCR policies. In addition to policy statements, the attachment provides edited sections of the Water Authority’s Long Range Financing Plan which demonstrate how the policies will be “operationalized.” The primary elements of the RMWG Proposal are to:

- Establish a target funding level for the RSF that protects the Water Authority against the financial impact of 2.5 years of wet weather;
- Decrease the maximum funding level for the RSF to protect the Water Authority against the financial impact of 3.5 years of wet weather;
- Phase in the new target funding level of the RSF over three years and replenish any target level deficits over the same time period;
- Provide for the use of RSF funds to pay for O&M and debt service expenses, to smooth water rates and to meet Operating Fund and DSCR targets;
- Establish a separate fund for known, specific future expenses such as dam fills; and
- Establish a target DSCR of 1.50x, which is above the minimum bond covenant of 1.20x.

Benefits of the RMWG Proposal include reduced rate volatility, increased protection against wet weather, a transparent and flexible RSF framework, increased cash funding of the CIP and less outstanding debt. Moreover, the strengthening of key financial ratios—higher debt service coverage ratio, decreased debt ratio and increased cash days—support the maintenance of the Water Authority’s AA credit ratings.

Prepared by: Eric Sandler, Deputy Director of Finance
Reviewed by: Karen P. Brust, Director of Finance/Treasurer
Approved by: Paul A. Lanspery, Deputy General Manager

Attachment(s):
Attachment A - Rate Model Work Group Recommended Adjustments to Existing Water Authority Financial Policies
ATTACHMENT—A
RATE MODEL WORK GROUP RECOMMENDED ADJUSTMENTS TO EXISTING WATER
AUTHORITY FINANCIAL POLICIES RELATED TO THE RATE STABILIZATION FUND AND
DEBT SERVICE COVERAGE

Rate Stabilization Fund Policy Statement
The target funding level for the RSF is equal to the financial loss resulting from 2.5 years of
above average rainfall, calculated at a 95% exceedence level. The maximum funding level for
the RSF is equal to the financial loss resulting from 3.5 years of above average rainfall.

Transfers from the RSF to the Operating Fund may be made to meet annual O&M expenses,
debt service expenses, stabilize water rates or to comply with debt service coverage and
operating fund policies. Transfers from the Operating Fund to the RSF will be made as a closing
audit adjustment if the Operating Fund maximum balance has been met.

Balances below the RSF target level are to be replenished within three years. The Board may
also choose to budget for RSF deposits resulting in balances in excess of the target level but
below the maximum level to provide for rate smoothing. The RSF is managed so that any funds
above the maximum balance will be transferred to the Operating Fund—Operating Fund
balances above the existing 45-day policy are subject to discretionary use by the Board.

Funds committed to specific future non-operating expenditures such as dam fills or QSA water
pre-payments will be set-aside in either the Dam Fill Fund or QSA Commitment Fund.

Rate Stabilization Fund
Red-lined text from Water Authority’s Long Range Financing Plan for fiscal year 2004-
2005
The Rate Stabilization Fund (RSF) was created in Fiscal Year 1989-1990 for the purpose of
collecting amounts of water revenues greater than expenditures in years of strong water sales.
Funds can then be used to mitigate “rate shock” in years of weak water sales and/or
to manage debt service coverage, or to smooth out water rate increases. The RSF is a critical short-term
water rate management tool that provides the necessary funds to maintain a smooth water rate
pattern over a long period of time. With the new melded supply rate, and the expansion of the
Water Authority’s functional areas with treatment and desalination, the RSF will have an
increasingly important role in managing hydrology risk and stabilizing annual revenue needs.

The RSF has served the Water Authority well since it was created, providing a vehicle that
collected approximately $60 million in the first three years of its existence. Revenues greater
than expenditures were generated in those years from strong water sales during the drought,
combined with relatively low debt service requirements because major funding for the CIP was
just beginning. In Fiscal Year 1994-1995, approximately $6 million was withdrawn from the RSF
to supplement operating revenues and mitigate the need for water rates to rise above $80 per
acre-foot. A transfer of $19 million was made from the RSF to the Operating Fund, as directed
by the Board in Fiscal Year 1996-1997, to more efficiently balance Rate Stabilization and
Operating Funds. The RSF will supply approximately $10 million in water purchases for the
Olivenhain reservoir in Fiscal Year 2003-2004. In addition, in Fiscal Year 2003-2004, $10 million
of this fund has been placed in restricted investments to fund the IID socioeconomic payment
obligation. As a part of the Long Range Financing Plan process, a “QSA Commitment Fund”
will be established to recognize that these restricted investments are no longer available for rate
stabilization purposes. The RSF is anticipated to have an ending balance of $55.7 million
(inclusive of the remaining $8 million in IID-restricted investments), and a permitted maximum
balance of $86.1 million at the close of Fiscal Year 2003-2004.
For long-range financial planning purposes, Board policy requires that the Rate Stabilization Fund (RSF) be maintained at a minimum balance of at least 25 percent of the Water Authority’s net water sales revenue, defined as total Water Authority water sales revenue less Water Authority water purchases from Metropolitan Water District. The RSF also has a maximum balance of 100 percent of the average annual water sales projected over the proceeding four years, equal to the financial loss resulting from 2.5 years of above average rainfall, calculated at a 95% exceedence level. Additionally, it establishes a maximum funding level equal to the financial loss resulting from 3.5 years of above average rainfall. The four-year forward-rolling average allows the RSF to gradually increase or decrease with respect to revenue coverage needs. Defining the target and maximum funding levels of the RSF in terms of the financial impact of above average rainfall matches the size of the fund to the primary risk it is designed to mitigate and provides additional capacity for rate smoothing.

As a general rule, the Water Authority will transfer portions of its net water revenues not required to meet either its debt service coverage ratio requirement or operating fund requirement into the RSF. The Board may choose to budget for RSF deposits resulting in balances in excess of the target level but not in excess of the maximum level for the purposes of rate smoothing. Balances below the target level are to be replenished within three years. As necessary, the Water Authority will transfer amounts from its RSF into net water revenues to meet its debt service coverage requirements, Operating Fund requirements or to smooth rate increases. Interest earnings accrue to the Rate Stabilization Fund unless the maximum balance is achieved, at which point they will be deposited into the Operating Fund. The RSF is managed so that any funds above the maximum balance will be transferred to the Operating Fund. Operating Fund balances above the existing 45-day policy are subject to discretionary use by the Board deposits are not made into the fund if the fund is at its maximum permitted balance.

In Fiscal Year 2003-2004, $10 million of the RSF was placed in restricted investments to fund the IID socioeconomic payment obligation. As a part of the Long-Range Financing Plan process, a “QSA Commitment Fund” was established to recognize that these balances are no longer available for rate stabilization purposes. Similarly, funds committed to specific future non-operating expenditures such as dam fills or QSA water pre-payments are to be set aside in the Dam Fill Fund or the QSA Commitment Fund. Planned non-operating expenditures in the future include San Vicente and Lake Hodges dam fill payments scheduled for 2012-2016 and a QSA Water Prepayment due in 2008.

The RSF was created to provide funds that would mitigate the need for an unanticipated rate increase in the event of an unexpected decline in water sales. As a result, the RSF is a critical short-term water rate management tool that provides the necessary funds to maintain a smooth water rate pattern over a long period of time.

With the new melded supply rate, and the expansion of the Water Authority’s functional areas with treatment and desalination, the RSF will have an increasingly important role in stabilizing annual revenue needs.
Debt Service Coverage Policy Statement
The Board will set rates to meet a senior lien debt service coverage target inclusive of RSF transfers of 1.50x as well as a senior lien debt service coverage target (excluding capacity charge revenues) of 1.00x. The 1.50x senior lien debt service coverage target is above the existing 1.20x bond covenant.

Debt Service Coverage
Red-lined text from Water Authority’s Long Range Financing Plan for fiscal year 2004-2005
Debt service coverage is another key constraint in the FRMP, and is mandated by the legal documents that govern the Water Authority’s outstanding debt issues. The Water Authority’s debt service coverage covenants require that the Water Authority’s net operating revenues, defined as operating revenues less operations and maintenance expenditures, equal a minimum of 120 percent of debt service on senior lien debt. The Water Authority has also covenanted to provide gross revenues of at least 100 percent of debt service on all Water Authority obligations. Senior lien refers to debt that has a legal first priority repayment after the Water Authority first pays its operations and maintenance expenditures. At the present time, all of the Water Authority’s outstanding fixed-rate debt is senior lien debt.

The projected senior lien debt service ratio, and overall debt service ratio are presented in Figures 5-3 and 5-4 respectively. The obligations that are subject to the 100 percent debt service coverage requirement consist of all Water Authority obligations, including operations and maintenance expenditures, long-term debt service, short-term debt service and any other obligations (e.g., leases, contracts, etc.)

In addition to the 120 percent and 100 percent requirements, the Water Authority has the ability to issue an intermediate lien that would require 110 percent coverage after the payment of senior lien obligations. The Water Authority currently has no intermediate lien obligations outstanding and no plan to issue such debt.

Highly-rated water utilities generally have actual debt service coverage ratios in excess of their legal obligations. The maintenance of the Water Authority’s high credit ratings requires debt service coverage ratios that generally exceed the minimum requirement. Though not a legal commitment, the Board has established that inclusive of RSF transfers, the Water Authority will maintain senior lien debt service coverage of 150% and senior lien debt service coverage of 100% after excluding capacity charge revenues.
D. GENERAL RESOLUTION 89-91 (W/ AMENDMENTS)
SAN DIEGO COUNTY WATER AUTHORITY

RESOLUTION NO. 89-21

A Resolution of the Board of Directors of the San Diego County Water Authority Providing for the Allocation of Water System Revenues and Establishing Covenants to Secure the Payment of Obligations Payable from Net Water Revenues

(General Resolution)

Adopted May 11, 1989
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SAN DIEGO COUNTY WATER AUTHORITY

RESOLUTION NO. 89-21

A Resolution of the Board of Directors of the San Diego County Water Authority Providing for the Allocation of Water System Revenues and Establishing Covenants to Secure the Payment of Obligations Payable from Net Water Revenues

(General Resolution)

WHEREAS, the San Diego County Water Authority owns and operates the Water System;

WHEREAS, the Authority expects to issue Bonds and enter into Contracts, including the 1989 Installment Sale Agreement and the 1989 Contract of Indebtedness, the obligations of the Authority under which will be payable from Net Water Revenues;

WHEREAS, the Authority now desires to provide for the allocation of revenues of the Water System; and

WHEREAS, the Authority also desires to establish covenants to secure the payment of obligations payable from Net Water Revenues;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY AS FOLLOWS:

ARTICLE I

DEFINITIONS

SECTION 1.01. Definitions. Unless the context otherwise requires, the terms defined in this section shall for all purposes hereof and of any amendment hereof or supplement hereto and of any opinion or report or other document mentioned herein or therein have the meanings defined herein, the following definitions to be equally applicable to both the singular and plural forms of any of the terms defined herein:

Accreted Value

"Accreted Value" means, with respect to any Capital Appreciation Bonds or Capital Appreciation Certificates, as of
the date of calculation, the initial amount thereof plus the interest accrued thereon to such date of calculation, compounded from the date of initial delivery at the approximate interest rate thereof on each semiannual date specified with respect thereto, as determined in accordance with the table of accreted values for any Capital Appreciation Bonds or Capital Appreciation Certificates prepared by the Authority at the time of sale thereof, assuming in any year that such Accreted Value increases in equal daily amounts on the basis of a year of three hundred sixty (360) days composed of twelve (12) months of thirty (30) days each.

Accreted Value Payment Date

"Accreted Value Payment Date" means any Installment Payment Date on which Accreted Value is payable.

Authority

"Authority" means the San Diego County Water Authority, a county water authority duly organized and existing under and by virtue of the laws of the State of California.

Bond or Contract Reserve Fund

"Bond or Contract Reserve Fund" means any debt service reserve fund established to secure the payment of Bond Payments or Installment Payments.

Bond Payments

"Bond Payments" means the principal and interest payments scheduled to be paid by the Authority on Bonds.

Bonds

"Bonds" means all revenue bonds of the Authority authorized, executed, issued and delivered by the Authority under and pursuant to applicable law, the interest and principal and redemption premium, if any, payments under and pursuant to which are payable from Net Water Revenues on a parity with all other Bonds and Contracts.

Capital Appreciation Bonds

"Capital Appreciation Bonds" means any Bonds described as such when issued.
Capital Appreciation Certificates

"Capital Appreciation Certificates" means any certificates of participation in Installment Payments described as such when issued.

Certificate of the Authority

"Certificate of the Authority" means an instrument in writing signed on behalf of the Authority by the Chairman of the Board of Directors of the Authority, or by any other officer of the Authority duly authorized by the Board of Directors of the Authority to sign documents on its behalf with respect to the matters referred to therein.

Certificates

"Certificates" means any certificates of participation representing interests in payments to be made by the Authority pursuant to Leases, Installment Sale Agreements or Contracts of Indebtedness.

Contract Payments

"Contract Payments" means the contract payments scheduled to be paid by the Authority under and pursuant to Contracts of Indebtedness.

Contracts

"Contracts" means all Installment Sale Agreements, Leases and Contracts of Indebtedness.

Contracts of Indebtedness; 1989 Contract of Indebtedness

"Contracts of Indebtedness" means contracts of indebtedness or similar obligations of the Authority authorized and executed by the Authority under and pursuant to applicable law, the interest and principal payments under and pursuant to which are payable from Net Water Revenues on a parity with all other Contracts and Bonds. "1989 Contract of Indebtedness" means the contract of indebtedness by and between the Authority and Security Pacific National Bank, dated as of May 1, 1989, as originally executed and as it may from time to time be amended or supplemented and which constitutes a Contract of Indebtedness hereunder.

Current Water Revenues

"Current Water Revenues" means all gross income and revenue received or receivable by the Authority from the
ownership or operation of the Water System, determined in accordance with Generally Accepted Accounting Principles, including all rates, fees and charges (including connection fees and charges and standby charges) received by the Authority for the Water Service and the other services of the Water System and all other income and revenue howsoever derived by the Authority from the ownership or operation of the Water System or arising from the Water System, and also including (1) all income from the deposit or investment of any money in the Water Revenue Fund, the General Reserve Fund and the Rate Stabilization Fund, and (2) all income from the deposit or investment of money held in the Installment Payment Fund, the Subordinate Obligation Fund or any Bond or Contract Reserve Fund or other fund established pursuant to a Trust Agreement to the extent such income will be available to pay Bond Payments or Installment Payments, but excluding any proceeds of taxes and any refundable deposits made to establish credit and advances or contributions in aid of construction.

Debt Service

"Debt Service" means, for any Fiscal Year or other period, the sum of (1) the interest accruing during such Fiscal Year or period on all outstanding Bonds, assuming that all outstanding serial Bonds are retired as scheduled and that all outstanding term Bonds are redeemed or paid from sinking fund payments as scheduled, (2) that portion of the principal amount of all outstanding serial Bonds maturing on the next succeeding principal payment date that would have accrued during such Fiscal Year or period if such principal amount were deemed to accrue daily in equal amounts from the next preceding principal payment date or during the year preceding the first principal payment date, as the case may be, (3) that portion of the principal amount of all outstanding term Bonds required to be redeemed or paid on the next succeeding redemption date (together with the redemption premiums, if any, thereon) that would have accrued during such Fiscal Year or period if such principal amount (and redemption premiums) were deemed to accrue daily in equal amounts from the next preceding redemption date or during the year preceding the first redemption date, as the case may be, and (4) that portion of the Installment Payments required to be made at the times provided in the Contracts that would have accrued during such Fiscal Year or period if such Installment Payments were deemed to accrue daily in equal amounts from, in each case, the next preceding Installment Payment Date of interest or principal or the date of the pertinent Contract, as the case may be; provided, that (a) if any of such Bonds are Capital Appreciation Bonds or if the Installment Payments due under any of such Contracts are evidenced by Capital Appreciation
Certificates, then the Accreted Value payment shall be deemed due on the scheduled redemption or payment date of such Capital Appreciation Bond or Capital Appreciation Certificate; (b) if any of such Bonds or if the Installment Payments due under any such Contracts bear interest payable pursuant to a variable interest rate formula, the interest rate on such Bonds or such Contracts for periods when the actual interest rate cannot yet be determined, shall be assumed to be equal to the greater of (1) the current interest rate calculated pursuant to the provisions of the terms of such Bonds or Contracts (with respect to the issuance of Bonds or the execution of Contracts pursuant to Section 3.02, the initial interest rate on such Bonds or Contracts); or, (2) if available, the average interest rate on such Bonds or Contracts during the thirty-six (36) months preceding the date of calculation or, (3) if such Bonds or Contracts have not been outstanding for such thirty-six month period (or with respect to the issuance of Bonds or the execution of Contracts pursuant to Section 3.02), such average interest rate on comparable debt of a state or political subdivision of a state which debt is then rated by the rating agencies rating such Bonds or Contracts in a rating category equivalent to the rating on such Bonds or Contracts; and (c) if 20% or more of the original principal of such Bonds or the Installment Payments due under such Contracts is not due until the final stated maturity of such Bonds or the Installment Payments due under such Contracts, such principal may, at the option of the Authority, be treated as if it were due based upon a level amortization of such principal over the term of such Bonds or Contracts or twenty (20) years, whichever is greater; provided further, that "Debt Service" shall not include (1) payments due on voter-approved general obligation bonds and other voter-approved general obligation debts for which taxes are then being levied and collected or (2) interest on Bonds or Contracts which are to be paid from amounts constituting capitalized interest held pursuant to a Trust Agreement.

Director of Finance

"Director of Finance" means the Director of Finance of the Authority or its successor designated by the Board of Directors of the Authority.

Fiscal Year

"Fiscal Year" means the period beginning on July 1 of each year and ending on the next succeeding June 30, or any other annual accounting period hereafter selected and designated by the Board of Directors of the Authority as the Fiscal Year of the Authority.
General Reserve Fund

"General Reserve Fund" means the fund by that name established pursuant to Section 2.01.

Generally Accepted Accounting Principles

"Generally Accepted Accounting Principles" means the uniform accounting and reporting procedures set forth in publications of the American Institute of Certified Public Accountants or its successor, or by any other generally accepted authority on such procedures, and includes, as applicable, the standards set forth by the Governmental Accounting Standards Board or its successor.

Installment Payment Date

"Installment Payment Date" means any date on which Bond Payments or Installment Payments are scheduled to be paid by the Authority under and pursuant to any Contract or Bonds.

Installment Payment Fund

"Installment Payment Fund" means the fund by that name established pursuant to Section 2.01.

Installment Payments

"Installment Payments" means Contract Payments, Installment Sales Payments or Lease Payments.

Installment Sale Agreements; 1989 Installment Sale Agreement

"Installment Sale Agreements" means installment sale agreements or similar obligations of the Authority authorized and executed by the Authority under and pursuant to applicable law, the interest and principal payments under and pursuant to which are payable from Net Water Revenues on a parity with all other Contracts and Bonds. "1989 Installment Sale Agreement" means the installment sale agreement by and between the Authority and Security Pacific National Bank, dated as of May 1, 1989, as originally executed and as it may from time to time be amended or supplemented and which constitutes an Installment Sale Agreement hereunder.

Installment Sale Payments

"Installment Sale Payments" means the installment sale or other periodic payments scheduled to be paid by the Authority under and pursuant to Installment Sale Agreements.
Interest Payment Date

"Interest Payment Date" means an Installment Payment Date on which interest is payable.

Law

"Law" means the County Water Authority Act, being California Water Code Appendix, Sections 45-1 et seq., and all laws amendatory thereof or supplemental thereto.

Lease Payments

"Lease Payments" means the rental payments scheduled to be paid by the Authority under and pursuant to Leases.

Leases

"Leases" means capital leases or similar obligations of the Authority authorized and executed by the Authority under and pursuant to applicable law, the interest and principal payments under and pursuant to which are payable from Net Water Revenues on a parity with the payment of all other Contracts and Bonds.

Maintenance and Operation Costs

"Maintenance and Operation Costs" means all costs paid or incurred by the Authority for maintaining and operating the Water System, determined in accordance with Generally Accepted Accounting Principles, including all costs of water purchased by the Authority for resale, and including all expenses of management and repair and other expenses necessary to maintain and preserve the Water System in good repair and working order, and including all administrative costs of the Authority, such as salaries and wages of employees, overhead, taxes (if any) and insurance premiums, and including all other costs of the Authority or charges required to be paid by it to comply with the terms hereof or of any resolution authorizing the execution of any Contract or of such Contract or of any resolution authorizing the issuance of any bonds or of such bonds, such as compensation, reimbursement and indemnification of the trustee for any such Contracts or bonds and fees and expenses of Independent Certified Public Accountants; but excluding in all cases (1) depreciation, replacement and obsolescence charges or reserves therefor and amortization of intangibles, premiums and discounts, (2) interest expense and (3) amounts paid from other than Water Revenues (including, but not limited to, amounts paid from the proceeds of ad valorem property taxes).
Maximum Annual Debt Service

"Maximum Annual Debt Service" means the greatest total Debt Service payable in any Fiscal Year during the period commencing with the next ensuing Fiscal Year and terminating with the Fiscal Year in which payments are due under the last outstanding Bonds or the last outstanding Contract, whichever is later.

Monthly Accrued Debt Service

"Monthly Accrued Debt Service" means, with respect to any month, an amount equal to the sum of Debt Service with respect to all Bonds and Contracts accrued and to accrue to the end of such month; provided, in calculating the amount of Monthly Accrued Debt Service (i) Accreted Value with respect to Capital Appreciation Bonds and Capital Appreciation Certificates shall be deemed to accrue over the twelve-month period immediately preceding the scheduled redemption or prepayment date of such Capital Appreciation Bond or Capital Appreciation Certificate, (ii) the adjustment to principal described in provision (c) of the definition of Debt Service shall not be made and (iii) if the interest on any Bonds or Installment Payments due under any Contract bear interest payable pursuant to a variable rate formula, the amount of interest deemed to accrue during any period shall be the actual interest borne by such Bonds or Installment Payments during such period.

Net Water Revenues

"Net Water Revenues" means, for any Fiscal Year or other period, the Water Revenues during such Fiscal Year or period less the Maintenance and Operation Costs during such Fiscal Year or period.

Obligation

"Obligation" means any contract or lease for the purchase of any facilities, properties, structures, or works, or any loan of credit to or guaranty of debts, claims or liabilities of any other person for the purpose of obtaining any facilities, properties, structures or works, the final payments under which are due more than five years following the effective date thereof, so long as in each case the payments thereunder are to constitute Maintenance and Operations Costs.

Opinion of Counsel

"Opinion of Counsel" means a written opinion of counsel of national representation generally recognized to be
well qualified in the field of law relating to municipal bonds, retained by the Authority.

Outstanding

"outstanding" means with respect to any Bonds or Contracts, Bonds or Contracts the payment obligations of the Authority under which are not deemed paid in accordance with the terms of such Bonds or Contracts or applicable Trust Agreement.

Principal Payment Date

"Principal Payment Date" means any Installment Payment Date on which principal is payable.

Rate Stabilization Fund

"Rate Stabilization Fund" means the fund by that name established pursuant to Section 2.01.

Reimbursement Agreement

"Reimbursement Agreement" means an agreement between the Authority and a bank or financial institution providing for the issuance of a letter of credit, reserve fund insurance policy, guaranty or surety bond for the purpose of making Bond Payments or Installment Payments and requiring the Authority to make payments to reimburse or compensate such bank or financial institution for draws under such instruments from Net Water Revenues on a parity with all Contracts and Bonds.

Reimbursement Payments

"Reimbursement Payments" means amounts payable by the Authority as compensation or reimbursement for a draw on a letter of credit, reserve fund insurance policy, guaranty or surety bond for the purpose of making Bond Payments or Installment Payments in accordance with any Reimbursement Agreement.

Subordinate Obligation Payment Fund

"Subordinate Obligation Payment Fund" means the fund by that name established pursuant to Section 2.01.

Subordinate Obligation Payments

"Subordinate Obligation Payments" means the payments scheduled to be paid by the Authority under and pursuant to Subordinate Obligations.
Subordinate Obligations

"Subordinate Obligations" means obligations of the Authority authorized and executed by the Authority under applicable law, the interest and principal payments under and pursuant to which are payable from Net Water Revenues, from the Subordinate Obligation Payment Fund, subject and subordinate to Bond Payments and Installment Payments.

Trust Agreement

"Trust Agreement" means any indenture or trust agreement providing for the issuance of Bonds or Certificates.

Trustee

"Trustee" means the trustee under any Trust Agreement.

Water Revenue Fund

"Water Revenue Fund" means the San Diego County Water Authority Water Revenue Fund established pursuant to Section 2.01.

Water Revenues

"Water Revenues" means Current Water Revenues plus deposits to the Water Revenue Fund from amounts on deposit in the Rate Stabilization Fund, but only as and to the extent specified in Section 2.03, less amounts transferred to the Rate Stabilization Fund.

Water Service

"Water Service" means the water service furnished, made available or provided by the Water System.

Water System

"Water System" means all property rights, contractual rights and facilities of the Authority, including all facilities for the conservation, storage, transmission and distribution of water and the generation and delivery of hydroelectric power in connection therewith now owned by the Authority and all other properties, structures or works for the conservation, storage, transmission and distribution of water and the generation and delivery of hydroelectric power in connection therewith hereafter acquired and constructed by or for the Authority and determined by the Authority to be a part of the Water System; together with all additions,
betterments, extensions or improvements to such facilities, properties structures or works or any part thereof hereafter acquired and constructed.

ARTICLE II

WATER REVENUES

SECTION 2.01. Establishment of Funds. The Authority hereby establishes and agrees to maintain, so long as any Bonds, Certificates or Subordinate Obligations remain outstanding, the following funds, each such fund to be held by the Director of Finance:

(1) Rate Stabilization Fund;
(2) Water Revenue Fund;
(3) Installment Payment Fund;
(4) Subordinate Obligation Payment Fund; and
(5) General Reserve Fund.

Amounts in such funds shall be disbursed, allocated and applied solely to the uses and purposes hereinafter in this article set forth, and shall be accounted for separately and apart from all other accounts, funds, money or other resources of the Authority. The Authority will only have such beneficial right or interest in such money as is provided herein.

SECTION 2.02. Allocation of Water Revenues. In order to carry out and effectuate the obligations of the Authority to make Bond Payments, Installment Payments, Reimbursement Payments and Subordinate Obligation Payments, the Authority agrees and covenants that all Current Water Revenues received by it shall be deposited when and as received in the Water Revenue Fund. The Authority may, to the extent provided in Section 2.03, transfer amounts in the Water Revenue Fund to the Rate Stabilization Fund or from the Rate Stabilization Fund to the Water Revenue Fund.

The Authority shall pay all Maintenance and Operation Costs (including amounts reasonably required to be set aside in contingency reserves for Maintenance and Operation Costs the payment of which is not then immediately required) from the Water Revenue Fund as they become due and payable, and all remaining money on deposit in the Water Revenue Fund shall be set aside and deposited or transferred
by the Authority, as the case may be, at the following times in the following order of priority:

(a) **Installment Payment Fund.** On or before the last business day of each month, beginning in May, 1989, the Authority shall deposit in the Installment Payment Fund, a sum equal to the Monthly Accrued Debt Service for such month, plus a sum equal to all Reimbursement Payments then due and payable; provided that no such deposit need be made if amounts on deposit in the Installment Payment Fund equal the amount of Bond Payments or Installment Payments due with respect to all Bonds and Contracts on the next succeeding Interest Payment Date (with respect to interest), Principal Payment Date (with respect to principal) and Accreted Value Payment Date (with respect to Accreted Value) for such Bonds or Contract, and the Reimbursement Payments then due and payable.

(b) **Bond or Contract Reserve Funds.** On or before the last business day of each month, the Authority shall transfer to each Trustee for deposit in the applicable Bond or Contract Reserve Fund an amount equal to the amount, if any, required to be deposited therein to build up or replenish such Bond or Contract Reserve Fund as and to the extent required by the applicable Contract or Trust Agreement.

(c) **Subordinate Obligation Payment Fund.** On or before the last business day of each month, the Authority shall deposit in the Subordinate Obligation Payment Fund the sum or sums required to be deposited under or pursuant to the indenture, trust agreement or other instrument securing each Subordinate Obligation.

(d) **Subordinate Obligation Reserve Funds.** On or before the last business day of each month, the Authority shall transfer to each trustee with respect to Subordinate Obligations for deposit in the debt service reserve fund with respect to such Subordinate Obligations an amount equal to the amount, if any, required to be deposited therein to build up or replenish such debt service reserve fund as and to the extent required by the applicable Subordinate Obligation or the indenture, trust agreement or other instrument securing such Subordinate Obligation.

(e) **General Reserve Fund.** On the last business day of each month, the Authority shall, after making each of the foregoing deposits and transfer, transfer all money remaining in the Water Revenue Fund to the General Reserve Fund.

**SECTION 2.03. Rate Stabilization Fund.** From time to time the Authority may deposit in the Rate Stabilization Fund from Current Water Revenues such amounts as the Authority
shall determine. All amounts transferred by the Authority from the Rate Stabilization Fund to the Water Revenue Fund shall be used by the Authority solely to pay Maintenance and Operation Costs. All interest or other earnings upon deposits in the Rate Stabilization Fund shall be withdrawn therefrom and accounted for as Current Water Revenues.

SECTION 2.04. Installment Payment Fund. The Authority may withdraw amounts from the Installment Payment Fund solely for the purpose of paying Bond Payments, Installment Payments and Reimbursement Payments at the times and in the amounts required by applicable Bonds, Contracts, Trust Agreements and Reimbursement Agreements.

SECTION 2.05. Subordinate Obligation Payment Fund. The Authority may withdraw amounts from the Subordinate Obligation Fund solely for the purpose of paying or providing for the payment of Subordinate Obligation Payments at the times and in the amounts required by applicable Subordinate Obligations or trust agreement or indenture securing such Subordinate Obligations.

SECTION 2.06. General Reserve Fund. The Authority may withdraw money in the General Reserve Fund for any lawful purpose of the Authority except to make transfers to the Rate Stabilization Fund.

ARTICLE III

BONDS AND CONTRACTS; OBLIGATIONS

SECTION 3.01. 1989 Installment Sale Agreement; 1989 Contract of Indebtedness. (a) The Authority may execute the 1989 Installment Sale Agreement and the 1989 Contract of Indebtedness without the necessity of complying with Section 3.02.

(b) The Authority may not execute any amendment to the 1989 Installment Sale Agreement or the 1989 Contract of Indebtedness if such amendment would increase the amount of Installment Payments thereunder; provided, the Authority may execute such an amendment if the requirements of Section 3.02 will be satisfied in connection therewith.

SECTION 3.02. Additional Bonds and Contracts. The Authority may at any time issue any Bonds the payments under and pursuant to which or execute any Contract the Installment Payments under and pursuant to which, as the case may be, are payable from the Net Water Revenues on a parity with the 1989 Installment Sale Agreement, the 1989 Contract of Indebtedness and all other Contracts and Bonds; provided:
(a) For any period of twelve (12) consecutive calendar months within the twenty-four (24) calendar month period ending on the last day of the month preceding the date of issuance of such Bonds or execution of such Contract, as evidenced by a Certificate of the Authority (together with supporting calculations prepared by the Authority) to the effect that (1) the Net Water Revenues shall have been equal to at least one hundred twenty per cent (120%) of the Maximum Annual Debt Service on all Bonds and Contracts outstanding after the issuance of such Bonds or the execution of such Contract, as the case may be, and (2) the Net Water Revenues shall have been sufficient for the payment of all amounts payable from Net Water Revenues during such twelve-month period and at least equal to one hundred twenty percent (120%) of Debt Service on all Bonds and Contracts outstanding during such twelve-month period, or

(b) (i) For any period of twelve (12) consecutive calendar months within the twenty-four (24) calendar month period ending on the last day of the month preceding the date of issuance of such Bonds or the execution of such Contract, as evidenced by a Certificate of the Authority (together with supporting calculations prepared by the Authority) to the effect that the Net Water Revenues shall have been sufficient for the payment of all amounts payable from Net Water Revenues during such twelve-month period and at least equal to one hundred twenty percent (120%) of Debt Service on all Bonds and Contracts outstanding during such twelve-month period, and

(ii) As evidenced by a Certificate of the Authority (together with supporting calculations and assumptions prepared by the Authority) to the effect that, in each of the five succeeding Fiscal Years, projected Net Water Revenues shall be sufficient for the payment of all amounts to be payable from Net Water Revenues in each such Fiscal Year and at least equal to one hundred twenty percent (120%) of Debt Service on all Bonds and Contracts to be outstanding in each such Fiscal Year, and

(c) The Authority shall file a Certificate of the Authority to the effect that the Authority is not then in default under any Trust Agreement or with respect to any Bonds or Contracts, and

(d) Such Bond or Contract shall not allow the declaration of Bond Payments or Installment Payments
thereunder to be immediately due and payable in the event of a default by the Authority thereunder or under the applicable Trust Agreement unless such remedy is then allowed with respect to all Bonds and Contracts then outstanding.

Notwithstanding the foregoing provisions, there shall be no limitations on the ability of the Authority to execute any Contract or to issue any Bonds at any time to refund any outstanding Bonds or any outstanding Contract or to execute Reimbursement Agreements.

SECTION 3.03. Obligations. Amounts to be paid by the Authority with respect to any Obligation shall constitute Maintenance and Operation Costs only if at the time such Obligation is entered into the Authority shall deliver a Certificate of the Authority to the effect that (i) the making of payments on such Obligation as Maintenance and Operation Costs will not impair the Authority's ability to comply with the covenant set forth in Section 4.09 hereof during the next five Fiscal Years or five years beyond the commercial operation date of the project being financed with such Obligation, whichever is later and (ii) the properties, services or commodities to be furnished pursuant to such Obligation can be economically and beneficially utilized by the Authority. If the amounts to be paid by the Authority for an Obligation do not constitute Maintenance and Operation Costs, then such amounts shall be paid out of the Subordinate Obligation Payment Fund or the General Reserve Fund.

ARTICLE IV

COVENANTS OF THE AUTHORITY

SECTION 4.01. Against Encumbrances. The Authority will pay or cause to be paid when due all sums of money that may become due or purporting to be due for any labor, services, materials, supplies or equipment furnished, or alleged to have been furnished, to or for the Authority in, upon, or relating to the Water System and will keep the Water System free of any and all liens against any portion of the Water System. In the event any such lien attaches to or is filed against any portion of the Water System, the Authority will cause each such lien to be fully discharged and released at the time the performance of any obligation secured by any such lien matures or becomes due, except that if the Authority desires to contest any such lien it may do so. If any such lien shall be reduced to final judgment and such judgment or any process as may be issued for the enforcement thereof is not promptly stayed, or if so stayed and such stay
thereafter expires, the Authority will forthwith pay or cause to be paid and discharged such judgment.

SECTION 4.02. Against Sale or Other Disposition of Property. The Authority will not sell, lease or otherwise dispose of the Water System or any part thereof essential to the proper operation of the Water System or to the maintenance of the Net Water Revenues, and will not enter into any agreement or lease which would impair the operation of the Water System or any part thereof necessary to secure adequate Net Water Revenues for the payment of Bond Payments, Installment Payments or Subordinate Obligation Payments, or which would otherwise impair the rights of the holders of Bonds or Certificates with respect to the Net Water Revenues or the operation of the Water System; provided, that any real or personal property which has become nonoperative or which is not needed for the efficient and proper operation of the Water System, or any material or equipment which has become worn out, may be sold if such sale will not reduce the Net Water Revenues below the requirements to be maintained under Section 4.09.

SECTION 4.03. Maintenance and Operation of the Water System; Budgets. The Authority will maintain and preserve the Water System in good repair and working order at all times and will operate the Water System in an efficient and economical manner and will pay all Maintenance and Operation Costs as they become due and payable.

Not later than September 1 of each year, the Authority will adopt and, if requested, make available to each Trustee, a budget approved by the Board of Directors of the Authority setting forth the estimated Maintenance and Operation Costs, the estimated payments for Debt Service and the estimated debt service payments on all Subordinate Obligations for the then current Fiscal Year; provided, that any such budget may be amended at any time during any Fiscal Year and, if requested, such amended budget shall be made available to each Trustee.

SECTION 4.04. Compliance with Contracts. The Authority will comply with, keep, observe and perform all agreements, conditions, covenants and terms, express or implied, required to be performed by it contained in all contracts for the use of the Water System and all other contracts affecting or involving the Water System to the extent that the Authority is a party thereto.

SECTION 4.05. No Superior Liens. The Authority will not create or allow any lien on or payment from the Net Water Revenues or any part thereof prior or superior to the
obligation to make the Bond Payments or Installment Payments as provided herein or which might impair the security of the Bond Payments or Installment Payments other than Subordinate Obligations.

SECTION 4.06. Insurance. The Authority will procure and maintain such insurance relating to the Water System which it shall deem advisable or necessary to protect its interests, which insurance shall afford protection in such amounts and against such risks as are usually covered in connection with facilities, properties, structures and works similar to the Water System; provided, the Authority shall not be required to procure or maintain any such insurance unless such insurance is commercially available at reasonable cost; provided, further, that any such insurance may be maintained under a self-insurance program so long as such self-insurance is maintained in the amounts and manner usually maintained in connection with facilities, properties, structures and works similar to the Water System. All policies of insurance required to be maintained herein shall provide that each Trustee shall be given thirty (30) days' written notice of any intended cancellation thereof or reduction of coverage provided thereby.


(a) The Authority will keep appropriate accounting records in which complete and correct entries shall be made of all transactions relating to the Water System, which records shall be available for inspection by each Trustee at reasonable hours and under reasonable conditions.

(b) The Authority will prepare and file with each Trustee annually within one hundred and twenty (120) days after the close of each Fiscal Year (commencing with the Fiscal Year ending June 30, 1989):

(1) financial statements of the Authority for the preceding Fiscal Year prepared in accordance with Generally Accepted Accounting Principles, certified by the Independent Certified Public Accountant who examined such financial statements stating that nothing came to his attention in connection with such examination that caused him to believe that the Authority was not in compliance with any of the agreements or covenants contained herein; and

(2) a detailed report as to all insurance policies maintained and self-insurance programs maintained by the Authority with respect to the Water
System as of the close of such Fiscal Year, including the names of the insurers which have issued the policies and the amounts thereof and the property or risks covered thereby.

(c) The Authority will prepare annually not more than one hundred twenty (120) days after the close of each Fiscal Year (commencing with the Fiscal Year ending June 30, 1989) a summary report showing in reasonable detail the results of the operations of the Authority for such Fiscal Year and containing a general statement of the physical condition of the facilities, properties, structures or works of the Authority. The Authority will furnish a copy of such summary report to each Trustee.

SECTION 4.08. Payment of Taxes and Compliance with Governmental Regulations. The Authority will pay and discharge all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Water System or any part thereof when the same shall become due. The Authority will duly observe and conform with all valid regulations and requirements of any governmental authority relative to the operation of the Water System or any part thereof, but the Authority shall not be required to comply with any regulations or requirements so long as the validity or application thereof shall be contested in good faith.

SECTION 4.09. Amount of Rates, Fees and Charges. The Authority will at all times fix, prescribe and collect or cause to be collected rates, fees and charges for the Water Service which are reasonably fair and nondiscriminatory and which will be at least sufficient to yield during the next succeeding Fiscal Year of the Authority Net Water Revenues sufficient for the payment of all amounts payable from Net Water Revenues during such Fiscal Year and at least equal to one hundred twenty per cent (120%) of the Debt Service on all Bonds and Contracts for such Fiscal Year. The Authority may make adjustments from time to time in such rates, fees and charges and may make such classification thereof as it deems necessary, but shall not reduce the rates, fees and charges then in effect unless the Net Water Revenues from such reduced rates, fees and charges will at all times be sufficient to meet the requirements of this section.

SECTION 4.10. Collection of Rates, Fees and Charges. The Authority will charge and collect or cause to be collected the rates, fees and charges applicable to the Water Service and will not permit any part of the Water System or any facility thereof to be used or taken advantage of free of charge by any corporation, firm or person, or by any public agency (including the United States of America, the State of
California and any city, county, district, political subdivision, public corporation or agency of any thereof); provided, that the Authority may without charge use the Water Service.

SECTION 4.11. Eminent Domain and Insurance Proceeds. If all or any part of the Water System shall be taken by eminent domain proceedings, or if the Authority receives any insurance proceeds resulting from a casualty loss to the Water System, the proceeds thereof shall be used to substitute other components for the condemned or destroyed components of the Water System.

ARTICLE V
MISCELLANEOUS

SECTION 5.01. Benefits of 1989 Resolution Limited to Parties. Nothing contained herein, expressed or implied, is intended to give to any person other than the Authority, the Trustees, the other parties to any Trust Agreement, Contract or Reimbursement Agreement or the holder of any Bonds, Certificates or Subordinate Obligations any right, remedy or claim under or pursuant hereto, and any agreement or covenant required herein to be performed by or on behalf of the Authority shall be for the sole and exclusive benefit of such other party.

SECTION 5.02. Successor Is Deemed Included in all References to Predecessor. Whenever the Authority is named or referred to herein, such reference shall be deemed to include the successor to the powers, duties and functions that are presently vested in the Authority, and all agreements and covenants required hereby to be performed by or on behalf of the Authority shall bind and inure to the benefit of the successors thereof whether so expressed or not.

SECTION 5.03. Article and Section Headings, Gender and References. The headings or titles of the several articles and sections hereof and the table of contents appended hereto shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof, and words of any gender shall be deemed and construed to include all genders. All references herein to "Articles," "Sections," "Exhibits" and other subdivisions or clauses are to the corresponding articles, sections, exhibits, subdivisions or clauses hereof; and the words "hereby," "herein," "hereof," "hereto," "herewith" and other words of similar import refer to this Resolution as a whole and not to any particular article, section, exhibit, subdivision or clause hereof.
SECTION 5.04. Partial Invalidity. If any one or more of the agreements or covenants or portions thereof required hereby to be performed by or on the part of the Authority shall be contrary to law, then such agreement or agreements, such covenant or covenants or such portions thereof shall be null and void and shall be deemed separable from the remaining agreements and covenants or portions thereof and shall in no way affect the validity hereof. The Authority hereby declares that it would have adopted this Resolution, and each and every other article, section, paragraph, subdivision, sentence, clause and phrase hereof irrespective of the fact that any one or more articles, sections, paragraphs, subdivisions, sentences, clauses or phrases hereof or the application thereof to any person or circumstance may be held to be unconstitutional, unenforceable or invalid.

SECTION 5.05. Funds. Any fund required to be established and maintained herein by the Director of Finance may be established and maintained in the accounting records of the Director of Finance either as an account or a fund, and may, for the purpose of such accounting records, any audits thereof and any reports or statements with respect thereto, be treated either as an account or a fund; but all such records with respect to any such fund shall at all times be maintained in accordance with sound accounting practice and with due regard for the protection of the security of the rights of the holders of Bonds, Certificates and Subordinate Obligations.

SECTION 5.06. Investments. Any money held by the Authority in any of the funds provided herein shall be invested in lawful investments of Authority funds, provided that money held in the Installment Payment Fund and the Subordinate Obligation Payment Fund shall be invested in lawful investments which will, as nearly as practicable, mature on or before the dates on which such money is anticipated to be needed to pay Bond Payments, Installment Payments, Reimbursement Payments or Subordinate Obligation Payments.

SECTION 5.07. Repeal of Inconsistent Resolutions. Any resolution of the Authority and any part of any resolution inconsistent herewith is hereby repealed to the extent of such inconsistency.

SECTION 5.08. Effective Date. This Resolution shall take effect from and after its passage and approval.
PASSED AND ADOPTED this 11th day of May, 1989, by
the following vote:

AYES: 29

NOES: 0

ABSENT: 6

Approved:

[Signature]
Chairman of the Board of Directors
of the San Diego County Water
Authority

Attest:

[Signature]
Secretary of the Board of Directors
of the San Diego County Water
Authority
RESOLUTION NO. 97-52

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY PLEDGING NET WATER REVENUES TO SECURE THE PAYMENT OF OBLIGATIONS PAYABLE FROM NET WATER REVENUES

WHEREAS, the San Diego County Water Authority, a county water authority duly organized and existing under and pursuant to the Constitution and laws of the State of California (the "Authority"), is authorized under provisions of the Constitution and laws of the State of California, and in accordance therewith, to incur indebtedness and to purchase real and personal property as the Authority may determine is necessary or proper; and

WHEREAS, the Board of Directors of the Authority adopted, on May 11, 1989, Resolution No. 89-21 of the Authority providing for the allocation of water system revenues and establishing covenants to secure the payment of obligations payable from the net water revenues of the Authority (the "General Resolution"); and

WHEREAS, it is now desirable to amend the General Resolution to pledge net water revenues to secure the payment of Bonds, Contracts, Reimbursement Payments and Subordinate Obligations (as defined in the General Resolution);

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the San Diego County Water Authority, as follows:

Section 1. The Authority hereby specifically finds and declares that the statements, findings and determinations of the Authority set forth above are true and correct.

Section 2. Section 2.07 is hereby added to the General Resolution to read in full as follows:

Section 2.07 Pledge of Net Water Revenues. Net Water Revenues are hereby pledged to secure the payment of all Bond Payments, Installment Payments and Reimbursement Payments and, subordinate thereto, the payment of all Subordinate Obligations."

Section 3. This resolution shall take effect upon receipt of the consent of all parties from whom consent is required for amendments to the General Resolution.
PASSED, APPROVED and ADOPTED this 11th day of December, 1997.

AYES:

NOES: Manning

ABSTAIN:

ABSENT: Broomell, Chenelle, Davis, Newton, Salst, Slater, R. Williams

Chris Frahm, Chair

ATTEST:

Harold W. Ball, Secretary

I, Janet R. Maltman, Board Secretary of the San Diego County Water Authority, do hereby certify that the above and foregoing is a full, true and correct copy of said resolution No. 97-5 of said Board and that the same has not been amended or repealed.

Janet R. Maltman, Board Secretary
RESOLUTION NO. 09-23

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY ADDRESSING THE TREATMENT OF INTEREST SUBSIDY PAYMENTS UNDER RESOLUTION 89-21

WHEREAS, the San Diego County Water Authority, a county water authority duly organized and existing under and pursuant to the Constitution and the laws of the State of California (the “Water Authority”), is authorized under provisions of the Constitution and the laws of the State of California, and in accordance therewith, to incur indebtedness and to purchase real and personal property as the Water Authority may determine is necessary or proper; and

WHEREAS, the Board of Directors of the Authority adopted, on May 11, 1989, Resolution No. 89-21 of the Water Authority, amended by Resolution No. 97-52 of the Board of Directors of the Water Authority adopted on December 11, 1997, providing for the pledge and allocation of water system revenues and establishing covenants to secure the payment of obligations payable from the net water revenues of the Water Authority (the “General Resolution”); and

WHEREAS, the Water Authority may, from time to time, issue Bonds (as defined in the General Resolution) or execute Contracts (as defined in the General Resolution) with respect to which the Water Authority will be entitled to receive cash subsidy payments from the United States Treasury, such as “Build America Bonds” issued under the provisions of the American Recovery and Reinvestment Act of 2009 (“Interest Subsidy Payments”); and

WHEREAS, it is now desirable to amend the General Resolution to provide that Interest Subsidy Payments not constitute Current Water Revenues (as defined in the General Resolution) but instead constitute reductions in Debt Service (as defined in the General Resolution).

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the San Diego County Water Authority, as follows:

Section 1. The Water Authority hereby specifically finds and declares that the statements, findings and determinations of the Water Authority set forth above are true and correct.

Section 2. Section 1.01 of the General Resolution is hereby amended to add the following definition:

Interest Subsidy Payments

“Interest Subsidy Payments” means cash subsidy payments entitled to be received by the Authority from the United States Treasury with respect to Bonds issued and Contracts executed by the Authority, including, but not limited to, “Build America Bonds” issued as contemplated by the American Recovery and Reinvestment Act of 2009.
PASSED, APPROVED and ADOPTED this 17th day of December, 2009.

AYES: Unless noted below, all Directors present voted aye.

NOES:

ABSTAIN: Wornham

ABSENT: Bowersox (p)
        Johnson
        Martin
        Watton (p)

ATTEST:

Thomas V. Wornham, Secretary

Claude A. "Bud" Lewis

I, Doria F. Lore, Board Secretary of the San Diego County Water Authority, do hereby certify that the above and foregoing is a full, true and correct copy of said resolution No. 09-23 of said Board and that the same has not been amended or repealed.

Doria F. Lore, Board Secretary
Section 3. The definition of “Current Water Revenues” in Section 1.01 of the General Resolution is hereby amended to read in full as follows:

Current Water Revenues

“Current Water Revenues” means all gross income and revenue received or receivable by the Authority from the ownership or operation of the Water System, determined in accordance with Generally Accepted Accounting Principles, including all rates, fees and charges (including connection fees and charges and standby charges) received by the Authority for the Water Service and the other services of the Water System and all other income and revenue howsoever derived by the Authority from the ownership or operation of the Water System or arising from the Water System, and also including (1) all income from the deposit or investment of any money in the Water Revenue Fund, the General Reserve Fund and the Rate Stabilization Fund, and (2) all income from the deposit or investment of money held in the Installment Payment Fund, the Subordinate Obligation Fund or any Bond or Contract Reserve Fund or other fund established pursuant to a Trust Agreement to the extent such income will be available to pay Bond Payments or Installment Payments, but excluding any Interest Subsidy Payments, any proceeds of taxes and any refundable deposits made to establish credit and advances or contributions in aid of construction.

Section 4. The definition of “Debt Service” in Section 1.01 of the General Resolution is hereby amended to read in full as follows:

Debt Service

“Debt Service” means, for any Fiscal Year or other period, the sum of (1) the interest accruing during such Fiscal Year or period on all outstanding Bonds, assuming that all outstanding serial Bonds are retired as scheduled and that all outstanding term Bonds are redeemed or paid from sinking fund payments as scheduled, (2) that portion of the principal amount of all outstanding serial Bonds maturing on the next succeeding principal payment date that would have accrued during such Fiscal Year or period if such principal amount were deemed to accrue daily in equal amounts from the next preceding principal payment date or during the year preceding the first principal payment date, as the case may be, (3) that portion of the principal amount of all outstanding term Bonds required to be redeemed or paid on the next succeeding redemption date (together with the redemption premiums, if any, thereon) that would have accrued during such Fiscal Year or period if such principal amount (and redemption premiums) were deemed to accrue daily in equal amounts from the next preceding redemption date or during the year preceding the first redemption date, as the case may be, and (4) that portion of the Installment Payments required to be made at the times provided in the Contracts that would have accrued during such Fiscal Year or period if such Installment Payments were deemed to accrue daily in equal amounts from, in each case, the next preceding Installment Payment Date of interest or principal or the date of the pertinent Contract, as the case may be, provided, that (a) if any of such Bonds are Capital Appreciation Bonds or if the Installment Payments due under any of such Contracts are evidenced by Capital Appreciation Certificates, then the Accreted Value payment shall be deemed due on the
scheduled redemption or payment date of such Capital Appreciation Bond or Capital Appreciation Certificate; (b) if any of such Bonds or if the Installment Payments due under such Contracts bear interest payable pursuant to a variable interest rate formula, the interest rate on such Bonds or such Contracts for periods when the actual interest rate cannot yet be determined, shall be assumed to be equal to the greater of (1) the current interest rate calculated pursuant to the provisions of the terms of such Bonds or Contracts (with respect to the issuance of Bonds or the execution of Contracts pursuant to Section 3.02, the initial interest rate on such Bonds or Contracts), or, (2) if available, the average interest rate on such Bonds or Contracts during the thirty-six (36) months preceding the date of calculation or, (3) if such Bonds or Contracts have not been outstanding for such thirty-six month period (or with respect to the issuance of Bonds or the execution of Contracts pursuant to Section 3.02), such average interest rate on comparable debt of a state or political subdivision of a state which debt is then rated by the rating agencies rating such Bonds or Contracts in a rating category equivalent to the rating on such Bonds or Contracts; and (c) if 20% or more of the original principal of such Bonds or the Installment Payments due under such Contracts is not due until the final stated maturity of such Bonds or the Installment Payments due under such Contracts, such principal may, at the option of the Authority, be treated as if it were due based upon a level amortization of such principal over the term of such Bonds or Contracts or twenty (20) years, whichever is greater; provided further, that “Debt Service” shall not include (1) payments due on voter-approved general obligation bonds and other voter-approved general obligation debts for which taxes are then being levied and collected, (2) interest on Bonds or Contracts which is to be paid from amounts constituting capitalized interest held pursuant to a Trust Agreement or (3) interest on Bonds or Contracts which is to be paid from Interest Subsidy Payments.

Section 5. This resolution shall take effect upon receipt of the consent of all parties from whom consent is required for amendments to the General Resolution.
PASSED, APPROVED and ADOPTED this 17th day of December, 2009.

AYES: Unless noted below, all Directors present voted aye.

NOES:

ABSTAIN: Wornham

ABSENT: Bowersox (p)
        Johnson
        Martin
        Watton (p)

ATTEST:

Thomas V. Wornham, Secretary

I, Doria F. Lore, Board Secretary of the San Diego County Water Authority, do hereby certify that the above and foregoing is a full, true and correct copy of said resolution No. 09-23 of said Board and that the same has not been amended or repealed.

Doria F. Lore, Board Secretary
RESOLUTION NO. 09-23

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY ADDRESSING THE TREATMENT OF INTEREST SUBSIDY PAYMENTS UNDER RESOLUTION 89-21

WHEREAS, the San Diego County Water Authority, a county water authority duly organized and existing under and pursuant to the Constitution and the laws of the State of California (the "Water Authority"), is authorized under provisions of the Constitution and the laws of the State of California, and in accordance therewith, to incur indebtedness and to purchase real and personal property as the Water Authority may determine is necessary or proper; and

WHEREAS, the Board of Directors of the Authority adopted, on May 11, 1989, Resolution No. 89-21 of the Water Authority, amended by Resolution No. 97-52 of the Board of Directors of the Water Authority adopted on December 11, 1997, providing for the pledge and allocation of water system revenues and establishing covenants to secure the payment of obligations payable from the net water revenues of the Water Authority (the "General Resolution"); and

WHEREAS, the Water Authority may, from time to time, issue Bonds (as defined in the General Resolution) or execute Contracts (as defined in the General Resolution) with respect to which the Water Authority will be entitled to receive cash subsidy payments from the United States Treasury, such as "Build America Bonds" issued under the provisions of the American Recovery and Reinvestment Act of 2009 ("Interest Subsidy Payments"); and

WHEREAS, it is now desirable to amend the General Resolution to provide that Interest Subsidy Payments not constitute Current Water Revenues (as defined in the General Resolution) but instead constitute reductions in Debt Service (as defined in the General Resolution).

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the San Diego County Water Authority, as follows:

Section 1. The Water Authority hereby specifically finds and declares that the statements, findings and determinations of the Water Authority set forth above are true and correct.

Section 2. Section 1.01 of the General Resolution is hereby amended to add the following definition:

Interest Subsidy Payments

"Interest Subsidy Payments" means cash subsidy payments entitled to be received by the Authority from the United States Treasury with respect to Bonds issued and Contracts executed by the Authority, including, but not limited to, "Build America Bonds" issued as contemplated by the American Recovery and Reinvestment Act of 2009.
Section 3. The definition of "Current Water Revenues" in Section 1.01 of the General Resolution is hereby amended to read in full as follows:

Current Water Revenues

"Current Water Revenues" means all gross income and revenue received or receivable by the Authority from the ownership or operation of the Water System, determined in accordance with Generally Accepted Accounting Principles, including all rates, fees and charges (including connection fees and charges and standby charges) received by the Authority for the Water Service and the other services of the Water System and all other income and revenue howsoever derived by the Authority from the ownership or operation of the Water System or arising from the Water System, and also including (1) all income from the deposit or investment of any money in the Water Revenue Fund, the General Reserve Fund and the Rate Stabilization Fund, and (2) all income from the deposit or investment of money held in the Installment Payment Fund, the Subordinate Obligation Fund or any Bond or Contract Reserve Fund or other fund established pursuant to a Trust Agreement to the extent such income will be available to pay Bond Payments or Installment Payments, but excluding any Interest Subsidy Payments, any proceeds of taxes and any refundable deposits made to establish credit and advances or contributions in aid of construction.

Section 4. The definition of "Debt Service" in Section 1.01 of the General Resolution is hereby amended to read in full as follows:

Debt Service

"Debt Service" means, for any Fiscal Year or other period, the sum of (1) the interest accruing during such Fiscal Year or period on all outstanding Bonds, assuming that all outstanding serial Bonds are retired as scheduled and that all outstanding term Bonds are redeemed or paid from sinking fund payments as scheduled, (2) that portion of the principal amount of all outstanding serial Bonds maturing on the next succeeding principal payment date that would have accrued during such Fiscal Year or period if such principal amount were deemed to accrue daily in equal amounts from the next preceding principal payment date or during the year preceding the first principal payment date, as the case may be, (3) that portion of the principal amount of all outstanding term Bonds required to be redeemed or paid on the next succeeding redemption date (together with the redemption premiums, if any, thereon) that would have accrued during such Fiscal Year or period if such principal amount (and redemption premiums) were deemed to accrue daily in equal amounts from the next preceding redemption date or during the year preceding the first redemption date, as the case may be, and (4) that portion of the Installment Payments required to be made at the times provided in the Contracts that would have accrued during such Fiscal Year or period if such Installment Payments were deemed to accrue daily in equal amounts from, in each case, the next preceding Installment Payment Date of interest or principal or the date of the pertinent Contract, as the case may be; provided, that (a) if any of such Bonds are Capital Appreciation Bonds or if the Installment Payments due under any of such Contracts are evidenced by Capital Appreciation Certificates, then the Accreted Value payment shall be deemed due on the
scheduled redemption or payment date of such Capital Appreciation Bond or Capital Appreciation Certificate; (b) if any of such Bonds or if the Installment Payments due under such Contracts bear interest payable pursuant to a variable interest rate formula, the interest rate on such Bonds or such Contracts for periods when the actual interest rate cannot yet be determined, shall be assumed to be equal to the greater of (1) the current interest rate calculated pursuant to the provisions of the terms of such Bonds or Contracts (with respect to the issuance of Bonds or the execution of Contracts pursuant to Section 3.02, the initial interest rate on such Bonds or Contracts), or, (2) if available, the average interest rate on such Bonds or Contracts during the thirty-six (36) months preceding the date of calculation or, (3) if such Bonds or Contracts have not been outstanding for such thirty-six month period (or with respect to the issuance of Bonds or the execution of Contracts pursuant to Section 3.02), such average interest rate on comparable debt of a state or political subdivision of a state which debt is then rated by the rating agencies rating such Bonds or Contracts in a rating category equivalent to the rating on such Bonds or Contracts; and (c) if 20% or more of the original principal of such Bonds or the Installment Payments due under such Contracts is not due until the final stated maturity of such Bonds or the Installment Payments due under such Contracts, such principal may, at the option of the Authority, be treated as if it were due based upon a level amortization of such principal over the term of such Bonds or Contracts or twenty (20) years, whichever is greater; provided further, that “Debt Service” shall not include (1) payments due on voter-approved general obligation bonds and other voter-approved general obligation debts for which taxes are then being levied and collected, (2) interest on Bonds or Contracts which is to be paid from amounts constituting capitalized interest held pursuant to a Trust Agreement or (3) interest on Bonds or Contracts which is to be paid from Interest Subsidy Payments.

Section 5. This resolution shall take effect upon receipt of the consent of all parties from whom consent is required for amendments to the General Resolution.
PASSED, APPROVED and ADOPTED this 17th day of December, 2009.

AYES: Unless noted below, all Directors present voted aye.

NOES:

ABSTAIN: Wornham

ABSENT: Bowersox (p)
        Johnson
        Martin
        Watton (p)

ATTEST:

Thomas V. Wornham, Secretary

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I, Doria F. Lore, Board Secretary of the San Diego County Water Authority, do hereby certify that the above and foregoing is a full, true and correct copy of said resolution No. 09-23 of said Board and that the same has not been amended or repealed.

Doria F. Lore, Board Secretary
Memorandum

To: Lisa Marie Harris, Director of Finance
   Dan Hentschke, General Counsel

From: Thomas W. Chesnutt, Ph.D., CAP®

Date: March 2, 2015

Re: Review of Proposed SDCWA - Supply Reliability Charge

Purpose

A & N Technical Services, Inc. has been retained by the San Diego County Water Authority to independently review and provide a professional opinion of whether the proposed Supply Reliability Charge as described later in this memorandum is consistent with recognized cost-of-service based rate setting principles, that the amount expected to be generated by the charge is no more than necessary to cover the reasonably anticipated revenue requirement (“costs”) for governmental services or products for which the charge is imposed, and that the manner in which the costs are generally allocated by the charge bears a fair or reasonable relationship to the payor’s burdens on or benefits received from the governmental services or products.\(^1\)

Findings

The proposed Supply Reliability Charge comports with water industry cost-of-service-based rate-setting principles. By design, it cannot recover more than the costs allocated to the supply functional costs, since it is computed as a portion of those functional supply costs. Further, it constitutes a reasonable allocation of functional supply costs in that it better aligns the fixed incremental supply costs taken on by the Water Authority to make highly reliable potable water supplies available to its member agencies within the County of San Diego with the benefits available to all water customers connected to the SDCWA integrated water system.

The proposal addresses fairness by allowing for predictability of charge incidence (based on a rolling five year average of historical deliveries) and adjustments to future charge incidence if demand requirements of member agencies change in the future due to local supply

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\(^1\) This analysis is limited to a review of the proposed charge in the context of the Water Authority rates structure. It does not include allocation of individual costs to functional rate categories. That aspect of the cost-of-service study for the determination and setting of the amount of the charge will be performed by others.
development or demand management. This reviewer approves of the stated intention to re-examine the Supply Reliability Charge in five years and to embed it as a fixed charge in fiscal procedures and policies intended to assure the SDCWA’s fiscal sustainability objectives\(^2\).

**Description of the Supply Reliability Charge**

The proposed Supply Reliability Charge will create a new fixed charge for the functional incremental supply costs\(^3\) allocated to enhanced supply reliability. Under the proposed methodology the charge would be set annually. First the difference between the combined Desalination and IID Water Transfer Costs and a like amount of water purchased at the MWD Tier 1 Full Service Untreated Rate is determined. The calculated difference is then multiplied by 25\% to determine the calendar year Supply Reliability Charge. A detailed calculation methodology is shown below:

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\(^3\) Functional incremental supply costs for this purpose are understood to be associated with the two highly reliable supplies available to the San Diego County Water Authority that constitute the new and forward-looking supplies—i.e., the supply costs incidental to IID Transfer water supply and the Carlsbad Desalination plant; these are a subset of SDCWA’s overall functional supply costs. The overall supply costs for the Water Authority, include the Tier 1 full service water rate payments made to MWD for purchase of MWD water (currently the total of MWD’s Tier 1 supply rate, system access rate, system power rate, and water stewardship charge), the cost of payments made to IID for transferred water under the IID/SDCWA Agreement for Transfer of Conserved Water plus the payments made to MWD for transportation of that water to the Water Authority service territory under the Exchange Agreement, the payments made for desalinated water under the Water Authority/Poseidon Water Purchase Agreement, and certain other costs of water. Because the Water Authority provides both treated and untreated water, its functional supply costs, by definition, exclude other functional costs such as the functional cost of treatment. The Water Authority’s functional cost categories are currently described in Water Authority Administrative Code section 5.00.050 and Water Authority Ordinance No. 2014-01.
Supply Reliability Charge = \[ \left( \text{Desalination Water Cost} + \text{IID Water Transfer Cost} \right) - \text{MWD Tier 1 Equivalent Cost} \] × 25%

\[
\text{Desalination Water Cost} = (\text{Water Purchase Agreement Contract Price}^4 - \text{Melded Treatment Rate}) \times \text{Desalination Deliveries}
\]

\[
\text{IID Water Transfer Cost} = (\text{IID Water Contract Price} + \text{MWD Transportation Rate}) \times \text{IID Water Deliveries}
\]

\[
\text{MWD Tier 1 Equivalent Cost} = (\text{MWD Tier 1 Full Service Untreated Rate} \times \text{Total Reliability Deliveries})
\]

\[
\text{Total Reliability Deliveries} = \text{Desalination Deliveries} + \text{IID Water Transfer Deliveries}
\]

As used in this formula, Desalination Deliveries are 42,000 AF/Y and IID Water Transfer Deliveries are 100,000 AF/Y in 2016 and ramp up to 200,000 AF/Y according to the transfer schedule in the Transfer Agreement.

The revenue generated from this charge will only be applied to the supply revenue requirement prior to determining the volumetric Melded Supply Rate. This charge will be allocated to member agencies based on a five year rolling average of applicable historical water deliveries\(^5\). This charge will be zero when MWD’s Tier 1 costs are equal or greater than the combined Desalination and IID Water Transfer Costs.

Criteria for Evaluation of the Supply Reliability Charge

This independent review will use the CUWA Public Investment Principles in its analysis of the Supply Reliability Charge. These principles were the product of a multiple agency working group at the California Urban Water Agencies and includes the following principles for publicly financed water projects:\(^6\)

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\(^4\) The desalinated water contract price includes the following components:
- WPA Article 17.4 Capital Charges
  - (Debt Service Charge + Equity Return Charge)
- WPA Article 17.5 Operating Charge
  - (Fixed Operating Charge + Variable Operating Charge)
- WPA Article 17.6 Electricity Charge
  - (Fixed Electricity Charge + Variable Electricity Charge)
- WPA Article 8.14 Poseidon Management Fee
  - (Annual Management Fee)

\(^5\) A & N Technical Services has been informed by Water Authority staff that discussions regarding the future of the Transitional Special Agricultural Water Rate (TSAWR) are ongoing and may impact the allocation of the charge to member agencies.

\(^6\) See the CUWA Public Investment White Papers found at http://www.cuwa.org.
1. **Inclusive** of all beneficiaries
2. A **clear nexus** between charges and benefits received
3. **Specificity**, based on defined projects and costs
4. **Transparency** of benefit and cost allocation decisions, **understandable** to beneficiaries funding the efforts
5. **Strict** **dedication** of funds
6. **Reasonable** **assurances** that benefits will be delivered

**AWWA Manual M1. On Rate Making Objectives:** Accurate attribution of costs of service is not the only objective of water utility ratemaking. Derived from Bonbright et al. (1961, 1988) the **Principles of Water Rates, Fees, and Charges, AWWA Manual M1, Sixth Edition** (2012, p. 4) provides a more complete list of typical ratemaking objectives:

- Effectiveness in yielding total revenue requirements (full cost recovery)
- Revenue stability and predictability
- Stability and predictability of the rates themselves from unexpected or adverse changes
- Promotion of efficient resource use (conservation and efficient use)
- Fairness in the appointment of total costs of service among the different ratepayers
- Avoidance of undue discrimination (subsidies) within the rates
- Dynamic efficiency in responding to changing supply and demand patterns
- Freedom from controversies as to proper interpretation of the rates
- Simple and easy to understand
- Simple to administer
- Legal and defendable

**Analysis**

The **Supply Reliability Charge** reasonably comports with the CUWA principles cited above. The charge is **inclusive** of all customers that have recently taken SDCWA deliveries and could reasonably be expected to benefit from highly reliable incremental water supplies. There is a **clear nexus** between this fixed charge and the benefits of highly reliable incremental supplies received by SDCWA customers. The charge is quite **specific**, being based on two incremental water supplies (Carlsbad Desalination and IID Transfer) defined by contract and imported supplies from MWD (though currently non-contractual, these supply costs are specific.) The multiple year public process (Board hearings, Board Fiscal Sustainability Task Force, Member Agency Managers Workgroup, and public outreach) have provided **transparency** of benefit and cost allocation deliberation with ample opportunity to improve **understanding** to SDCWA member agencies and their customers (beneficiaries) about the funding of these highly reliable incremental water supplies. Funds collected from the charge are **dedicated** to recovering a
subset of functional supply costs and cannot be used for other purposes. The contracts for incremental supplies provide reasonable assurances that the benefits of highly reliable incremental supplies will be delivered.

The *Supply Reliability Charge* makes reasonable tradeoffs among cost-of-service-based ratemaking objectives cited above.

*Precedence for Fixed Charges.* The concept of levying fixed charges to recover the costs required for the capacity to deliver public service has a long history (Dupuit, 1844 and more recently Kahn, 1991) and is familiar to anyone who has paid access, standby, or “demand” capacity charges.
Bibliography


May 17, 2017

Attention: Administrative and Finance Committee

Agreement for Carlsbad Desalination Project Sales Tax Recovery (Action)

Staff recommendations
Authorize the General Manager to execute a professional services agreement with DuCharme, McMillen and Associates to pursue the recovery of sales tax paid as part of the construction of the Carlsbad Desalination Project.

Alternative
Do not authorize negotiation of an agreement. This could result in delays and the potential loss of recoverable sales tax.

Fiscal impact
The fiscal impact is contingent upon the recovery of sales tax previously paid to the state of California. In the event that no sales tax is recovered, the Water Authority would have no fiscal obligation under the proposed professional services agreement. If sales tax is recovered, a negotiated percentage of that recovered sales tax would be paid to the tax recovery firm.

Background
In 2013, the Governor approved legislation that amended the California Revenue and Taxation Code to provide a partial sales tax exemption for certain manufacturing or research equipment purchases. Retroactive to July 1, 2014, the partial sales tax exemption lowers the statewide sales and use tax rate by 4.1875 percentage points. In December 2016, the California State Board of Equalization (BOE), the public agency charged with tax administration and fee collection in the state of California, issued a letter opinion that a desalination plant qualifies under the aforementioned partial sales tax exemption.

Discussion
With the issuance of the opinion by the BOE that recognizes desalination facilities as eligible for the partial sales tax exemption, staff believes that there is an opportunity to recover qualifying sales tax paid as part of the construction of the Lewis Carlsbad Desalination Plant (plant) and the conveyance pipeline (pipeline) that connects the plant with the Water Authority’s aqueduct system. Staff is also evaluating whether there is an opportunity to pursue the recovery of sales tax paid as part of the construction of the Water Authority improvements associated with the Carlsbad project including the Twin Oaks Valley Water Treatment Plant improvements, the Pipeline 3 Relining and the San Marcos Vent improvements.

With regard to the plant and pipeline that were under construction from 2013 to 2015, it is clear that sales tax was paid for materials during the time that the sales tax exemption applied (i.e., after July 1, 2014). Also, since the Water Authority is the purchaser of water produced at the Carlsbad plant, and is ultimately paying the costs for the plant and the pipeline, it is the Water Authority that is entitled to the sales tax recovered under the exemption. The estimated recovery of qualifying sales tax paid during the construction of the plant and the pipeline could be as high as $12-$16 million.

Staff requires professional assistance in order to pursue the refund of sales tax paid during construction that qualifies under the exemption. As such, staff proposes to contract with the firm of
DuCharme, McMillen and Associates (DMA) in order to pursue the refund. DMA worked directly with BOE staff on the opinion that allowed desalination facilities to be eligible for the partial sales tax exemption. DMA is a national firm that specializes in sales and property tax consulting services including the recovery of sales tax overpayments. A contingency-based professional services agreement would be negotiated by the General Manager. As such, there will be no risk to the Water Authority. The Water Authority will only pay DMA if sales tax is actually recovered from the state. However, if, in the unlikely event that no sales tax were to be recovered, the Water Authority would pay nothing. In addition, if the decision is made to pursue sales tax recovery for the Water Authority improvement projects related to the Carlsbad project, DMA would do this work as well under the same terms.

Staff will also require specific assistance with accessing and evaluating contractor records for the plant and the pipeline. As such, a separate contingency-based companion agreement with Poseidon would also be negotiated and executed.

Prepared by: Robert R. Yamada, Director of Water Resources
Reviewed by: Sandra L. Kerl, Deputy General Manager
Approved by: Maureen A. Stapleton, General Manager
May 17, 2017

Attention: Administrative and Finance Committee

Approve the Refinancing of the Claude “Bud” Lewis Carlsbad Desalination Project Conveyance Pipeline and the Update of the Water Authority’s Debt Management Policy. (Action)

Staff recommendation
1. Adopt Resolution No. 2017___ approving the refunding of California Pollution Control Financing Authority $203,215,000 Water Furnishing Revenue Bonds, Series 2012 (San Diego County Water Authority Desalination Project Pipeline) via a negotiated sale; a Preliminary Limited Offering Memorandum, a Bond Purchase Agreement and other documents and agreements necessary to accomplish tax exempt project refinancing through the California Pollution Control Financing Authority (CPCFA); and

2. Approve the updated Statement of Debt Management Policy to reflect recent regulatory changes.

Alternative
The Board may choose not to approve the issuance of refunding bonds and/or updated Statement of Debt Management Policy.

Fiscal impact
This action does not increase the amount nor extend the life of debt currently outstanding. The estimated new interest rates on the refunding bonds (Series 2017 Pipeline Bonds) are expected to result in present value savings of $11.7 million in future debt service payments.

Background
On November 29, 2012, the Water Authority Board approved the implementation and financing of a desalination project (the Project) to be located in Carlsbad, California, including a desalination plant and 10-mile pipeline to deliver desalinated water from the plant to the Water Authority’s water system. The Project has been financed in part with proceeds of two series of bonds, $530,345,000 aggregate principal amount of California Pollution Control Financing Authority Water Furnishing Revenue Bonds, Series 2012 (Poseidon Resources (Channelside) LP Desalination Project) (Series 2012 Plant Bonds), and $203,215,000 aggregate principal amount of California Pollution Control Financing Authority Water Furnishing Revenue Bonds, Series 2012 (San Diego County Water Authority Desalination Project Pipeline) (the Series 2012 Pipeline Bonds). In connection with the Project, the Water Authority entered into a Carlsbad Seawater Desalination Project Water Purchase Agreement, dated December 20, 2012 (the Water Purchase Agreement), by and between the Water Authority and Poseidon Resources (Channelside) LP, and a Pipeline Installment Sale and Assignment Agreement, dated December 24, 2012, by and between the Water Authority and the San Diego County Water Authority Financing Agency. It is expected that payments made by the Water Authority under these agreements will constitute a substantial portion of the amounts ultimately applied to pay debt.
service payments on the bonds, contingent on attainment of certain operating and product water delivery conditions.

The Lewis Carlsbad Desalination Plant (Plant) achieved commercial operations December 23, 2015 and has provided a highly reliable local water supply to the region. Development of the Plant was the responsibility of Poseidon Water (Poseidon) under the aforementioned Water Purchase Agreement which was approved by the Board in November 2012. The Carlsbad Desalination Conveyance Pipeline (the Pipeline) that connects the desalination plant with the Water Authority’s Second Aqueduct is owned and operated by the Water Authority, but was designed and constructed by Poseidon through a separate Design-Build Agreement, also approved by the Board in November 2012.

The Water Authority is committed to purchasing a minimum of 48,000AF of water from the plant over the 30-year term of the Water Purchase Agreement, and was also responsible for completing aqueduct improvements in order to accept the desalinated product water from the Plant. Through March of this year, the Project has delivered nearly 60,000AF (19.3 billion gallons) of desalinated water to the region.

The debt issued for the Project is secured solely by the revenues generated through the sale of delivered desalinated water. Therefore, the Project risk is entirely borne by Poseidon, as is the cost responsibility for paying the Pipeline Bonds in the event Poseidon fails to deliver desalinated water. The mechanism for this risk transfer to Poseidon is Contracted Shortfall Payments. Bond payments are made directly by the Water Authority monthly to the bond trustee as water is delivered. However, the amount the Water Authority is obligated to pay in each year is reduced by Contracted Shortfall Payments, if any, due from Poseidon.

Contracted Shortfall Payments result from any failure by Poseidon to meet its supply obligations, and are proportionate to Poseidon’s underperformance. In the event that Poseidon is unable to deliver water or the water does not meet contractual specifications, Poseidon is responsible for making the debt service payments through Contracted Shortfall Payments. Contracted Shortfall Payments are assigned to the Pipeline Trustee to offset the Pipeline Bond payments. Because the Pipeline Bonds are secured by the Project and not the Water Authority’s credit, the Pipeline Bonds bear a higher interest rate than conventional Water Authority bonds. The structure of the transaction for the proposed Series 2017 Pipeline Bonds is the same as for the Series 2012 Pipeline Bonds.

The current credit ratings of the Project are Baa3 and BBB- by Moody’s Investor Services and Fitch Ratings, respectively.

**Discussion**

Although interest rates have risen over the past 12-months, interest rate levels remain near historic lows. Given the current interest rate environment, all of the Water Authority’s outstanding Series 2012 Pipeline Bonds can be refunded to realize significant debt service savings. While the actual level of savings will depend on the interest rates at the time the transaction is completed, the current estimated present value savings is approximately $11.7 million. All of the Series 2012 Pipeline Bonds are callable on or after July 1, 2017.
To optimize the savings, Staff is recommending that the documents for the transaction be prepared in advance and the capital markets be accessed as soon as the Project’s remaining punch list items and backwash treatment system modifications are completed. Completion of these outstanding items is desirable to help ensure that the best pricing can be realized given market conditions.

Staff is recommending that the financing and risk structure of the Project remain unchanged. Therefore, there are no recommended changes in the refunding documents that change in any way the existing financing or risk structure. In addition, the proposed refunding does not extend the life of the debt. To maximize savings, Staff is evaluating call options and the potential to purchase bond insurance, which would increase the level of savings.

**Method of Sale**

Because of the complex nature of the Project financing and the importance of investor outreach and communications, Staff is recommending that a negotiated method of sale be used for the Series 2017 Pipeline Bonds. The banking team was selected from the Water Authority’s pool of pre-approved underwriters. A Request for Proposals (RFP) was issued to the underwriter pool in October 2016. The selection team included Water Authority Staff and the municipal financial advisors. The evaluation was based upon factors including key personnel experience, related project experience, rating agency strategy, investor marketing approach, modeling ability and price. Based upon this review J.P. Morgan Securities LLC was selected as the senior manager. J.P. Morgan, which was the lead underwriter in the original financing, provided the most comprehensive and well developed approach to the refunding. In addition, RBC Capital Markets (the Royal Bank of Canada) was selected as co-senior manager, and Goldman Sachs and Loop Capital were selected as co-managers.

**Maximum Authorized Issuance Amount**

The maximum size of the tax-exempt refunding is $225 million, which is the not-to-exceed amount specified in the authorizing resolution (Attachment A). The maximum amount is set based upon the potential for changes in the interest rates to increase the amount of outstanding bonds eligible for refunding under the Water Authority’s Debt Policy. The issue amount will also be reduced by any unspent 2012 Pipeline Bonds held by the Trustee after project completion. This is currently estimated to be $2 million.

**Costs of Issuance**

Costs of issuance includes the underwriters’ discount, professional fees for bond, underwriter and disclosure counsels, financial advisors, and other costs such as credit rating agency charges, CPCFA fees, printer charges and the cost of pre-sale marketing such as an internet road show and one-on-one investor meetings. The cost of issuance is estimated at approximately $3.1 million, including $1.2 million for underwriter fees. The final cost of issuance will be presented to the Board with the results of the sale. The cost of issuance will be funded out of the proceeds of the bonds.

**Documents to be approved:**

Because there are certain events required to achieve Project completion, the documents will need to be updated closer to the time of sale to reflect current events and information. This will include things like dates, operating data and other information that will not materially impact the
documents. Should a material change be necessary, staff will bring the item back to the Board at an upcoming Board meeting for approval.

Each transaction requires certain Board approval of resolutions and documents described below. The Preliminary Limited Offering Memorandum (PLOM) and authorizing resolutions and amendments are provided as either attachments to or hyperlink in this memorandum. Other documents are on file with the Clerk of the Board for review. A list and brief description of each document is provided below.

- Authorizing Resolution
- Preliminary Limited Offering Memorandum;
- Tax Certificate;
- Pipeline Bond Purchase Agreement;
- Pipeline Trust Indenture;
- Continuing Disclosure Agreement
- Omnibus Amendment;
- Collateral Document Master Refunding Amendment;
- Water Purchase Agreement Amendment;
- Ancillary Amendments and Consents

The Authorizing Resolution, Attachment A, approves the issuance subject to certain conditions, approves the form of the documents discussed below, and delegates to Water Authority officers the authority to finalize, execute and deliver the documents and to do any and all things necessary to complete the transaction.

The PLOM is the primary disclosure document for the bond transaction. The PLOM contains information necessary for investors to make informed investment decisions regarding the Pipeline Bonds. Critical information provided includes details of the debt issue, Water Authority information, Project scope, Project construction and operation details, Project participants and financial statements and disclosures.

The Tax Certificate is a summary description of the project and the financing, as well as representations of the Water Authority and is used by bond counsel for purposes of its opinion regarding the tax exempt status of the bonds.

The Pipeline Bond Purchase Agreement sets forth the terms of the bond sale, interest rates, sales prices, indemnity covenants and representations of the parties to the financing transaction.

The Pipeline Trust Indenture between CPCFA and Union Bank, N.A. (Trustee) authorizes the issuance of the bonds, redemptions, payments of principal and interest, application of bond proceeds and discusses the trustee responsibilities. This is the agreement whereby the Issuer will assign all loan payments and contracted shortfall payments to the Trustee.

The Continuing Disclosure Agreement enables the bond underwriters to fulfill their obligations under applicable securities rules, and prescribe the ongoing disclosure requirements of the Water Authority.
Other pertinent documents consist of a series of amendments and agreements which are intended to update references from the Series 2012 Pipeline Bonds to the Series 2017 Pipeline Bonds, and reaffirm the binding effect of existing agreements. These are the Omnibus Amendment, the Collateral Document Master Refunding Amendment and a series of Ancillary Amendments and Consents with various third parties including City of Carlsbad, Kiewit Shea, SDG&E and other parties that executed documents in connection with the Series 2012 Pipeline Bonds financing.

The Omnibus Amendment amends existing documents that are impacted by the refunding. The amendments ensure that the documents incorporate the refunding and maintain the original intent of the agreement. The documents affected by the Omnibus Amendment consist of the Pipeline Loan Agreement with respect to the Series 2012 Pipeline Bonds, the Installment Sale and Assignment Agreement and the Loan Agreement with respect to the Series 2012 Plant Bonds.

Similar to the Omnibus Amendment, the Collateral Document Master Refunding Amendment updates definitions and references to the refunding bonds for agreements to which the CPCFA is not a party, namely the Collateral Trust Agreement and the Pledge and Security Agreements from Poseidon’s General and Limited Partner.

The draft PLOM can be found at the following link:

http://www.sdcwa.org/finance-investor-relations

Copies of all the documents are on file with the Clerk of the Board. All of the aforementioned documents will be updated as needed prior to the bond sale to reflect information not presently available.

**Statement of Debt Management Policy**

The Statement of Debt Management Policy (the Policy) was last updated in November of 2013. Since that update, there have been regulatory changes that impact debt management. While the Water Authority has always complied with the regulations, an update to the Policy is warranted at this time in preparation for the Pipeline Bond transaction discussed above. The changes in rules and regulations impacting debt management include:

**SEC Municipal Advisor Registration Rules** – In response to the Dodd-Frank Act, the SEC issued municipal advisor registration rules. The rules apply to “municipal advisors” and require that the advisor provide objective advice and not solicit products or services. While the Water Authority has always utilized independent financial advisors, this role is now regulated; and

**Senate Bill No. 1029** – This Bill is intended to enhance debt management activities by requiring a debt management policy, inclusive of certain elements, and the submission of an Annual Debt Transparency Report.
The updated Policy addresses the new rules and regulations impacting the management of the Water Authority’s debt. Attachment B is the redlined version of the updated Policy.

Prepared by: David Shank, Financial Planning Manager
Reviewed by: Lisa Marie Harris, Director of Finance
Approved by: Sandra L. Kerl, Deputy General Manager

Attachment A: Resolution No. 2017____ approving the issuance of Series 2017 Pipeline Bonds and documents and agreements necessary to accomplish tax exempt project financing through the CPCFA; and
Attachment B: Updated Statement of Debt Management Policy to reflect regulatory changes.
A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY APPROVING AGREEMENTS NECESSARY TO ACCOMPLISH REFUNDING OF EXISTING TAX EXEMPT PROJECT FINANCING THROUGH THE CALIFORNIA POLLUTION CONTROL FINANCING AUTHORITY; APPROVING SUPPORTING CONTRACTS AND CONTRACT AMENDMENTS; AND AUTHORIZING THE EXECUTION OF AGREEMENTS AND THE TAKING OF ACTIONS NECESSARY IN CONNECTION WITH THE ISSUANCE OF THE CALIFORNIA POLLUTION CONTROL FINANCING AUTHORITY WATER FURNISHING REVENUE REFUNDING BONDS, SERIES 2017 (SAN DIEGO COUNTY WATER AUTHORITY DESALINATION PROJECT PIPELINE)

WHEREAS, the San Diego County Water Authority, a county water authority duly organized and existing under and pursuant to the Constitution and laws of the State of California (the “Water Authority”), is authorized under provisions of the Constitution and laws of the State of California, and in accordance therewith, to purchase real and personal property as the Water Authority may determine to be necessary and proper, to make installment sale payments therefor and to refund its installment sale payment obligation through the issuance of refunding revenue bonds, and to incur indebtedness by contract, to make contract payments with respect thereto and to refund its contract payment obligation through the issuance of refunding revenue bonds; and

WHEREAS, Water Authority Resolution No. 89-21, adopted by the Board of Directors of the Water Authority (the “Board”) on May 11, 1989 and amended on December 11, 1997 and December 17, 2009, provides for the pledge of water system revenues and establishes covenants to secure the payment of obligations payable from net water revenues; and

WHEREAS, pursuant to that certain Trust Indenture, dated December 24, 2012, by and between the California Pollution Control Financing Authority (the “Issuer”) and MUFG Union Bank, N.A. (the “2012 Pipeline Trustee”), the Issuer has previously issued its Water Furnishing Revenue Bonds, Series 2012 (San Diego County Water Authority Desalination Project Pipeline), in the aggregate principal amount of $203,215,000 (the “Series 2012 Pipeline Bonds”), all of which remain outstanding; and

WHEREAS, the Water Authority is considering approval of agreements and other documents related to the continuing development of the Carlsbad Seawater Desalination Project (the “Project”) and in connection with such consideration, the Water Authority and the San Diego County Water Authority Financing Agency (the “Financing Agency”) have requested the Issuer issue the California Pollution Control Financing Authority Water Furnishing Revenue Refunding Bonds, Series 2017 (San Diego County Water Authority Desalination Project Pipeline) in an amount not to exceed $225,000,000.00 (the “Series 2017 Pipeline Bonds”) in order to refund and defease the Series 2012 Pipeline Bonds; and
WHEREAS, the proceeds of the Series 2012 Pipeline Bonds were loaned to the Financing Agency under the Pipeline Loan Agreement, dated as of December 24, 2012, between the Issuer and the Financing Agency ("Pipeline Loan Agreement"); and

WHEREAS, the Financing Agency is and will continue to be obligated to make loan repayments under the Pipeline Loan Agreement solely from, and the Financing Agency’s obligation to make such loan repayments will continue to be secured solely by, installment sale payments to be made by the Water Authority to the Financing Agency under that certain Pipeline Installment Sale and Assignment Agreement, dated as of December 24, 2012 (the “Installment Sale Agreement”), by and between the Financing Agency and the Water Authority; and

WHEREAS, under certain circumstances, Poseidon Resources (Channelside) LP ("Poseidon") is obligated to make contracted shortfall payments to the Water Authority pursuant to the terms of that certain Design-Build Agreement for Product Water Pipeline Improvements Relating to the Carlsbad Seawater Desalination Project, dated December 20, 2012 (the “Pipeline DBA”), by and between the Water Authority and Poseidon and that certain Carlsbad Seawater Desalination Project Water Purchase Agreement, dated December 20, 2012 (the “Water Purchase Agreement”), by and between Poseidon and the Water Authority, which obligation is and will continue to be secured pursuant to the terms of that certain Collateral Trust Agreement, dated as of December 24, 2012 (the “Collateral Trust Agreement”), among Poseidon, the 2012 Pipeline Trustee and MUFG Union Bank, N.A., as collateral agent (the “Collateral Agent”), and others, and the Water Authority has assigned, and will continue to assign, its rights to receive such payments to the Financing Agency pursuant to the Installment Sale Agreement (the “Contracted Shortfall Payments”) as additional security for the Series 2017 Pipeline Bonds, and the Financing Agency’s and Water Authority’s obligations to make loan or installment payments will be deemed satisfied to the extent Poseidon is obliged to make contracted shortfall payments (whether or not such contracted shortfall payments are made); and

WHEREAS, the Water Authority staff has presented and the Board has considered the following agreements necessary for issuance of the Series 2017 Pipeline Bonds:

- the Trust Indenture (the “2017 Pipeline Indenture”), between the Issuer and MUFG Union Bank, N.A., as trustee (the “Trustee”), relating to the Series 2017 Pipeline Bonds;
- the Omnibus Refunding Amendment Agreement (the “Omnibus Agreement”), among the Issuer, the Financing Agency, the Water Authority and MUFG Union Bank, N.A., as collateral agent and trustee, which amends, supplements and restates certain provisions of the Pipeline Loan Agreement, the Installment Sale Agreement and the Loan Agreement dated as of December 24, 2012 (as amended, the “Plant Loan Agreement”);
- the Collateral Document Master Refunding Amendment among the Issuer, the Trustee and Poseidon, which amends, supplements and restates certain provisions of the Collateral Trust Agreement, the Pledge and Security Agreement dated as of December 24, 2012 (the “LP Pledge Agreement”), by and among Poseidon Resources Channelside Holdings LLC, a Delaware limited liability company, as pledgor, Poseidon and the Collateral Agent, and the Pledge and Security Agreement dated as of December 24, 2012 (the “GP Pledge Agreement” and together with the Collateral Trust Agreement and the LP Pledge Agreement, the “Existing Collateral Documents”) by and among Poseidon
Resources Channelside GP, Inc., as pledgor, Poseidon, and the Collateral Agent (the “Collateral Document Amendment”);

• an amendment or Contract Administration Memorandum to the Water Purchase Agreement, which sets forth the terms under which the Water Authority purchases desalinated potable water (“Product Water”) from Poseidon and the criteria for the production, conveyance, exchange, and delivery of Product Water from the Project to the Water Authority;

• the Bond Purchase Agreement for the California Pollution Control Financing Authority Water Furnishing Revenue Refunding Bonds, Series 2017 (San Diego County Water Authority Desalination Project Pipeline) (“Bond Purchase Agreement”) among the Issuer, the Treasurer of the State of California, the Water Authority, the Financing Agency and the underwriters named therein;

• a form of Amended and Restated Continuing Disclosure Agreement related to the issuance of the Series 2017 Pipeline Bonds (the “Continuing Disclosure Agreement”);

• any conforming amendments or Contract Administration Memoranda to any documents related to the San Diego County Water Authority Desalination Project Pipeline, including but not limited to an amendment to the Pipeline DBA (the “Conforming Amendments”);

• any Ancillary Amendments and Consents with various parties to documents executed with respect to the Series 2012 Pipeline Bonds (the “Ancillary Amendments”); and

WHEREAS, the Board has also considered the Preliminary Limited Offering Memorandum on file with the Board; and

WHEREAS, all acts, conditions and things required by the Constitution and laws of the State of California to exist, to have happened and to have been performed precedent to and in connection with the making of the agreements and the consummation of the financing authorized by this resolution do exist, have happened and have been performed in regular and due time, form and manner, and the Water Authority is duly authorized and empowered, pursuant to each and every requirement of law, to consummate such financing as provided in this resolution.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY RESOLVES ASfollows:

1. The foregoing recitals are adopted as findings and determinations of the Board.

FINANCE DOCUMENTS

2. The Chair of the Board, the General Manager and the Director of Finance/Treasurer (each, an “Authorized Officer” and collectively the “Authorized Officers”) each acting individually, are authorized and directed, on behalf of the Water Authority, to execute and deliver each or any of the financing documents described in the eighth Whereas clause hereof, substantially in the approved form, with such changes and updates as the Authorized Officer executing such document may, with the concurrence of the General Counsel of the Water Authority, require or approve, such approval to be conclusively evidenced by the execution and delivery thereof.
3. The following agreements on file with the Clerk of the Board are approved and may be executed on behalf of the Water Authority as provided in paragraph 2 of this resolution:

- the 2017 Pipeline Indenture;
- the Omnibus Agreement;
- the Collateral Document Amendment;
- the Water Purchase Agreement amendment;
- the Bond Purchase Agreement;
- the Continuing Disclosure Agreement; and
- the Ancillary Amendments.

4. The form of the Preliminary Limited Offering Memorandum is hereby approved. The Authorized Officers are each, acting individually, hereby authorized and directed, on behalf of the Water Authority, to approve the distribution of a Preliminary Limited Offering Memorandum in substantially such form and to certify that such Preliminary Limited Offering Memorandum is, as of its date, “deemed final” by the Water Authority for purposes of Rule 15c2-12 of the Securities and Exchange Commission. The Authorized Officers are hereby authorized and directed, on behalf of the Water Authority, to cause to be prepared and to execute and deliver to the purchasers of the Series 2017 Pipeline Bonds a Limited Offering Memorandum in substantially the form of the Preliminary Limited Offering Memorandum, with such changes as such officers may, with the concurrence of the General Counsel of the Water Authority, require or approve, such approval to be conclusively evidenced by the execution and delivery thereof, to authorize the distribution of said Limited Offering Memorandum and to certify that said Limited Offering Memorandum is, as of its date, “final and complete” for purposes of Rule 15c2-12 of the Securities and Exchange Commission.

5. The sale of the Series 2017 Pipeline Bonds by negotiated sale is hereby authorized. The Authorized Officers are each, acting individually, hereby authorized, for and in the name and on behalf of the Water Authority, to execute and deliver the Bond Purchase Agreement to such underwriters as are designated by the Director of Finance/Treasurer of the Water Authority from the Water Authority’s approved underwriter pool.

6. The Secretary of the Water Authority or the Clerk of the Board are hereby authorized and directed to attest the signatures of such Authorized Officers as may be required or appropriate in connection with the issuance of the Series 2017 Pipeline Bonds and the execution and delivery of the 2017 Pipeline Indenture, the Omnibus Agreement, the Collateral Document Amendment, the Water Purchase Agreement amendment, the Bond Purchase Agreement, the Preliminary Limited Offering Memorandum, the Continuing Disclosure Agreement and the Ancillary Amendments (collectively, the “Agreements”).

7. The authorization of the issuance of the Series 2017 Pipeline Bonds and the execution and delivery of the Agreements, are subject to the following conditions precedent:

   (a) The Series 2017 Pipeline Bonds shall have a final maturity date not later than November 21, 2045;
(b) The Series 2017 Pipeline Bonds shall be issued in an aggregate principal amount not to exceed $225,000,000;

(c) The underwriters’ discount shall not exceed 0.5% of the principal amount of the Series 2017 Pipeline Bonds; and

(d) The net debt service savings with respect to any installment sale payments made pursuant to the Installment Sale Agreement, as amended by the Omnibus Agreement, to be refunded realized by the Water Authority on a present value basis shall be consistent with the Water Authority’s refunding criteria contained in the Water Authority’s debt management policy (including any determination by the Director of Finance/Treasurer to include individual refunding candidates that are above or below the target savings specified in the refunding criteria in order to optimize policy and/or financial objectives) as determined by the Authorized Officer authorizing the sale of the Series 2017 Pipeline Bonds.

SUPPORTING CONTRACTS AND CONTRACT AMENDMENTS

8. The Authorized Officers are authorized to execute the supporting contracts and contract amendments referenced in the Board memorandum dated May 17, 2017 relating to the issuance of the Series 2017 Pipeline Bonds, including but not limited to the Conforming Amendments and any additional and necessary Ancillary Amendments. The Authorized Officers are hereby authorized to determine the closing date, at their discretion, based on market conditions and other factors such Authorized Officers deem appropriate.

ADDITIONAL DELEGATION

9. The Authorized Officers are hereby authorized and directed, jointly and severally, with the concurrence of the General Counsel of the Water Authority, to do any and all things and to execute and deliver any and all certificates, requisitions, agreements, notices, consents, and other documents, including the tax certificate and closing certificates, which they may deem necessary or advisable in order to consummate transactions authorized by this resolution and otherwise to carry out, give effect to and comply with the terms and intent of this resolution and the Agreements. Such actions heretofore taken by such Authorized Officers are hereby ratified, confirmed, and approved. The authority of the Authorized Officers and the General Counsel of the Water Authority, Secretary of the Water Authority and Clerk of this Board under this resolution may be delegated as provided in the Water Authority’s Administrative Code.
PASSED, APPROVED AND ADOPTED THIS ___ DAY OF _______ 2017, BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

________________________________________________________________________
Mark Muir, Chair

ATTEST:

________________________________________
Gary Croucher, Secretary

I, Gary Croucher, Secretary of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution No. 2017-___ was duly adopted at the meeting of the Board of Directors on the date stated above.

________________________________________
Melinda Cogle, Clerk of the Board
Section I. Introduction

Purpose and Overview

SB 1029, Government Code 855(i)(1), requires local governmental issuers of debt to establish and maintain a debt policy incorporating certain provisions. In addition, in its publication entitled Best Practice Debt Management Policy, the Government Finance Officers Association (GFOA) states that “Debt management policies are written guidelines, allowances, and restrictions that guide the debt issuance practices of state or local governments, including the issuance process, management of a debt portfolio, and adherence to various laws and regulations. A debt management policy should improve the quality of decisions, and articulate policy goals, provide guidelines for the structure of debt issuance, and demonstrate a commitment to long-term capital financial planning.” GFOA recommends as a best management practice that state and local governments adopt comprehensive written debt management policies. The San Diego County Water Authority Debt Management Policy as set forth here provides a set of comprehensive guidelines for the issuance and management of Water Authority’s debt portfolio. Adherence to the policy is essential to ensure the Water Authority maintains a diversified debt portfolio that supports the Water Authority’s financing needs and minimizes the Water Authority’s cost of funds.

Roles and Responsibilities

Director of Finance – The primary responsibility for debt management rests with the Director of Finance. The Director of Finance shall:

- Provide for the issuance of Water Authority debt at the lowest possible cost and risk;
- Determine the available debt capacity of the Water Authority;
- Provide for the issuance of Water Authority debt at appropriate intervals and in reasonable amounts as required to fund approved capital expenditures;
- Recommend to the Water Authority’s Board of Directors (Board) the method and manner of sale of Water Authority debt;
- Monitor opportunities to refund debt and recommend such refunding as appropriate to reduce costs or to achieve other policy objectives;
- Comply with all Internal Revenue Service (IRS), Municipal Securities Rulemaking Board (MSRB), and Securities and Exchange Commission (SEC) rules and regulations governing the issuance of debt;
- Maintain a current database with all outstanding Water Authority debt;
- Provide for the timely payment of principal and interest on all Water Authority debt;
- Comply with all terms and conditions, and disclosure required by the legal documents governing the debt issued;
• Submit to the Board all recommendations to issue debt in accordance with the County Water Authority Act and Resolution No. 89-21;
• Distribute to appropriate repositories information regarding the Water Authority’s financial condition and affairs at such times and in the form required by law, regulation and general practice;
• Provide for the frequent distribution of pertinent information to the rating agencies;
• Provide for the ongoing management of an Investor Relations Program; and
• Apply and promote prudent fiscal practices.

Section II. Legal Governing Principles

In the issuance and management of debt, the Water Authority shall comply with all legal constraints and conditions imposed by federal, state and local law. The following section highlights the key governing documents and certain debt limitations.

Governing Law

County Water Authority Act – The Water Authority is a public agency created in 1944 under the County Water Authority Act (The Act), California Statutes 1943, Chapter 45, as amended. The Act establishes the Water Authority’s legal authority to issue debt and the limitations therein. A copy of the Act can be found in Appendix A. The Water Authority shall comply with all constraints of the Act.

Federal Tax Law – The Water Authority shall issue and manage debt in accordance with the limitations and constraints imposed by federal tax law, to maximize its ability to sell tax-exempt debt. Such constraints include, but are not limited to, private activity tests, review of eligible projects, spend-down tests, and arbitrage rebate limitations.

Securities Law – The Water Authority shall comply with the requirements of federal and state securities laws in offering Water Authority debt and the Water Authority shall comply with securities law requirements in providing ongoing disclosure to the securities markets.

Governing Legal Documents

General Resolution – The Water Authority’s debt issuance is further governed by Resolution No. 89-21, adopted May 11, 1989, Resolution No. 97-52, adopted December 11, 1997, and Resolution No. 09-23, adopted on December 17, 2009, all of which together constitute the “General Resolution.” The General Resolution establishes the basic security structure of debt issued by the Water Authority that is secured by Net Water Revenues. Key terms and conditions include, but are not limited to, the definition of pledged revenues, the rate covenant and the additional bonds test. A copy of the General Resolution can be found in Appendix B. The Water Authority shall comply with all limitations imposed under the General Resolution.

Permitted Debt by Type
The Water Authority may legally issue both short-term and long-term debt, using the debt instruments described below. The Director of Finance, in consultation with the Water Authority’s General Counsel and Bond Counsel, shall determine the most appropriate instrument for a proposed bond sale.

**General Obligation Bonds** – The Water Authority is empowered, under its Act, to levy taxes on all taxable property within its boundaries for the purpose of paying its voter-approved general obligation bonds and, subject to certain limitations in the Act, the California Revenue and Taxation Code and the California Constitution, for other Water Authority purposes. The Water Authority is authorized to sell general obligation bonds under Section 7 of the Act, subject to the approval of a two-thirds majority of those voting in a local election.

**Certificates of Participation** – Certificates of Participation (COP) provide debt financing through a lease, installment sale agreement or contract of indebtedness and typically do not require voter approval. Board action is sufficient to legally authorize a COP issue. The Water Authority is permitted to use the installment sale form of COPs, based upon its ability to execute installment sale agreements (Section 5 of the Act) and contracts of indebtedness (Section 8 of the Act). The Water Authority’s issuance of COPs is facilitated by the San Diego County Water Authority Financing Corporation, a California nonprofit benefit corporation that was created by the Water Authority specifically to serve as party to the installment sale agreements and contracts of indebtedness securing Water Authority COPs. The Water Authority shall pledge net revenues to the repayment of its COPs, under the terms and conditions specified in the General Resolution.

**JPA Revenue Bonds** – As an alternative to COPs, the Water Authority may obtain financing through the issuance bonds by a joint exercise of powers agency with such bonds payable from amounts paid by the Water Authority under a lease, installment sale agreement, or contract of indebtedness. The San Diego County Water Authority Financing Agency is a joint exercise of powers agency formed for the purpose of facilitating Water Authority financing through the issuance of such revenue bonds.

**Commercial Paper** – Per Section 8.2 of the Act, the Water Authority may issue short-term revenue certificates, including commercial paper and extendable commercial paper. Board action is sufficient to legally authorize a commercial paper issue. The Water Authority’s commercial paper is secured by net revenues, but on a subordinate lien basis to the Water Authority’s long-term debt (i.e. COPs). Voter approval is not required to issue commercial paper.

**Variable Rate Debt** – The Water Authority is authorized to issue variable rate debt including, but not limited to, public market indexed notes, indexed notes or loans placed directly with financial institutions and other alternative variable rate and market access products as well as traditional variable rate demand obligations backed by bank liquidity facilities. Prior to the issuance of variable rate debt, the savings and other possible advantages compared to a fixed rate borrowing will be evaluated and a comparative analysis presented to the Board of Directors as part of the approval process.
Revenue Bonds – The Water Authority is authorized to issue revenue bonds (Section 7.5 of the Act), as further described in the Revenue Bond law of 1941 (Chapter 6, commencing with Section 54300, or Part 1 of Division 2 of Title 5 of the Government Code). Revenue bonds require majority voter approval to authorize the size and purpose of the bond issue. The Water Authority shall pledge net revenues to the repayment of any revenue bonds under the terms and conditions specified in the General Resolution.

Refunding Revenue Bonds – The Water Authority is authorized to issue refunding revenue bonds to refund outstanding Water Authority indebtedness pursuant to the State of California local agency refunding revenue bond law (Articles 10 and 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State of California).

Assessment Bonds – The Water Authority is authorized to issue assessment bonds pursuant to the Improvement Bond Act of 1915, subject to requirements imposed by Proposition 218. Such bonds are typically repaid from assessments collected within an assessment district formed pursuant to the Municipal Improvement Act of 1913. Assessments are levies of charges on real property to pay for projects or services that specifically benefit that parcel of property.

Limitations on Debt Issuance

Subordinate Lien Short-Term Debt – The Water Authority’s subordinate short-term debt shall not exceed 30 percent of its total debt at the time of issuance. The calculation of short-term debt shall include variable rate demand obligations, the authorized amount of commercial paper, any notes/bonds with a maturity equal to or less than five years, and any variable rate debt. The Water Authority’s subordinate lien debt, for which net revenues are pledged, shall be limited to that amount for which current and projected revenues generate overall debt service coverage of at least 100 percent if no subordinate bonds are outstanding, and 105 percent if subordinate bonds are outstanding.

Senior Lien Long-Term Debt – The Water Authority’s senior lien long-term debt, for which net revenues are pledged, shall be limited to that amount for which current and projected revenues generate a senior lien debt service coverage of at least 120 percent. The calculation of debt service shall not include general obligation bonds or assessment bonds, to which revenue sources other than pledged revenues, as defined in the General Resolution, are pledged. It should be noted that the Board has adopted a policy that sets the senior lien debt service coverage target of 150 percent in keeping with its prudent financial management.

percent in keeping with its prudent financial management.
Purpose for Borrowing

The Water Authority shall issue debt solely for the purpose of financing the cost of design, acquisition, and/or construction of water system improvements, in furtherance of the Water Authority’s Capital Improvement Program (CIP).

Ethical Standards Governing Conduct

Members of the Water Authority, the Board and its consultants, service providers, and underwriters shall adhere to standards of conduct as stipulated by the San Diego County Water Authority Local Conflict of Interest Code or the California Political Reform Act, as applicable. All debt financing participants shall maintain the highest standards of professional conduct at all times, in accordance with:

- MSRB Rules, including Rule G-37, shall be followed at all times;
- Municipal Advisors shall adhere to applicable SEC rules;
- Debt financing participants will assist the Water Authority staff in achieving its goals and objectives as defined in this Debt Management Policy; and
- All debt financing participants shall make cooperation with the Water Authority staff their highest priority.

Section III. Integration of Capital Planning and Debt Activities

Policy Goals Guiding Evaluating Capital Improvement Program Spending

The Water Authority shall develop and maintain a capital finance model to evaluate the impact of capital program spending, operations and maintenance costs, and debt service on its financial condition. As discussed in the Water Authority’s Long-Range Financing Plan (LRFP), the Water Authority’s overarching financial management objectives are, maximize cost efficiency (minimize costs/rates), provide predictable (smooth) rates and charges to member agencies and maintain intergenerational equity for system users over time. To that end, the Director of Finance shall oversee the ongoing maintenance of quantitative modeling that includes, but is not limited to, the following:

- Historic and projected cash flows;
- Historic and projected capital expenditures;
- Historic and projected operating costs;
- Historic and projected fund balances, including the Operating Fund, the Rate Stabilization Fund, Pay-As-You-Go Fund, Debt Proceeds Fund, Stored Water Fund and Debt Service Reserve Fund;
- Historic and projected debt service coverage;
- The most efficient mix of funding sources (long-term debt; short-term debt, and cash);
- Projected revenue requirements; and
- Projected rates and charges.
Section IV. Procurement and Evaluation of Professional Services

The Water Authority shall procure professional services as required to execute financing transactions and to advise on non-transaction related work. Professional services include Consultants (Financial Advisor, Legal Counsel-Bond, Disclosure and Tax); Service Providers (Trustee, Paying Agent, Dissemination Agent, Arbitrage Consultant, Escrow Verification Agent, Bidding Agent for escrow investments, Printer, Letter of Credit, Verification Agent); and an Underwriting Team (Senior Manager, Co-Manager, Selling Group).

Selection Process – The selection of financial and legal professionals to assist the Water Authority in carrying out financing programs shall be made through a selection process consistent with the Water Authority’s procurement policies and procedures. All consultants, service providers and underwriting team members shall provide the Water Authority with objective advice and analysis, shall maintain the confidentiality of Water Authority financial plans, and shall be free from any conflict of interest pursuant to applicable law. The Water Authority’s Local Conflict of Interest Code, and procurement policies and procedures, can be found in the Water Authority’s Administrative Code (chapters 1.04 and 4.04, respectively), and within the Water Authority’s standard Professional Service Contract.

Appointment of Municipal Financial Advisor (Municipal Advisor) – The Water Authority will select a financial advisor or advisors to assist in the issuance and administration of debt through the Request for Proposals (RFP) process. Assistance to be provided by a Municipal financial advisor will include, but not be limited to:

A. Ongoing Services/Long-Term Forecasting

1. Review and update as needed existing model and Long-Range Financing Plan (the Plan); provide analysis of funding methods and options including analysis of the structure of the Plan; discussion of issues or difficulties which may be encountered in implementing the Plan and the strategies to address such issues; prepare and deliver presentations regarding various financial issues to Water Authority staff and the Board as requested.
2. Assist the Water Authority in interfacing with rating agencies with the objective of developing a strategy and plan to maintain at a minimum the Water Authority’s senior lien and subordinate lien ratings at “AA+/AA” and “AA/AA-“, respectively.
3. Provide timely information, judgments, and forecasts regarding general economic and capital market conditions.
4. Assist the Water Authority in updating its financial strategies and policies when requested. This includes analyzing short, intermediate and long-term financing options.
5. Advise the Water Authority on the timing, method and structure of its security sales.
6. Update, modify, evaluate, and improve as necessary the revenue program and rate model which is used to help determine the Water Authority’s ability to meet funding requirements for the CIP.

7. Be available at reasonable times for consultation to render advice regarding the financial aspects of the Water Authority’s program as may be requested by the Board, the General Manager, or the Director of Finance.

7-8. Serve as Independent Registered Municipal Advisor (IRMA) to the Water Authority in accordance with the SEC Municipal Advisor Rule.

8-9. Be available to attend meetings related to Metropolitan Water District’s (MWD) Long-Range Financing Plan and other related rate issues.
B. Debt Issuance

1. Prepare financing schedule, monitor progress of financing team participants, facilitate and coordinate completion of tasks and responsibilities in accordance with schedule and revise schedule as necessary.
2. Assist in and coordinate the preparation of legal and disclosure documents related to debt issuance.
3. Develop a rating agency strategy, prepare rating agency presentation material, schedule meetings with rating agencies, organize and coordinate Board and staff rehearsals and presentations, and coordinate itinerary for rating agency visits as required.
4. Prepare and distribute RFP’s for underwriters, printers, and other team participants as directed by the Water Authority. Assist in evaluation of proposals, assist in conducting interviews as necessary, and provide recommendation as to firms selected.
5. Develop and take a primary responsibility for quantitative analysis of structuring alternatives for debt issues including sizing, structure, and term of issue; provide computer modeling and comparison of alternatives analysis; make recommendations and provide rationale for preferred alternatives’ and ensure that selected alternative provides the best solution as part of the long-range financing plan.
6. Assist and coordinate discussions and prepare presentation materials for identified key institutional investors. Coordinate itinerary as necessary for visits to institutional investors or meeting sites.
7. Analyze and participate in decision as to timing of sale and consult as to advisability or necessity for rescheduling sale depending on market conditions.
8. Prepare analytical discussion of market conditions and projected pricing results prior to sale. Provide independent pre-pricing analysis to Water Authority prior to sale including market activity, projected results, market supply and demand characteristics, and comparable sale analysis.
9. Coordinate and monitor marketing programs initiated by underwriter to develop pre-sale market interest. Prepare and coordinate placement of notices and advertisements in periodical publications (Bond Buyer, etc.) to stimulate market interest.
10. Assist in development of and recommendation with respect to pre-sale interest rate scale and structure for pre-marketing purposes. Provide recommendation with respect to underwriter retention and syndicate sales prior to sale.
11. Analyze market conditions with respect to underwriters’ compensation; provide comparable transaction comparisons and recommendation with respect to underwriting spread and components thereof. Negotiate with underwriters’ representatives with respect to underwriters’ compensation, including liquidity agreement terms and conditions.
12. Participate in pricing process, monitor order flow to all managers, analyze volume and type of orders, and provide recommendation as to acceptance of offer to underwrite at conclusion of pricing period.
13. Provide pricing analysis and comparisons following sale; document pricing results and provide written report to Water Authority with respect to final pricing and underwriter compensation level; and deliver quantitative schedules showing results of final pricing.

C. Miscellaneous

1. Upon request, assist in reviewing and analyzing legislation that may have a financial impact on the Water Authority.
2. Assist, when requested, by conducting surveys of the financial activities of other major operating utilities.
3. Attend Board meetings and make presentations to the Water Authority's Board, its committees and staff when requested.
4. Prepare graphs, charts, etc. for staff presentations, as needed.
5. Upon request, assist in reviewing and analyzing MWD and State Water issues as they relate to the Water Authority and provide advice, as needed.

The criteria to be used in evaluating and selecting a financial advisor should include:

- Experience in providing formal financial advisory services to major utility issuers;
- Experience with diverse financial structuring requirements of major utility issuers;
- Experience and reputation of assigned personnel; and
- Fees and expenses.

A Municipal Financial Advisor under contract with the Water Authority shall not purchase or sell any Water Authority debt. The Director of Finance shall submit to the Board a recommendation for the appointment of a Financial Municipal Advisor. The recommendation shall be accompanied by an evaluation of options and a justification for the recommended course of action. The Director of Finance shall monitor the services rendered by the Financial Municipal Advisor.

Appointment of Legal Counsel – All debt issued by the Water Authority shall include a written opinion by legal counsel affirming that the Water Authority is authorized to issue the proposed debt, that the Water Authority has met all federal, state, and local legal requirements necessary for issuance and a determination of the proposed debt’s federal income tax status. This approving opinion and other documents relating to the issuance of debt shall be prepared by a nationally recognized legal firm with extensive experience in public finance and tax issues. The General Counsel of the Water Authority shall appoint the legal counsel.

For any negotiated sale of debt in which legal counsel is required to represent the underwriter, the lead underwriter shall make the appointment. Unless otherwise justified, the appointment shall be made from among nationally recognized law firms with significant ownership or operations in California.

Appointment of Trustee and Paying Agent – The Director of Finance shall appoint a fiscal agent to provide for the payment of all debt issued by the Water Authority. The selection of a fiscal agent shall be based upon a competitive evaluation of proposals submitted in response to an RFP.
The Director of Finance shall submit to the Board a recommendation for the appointment of a fiscal agent. The recommendation shall be accompanied by an evaluation of options and a justification for the recommended course of action. The Director of Finance shall monitor the services rendered by the fiscal agent to ensure prompt and efficient service to bondholders.

Appointment of Printer – The Director of Finance shall select a printer as required in conjunction with a proposed sale of bonds, for the purpose of printing and mailing Preliminary Official Statements and Final Official Statements to potential investors and members of the finance team. The selection of a printer shall be based on a competitive evaluation of proposals.

Appointment of Letter of Credit or Liquidity Facility Provider – In order to comply with the requirements of the bond documents and to ensure the liquidity and marketability of the Water Authority’s variable rate debt (including, but not limited to, variable rate bonds and a tax-exempt commercial paper program), the Director of Finance shall take such actions as necessary to procure a letter of credit or line of credit in support of such variable rate debt. The selection of a letter of credit/liquidity bank shall be based on a competitive evaluation of proposals submitted in response to an RFP.

The Director of Finance shall submit to the Board a recommendation for the appointment of a Letter of Credit/Liquidity Facility provider. The recommendation shall be accompanied by an evaluation of options and a justification for the recommended course of action. The Director of Finance shall monitor the trading value and credit ratings of the provider to ensure that the Water Authority’s variable rate debt is remarketed at the lowest possible cost, given the legal and policy considerations governing the selection of the bank.

Appointment of Remarketing Agents – The Director of Finance shall, in conjunction with selecting a letter of credit provider, solicit proposals from commercial paper remarketers/dealers.

Appointment of Verification Agent – In conjunction with the sale of refunding bonds, the Director of Finance shall procure the services of a verification agent. The purpose of the verification agent is to confirm that sufficient proceeds are invested in permitted federal securities and to ensure the timely repayment of principal and interest on the bonds being refunded. The verification agent must be a nationally recognized provider of verification services. The selection of a verification agent shall be based upon a competitive evaluation of proposals submitted in response to an RFP.

Appointment of Underwriters – To provide for the negotiated issuance of Water Authority debt, the Director of Finance shall maintain an Underwriter Pool (Pool). The appointment to the Water Authority’s Pool shall be based upon a competitive evaluation of proposals submitted in response to a Request for Qualifications. The Director of Finance shall submit to the Board a recommendation for the appointment of underwriters to the Pool to serve a three-year term. The size and composition of the Pool shall be based upon the projected financing needs of the Water Authority. Criteria used in the appointment of qualified underwriters to the Pool shall include:
Demonstrated ability serving on complex financial transactions;
Demonstrated ability with major water issuer financings;
Demonstrated ability to structure a debt issue efficiently and effectively;
Demonstrated ability to sell Water Authority debt to institutional and retail investors;
Demonstrated ability to put capital at risk;
Quality and applicability of financing ideas;
Experience and reputation of assigned personnel; and
Indicative fees and expenses.

Prior to any negotiated transactions, an RFP will be issued to the Pool and a financing team recommended to the Board for selection. The composition of the team will be dependent on the size of the sale and the need to achieve a broad distribution of Water Authority debt among both retail and institutional investors. The recommendation shall be accompanied by an evaluation of options and a justification for the recommended course of action.

Following the approval of the underwriting team, the Board shall appoint a lead underwriter. The lead underwriter shall have demonstrated ability to manage a number of firms in a complex financial transaction.

Appointment of Other Service Providers – The Director of Finance will solicit proposals for the following services as needed:

- Continuing Disclosure Agent – Service provider that ensures disclosure documents are disseminated to regulators investors in compliance with regulations continuing disclosure agreements
- Arbitrage Consultant – Service provider that calculates the arbitrage accrued to transactions for the purpose of IRS filings.
- Open Market Securities Agent – Service provider that solicits prices for escrow fund investments and executes the purchase of selected investments.

Section V. Transaction-Specific Policies

Method of Sale

Competitive Bid Method - Unless otherwise justified and deemed necessary to minimize the costs and risks of the Water Authority’s bond issue, the issuance and sale of all fixed rate Water Authority debt shall be achieved by competitive bid. Such bid may take the form of hand-delivered or electronically transmitted offers to purchase the bonds. Any competitive sale of Water Authority debt will require approval of the Board. Water Authority debt issued on a competitive bid basis will be sold to the bidder proposing the lowest true interest cost to the Water Authority provided the bid conforms to the official notice of sale.

Negotiated Bid Method – When necessary to minimize the costs and risks of Water Authority borrowing, the Director of Finance will submit to the Board a request to sell bonds on a negotiated
basis. A negotiated bond issue will provide for the sale of debt by negotiating the terms and conditions of the sale, including price, interest rates, credit facilities, underwriter or remarketing fees, and commissions. Examples of such sales include:

- Variable rate demand obligations;
- An issue of debt so large that the number of potential bidders would be too limited to provide the Water Authority with truly competitive bids;
- An issue requiring the ability to react quickly to sudden changes in interest rates (e.g. refunding bonds);
- An issue requiring intensive marketing efforts to establish investor acceptance;
- An issue of debt with specialized distribution requirements; and
- An issue of debt sold during a period of extreme market disruption or volatility.

If bonds are sold on a negotiated basis, the negotiations of terms and conditions shall include, but not be limited to, prices, interest rates, underwriting or remarketing fees, and commissions. The Water Authority, with the assistance of its Financial Municipal Advisor, shall evaluate the terms offered by the underwriting team. Guidelines with respect to price, interest rates, fees, and commissions shall be based on prevailing terms and conditions in the marketplace for comparable issuers.

If more than one underwriter is included in the negotiated sale of debt, the Water Authority shall establish appropriate levels of liability, participation and priority of orders. Such levels shall be based upon Water Authority policy with regards to the underwriting responsibility among the team members, the desired allocation of total fees, and the desired distribution of bonds. Guidelines for establishing liability, participation, and priority of orders shall be based on prevailing terms and conditions in the marketplace for comparable issuers.

The Water Authority shall, with the assistance of its Financial Municipal Advisor, oversee the bond allocation process. The bond allocation process shall be managed by the lead underwriter, with the following requirements:

- The bonds are allocated fairly among members of the underwriting team, consistent with the previously negotiated terms and conditions;
- The allocation process complies with all MSRB regulations governing order priorities and allocations;
- The lead underwriter shall submit to the Director of Finance a complete and timely account of all orders, allocations, and underwriting activities with the investor names identified as appropriate.

The Director of Finance shall require a post-sale analysis and reporting for each negotiated bond sale. The Financial Municipal Advisor or the lead underwriter may perform such analysis. A post-sale analysis will include, but not be limited to:

- Summary of the pricing, including copies of the actual pricing wires;
- Results of comparable bond sales in the market at the time of the Water Authority’s pricing;
- Detailed information on orders and allocation of bonds, by underwriting firm;
• Detailed information on final designations earned by each underwriter; and
• Summary of total compensation received by each underwriter.

Structural Elements

Pledge of Revenues – The Water Authority’s pledge of revenues shall be determined for each debt issue depending upon the debt instrument:

• General Obligation Bonds of the Water Authority shall be repaid from voter-approved property taxes on property within the jurisdiction of the Water Authority.
• Certificates of Participation of the Water Authority shall be repaid from net revenues, as defined in the General Resolution.
• Revenue Bonds of the Water Authority shall be repaid from net revenues, as defined in the General Resolution.
• Assessment Bonds of the Water Authority shall be repaid levies or charges collected within an assessment district formed by the Water Authority pursuant to the Municipal Improvement Act of 1913.

Maturity – The Water Authority shall issue debt with an average life less than or equal to the average life of the assets being financed. The final maturity of the debt should be no longer than 40 years. Factors to be considered when determining the final maturity of debt include: the average life of the assets being financed, relative level of interest rates, and the year-to-year differential in interest rates.

Maturity Structure – The Water Authority’s long-term debt may include serial and term bonds. Other maturity structures may also be considered if they are consistent with the objectives of the Water Authority’s Debt Management Policy.

Coupon Structure – Debt may include par, discount and premium. Discount and premium bonds must be demonstrated to be advantageous relative to par bond structures. For variable rate debt, the variable rate may be based on one of a number of commonly used interest rate indices and the index will be determined at the time of pricing.

Debt Service Structure – Debt service will be structured primarily on an approximate level (combined annual principal and interest) basis. Certain individual bond issues, such as refunding bonds, may have debt service that is not level. However, on an aggregate basis, debt service should be structured primarily on a level basis.

Redemption Features – In order to preserve flexibility and refinancing opportunities, Water Authority debt will generally be issued with call provisions. The Water Authority may consider calls that are shorter than traditional and/or non-call debt when warranted by market conditions and opportunities. For each transaction, the Water Authority will evaluate the efficiency of call provision alternatives.
Credit Enhancement – The Water Authority shall competitively procure credit enhancement for a sale of bonds if the Director of Finance, in consultation with the Financial Municipal Advisor and the underwriters, determines that it is cost effective to do so.

Senior/Subordinate Lien – The Water Authority shall utilize both a senior and a subordinate lien structure. The choice of lien will be determined based on such factors as overall cost of debt, impact on debt service, impact on water rates, and marketing considerations.

Debt Service Reserve Funds – The Water Authority shall provide for debt service reserve funds to secure Water Authority debt when necessary.

Section VI. Communication and Disclosure

Rating Agencies

The Water Authority shall maintain its strong ratings through prudent fiscal management and consistent communications with the rating analysts. The Director of Finance shall manage relationships with the rating analysts assigned to the Water Authority’s credit, using both informal and formal methods to disseminate information. Communication with the rating agencies shall include:

- Full disclosure on an annual basis of the financial condition of the Water Authority;
- A formal presentation, at least biennially or as becomes necessary to the rating agencies, covering economic, financial, operational, and other issues that impact the Water Authority’s credit;
- Timely disclosure of major financial events that impact the Water Authority’s credit;
- Timely dissemination of the Comprehensive Annual Financial Report, following its acceptance by the Water Authority’s Board;
- Proper notification of debt issuance 30-days in advance;
- Full and timely distribution of any documents pertaining to the sale of bonds; and
- Periodic tours of the water system operations, as appropriate.

Bond Insurers

The Director of Finance shall manage relationships with the analysts and the bond insurers assigned to the Water Authority’s credit, using both informal and formal methods to disseminate information. Communication with the bond insurers shall be undertaken when the Director of Finance, with the assistance of the Water Authority’s Financial Municipal Advisor, determines that credit enhancement is cost effective for a proposed bond issue.

Continuing Disclosure
The Water Authority shall comply with SEC 15c2-12 regulations, which require municipal debt issuers to provide specified financial and operating information for fiscal years beginning on January 1, 1996. The Director of Finance shall be the Compliance Officer for disclosure requirements.

**Investor Relations Program**

The Water Authority shall establish and maintain an Investor Relations Program. The objectives of the program will be to:

- Reduce borrowing costs by improving demand for future bond sales;
- Keep investors continually informed of the issues facing the Water Authority;
- Obtain investor feedback on debt management considerations; and
- Create access to market opportunities such as shorter call provisions or tender programs.

The Water Authority shall use disclosure as a tool for developing ongoing dialogue with investors. The Water Authority’s Investor Relations Program shall consist of the following elements:

**Investor Survey** – The Water Authority will periodically create and disseminate a survey for the purpose of assessing investors needs for specific information. Upon completing a survey, the Water Authority may then prepare a financial disclosure statement for investors.

**Disclosure Reports** – The Water Authority shall make disclosure reports readily available to institutional investors, rating agencies and credit enhancers who have specific analysts assigned to review the Water Authority’s credit. The disclosure reports will include the Annual Debt Transparency Report and final sale report in accordance with SB-1029.

**Web Site** – The Water Authority shall use its website as a tool for providing timely information to investors.

**Section VII. Refunding Policies**

The Water Authority shall strive to refinance debt to maximize savings and minimize the cost of funds as market opportunities arise. A present value analysis will be prepared that identifies the economic effects of any refunding to be proposed to the Board. Upon the advice of the Director of Finance, with the assistance of the Financial Municipal Advisor and Counsel, the Water Authority will consider undertaking refundings for other than economic purposes, such as to restructure debt, change the type of debt instruments being used, or to retire a bond issue and indenture in order to remove undesirable covenants.

**Savings Thresholds** – Minimum savings thresholds have been established to help guide the economic analysis of refunding bonds. The minimum savings guidelines are applicable on a maturity-by-maturity basis and are expressed as a percentage of refunded bond par calculated by dividing the expected net present value savings generated by the proposed refunding by the par
amount of refunded bonds. Generally, the Water Authority shall only refund bonds to generate
debt service savings if the specified minimum savings set forth in the following matrix can be achieved.

To determine if a potential refunding candidate meets the applicable minimum savings threshold
specified in the matrix, the Water Authority shall:

<table>
<thead>
<tr>
<th>Years from Call to Maturity</th>
<th>Years to Call</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-1</td>
</tr>
<tr>
<td>0-2</td>
<td>1%</td>
</tr>
<tr>
<td>3-7</td>
<td>3%</td>
</tr>
<tr>
<td>8-15</td>
<td>4%</td>
</tr>
<tr>
<td>16+</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Step 1.** Identify which specific savings threshold applies to the potential refunding candidate by
determining (a) how many years there are between the expected refunding date and the first call
date and (b) how many years there are from the first call date to the final maturity of the refunding
candidate, as shown in the examples below:

<table>
<thead>
<tr>
<th>Expected Refunding Date</th>
<th>Refunding Candidate First Call Date</th>
<th>Refunding Candidate Final Maturity Date</th>
<th>Minimum Threshold Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-1-2013</td>
<td>12-1-2016 (3 years to call date)</td>
<td>12-1-2027 (11 years call to maturity)</td>
<td>4%</td>
</tr>
<tr>
<td>12-1-2013</td>
<td>12-1-2015 (2 years to call date)</td>
<td>12-1-2022 (7 years call to maturity)</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Step 2.** Determine the expected net present value savings for the potential refunding candidates
on a maturity-specific basis. Net present value savings are the expected net present value savings
resulting from the potential refunding of the specific-maturity refunded bond. Net present value
debt service savings are calculated by discounting the relevant cash flows to the expected refunding
bond closing date at a rate equal to the True Interest Cost of the associated, maturity-specific
refunding bond, and taking into account all costs of issuance, including underwriters’ discount.

**Step 3.** Divide the net present value savings for the specified maturity calculated as described
above by the par amount of the refunded bonds. If the percentage savings calculated is equal to or
greater than the specified minimum savings threshold, the potential refunding candidate is deemed
to meet the minimum savings threshold. If the percentage savings is less than the specified
minimum savings threshold the refunding candidate does not meet the threshold.

As noted previously, the Director of Finance shall have discretion in making the final
determination to include individual refunding candidates that are above or below the target in order
to optimize policy and/or financial objectives. Factors that may be considered by the Director of
Finance include, but are not limited to:
Escrow Investment Yields (Negative Arbitrage) – For advance refundings, the Director of Finance may take into consideration the available escrow yields relative to the refunding bond yields. If the available escrow yields are lower than the refunding bond yields (negative arbitrage), it will reduce the net present value savings otherwise available from the refunding. The Director of Finance may take negative arbitrage into account in assessing the appropriateness of a potential refunding, especially if the present value cost of such negative arbitrage is significant relative to the overall net present values savings expected to be achieved by the refunding.

Coupon on Refunded Bond – The Director of Finance may take into consideration whether the coupon on the refunded bond is significantly higher or lower than the most common outstanding bond coupons of approximately five percent.

General Interest Rate Environment – The Director of Finance may take into consideration whether the available refunding bond interest rates are generally high or generally low relative to long-term averages of historical rates.

General Interest Rate Outlook – The Director of Finance may take into consideration the general outlook for future interest rates, as derived from economic forecasts, market forecasts, implied forward rates, or other sources.

Debt Management Considerations – The Director of Finance may take into consideration debt management issues such as cost and staff efficiencies associated with combining multiple refunding bond issues or combining refunding and new money bond issues.

Section VIII. Reinvestment of Proceeds and Internal Controls on Use of Funds

Compliance with Laws and Other Legal Documents Governing Reinvestment of Proceeds

General – The Water Authority shall comply with all applicable Federal, State, and contractual restrictions regarding the use and investment of bond proceeds. This includes compliance with restrictions on the types of investment securities allowed, restrictions on the allowable yield of some invested funds, as well as restrictions on the time period during over which some bond proceeds may be invested. To the extent that a bond issue is credit enhanced, the Water Authority shall adhere to the investment guidelines of the credit enhancement provider.

Requirements of Resolution – The Water Authority will comply with all terms and conditions of the Resolution No. 89-21. Such limitations shall include, but not be limited to Section 5.06 of the resolution.

Investment Policies — The Water Authority’s Annual Statement of Investment Policy defines the permitted investments for proceeds from debt issuances. The permitted investments comply
with the California State Code. The investment of bond proceeds shall be made in accordance with the Water Authority’s Annual Statement of Investment Policy.

**Internal Controls for Use of Proceeds**
The Treasurer’s Investment Manual outlines the internal controls relating to the investment and management of debt proceeds. The Director of Finance manages the investment of proceeds in accordance with the investment policy. Key elements of the internal controls include dual verification of payments made by wire and department approval of construction invoices remitted by contractors. As discussed below, debt funds are also managed in separate accounts to eliminate the possible use of funds for operating expenditures.

Projects eligible for debt proceeds are limited to projects included in the Water Authority’s current CIP. Debt proceeds are restricted to capital projects with no private activity associated with them. Any project with a private activity benefit are cash funded. Projects eligible for the CIP are determined by the Finance Department and validated by the independent financial auditor.
Section IX. Creation and Maintenance of Funds

The Water Authority maintains a number of different funds integral to the long-range financial planning process. Each of these funds is held for a specific purpose and can generally be categorized as either an operating, capital or debt reserve fund. Operating funds provide the Water Authority with monies for emergencies, working capital and water rate management and consist of the Operating Fund and the Rate Stabilization Fund (RSF). Capital funds, currently the largest component of Water Authority funds, are held strictly for capital expenditures and consist of the Pay-As-You-Go (PAYGO) Fund and Debt Proceeds Fund (which includes both long-term and short-term debt proceeds). Debt reserve funds are held in trust for the benefit of investors in the Water Authority’s long-term debt.

**Operating Fund**

The Operating Fund holds the Water Authority’s working capital, emergency operating reserve and Equipment Replacement Fund. As previously indicated, the Water Authority’s Administrative Code sets the target ending balance of the Operating Fund at 45 days of average annual operating expenditures provided that $5 million of such calculated amount to be designated and held available for emergency repairs to the Water Authority’s system due to unforeseen events. Working capital ensures that even with a cash receipts and disbursements mismatch, the Water Authority will have at least 30 days of Operating Funds on hand at all times. Given the short-term nature of this fund, liquidity of investments is critical and is ensured by investing the Operating Fund on a monthly basis to cover water purchases and ongoing cash disbursements. The Operating Fund, together with water sales revenue and other revenue sources, provide ample liquidity for working capital.

**Stored Water Fund**

The Stored Water Fund provides the working capital necessary to optimize the Water Authority’s local storage assets. Specifically, the Stored Water Fund ensures that funds are available to maintain the target level of local storage at 70,000 acre feet in the San Vincent Reservoir. The fund also recovers any revenues from the sale of emergency waters necessary to replenish the water drawn down.

**Equipment Replacement Fund**

This fund is used to purchase minor capital equipment such as computer systems, vehicles and parts of the Supervisory Control and Data Acquisition (SCADA) system. It is funded by transfers from the Operating Fund per depreciation schedule.
Rate Stabilization Fund ("RSF")

The RSF was created in Fiscal Year 1989-1990 for the purpose of collecting amounts of water revenues greater than expenditures in years of strong water sales. Funds can then be used to mitigate "rate shock" in years of weak water sales, to manage debt service coverage, or to smooth out water rate increases. The RSF is a critical short-term water rate management tool that provides the necessary funds to maintain a smooth water rate pattern over a long period of time. With the new melded supply rate, and the expansion of the Water Authority’s functional areas with treatment and desalination, the RSF will have an increasingly important role in managing hydrology risk and stabilizing annual revenue needs.

Board policy sets a target funding level for the RSF equal to the financial loss resulting from 2.5 years of above average rainfall, calculated at a 95% exceedence level. Additionally, it establishes a maximum funding level equal to the financial loss resulting from 3.5 years of above average rainfall. Defining the target and maximum funding levels of the RSF in terms of the financial impact of above average rainfall matches the size of the fund to the primary risk it is designed to mitigate and provides additional capacity for rate smoothing.

The RSF was created in fiscal year ended 1990 for the purpose of collecting amounts of water revenues in years of strong water sales, which funds can then be used to mitigate "rate shock" in years of weak water sales and/or to manage debt service coverage.

As a general rule, the Water Authority will transfer portions of its net water revenues not required to meet either its debt service coverage ratio requirement or operating fund requirement into the RSF. The Board may choose to budget for RSF deposits resulting in balances in excess of the target level but not in excess of the maximum level for the purposes of rate smoothing. Balances below the target level are to be replenished within three years. As necessary, the Water Authority will transfer amounts from its RSF into net water revenues to meet its debt service coverage requirements, Operating Fund requirements or to smooth rate increases. Interest earnings accrue to the RSF unless the maximum balance is achieved, at which point they will be deposited into the Operating Fund. The RSF is managed so that any funds above the maximum balance will be transferred to the Operating Fund—Operating Fund balances above the existing 45-day policy are subject to discretionary use by the Board.

Again, for long-range financial planning purposes, the RSF is structured, per Board policy, to maintain a minimum balance of at least 25 percent of the Water Authority’s net water sales revenue, defined as total Water Authority water sales revenue less Water Authority water purchases from Metropolitan Water District MWD plus hydroelectric sales revenue. In addition to the minimum balance constraint, the RSF is also constrained by a maximum balance of 100 percent of the average annual water sales and hydroelectric sales revenue projected over a four-year period. Should the RSF ever exceed this 100 percent level, Water Authority staff would bring to the Board options for utilizing the amount of monies in excess of the “maximum.” The RSF is intended to provide funds that would mitigate the need for an unanticipated rate increase in the event of an unexpected decline in water sales. As a result, the RSF is a critical water rate management tool.
that provides the funds necessary to maintain a smooth water rate pattern over a long period of time.

**Pay-As-You-Go Fund**

The PAYGO Fund was established in fiscal year ended 1990 to serve as a mechanism to collect Capacity Charges and Standby Charges to be used to pay for the cash portion of the CIP. The PAYGO Fund is a “capital fund”, as opposed to a “reserve fund,” meaning that the monies in the fund will be spent directly on capital expenditures, not held in reserve for some other purpose. The PAYGO Fund is projected to be spent over the next eleven years in conjunction with cash generated by operations to fund the pay-as-you-go portion of the CIP. Typically, the annual expenditure of PAYGO funds corresponds to a percentage of the annual CIP expenditure for a particular year, as dictated by the optimal funding mix derived through the long-range computer modeling process.

**Debt Proceeds Fund**

Similar to the PAYGO Fund, the Debt Proceeds Fund also holds capital funds for eventual expenditure towards the Water Authority’s CIP. Monies deposited into the Debt Proceeds Fund are produced by the Water Authority’s sale of tax-exempt securities in the form of long-term and short-term debt. Upon the sale of any single issue of tax-exempt debt, federal tax law currently dictates that the Water Authority must reasonable expect to spend the proceeds of the issue within three years. As a result, the Debt Proceeds Fund will typically fluctuate over two-to-three year periods as funds are raised through debt issuance every two-to-three years and then largely spent prior to the next issuance.
Debt Service Reserve Fund

Debt Service Reserve Funds maybe be required under legal documents governing the issuance of the Water Authority’s long-term debt. They are funded as either a percentage of the par amount of long-term debt issued or as one year of debt service on the issue and are held in trust for the benefit of investors in the debt issued. The funds may be used for debt service on an issue, if for any reason the Water Authority is unable to make a scheduled payment. In lieu of holding a cash-funded reserve fund, the Water Authority may substitute a surety bond or other credit facility in its place. The decision to cash-fund a reserve fund versus using a credit facility is dependent upon the cost of the credit facility and the investment opportunities and restrictions on a cash-funded reserve fund.

Section X. Compliance

Arbitrage Liability Management

The Water Authority shall minimize the cost of arbitrage rebate and yield restrictions while strictly complying with tax law. Because of the complexity of arbitrage rebate regulations and the severity of non-compliance penalties, the Water Authority shall solicit the advice of bond counsel and other qualified experts about arbitrage rebate calculations. The Water Authority shall contract with a qualified third-party for preparation of the arbitrage rebate calculation.

The Water Authority shall maintain an internal system for tracking expenditure of bond proceeds and investment earnings. The expenditure of bond proceeds shall be tracked in the financial accounting system by issue. Investment may be pooled for financial accounting purposes and for investment purposes. When investment of bond proceeds are co-mingled with other investments, the Water Authority shall adhere to IRS rules on accounting allocations.

Post-Issuance Tax Compliance

The Water Authority has adopted Written Procedures to Ensure Compliance with Requirements for Tax-Exempt Bonds Found in Appendix C and Written Procedures for Issuance of Direct Pay Build America Bonds found in Appendix D. The Water Authority shall comply with such procedures to maintain the tax-exempt status of Water Authority debt obligations or to maintain eligibility for direct pay subsidy payments, as applicable.

Continuing Disclosure

The Water Authority shall comply with the requirements of each Continuing Disclosure Certificate entered into at the time of a sale of bonds. Annual information provided by the Water Authority shall mirror the information in any Water Authority Official Statement at the time of a primary offering. Annual financial information will be sent by the Water Authority, within six months of fiscal year end, to all Nationally Recognized Municipal Information Depositories (NRMSIRs).
designated by the SEC and to the State Information Depository (SID), if one exists. The MSRB’s Electronic Municipal Market Access (EMMA) service. This shall include:

- Comprehensive Annual Financial Report of the Water Authority; and
- Updated tables from the Official Statement, as detailed in the Continuing Disclosure Certificate.

In addition to annual disclosure, the Water Authority shall provide ongoing information about certain enumerated events, as defined by regulation, to the MSRB and to the SID. Such notification shall be made electronically by an authorized officer of the Water Authority by certified mail, with copies to the Water Authority Board.

The Water Authority shall engage a firm to assist it in ensuring timely completion and filing of annual reports and in identifying, and making timely filings with respect to, the occurrence of reportable enumerated events.

**Legal Covenants**

The Water Authority shall comply with all covenants and conditions contained in governing law and any legal documents entered into at the time of a bond offering.

**Section XI. Debt Database Management**

The Water Authority shall maintain complete information on its outstanding debt portfolio, in a spreadsheet or database program format. The information in the database shall include, but not be limited to, the following:

- Issue Name
- Initial Issue Par Amount
- Dated Date of the Issue
- Principal Maturity Amounts
- Coupon Rate by Maturity
- Amount Outstanding
- Call Provisions
- Purpose of the Issue
- Credit Enhancer, if any
- Competitive or Negotiated Sale
- Names of Underwriting Team Members
- Other?

The Water Authority shall use the debt database for the following purposes:

- Generate reports
- Gross annual debt service
- Net annual debt service
- Refunding Analyses
- Output to Fund Accounting System
May 17, 2017

Attention: Administrative and Finance Committee

Controller’s Report on Monthly Financial Reports. (Information)

Purpose
The purpose of the Controller’s Report is to provide monthly financial information to the Board of Directors.

Financial Reports
Attached for review by the Administrative and Finance Committee and the Board of Directors are the following financial reports:

1. Water Sales Volumes, in acre-feet
2. Water Sales Revenues, in millions
3. Water Purchases and Treatment Costs, in millions
4. Budget Status Report
5. Operating Departments Expenses, in millions
6. Schedule of Cash and Investments

The Budget Status Report (Attachment 4) compares actual revenues and expenses, on a budgetary basis, for the twenty-one month period of July 1, 2015 through March 31, 2017, to the period-to-date amended budget. Budgeted amounts for the twenty-one month period are presented on a straight-line basis unless noted herein. Water sales and purchases are budgeted based on projected monthly volume in acre-feet. Period-to-date budgeted revenue categories were all adjusted to reflect the expected timing of receipt. In addition, certain period-to-date budgeted expense categories were adjusted for periodic items and include the following: stored water purchases, debt service, QSA mitigation, annual insurance premiums, and contributions to the Six Agency Fund.

Net Water Sales Revenue¹
Net Water Sales Revenue is the Water Authority’s principal source of revenue and is the difference between the sale of water and the cost of that water. Sales include revenues from variable commodity charges for supply, treatment and transportation, as well as from fixed charges for customer service, emergency storage, infrastructure access charge, and supply reliability. Cost of water includes payments to water suppliers such as Metropolitan Water District (MWD), Imperial Irrigation District (IID), and Poseidon Resources (Channelside) LP.

¹ All information regarding water sales volumes, revenues and costs are based on the Adopted Multi-Year Budget for Fiscal Years 2016 and 2017.
Net Water Sales Revenue for the twenty-one months ended March 31, 2017 was $243.8 million, trending $12.8 million or 6 percent higher than the period-to-date budgeted amount of $231.0 million. Water Purchases and Treatment costs are trending below projections due to reduced water sales and later start-up of desalination than financially projected. Detailed information relating to Net Water Sales Revenue is described below and shown in Attachments 1, 2, and 3.

Total acre-feet (AF) of water sold were budgeted to be 746,573 AF for the twenty-one months ended March 31, 2017. The actual water sales volume was 715,088 AF, trending 31,485 AF or 4 percent lower than budgeted (Attachment 1). Total Water Sales Revenue for the twenty-one months ended March 31, 2017 was $949.3 million, trending $52.0 million or 5 percent lower than the period-to-date budgeted amount of $1,001.3 million (Attachment 2). The decrease was due to mandatory water-use restrictions, continued water conservation efforts across the region, and the reduced need for outdoor irrigation in response to the state-mandated conservation targets. Beginning June 2016 through January 2017, the San Diego region was not subject to state-mandated water-use reductions as determined by the State Water Resources Control Board. On February 8, 2017, the State Board re-adopted and extended the emergency drought regulation for another 270 days and that remained in effect until April 7, 2017, when the Governor declared an end to the drought emergency.

Total Water Purchases and Treatment costs were budgeted at $770.3 million for the twenty-one months ended March 31, 2017. Actual costs were $705.5 million, trending $64.8 million or 8 percent lower than budgeted (Attachment 3). This cost category included $110.3 million for the 175,000 AF of water purchased from IID, and $136.9 million for MWD’s conveyance charges related to IID, Coachella Canal and All-American Canal water. Also reflected in actual costs was water purchased from Poseidon Resources (Channelside) LP of approximately $127.9 million for the twenty-one month period.

**Revenues and Other Income**

As shown in Attachment 4, total Revenues and Other Income were budgeted at $164.1 million for the twenty-one month period ended March 31, 2017. Actual revenues were $172.1 million, trending $8.0 million higher than budgeted. The variance is explained in detail below.

Categories of revenues in which actual revenues trended higher than the twenty-one month period-to-date budget included the following: Other Income, Capacity Charges, Grant Reimbursements, Property Taxes and In-Lieu Charges, and Investment Income. Actual Other Income was trending $4.6 million higher than period-to-date budgeted amount due to miscellaneous and intergovernmental revenue reimbursements. Capacity Charges are trending higher than budgeted by approximately $3.3 million due to an increase in the number of permits issued. Actual Grant Reimbursements revenue for Integrated Regional Water Management Program Grants (IRWMP) was trending $2.2 million higher than the period-to-date budget as a result of the timing of reimbursement requests received from the granting agency. Actual Property Taxes and In-Lieu Charges and Investment Income were trending higher than budgeted by $0.7 million and $0.5 million, respectively, due to more revenue than anticipated for the twenty-one months ended March 31, 2017.
Categories of revenues in which actual revenues trended lower than the twenty-one month period-to-date budget included the following: Contributions in Aid of Capital Improvement Program (CIAC), Hydroelectric Revenue, and Water Standby Availability Charges. Actual CIAC revenue was trending lower than budgeted by $2.6 million due to less than anticipated receipts during the twenty-one month period. Hydroelectric Revenue was budgeted for the Lake Hodges Pumped Storage Facility (Hodges Hydro) and the Rancho Penasquitos Pressure Control and Hydroelectric Facility (Rancho Hydro). Actual hydroelectric revenues were trending lower than the period-to-date budget by $0.5 million because the sale of hydroelectric power generated by Rancho Hydro continues to be impacted by reduced water demand and the resulting low flows due to conservation efforts in the region. Actual Water Standby Availability Charges was trending lower than the period-to-date budget by $0.4 million due to less than anticipated receipts.

**Expenses**

As shown in Attachment 4, total Expenses were budgeted at $418.6 million for the twenty-one month period ended March 31, 2017. Actual expenses were $395.0 million, trending $23.6 million lower than budgeted. The variance is explained in detail below.

Overall Operating Departments expenses shown in Attachment 5 were trending less than budgeted by $10.5 million for the twenty-one month period ended March 31, 2017 due to staff vacancies and the timing of expenses.

Debt Service expenses totaled $204.0 million for the twenty-one month period ended March 31, 2017, trending $11.5 million lower than budgeted. The variance was attributed to fees on short-term debt and commercial paper interest expense trending less than budgeted, in addition to the cash flow savings from the prior year refunding transactions. Actual Grant Expenses were trending $1.4 million lower than the period-to-date budget resulting from the timing in expense recognition of pass-through IRWMP grants. Actual Hodges Pumped Storage and Equipment Replacement were trending lower than budgeted by $0.4 million and $0.2 million, respectively, for the twenty-one months ended March 31, 2017.

Other Expenses were budgeted at $1.0 million from the approved prior year carryover of funds from the Fiscal Years 2014 and 2015 Public Outreach and Conservation (POC) budget for drought response outreach and water conservation, as approved by the Board in May 2015. Actual Other Expenses totaled $1.4 million for the twenty-one month period ended March 31, 2017, including $1.0 million for POC costs and $0.4 million for other miscellaneous costs.

**CIP Expenses**

Attachment 4 shows that CIP Expenses were budgeted at $128.9 million and actual expenses were $123.6 million for the twenty-one month period ended March 31, 2017, trending $5.3 million lower than budgeted.

Actual CIP expenses were funded 34 percent by Pay As You Go Fund and 66 percent by CIP/Bond Construction Fund for the twenty-one month period ended March 31, 2017. Bond
proceeds from the Series 2010B Water Revenue Bonds (Build America Bonds) have been fully expended. CIP expenses will continue to be funded by Pay As You Go Fund.

**Cash and Investments**
As of March 31, and February 28, 2017, the overall balance in the Water Authority’s cash and investments was $419.6 million and $409.8 million, respectively (Attachment 6). As of March 31, 2017, the cash and investments balance was approximately 57 percent unrestricted funds with the remaining 43 percent of funds restricted for specific purposes. To maximize investment returns, the Water Authority Treasurer pools the cash of the Pay As You Go Fund with total unrestricted funds. As of March 31, 2017, the Rate Stabilization Fund was funded at $125.9 million, approximately 92 percent of the maximum approved level of $136.4 million.

Prepared by: Jocelyn Matsuo, Senior Accountant
Reviewed by: Joy Kleber, Accounting Supervisor
Approved by: Chris Woidzik, Controller

Attachments:
Attachment 1 – Water Sales Volumes
Attachment 2 – Water Sales Revenues
Attachment 3 – Water Purchases and Treatment Costs
Attachment 4 – Budget Status Report
Attachment 5 – Operating Departments Expenses
Attachment 6 – Schedule of Cash and Investments
WATER SALES VOLUMES
Budget Versus Actual (in Acre-Feet)
for the 21 Months Ended March 31, 2017

*Budgeted amounts are based on the Adopted Multi-Year Budget for Fiscal Years 2016 and 2017.

Fiscal Year 2016 Cumulative Water Sales (AF)

<table>
<thead>
<tr>
<th>Months</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
<th>Oct-16</th>
<th>Nov-16</th>
<th>Dec-16</th>
<th>Jan-16</th>
<th>Feb-16</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
<th>Jun-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Budget (a)</td>
<td>49,896</td>
<td>99,581</td>
<td>144,532</td>
<td>183,281</td>
<td>214,658</td>
<td>242,547</td>
<td>266,410</td>
<td>288,249</td>
<td>315,451</td>
<td>348,266</td>
<td>386,829</td>
<td>432,700</td>
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<tr>
<td>Actual</td>
<td>36,382</td>
<td>77,854</td>
<td>116,497</td>
<td>154,539</td>
<td>188,620</td>
<td>217,409</td>
<td>237,188</td>
<td>266,411</td>
<td>292,703</td>
<td>326,962</td>
<td>364,821</td>
<td>402,066</td>
</tr>
<tr>
<td>AF Difference (b)</td>
<td>(13,514)</td>
<td>(21,727)</td>
<td>(28,035)</td>
<td>(28,742)</td>
<td>(26,038)</td>
<td>(25,138)</td>
<td>(29,222)</td>
<td>(21,838)</td>
<td>(22,748)</td>
<td>(21,304)</td>
<td>(22,008)</td>
<td>(30,634)</td>
</tr>
<tr>
<td>Cum. Actual AF</td>
<td>-27%</td>
<td>-22%</td>
<td>-19%</td>
<td>-16%</td>
<td>-12%</td>
<td>-10%</td>
<td>-11%</td>
<td>-8%</td>
<td>-7%</td>
<td>-6%</td>
<td>-6%</td>
<td>-7%</td>
</tr>
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</table>

Fiscal Year 2017 Cumulative Water Sales (AF)

<table>
<thead>
<tr>
<th>Months</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
<th>Oct-16</th>
<th>Nov-16</th>
<th>Dec-16</th>
<th>Jan-16</th>
<th>Feb-16</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
<th>Jun-16</th>
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<td>99,083</td>
<td>143,809</td>
<td>182,364</td>
<td>213,584</td>
<td>241,335</td>
<td>265,078</td>
<td>286,807</td>
<td>313,873</td>
<td>346,524</td>
<td>394,894</td>
<td>430,537</td>
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<tr>
<td>Actual</td>
<td>46,252</td>
<td>95,043</td>
<td>138,751</td>
<td>183,297</td>
<td>222,475</td>
<td>250,236</td>
<td>270,866</td>
<td>291,691</td>
<td>313,022</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AF Difference (b)</td>
<td>(3,395)</td>
<td>(4,040)</td>
<td>(5,058)</td>
<td>933</td>
<td>8,891</td>
<td>8,901</td>
<td>5,908</td>
<td>4,884</td>
<td>(851)</td>
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<tr>
<td>Cum. Actual AF</td>
<td>-7%</td>
<td>-4%</td>
<td>-4%</td>
<td>1%</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
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<td>0%</td>
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<th></th>
<th>FY16</th>
<th>FY17 through Mar-17</th>
<th>Total</th>
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<tr>
<td>Budget</td>
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<td>313,873</td>
<td>746,573</td>
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<td>Actual</td>
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<td>313,022</td>
<td>715,088</td>
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<tr>
<td>Difference</td>
<td>(30,634)</td>
<td>(851)</td>
<td>(31,485)</td>
</tr>
<tr>
<td>% Difference</td>
<td>-7%</td>
<td>0%</td>
<td>-4%</td>
</tr>
</tbody>
</table>
*Budgeted amounts are based on the Adopted Multi-Year Budget for Fiscal Years 2016 and 2017.

Fiscal Year 2016 Cumulative Water Sales (in Millions $)

<table>
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<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>*Budget (a)</td>
<td>59.0</td>
<td>117.5</td>
<td>172.3</td>
<td>220.7</td>
<td>262.0</td>
<td>300.2</td>
<td>336.7</td>
<td>371.0</td>
<td>410.6</td>
<td>455.9</td>
<td>507.2</td>
<td>565.8</td>
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<tr>
<td>Actual</td>
<td>44.5</td>
<td>94.3</td>
<td>141.4</td>
<td>187.7</td>
<td>230.4</td>
<td>267.8</td>
<td>299.9</td>
<td>341.5</td>
<td>379.8</td>
<td>425.7</td>
<td>475.3</td>
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<td>Difference (b)</td>
<td>(14.5)</td>
<td>(23.2)</td>
<td>(30.9)</td>
<td>(33.0)</td>
<td>(31.6)</td>
<td>(32.4)</td>
<td>(36.8)</td>
<td>(29.5)</td>
<td>(30.2)</td>
<td>(31.9)</td>
<td>(40.9)</td>
<td></td>
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<tr>
<td>Cum. Actual</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>% Difference (b/a)</td>
<td>-25%</td>
<td>-20%</td>
<td>-18%</td>
<td>-15%</td>
<td>-12%</td>
<td>-11%</td>
<td>-11%</td>
<td>-8%</td>
<td>-8%</td>
<td>-7%</td>
<td>-6%</td>
<td>-7%</td>
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Fiscal Year 2017 Cumulative Water Sales (in Millions $)

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<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Budget (a)</td>
<td>63.2</td>
<td>126.1</td>
<td>183.9</td>
<td>235.2</td>
<td>279.4</td>
<td>320.3</td>
<td>358.4</td>
<td>394.2</td>
<td>435.5</td>
<td>482.7</td>
<td>536.0</td>
<td>597.0</td>
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<tr>
<td>Actual</td>
<td>58.1</td>
<td>118.4</td>
<td>173.7</td>
<td>229.7</td>
<td>280.3</td>
<td>319.8</td>
<td>364.2</td>
<td>388.0</td>
<td>424.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Difference (b)</td>
<td>(5.1)</td>
<td>(7.7)</td>
<td>(10.2)</td>
<td>(5.5)</td>
<td>0.9</td>
<td>(0.5)</td>
<td>(4.2)</td>
<td>(6.2)</td>
<td>(11.1)</td>
<td></td>
<td></td>
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<td>Cum. Actual</td>
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<tr>
<td>% Difference (b/a)</td>
<td>-8%</td>
<td>-6%</td>
<td>-6%</td>
<td>-2%</td>
<td>0%</td>
<td>0%</td>
<td>-1%</td>
<td>-2%</td>
<td>-3%</td>
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WATER SALES REVENUES
Budget Versus Actual (in Millions $)
for the 21 Months Ended March 31, 2017

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<td>262.0</td>
<td>300.2</td>
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<td>371.0</td>
<td>410.6</td>
<td>455.9</td>
<td>507.2</td>
<td>565.8</td>
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<tr>
<td>Actual</td>
<td>44.5</td>
<td>94.3</td>
<td>141.4</td>
<td>187.7</td>
<td>230.4</td>
<td>267.8</td>
<td>299.9</td>
<td>341.5</td>
<td>379.8</td>
<td>425.7</td>
<td>475.3</td>
<td>524.9</td>
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<tr>
<td>Difference (b)</td>
<td>(14.5)</td>
<td>(23.2)</td>
<td>(30.9)</td>
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<td>(31.6)</td>
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<tr>
<td>% Difference (b/a)</td>
<td>-25%</td>
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<td>-18%</td>
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<td>-8%</td>
<td>-8%</td>
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</table>

Fiscal Year 2016 Cumulative Water Sales (in Millions $)

<table>
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<tr>
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</thead>
<tbody>
<tr>
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<td>220.7</td>
<td>262.0</td>
<td>300.2</td>
<td>336.7</td>
<td>371.0</td>
<td>410.6</td>
<td>455.9</td>
<td>507.2</td>
<td>565.8</td>
</tr>
<tr>
<td>Actual</td>
<td>44.5</td>
<td>94.3</td>
<td>141.4</td>
<td>187.7</td>
<td>230.4</td>
<td>267.8</td>
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<td>341.5</td>
<td>379.8</td>
<td>425.7</td>
<td>475.3</td>
<td>524.9</td>
</tr>
<tr>
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<td>(30.9)</td>
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<td>(31.6)</td>
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<td>(36.8)</td>
<td>(29.5)</td>
<td>(30.2)</td>
<td>(31.9)</td>
<td>(40.9)</td>
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<td>Cum. Actual</td>
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</tr>
<tr>
<td>% Difference (b/a)</td>
<td>-25%</td>
<td>-20%</td>
<td>-18%</td>
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<td>-11%</td>
<td>-8%</td>
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</table>

Fiscal Year 2017 Cumulative Water Sales (in Millions $)

<table>
<thead>
<tr>
<th>Months</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
<th>Oct-16</th>
<th>Nov-16</th>
<th>Dec-16</th>
<th>Jan-17</th>
<th>Feb-17</th>
<th>Mar-17</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
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<tr>
<td>*Budget (a)</td>
<td>63.2</td>
<td>126.1</td>
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<td>235.2</td>
<td>279.4</td>
<td>320.3</td>
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<td>394.2</td>
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<td>482.7</td>
<td>536.0</td>
<td>597.0</td>
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<tr>
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<td>58.1</td>
<td>118.4</td>
<td>173.7</td>
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<td>319.8</td>
<td>364.2</td>
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<td>424.4</td>
<td>-</td>
<td>-</td>
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<td>(7.7)</td>
<td>(10.2)</td>
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<td>(0.5)</td>
<td>(4.2)</td>
<td>(6.2)</td>
<td>(11.1)</td>
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<tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17 through Mar-17</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Budget</td>
<td>565.8</td>
<td>435.5</td>
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<td>% Difference</td>
<td>-7%</td>
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<td>-5%</td>
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*Budgeted amounts are based on the Adopted Multi-Year Budget for Fiscal Years 2016 and 2017, as amended by the Board.

### Fiscal Year 2016 Cumulative Cost of Water Purchases and Treatment (in Millions $)

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
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<td>166.6</td>
<td>200.2</td>
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<td>258.8</td>
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<td>313.6</td>
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<td>432.9</td>
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<td>96.7</td>
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<td>156.2</td>
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<td>225.0</td>
<td>243.0</td>
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<tr>
<td>% Difference (b/a)</td>
<td>-1%</td>
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### Fiscal Year 2017 Cumulative Cost of Water Purchases and Treatment (in Millions $)

<table>
<thead>
<tr>
<th>Months</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
<th>Oct-16</th>
<th>Nov-16</th>
<th>Dec-16</th>
<th>Jan-17</th>
<th>Feb-17</th>
<th>Mar-17</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
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<td>91.9</td>
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<td>(5.3)</td>
<td>(10.7)</td>
<td>(15.7)</td>
<td>(19.0)</td>
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<tr>
<td>Cum. Actual</td>
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<tr>
<td>% Difference (b/a)</td>
<td>-23%</td>
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<td>-8%</td>
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</table>

### Summary Table

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17 through Mar-17</th>
<th>Total</th>
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<tr>
<td>Budget</td>
<td>432.9</td>
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<td>770.3</td>
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<td>705.5</td>
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<td>Difference</td>
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<td>(19.0)</td>
<td>(64.8)</td>
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<tr>
<td>% Difference</td>
<td>-11%</td>
<td>-6%</td>
<td>-8%</td>
</tr>
</tbody>
</table>
### San Diego County Water Authority

**Fiscal Years 2016 and 2017 Budget Status Report**

For the 21 Months Ended March 31, 2017

<table>
<thead>
<tr>
<th>[A]</th>
<th>[B] = [A * 88%]</th>
<th>[C]</th>
<th>Revenues = [-B + C]</th>
<th>[C / A]</th>
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<tbody>
<tr>
<td>FY 2016 &amp; 2017</td>
<td>FY 2016 &amp; 2017 Amended Budget</td>
<td>21 Months (88%)</td>
<td>Period-to-Date</td>
<td>Amended Budget</td>
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<tr>
<td></td>
<td>Amended Budget</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Variance with</td>
<td>Positive (Negative)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Amended Budget</td>
<td></td>
</tr>
</tbody>
</table>

#### Net Water Sales Revenue

- **Water Sales**: $1,162,792,404
- **Water Purchases & Treatment**: 895,904,361
- **Total Net Water Sales Revenue**: 2,058,696,765

#### Revenues and Other Income

- **Infrastructure Access Charges**: 61,295,000
- **Property Taxes and In-Lieu Charges**: 23,400,000
- **Investment Income**: 9,233,000
- **Hydroelectric Revenue**: 7,000,000
- **Grant Reimbursements**: 20,978,000
- **Other Income**: 523,000
- **Capital Contributions (see below)**: 85,685,196

#### Expenses

- **Stored Water Purchases (q)**: 72,082,756
- **Debt Service**: 282,804,000
- **QSA Mitigation**: 24,011,000
- **Equipment Replacement**: 22,500,000
- **Grant Expenses**: 18,108,000
- **Other Expenses**: 1,000,000
- **Operating Departments (see below)**: 97,097,615

#### Total Revenues and Other Income

- **Total Revenues**: 462,693,043

#### Total Expenses

- **Total Expenses**: 503,586,436

#### Net Revenues Before CIP

- **Net Revenues Before CIP**: $(40,875,393)

#### CIP Expenses

- **CIP Expenses**: $146,525,000

#### CIP Expenses by Funding Source

- **Pay As You Go Fund**: $42,506,586 (34%)
- **CIP/Bond Construction Fund**: 81,050,401 (66%)

#### Total CIP Expenses by Funding Source

- **Total CIP Expenses by Funding Source**: $123,556,987

#### Operating Departments Detail (see Attachment 5)

- **Administrative Services**: $14,835,496
- **Colorado River Program**: 3,223,420
- **Engineering**: 7,306,798
- **Finance**: 4,976,484
- **General Counsel**: 7,391,815
- **General Manager & Board of Directors**: 6,028,554
- **MWD Program**: 4,089,529
- **Operations & Maintenance**: 32,225,807
- **Public Outreach and Conservation**: 8,764,660
- **Water Resources**: 8,255,052

#### Total Operating Departments

- **Total Operating Departments**: $97,097,615

- **Positive (Negative) Variance with Amended Budget**: (52,014,488) 82%
Notes to the Budget Status Report:

a) Period-to-date budgeted amounts are 21/24ths (88%) of Fiscal Years 2016 and 2017 amended budget unless noted.

b) Water sales and water purchases period-to-date budgeted amounts are based on projected acre-feet calculated per month.

c) Property taxes are primarily received in December and April. In-lieu charges in the amount of $499,986 for Fiscal Year 2016 and $524,106 for Fiscal Year 2017 are received quarterly from the City of San Diego.

d) Investment income excludes unrealized gains/losses, which are non-cash transactions.

e) Hydroelectric revenue budget amount includes Rancho Penasquitos Pressure Control and Hydroelectric Facility (Rancho Hydro) and Lake Hodges Pumped Storage Facility (Hodges Hydro). Power generating from both locations are sold to San Diego Gas and Electric.

f) Capacity charges are primarily received in July, October, January and April, after the quarterly period ends, and accrued revenue are recorded for the quarter ending June.

g) Water standby availability charges are primarily received in January and May.

h) Contributions in aid of capital improvement program include planned reimbursements for miscellaneous projects.

i) Bonds and Certificates of Participation debt service payments due semi-annually on November 1 and May 1. Pipeline Bonds, Series 2012 debt service payments due semi-annually on July 1 and January 1. Debt Service includes principal, interest expense, and debt service fees. Amortization expense relating to long-term debt, such as discounts, premiums, and deferred loss on refunding are excluded because they are non-cash transactions.

j) The QSA mitigation payments includes: QSA JPA Fiscal Year 2016 contributions of $2,000,000 due July 2015 and $6,076,346 due December 2015; QSA JPA Fiscal Year 2017 contributions of $1,800,000 due July 2016 and $8,254,386 due December 2016; IID Socioeconomic Mitigation Settlement payments of $2,940,000 due June 2016 and June 2017.

k) Amounts include capital equipment purchases.

l) Stored water purchases budgeted to purchase 19,000 AF and 38,000 AF in Fiscal Years 2016 and 2017, respectively, to fill San Vicente Reservoir.

m) Period-to-date budgeted amounts adjusted based on items occurring on a periodic basis.

n) Other Expenses were budgeted at $1 million from the approved prior year carryover of funds from the Fiscal Years 2014 and 2015 Public Outreach and Conservation (POC) budget. Actual expenses include POC costs of $983,349 and miscellaneous costs of $373,419, for total period-to-date costs of $1,356,768.

o) The semi-annual subsidy payments from the United States Treasury equal to 35 percent of the interest payable on the Series 2010B Bonds were reduced under Congressionally-mandated sequestration by $768,601 for Fiscal Year 2016 and $384,301 for Fiscal Year 2017.

p) Actual investment income includes the change in accruals for unrealized gains/losses and accrued interest.

q) The Stored Water Fund supports the purchase of water for inventory and storage, budgeted as Stored Water Purchases, to fill the San Vicente Reservoir as a result of raising the dam. The inventory may be resold in the future.

r) In June 2016, the Board approved the mid-term budget adjustments.

s) In September 2016, the Board amended the Capital Improvement Program two-year appropriation by an increase of $9.7 million.
San Diego County Water Authority
Comparison of Amended Budget and Period-to-Date Amended Budget (88% Overall)
to Actual Operating Expenses by Departments
For the 21 Months Ended March 31, 2017

Actual Operating Expenses to Amended Budget in Percentages (%)
San Diego County Water Authority  
Schedule of Cash and Investments  
As of March 31, and February 28, 2017

<table>
<thead>
<tr>
<th>Fund</th>
<th>March</th>
<th>February</th>
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<tr>
<td>Operating Fund</td>
<td>$112,986,327</td>
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<td>$79,800,000</td>
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<tr>
<td>Stored Water Fund</td>
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<td></td>
</tr>
<tr>
<td>(4)</td>
<td></td>
<td></td>
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<tr>
<td>Equipment Replacement Fund</td>
<td>1,437,040</td>
<td>1,598,018</td>
<td></td>
</tr>
<tr>
<td>Rate Stabilization Fund</td>
<td>125,854,227</td>
<td>125,783,693</td>
<td>$89,300,000</td>
</tr>
<tr>
<td>Total Unrestricted Funds</td>
<td>57%</td>
<td>55%</td>
<td>226,999,467</td>
</tr>
<tr>
<td>Pay As You Go Fund</td>
<td>153,882,780</td>
<td>157,312,269</td>
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</tr>
<tr>
<td>CIP/Bond Construction Funds</td>
<td>2,958,306</td>
<td>2,956,994</td>
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<tr>
<td>Debt Service Reserve Funds</td>
<td>22,498,967</td>
<td>22,492,289</td>
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<tr>
<td>Total Restricted Funds</td>
<td>43%</td>
<td>45%</td>
<td>182,761,552</td>
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<tr>
<td>Total Cash and Investments</td>
<td>$419,617,647</td>
<td>$409,761,019</td>
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</table>

Notes:

(1) Total Unrestricted Funds and the Pay As You Go Fund represent the Pooled Funds in the Treasurer’s Report.

(2) The Operating Fund is set to equal 45-days of operating expenses.

(3) In 2006, the Board adopted the current policy governing the Rate Stabilization Fund (RSF) balances. The policy created a target and a maximum RSF balance. The RSF target balance is equal to the financial impact of 2.5 years of wet weather or mandatory drought regulations and the RSF maximum balance is set equal to the financial impact of 3.5 years of wet weather or mandatory drought regulations. The effect of the current policy is to create a target for fund balances that is tied to the real financial impacts/risks that the fund is designed to protect against. The current balance in this fund represents approximately 141% of the targeted value of $89,300,000 and 92% of the maximum balance of $136,400,000.

(4) No cash balance is required in the Stored Water Fund (SWF) at this time. In December 2016, the Board directed the SWF to only hold a cash position if the cost to replace the 70,000 target acre feet of water is below the current value in the Fund.
JUNE 2017

- 06 Special Administrative and Finance Committee Meeting - Budget Workshop at 1:30 – 3:30 p.m.
- 07 MWD Delegates meeting at 11:00 a.m.
- 08 Special Administrative and Finance Committee Meeting - Budget Workshop at 1:30 – 3:30 p.m.
- 22 Committees begin at 9:00 a.m.
  Formal Board meeting begins at 3:00 p.m.

JULY 2017

- 05 MWD Delegates meeting at 11:00 a.m.
- 13 Cancelled – No Special Board Meeting
- 27 Committees begin at 9:00 a.m.
  Formal Board meeting begins at 3:00 p.m.

AUGUST 2017

- 09 MWD Delegates meeting at 11:00 a.m.
- 10 Tentative Special Board Meeting at 1:30 p.m.
- 24 Committees begin at 9:00 a.m.
  Formal Board meeting begins at 3:00 p.m.
May 17, 2017

Attention: Administrative and Finance Committee

CLOSED SESSION:
Conference with Legal Counsel – Anticipated Litigation
Government Code §54956.9(d)(4)
Deciding to Initiate Litigation – One Case

Purpose
This memorandum is to recommend a closed session, pursuant to Government Code §54956.9(d)(4), to discuss the above-referenced matter at the May 25, 2017 meeting.

A closed session has also been included on the agenda of the formal Board of Directors’ meeting. Unless the Board desires additional discussion, it is not staff’s intention to ask for a closed session with the full Board at that time, but staff may request action to confirm directions given or action recommended by the committee.

Prepared by: Mark J. Hattam, General Counsel
LEGISLATION AND PUBLIC OUTREACH COMMITTEE

AGENDA FOR

MAY 25, 2017

Christy Guerin – Chair
Matt Hall – Vice Chair
Yen Tu – Vice Chair
Gary Arant
Jerry Butkiewicz
Gary Croucher
Betty Evans
Ed Gallo

Kristin Gaspar
Frank Hilliker
Jim Madaffer
Ron Morrison
Mark Muir
Joel Scalzitti
Fern Steiner

1. Roll call – determination of quorum.

2. Additions to agenda (Government Code Section 54954.2(b)).

3. Public comment – opportunities for members of the public to address the Committee on matters within the Committee’s jurisdiction.

4. Chair’s report.
   4-A Directors’ comments.

I. CONSENT CALENDAR

1. Adopt positions on various state bills.  
   Staff recommendation:  
   1-A Adopt a position of Support if Amended on AB 1030 (Ting), relating to energy storage systems.
   1-B Adopt a position of Support on AB 1343 (Chen), relating to water use efficiency programs at schools.
   1-C Adopt a position of Oppose Unless Amended on SB 80 (Wieckowski), relating to CEQA notices for multi-county water projects. (Action)
II. ACTION/DISCUSSION/PRESENTATION

1. Legislative issues.

   1-A Washington report by Ken Carpi. (Written report only) (Supplemental Materials)

   1-B Sacramento Report. Glenn Farrel

       1. Long-Term Water Use Efficiency. Glenn Farrel / Dana Friehauf
          (Presentation)

2. Recommendation of program goal for Small Contractor Outreach and Opportunities Program. Teresa Penunuri
   Staff recommendation: Continue the SCOOP program goal of 20 percent for fiscal year 2018. (Action)

3. Community Outreach for Capital Improvement Projects. (Presentation) Teresa Penunuri

4. Update on San Diego County Garden Friendly Plant Fairs. (Presentation) Joni German

III. INFORMATION

1. Government Relations Update. Glenn Farrel

IV. CLOSED SESSION

V. ADJOURNMENT

Melinda Cogle
Clerk of the Board

NOTE: This meeting is called as a Legislation and Public Outreach Committee meeting. Because a quorum of the Board may be present, the meeting is also noticed as a Board meeting. Members of the Board who are not members of the Committee may participate in the meeting pursuant to Section 2.00.060(g) of the Authority Administrative Code (Recodified). All items on the agenda, including information items, may be deliberated and become subject to action. All public documents provided to the committee or Board for this meeting including materials related to an item on this agenda and submitted to the Board of Directors within 72 hours prior to this meeting may be reviewed at the San Diego County Water Authority headquarters located at 4677 Overland Avenue, San Diego, CA 92123 at the reception desk during normal business hours.
May 17, 2017

Attention: Legislation and Public Outreach Committee

Adopt positions on various state bills. (Action)

Staff recommendation
- Adopt a position of Support if Amended on AB 1030 (Ting), relating to energy storage systems.
- Adopt a position of Support on AB 1343 (Chen), relating to water use efficiency programs at schools.
- Adopt a position of Oppose Unless Amended on SB 80 (Wieckowski), relating to CEQA notices for multi-county water projects.

Alternatives
1. Do not adopt one or more of the recommended positions.
2. Modify one or more of the recommended positions.

Fiscal Impact
There is no direct fiscal impact associated with the consideration of adopting policy positions on legislation.

Discussion

AB 1030 (Ting) – Energy storage systems
Under existing law, the California Public Utilities Commission (CPUC) has regulatory authority over electrical corporations, while local publicly owned electric utilities are under the direction of their governing boards. Existing law requires the CPUC to open a proceeding to determine appropriate targets, if any, for each load-serving entity to procure viable and cost-effective energy storage systems to be achieved by December 31, 2015, and December 31, 2020. Existing law requires each load-serving entity to submit a report to the CPUC demonstrating that it has complied with the energy storage system procurement targets and policies adopted by the CPUC by January 1, 2016, and again on January 1, 2021. Existing law also requires the governing board of each local publicly owned electric utility to initiate a process to determine appropriate targets, if any, for the utility to procure viable and cost-effective energy storage systems to be achieved by December 31, 2016, and December 31, 2020.

AB 1030, as amended on March 30, 2017, would establish the following four energy policy goals of the state with respect to energy storage:
• Make energy storage a mainstream technology that enables utility customers to help reduce variation in electricity consumption in local circuits of the electrical distribution system and the statewide electrical system.

• Create a marketplace for energy services to harness innovation stimulated by competition and that fairly compensates distributed energy resources for the electrical and other system attributes and grid services that those resources provide to the electrical system.

• Achieve market transformation for energy storage systems.

• Use customer-sited energy storage as a primary strategy to meet the existing targets for reducing emissions of greenhouse gases established by the State Air Resources Board pursuant to the California Global Warming Solutions Act of 2006.

AB 1030 would also require the CPUC, on behalf of electrical corporations, and require the governing boards of local publicly owned electric utilities, to undertake the following actions with respect to customer- and load-sited energy storage systems to achieve the energy policy goals:

• Approve optional tariffs that are intended to motivate customers to install load-sited energy storage systems.

• Ensure that demand response programs prioritize opportunities for participation by customers with load-sited energy storage systems.

• Ensure that tariff and market rules do not prevent full utilization of customer-sited energy storage systems to provide the services they are capable of performing.

• Ensure that rules governing the interconnection of customer-sited energy systems to utility distribution systems are streamlined, cost effective, and remain up to date for the evolving technological characteristics of customer-sited energy storage systems.

• Coordinate with the Independent System Operator to remove obstacles for customer-sited and aggregated distributed energy resources to participate in the wholesale energy markets.

• Establish a rebate program dedicated to energy storage and that carves out a portion of funding for low-income customers and disadvantaged communities.

Energy storage can and is being used to meet multiple needs within California’s electricity grid, and it generally falls into two applications:
• Energy that is stored for later return to the grid to provide grid services. These wholesale energy storage uses – like pumped hydropower storage – are critical to the reliability of the grid and integration of renewable energy on the electric grid. Critical to the reliability of these energy storage systems and ratepayer value is location of the storage and time of use of the storage system.

• Energy stored and released at different times of the day to change consumption patterns. This retail energy storage use typically occurs at a customer facility to help mitigate demand changes and minimize disruption during higher rate periods. These customer-sited storage applications are currently funded through the Self-Generation Incentive Program, and AB 1030 is targeted at transforming the customer marked for this type of energy storage.

The Water Authority’s energy program is technology neutral, and focused on opportunities to better integrate energy use at Water Authority and member agency facilities, and cost-savings for the Water Authority and the member agencies. Transforming the customer market for customer-sited energy storage systems could certainly yield the Water Authority and its member agencies greater cost-savings related to energy use if there were more incentives and favorable tariff programs available for installing battery systems.

Customer-sited energy storage can be used for multiple retail and wholesale purposes, in addition to its primary use today, which is to offset a customer’s energy demand, thereby lowering that customer’s energy use and related utility costs. While those objectives are desirable to the Water Authority and its member agencies, the goals should not come at the expense of developing state energy storage policy that chooses a “preferred” energy storage mechanism. Rather than solely focusing on customer-sited or distributed energy storage within the context of a state energy storage policy, AB 1030 should be amended to ensure that bulk storage systems – pumped hydropower storage – are also recognized as valuable contributors to achieving the state’s energy storage goals and renewable energy goals. Customer-sited storage is just one of many energy storage mechanisms that can help the state achieve its energy goals.

The Water Authority’s legislative policy guidelines state that the Water Authority shall support legislation that:

• Provides greater flexibility in the utilization of Water Authority and its member agencies’ facilities for generation and acquisition of electrical and natural gas power.

• Provides the Water Authority and its member agencies with greater flexibility in the permitting, construction, and operation of its existing and potential in-line hydroelectric, solar, wind, battery, and closed-loop pumped-storage projects.


**Staff recommends a position of Support if Amended on AB 1030.**
**Suggested Amendments Include:** AB 1030 should be amended to include language that recognizes the important role that bulk energy storage plays in the achievement of the state’s energy storage policy goals.

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**AB 1343 (Chen) – Water Conservation: School Districts: Go Low Flow Water Conservation Partnerships**

Existing law authorizes the governing board of a school district to initiate and implement any program or activity that is not in conflict or inconsistent with, or preempted by any existing statute and that is not in conflict with the purposes for which school districts are established.

AB 1343, as amended on April 24, 2017, would authorize the governing board of a school district to enter into a Go Low Flow Water Conservation Partnership with a public water system for purposes of reducing water use at schools, reducing stormwater and dry weather runoff at schools, reducing schoolsite water pollution, and establishing the basis for educational opportunities in water conservation. AB 1343 would also authorize a public water system to offer – as part of a partnership – a water rebate for a school that implements water-saving measures.

Water conservation is a core element of the Water Authority’s long-term strategy to improve the reliability of the region’s water supply by diversifying its water supply sources. Since 1991, the Water Authority’s water use efficiency programs and initiatives cumulatively have conserved more than 1 million acre-feet of water. These savings have been achieved through measures ranging from incentives on water-efficient devices, to legislative efforts, to outreach campaigns and programs. The region has already successfully achieved its state mandate to reduce per capita water use 20 percent by 2020.

A range of local and regional incentive programs help to accelerate the acceptance of water-efficient technologies and practices. For instance, the Water Authority and its partners offer rebates on high-efficiency clothes washers, rotating sprinkler nozzles, and soil moisture sensors. These programs have helped hundreds of thousands of residential, commercial, and agricultural water users improve their water efficiency. Specifically focused on the commercial, industrial, and institutional sector, the Water Authority and member agencies offer numerous programs to help achieve water savings through assessments, device retrofits, and water-efficient landscape practices.

The Water Authority, the Metropolitan Water District of Southern California, and member agencies already work extensively with water service customers, including schools, to improve water use efficiency throughout the San Diego region. A variety of programs are already available to schools within San Diego through the Be Water Wise and SoCal Water Smart programs, including:

- Water Savings Incentive Program: Financial incentives to CII customers for customized water-efficiency projects (bewaterwise.com)
• Commercial, Industrial, and Institutional Rebate Program: CII customers may receive rebates for replacing select older, inefficient devices (socalwatersmart.com)

• Public Agency Landscape Program: Enhanced incentives, paid up front, to public agencies for installing water-efficient landscape devices at their properties and facilities (socalwatersmart.com)

AB 1343 would reinforce the importance of broad outreach for water use efficiency within the institutional sector, and in those areas of the state where extensive outreach has not yet occurred, AB 1343 would encourage water suppliers to directly outreach to and partner with school districts on water conservation programs, with the goal of reducing water use, providing schools with resources to upgrade, facilities, and education.

The Water Authority’s legislative policy guidelines state that the Water Authority shall support legislation that:

• Encourages implementation of effective water management practices for urban landscape and agricultural irrigation.

• Provides incentives, funding, and other assistance where needed to facilitate market transformation and gain wider implementation of water-efficient indoor and outdoor technologies and practices.

(2017 Legislative Policy Guidelines, Water Use Efficiency, Support, Pages 16-17, items 5 and 15).

**Staff recommends a position of Support on AB 1343.**

**SB 80 (Wieckowski) – California Environmental Quality Act: Notices**

Existing law, the California Environmental Quality Act (CEQA), requires a lead agency to prepare and certify the completion of an environmental impact report (EIR) on a project that it proposes to carry out or approve that may have a significant effect on the environment, or to adopt a negative declaration if the lead agency finds that the project will not have a significant effect. CEQA requires a lead agency that approves or determines to carry out a project subject to CEQA to file a notice of the approval or determination with the county clerk of each county in which the project will be located, and requires the county clerk to make the notice available for public inspection.

SB 80, as amended on February 14, 2017, would require the lead agency to post notices on the agency’s Internet website, and would require the agency to offer to provide those notices by email. In addition, SB 80 would require the county clerk to post the notices regarding an EIR or a negative declaration on the county’s Internet website, and would also require the filing of notices for projects that are deemed to be categorically exempt from CEQA.
Water projects that occur in multiple counties raise unique issues under CEQA. The existing CEQA statutes require that notices be posted in the office of the county clerk of each county in which the project will be located. This is a relatively straightforward requirement for conventional land use projects. However, for a water project it can presumably mean all counties where the water project may have some impact— which typically means those counties through which the project’s water flows. In addition, water agencies approving multi-county water projects face a myriad of different local submission requirements from each county, posing substantial and unnecessary logistical burdens. For purposes of compliance, the local agency must rely on each county clerk to maintain proper posting for the minimum timeframe of 30 days, creating the potential that a technical error in a single county could cause compliance issues and create additional potential liability if a CEQA lawsuit was to be filed.

SB 80 would require a water agency to not only have multiple counties post its notice, but also to post the notice on each of their websites. Adding new requirements— while even seemingly innocuous— increases exposure to CEQA litigation, and this would certainly be the case with respect to SB 80 because there would be increased vulnerabilities over whether each county clerk and the person who manages each county’s Internet website handle the notice properly.

In 2015, ACWA sponsored—and the Water Authority Board of Directors supported—AB 291 (Medina), which would have streamlined the filing of CEQA notices of determination for multi-county water projects and improve public access to notices by giving local agencies the option to post notices on the state’s CEQAnet website (through the Office of Planning and Research) and with the county clerk in the agency’s home county. AB 291 failed passed during the 2015 legislative session. Amendments to define where a multi-county water project is located for the purposes of complying with the CEQA notice requirements, along the lines pursued through AB 291, should be advanced to improve SB 80.

The Water Authority’s legislative policy guidelines state that the Water Authority shall support legislation that (and by inference, would oppose the opposite legislation that does not):

- Streamlines filing of CEQA notices of determination for multi-county water projects by making those notices available on the CEQAnet website through the Governor’s Office of Planning and Research.

(2017 Legislative Policy Guidelines, Biological and Habitat Preservation, Support, Page 20, Item 13).

**Staff recommends a position of Oppose Unless Amended on SB 80.**

**Suggested Amendments Include:** SB 80 should be amended to define where a multi-county water project is located for the purposes of complying with the CEQA notice requirements, along the lines pursued through AB 291 from 2015.
May 17, 2017

Attention: Legislation and Public Outreach Committee

Long-Term Water Use Efficiency. (Presentation)

Purpose

At the May 25, 2017 Legislation and Public Outreach Committee, Water Authority staff will make a presentation summarizing the legislative activities regarding the issue of long-term water use efficiency, including legislation introduced in 2017, legislative priorities for analysis and advocacy on long-term water use efficiency legislation, and the Governor’s recently published framework for “Making Conservation a California Way of Life.”

Prepared by: Glenn A. Farrel, Government Relations Manager
Approved by: Dennis A. Cushman, Assistant General Manager
May 17, 2017

Attention: Legislation and Public Outreach Committee

Recommendation of program goal for Small Contractor Outreach and Opportunities Program (Action)

Staff recommendation
Continue the SCOOP program goal of 20 percent for fiscal year 2018.

Alternative
Direct staff to return to the Board to establish a different program goal.

Fiscal Impact
There is no fiscal impact associated with the recommended action.

Background
The purpose of SCOOP is to maximize small-business participation on the San Diego County Water Authority’s contracts and procurements. SCOOP provides small businesses with resources and information through training, networking, and technical assistance.

The SCOOP goal is based on potential small-business dollar awards as a percentage of estimated total dollars awarded. One component in developing the goal is to review forecasted contracting opportunities and procurements from each Water Authority department. Forecasts are reviewed for the type of work, industries, expertise and trades that may be needed and the disciplines that may be subcontracted. Other components in determining the goal include the availability of small businesses to perform the type of work needed for procurements, the business market, competition from other agencies and projects, and historical achievements. Figure 1 shows the dollar amounts awarded to small businesses since 2006 in comparison to total dollars awarded on Water Authority procurements.

Discussion
Staff evaluated the goal methodology, tabulations and industry trends, and is providing a recommendation of continuing the 20 percent SCOOP goal. The staff recommendation was based in part on the downsizing of the CIP program and continued increased competition from construction projects by other public agencies such as the city of San Diego and SANDAG. It was also based on the increased need for specialized services on Water Authority projects, which limits the number of businesses qualified to do the work. Staff also evaluated the current year procurements and small-business awards. The small-business achievement for fiscal year 2017 through the third quarter is 29 percent (see the attached SCOOP Quarterly Report for more details).
Figure 1 – Small-Business Achievement from Fiscal Year 2006 to 2016.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Total $ Awarded</th>
<th>Small Business $</th>
<th>Small Business Achievement %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$474,559,207</td>
<td>$76,299,845</td>
<td>16%</td>
</tr>
<tr>
<td>2007</td>
<td>$118,736,945</td>
<td>$20,883,056</td>
<td>18%</td>
</tr>
<tr>
<td>2008</td>
<td>$41,179,477</td>
<td>$15,744,673</td>
<td>38%</td>
</tr>
<tr>
<td>2009</td>
<td>$110,694,189</td>
<td>$27,466,923</td>
<td>25%</td>
</tr>
<tr>
<td>2010</td>
<td>$170,571,174</td>
<td>$21,167,391</td>
<td>12%</td>
</tr>
<tr>
<td>2011</td>
<td>$40,862,936</td>
<td>$16,805,729</td>
<td>41%</td>
</tr>
<tr>
<td>2012</td>
<td>$53,711,295</td>
<td>$13,728,837</td>
<td>26%</td>
</tr>
<tr>
<td>2013</td>
<td>$39,987,730</td>
<td>$12,614,158</td>
<td>32%</td>
</tr>
<tr>
<td>2014</td>
<td>$105,045,976</td>
<td>$41,392,762</td>
<td>39%</td>
</tr>
<tr>
<td>2015</td>
<td>$65,073,625</td>
<td>$41,171,177</td>
<td>63%</td>
</tr>
<tr>
<td>2016</td>
<td>$55,626,587</td>
<td>$15,585,755</td>
<td>28%</td>
</tr>
</tbody>
</table>

Previous Board action: On June 23, 2016 the Board approved the SCOOP goal of 20 percent.

Although the goal is not a quota and does not apply specifically to individual projects, once approved by the Board, it will establish the small-business metric that is measured in staff quarterly reports.

Prepared by: Teresa Penunuri, Public Affairs Supervisor
Reviewed by: Jason Foster, Director of Public Outreach and Conservation
Approved by: Dennis Cushman, Assistant General Manager

Attachment 1: SCOOP Quarterly Report for Third Quarter FY 2017
May 17, 2017

Attention: Legislation and Public Outreach Committee

Small Contractor Outreach and Opportunities Program (SCOOP) Quarterly Report (Information)

Background
The purpose of SCOOP is to maximize small-business participation on the San Diego County Water Authority’s contracts and procurements. SCOOP provides small businesses with resources and information through training, networking, and technical assistance. This report provides a summary of SCOOP program metrics and activities from July 1, 2016 through March 31, 2017.

Discussion
Outreach Activities
During the second and third quarters, Water Authority representatives participated in six events with five business organizations and other government agencies.

A highlight of the outreach activities was the Caltrans Procurement Fair. The event brought in more than 250 attendees to learn more about business opportunities from Caltrans and other public agencies. Other activities included the Turner Construction School of Management, the Public Agency Consortium and Mana San Diego.

SCOOP Training
SCOOP training focuses on how to do business with the Water Authority. SCOOP offers six online courses via the Water Authority website that averages 96 page views per month.

Program Measurements
The Water Authority’s cumulative total of contract and purchase order awards through the second quarter was approximately $25 million. Small businesses received approximately $7.1 million, or 29 percent, of total dollars awarded. Small businesses received awards in several procurement sectors, with approximately $4.1 million awarded in construction, $2.1 million awarded for professional services, and $111,000 awarded for purchase orders. Minority- and women-owned businesses received approximately $2.8 million.

The number of companies receiving contract or purchase order awards was 418. Of those, 115, or 28 percent, were small businesses. Fifty-four, or 13 percent, were minority- and women-owned businesses.

Further details of SCOOP statistics are given in the attached exhibits. Information on minority-owned and women-owned businesses is made available to the Board for statistical purposes only.

Prepared by: Teresa Penunuri, Public Affairs Supervisor
Reviewed by: Jason Foster, Director of Public Outreach and Conservation
Reviewed by: Dennis A. Cushman, Assistant General Manager

Attachments:
1. Exhibit A – SCOOP Program Measurements Summary
2. Exhibit B – SCOOP Measurements Detail
EXHIBIT A
SCSOAP Measurements Summary
July 1, 2016 – March 31, 2017

<table>
<thead>
<tr>
<th>A-1. Small Business Measurements for</th>
<th>FY 2017 YTD</th>
<th>FY 2016 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Small</td>
</tr>
<tr>
<td>1. Number of qualified small businesses capable of bidding on Water Authority projects</td>
<td>2274</td>
<td>662</td>
</tr>
<tr>
<td>2. Number of bidders submitting bids and proposals for contracts</td>
<td>258</td>
<td>107</td>
</tr>
<tr>
<td>3. Number of businesses participating on Water Authority procurements (contracts and purchase orders)</td>
<td>418</td>
<td>115</td>
</tr>
<tr>
<td>4. Number of contracting opportunities</td>
<td>172</td>
<td>67</td>
</tr>
<tr>
<td>5. Amount committed to small businesses</td>
<td>$24,921,314</td>
<td>$7,144,869</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>M/W</td>
</tr>
<tr>
<td>1. Number of qualified M/W businesses capable of bidding on Water Authority projects</td>
<td>2274</td>
<td>556</td>
</tr>
<tr>
<td>2. Number of bidders submitting bids and proposals for contracts</td>
<td>258</td>
<td>66</td>
</tr>
<tr>
<td>3. Number of businesses participating on Water Authority procurements (contracts and purchase orders)</td>
<td>418</td>
<td>54</td>
</tr>
<tr>
<td>4. Number of contracting opportunities</td>
<td>172</td>
<td>41</td>
</tr>
<tr>
<td>5. Amount committed to minority and women-owned businesses</td>
<td>$24,921,314</td>
<td>$2,819,792</td>
</tr>
</tbody>
</table>
EXHIBIT B
SCOOP Measurements Detail
July 1, 2016 – March 31, 2017

1. Number of qualified businesses capable of bidding on Water Authority projects. “The Network” is the Water Authority’s SCOOP database and online vendor registration, notification, and solicitation system. Of the 2,274 total businesses currently in the system, 662 (29 percent) are small businesses, and 556 (24 percent) are minority- and women-owned businesses. This measurement forms a baseline of small businesses that are interested in working with the Water Authority on the types of procurements we issue.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Amount of qualified businesses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>2274</td>
<td>662</td>
<td>29%</td>
</tr>
<tr>
<td>Minority- or Women-owned</td>
<td>2274</td>
<td>556</td>
<td>24%</td>
</tr>
</tbody>
</table>

Information taken from The Network’s Business Classification and Minority Company Statistics as of 04/03/2017.

2. Number of businesses submitting bids and proposals. This metric measures bidders on contract opportunities. During the first three quarters, 107 (41 percent) of businesses bidding or proposing on Water Authority contracts were small businesses.

Sixty-six (26 percent) bidders and proposers were minority- and women-owned businesses.

B-2. Number of bidders submitting bids and proposals for contracts.

<table>
<thead>
<tr>
<th></th>
<th>FY 2017 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Design Build</td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>0</td>
</tr>
<tr>
<td>Subs</td>
<td>0</td>
</tr>
<tr>
<td><strong>Design Build Subtotal</strong></td>
<td>0</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>11</td>
</tr>
<tr>
<td>Subs</td>
<td>45</td>
</tr>
<tr>
<td><strong>Construction Subtotal</strong></td>
<td>56</td>
</tr>
<tr>
<td>Professional Services</td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>127</td>
</tr>
<tr>
<td>Subs</td>
<td>71</td>
</tr>
<tr>
<td><strong>Prof. Services Subtotal</strong></td>
<td>198</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>4</td>
</tr>
<tr>
<td>Subs</td>
<td>0</td>
</tr>
<tr>
<td><strong>Other Subtotal</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Bidders</strong></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>142</td>
</tr>
<tr>
<td>Subs</td>
<td>116</td>
</tr>
<tr>
<td>TOTAL</td>
<td>258</td>
</tr>
</tbody>
</table>
3. **Number of businesses participating on Water Authority procurements.**

The total number of small companies doing business with the Water Authority was 115, or 28 percent of all companies. This measurement indicates the volume of Water Authority procurement opportunities. Small businesses often pursue and are awarded contracts and purchase orders that are smaller in value, so the number of businesses working on Water Authority procurements is an important measurement of small-business success. The number of minority- and women-owned businesses doing business with the Water Authority was 54, or 13 percent.

<table>
<thead>
<tr>
<th>FY 2017 YTD</th>
<th>Total</th>
<th>Small</th>
<th>% Small</th>
<th>M/W</th>
<th>% M/W</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design Build</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>0</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Subs</td>
<td>0</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><em>Design Build Subtotal</em></td>
<td>0</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>8</td>
<td>3</td>
<td>38%</td>
<td>1</td>
<td>13%</td>
</tr>
<tr>
<td>Subs</td>
<td>16</td>
<td>5</td>
<td>31%</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td><em>Construction Subtotal</em></td>
<td>24</td>
<td>8</td>
<td>33%</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Professional Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>104</td>
<td>36</td>
<td>35%</td>
<td>19</td>
<td>18%</td>
</tr>
<tr>
<td>Subs</td>
<td>38</td>
<td>22</td>
<td>58%</td>
<td>19</td>
<td>50%</td>
</tr>
<tr>
<td><em>Prof. Services Subtotal</em></td>
<td>142</td>
<td>58</td>
<td>41%</td>
<td>38</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>4</td>
<td>1</td>
<td>25%</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Subs</td>
<td>0</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><em>Other Subtotal</em></td>
<td>4</td>
<td>1</td>
<td>25%</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Contracts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>116</td>
<td>40</td>
<td>34%</td>
<td>21</td>
<td>18%</td>
</tr>
<tr>
<td>Subs</td>
<td>54</td>
<td>27</td>
<td>50%</td>
<td>20</td>
<td>37%</td>
</tr>
<tr>
<td><em>Contracts Subtotal (Design Build, Construction and Professional Services)</em></td>
<td>170</td>
<td>67</td>
<td>39%</td>
<td>41</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Vendors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>248</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>418</td>
<td>115</td>
<td>28%</td>
<td>54</td>
<td>13%</td>
</tr>
</tbody>
</table>
4. **Number of contracting opportunities.**

This measurement reflects the number of prime contractors and consultants that have a direct contract with the Water Authority. Small businesses received 67, or 39 percent, of the 172 total contracts awarded through the end of the third quarter.

Procurements valued at $10,000 through $150,000 form the basis for the new Sheltered Market Program. Small businesses received 18, or 37 percent, of the 46 procurements in this dollar value range. Of those, one was identified as a sheltered market opportunity.

<table>
<thead>
<tr>
<th>FY 2017 YTD</th>
<th>Total Contracts</th>
<th>Small Primes</th>
<th>% Small</th>
<th>M/W Primes</th>
<th>% M/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-$10,000</td>
<td>107</td>
<td>41</td>
<td>38%</td>
<td>29</td>
<td>27%</td>
</tr>
<tr>
<td>$10,001-$150,000</td>
<td>46</td>
<td>18</td>
<td>39%</td>
<td>7</td>
<td>15%</td>
</tr>
<tr>
<td>$10,001-$50,000</td>
<td>28</td>
<td>10</td>
<td>36%</td>
<td>4</td>
<td>14%</td>
</tr>
<tr>
<td>$50,001-$150,000</td>
<td>21</td>
<td>8</td>
<td>38%</td>
<td>3</td>
<td>14%</td>
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<tr>
<td>$150,001-$250,000</td>
<td>5</td>
<td>2</td>
<td>40%</td>
<td>2</td>
<td>40%</td>
</tr>
<tr>
<td>$250,001 - $1,000,000</td>
<td>10</td>
<td>4</td>
<td>40%</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>$1,000,001 - $50,000,000</td>
<td>4</td>
<td>2</td>
<td>50%</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>172</strong></td>
<td><strong>67</strong></td>
<td><strong>39%</strong></td>
<td><strong>41</strong></td>
<td><strong>24%</strong></td>
</tr>
</tbody>
</table>
5. **Amount committed to small businesses.**

The overall small-business participation goal on initial contract and purchase awards for fiscal year 2017 is 20 percent. Through the end of the third quarter, the amount committed to small businesses was approximately $7.1 million, or 29 percent, of total procurement dollars awarded. Small businesses received awards in each procurement sector, with approximately $4.1 million awarded in construction, $2.2 million awarded for professional services, and $111,000 awarded for purchase orders.

SCOOP requires small-business outreach from primes to subs on larger, more complex projects that have multi-sub opportunities. Small businesses were successful as subcontractors on Water Authority construction and professional service contracts, receiving approximately $583,000 as construction subcontractors, and approximately $111,000 as subconsultants on service agreements.

As vendors, minority- and women-owned businesses received approximately $465,000 during the reporting period.
B-5. Amount committed to small and minority- and women-owned primes, subcontractors and vendors

<table>
<thead>
<tr>
<th></th>
<th>FY 2017 YTD</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Small</td>
<td>% Small</td>
<td>M/W</td>
<td>% M/W</td>
</tr>
<tr>
<td><strong>Design Build</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>$0</td>
<td>$0</td>
<td>0%</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Subs</td>
<td>$0</td>
<td>$0</td>
<td>0%</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Design Build Subtotal</strong></td>
<td>$0</td>
<td>$0</td>
<td>0%</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>$6,209,052</td>
<td>$3,561,890</td>
<td>57%</td>
<td>$7,906</td>
<td>0.1%</td>
</tr>
<tr>
<td>Subs</td>
<td>$4,371,561</td>
<td>$583,126</td>
<td>13%</td>
<td>$15,130</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Construction Subtotal</strong></td>
<td>$10,580,613</td>
<td>$4,145,016</td>
<td>39%</td>
<td>$23,036</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Professional Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>$7,492,419</td>
<td>$2,125,452</td>
<td>28%</td>
<td>$2,266,396</td>
<td>30%</td>
</tr>
<tr>
<td>Subs</td>
<td>$148,219</td>
<td>$111,685</td>
<td>75%</td>
<td>$64,807</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Prof. Services Subtotal</strong></td>
<td>$7,640,638</td>
<td>$2,237,137</td>
<td>29%</td>
<td>$2,331,203</td>
<td>31%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>$370,835</td>
<td>$111,060</td>
<td>30%</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Subs</td>
<td>$0</td>
<td>$0</td>
<td>0%</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Other Subtotal</strong></td>
<td>$370,835</td>
<td>$111,060</td>
<td>30%</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Contracts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primes</td>
<td>$14,072,306</td>
<td>$5,798,402</td>
<td>41%</td>
<td>$2,274,302</td>
<td>16%</td>
</tr>
<tr>
<td>Subs</td>
<td>$4,519,780</td>
<td>$694,811</td>
<td>15%</td>
<td>$79,937</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Contracts Subtotal</strong></td>
<td>$18,592,086</td>
<td>$6,493,213</td>
<td>35%</td>
<td>$2,354,239</td>
<td>13%</td>
</tr>
<tr>
<td>(Design Build, Construction and Professional Services)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vendors</strong></td>
<td>$6,329,228</td>
<td>$651,656</td>
<td>10%</td>
<td>$465,553</td>
<td>7%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$24,921,314</td>
<td>$7,144,869</td>
<td>29%</td>
<td>$2,819,792</td>
<td>11%</td>
</tr>
</tbody>
</table>
May 17, 2017

Attention: Legislation and Public Outreach Committee

Community Outreach for Capital Improvement Projects (Presentation).

Purpose
This informational item provides an overview of community outreach strategies and tactics the Water Authority uses to support construction projects.

Discussion
Community outreach is an integral and important part of the Water Authority’s Capital Improvement Program as a means to inform impacted neighborhoods and other important stakeholders of upcoming construction and maintenance projects.

Successful community outreach on major construction projects such as dams, reservoirs, pump stations, pipelines and tunnels benefits the Water Authority in several important ways. First, effective outreach can help identify community concerns and avoid problems before they materialize, or resolve them before they escalate. This helps keep the project moving forward on time and on budget. In addition, good communications can generate community goodwill by demonstrating transparency and providing affected people and businesses the best opportunity to plan and adjust to unavoidable construction impacts. Water Authority CIP outreach efforts have also resulted in a more-informed community with increased awareness and knowledge of the need for water infrastructure projects. On the other hand, poor construction outreach can result in project delays, lawsuits, upset community members and a decreased level of public acceptance for future water infrastructure projects.

Community outreach has evolved since the Water Authority approved a robust CIP program in 1989. Traditional communications via mailers, meetings and newsletters are now complemented by increasingly targeted and cost-effective electronic communications and social media.

While CIP spending has decreased, outreach teams are still actively involved with multiple projects in various phases of design and construction, supporting 15 projects during fiscal years 2016 and 2017. These projects included pipeline relining projects, asset management and emergency repair projects.

A board presentation at the April committee meeting will provide a brief overview of the strategies and tactics that have shaped multiple award-winning community outreach efforts for the Capital Improvement Program.

Prepared by: Teresa Penunuri, Public Affairs Supervisor
Reviewed by: Jason Foster, Director of Public Outreach and Conservation
Approved by: Dennis A. Cushman, Assistant General Manager
May 17, 2017

Attention: Legislation and Public Outreach Committee

Update on San Diego County Garden Friendly Plant Fairs (Presentation)

Purpose
This report provides information on the San Diego County Garden Friendly Plant Fair partnership between the Water Authority, participating member agencies and The Home Depot.

Background
Water-use efficiency plays a key role in the Water Authority’s strategy to maximize the reliability of the region’s water supply. In particular, outdoor water-use efficiency is a major regional goal because more than half of the water used in a typical home is for landscaping. In 2011, staff identified the perceived lack of easy access to affordable, low-water-use plants as one of the barriers to wider adoption of WaterSmart landscapes.

Building on the Inland Empire Utilities Agency’s “Water Saving Garden Friendly” plant fair model, the Water Authority and participating member agencies joined The Home Depot in 2012 to host the first series of San Diego County Garden Friendly Plant Fairs at selected The Home Depot locations throughout the San Diego region. The innovative partnership showed how the Water Authority and its member agencies could collaboratively pursue public-private partnerships that generate regional water supply benefits. In the partnership, Water Authority and member agency staff contributed the expertise to identify appropriate water-efficient plants and support marketing efforts. Member agencies also help staff the plant fairs. The Home Depot contributes by providing discounts on the approved list of plants, marketing, staff and space to host the events.

Discussion
For the Water Authority and its member agencies, partnerships with large, well-known national retailers such as The Home Depot help achieve the region’s long-term water-use efficiency goals by catalyzing the landscape market transformation process. By working together, public water agencies and private sector retailers increase consumer awareness of, and demand for low-water-use plants in a cost-effective way. WaterSmart plants coupled with efficient irrigation systems are key parts of the strategy for maintaining attractive landscapes across the region while using significantly less water.

Since 2012, 85 plant fairs have been held throughout the San Diego region. Fifteen of the Water Authority’s 24 member agencies have participated in these events, which have attracted more than 12,000 participants. The spring 2017 schedule of plant fairs that have just concluded is shown below in Figure 1.
This partnership has resulted in multiple benefits, including:

- Increasing the awareness and adoption of WaterSmart landscape practices and associated products and services;
- Delivering affordable plant choices that are climate-appropriate and readily available;
- Providing opportunities for member agencies to discuss local and regional water issues and water-use efficiency programs;
- Giving customers the chance to interact with certified nursery consultants, local growers and landscape industry experts about water-efficient irrigation supplies, low-water-use plants and sustainable gardening materials.

Water Authority, member agency and The Home Depot staff engage in regular communication to plan and evaluate the performance of the plant fairs to ensure their effectiveness in meeting each partner’s goals.

Based on the success of the plant fairs, the Water Authority will continue to seek similar public-private partnerships with compatible organizations in the San Diego region as part of its long-term strategy to help manage water supplies through landscape market transformation.

Prepared by: Joni German, Water Resources Specialist
Reviewed by: Carlos Michelon, Principal Water Resources Specialist
Reviewed by: Jason Foster, Director of Public Outreach and Conservation
Approved by: Dennis Cushman, Assistant General Manager
May 17, 2017

Attention: Legislation and Public Outreach Committee

Government Relations Update. (Information)

Purpose
This report is an update of the Water Authority’s government relations program.

Discussion

The Legislature
The Legislature is rapidly approaching several important deadlines within the legislative session:

- May 26 – Deadline for bills to pass out of fiscal committees
- June 2 – Deadline for bills to pass out of house of origin
- June 15 – Deadline for Legislature to pass Budget bill and send it to the Governor
- July 21 – Last day for policy committees to hear and report bills – Legislature begins Summer recess

Budget subcommittees are actively working through the proposed state budget items, and have begun attempting to close out budget items following review of the May Revise of the Governor’s proposed state budget.

Sponsored Legislation
- AB 1323 (Weber) would create a stakeholder workgroup process through the Department of Water Resources for development of long-term water use efficiency standards. AB 1323 is presently on the Assembly Appropriations Committee suspense file, and final disposition in the fiscal committee will be known by May 26.

- SB 701 (Hueso), on which the Water Authority is a partner with other stakeholders, including the Imperial Irrigation District, would authorize the issuance of a general obligation bond in the amount of $500 million to help fulfill the state’s funding obligations related to Salton Sea restoration. SB 701 is presently on the Senate Appropriations Committee suspense file, and final disposition in the fiscal committee will be known by May 26.

Little Hoover Commission
On April 27, the Little Hoover Commission held a hearing related to forest management and a regularly-scheduled business meeting during the lunch break from the hearing. During the forest
management hearing, Dave Eggerton – General Manager of Calaveras County Water Agency – presented testimony regarding his district’s efforts to recover from the recent Butte Fire in the Sierra Nevada foothills. During his testimony, several Commissioners began asking questions regarding the Calaveras County Water Agency, including:

- How much is your budget? How many full-time employees does your agency have? How do you primarily fund your agency? Who oversees your agency besides your own board of directors?

- Do you have reserve funds? Have you used reserve funds to play for cleanup of the Butte fire?

- Given that there are a large number of water districts whose roles are redundant and who could consolidate, is there a broader solution set to achieving economies of scale?

Even during the business meeting portion of the agenda, the Commissioners remained focused on special districts, referencing the large number of special districts, large number of employees, and substantial revenue. There were a number of questions and comments related to “oversight” of special districts, economies of scale through consolidation, use of property tax revenues, and growth of reserves.

At the conclusion of the business meeting portion of the agenda, the Little Hoover Commission agreed to hold a final meeting related to the Special Districts Study in late June – either June 21, 22, or 23. At this time, the Little Hoover Commission has scheduled a public hearing related to a study of the Yountville Veteran’s Home on June 22, so it is unclear whether they would utilize time on that day to hold a meeting on special districts, or whether they would select one of the alternative dates. It is likely that ACWA and CSDA will be soliciting volunteers from among their membership to attend the June Commission meeting to present the case for, and perspective of special districts.

**Status Report on Legislation and Legislative Positions**

Water Authority staff is currently actively reviewing and analyzing 61 bills in the Legislature for potential impact on the organization and its member agencies. Staff routinely monitors hundreds of bills during each legislative session as they proceed through the legislative process or are amended. Only those measures that warrant a closer review are analyzed comprehensively and considered for advancement to the Water Authority Board for possible adoption of a position. The Water Authority’s staff and legislative advocates review each bill in the context of the adopted 2017 Legislative Policy Guidelines. The Legislative Policy Guidelines provide direction to staff and the Water Authority’s legislative advocates to communicate support of, or opposition to legislation and amendments. Bills for which staff recommends a position are brought before the Legislation and Public Outreach Committee and the Board for consideration of a Water Authority position. Attached is a list of substantive legislation under review by Water Authority staff as of May 17, 2017.
Lobbyist Activities
Steve Cruz of Gonzalez, Quintana, Hunter & Cruz reports that he performed the following lobbying activities on behalf of the Water Authority over the past month:

- Provided strategic advice and information regarding the Water Authority’s legislative interests.
- Participated in legislative and Administration briefings involving Water Authority sponsored and priority legislation.
- Represented the Water Authority in a variety of venues on Water Authority issues.
- Coordinated with V. John White, Bob Giroux, and Water Authority staff on various legislative issues of importance to the Water Authority.

Bob Giroux of Lang, Hansen, O’Malley & Miller reports that he performed the following lobbying activities on behalf of the Water Authority over the past month:

- Provided strategic advice and information regarding the Water Authority’s legislative interests.
- Provided assistance regarding the Water Authority’s sponsored legislation, and communicated with the Governor’s office on behalf of the Water Authority.
- Coordinated with V. John White, Steve Cruz, and Water Authority staff on various legislative issues of importance to the Water Authority.

V. John White reports that he performed the following lobbying activities on behalf of the Water Authority over the past month:

- Provided strategic advice and information regarding the Water Authority’s legislative interests.
- Coordinated with Bob Giroux, Steve Cruz, and Water Authority staff on various legislative issues of importance to the Water Authority.
Washington, D.C.
Ken Carpi of Carpi & Clay will submit a separate written report of the firm’s monthly activities in Washington, D.C..

Prepared by: Glenn A. Farrel, Government Relations Manager
Ivy Ridderbusch, Assistant Management Analyst
Approved by: Dennis A. Cushman, Assistant General Manager

Attachment: Substantive Bills Under Review by Water Authority Staff
AB 18  (Garcia, Eduardo D)  California Clean Water, Climate, Coastal Protection, and Outdoor Access For All Act of 2018.
Current Text: Amended: 2/23/2017  Text
Introduced: 12/5/2016
Is Fiscal: Y

Summary: Would enact the California Clean Water, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, which, if approved by the voters, would authorize the issuance of bonds in an amount of $3,105,000,000 pursuant to the State General Obligation Bond Law to finance a clean water, climate, coastal protection, and outdoor access for all program. This bill contains other related provisions.

AB 92  (Bonta D)  Public contracts: payment.
Current Text: Introduced: 1/9/2017  Text
Introduced: 1/9/2017
Is Fiscal: N

Summary: Current law until January 1, 2018, authorizes the retention proceeds withheld from any payment by an awarding entity, as described, from the original contractor, by the original contractor from any subcontractor, and by a subcontractor from any subcontractor to exceed 5% on specific projects where the director of the applicable department, as specified, has made, or the governing body of the public entity or designated official of the public entity has approved, a finding prior to the bid that the project is substantially complex and requires a higher retention and the department or public entity includes both this finding and the actual retention amount in the bid documents. This bill would extend the operation of these provisions to January 1, 2023.

AB 313  (Gray D)  Water.
Current Text: Amended: 4/18/2017  Text
Introduced: 2/6/2017
Is Fiscal: Y

Summary: Current law authorizes the State Water Resources Control Board to adopt an order setting administrative civil liability based on the allegations set forth in the complaint without a hearing, unless a written request for a hearing signed by, or on behalf of, the party served with the complaint is delivered to or received by mail by the board within 20 days after receipt of the complaint. This bill, commencing July 1, 2018, would establish a Water Rights Division within the Office of Administrative Hearings, as prescribed.

AB 408  (Chen R)  Eminent domain: final offer of compensation.
Current Text: Introduced: 2/9/2017  Text
Introduced: 2/9/2017
Is Fiscal: N

Summary: Current law governing settlement offers in eminent domain proceedings authorizes the recovery of litigation expenses under certain circumstances. This bill would provide that if a court finds, on motion of the defendant, that the offer of the plaintiff was lower than 90% of the compensation awarded in the proceeding, then the court would be required to include the defendant’s litigation costs in the costs allowed. If the court finds that the offer of the plaintiff was at least 90% and less than 100% of the compensation awarded in the proceeding, the court would be authorized to include the defendant’s litigation costs in the costs allowed.

AB 554  (Cunningham R)  Desalination: statewide goal.
Current Text: Amended: 3/27/2017  Text
Introduced: 2/14/2017
Is Fiscal: N
Summary: The Cobey-Porter Saline Water Conversion Law provides that it is the intention of the Legislature that the Department of Water Resources undertake to find economic and efficient methods of desalting saline water so that desalted water may be made available to help meet the growing water requirements of the state. This bill would establish a goal to desalinate 300,000 acre-feet of drinking water per year by the year 2025 and 500,000 acre-feet of drinking water per year by the year 2030.

AB 574

(Quirk D) Potable reuse.
Current Text: Amended: 4/18/2017  Text
Introduced: 2/14/2017
Is Fiscal: Y

Summary: Current law required the State Department of Public Health to develop and adopt uniform water recycling criteria for surface water augmentation, as defined, by December 31, 2016, if a specified expert panel found that the criteria would adequately protect public health health. Current law defined the terms "direct potable reuse," "indirect potable reuse for groundwater recharge," and "surface water augmentation" for these purposes. This bill would remove certain references to "direct potable reuse," "indirect potable reuse for groundwater recharge," and "surface water augmentation," and would instead specify the four different types of potable reuse projects as "groundwater augmentation," "reservoir augmentation," "raw water augmentation," and "treated drinking water augmentation."

AB 594

(Irwin D) Water supply planning: California Environmental Quality Act: photovoltaic or wind energy generation facility.
Current Text: Introduced: 2/14/2017  Text
Introduced: 2/14/2017
Is Fiscal: Y

Summary: Current law requires a city or county that determines that a project, as defined, is subject to the California Environmental Quality Act to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment. If no public water system is identified, the city or county is required to prepare the water supply assessment. Current law, until January 1, 2018, exempts from the definition of "project" a proposed photovoltaic or wind energy generation facility that would demand no more than 75 acre-feet of water annually. This bill would indefinitely exempt from the definition of "project" a proposed photovoltaic or wind energy generation facility that would demand no more than 50 acre-feet of water annually.

AB 672

(Jones-Sawyer D) Utility services.
Current Text: Amended: 5/1/2017  Text
Introduced: 2/15/2017
Is Fiscal: N

Summary: Current law authorizes an electrical, gas, or water corporation, or any electrical, gas, or water system operated by a public agency, to bring a civil action for damages against any person who commits, authorizes, solicits, aids, abets, or attempts, among other things, the diversion of utility services by any means whatsoever. Current law authorizes the utility to recover as damages 3 times the amount of actual damages, plus the cost of the suit and reasonable attorney's fees, in any civil action brought pursuant to these provisions. This bill would authorize a defendant that prevails upon judgment to recover reasonable attorney's fees and costs of the suit from the utility.

AB 733

(Berman D) Enhanced infrastructure financing districts: projects: climate change.
Current Text: Amended: 3/23/2017  Text
Introduced: 2/15/2017
Is Fiscal: N

Summary: Current law authorizes the legislative body of a city or a county to establish an enhanced infrastructure financing district to finance public capital facilities or other specified projects of communitywide significance, and makes related findings and declarations. This bill would additionally authorize the financing of projects that enable communities to adapt to the impacts of climate change, including, but not limited to, extreme weather events, sea level rise, flooding, heat waves, wildfire, and drought, and would make conforming changes to the Legislature's findings and declarations.
**AB 791**  
(Frazier D) Sacramento-San Joaquin Delta: State Water Project and federal Central Valley Project: new conveyance facility.  
Current Text: Amended: 3/21/2017  
Introduced: 2/15/2017  
Is Fiscal: Y

Summary: The Sacramento-San Joaquin Delta Reform Act of 2009 prohibits construction of a new Delta conveyance facility from being initiated until the persons or entities that contract to receive water from the State Water Project and the federal Central Valley Project or a joint powers authority representing those entities have made arrangements or entered into contracts to pay for certain costs required for the construction, operation, and maintenance of the facility and full mitigation of property tax or assessments levied for land used in the construction, location, mitigation, or operation of the facility. This bill would require, before a water contractor enters into a contract to pay for these costs, that the lead agency provide the breakdown of costs for each water contractor entering into a contract and what benefits each contractor will receive based on the proportion it has financed of the proposed conveyance project.

**AB 793**  
(Frazier D) Sacramento-San Joaquin Delta: financing.  
Current Text: Amended: 3/27/2017  
Introduced: 2/15/2017  
Is Fiscal: N

Summary: Would declare it to be state policy that the existing state of the Sacramento-San Joaquin Delta is recognized and defined as an integral component of California’s water infrastructure. The bill would state that the maintenance and repair of the Delta are eligible for the same forms of financing as other water collection and treatment infrastructure and would specify the maintenance and repair activities that are eligible are limited to certain cleanup and abatement-related restoration and conservation activities.

**AB 798**  
(Garcia, Eduardo D) Salton Sea restoration.  
Current Text: Amended: 3/23/2017  
Introduced: 2/15/2017  
Is Fiscal: Y

Summary: Would require the Natural Resources Agency, on or before June 30, 2018, to undertake certain planning activities and to make an effort to secure adequate funding to accomplish a specified goal for the restoration of the Salton Sea.

**AB 851**  
(Caballero D) Local agency design-build projects.  
Current Text: Amended: 4/17/2017  
Introduced: 2/16/2017  
Is Fiscal: Y

Summary: Current law defines the term "local agency" for specified provisions to mean specified entities, including a city or county, or a special district that operates specified types of facilities. Current law authorizes a city or county or a special district that falls within the definition of a local agency to use the design-build procurement process for specified types of public works projects. Current law requires specified information submitted by a design-build entity, as defined, in the design-build procurement process to be certified under penalty of perjury. This bill would modify the definition of “local agency” for those purposes to include special districts that provide or operate specified types of services or facilities. This bill would expand the list of public works projects for which a local agency may utilize the design-build procurement process.

**AB 869**  
(Rubio D) Sustainable water use and demand reduction: recycled water.  
Current Text: Amended: 3/28/2017  
Introduced: 2/16/2017  
Is Fiscal: Y

Summary: Current law imposes various water use reduction requirements that apply to urban retail...
water suppliers, including a requirement that the state achieve a 20% reduction in urban per capita water use by December 31, 2020. This bill would require recycled water delivered within the service area of an urban retail water supplier or its urban wholesale water supplier for either nonpotable or potable use or that replenishes a groundwater basin and supplements the groundwater supply available to an urban retail water supplier be excluded from the calculation of any urban water use target or reduction in urban per capita water use.

AB 884  
(Levine D) Dams and reservoirs: inspections.  
Current Text: Amended: 3/21/2017  
Introduced: 2/16/2017  
Is Fiscal: Y

Summary: Current law requires the Department of Water Resources, from time to time, to make inspections of dams and reservoirs at state expense for the purpose of determining their safety. This bill would require the department instead to make annual physical inspections.

AB 885  
(Rubio D) Pupil health: drinking water: lead.  
Current Text: Amended: 4/27/2017  
Introduced: 2/16/2017  
Is Fiscal: Y

Summary: Would require a community water system, as defined, to test, on or before July 1, 2019, and every year thereafter, for the presence of lead at a sample of water outlets used for drinking or cooking at each school, defined to include a public elementary school, a public secondary school, a public preschool located on public school property, and a public day care facility located on public school property, constructed before January 1, 1993, within the boundaries of the community water system.

AB 892  
(Waldron R) Municipal water districts: water service: Indian tribes.  
Current Text: Amended: 3/23/2017  
Introduced: 2/16/2017  
Is Fiscal: N

Summary: Current law, upon the request of certain Indian tribes and the satisfaction of certain conditions, requires a district to provide service of water at substantially the same terms applicable to the customers of the district to the Indian tribe’s lands that are not within a district, as prescribed. This bill would authorize, rather than require, a district to provide this service of water. The bill would apply this authorization to all Indian tribes whose lands are owned by the tribe.

AB 914  
(Mullin D) Transmission planning: energy storage and demand response.  
Current Text: Amended: 3/20/2017  
Introduced: 2/16/2017  
Is Fiscal: Y

Summary: Would require the Public Utilities Commission, in its oversight of large electrical corporations and its participation in the ISO’s transmission planning process, to promote the consideration of the use of nonwire alternatives, as defined, as means to address the state’s transmission needs before the use of transmission wires. The bill would require the commission to ensure that transmission facility owners take certain actions in the transmission planning process regarding nonwire alternatives.

AB 947  
(Gallagher R) Department of Fish and Wildlife: lake or streambed alteration agreements: definitions.  
Current Text: Amended: 4/17/2017  
Introduced: 2/16/2017  
Is Fiscal: Y

Summary: Current law prohibits an entity from substantially diverting or obstructing the natural flow of, or substantially changing or using any material from the bed, channel, or bank of, any river, stream, or lake, or from depositing certain material where it may pass into any river, stream, or lake, without first notifying the Department of Fish and Wildlife of that activity, and entering into a lake or streambed
alteration agreement if required by the department to protect fish and wildlife resources. This bill would define “river” and “stream” for purposes of these provisions.

**AB 967**  (Gloria D)  **Human remains disposal: alkaline hydrolysis: licensure and regulation.**
Current Text: Amended: 5/2/2017  Text
Introduced: 2/16/2017
Is Fiscal: Y

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Summary: Would, commencing January 1, 2019, require the Cemetery and Funeral Bureau to license and regulate hydrolysis facilities, as defined, and hydrolysis facility managers, and would enact requirements applicable to hydrolysis facilities substantially similar to those applicable to crematoria. By expanding the definition of crimes relating to the disposition of human remains and creating new crimes, this bill would impose a state-mandated local program.

**AB 975**  (Friedman D)  **Natural resources: wild and scenic rivers.**
Introduced: 2/16/2017
Is Fiscal: Y

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Summary: Current law establishes that it is the policy of the state that certain rivers that possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state. This bill would revise that policy to specify that certain rivers that possess scenic, recreational, fishery, wildlife, historical, cultural, geological, or other similar values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state, and would revise the definition of “immediate environments,” and define the term “extraordinary value” for purposes of that policy.

**AB 1000**  (Friedman D)  **Water conservation: certification.**
Current Text: Introducted: 2/16/2017  Text
Introduced: 2/16/2017
Is Fiscal: Y

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Summary: Current law requires the State Energy Resources Conservation and Development Commission to establish minimum levels of operating efficiency to promote the use of energy and water efficient appliances. This bill would require the commission to certify innovative water conservation and water loss detection and control technologies that meet certain criteria.

**AB 1030**  (Ting D)  **Energy storage systems.**
Current Text: Amended: 3/30/2017  Text
Introduced: 2/16/2017
Is Fiscal: Y

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Summary: Would establish 4 energy policy goals of the state with respect to energy storage and would require the PUC, on behalf of electrical corporations, and require the governing board, on behalf of a local publicly owned electric utility, to undertake specified actions with respect to customer- and load-sited energy storage systems in order to achieve those energy policy goals, including a rebate program dedicated to energy storage that carves out a portion of funding for low-income customers and disadvantaged communities.

**AB 1050**  (Allen, Travis R)  **California Endangered Species Act: Delta smelt.**
Current Text: Amended: 3/28/2017  Text
Introduced: 2/16/2017
Is Fiscal: Y

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Summary: The California Endangered Species Act requires the Fish and Game Commission to establish a list of endangered species and a list of threatened species and requires the commission to add or remove species from either list if it finds, upon the receipt of sufficient scientific information, that the action is warranted. The act prohibits the taking of an endangered or threatened species, except as specified. This bill would require the commission to remove the Delta smelt from the endangered
species list.

**AB 1145** (Quirk D) Conversion of existing overhead electric and communication facilities to underground locations: cable operators.
*Current Text:* Amended: 5/1/2017  
*Introduced:* 2/17/2017  
*Is Fiscal:* Y  

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**Summary:** The Improvement Act of 1911 authorizes the initiation of special assessment proceedings for the conversion of overhead electric and communication facilities to underground locations upon either the filing of a petition or a determination by the local legislative body that the city or a public utility has voluntarily agreed to pay over 50% of all costs of conversion, excluding costs of users’ connections to underground electric or communications facilities. Current law authorizes an agreement entered into as part of those proceedings to allocate duties between a city and an electricity or communication provider regarding the planning and specifications of, and contributions of labor, materials, and money to, the conversion of those electric and communication facilities to underground locations. This bill would additionally make these provisions applicable to cable television facilities and a cable operator and, where overhead electric or communications facilities that are to be converted to underground are owned by a city or municipal government, would require the legislative body initiating the conversion proceeding to reimburse the costs incurred by a cable operator for relocation.

**AB 1270** (Gallagher R) Dams and reservoirs: inspections and reporting.
*Current Text:* Amended: 3/21/2017  
*Introduced:* 2/17/2017  
*Is Fiscal:* Y  

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**Summary:** Current law requires the Department of Water Resources, from time to time, to make inspections of dams and reservoirs at state expense for the purpose of determining their safety. Existing law defines “owner” for purposes of these provisions. This bill would require the department instead to, at least annually, make visual and physical inspections. The bill, on or before January 1, 2019, and annually thereafter, would require the department to submit a report to the Legislature that includes a 5-year infrastructure improvement, maintenance, and funding plan for state-operated and state-maintained dams and reservoirs, as specified.

**AB 1271** (Gallagher R) Dams and reservoirs.
*Current Text:* Amended: 3/21/2017  
*Introduced:* 2/17/2017  
*Is Fiscal:* Y  

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**Summary:** Current law requires the Department of Water Resources, in determining whether or not a dam or reservoir or proposed dam or reservoir constitutes or would constitute a danger to life or property, to take into consideration the possibility that the dam or reservoir might be endangered by conditions that exist or that might occur in any area in the vicinity of the dam or reservoir. Under existing law, whenever the department deems that a condition endangers a dam or reservoir, the department is required to order the owner to take action as the department determines to be necessary to remove the resultant danger to life and property. This bill would require the department, as soon as possible, to order the owner to take action.

**AB 1333** (Dababneh D) Political Reform Act of 1974: local government agency notices.
*Current Text:* Introduced: 2/17/2017  
*Introduced:* 2/17/2017  
*Is Fiscal:* Y  

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**Summary:** Would require every local government agency that maintains an Internet Web site to prominently post on its Internet Web site, as specified, a notice of any upcoming election in which voters will vote on a tax measure or proposed bond issuance of the agency. The bill would also require every local government agency that publishes an electronic newsletter to include the notice in the electronic newsletter. By imposing new duties on local government agencies, the bill would impose a state-mandated local program.

**AB 1343** (Chen R) Water conservation: school districts: Go Low Flow Water Conservation Partnerships.
*Current Text:* Amended: 4/24/2017  

**Introduced:** 2/17/2017  
**Is Fiscal:** N  

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**Summary:** Would authorize the governing board of a school district to enter into a Go Low Flow Water Conservation Partnership with a public water system for purposes of reducing water use at schools, reducing stormwater and dry weather runoff at schools, reducing schoolsite water pollution, and establishing the basis for educational opportunities in water conservation. The bill would authorize a public water system to offer, as part of a partnership, a water rebate for a school that implements water-saving measures.

**AB 1369** (Gray D) **Water quality and storage.**  
**Current Text:** Introduced: 2/17/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** Y  

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**Summary:** Current law requires all moneys, except for fines and penalties, collected by the State Air Resources Board from the auction or sale of allowances as part of a market-based compliance mechanism relative to reduction of greenhouse gas emissions to be deposited in the Greenhouse Gas Reduction Fund. This bill would require the Department of Water Resources to increase statewide water storage capacity by 25% by January 1, 2025, and 50% by January 1, 2050, as specified.

**AB 1405** (Mullin D) **Electricity: net-load peak.**  
**Current Text:** Amended: 5/2/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** Y  

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**Summary:** Would require the Public Utilities Commission and the governing boards of local publicly owned electric utilities, as a part of the integrated resource plan process, to establish policies and procedures to ensure that each load-serving entity or local publicly owned electric utility, as applicable, meets net-load peak energy needs and reliability needs while reducing the need for new electricity generation in achieving the state’s energy goals at the least cost to ratepayers. Because this bill would impose additional duties on local publicly owned electric utilities, this bill would impose a state-mandated local program.

**AB 1422** (Daly D) **Workers’ compensation insurance: fraud.**  
**Current Text:** Amended: 4/20/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** Y  

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**Summary:** Current law governing workers’ compensation requires a lien filed by or on behalf of a physician or provider of medical treatment services or medical-legal services, and any accrual of interest related to the lien, to be automatically stayed upon the filing of criminal charges against that physician or provider for an offense involving fraud against the workers’ compensation system, medical billing fraud, insurance fraud, or fraud against the Medicare or Medi-Cal programs. Current law makes the stay effective from the time of the filing of the charges until the disposition of the criminal proceedings. This bill would, in the event the criminal proceeding resulted in a conviction, additionally require the stay to remain in effect from the date of the conviction until the adjudication procedures described above have been completed.

**AB 1455** (Bocanegra D) **The California Public Records Act: exemptions.**  
**Current Text:** Amended: 3/21/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** N  

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**Summary:** The California Public Records Act requires state and local agencies to make their records available for public inspection, unless an exemption from disclosure applies. Current law exempts from disclosure specific records of state agencies related to activities governed by the Dills Act, the State Excluded Employees Bill of Rights, and the Higher Education Employer-Employee Relations Act. This bill would also exempt from disclosure specific records of local agencies related to activities governed by the Meyers-Milias-Brown Act.
**AB 1479** (Bonta D)  Public records: custodian of records: civil penalties.

**Current Text:** Amended: 4/27/2017  
**Introduced:** 2/17/2017

**Is Fiscal:** Y

**Summary:** Would require public agencies to designate a person or office to act as the agency's custodian of records who is responsible for responding to any request made pursuant to the California Public Records Act and any inquiry from the public about a decision by the agency to deny a request for records. The bill also would make other conforming changes. Because the bill would require local agencies to perform additional duties, the bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.

**AB 1529** (Thurmond D)  Cross-connection or backflow prevention device inspectors: certification.

**Current Text:** Amended: 5/1/2017  
**Introduced:** 2/17/2017

**Is Fiscal:** Y

**Summary:** Would require valid and current certifications for cross-connection inspection and testing or backflow prevention device inspection, testing, and maintenance that were determined by the State Department of Public Health to demonstrate competency before January 1, 2016, to be approved California-specific certifications either until the State Water Resources Control Board promulgates regulations for cross-connection inspection and testing and backflow prevention device inspection, testing, and maintenance, or until January 1, 2020, whichever comes first.

**AB 1552** (Quirk-Silva D)  Electricity: distributed generation.

**Current Text:** Introduced: 2/17/2017  
**Introduced:** 2/17/2017

**Is Fiscal:** Y

2 year

**Summary:** Would, by July 1, 2018, to the extent authorized by federal law, require the state's 3 largest electrical corporations to stop assessing utility-imposed nonbypassable charges against customers using clean distributed generation resources, as defined, for electricity generated and consumed on-site and instead require those customers to pay all applicable fees based only on electricity purchased from the electrical corporation that is delivered over the electrical grid.

**AB 1587** (Levine D)  Invasive species: dreissenid mussels.

**Current Text:** Amended: 3/28/2017  
**Introduced:** 2/17/2017

**Is Fiscal:** Y

**Summary:** Current law requires any person, or federal, state, or local agency, district, or authority, that owns or manages a reservoir, as defined, where certain recreational activities are permitted, except a privately owned reservoir that is not open to the public, and where nonnative dreissenid mussels have not been detected, to assess the vulnerability of the reservoir for the introduction of nonnative dreissenid mussel species and to develop and implement a program designed to prevent the introduction of that species. This bill would instead require, rather than authorize, the Director of Fish and Wildlife to order the closure of waters or facilities to conveyances for a period of no less than 7 working days if dreissenid mussels are detected or may be present and would make other related changes.


**Current Text:** Introduced: 2/17/2017  
**Introduced:** 2/17/2017

**Is Fiscal:**

**Summary:** The MMBA rules and regulations may include exclusive recognition of employee organizations formally recognized pursuant to a vote of the employees of the agency or an appropriate unit thereof, subject to the right of an employee to represent himself or herself. This bill instead would specify that those rules and regulations may provide for exclusive recognition of
employee organizations formally recognized pursuant to a vote of the employees of the agency or an appropriate unit thereof, subject to the employee’s right to represent himself or herself, and provided that an otherwise appropriate unit of a public agency and one or more joint employers do not require the agency or joint employer’s consent.

**AB 1667** (Friedman D) Agricultural water management planning.
Current Text: Amended: 4/18/2017 [Text]
Introduced: 2/17/2017
Is Fiscal: Y

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**Summary:** Current law requires an agricultural water supplier to prepare and adopt an agricultural water management plan with specified components on or before December 31, 2012, and to update that plan on December 31, 2015, and on or before December 31 every 5 years thereafter. This bill would revise the components of the plan and additionally require the agricultural water management plan to quantifiable measures to increase agricultural water use efficiency, describe the agricultural water supplier’s water management strategy with specified elements, and include a drought plan describing the actions of the agricultural water supplier for drought preparedness and management of water supplies and allocations during drought conditions.

**AB 1668** (Friedman D) Water management planning.
Current Text: Amended: 4/18/2017 [Text]
Introduced: 2/17/2017
Is Fiscal: Y

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**Summary:** Current law, the Urban Water Management Planning Act, requires every public and private urban water supplier that directly or indirectly provides water for municipal purposes to prepare and adopt an urban water management plan and to update its plan once every 5 years on or before December 31 in years ending in 5 and zero, except as specified. This bill would require an urban water management plan to be updated on or before July 1, in years ending in 6 and one, incorporating updated and new information from the 5 years preceding the plan update.

**AB 1669** (Friedman D) Urban water conservation standards and use reporting.
Current Text: Amended: 4/18/2017 [Text]
Introduced: 2/17/2017
Is Fiscal: Y

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**Summary:** Would require the State Water Resources Control Board, in consultation with the Department of Water Resources, to adopt long-term standards for urban water conservation and water use by May 20, 2021. The bill would authorize the board, in consultation with the department, to adopt interim standards for urban water conservation and water use by emergency regulation. The bill would require the board, before adopting an emergency regulation, to provide at least 60 days for the public to review and comment on the proposed regulation and would require the board to hold a public hearing.

**AB 1671** (Caballero D) Backflow protection and cross-connection controls: regulations.
Current Text: Amended: 4/19/2017 [Text]
Introduced: 2/17/2017
Is Fiscal: Y

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**Summary:** Would, on or before January 1, 2020, would require the state board to update its backflow protection and cross-connection control regulations. This bill contains other existing laws.

**SB 5** (De León D) California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018.
Current Text: Amended: 3/28/2017 [Text]
Introduced: 12/5/2016
Is Fiscal: Y

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**Summary:** Would enact the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, which, if approved by the voters, would authorize the issuance of bonds in
an amount of $3,000,000,000 pursuant to the State General Obligation Bond Law to finance a
drought, water, parks, climate, coastal protection, and outdoor access for all program.

Current Text: Amended: 2/22/2017  Text
Introduced: 12/5/2016
Is Fiscal: Y

Summary: The Porter-Cologne Water Quality Control Act regulates the discharge of pollutants into the
waters of the state. The California Safe Drinking Water Act establishes standards for drinking water
and regulates drinking water systems. The California Endangered Species Act requires the Fish and
Game Commission to establish a list of endangered species and a list of threatened species and
generally prohibits the taking of those species. The Protect California Air Act of 2003 prohibits air
quality management districts and air pollution control districts from amending or revising their new
source review rules or regulations to be less stringent than those rules or regulations that existed on
December 30, 2002. This bill would prohibit state or local agencies from amending or revising their
rules and regulations implementing the above state laws to be less stringent than the baseline federal
standards, as defined, and would require specified agencies to take prescribed actions to maintain and
enforce certain requirements and standards pertaining to air, water, and protected species.

SB 80  (Wieckowski D)  California Environmental Quality Act: notices.
Current Text: Amended: 2/14/2017  Text
Introduced: 1/11/2017
Is Fiscal: Y

Summary: The California Environmental Quality Act requires the lead agency to mail certain notices to
persons who have filed a written request for notices. The act provides that if the agencies offer to
provide the notices by email, upon filing a written request for notices, a person may request that the
notices be provided to him or her by email. This bill would require the lead agency to post those
notices on the agency’s Internet Web site. The bill would require the agency to offer to provide those
notices by email. Because this bill would increase the level of service provided by a local agency, this
bill would impose a state-mandated local program.

SB 214  (Atkins D)  San Diego River Conservancy.
Current Text: Amended: 4/6/2017  Text
Introduced: 2/1/2017
Is Fiscal: Y

Summary: The San Diego River Conservancy Act establishes the San Diego River Conservancy in the
Natural Resources Agency, and prescribes the territory, membership, functions, and duties of the
conservancy with regard to, among other things, the acquisition, protection, and management of public
lands within the San Diego River area, as defined. This bill would specify that the powers of the
conservancy include improving, developing, and preserving lands for the purpose of protecting the
natural, cultural, and historical resources, and entering into a joint powers agreement, as specified.

SB 231  (Hertzberg D)  Local government: fees and charges.
Current Text: Amended: 4/19/2017  Text
Introduced: 2/2/2017
Is Fiscal: N

Summary: Articles XIIIC and XIIID of the California Constitution generally require that assessments,
fees, and charges be submitted to property owners for approval or rejection after the provision of
written notice and the holding of a public hearing. Current law, the Proposition 218 Omnibus
Implementation Act, prescribes specific procedures and parameters for local jurisdictions to comply with
Articles XIIIC and XIIID of the California Constitution and defines terms for these purposes. This bill
would define the term “sewer” for these purposes. The bill would also make findings and declarations
relating to the definition of the term “sewer” for these purposes.

SB 244  (Lara D)  Privacy: agencies: personal information.
Current Text: Amended: 5/3/2017  Text
Introduced: 2/6/2017
Is Fiscal: Y
### Summary:
Would require that sensitive personal information, as defined, and records containing sensitive personal information that are collected or obtained by the state, any state agency, or any subdivision of the state, including agents of the California State University and the California Community Colleges, as well as any private persons contracted to administer public services or programs or maintain data for state or local agencies, from an applicant for public services or programs be collected, recorded, or used only for the purpose of assessing eligibility for and providing those public services and programs for which the application has been submitted.

**SB 371**
**(Moorlach R)** Local public employee organizations.

**Current Text:** Amended: 4/17/2017  
**Introduced:** 2/14/2017  
**Is Fiscal:** N

### Summary:
The Meyers-Milias-Brown Act requires the governing body of a local public agency to meet and confer in good faith regarding wages, hours, and other terms and conditions of employment with representatives of a recognized employee organization. This bill would prohibit an individual who will be affected, directly or indirectly, by a memorandum of understanding between a local public agency and a recognized public employee organization from representing the public agency in negotiations with the recognized employee organization. The bill would define the phrases "indirectly affected" and "represent the public agency" for those purposes.

**SB 427**
**(Leyva D)** Public water systems: lead user service lines.

**Current Text:** Amended: 3/22/2017  
**Introduced:** 2/15/2017  
**Is Fiscal:** Y

### Summary:
Would, by July 1, 2020, require a public water system to provide the timeline for replacement of known lead user service lines in use in its distribution system to the State Water Resources Control Board. The bill, by July 1, 2020, would require a public water system that has identified areas that may have lead user service lines in use in its distribution system to (a) provide to the state board its determination as to whether there are any lead user service lines in use in those areas of its distribution system and provide a timeline to the state board for replacement of those lead use service lines, and (b) provide findings as to whether there are any areas for which it cannot determine the content of the user service lines and a timeline for the replacement of those user service lines.

**SB 448**
**(Wieckowski D)** Local government: organization: districts.

**Current Text:** Amended: 5/2/2017  
**Introduced:** 2/15/2017  
**Is Fiscal:** Y

### Summary:
Current law requires a report of an audit of a special district's accounts and records made by a certified public accountant or public accountant to be filed with the Controller and the county auditor of the county in which the special district is located within 12 months of the end of the fiscal year or years under examination. This bill would require that those audit reports also be filed with the local agency formation commission of either the county in which the special district is located or, if the special district is located in 2 or more counties, the county containing the greatest percentage of the assessed value of taxable property of the district.

**SB 496**
**(Cannella R)** Indemnity: design professionals.

**Current Text:** Chaptered: 4/30/2017  
**Introduced:** 2/16/2017  
**Is Fiscal:** N

### Summary:
Current law provides, with respect to contracts and amendments to contracts entered into on or after January 1, 2011, with a public agency, as defined, for design professional services, that all provisions, clauses, covenants, and agreements contained in, collateral to, or affecting these contracts or amendments to contracts that purport to require the design professional to defend the public agency under an indemnity agreement, including the duty and the cost to defend, are unenforceable,
except for claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the design professional. This bill would instead make these provisions applicable to all contracts for design professional services entered into on or after January 1, 2018.

**SB 564**  
**McGuire** D  
**Joint powers authorities: Water Bill Savings Act.**  
**Current Text:** Amended: 4/18/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** N  

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**Summary:** Would enact the Water Bill Savings Act, which would authorize a joint powers authority to provide funding for a customer of a local agency or its publicly owned utility to acquire, install, or repair a water efficiency improvement on the customer's property served by the local agency or its publicly owned utility. The bill would require the customer to repay the authority through an efficiency charge on the customer's water bill to be established and collected by the local agency or its publicly owned utility on behalf of the authority pursuant to a servicing agreement.

**SB 584**  
**Committee on Budget and Fiscal Review**  
**Budget Act of 2017.**  
**Current Text:** Amended: 5/1/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** N  

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**Summary:** This bill would express the intent of the Legislature to enact statutory changes relating to the Budget Act of 2017.

**SB 615**  
**Hueso** D  
**Salton Sea restoration.**  
**Current Text:** Amended: 5/1/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** Y  

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**Summary:** Would require the Natural Resources Agency, by January 1, 2018, to develop a 10-year plan to implement the memorandum of understanding between the agency and the United States Department of the Interior entered into on August 31, 2016, and its addendum, entered into on January 18, 2017, and would require the agency to address certain issues in the plan. The bill would rename the Salton Sea Restoration Act as the “John J. Benoit Salton Sea Restoration Act.” This bill contains other related provisions.

**SB 667**  
**Atkins** D  
**Department of Water Resources: riverine and riparian stewardship improvements.**  
**Current Text:** Introduced: 2/17/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** Y  

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**Summary:** Current law authorizes the Director of Water Resources to establish a program of flood control and urban creek restoration, known as the Urban Streams Restoration Program, consisting of the development of the capability by the Department of Water Resources to respond to requests from local agencies and organizations for planning and design assistance for efficient and effective urban creek protection, restoration, and enhancement. This bill, upon an appropriation of funds from the Legislature, would require the department to establish a program to implement watershed-based riverine and riparian stewardship improvements by providing technical and financial assistance in support of projects with certain benefits.

**SB 686**  
**Wilk** R  
**Public contracts: claim resolution.**  
**Current Text:** Introduced: 2/17/2017  
**Introduced:** 2/17/2017  
**Is Fiscal:** N  

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**Summary:** Current law establishes, for contracts entered into on or after January 1, 2017, a claim resolution process applicable to any claim by a contractor in connection with a public works project against a public entity. Current law defines a claim as a separate demand by the contractor for one or more of the following: a time extension for relief from damages or penalties for delay, payment of money or damages arising from work done pursuant to the contract for a public work, or payment of
an amount disputed by the public entity, as specified. In the case in which a claim is disputed or the public entity fails to respond, current law requires a public entity to schedule a meet and confer conference for the settlement of the dispute. This bill would require the public entity to, instead, conduct the meet and confer conference within that same period.

SB 701  (Hueso D)  Salton Sea Obligations Act of 2018.

Current Text: Amended: 4/27/2017  Text
Introduced: 2/17/2017
Is Fiscal: Y

Summary: Would enact the Salton Sea Obligations Act of 2018, which, if approved by the voters, would authorize the issuance of bonds in the amount of $500,000,000 pursuant to the State General Obligation Bond Law to finance a program to comply with specified state obligations relating to the Salton Sea. This bill would provide for the submission of these provisions to the voters at the November 6, 2018, statewide general election. This bill contains other related provisions.

SB 740  (Wiener D)  Onsite treated water.

Current Text: Amended: 4/26/2017  Text
Introduced: 2/17/2017
Is Fiscal: Y

Summary: Would, on or before December 1, 2018, require the State Water Resources Control Board, in consultation with other state agencies, to adopt regulations, consistent with federal and state law in effect on January 1, 2018, to provide comprehensive risk-based standards for local jurisdictions permitting programs for onsite recycling of water in multifamily residential, commercial, and mixed-use buildings for nonpotable use. The bill would require the regulations to address specified issues and practices relating to the management, monitoring, and treatment of recycled water for nonpotable use.


Current Text: Introduced: 2/17/2017  Text
Introduced: 2/17/2017
Is Fiscal: Y

Summary: Would establish a continuing education requirement for employees of public agencies who have responsibility for overseeing compliance with the California Environmental Quality Act. Because this bill would require a public agency to ensure that this continuing education requirement is met, this bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.


Introduced: 2/17/2017
Is Fiscal: Y

Summary: Would authorize the Department of Resources Recycling and Recovery to promote the application of compost in urban areas of the state to assist with projects that follow the watershed approach to landscaping and, in coordination with the Department of Water Resources, to develop and implement pilot projects that support the understanding and deployment of compost to meet specified goals. The bill would also require the State Energy Resources Conservation and Development Commission, in coordination with the State Air Resources Board, to develop a greenhouse gas emissions reduction factor for new climate appropriate landscapes, as provided.
4677 Overland Avenue  
San Diego, California  92123  

**REVISED AGENDA**

**FORMAL BOARD OF DIRECTORS’ MEETING**

The mission of the San Diego County Water Authority is to provide a safe and reliable supply of water to its member agencies serving the San Diego region.

**MAY 25, 2017**

3:00 p.m.

1. Call to Order.

2. Salute to the flag.

3. Roll call, determination of quorum.
   3-A Report on proxies received.

4. Additions to Agenda. (Government code Sec. 54954.2(b)).

5. Approve the minutes of the Special Water Planning Committee meeting of April 13, 2017 and the Formal Board of Directors’ meeting of April 27, 2017.

6. Opportunity for members of the public who wish to address the Board on matters within the Board’s jurisdiction.

7. **PRESENTATIONS & PUBLIC HEARINGS**
   7-A Recognition of Eric Holden, Employee of the 3rd Quarter.

8. **REPORTS BY CHAIRS**
   
8-A Chair’s Report: Chair Muir

8-B Report by Committee Chairs
   
   Engineering and Operations Committee  
   Director Hilliker
   
   Water Planning Committee  
   Director Cherashore
   
   Imported Water Committee  
   Director Weston
   
   Administrative and Finance Committee  
   Director Saxod
   
   Legislation and Public Outreach Committee  
   Director Guerin
9. CONSENT CALENDAR

9-1. Notice of Completion for the Pipeline 4 Relining at Lake Murray project. Authorize the General Manager to accept the Pipeline 4 Relining at Lake Murray project as complete, record the Notice of Completion, and release funds held in retention to L.H. Woods and Sons, Inc. following the expiration of the retention period.


9-4. Transfer Balance from Stored Water Fund for CalPERS Unfunded Liability. Authorize the General Manager to transfer balance of $9.5 million from the Stored Water Fund for an unfunded accrued liability payment to the California Public Employees Retirements System (CalPERS).

9-5. Resolution setting a Public Hearing date for the Water Authority’s proposed calendar year 2018 Rate and Charge increases. Adopt Resolution No. 2017-___ setting the time and place for a public hearing on June 22, 2017, at or after 9:00 a.m., or as soon thereafter as may practically be heard, during the Administrative and Finance Committee meeting, to receive comments regarding proposed rates and charges to be effective January 1, 2018.

9-6. Agreement for Carlsbad Desalination Project Sales Tax Recovery. Authorize the General Manager to execute a professional services agreement with DuCharme, McMillen and Associates to pursue the recovery of sales tax paid as part of the construction of the Carlsbad Desalination Project.


   a. Adopt Resolution No. 2017-___ approving the refunding of California Pollution Control Financing Authority $203,215,000 Water Furnishing Revenue Bonds, Series 2012 (San Diego County Water Authority Desalination Project Pipeline) via negotiated sale; a Preliminary Limited Offering Memorandum, a Bond Purchase Agreement and other documents and agreements necessary to accomplish tax exempt project refinancing through the California Pollution Control Financing Authority (CPCFA); and

   b. Approve the updated Statement of Debt Management Policy to reflect recent regulatory changes.
9- 8. Adopt positions on various state bills.
   A) Adopt a position of Support if Amended on AB 1030 (Ting), relating to energy storage systems.
   B) Adopt a position of Support on AB 1343 (Chen), relating to water use efficiency programs at schools.
   C) Adopt a position of Oppose Unless Amended on SB 80 (Wieckowski), relating to CEQA notices for multi-county water projects.

9- 9. Recommendation of program goal for Small Contractor Outreach and Opportunities Program. Continue the SCOOP program goal of 20 percent for fiscal year 2018.

10. ACTION / DISCUSSION

11. SPECIAL REPORTS
   11-A GENERAL MANAGER’S REPORT – Ms. Stapleton
   11-B GENERAL COUNSEL’S REPORT – Mr. Hattam
   11-C SANDAG REPORT – Chair Muir
      SANDAG Subcommittees: Borders Committee – Director Croucher
                              Regional Planning Committee – Director Olson
   11-D AB 1234 Compliance Reports – Directors

12. CLOSED SESSION(S)
   12-A Conference with Legal Counsel – Existing Litigation
       Government Code §54956.9(d)(1)
       SDCWA v. Metropolitan Water District of Southern California; Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004; CPF-16-515282; CPF-16-515391; A146901; and A148266
   12-B Conference with Legal Counsel – Anticipated Litigation
       Government Code §54956.9(d)(4)
       Deciding to Initiate Litigation – One Case

13. ACTION FOLLOWING CLOSED SESSION

14. OTHER COMMUNICATIONS

15. ADJOURNMENT

NOTE: The agendas for the Formal Board meeting and the meetings of the Standing Committees held on the day of the regular Board meeting are considered a single agenda. All information or possible action items on the agenda of committees or the Board may be deliberated by and become subject to consideration and action by the Board.
1. Roll call – determination of quorum.

Chair Cherashore called the Special Water Planning Committee Meeting to order at 1:35 p.m. Committee members present were Chair Cherashore, Vice Chairs Boyle and Evans, and Directors Barnum, Brady, Hedberg, Kennedy, Lewinger, Preciado, Smith, Tu, and Weston. Committee members absent were Directors Ayala, Muir, and Razak. Also present were Directors Arant, Butkiewicz, Croucher, Fong-Sakai, Heinrichs, Hilliker, Morrison, Saxod, Steiner, and Wilson. At that time, there was a quorum of the Board, and the meeting was conducted as a meeting of the Board; however, only committee members participated in the vote.

Staff present was General Manager Stapleton, General Counsel Hattam, Assistant General Manager Cushman, Director of Water Resources Yamada, Director of Public Outreach and Conservation Foster, Water Resources Manager Friehauf, and Principal Water Resources Specialist Stephenson.

2. Additions to the agenda.

There were no additions to the agenda.

3. Public comment – opportunities for members of the public to address the Committee on matters within the Committee’s jurisdiction.

There were no members of the public who wished to speak.

4. Revisions to the Water Authority’s Water Shortage and Drought Response Plan.

Mr. Yamada provided introductory remarks on the purpose for updating the Water Authority’s Water Shortage and Drought Response Plan, proposed to become the Water Shortage Contingency Plan. Mr. Stephenson provided historical context of the Water Authority’s approach to drought management from the adoption of the Drought Management Plan in 2006 to the 2016 adoption of Guidelines for Managing Carryover Supplies and the state’s 2017 development of a Long-Term Framework for Water Use Efficiency, all of which would contribute to the development of the proposed contingency plan. Ms. Friehauf reported on the focus of each of the proposed plan’s sections and schedule.

Staff responded to questions and comments posed by Directors.

5. Adjournment.
At 3:10 p.m., with no further business to come before the committee, Chair Cherashore called for a motion to adjourn. Director Barnum moved, Director Preciado seconded and the motion to adjourn passed unanimously.
ENGINEERING AND OPERATIONS COMMITTEE

CALL TO ORDER / ROLL CALL

Chair Heinrichs called the Engineering and Operations Committee meeting to order at 9:01 a.m. Committee members present were Chair Heinrichs, Vice Chairs Hilliker and Miller, and Directors Boyle, Butkiewicz*, Fong-Sakai*, Hogan, Olson, Smith, and Watkins. Committee members absent were Directors Brady, Morrison, Preciado, Razak, and Simpson. Also present were Directors Arant, Barnum, Cherashore, Guerin, Hedberg, Kennedy, Lewinger, Madaffter, Muir, Saxod, Tu, Weston, and Wilson. At that time, there was a quorum of the Board, and the meeting was conducted as a meeting of the Board; however, only committee members participated in the vote.

Staff present was General Manager Stapleton, General Counsel Hattam, Deputy General Manager Kerl, Assistant General Manager Cushman, Director of Operations and Maintenance Fisher, Energy Program Manager Rodgers, Senior Engineering Manager Bousquet, Operations and Maintenance Manager Faber, Principal Engineer Kuzmich, Senior Engineer Conner, and Engineer P.E. Oleksyn.

ADDITIONS TO AGENDA

There were no additions to the agenda.

PUBLIC COMMENT

There were no members of the public who wished to speak.

DIRECTORS’ COMMENTS

There were no Directors’ comments.

CHAIR’S REPORT

Chair Heinrichs reported that Water Authority, City of San Diego staff, and Energy Task Force members attended an Energy Storage Summit, sponsored jointly by the Association of California Water Agencies and the California Energy Storage Alliance, on March 30, 2017, in Sacramento. He reported that staff and task force members also attended a very informative tour of the UCSD microgrid on April 12, 2017, and stated that Director Hogan would provide a report on these activities later in the meeting.

* Director Fong-Sakai arrived at 9:05 a.m., prior to any voting.

I. CONSENT CALENDAR

1. Construction contract for San Vicente Dam inclinometer installation.

   Staff recommendation: Authorize the General Manager to award a construction contract to Crux Subsurface, Inc., in the amount of $175,135 for the San Vicente inclinometer installation project.
Vice Chair Miller moved, Vice Chair Hilliker seconded, and the motion to approve staffs’ recommendation passed unanimously.

II. ACTION/DISCUSSION/PRESENTATION

1. **Professional services contract with Pure Technologies U.S. Inc. for acoustic fiber optic cable monitoring services on Pipelines 3, 4, 5, and the Crossover Pipeline.**
   
   **Staff recommendation**: Authorize the General Manager to award a professional services contract to Pure Technologies U.S. Inc. for acoustic fiber optic cable monitoring services in the amount of $2,319,814 for two years, from July 1, 2017 through June 30, 2019, with an option to extend the contract for an additional three years.

   Mr. Faber gave a presentation regarding acoustic fiber optic pipeline monitoring services including the fiber optic system and purpose, location of the monitoring system within the aqueduct system, pipeline management including cost savings and benefits, and monitoring services.

   Director Fong-Sakai moved, Director Hogan seconded, and the motion to approve staffs’ recommendation passed unanimously.

2. **Miramar Pump Station Rehabilitation project.**
   
   **Staff recommendations**:
   
   a. Authorize the General Manager to accept the Miramar Pump Station Rehabilitation project as complete, record the Notice of Completion, and release funds held in retention to Kiewit Infrastructure West Co. following expiration of the retention period

   b. Authorize the General Manager to execute the Reimbursement Agreement between San Diego County Water Authority and City of San Diego for design, construction, ownership, operation, and maintenance of San Diego 27 Flow Control Facility in the amount of $400,000.

   Ms. Kuzmich presented information on the Miramar Pump Station Rehabilitation project including project location and purpose, original condition, completed pump station, San Diego 27 flow control facility, and contract summary. She also reported on existing anchor bolts, differing site condition, and start up testing coordination with the City of San Diego.

   * Director Butkiewicz arrived at 9:19 a.m., during the presentation and prior to the vote on the Miramar Pump Station Rehabilitation project item.

   Director Hogan moved, Director Miller seconded, and the motion to approve staffs’ recommendation passed unanimously.
   **Energy Task Force Committee recommendation:** Approve proceeding with a new request for proposal process for proposers to provide full-service teams for potential implementation of the San Vicente Energy Storage Facility Study.

   Director Hogan reported information received at the ACWA-California Energy Storage Alliance Energy Storage Summit including the need for flexibility and a reliable grid, locations of storage on the grid, San Diego Gas & Electric’s lithium battery installation in Escondido, and the UCSD Microgrid tour.

   Ms. Rodgers continued the presentation with information regarding the San Vicente Energy Storage Facility Study including completed and ongoing work; business model considerations, types, and risk-reward comparison; and revenue streams. She also reported on direction given to staff at the September 8, 2016 Special Engineering and Operations Committee meeting, the request for letters of interest process, activities to implement the proposed project, categories of interested parties, responses by categories, key themes, Energy Task Force review, the three options for a request for proposal process, and the timeline and milestones.

   Director Boyle moved, Director Watkins seconded, and the motion to approve the Energy Task Force’s recommendation passed unanimously.

4. Funding of low-flow meter installation at Skinner Water Treatment Plant to reduce the minimum treated water delivery from Metropolitan Water District.
   **Staff recommendation:** Authorize the General Manager to fund the installation of a low-flow meter at the Skinner Water Treatment Plant in an amount not-to-exceed $2,630,360.

   Mr. Fisher presented information regarding the low-flow meter installation at Skinner Water Treatment Plant including second aqueduct treated water supplies, Skinner service area, and considerations for meter installation.

   Director Watkins moved, Director Hogan seconded, and the motion to approve staffs’ recommendation passed unanimously.

III. INFORMATION
   The following Information item was received and filed:

   1. Advertisement for Bids for Pipeline 3 Relining Lake Murray to Sweetwater Reservoir project.

IV. CLOSED SESSION
   Mr. Hattam took the committee into Closed Session at 10:07 a.m.
1. Conference with Legal Counsel – Existing Litigation  
   Government Code §54956.9(d)(1)  
   Name of Case: Shimmick Construction Co., Inc./Obayashi Corp., 
   Joint venture v. San Diego County Water Authority, Riverside  
   Superior Court Case no. RIC 1609196  

   Mr. Hattam brought the committee out of Closed Session at 10:19 a.m. and stated there 
   was no reportable action.

V. ADJOURNMENT  
   There being no further business to come before the Engineering and Operations 
   Committee, Chair Heinrichs adjourned the meeting at 10:19 a.m.

LEGISLATION AND PUBLIC OUTREACH COMMITTEE  
CALL TO ORDER/ROLL CALL  
   Chair Guerin called the Legislation and Public Outreach Committee to order at 10:29 
   a.m. Committee members present were Chair Guerin, Vice Chair Tu, and Directors Arant, 
   Butkiewicz*, Croucher*, Evans, Gallo, Hilliker, Madaffer*, Muir, and Scalzitti. Committee 
   members absent were Vice Chair Hall, and Directors Morrison, Steiner, and Supervisor Gaspar. 
   Also present were Directors Barnum, Boyle, Cherashore, Fong-Sakai, Hedberg, Heinrichs, 
   Hogan, Kennedy, Lewinger, Miller, Preciado, Saxod, Simpson, Smith, Watkins, Weston and 
   Wilson. At that time, there was a quorum of the Board, and the meeting was conducted as a 
   meeting of the Board; however, only committee members participated in the vote.

   Staff present was General Manager Stapleton, General Counsel Hattam, Deputy General 
   Manager Kerl, Director of Public Outreach and Conservation Foster, Government Relations 
   Manager Farrel and Water Resources Manager Friehauf.

   * Director Butkiewicz arrived at 10:37 a.m.

ADDITIONS TO AGENDA  
   There were no additions to the agenda.

PUBLIC COMMENT  
   Eric Larson with the Farm Bureau in Escondido spoke in regards to a bill positon on AB 
   1667.

CHAIR’S REPORT  
   Chair Guerin reported that LPO Committee leadership, Board Officers, and Water 
   Authority management held a planning and strategy session with the Sacramento legislative 
   team in March. The LPO Committee leadership would be having in-depth planning and 
   strategy meetings, with the entire Sacramento legislative team, twice each year to discuss state 
   policy issues and the political landscape. The next meeting would be scheduled for the fall.
She reported that on April 7, 2017, the Governor released his long-term water use framework for California. She stated that the Water Authority and member agency staff had done a thorough review of the framework, and bills related to its implementation.

Chair Guerin stated the Water Authority continued to promote water efficiency as a positive and permanent lifestyle. She reported that the Water Authority had a significant presence as part of Earth Day and promoted water efficiency at five different events between April 19 and April 26, 2017. She added that May was Water Awareness Month and to help celebrate the Water Authority would be hosting a Live WaterSmart Photo Contest from May 1 to May 31, 2017. To participate, people need to submit a photo that demonstrates how water is an essential part of their life.

* Director Madaffer arrived at 10:45 a.m.

I. CONSENT CALENDAR
   1. Adopt positions on various state bills:
      Staff recommendation:

      1-A Adopt a position of Support if Amended on AB 798 (Garcia), relating to Salton Sea restoration.

      1-D Adopt a position of Oppose Unless Amended on AB 1668 (Friedman), relating to drought contingency planning.

      1-E Adopt a position of Oppose on AB 1669 (Friedman), relating to long-term water use efficiency standards.

      1-F Adopt a position of Support if Amended on SB 615 (Hueso), relating to Salton Sea restoration.

      1-G Adopt a position of Oppose on Proposed Budget Trailer Bill RN 17-12268, relating to long-water water use standards.

      1-H Adopt a position of Oppose Unless Amended on Proposed Budget Trailer Bill RN 17-09926, relating to drought contingency planning.

      Director Muir moved, Director Scalzitti seconded, and the motion to approve staffs’ recommendations passed unanimously.

      1-B Adopt a position of Support if Amended on AB 1587 (Levine), relating to quagga mussels.

      Director Tu moved, Director Evans seconded, and the motion to approve staffs’ recommendation passed unanimously.
1-C Adopt a position of Oppose Unless Amended on AB 1667 (Friedman), relating to dedicated landscape meters.

Director Arant moved, Director Tu seconded, and the motion to approve staffs’ recommendation passed unanimously.

II. ACTION/DISCUSSION/PRESENTATION

1. Legislative Issues.


Mr. Carpi provided a Washington report including updates on cabinet positions needing to be filled, and proposed cuts by the Trump administration.

1-B Sacramento Report.


Mr. Farrel provided a Sacramento update, in which he reported on legislative deadlines and the status of Water Authority sponsored bills, including AB 1323 (Weber) which would provide for a stakeholder workgroup process through the Department of Water Resources to develop long-term water-use efficiency standards, and SB 701 (Hueso) relating to state natural resources obligations, and providing funds for Salton Sea restoration activities.

Mr. Farrel provided an overview of water use efficiency legislation and upcoming milestones in the legislative process regarding this legislation. He provided a summary of what the Water Authority was doing regarding the legislation, including direct legislative advocacy, participating in statewide coalition efforts, and building a local coalition of interests.

Ms. Friehauf provided an overview of the State Water Resources Control Board’s final framework on long-term water use efficiency and drought planning for “Making Conservation a California Way of Life”.

2. Co-Sponsor AB 968 (Rubio) and AB 1654 (Rubio).

Staff recommendations:

2-A Co-sponsor and adopt a position of Support on AB 968 (Rubio), relating to long-term water use efficiency standards and performance measures.

2-B Co-sponsor and adopt a position of Support on AB 1654 (Rubio), relating to drought contingency plans.

Director Tu moved, Director Evans seconded, and the motion to approve staffs’ recommendations passed unanimously.
3. Adopt position on AB 885 (Rubio).
   Staff recommendation: Adopt a position of Oppose Unless Amended on AB 885 (Rubio), relating to lead testing.

   Director Evans moved, Director Scalzitti seconded, and the motion to approve staffs’ recommendation passed unanimously.


   The item was continued to the May 25, 2017 Board meeting.

* Director Croucher arrived at 11:31 a.m.

III. INFORMATION
   The following information item was received and filed:
   1. Government Relations Update.

IV. ADJOURNMENT
   There being no further business to come before the Legislation and Public Outreach Committee, Chair Guerin adjourned the meeting at 11:33 a.m.

WATER PLANNING COMMITTEE

CALL TO ORDER/ROLL CALL
   Chair Cherashore called the Water Planning Committee meeting to order at 11:40 a.m. Committee members present were Chair Cherashore, Vice Chairs Boyle and Evans, and Directors Ayala, Barnum, Hedberg, Kennedy, Lewinger, Muir, Preciado, Smith, Tu and Weston. Committee members absent were Directors Brady and Razak. Also present were Directors Arant, Butkiewicz, Croucher, Gallo, Guerin, Heinrichs, Hilliker, Hogan, Madaffer, Miller, Saxod, Scalzitti, Simpson, Watkins and Wilson. At that time, there was a quorum of the Board, and the meeting was conducted as a meeting of the Board; however, only committee members participated in the vote.

   Staff present was General Manager Stapleton, General Counsel Hattam, Deputy General Manager Kerl, Assistant General Manager Cushman, Director of Water Resources Yamada, Director of Public Outreach and Conservation Foster, Principal Water Resources Specialist Bombardier, and Senior Water Resources Specialist Chadwick.

ADDITIONS TO THE AGENDA
   There were no additions to the agenda.

PUBLIC COMMENT
   There were no members of the public who wished to speak.
CHAIR’S REPORT
Chair Cherashore welcomed everyone in attendance. He remarked on Governor Brown’s April 7, 2017, action to end the drought emergency for most of California, and the State Water Project’s April 14, 2017, allocation increase to 85 percent. He announced that the Water Authority would be a 2017 Association of California Water Agencies’ Clair A. Hill Award for Excellence finalist for the Carlsbad Desalination Plant at the upcoming ACWA state conference, and that five of the Water Authority’s water use efficiency programs would be featured at the 2017 WaterSmart Innovations Conference in October.

DIRECTORS’ COMMENTS
There were no Directors’ comments.

I. CONSENT CALENDAR
There were no Consent Calendar items.

II. ACTION/DISCUSSION/PRESENTATIONS
   Staff recommendation: Adopt Resolution No. 2017-06 that:
   a. Finds that the project will not have a significant effect on the environment;
   b. Adopts the Final Mitigated Negative Declaration;
   c. Adopts the Mitigation Monitoring and Reporting Program;
   d. Approves the Second San Diego Aqueduct Moosa Canyon Crossing Erosion Control Project; and
   e. Authorizes filing a Notice of Determination.
   Mr. Chadwick presented an overview of project location, objectives, components, and changes in site conditions that occurred during the public review period. He reported that two written comments were received, focused on flood control and traffic. He added that the final MND was revised to address the issues raised by the comments, and that neither the issues raised by the comments, nor the changed site conditions, required a recirculation of the MND for additional public review or the preparation of an EIR. Staff responded to questions and comments posed by Directors Barnum and Kennedy.

   Director Kennedy moved, Director Weston seconded, and the motion to approve staff’s recommendation passed unanimously.

   2. Update on water supply conditions.

   Mr. Bombardier presented a report with graphs and information on regional, state and local precipitation, storage, and forecasts. Staff responded to questions and comments posed by Directors Lewinger and Hogan.
III. INFORMATION
The following information item was received and filed:

IV. CLOSED SESSION
There were no Closed Session items.

V. ADJOURNMENT
Chair Cherashore adjourned the meeting at 12:06 p.m., following a brief look ahead to the May and June committee meetings.

IMPORTED WATER COMMITTEE
CALL TO ORDER / ROLL CALL
Chair Weston called the Imported Water Committee meeting to order at 1:05 p.m. Committee members present were Chair Weston, Vice Chairs Fong-Sakai and Kennedy, Directors Barnum, Hogan, Lewinger, Madaffer, Miller, Murtland, Olson, Saxod, Scalzitti, and Wilson. Committee members absent were Directors Steiner and Supervisor Gaspar. Also present were Directors Arant, Ayala, Brady, Butkiewicz, Cherashore, Evans, Gallo, Guerin, Hall, Hedberg, Heinrichs, Hilliker, Madaffer, Morrison, Muir, Simpson, Smith, Tu, and Watkins. At that time, there was a quorum of the Board, and the meeting was conducted as a meeting of the Board; however, only committee members participated in the vote.

Staff present was General Manager Stapleton, General Counsel Hattam, Deputy General Manager Kerl, Assistant General Manager Cushman, MWD Program Director Chen, Colorado River Program Director Denham, and Senior Water Resources Specialist Mathews. Also present was Chris Frahm, Legal Counsel for Brownstein Hyatt Farber Schreck.

ADDITIONS TO AGENDA
There were no additions to the agenda.

PUBLIC COMMENT

At that time, the agenda was taken out of order and Mr. Hattam took the Committee into Closed Session at 1:08 p.m.

IV. CLOSED SESSION
1. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   SDCWA v. Metropolitan Water District of Southern California
   Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004; CPF-16-515282;CPF-16-515391; A146901; and A148266
2. Conference with Legal Counsel – Anticipated Litigation
   Government Code §54956.9(d)(4)
   Deciding to Initiate Litigation – One Case

   Mr. Hattam brought the committee out of Closed Session at 1:47 p.m. and reported that
   the Board had approved direction to engage counsel and to initiate an action, and the action,
   defendants, and other particulars shall, once formally commenced, be disclosed to any person
   upon inquiry, unless to do so would jeopardize the agency's ability to effectuate service of
   process on one or more unserved parties, or that to do so would jeopardize its ability to
   conclude existing settlement negotiations to its advantage.

   Mr. Hattam announced Closed Session item IV-3 would be handled in its entirety by
   outside special counsel Scott Slater from Brownstein Hyatt Farber Shreck. Mr. Hattam recused
   himself and reported that the General Counsel’s office would not attend or participate in the
   Closed Session. Mr. Slater joined via teleconference.

3. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   State Water Resources Control Board Petition of Imperial Irrigation District for
   Modification of Revised Water Rights Order 2002-0013

   Mr. Slater brought the Committee out of Closed Session at 2:05 p.m. and stated
   there was no reportable action.

CHAIR’S REPORT

   Chair Weston announced the Department of Water Resources awarded a $275 million
   contract to Kiewit Corporation for the repair of the Oroville spillways, and total cost, according
   to some news reports, could be as much as $1 billion. He mentioned it was on the work plan to
   continue tracking costs and impacts to the Water Authority and ratepayers.

   Chair Weston reported Director Kennedy attended the MWD Board Meetings in April
   and asked if he would provide observations; Chair Weston also stated that Directors interested
   in attending should contact appropriate staff.

   Director Kennedy thanked MWD Delegates and staff for the trip and made several
   comments about the meetings; he also noted that the Water Authority’s MWD delegates
   supported more items on the MWD agenda than not, and only took exceptions with those that
   were major policy items.

   Chair Weston explained that the Board requested the General Manager to respond to the
   comments made by MWD last month at Water Authority committee meetings. Ms. Stapleton
   reported that she had made community presentations related to MWD’s rate case and financial
   practices. She said the trial court had ruled MWD’s rates illegal and unconstitutional, and
reminded everyone what was at stake for the Water Authority’s member agencies, including the annual overcharge as a result of the illegal rates. She further explained MWD’s unsound financial practices did not stop at illegal rates but also included practices that placed risks to all Southern California ratepayers. Ms. Stapleton reviewed the assessment of MWD’s statements and documents by going through the list, and summarized the Water Authority’s response.

Directors made comments and thanked Ms. Stapleton and staff for the responses provided.

DIRECTORS’ COMMENTS

There were no Directors’ comments.

I. CONSENT CALENDAR

1. Amend agreement for Consulting Services with Laing Strategic Communications.
   
   Staff recommendation: Amend the agreement with Laing Strategic Communication for continued consulting services to the Water Authority through June 30, 2018, by $36,000, for a period of 12 additional months, and increasing total contract funding to an amount not to exceed $157,000.

Vice Chair Kennedy moved, Director Scalzitti seconded, and the motion to approve staffs’ recommendation passed unanimously.

II. ACTION/DISCUSION/PRESENTATION

1. Amend agreement for Consulting Services with SCN Strategies.

   Staff recommendation: Amend the agreement with SCN Strategies for continued consulting services to the Water Authority through June 30, 2018 by $150,000, for a period of 12 additional months, and increasing total contract funding to an amount not to exceed $1,139,050.

Ms. Vedder presented the background of SCN and explained the staff recommendation.

Director Lewinger moved, Vice Chair Kennedy seconded, and the motion to approve staffs’ recommendation passed unanimously.


Ms. Chen presented a brief update on Bay Delta flow standards explaining the background, issues, and staff recommendation.
Director Wilson moved, Director Saxod seconded, and the motion to approve staffs’ recommendation passed unanimously.

3. **MWD Issues and activities update.**

   3-A Metropolitan Water District Delegates’ Report.

   Director Lewinger requested the Board refer to the written report in the board packet.

   3-B Metropolitan Water District’s Treatment Fixed Charge Discussion.

   Due to time constraints, Chair Weston announced this item would be presented at the May 25, 2017, meeting.

4. **Colorado River Programs.**

   4-A Colorado River Board Representative’s Report.

   Director Wilson requested the Board refer to the written report in the board packet.

   4-B Colorado River hydrology update

   Due to time constraints, Chair Weston announced the item would be presented at the May 25, 2017, meeting.

III. **INFORMATION**

   The following information item was received and filed:

   1. Metropolitan Water District Program Report.

V. **ADJOURNMENT**

   There being no further business to come before the Imported Water Committee, Chair Weston adjourned the meeting at 2:48 p.m.

**ADMINISTRATIVE AND FINANCE COMMITTEE CALL TO ORDER / ROLL CALL**

   Chair Saxod called the Administrative and Finance Committee meeting to order at 2:47 p.m. Committee members present were Chair Saxod, Vice Chairs Arant and Wilson, and Directors Ayala, Cherashore, Gallo, Guerin, Hall, Hedberg, Heinrichs, Murtland, and Watkins. Committee member absent was Director Simpson. Also present were Directors Barnum, Boyle, Butkiewicz*, Croucher, Evans*, Fong-Sakai*, Guerin*, Hogan, Kennedy, Lewinger, Miller, Morrison*, Muir, Olson, Razak, Smith, Steiner, Tu, and Weston. At that time there was a quorum of the Board and the meeting was then conducted as a meeting of the Board; however, only committee members participated in the vote.
Staff present was General Manager Stapleton, General Counsel Hattam, Deputy General Manager Kerl, Assistant General Manager Cushman, Director of Water Resources Yamada, Director of Finance/Treasurer Harris, Director of Administrative Services Brown, and Controller Woidzik.

**ADDITIONS TO AGENDA**

There were no additions to the agenda.

**PUBLIC COMMENT**

There were no members of the public who wished to speak.

* Director Guerin joined the meeting at 2:55 p.m.

**CHAIR’S REPORT**

There was no Chair’s report.

**DIRECTORS’ COMMENTS**

There were no Directors’ comments.

**I. CONSENT CALENDAR**

   - Staff recommendation: Note and file the monthly Treasurer’s report.

2. Approve the extension of the Bank of Toyko liquidity facility supporting the Water Authority’s Commercial Paper Series 8: Approve the extension of the Bank of Tokyo liquidity facility agreement and adopt Resolution 2017-08 authorizing the amendment of the Bank of Tokyo agreement.

   Director Ayala moved, Director Arant seconded, and the motion to approve staffs’ recommendations passed unanimously.

**II. ACTION/DISCUSSION/PRESENTATION**

1. Investment Manager’s Performance Report.

   In the interest of time the presentation was moved to the next quarter.

* Directors Evans, Fong-Sakai, Morrison and Butkiewicz joined the meeting at 3:05 p.m.

2. Preliminary Assessment on Calendar Year (CY) 2018 Rates and Charges.

   Ms. Harris presented the Preliminary Assessment on Calendar Year 2018 Rates and Charges including the CY 2018 Rate and Charge drivers and high and low rate guidance for
treated and untreated water. In addition, Mr. Yamada presented historical, and future projected, water sales from Calendar Year 2007 to Calendar Year 2022.

Directors Kennedy and Lewinger commented and asked questions and Mr. Yamada and Ms. Harris provided answers.

3. City of San Jose vs. Superior Court: Definition of Public Records.

Mr. Hattam presented a summary of the San Jose case and provided guidance on how the Water Authority would comply with the Public Request Act rules surrounding the case. He mentioned that General Counsel had created a detailed training video that would be offered to staff and Board members on how to best comply with the rules of this case.

III. INFORMATION

The following items were received and filed:
2. Board of Director’s first quarter 2017 Expenses and Attendance.
3. Board Calendar.

Chair Saxod invited Board members to view the Science Fair Exhibits, and meet the Science Fair students, in the Lobby prior to the Formal Board meeting.

IV. CLOSED SESSION

There were no Closed Session items.

V. ADJOURNMENT

There being no further business to come before the Administrative and Finance Committee, Chair Saxod adjourned the meeting at 3:07 p.m.

FORMAL BOARD OF DIRECTORS' MEETING OF APRIL 27, 2017

1. CALL TO ORDER Chair Muir called the Formal Board of Directors’ meeting to order at 3:25 p.m.

2. SALUTE TO THE FLAG Director Hilliker led the salute to the flag.

3. ROLL CALL, DETERMINATION OF QUORUM Secretary Croucher called the roll. Directors present were Arant, Ayala, Barnum, Brady, Butkiewicz, Cherasshore, Croucher, Evans, Fong-Sakai, Gallo, Guerin, Hall, Hedberg, Heinrichs, Hilliker, Hogan, Kennedy, Lewinger*, Madaffer, Miller, Muir, Murtland, Olson, Saxod, Scalzetti*, Simpson, Smith, Tu, Watkins, Weston, and Wilson. Directors absent were Boyle, Morrison, Preciado, Razak, Steiner, and Supervisor Gaspar.

3-A Report on proxies received.
4. **ADDITIONS TO AGENDA**  
There were no additions to the agenda.

5. **APPROVAL OF MINUTES**  
Director Kennedy moved, Director Evans seconded, and the motion carried at 86.89% of the vote to approve the minutes of the Formal Board of Directors’ meeting of March 23, 2017.

6. **OPPORTUNITY FOR MEMBERS OF THE PUBLIC WHO WISH TO ADDRESS THE BOARD ON MATTERS WITHIN THE BOARD’S JURISDICTION**  
There were no members of the public who wished to speak.

* Directors Lewinger and Scalzitti arrived at 3:30 p.m., after the vote on approval of minutes.

7. **PRESENTATIONS & PUBLIC HEARINGS**  
7-A Presentation of Science Fair Award Winners.

Chair Muir recognized the winners of the Science Fair. Principal Public Affairs Representative Risa Baron introduced each of the winners to the Board, and they provided a brief explanation of their projects and project findings.

8. **REPORTS BY CHAIRS**  
8-A Chairs report: Chair Muir reported on meetings he was scheduled to attend including the Spring ACWA Conference with the Board Officers in May, a meeting with Vice Chair Madaffer and a variety of elected officials to discuss concerns with MWD in Orange County on May 3, and in Ventura on May 1, 2017.

8-B Report by Committee Chairs:  
- **Engineering and Operations Committee.** Director Heinrichs reviewed the meeting and the action taken.
- **Administrative and Finance Committee.** Director Saxod reviewed the meeting and the action taken.
- **Water Planning Committee.** Director Cherashore reviewed the meeting and the action taken.
- **Legislation and Public Outreach Committee.** Director Guerin reviewed the meeting and the action taken.
- **Imported Water Committee.** Director Weston reviewed the meeting and the action taken.
9. **CONSENT CALENDAR**
   Director Tu moved, Director Barnum seconded, and the motion carried at 92.08% of the vote to approve Consent Calendar. Directors voting no or abstaining are listed under the item number.

9-1. **Construction contract for San Vicente Dam inclinometer installation.**
The Board authorized the General Manager to award a construction contract to Crux Subsurface, Inc., in the amount of $175,135 for the San Vicente inclinometer installation project.

9-2. **Professional services contract with Pure Technologies U.S. Inc. for acoustic fiber optic cable monitoring services on Pipeline 3, 4, 5 and Crossover Pipeline.**
The Board authorized the General Manager to award a professional services contract to Pure Technologies U.S. Inc. for acoustic fiber optic cable monitoring services in the amount of $2,319,814 for two years, from July 1, 2017 through June 30, 2019, with an option to extend the contract for an additional three years.

9-3. **Miramar Pump Station Rehabilitation project.**
The Board authorized the General Manager to accept the Miramar Pump Station Rehabilitation project as complete, record the Notice of Completion, and release funds held in retention to Kiewit Infrastructure West Co. following expiration of the retention period; and, authorized the General Manager to execute the Reimbursement Agreement between San Diego County Water Authority and City of San Diego for design, construction, ownership, operation, and maintenance of San Diego 27 Flow Control Facility in the amount of $400,000.

9-4. **San Vicente Energy Storage Facility Study.**
The Board approved issuing a Request for Proposal, to all full-service teams, for potential implementation of the San Vicente Energy Storage Facility Study.

9-5. **Funding of low-flow meter installation at Skinner Water Treatment Plant to reduce the minimum treated water delivery from Metropolitan Water District.**
The Board authorized the General Manager to fund the installation of a low-flow meter at the Skinner Water Treatment Plant in an amount not to exceed $2,630,360.

9-6. **Adopt bill positions.**
   A) The Board adopted a position of Support if Amended on AB 798 (Garcia), relating to Salton Sea restoration.
   B) The Board adopted a position of Support if Amended on AB 1587 (Levine), relating to quagga mussels.
   C) The Board adopted a position of Oppose Unless Amended on AB 1667 (Friedman), relating to agricultural water management plans.
   D) The Board adopted a position of Oppose Unless Amended on AB 1668 (Friedman), relating to drought contingency planning.
E) The Board adopted a position of Oppose on AB 1669 (Friedman), relating to long-term water use efficiency standards.

F) The Board adopted a position of Support if Amended on SB 615 (Hueso), relating to Salton Sea restoration.

G) The Board adopted a position of Oppose on Proposed Budget Trailer Bill RN 17-12268, relating to long-water water use standards.

H) The Board adopted a position of Oppose Unless Amended on Proposed Budget Trailer Bill RN 17-09926, relating to drought contingency planning.

9-7. Co-sponsor AB 968 (Rubio) and AB 1654 (Rubio).
The Board co-sponsored and adopted a position of Support on AB 968 (Rubio), relating to long-term water use efficiency standards and performance measures and co-sponsored and adopted a position of Support on AB 1654 (Rubio), relating to drought contingency plans.

The Board adopted a position of Oppose Unless Amended on AB 885 (Rubio), relating to lead testing.

The Board adopted Resolution No. 2017-06 that found that the project will not have a significant effect on the environment; adopted the Final Mitigated Negative Declaration; adopted the Mitigation Monitoring and Reporting Program; approved the Second San Diego Aqueduct Moosa Canyon Crossing Erosion Control Project; and authorized filing a Notice of Determination.

9-10. Amend agreement for Consulting Services with Laing Strategic Communications.
The Board amended the agreement with Laing Strategic Communications for continued consulting services to the Water Authority through June 30, 2018, by $36,000, for a period of 12 additional months, and increasing total contract funding to an amount not to exceed $157,000.

The Board amended the agreement with SCN Strategies for continued consulting services to the Water Authority through June 30, 2018 by $150,000, for a period of 12 additional months, and increasing total contract funding to an amount not to exceed $1,139,050.
9-12. **Adopt a Resolution Supporting the Association of California Water Agencies’ Policy Statement on Bay Delta Flow Requirements.**

9-13. **Anticipated Litigation.**
The Board approved direction to engage counsel and to initiate an action, and the action, the defendants, and the other particulars shall, once formally commenced, be disclosed to any person upon inquiry, unless to do so would jeopardize the agency's ability to effectuate service of process on one or more unserved parties, or that to do so would jeopardize its ability to conclude existing settlement negotiations to its advantage.

9-14. **Monthly Treasurer’s Report on Investments and Cash Flow.**
The Board noted and filed the monthly Treasurer’s Report.

9-15. **Approve the extension of the Bank of Tokyo liquidity facility supporting the Water Authority’s Commercial Paper Series 8.**
The Board approved the extension of the Bank of Tokyo liquidity facility agreement and adopted Resolution 2017-08 authorizing the amendment of the Bank of Tokyo agreement.

10. **ACTION/DISCUSSION**

11. **SPECIAL REPORTS**
11-A **GENERAL MANAGER’S REPORT** – Ms. Stapleton announced that the Water Authority would host a pipe assessment & rehabilitation workshop on May 30, 2017, from 9 a.m. to noon, with member agencies. She also informed the Board of an exploratory meeting scheduled on May 24, 2017, to discuss potential harvesting of algae from local reservoirs for use in items in the place of petroleum. She announced the completion of a pilot program for an inexpensive AMI meter reading project which could bring significant savings to Water Authority member agencies.

She concluded her report with a clarification of comments made regarding the MWD process of building their Urban Water Management Plan. She further explained her comments in context, and thanked the Board for the opportunity to provide clarification.

11-B **GENERAL COUNSEL’S REPORT** – Mr. Hattam stated he had nothing further to report.
11-C  SANDAG REPORT – Chair Muir stated that he was unable to attend the last meeting and the next meeting was scheduled for April 28, 2017.
SANDAG Subcommittees:
Borders Committee – Director Croucher stated the meeting was scheduled for April 28, 2017.
Regional Planning Committee – Director Olson provided a written report in the Board Packet.

11-D  AB 1234 Compliance Reports – No reports were given.

12.  CLOSED SESSION(S)
Mr. Hattam announced there was no need for Closed Session.

12-A  Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1) Shimmick Construction Co., Inc./Obayashi Corp., joint venture v. San Diego County Water Authority, Riverside Superior Court Case No. RIC 1609196

12-B  Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1) SDCWA v. Metropolitan Water District of Southern California; Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004; CPF-16-515282; CPF-16-515391; A146901; and A148266

12-C  Conference with Legal Counsel – Anticipated Litigation
Government Code §54956.9(d)(4) Deciding to Initiate Litigation – One Case

12-D  Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1) State Water Resources Control Board Petition of Imperial Irrigation District for Modification of Revised Water Rights Order 2002-0013

13.  ACTION FOLLOWING CLOSED SESSION

14.  OTHER COMMUNICATIONS
There were no other communication items.
15. **ADJOURNMENT**
There being no further business to come before the Board, Chair Muir adjourned the meeting at 4:00 p.m.

_______________________________  _______________________________
Mark Muir, Chair                Gary Croucher, Secretary

Melinda Cogle, Clerk of the Board
May 17, 2017

Attention: Board of Directors

General Counsel’s Report – April/May 2017

Purpose
This report discusses certain legal matters receiving attention during the months of April/May 2017.

Significant Developments in Pending Litigation

MWD Rate Cases

2010/2012 Rate Cases: Oral argument in the Water Authority's case challenging MWD's 2011-2014 rates was heard in the First District Court of Appeal in San Francisco on Wednesday, May 10, at 10:00 a.m. The panel included First District Justices William McGuinness, Stuart Pollak, and Peter Siggins. John Keker argued on behalf of the Water Authority, and Kathleen Sullivan of the Quinn Emanuel law firm argued on behalf of MWD. A detailed report will be made in closed session at the May 25 Imported Water Committee meeting. Under state law, the Court of Appeal must issue its decision no more than 90 days from oral argument, and thus a decision is due on or before August 8 of this year.

2014 Rate Case: The case filed on May 30, 2014 challenging MWD’s rates adopted in 2014 for 2015 and 2016 was transferred to San Francisco Superior Court, assigned to Judge Karnow, and remains stayed pending the outcome of the appeal of the 2010 and 2012 cases. We expect the 2014 case will be taken up by Judge Karnow promptly following a final ruling in the 2010/2012 rate cases, upon motion of one or both of the parties.

2016 Rate Case: The case filed on April 13, 2016 challenging MWD’s rates adopted in 2016 for 2017 and 2018 was transferred to San Francisco Superior Court and, following MWD’s exercise of a peremptory challenge against Judge Karnow, assigned to Judge Mary Wiss, the other complex litigation judge in San Francisco. The Water Authority, MWD, and the eight MWD member agencies who answered the 2016 complaint entered into a stipulation (1) allowing the Water Authority to amend the 2016 complaint to add claims under the Exchange Agreement and for monetary damages; and (2) staying the 2016 case pending the outcome of the appeal in the 2010 and 2012 cases. On November 14, 2016, the Water Authority filed its amended complaint, and the 2016 case remains stayed. It is possible that the 2016 case will remain stayed pending developments in the cases still before Judge Karnow and the requirements of any writ of mandate consistent with a final ruling in the 2010/2012 rate cases.

Public Records Act Case: The Water Authority filed a lawsuit in August against MWD in the Los Angeles Superior Court for disclosure of MWD’s rate model and related records evidencing how
MWD assigned its costs and set its rates in 2016 for calendar years 2017 and 2018. The lawsuit has been transferred to San Francisco Superior Court, and the first deposition, of Arnout Van Den Berg, was taken on May 11.

**Shimmick/Obayashi Joint Venture v. San Diego County Water Authority**

The discovery phase of this large CIP case is continuing as the case moves towards trial, which is set for July 21, 2017 in Riverside Superior Court. The Plaintiff and Water Authority attended mediation on April 20, 2017, with experienced construction mediator Lynn Frank, but no settlement was reached. The Water Authority has brought a motion to amend its Cross-Complaint and to seek a short trial continuance to complete discovery, which are set to be heard at the end of this month.

**Requests Pursuant to the Public Records Act Request**

<table>
<thead>
<tr>
<th>Requestor</th>
<th>Documents Requested</th>
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<tbody>
<tr>
<td>San Diego Union Tribune</td>
<td>All payments made to and reimbursement requests filed by each director and/or board/committee member in 2017</td>
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<tr>
<td>Transparent California</td>
<td>SDCWA Employee Compensation Report for 2016</td>
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Prepared by: Mark J. Hattam, General Counsel

Attachment: Special Counsel Expenditure Report
## General Counsel's Office
### Special Counsel Expenditure Report
(April/May 2017)

### On-going Litigation

<table>
<thead>
<tr>
<th>Special Counsel</th>
<th>Project</th>
<th>Total $ Expended for Apr/May-17 (Fees &amp; Costs)</th>
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<td>Enforcing Requests for Public Records</td>
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<tr>
<td>Brownstein Hyatt Farber Schreck</td>
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<td>Daley &amp; Heft</td>
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### Non-Litigation

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<td>Liebert Cassidy Whitmore</td>
<td>Personnel Issues</td>
<td>$547.00 (OP)</td>
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¹ The California Supreme Court has held that the amounts of monthly legal bills for ongoing litigation have privileged status, as they may disclose litigation strategy. *Los Angeles County Bd. of Supervisors v. Superior Court*, (2016) 2 Cal. 5th 282, 286.