The Water Authority gave away reusable grocery bags at the San Diego Farm Bureau’s inaugural Graze at the Flower Fields farm-to-table event as part of the Brought to You by Water outreach and education program.
NOTICE TO THE PUBLIC

BOARD OF DIRECTORS’ AND STANDING COMMITTEES’
REGULAR MEETING
MAY 23, 2019
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 and Public Outreach, and Water Planning and Environmental 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 23, 2019 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 2:30 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 or at the Water Authority Headquarters.
MEETING SCHEDULE

MAY 23, 2019

MORNING SESSION
Engineering & Operations Committee
Water Planning & Environmental Committee
Administrative & Finance Committee
9:00 a.m. to 12:00 p.m.
Estimated meeting time: 9:00 – 9:45 a.m.
Estimated meeting time: 9:50 – 10:30 a.m.
Estimated meeting time: 10:35 – 12:00 p.m.

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

AFTERNOON SESSION
Imported Water Committee
Legislation & Public Outreach Committee
1:00 p.m. to 2:30 p.m.
Estimated meeting time: 1:00 – 1:45 p.m.
Estimated meeting time: 1:50 – 2:30 p.m.

FORMAL BOARD MEETING
2:30 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 may commence at the conclusion of the morning session and earlier than 1:00 p.m., and the other afternoon sessions may start at any time after 1:00 p.m. The Board meeting will start no earlier than 2:30 p.m., and will follow the conclusion of the last committee meeting.
ENGINEERING AND OPERATIONS COMMITTEE

AGENDA FOR

MAY 23, 2019

Marty Miller – Chair      Jim Murtland
Lois Fong-Sakai – Vice Chair    Jose Preciado
Ron Watkins – Vice Chair    Joel Scalzitti
Gary Arant    John Simpson
Jack Bebee    Tim Smith
Kathleen Coates Hedberg    Fern Steiner
Tony Heinrichs    Almis Udrys
Joe Mosca


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


2. Design-Build contract with Gracon LLC for the Rancho Peñasquitos Hydroelectric Facility Improvements Project.
   Staff recommendation: Authorize the General Manager to award a design-build contract to Gracon LLC in the amount of $4,280,000 for the Rancho Peñasquitos Hydroelectric Facility Improvements project.  (Action)   Kirk Whitaker

3. Lake Hodges Operations update.  (Presentation)    Jim Fisher

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.
May 15, 2019

Attention:  Engineering and Operations Committee

Pumped Energy Storage White Paper (Presentation)

Purpose
This presentation provides information relative to the subject white paper.

Discussion
As California rapidly advances towards 100 percent renewable/zero-carbon emission objectives in energy production, the use of more renewables will require investing now in clean energy storage to make the power grid more robust, particularly later as California’s energy production is derived from increasingly higher percentages of renewables.

Pumped energy storage can play an efficient role in integrating renewables into the grid. The Water Authority is partnering with the City of San Diego on the proposed San Vicente Energy Storage Facility. The project team, working with primary author Dr. David Victor, prepared a white paper examining the complex and little understood challenges to achieving California’s renewable energy and climate goals, and the critical role long-duration pumped energy storage will play in overcoming them.

The goal of the white paper is to further the discussion in support of proposed legislation and new regulatory processes that ensure the investments California has made in renewable and carbon-free energy deliver the benefits that Californian’s expect. Large scale pumped storage projects need to begin many years in advance of the desired commercial operation date to ensure they are ready when needed.

This presentation will provide an overview of the white paper.

Prepared by:  Gary W. Bousquet, Deputy Director of Engineering
Approved by:  Sandra L. Kerl, Acting General Manager
May 15, 2019

Attention: Engineering and Operations Committee

Design-Build contract with Gracon LLC for the Rancho Peñasquitos Hydroelectric Facility Improvements Project (Action)

Staff recommendation
Authorize the General Manager to award a design-build contract to Gracon LLC in the amount of $4,280,000 for the Rancho Peñasquitos Hydroelectric Facility Improvements project.

Alternative
Do not award the design-build contract and direct staff to negotiate with another design builder or solicit new proposals. This will delay the project and delay an increase of future revenue by six months.

Fiscal Impact
Funds in the amount of $4,280,000 are available in the approved project budget and fiscal years 2018 and 2019 Capital Improvement Program appropriation. Funds included in the Recommended Capital Improvement Program appropriation for fiscal years 2020 and 2021 are contingent upon Board approval of the recommended budget. The rate category for this project is customer service.

Executive Summary
- The Rancho Peñasquitos Hydroelectric Facility equipment operating ranges do not match current and forecasted water flows due to decreases in regional water demand.
- Hydroelectric equipment improvements to match forecasted flows will increase electrical revenue.
- The design-build procurement method was recommended to provide contractors flexibility in equipment selection to maximize electrical generation revenue.
- Improvements are anticipated to generate an average annual revenue of $870,000 with a five year payback period.
- The work is scheduled to be complete by summer 2021.

Background
The Rancho Peñasquitos Pressure Control and Hydroelectric Facility was constructed in 2007 to control untreated water flows on the southern portion of the Water Authority’s Second Aqueduct and San Vicente Pipeline. Prior to this facility being constructed, water deliveries flowed by gravity in a north to south direction. This facility controls water in a variety of operational scenarios using four flow and pressure control valves and a hydroelectric turbine. The hydroelectric turbine monetizes water energy normally dissipated by flow and pressure control valves. Electrical revenues generated from the turbine paid for the original hydroelectric components in fiscal year 2014.
Due to a reduction in regional water demands, reduced water flows through the facility have limited hydroelectric generation to less than 60 percent of its capacity. With the current hydroelectric equipment, forecasted water flows, including the City of San Diego’s Pure Water project, are expected to limit hydroelectric generation to less than 50 percent of its capacity in dry years, and almost no hydroelectric generation in wet years.

In November 2016, the Water Authority contracted with NLine Energy (NLine) to assess the hydroelectric equipment and provide recommendations to improve electrical generation. NLine’s analysis identified excessive wear and other issues on the equipment which require significant refurbishment or replacement for the equipment to operate as planned. NLine also recommended expanding the operating range of the turbine to increase run time and electrical generation.

Staff reviewed several alternate project delivery methods and determined the design-build approach is the industry standard for improving hydroelectric equipment. The design-build approach benefits the Water Authority by allowing contractors to design equipment to maximize energy efficiency and electrical generation. The traditional design-bid-build approach would split performance and efficiency requirements between a designer, equipment manufacturer, and contractor, while increasing the project schedule by five to seven months.

Previous Board Action: On July 26, 2018, the Board approved the Design-Build Performance Specifications to upgrade the Rancho Peñasquitos Hydroelectric Facility equipment.

Discussion
Staff advertised a Request for Proposals on January 23, 2019 to provide design-build services for the project. Staff conducted a pre-proposal meeting and site visit on January 31, 2019. Nineteen people attended including contractors, designers, suppliers, and other water industry professionals. Two design-build teams submitted proposals on March 27, 2019:

- Gracon LLC teamed with Mavel Americas, Inc.
- Tesco Controls, Inc. teamed with Canyon Hydro

The selection criteria required design-build teams to provide a baseline contract price, discuss their technical approach for maximizing electrical generation, provide a proposed project schedule, demonstrate their hydroelectric experience, and review constructability issues. A panel comprised of Water Authority staff from the Engineering and Operations and Maintenance Departments interviewed the design-build teams on April 3, 2019.

Based on the review of the proposals, interviews, and reference checks, Gracon LLC was selected as the design-build team to perform the required services in the amount of $4,280,000. Gracon’s proposal generates the most electricity at the highest efficiency for the least cost, resulting in the greatest annual revenue and shortest payback period. As presented at the July 2018 Board meeting, the Engineer’s estimate for this design-build contract was $3,800,000. The difference between the estimate and design-builder’s proposal is the result of an increase in
construction labor and equipment costs over the past year. The proposed improvements are anticipated to generate an average annual revenue of $870,000. Based on this anticipated revenue and construction cost, the payback period is five years. Manufacturing of the new hydroelectric equipment is expected to begin in fall 2019 with installation, commissioning, and startup completing by summer 2021.

Due to limited subcontracting opportunities for this type of service, SCOOP outreach was not required.

Staff recommends the Board authorize the General Manager to award a design-build contract to Gracon LLC in the amount of $4,280,000 for the Rancho Peñasquitos Hydroelectric Facility Improvements project.

Prepared by: Kirk Whitaker, Senior Engineer
Reviewed by: Jerry Reed, Director of Engineering
Approved by: Sandra L. Kerl, Acting General Manager

Attachments:

Figure 1 – Location Map
May 15, 2019

Attention: Engineering and Operations Committee

Lake Hodges Operations update. (Presentation)

Purpose
This presentation provides an update on the operational conditions of Lake Hodges.

Discussion
Lake Hodges dam was built in 1918 and is owned by the City of San Diego. Lake Hodges has a maximum storage capacity of 30,000 AF, which is shared by the City, San Dieguito Water District, Santa Fe Irrigation District, and the Water Authority. In 1998, the Water Authority and City entered into the Emergency Storage Project Agreement, providing the Water Authority with storage rights of 20,000 AF in Lake Hodges. The remaining storage is equally divided between the City (5,000 AF) and the Districts (5,000 AF).

In addition, in 2004 the Water Authority entered into a 25-year Power Purchase Agreement with SDG&E to operate the Lake Hodges Hydroelectric Facility (LHHF) for pumped storage. The Water Authority commissioned the LHHF in 2012, which allows for water to be transferred between Lake Hodges and Olivenhain Reservoir. The minimum level of Lake Hodges to operate in the pumped storage mode is elevation 290 ft.

Over the last several years, the City, in coordination with the California Division of Safety of Dams, has been evaluating performance and condition concerns with the Lake Hodges Dam. As a result of the ongoing evaluation, the City is proposing to implement a water level restriction for Lake Hodges until the evaluation, along with any associated improvements, have been completed. The proposed level restriction is at elevation 295 ft.

This presentation will provide an overview of the current operational conditions and actions being taken by the City of San Diego, along with the potential operational and financial impacts to the Water Authority.

Prepared by: James E. Fisher, Director of Operations and Maintenance
Approved by: Sandra L. Kerl, Acting General Manager

JF:mmr
WATER PLANNING AND ENVIRONMENTAL COMMITTEE

AGENDA FOR

MAY 23, 2019

Tony Heinrichs – Chair     Chris Cate
Brian Boyle – Vice Chair     Jim Desmond
Doug Wilson – Vice Chair     Kathleen Coates Hedberg
Gary Arant     Michael Hogan
Jimmy Ayala     Tom Kennedy
David Barnum     Keith Lewinger
Jack Bebee     Ron Morrison
Jerry Butkiewicz

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


   Staff recommendation: Authorize the General Manager to execute a three-year professional services agreement with Mission Resource Conservation District in an amount not to exceed $260,000 for administration of the WaterSmart Field Services Program through June 30, 2022, with an option for a two-year extension.

Joni German

II. ACTION/DISCUSSION/PRESENTATION

1. Annual Storage Assessment. (Presentation) Jeremy Crutchfield

2. San Diego Integrated Regional Water Management Program Update. (Presentation) Mark Stadler

3. Update on water supply conditions. (Presentation) Alexi Schnell
4. Update on San Diego Water Board Permit for the Lewis Carlsbad Desalination Plant Intake Modifications Project. (Presentation)

Jeremy Crutchfield

III. INFORMATION


Jeremy Crutchfield

IV. CLOSED SESSION

1. Conference with Legal Counsel – Anticipated Litigation

Mark Hattam

Government Code §54956.9(d)(2)

One Case

V. ADJOURNMENT

Melinda Nelson

Clerk of the Board

NOTE: This meeting is called as a Water Planning and Environmental 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 15, 2019

Attention: Water Planning and Environmental Committee


Staff recommendation
Authorize the General Manager to execute a three-year professional services agreement with Mission Resource Conservation District in an amount not to exceed $260,000 for administration of the WaterSmart Field Services Program through June 30, 2022, with an option for a two-year extension.

Alternative
Do not authorize the professional services agreement, discontinue implementation of the WaterSmart Field Services program and amend or cancel external funding agreements.

Fiscal Impact
Funding sources include $132,000 from a Proposition 84 IRWM grant (Final Round) and an estimated $63,560 in MWD Member Agency Administered Program (MAAP) funds. In addition, $20,000 to help cover administrative costs will be included in the General Manager’s Recommended Budget for Fiscal Years 2020 and 2021. The balance of funding needed to operate the program beyond the upcoming two-year budget cycle will be included in the General Manager’s Recommended Budget for Fiscal Years 2022 and 2023. Funding in both future budget cycles is contingent on Board’s approval. Customer service is the related rate category.

Background
In the early 1990s, the city of San Diego provided home water use surveys for its residential customers with small landscape areas. Landscape audits for sites with large landscape areas were performed by the Department of Water Resources’ Mobile Irrigation Labs. In response to growing regional demand for these services, in 2001 the Water Authority contracted with VIEWtech, Inc. to provide these services regionally. The programs were renamed the Residential Survey and Landscape Assistance Programs, respectively.

In 2004, the Water Authority hired Honeywell DMC Services (Honeywell) to deliver audits and surveys as part of the Smart Landscape Program. Following completion of the Water Authority’s contract with Honeywell in 2009, Mission Resource Conservation District (MRCD) was selected as the next provider for these services. Since then, MRCD has twice been chosen as the program contractor through competitive bid processes in 2011 and 2015. MRCD’s current contract was executed in June 2015 and amended in May 2017 to extend the term through June 30, 2019.

Previous Board Action:
In April 2015, the Board authorized the General Manager to execute a two-year professional services contract in an amount not-to-exceed $468,412 to Mission Resource Conservation District for the WaterSmart Field Services Program.
Discussion

Audits and surveys are valuable customer service and water conservation tools that provide an opportunity for the Water Authority and its member agencies to respond to customer requests for assistance. The services offered through the WaterSmart Field Services Program include residential surveys, landscape audits, irrigation checkups and follow-up irrigation controller visits. Residential surveys provide homeowners a full-service indoor and outdoor water efficiency evaluation to identify water-wasting fixtures and provide water-saving recommendations. Participants receive a report outlining observations, recommendations and an irrigation schedule.

Full landscape audits assess outdoor irrigation efficiency at large commercial, industrial and institutional (CII) properties. As part of the full audit, participants receive a multi-page report that includes a water budget for the site, a list of water-saving recommendations, and an estimate of potential savings. Participants have the option to instead receive a shorter version of the full audit, which includes an irrigation schedule and list of field observations and recommendations.

The Water Authority has traditionally outsourced the regional operations of the Field Services Program to a centralized contractor, while also providing a cost-share option to member agencies who choose to self-perform program services within their service areas. Currently, six member agencies have opted to deliver program services directly to their customers, receiving a cost-share reimbursement from the Water Authority. These are Helix Water District, Lakeside Water District, Olivenhain Municipal Water District, Rincon del Diablo Municipal Water District, City of San Diego and Sweetwater Authority. Over the past five years, MRCD has provided more than 3,000 field services covering almost 53 million square feet of surveyed areas, while self-performing agencies have completed 7,200 services corresponding to nearly 57 million square feet of landscape area.

Prepared by: Joni German, Water Resources Specialist
Reviewed by: Carlos Michelon, Principal Water Resource Specialist
Denise Vedder, Director, Public Outreach and Conservation Department
Approved by: Sandra L. Kerl, Acting General Manager
Attention: Water Planning and Environmental Committee

Annual Storage Assessment (Presentation)

Purpose
Annual evaluation of carryover storage and emergency storage reserves.

Executive Summary
- Each year, staff provides an annual update to the Board regarding the status of Water Authority carryover and emergency storage reserves.
- Carryover storage reserves are currently held in San Vicente Reservoir (approx. 87,000 acre-feet) and in Central Valley groundwater storage (approx. 16,000 acre-feet).
- Emergency storage reserves, totaling approx. 46,000 acre-feet, are currently held in San Vicente Reservoir and Olivenhain Reservoir.
- Storage withdrawals totaling 12,000 acre-feet are planned over the next year and a half to bring carryover storage and emergency storage volumes more in line with projected need. No changes to the Stored Water Fund are required to support this action.
- Staff plans to review the long-term need for existing Central Valley groundwater storage as part of evaluations considered in development of the 2020 Urban Water Management Plan.

Background
On December 8, 2016, the Board approved policy guidelines for managing Water Authority carryover storage supplies and adopted a new Stored Water Fund Policy. The carryover storage 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 (AF) and a maximum volume of 100,000 AF for carryover storage in San Vicente Reservoir. The policy guidelines also call for staff to report to the Board annually with a review of the Water Authority’s carryover storage and Emergency Storage Project (ESP) storage reserves.

The primary purpose of the Stored Water Fund Policy is to support the Water Authority’s ability to execute the carryover storage policy guidelines and manage the emergency storage inventory.

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 used to guide staff’s planned management of the Water Authority’s storage reserves.
**Hydrologic Conditions**
Following a dry start to the current water year, conditions started to improve in late November 2018 and a series of storm events in February 2019 brought significant improvements to hydrologic conditions in Northern California. The 2018-2019 winter snowpack in the northern Sierra Nevada was well above normal (163 percent of normal) as of April 1, 2019, and precipitation was at 130 percent of normal as of April 30, 2019. The Department of Water Resources (DWR) issued its April 2019 Bulletin 120 that forecasts statewide runoff for water year 2019 at 140 percent of average. Hydrologic conditions in the Upper Colorado River Basin were also above average, with accumulated precipitation for this region at 115 percent of average, and snowpack recorded at 121 percent of average as of April 29, 2019.

**Imported and Local Water Supply**
As a result of significantly improved hydrologic conditions, on March 20, 2019 DWR increased the State Water Project (SWP) Table A allocation to 70 percent of requested water for long-term contractors totaling more than 2.9 million AF. At this allocation level, Metropolitan Water District of Southern California (MWD) estimated it will receive approximately 1,404,000 AF from the SWP. With estimated Colorado River supplies for 2019 amounting to 947,000 AF, including the Water Authority’s Quantification Settlement Agreement (QSA) supplies, MWD staff reported that a net gain in dry-year storage is projected in 2019 (as reported in MWD’s May 14, 2019 Water Surplus and Drought Management Report).

Consistent with the QSA delivery schedule, the Water Authority will receive 160,000 AF of conserved agricultural water transfers from the Imperial Irrigation District (IID) in calendar year 2019, an increase of 30,000 AF over last year’s transfer. The IID transfer volume is scheduled to increase by another 32,500 AF in 2020. Water Authority imported supplies also include approximately 80,000 AF per year of water conserved from the lining of the All-American Canal and Coachella Canal. On the local supply side, anticipated supplies from the Claude “Bud” Lewis Carlsbad Desalination Plant (CDP) are estimated at 48,000 AF per year – pursuant to the Water Purchase Agreement contractual obligation.

Member agency local surface water storage increased over the past 12 months from 373,884 AF (March 2018) to 429,214 AF (March 2019), a difference of 55,330 AF.

Based on availability of imported and local water supplies this year, the Water Authority has sufficient supplies for 2019 and given statewide and regional storage reserves, it is unlikely that the San Diego region will see a water supply shortage due to hydrology in the near term.

**Water Demand**
The San Diego region experienced acute dry conditions in fiscal year 2018 with only a third of normal annual precipitation falling at Lindbergh Field. Total rainfall at Lindbergh Field was roughly three inches – almost ten inches below the previous year. Additionally, the multi-year trend of above-average temperatures in San Diego County continued for most of fiscal year 2018. These weather conditions, coupled with continued recovery from mandatory statewide water use restrictions that ended in 2017, resulted in higher total water demand year-over-year. Fiscal year
2018 water demand in the Water Authority’s service area totaled approximately 518,400 AF, an increase of roughly 41,000 AF or nine percent.

However, fiscal year 2019 saw a return of wet weather to the San Diego area. Cumulative precipitation at Lindbergh Field between July 1, 2018 and March 31, 2019 totaled just under 12 inches, or roughly 15 percent above the annual average. As a result, total water demand over this period was approximately 10 percent lower than the same period last year. If the region continues to experience late winter season rainfall, suppressed near-term demands will persist. On a long-term scale, water demands are forecasted to gradually increase over the Water Authority’s current 2040 planning horizon based on demographic and economic growth projections from the San Diego Association of Governments. Long-term water demand projections are being updated as part of the 2020 Urban Water Management Plan.

**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 AF of in-region carryover storage capacity. Central Valley groundwater agreements were executed in 2008 and provide 70,000 AF of groundwater carryover storage capacity. Table 1 summarizes the characteristics of the two carryover storage pools.

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<th>San Vicente Reservoir</th>
<th>Central Valley Groundwater</th>
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<tr>
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<td></td>
<td>Semitropic-Rosamond</td>
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<td></td>
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<td>Stored Water Recovery</td>
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<td>Antelope Valley</td>
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<tr>
<td></td>
<td></td>
<td>Semitropic</td>
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<tr>
<td>Capacity (AF)</td>
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<td></td>
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<td>Losses (evaporation and seepage)</td>
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<td>Current Storage (AF) (as of March 31, 2019)</td>
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\(^1\)Carryover storage capacity was increased from 100,000 AF to 105,563 AF based on final elevation of the raised dam.

\(^2\)The rate at which San Vicente can be filled is dependent upon member agencies’ demands at the time.

Carryover storage fill operations were completed in June 2016, with the Water Authority storing approximately 100,000 AF of conserved supplies in San Vicente Reservoir. Over the last three years the carryover storage volume has decreased due to planned sales, evaporation and seepage losses.
Carryover storage reserves in San Vicente Reservoir as of March 31, 2019, totaled 86,864 AF, and stored water in the Semitropic Groundwater Storage Bank remains at 16,117 AF.

Management of Carryover Storage through May 2020
After a thorough review of supply and demand conditions, no supply shortages are reasonably foreseen over the next two-year period. However, preserving carryover storage reserves in line with the Board-established target volume gives the Water Authority optimum flexibility to manage water supplies during prolonged dry conditions, should those conditions occur. As such, staff plans to make up to 6,000 AF available for sale and does not intend to replace water lost through evaporation and seepage expected in San Vicente Reservoir. This strategy will likely result in an ending carryover storage pool in San Vicente Reservoir in May 2020 of approximately 76,000 AF, 6,000 AF above the target volume.

In addition, staff does not plan to make any immediate changes to the Central Valley groundwater storage accounts. However, staff will review the long-term need for existing Central Valley groundwater storage as part of evaluations considered in development of the 2020 Urban Water Management Plan.

Emergency Storage
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 Environmental Impact Report/Environmental Impact Statement concluded that the required ESP capacity was 90,100 AF in planning year 2030.

The volume of water required 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></th>
<th>San Vicente Reservoir</th>
<th>Olivenhain Reservoir</th>
<th>Lake Hodges</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedicated Capacity (AF)</td>
<td>52,100</td>
<td>18,000</td>
<td>20,000</td>
<td>90,100</td>
</tr>
<tr>
<td>Current Emergency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Volume (AF)</td>
<td>27,691</td>
<td>18,000</td>
<td>0</td>
<td>45,691</td>
</tr>
</tbody>
</table>

Storage in Lake Hodges is currently restricted to 13,401 AF until proposed improvements have been completed.
With current water demands well below the projected demands used to originally size ESP storage capacity, and implementation of the CDP, 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 exceeds the calculated ESP storage requirement of 19,112 AF by approximately 26,500 AF.

Management of ESP Storage through May 2020
After consideration of current emergency storage needs, operational flexibility required to efficiently manage 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, staff plans to lower ESP storage reserves to be more in line with current modeled requirements. Therefore, staff plans to withdraw approximately 6,000 AF from emergency storage reserves for sale during calendar year 2020.

Planned Storage Withdrawal Actions
The carryover and emergency storage management strategies listed above result in a total withdrawal of current storage reserves in San Vicente Reservoir of approximately 12,000 AF between now and the end of 2020. With the abundance of local surface storage, it is anticipated that the majority of the withdrawn reserves will be sold in calendar year 2020, which aligns with assumptions used in determining the proposed 2020 rates and charges to be considered by the Board in June 2019.

Finally, consistent with carryover storage policy guidelines, staff will conduct the next regularly scheduled carryover storage and ESP storage assessment by May 2020. This evaluation will focus on the appropriateness of carryover and emergency storage levels, including an update on the long-term need for Central Valley groundwater carryover storage.

Prepared by: Sami Sweis, Engineer P.E.
Tim Bombardier, Principal Water Resources Specialist

Reviewed by: Jeremy Crutchfield, Water Resources Manager
Kelley Gage, Director of Water Resources

Approved by: Sandra L. Kerl, Acting General Manager
May 15, 2019

Attention: Water Planning and Environmental Committee

San Diego Integrated Regional Water Management Program Update. (Presentation)

Purpose
This report provides information on San Diego Integrated Regional Water Management (IRWM) Program activities, including the acquisition of grant funding to support projects that help to achieve IRWM Plan goals, progress made on the 2019 update to the IRWM Plan, and on a regional assessment of the water needs of disadvantaged communities in our region.

Executive Summary

• The San Diego IRWM Program is acting to update its regional plan, acquire additional funds to support projects that help to achieve planning goals, and assess the water-related needs of the region’s disadvantaged communities.
• The San Diego IRWM Plan is being updated to maintain the region’s eligibility to receive state grant funds and add information in several areas, most notably climate change, stormwater capture, and disadvantaged community water needs.
• The San Diego IRWM Planning Region expects to receive an additional $33 million in two rounds of Proposition 1 grant funding; the first round of application submittals is expected in early 2020.
• To date, the San Diego IRWM Planning Region has received $96.4 million in grants to support 65 multi-benefit projects and two planning efforts sponsored by public agencies and non-profit organizations.
• The assessment of Disadvantaged Community (DAC) water needs in the San Diego Region is required by DWR; the San Diego Regional Water Management Group received a $120,000 grant to support development of the assessment.
• Among the primary objectives of the DAC involvement program are to identify the water management needs of disadvantaged communities and expand the field of DACs involved in IRWM.

Background
IRWM planning is an innovative and inclusive way to increase reliable water supplies, improve water quality, protect natural resources and enhance the resiliency of local water resources to climate change through collaboration among public agencies and non-profit public interest organizations. IRWM planning has been a high priority initiative for the state since 2002, through three State Water Plan updates and voter approval of three statewide bond measures that allocated $2 billion for IRWM projects.

The Water Authority, the County of San Diego (County) and the City of San Diego (City) joined in 2005 to form the San Diego IRWM regional water management group (RWMG) and define the San Diego IRWM planning region as encompassing the 11 hydrologic units in San Diego County.
that flow west to the Pacific Ocean. In 2006, the RWMG established the Regional Advisory Committee (RAC), which today comprises 31 voting members and eight non-voting members representing the diversity of public and non-profit stakeholders interested in water management in the San Diego region.

The RWMG, with substantial support from the RAC and other stakeholders, completed the first San Diego IRWM Plan in 2007 and updated the plan in 2013. The San Diego IRWM Plan establishes regional goals and objectives aimed at improving the reliability of water supplies and protecting and enhancing water quality and natural resources in a sustainable manner. The IRWM Plan aligns with the Water Authority’s mission of providing a safe, reliable water supply to its member agencies serving the San Diego Region. In addition, as the IRWM program obtains grant support for projects that expand the region’s reliable local water supplies, the plan helps to achieve the water supply goals established in the Water Authority’s Urban Water Management Plan.

As shown in Table 1, DWR has awarded eight grants totaling $96.4 million to the San Diego IRWM Planning Region. Combined, the grants have supported 65 high-priority multi-benefit projects and two planning efforts developed by public agencies and non-profit organizations. Some $62 million of the total funding is directed to eight projects sponsored by the Water Authority and 26 projects by Water Authority member agencies.

### Table 1 -- San Diego IRWM Grants

<table>
<thead>
<tr>
<th>Funding source</th>
<th>Date awarded</th>
<th># of projects funded</th>
<th>Grant award</th>
<th>Costs billed to date to DWR*</th>
<th>Completed projects**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prop 50, implementation</td>
<td>2008</td>
<td>18</td>
<td>$25.0 million</td>
<td>$24.9 million</td>
<td>18</td>
</tr>
<tr>
<td>Proposition 84, planning</td>
<td>2011</td>
<td>1</td>
<td>$1 million</td>
<td>$1 million</td>
<td>1</td>
</tr>
<tr>
<td>Proposition 84, Round 1,</td>
<td>2011</td>
<td>11</td>
<td>$7.9 million</td>
<td>$7.9 million</td>
<td>7</td>
</tr>
<tr>
<td>implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposition 84, Round 2,</td>
<td>2014</td>
<td>7</td>
<td>$10.5 million</td>
<td>$8.6 million</td>
<td>2</td>
</tr>
<tr>
<td>implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposition 84, Round 3,</td>
<td>2014</td>
<td>7</td>
<td>$15.1 million</td>
<td>$11.3 million</td>
<td>1</td>
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<tr>
<td>implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposition 84, Round 4,</td>
<td>2016</td>
<td>13</td>
<td>$31.1 million</td>
<td>$3.2 million</td>
<td>1</td>
</tr>
<tr>
<td>implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposition 1, planning</td>
<td>2017</td>
<td>1</td>
<td>$250,000</td>
<td>$192,000</td>
<td>0</td>
</tr>
<tr>
<td>Proposition 1, disadvantaged</td>
<td>2017</td>
<td>9</td>
<td>$5.5 million</td>
<td>$2.3 million</td>
<td>0</td>
</tr>
<tr>
<td>community involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>67</td>
<td>$96.4 million</td>
<td>$59.4 million</td>
<td>30</td>
</tr>
</tbody>
</table>

* Data current as of April 3, 2019.
** A project is deemed complete when DWR has approved its completion report.

Discussion
The San Diego RWMG, with support from the RAC and interested stakeholders, is updating the 2013 edition of the San Diego IRWM Plan, applying for additional project implementation grant funds and assessing the water needs of disadvantaged communities in our region.

2019 IRWM Plan Update
The 2019 IRWM Plan Update (2019 Plan Update) revises the 2013 IRWM Plan to strengthen several sections, including those focused on stormwater, climate change, flood management and disadvantaged communities. The 2019 Plan Update comprises revisions and additional material necessary to comply with new DWR requirements and maintain the region’s eligibility to receive state grant funds. The 2013 Plan text also has been updated in several areas to reflect current understanding of the region’s water resource-related needs and regional priorities.

In addition, the 2019 Plan Update incorporates the Stormwater Capture Feasibility Study, a planning study that provide a comprehensive analysis of stormwater resource capture and reuse opportunities in the region. It also provides updated descriptions of the water-related conditions and needs of disadvantaged communities within the region.

The public review period for the draft 2019 Plan Update closed in April. The final 2019 Plan Update is scheduled to be released by May 31 and presented to the RAC at its June 5 meeting. It then will be presented for consideration of adoption at the July 25 Board meeting before it is submitted to DWR.

Proposition 1, Round 1 Implementation Grant Program
The RWMG has begun work on the first of two DWR Proposition 1 IRWM implementation grant programs. The San Diego Planning Region expects to receive approximately $33 million in Prop. 1 implementation funds from the two rounds, of which a minimum of 10 percent must go to projects that benefit DACs. The region previously was awarded $4.5 million in Prop. 1 grant funds for eight DAC planning projects in 2017.

The San Diego RWMG issued a call in November 2018 for projects to be submitted for potential inclusion in its first-round application. That call for projects resulted in 15 project submittals from public agencies and non-profit organizations. The RWMG reopened the call for projects to continue for three weeks in May 2019 after DWR made several significant changes to its draft proposal solicitation package. Projects presented during this second call will be added to the list of projects previously submitted.

The call for projects triggered a process that the region has used successfully in six previous rounds of grant funding. The process involves an intensive review of the projects submitted for consideration, primarily by a workgroup of eight technical experts that includes representatives of
the Water Authority, the City and the County as the RWMG members as well as five other members chosen by the RAC and representing both public agencies and non-profit organizations. The workgroup will develop a package of projects for inclusion in the grant application based on criteria from the San Diego IRWM Plan, direction from the RAC and the contents of DWR’s Proposal Selection Package.

Following the RAC’s review of the workgroup’s recommendation, the RWMG will submit the list of projects to the Board and seek approval to submit the grant application to DWR. Then the RWMG, supported by a consultant, will draft the application and forward it to DWR, likely in early 2020.

**Disadvantaged Community Water Needs Assessment**

The assessment of DAC water needs in the San Diego Region is required by DWR as part of a larger DAC involvement program funded by DWR. The San Diego RWMG received a $120,000 grant to support development of the assessment. The primary objectives of the DAC needs assessment are to:

- Expand the field of DACs and DAC organizations involved in IRWM.
- Engage DACs in defining their water management needs and identify opportunities to encourage long-term engagement with IRWM by such communities.
- Clarify key priorities necessary to address deficiencies in DAC water, wastewater, stormwater and flood management systems

The public review period for the draft needs assessment closed in April. The final needs assessment is scheduled to be released and forwarded to DWR by May 31.

Prepared by: Mark Stadler, Principal Water Resources Specialist
Reviewed by: Kelley Gage, Director of Water Resources
Approved by: Sandra L. Kerl, Acting General Manager
May 15, 2019

Attention: Water Planning and Environmental Committee

Update on water supply conditions. (Presentation)

Purpose
To provide a report on current water supply conditions and outlook for the 2018-2019 winter.

Discussion
Following a dry year in Water Year (WY) 2018, WY 2019 started off dry until a series of storms in late November 2018 resulted in a significant improvement to the northern Sierra snowpack. The snowpack continued to slowly improve through January 2019, and then a series of storms in February more than doubled the snowpack from January levels. Storm systems that moved through California in March 2019 continued to produce additional snow.

The California Department of Water Resources (DWR) announced an initial State Water Project (SWP) allocation of 10 percent for Calendar Year (CY) 2019 in November 2018. On January 25, 2019, DWR announced an increase in the SWP allocation to 15 percent, and then announced a second increase to 35 percent on February 20, 2019. The latest increase to 70 percent was announced on March 20, 2019, and another increase to the allocation remains possible under certain Delta conditions.

State Water Project
Conditions improved in the northern Sierra Nevada starting in late November 2018. Precipitation was at 128 percent of average as of May 10, 2019, and snow water content was at 163 percent of normal as of April 1, the typical seasonal peak. The early April snow survey is typically the last one of the water year, but because of the amount of snow this year, DWR added another survey for May. The fifth and final Phillips Station snow survey was conducted on May 2, 2019, and measured a snow water equivalent of 27.5 inches, which was 188 percent of average for that location.

The storage level in Lake Oroville was intentionally kept below average since April 2017 to allow repair work on the main and emergency spillways. DWR announced on October 31, 2018, that it had met its goal of completely reconstructing the main spillway by November 1, 2018, however, construction on the emergency spillway is ongoing. DWR’s flood operations plan for the 2018-19 flood season called for maintaining lower-than-average lake levels during the winter months to provide operational flexibility to ensure flood protection, meet water deliveries and environmental requirements, and prevent use of the emergency spillway during the winter. On April 2, 2019, DWR began to release flows from the main spillway for the first time since reconstruction, allowing for releases beyond the capacity of the Hyatt Powerplant located at the bottom of the dam. DWR may need to use the main spillway again later this spring to manage inflows from snowmelt, but releases from the Hyatt Powerplant are adequate at this time. DWR will allow the lake to continue rising during the late spring and summer months to increase water supply storage.
Table 1 shows storage levels for Lake Oroville and San Luis Reservoir as of May 9, 2019.

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Storage in Million Acre-Feet</th>
<th>Percent of Capacity</th>
<th>Percent of Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oroville</td>
<td>3.354</td>
<td>95%</td>
<td>115%</td>
</tr>
<tr>
<td>San Luis*</td>
<td>1.607</td>
<td>79%</td>
<td>91%</td>
</tr>
<tr>
<td>Combined</td>
<td>4.961</td>
<td>89%</td>
<td>94%</td>
</tr>
</tbody>
</table>

*San Luis storage includes SWP and Central Valley Project. SWP share in San Luis was approximately 867 thousand acre-feet.

Colorado River
As of May 6, 2019, Upper Colorado River Basin rainfall was at 119 percent of average and snowpack was at 138 percent of average. Table 2 shows storage levels for Lakes Powell and Mead as of May 5, 2019.

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Storage in Million Acre-Feet</th>
<th>Percent of Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Powell</td>
<td>9.45</td>
<td>39%</td>
</tr>
<tr>
<td>Lake Mead</td>
<td>10.74</td>
<td>41%</td>
</tr>
<tr>
<td>Combined</td>
<td>20.19</td>
<td>40%</td>
</tr>
</tbody>
</table>

As of May 2, 2019, the forecasted inflow for WY 2019 was 12.1 million acre-feet (MAF), which is 112 percent of normal. As of January 2019, the federal Bureau of Reclamation does not anticipate a shortage condition on the Colorado River in 2019. In addition, based on accumulated snowpack since the middle of January, it now looks likely that a shortage declaration will be avoided in 2020.

Metropolitan Water District
As of January 1, 2019, the Metropolitan Water District of Southern California (MWD) had 702,000 acre-feet (AF) of storage in Diamond Valley Lake, approximately 45,000 AF less storage than one year ago. Total storage capacity in Diamond Valley Lake is approximately 810,000 AF. MWD staff reported that the current range of water supply demand balance scenarios project a net gain in MWD’s dry-year storage in CY 2019.
Local Conditions
Local reservoir storage as of April 29, 2019, was at 58 percent of capacity, or approximately 427,000 AF. This total includes “dead storage,” or capacity that is physically inaccessible or restricted by agency operating or emergency storage policies. It also includes Water Authority carryover and emergency storage in Lake Hodges, Olivenhain Reservoir, and San Vicente Reservoir. A breakdown of Water Authority storage for April 2019 is contained in Exhibit D of this month’s Water Resources Report.

Temperatures in the San Diego region were hotter than normal during six of the first seven months of WY 2019, with the average daily maximum temperature registering 2.3 degrees above average in April 2019. Figure 1 shows the departure from normal maximum monthly temperatures at Lindbergh Field for Water Years 2018 and 2019, with only May 2018 and February 2019 registering a below-normal average daily maximum temperature.

Precipitation in the San Diego region has been above average for WY 2019. Table 3 on the following page contains cumulative rainfall totals since October 1, 2018, for Lindbergh Field and Ramona Airport. These locations are geographically representative of coastal and inland regions of the Water Authority service area. While April 2019 was drier than normal, both inland precipitation and coastal precipitation remain well above normal to date for WY 2019, measured at 121 percent of normal at Lindbergh Field and 126 percent of normal at Ramona Airport.

![Figure 1 – Average Daily Maximum Temperature Departure from Normal (°F)
Water Years 2018 and 2019](image-url)
Outlook
On April 18, 2019, the Climate Prediction Center (CPC) issued its three-month outlook (May through July) for precipitation and temperature across the country (Figure 2). The CPC precipitation outlook shows that across the majority of California there is an equal chance of above normal, normal, and below normal precipitation. The CPC temperature outlook shows that there is a greater than 40 percent probability of above-normal temperatures for most of California, with the probability being somewhat lower for the southern portion of the state.

<table>
<thead>
<tr>
<th>Station</th>
<th>Precipitation (Inches)</th>
<th>Percent of Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lindbergh Field</td>
<td>12.12</td>
<td>121%</td>
</tr>
<tr>
<td>Ramona Airport</td>
<td>19.25</td>
<td>126%</td>
</tr>
</tbody>
</table>

Based on current supply levels, the Water Authority and its member agencies will meet anticipated demands through a combination of imported supplies and drought-resilient local and regional water resources, including the Claude “Bud” Lewis Carlsbad Desalination Plant, conserved agricultural water transfers, savings from canal lining projects, and continued water-use efficiency measures.
This report concludes monthly reporting on water supply conditions for the winter/spring of WY 2019. Staff will return to the Board in December 2019 with a report on the conclusion of WY 2019 and the start of WY 2020.

Prepared by: Alexi Schnell, Water Resources Specialist
Reviewed by: Jeff Stephenson, Principal Water Resources Specialist
Elizabeth Lovsted, Water Resources Manager
Kelley Gage, Director of Water Resources
Approved by: Sandra L. Kerl, Acting General Manager
May 15, 2019

Attention: Water Planning and Environmental Committee

Update on San Diego Water Board Permit for the Lewis Carlsbad Desalination Plant Intake Modifications Project. (Presentation)

Purpose

This presentation will provide an update on Poseidon’s NPDES Permit for the Claude “Bud” Lewis Carlsbad Desalination Plant (CDP) Intake Modifications project.

Discussion

The intake facilities for the CDP are currently permitted and configured to draw the plant’s seawater supply from the Encina Power Station (EPS) once-through cooling water system. In order to comply with the State Water Resources Control Board’s Once-Through Cooling Policy, which was adopted in 2010 and phases out once-through cooling for power plants, electricity generation operations at the EPS were shut down on December 12, 2018. For the near term, Poseidon has reached an agreement with NRG Energy (NRG), the owner of the EPS, to temporarily extend the operation of just the cooling water circulation pumps to solely support the desalination plant operations. Ultimately, NRG’s agreement with the City of Carlsbad requires complete demolition of the EPS, including the cooling water circulation pumps, by December 2021.

For the long-term, the shutdown of the EPS and its cooling water system requires the construction of new CDP intake and discharge facilities to allow a transition to a “stand-alone” operation of the desalination plant. The intake and discharge system modifications that are required due to closure of the EPS necessitate a new National Pollutant Discharge Elimination System (NPDES) permit from the San Diego Regional Water Quality Control Board (San Diego Water Board).

A permit renewal application package was submitted by Poseidon in September 2015. Staff from Poseidon and the Water Authority met regularly with staff from the San Diego Water Board to discuss development of the permit and additional requests related to the statewide Ocean Plan Amendment, adopted by the State Water Resources Control Board in May 2015, that addresses desalination facility intakes and discharges. A tentative order was circulated for public review on December 21, 2018, with a notice for a public hearing to consider adoption of the new permit on March 13, 2019 (rescheduled to May 8, 2019).

This presentation will provide a summary of the May 8 San Diego Water Board public hearing for the CDP’s new NPDES permit and the next steps to achieve stand-alone operation of the desalination plant.

Prepared by: Jeremy Crutchfield, Water Resources Manager
Reviewed by: Kelley Gage, Director of Water Resources
Approved by: Sandra L. Kerl, Acting General Manager
May 15, 2019

Attention: Water Planning and Environmental Committee

Water Resources Report

Purpose
This report includes the following exhibits for April 2019:

- Rainfall totals and temperature data
- 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>RAINFALL TOTALS (inches)</th>
<th>April 2019</th>
<th>WATER YEAR 2019 TO DATE (October 2018 through April 2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station</td>
<td>Actual</td>
<td>Normal</td>
</tr>
<tr>
<td>Lindbergh Field</td>
<td>0.16</td>
<td>0.78</td>
</tr>
<tr>
<td>(N.O.A.A.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramona Airport</td>
<td>0.23</td>
<td>1.40</td>
</tr>
<tr>
<td>(N.O.A.A.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Henshaw</td>
<td>0.36</td>
<td>1.86</td>
</tr>
<tr>
<td>(Vista I.D.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Accumulated through April 2019.

Sources: National Weather Service, Vista Irrigation District.

<table>
<thead>
<tr>
<th>AVERAGE DAILY MAXIMUM TEMPERATURE (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station</td>
</tr>
<tr>
<td>Lindbergh Field (N.O.A.A.)</td>
</tr>
</tbody>
</table>

Since January 2014, 60 of last 64 months were hotter than normal at Lindbergh Field.
## Monthly Water Resources Report

**Water Deliveries to Member Agencies**

### (acre-feet)

#### APRIL 2019

<table>
<thead>
<tr>
<th>Member Agency</th>
<th>April 2019</th>
<th>April 2018</th>
<th>12 Months Ended April 2019</th>
<th>12 Months Ended April 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlsbad M.W.D.</td>
<td>1,017.1</td>
<td>1,221.7</td>
<td>14,363.9</td>
<td>15,782.2</td>
</tr>
<tr>
<td>Del Mar, City of</td>
<td>85.5</td>
<td>87.0</td>
<td>981.1</td>
<td>1,077.4</td>
</tr>
<tr>
<td>Escondido, City of 2</td>
<td>157.5</td>
<td>49.0</td>
<td>12,741.1</td>
<td>9,030.2</td>
</tr>
<tr>
<td>Fallbrook P.U.D.</td>
<td>669.1</td>
<td>986.5</td>
<td>8,377.9</td>
<td>9,913.5</td>
</tr>
<tr>
<td>Helix W.D.</td>
<td>1,701.5</td>
<td>2,431.5</td>
<td>26,137.4</td>
<td>24,585.7</td>
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<tr>
<td>Lakeside W.D.</td>
<td>225.2</td>
<td>227.4</td>
<td>2,738.7</td>
<td>2,801.7</td>
</tr>
<tr>
<td>National City, City of 3</td>
<td>0.0</td>
<td></td>
<td></td>
<td>15.4</td>
</tr>
<tr>
<td>Oceanside, City of</td>
<td>1,797.0</td>
<td>1,707.1</td>
<td>20,594.0</td>
<td>22,638.3</td>
</tr>
<tr>
<td>Olivenhain M.W.D.</td>
<td>1,488.6</td>
<td>1,572.6</td>
<td>17,465.3</td>
<td>19,325.6</td>
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</tbody>
</table>

| Deliveries To SDCWA Agencies 3     | 29,998.0   | 32,729.4   | 418,008.6                 | 407,121.7                 |
| Less: Deliveries to SDCWA Storage 3 | 3,888.3  | 295.4      | 17,886.7                  | 11,212.6                  |

**TOTAL MEMBER AGENCY DELIVERIES**

| Deliveries From South Coast Water District 3 | 1,103.0 |            | 17,234.8 | 4,273.0 |

---

2. Escondido and Vista I.D. deliveries exclude SLR water transfers.
3. Member agency deliveries include puts into Water Authority storage accounts. For April 2019, storage account deliveries totaled 3,825 AF and 63 AF to San Vicente Reservoir and Lower Otay Reservoir, respectively, through city of San Diego connections. April 2019 storage sales to the San Diego, City of 3 totaled 13,826.3 AF and 14,074.1 AF to Lower Otay Reservoir and San Vicente Reservoir, respectively, through city of San Diego connections. April 2018 storage sales to the San Diego, City of 3 totaled 13,826.3 AF and 14,074.1 AF to Lower Otay Reservoir and San Vicente Reservoir, respectively, through city of San Diego connections. April 2019 storage sales to the San Diego, City of 3 totaled 13,826.3 AF and 14,074.1 AF to Lower Otay Reservoir and San Vicente Reservoir, respectively, through city of San Diego connections.
## Estimated Water Use by Member Agency (acre-feet)

### APRIL 2019

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<td><strong>1,269.3</strong></td>
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### PERCENT CHANGE

|                          | -18% | 194% | -6% | -20% | -43% | -6% |

---

1. SLR water transfers were added as local supply sources beginning in December 2017, for Escondido and Vista I.D. only.
2. De Luz figures included in Fallbrook P.U.D. totals.
3. Brackish groundwater figures included in Groundwater figures.
4. Pendleton M.C.B. Imported Use includes South Coast Water District deliveries.
5. Poway's recycled use is reported quarterly and is estimated at 1/3 of that amount, monthly.
## MONTHLY WATER RESOURCES REPORT

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

(acres-feet)

### APRIL 2019

<table>
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<th>Member Agency</th>
<th>April 2019</th>
<th>April 2013</th>
<th>47 Months Ended April 2019</th>
<th>CY 2013 ¹ ² ³</th>
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<td><strong>PERCENT CHANGE</strong></td>
<td>-16%</td>
<td>-17%</td>
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### 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. The conservation regulation expired completely on November 25, 2017. Agencies have continued to report to SWRCB beyond November 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-December 2013 three times; January-April 2013 once, and June-December 2013 once, in order to establish a base period of 47 months.
5. Sweetwater Authority is comprised of member agencies city of National City and South Bay Irrigation District.

Generated:

5/13/19 12:21 PM
### Monthly Water Resources Report

#### Reservoir Storage (acre-feet)

**April 2019**

#### Member Agency

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<th>Reservoir</th>
<th>Capacity</th>
<th>% of Change</th>
<th>April 2019</th>
<th>% of Change</th>
<th>April 2018</th>
<th>% of Change</th>
<th>Change During Month</th>
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</tr>
<tr>
<td>Escondido, City of</td>
<td>Dixon</td>
<td>2,606</td>
<td>2,440</td>
<td>94%</td>
<td>2,451</td>
<td>94%</td>
<td>(76)</td>
</tr>
<tr>
<td></td>
<td>Wohlford</td>
<td>6,506</td>
<td>2,236</td>
<td>34%</td>
<td>2,126</td>
<td>33%</td>
<td>(238)</td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td></td>
<td>9,112</td>
<td>4,676</td>
<td>51%</td>
<td>4,577</td>
<td>50%</td>
<td>(314)</td>
</tr>
<tr>
<td>Fallbrook P.U.D.</td>
<td>Red Mountain</td>
<td>1,335</td>
<td>592</td>
<td>44%</td>
<td>450</td>
<td>34%</td>
<td>65</td>
</tr>
<tr>
<td>Helix W.D.</td>
<td>Cuyamaca</td>
<td>8,195</td>
<td>1,640</td>
<td>20%</td>
<td>686</td>
<td>8%</td>
<td>(1,691)</td>
</tr>
<tr>
<td></td>
<td>Jennings</td>
<td>9,790</td>
<td>8,814</td>
<td>90%</td>
<td>8,934</td>
<td>91%</td>
<td>(145)</td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td></td>
<td>17,985</td>
<td>10,454</td>
<td>58%</td>
<td>9,620</td>
<td>53%</td>
<td>(1,836)</td>
</tr>
<tr>
<td>Poway, City of</td>
<td>Poway</td>
<td>3,330</td>
<td>2,934</td>
<td>88%</td>
<td>2,988</td>
<td>90%</td>
<td>(367)</td>
</tr>
<tr>
<td>Rainbow M.W.D.</td>
<td>Morro Hill</td>
<td>465</td>
<td>148</td>
<td>32%</td>
<td>117</td>
<td>25%</td>
<td>8</td>
</tr>
<tr>
<td>Ramona M.W.D.</td>
<td>Ramona</td>
<td>12,000</td>
<td>2,852</td>
<td>24%</td>
<td>2,239</td>
<td>19%</td>
<td>(91)</td>
</tr>
<tr>
<td>San Diego, City of</td>
<td>Barrett</td>
<td>34,806</td>
<td>17,227</td>
<td>49%</td>
<td>12,207</td>
<td>35%</td>
<td>557</td>
</tr>
<tr>
<td></td>
<td>El Capitan</td>
<td>112,807</td>
<td>44,428</td>
<td>39%</td>
<td>27,557</td>
<td>24%</td>
<td>1,942</td>
</tr>
<tr>
<td></td>
<td>Hodges</td>
<td>10,633</td>
<td>11,297</td>
<td>106%</td>
<td>10,141</td>
<td>95%</td>
<td>(145)</td>
</tr>
<tr>
<td></td>
<td>Lower Otay</td>
<td>47,067</td>
<td>38,554</td>
<td>82%</td>
<td>34,754</td>
<td>73%</td>
<td>(303)</td>
</tr>
<tr>
<td></td>
<td>Miramar</td>
<td>6,682</td>
<td>5,493</td>
<td>82%</td>
<td>5,343</td>
<td>80%</td>
<td>(14)</td>
</tr>
<tr>
<td></td>
<td>Morena</td>
<td>50,694</td>
<td>5,237</td>
<td>10%</td>
<td>3,877</td>
<td>8%</td>
<td>161</td>
</tr>
<tr>
<td></td>
<td>Murray</td>
<td>4,684</td>
<td>4,091</td>
<td>87%</td>
<td>4,091</td>
<td>87%</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>San Vicente</td>
<td>91,695</td>
<td>72,481</td>
<td>79%</td>
<td>53,839</td>
<td>58%</td>
<td>5,032</td>
</tr>
<tr>
<td></td>
<td>Sutherland</td>
<td>29,508</td>
<td>7,536</td>
<td>26%</td>
<td>13,439</td>
<td>46%</td>
<td>(3,293)</td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td></td>
<td>388,576</td>
<td>206,344</td>
<td>53%</td>
<td>164,866</td>
<td>42%</td>
<td>2,089</td>
</tr>
<tr>
<td>San Dieguito WD / Santa Fe ID</td>
<td>San Dieguito</td>
<td>863</td>
<td>471</td>
<td>53%</td>
<td>380</td>
<td>43%</td>
<td>74</td>
</tr>
<tr>
<td>Sweetwater Authority</td>
<td>Loveland</td>
<td>25,400</td>
<td>10,907</td>
<td>43%</td>
<td>14,188</td>
<td>56%</td>
<td>795</td>
</tr>
<tr>
<td></td>
<td>Sweetwater</td>
<td>28,079</td>
<td>15,109</td>
<td>54%</td>
<td>4,537</td>
<td>16%</td>
<td>(1,110)</td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td></td>
<td>53,479</td>
<td>26,016</td>
<td>49%</td>
<td>18,725</td>
<td>35%</td>
<td>(315)</td>
</tr>
<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>
</tr>
<tr>
<td>Vista I.D.</td>
<td>Henshaw</td>
<td>51,774</td>
<td>17,118</td>
<td>33%</td>
<td>4,454</td>
<td>9%</td>
<td>(481)</td>
</tr>
<tr>
<td><strong>MEMBER AGENCY TOTAL WATER IN STORAGE</strong></td>
<td></td>
<td>541,151</td>
<td>273,217</td>
<td>50%</td>
<td>209,663</td>
<td>39%</td>
<td>(1,156)</td>
</tr>
<tr>
<td>Water Authority</td>
<td>Olivenhain</td>
<td>24,774</td>
<td>20,983</td>
<td>50%</td>
<td>20,641</td>
<td>2,373</td>
<td>(1,628)</td>
</tr>
<tr>
<td></td>
<td>San Vicente - Comprised of:</td>
<td>157,663</td>
<td>126,268</td>
<td>79%</td>
<td>133,195</td>
<td>78%</td>
<td>2,230</td>
</tr>
<tr>
<td></td>
<td>Emergency</td>
<td>27,613</td>
<td>28,680</td>
<td>99%</td>
<td>28,680</td>
<td>(78)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carryover</td>
<td>86,618</td>
<td>94,306</td>
<td>(78)</td>
<td>2,315</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operating</td>
<td>12,037</td>
<td>10,210</td>
<td>2,697</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hodges</td>
<td>20,000</td>
<td>5,278</td>
<td>4,182</td>
<td>(2,580)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td></td>
<td>202,437</td>
<td>152,529</td>
<td>75%</td>
<td>158,018</td>
<td>78%</td>
<td>(1,835)</td>
</tr>
<tr>
<td>El Capitan</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Otay</td>
<td>614</td>
<td>83</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweetwater (Temporary)</td>
<td>0</td>
<td>2,315</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td></td>
<td>614</td>
<td>2,398</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL WATER IN STORAGE</strong></td>
<td></td>
<td>743,588</td>
<td>426,360</td>
<td>57%</td>
<td>370,079</td>
<td>50%</td>
<td>(2,933)</td>
</tr>
</tbody>
</table>

#### Other Agencies

| Metropolitan Water District | Skinner | 44,264 | 40,595 | 92% | 39,880 | 90% | 4,677 |
| Diamond Valley | 810,000 | 768,868 | 95% | 720,489 | 89% | 23,964 |
| State Water Project | Oroville | 3,537,577 | 3,285,244 | 93% | 2,432,967 | 69% | 435,909 |
| **TOTAL OTHER WATER IN STORAGE** | 4,391,841 | 4,004,707 | 93% | 3,193,336 | 73% | 464,500 |

---

1. Excludes storage allocated to Escondido Mutual Water Co. or its rights to a portion of the unallocated water in Lake Henshaw.
2. Revised capacity volume accounts for lowered reservoir level at Lake Wohlford due to DWR Division of Safety of Dams safety issues.
3. Includes city’s supply and storage obligations to California American Mutual (Cal-Am) Water Company and San Dieguito WD/Santa Fe ID.
4. Includes allocated and unallocated water in Lake Henshaw.
5. 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. Incorporates March 2018 transfer 9,080 AF from L. Otay to San Vicente.
6. No defined capacities for storage accounts in El Capitan, Lower Otay and Sweetwater Authority reservoirs. Figures for April 2019 include storage sales to the city of San Diego totaling 1,103 AF from San Vicente Reservoir.
<table>
<thead>
<tr>
<th>Member Agency</th>
<th>CY2019 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>2,223.7</td>
<td>18.0%</td>
</tr>
<tr>
<td>Del Mar, City of</td>
<td>935.0</td>
<td>225.0</td>
<td>24.1%</td>
</tr>
<tr>
<td>Escondido, City of</td>
<td>17,859.0</td>
<td>391.1</td>
<td>2.2%</td>
</tr>
<tr>
<td>Fallbrook P.U.D.</td>
<td>10,325.0</td>
<td>1,623.5</td>
<td>15.7%</td>
</tr>
<tr>
<td>Helix W.D.</td>
<td>25,519.0</td>
<td>4,414.2</td>
<td>17.3%</td>
</tr>
<tr>
<td>Lakeside M.W.D.</td>
<td>3,168.0</td>
<td>627.3</td>
<td>19.8%</td>
</tr>
<tr>
<td>Oceanside, City of</td>
<td>19,383.0</td>
<td>4,991.5</td>
<td>25.8%</td>
</tr>
<tr>
<td>Olivenhain M.W.D.</td>
<td>13,071.0</td>
<td>3,634.7</td>
<td>27.8%</td>
</tr>
<tr>
<td>Otay W.D.</td>
<td>21,390.0</td>
<td>6,986.6</td>
<td>32.7%</td>
</tr>
<tr>
<td>Padre Dam M.W.D.</td>
<td>9,939.0</td>
<td>2,329.0</td>
<td>23.4%</td>
</tr>
<tr>
<td>Pendleton M.C.B./South Coast W.D.</td>
<td>758.0</td>
<td>56.3</td>
<td>7.4%</td>
</tr>
<tr>
<td>Poway, City of</td>
<td>9,348.0</td>
<td>1,278.2</td>
<td>13.7%</td>
</tr>
<tr>
<td>Rainbow M.W.D.</td>
<td>19,018.0</td>
<td>2,366.6</td>
<td>12.4%</td>
</tr>
<tr>
<td>Ramona M.W.D.</td>
<td>8,052.0</td>
<td>1,319.0</td>
<td>16.4%</td>
</tr>
<tr>
<td>Rincon Del Diablo M.W.D.</td>
<td>5,482.0</td>
<td>991.6</td>
<td>18.1%</td>
</tr>
<tr>
<td>San Diego, City of</td>
<td>144,555.0</td>
<td>35,760.5</td>
<td>24.7%</td>
</tr>
<tr>
<td>San Dieguito W.D.</td>
<td>3,116.0</td>
<td>814.6</td>
<td>26.1%</td>
</tr>
<tr>
<td>Santa Fe I.D.</td>
<td>5,226.0</td>
<td>969.3</td>
<td>18.5%</td>
</tr>
<tr>
<td>Sweetwater Authority</td>
<td>9,650.0</td>
<td>500.3</td>
<td>5.2%</td>
</tr>
<tr>
<td>Vallecitos W.D.</td>
<td>10,557.0</td>
<td>1,362.3</td>
<td>12.9%</td>
</tr>
<tr>
<td>Valley Center M.W.D.</td>
<td>29,774.0</td>
<td>2,717.2</td>
<td>9.1%</td>
</tr>
<tr>
<td>Vista I.D.</td>
<td>11,876.0</td>
<td>286.5</td>
<td>2.4%</td>
</tr>
<tr>
<td>Yuima M.W.D.</td>
<td>2,165.0</td>
<td>456.3</td>
<td>21.1%</td>
</tr>
<tr>
<td><strong>MEMBER AGENCY TOTALS</strong></td>
<td><strong>393,542.0</strong></td>
<td><strong>76,325.3</strong></td>
<td><strong>19.4%</strong></td>
</tr>
</tbody>
</table>

Less: QSA deliveries-calendar year 2019  
Deliveries to CWA storage-calendar year 2019  
MWD Under-10% Flows-calendar year 2019  
Deliveries from CWA storage-calendar year 2019  
Water Authority WPA desalination deliveries-calendar year 2019

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

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 Escondido and Vista I.D. deliveries exclude SLR water transfers  
4 Sweetwater Authority is comprised of member agencies city of National City and South Bay Irrigation District.  
5 Includes storage puts to San Vicente Reservoir, forced deliveries or deliveries to Olivenhain Reservoir directly off Water Authority's aqueduct  
6 Includes sales from Water Authority storage accounts, including Olivenhain Reservoir  
7 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 (TOWWTP) or member agency treatment plants.
May 15, 2019

Attention: Water Planning and Environmental Committee

CLOSED SESSION:
Conference with Legal Counsel – Anticipated Litigation
Government Code §54956.9(d)(2)
One Case

Purpose
This memorandum is to recommend a closed session, pursuant to Government Code §54956.9(d)(2), to discuss the above-referenced matter at the May 23, 2019 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

AGENDA FOR

MAY 23, 2019

Frank Hilliker– Chair
Jimmy Ayala – Vice Chair
Barry Leonard – Vice Chair
Brian Boyle
Chris Cate
Gary Croucher
Betty Evans
Mel Katz
Jim Murtland
Elsa Saxod
John Simpson
Tim Smith
Almis Udrys
Ron Watkins
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-A Directors’ comments.

I. CONSENT CALENDAR

   Staff recommendation:  Note and file the Treasurer’s report.  
   (Action)  
   Lisa Marie Harris

2. Liquidity Facilities Supporting the Water Authority Tax Exempt Commercial Paper Program.  
   Staff recommendations:

   a) Adopt Resolution 2019–__ authorizing the issuance and sale of short-term revenue certificates, approving Bank of the West as the liquidity provider for the Series 10 Commercial Paper Notes and authorizing and approving certain actions in connection therewith; and
b) Adopt Resolution 2019-__ authorizing the extension of the term of a liquidity agreement with Bank of America, N.A., as the liquidity provider for the Series 9 Commercial Paper Notes program and authorizing and approving certain actions in connection therewith. (Action)

II. ACTION/DISCUSSION/PRESENTATION

1. General Manager’s Recommended Budget for Fiscal Years 2020 and 2021. (Presentation)  Sandra L. Kerl

2. Resolution setting a Public Hearing date for Rates and Charges.  Pierce Rossum
   Staff recommendation:  Adopt Resolution No. 2019-__ setting the time and place for a public hearing on June 27, 2019, 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, 2020. (Action)

3. Innovation Program Update. (Presentation)  Gary Bousquet

III. INFORMATION


2. Board calendar.

IV CLOSED SESSION

1. Conference with the Labor Negotiator  Mark Hattam
   Government Code §54957.6
   Agency Designated Representatives:  Gretchen Spaniol, Jason Foster, Liana Whyte, Rick Bolanos
   Employee Organization:  Teamsters Local 911

2. Conference with the Labor Negotiator  Mark Hattam
   Government Code §54957.6
   Agency Designated Representatives: Sandra L. Kerl, Gretchen Spaniol
   Unrepresented Employees:  Executive, Senior Management, and Confidential Groups
V. ADJOURNMENT

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 15, 2019

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.

Executive Summary
- The Water Authority’s overall portfolio of $313.2 million increased in yield to 2.51% exceeding investment benchmark of 2.27%.
- Average Water Authority Portfolio term is 2.7 years.
- Water Authority portfolio is well diversified with investment holdings in Agencies, Treasuries and Corporate notes totaling 62% of the portfolio.

Attached for review by the Administrative and Finance Committee and the Board of Directors is the Treasurer’s Report as of April 30, 2019. 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 6, 2018. A brief description of each report follows:

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

Chandler Portfolio Summary: This one-page snapshot shows the Chandler Asset portfolio holdings including average duration, coupon, yield and ratings; account summary; top issuers; sector allocation; maturity distribution; and credit quality.

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 current cash flow needs. The portfolio is comprised of high quality investments, with approximately 80% invested in AAA rated or AAA/AA+ split-rated securities at month end. In April 2019, the Water Authority’s overall portfolio yield increased from 2.38% to 2.51% and continues to exceed the investment benchmark of 2.27%.
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 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>$65 Million</td>
<td>4.60%</td>
<td>$13,824,992</td>
</tr>
<tr>
<td>Banker's Acceptances</td>
<td>40%</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>Treasury Securities*</td>
<td>100%</td>
<td>20.50%</td>
<td>61,614,916</td>
</tr>
<tr>
<td>Agency Securities*</td>
<td>100%</td>
<td>24.84%</td>
<td>74,667,454</td>
</tr>
<tr>
<td>Asset-Backed, Mortgage-Backed, Mortgage Pass-Through Securities, and Collateralized Mortgage Obligations</td>
<td>20%</td>
<td>3.03%</td>
<td>9,114,217</td>
</tr>
<tr>
<td>Supranational Securities*</td>
<td>10%</td>
<td>2.59%</td>
<td>7,790,040</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>Certificates of Deposit (Placement, Negotiable &amp; Time Deposits)</td>
<td>30%</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>Commercial Paper</td>
<td>25%</td>
<td>2.95%</td>
<td>8,867,600</td>
</tr>
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<td>Medium Term Notes/Corporates*</td>
<td>30%</td>
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<td>Municipal Securities</td>
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<td>JPA Pools (CAMP)</td>
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<td>10.71%</td>
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<td>Mutual Funds and Money Market Mutual Funds*</td>
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<td>100.00%</td>
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<td>Accrued Interest (unavailable for investing)</td>
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<td>Checking/Petty Cash/Available Funds (unavailable for investing)</td>
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<td><strong>Subtotal for Pooled Funds:</strong></td>
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<td><strong>Debt Service Reserve (DSR) Funds Excluded from Portfolio Percentages:</strong></td>
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<td><strong>Subtotal for Debt Service Reserve Funds (unavailable for CIP expenditures):</strong></td>
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### Portfolio Information

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<td>5.55%</td>
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<td>Average Days to Maturity (730 Days Maximum)</td>
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*Some investments in these categories are managed by Chandler Asset Management.

**Pooled Funds include Operating, Pay Go, RSF, Equipment and Stored Water funds.
ACCOUNT SUMMARY
As of 4/30/19

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<td>Cost Value</td>
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TOP ISSUERS

- Government of United States: 28.8%
- Federal Home Loan Mortgage Corp: 17.5%
- Federal National Mortgage Assoc: 9.9%
- Federal Home Loan Bank: 6.9%
- Intl Bank Recon and Development: 2.0%
- US Bancorp: 2.0%
- Honda ABS: 2.0%
- Toyota ABS: 1.7%
- Total: 70.8%

SECTOR ALLOCATION

- Agency: 34.3%
- US Treasury: 28.8%
- US Corp: 23.9%
- ABS: 4.7%
- Supras: 4.0%
- Foreign Corp: 2.5%
- Comm Paper: 1.5%
- Money Mkt Fd: 0.4%

MATUREITY DISTRIBUTION

- 0 - 0.25: 2.9%
- 0.25 - 0.5: 9.0%
- 0.5 - 1: 14.7%
- 1 - 2: 9.5%
- 2 - 3: 17.9%
- 3 - 4: 22.9%
- 4 - 5: 17.9%
- 5+: 10.5%

CREDIT QUALITY (S&P)

- AA (75.5%)
- AAA (7.1%)
- A (14.4%)
- NR (3.0%)
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<th>Stated Rate</th>
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SDCWA - Fiscal Year 2019
Portfolio Management

Page 2

Portfolio Details - Investments
April 30, 2019
CUSIP

Investment #

Issuer

Average
Balance

Purchase
Date

Par Value

Market Value

Book Value

2,000,000.00
1,000,000.00
1,500,000.00
500,000.00
2,000,000.00
2,000,000.00
1,000,000.00
2,000,000.00
2,000,000.00
2,500,000.00

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1,026,040.00
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498,600.00
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1,031,090.00
1,994,540.00
1,994,540.00
2,517,250.00

2,024,720.00
992,310.00
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485,900.00
2,003,760.00
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993,060.00
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3,000,000.00
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Stated
Rate

S&P

YTM Days to
365 Maturity

Maturity
Date

Medium Term Notes
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69353RFL7
808513AT2
808513AT2
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89236TCZ6
89236TFN0
90331HML4
90331HML4
92826CAC6

20016
21039
21017
21023
21025
20014
21036
20012
20013
21032

PNC BANK NA
PNC BANK NA
Charles Schwab Corp
Charles Schwab Corp
TORONTO DOMINION BANK
TOYOTA MOTOR CREDIT CORP.
TOYOTA MOTOR CREDIT CORP.
US Bank NA
US Bank NA
VISA INC
Subtotal and Average

49,493,306.84

Subtotal and Average

1,916,666.67

06/23/2017
11/29/2018
07/24/2018
09/11/2018
09/11/2018
05/27/2016
11/19/2018
01/27/2016
03/18/2016
11/15/2018

2.625
3.500
2.650
2.650
3.500
1.900
3.450
2.125
2.125
2.800

A
A
A
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3.348
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3.607
1.983
1.963
3.415

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02/17/2022
06/08/2023
01/25/2023
01/25/2023
07/19/2023
04/08/2021
09/20/2023
10/28/2019
10/28/2019
12/14/2022

Negotiable CD's

Commercial Paper - Discount
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62479MUP6
89233HSU9

10223
21058
10222

JP MORGAN SECURITIES LLC
MUFG Bank LTD/NY
TOYOTA MOTOR CREDIT CORP.
Subtotal and Average

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04/24/2019
09/25/2018

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2.560
2.580

AA-1
AA-

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2.649
2.690

51 06/21/2019
83 07/23/2019
27 05/28/2019

2.719

54

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2.885
2.652
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1.564
1.567
1.552
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2.886
1.512
1.440

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154
355
355
355
358
1,510
365
176

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313383YJ4
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3130A0F70
3137EADM8
3137EAEF2
3137EAEF2
3137EAEF2
3137EAEM7
3137EAEN5
3136G0EC1
3135G0R39

21013
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10214
10225
21028
10205
10213

FEDERAL HOME LOAN BANK
FEDERAL HOME LOAN BANK
FEDERAL HOME LOAN BANK
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FEDERAL HOME LOAN BANK
FEDERAL HOME LOAN MORTGAGE COR
FEDERAL HOME LOAN MORTGAGE COR
FEDERAL HOME LOAN MORTGAGE COR
FEDERAL HOME LOAN MORTGAGE COR
FEDERAL HOME LOAN MORTGAGE COR
FEDERAL HOME LOAN MORTGAGE COR
FEDERAL NATION MORTAGE ASSOC.
FEDERAL NATION MORTAGE ASSOC.

07/20/2018
08/27/2018
11/30/2018
12/18/2018
02/14/2019
04/28/2016
06/28/2017
07/17/2017
09/20/2017
09/28/2018
09/11/2018
05/31/2017
08/17/2017

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1.250
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1.375
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2.750
2.050
1.000

AA+
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AA+
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AA+
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AA+
AA+
AA+

06/10/2022
06/09/2023
09/08/2023
12/08/2023
12/08/2023
10/02/2019
04/20/2020
04/20/2020
04/20/2020
04/23/2020
06/19/2023
04/30/2020
10/24/2019

Portfolio CWA2
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Run Date: 05/14/2019 - 13:53

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PM (PRF_PM2) 7.3.0


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<th>Book Value</th>
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<th>Maturity Date</th>
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Subtotal and Average

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Subtotal and Average

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Subtotal and Average

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### Portfolio Details - Investments
#### April 30, 2019

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<th>Purchase Date</th>
<th>Par Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>Stated Rate</th>
<th>S&amp;P</th>
<th>YTM 365</th>
<th>Days to Maturity</th>
<th>Maturity Date</th>
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<tbody>
<tr>
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**Subtotal and Average**
- Total: 9,192,808.30
- Average: 9,174,886.17
- Market Value: 9,181,234.88
- Book Value: 9,124,144.51
- YTM 365: 2.573
- Days to Maturity: 1,059

**Total and Average**
- Total: 389,027,575.61
- Average: 274,560,014.19
- Market Value: 274,300,446.47
- Book Value: 272,839,778.94
- YTM 365: 2.513
- Days to Maturity: 608
<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>
<th>Book Value</th>
<th>Stated Rate</th>
<th>S&amp;P</th>
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**Managed Pool Accounts**

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**Average Balance**

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**Total Cash and Investments**

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<th>314,644,295.09</th>
<th>313,183,627.56</th>
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## SDCWA - Fiscal Year 2019
### Portfolio Management
#### Activity Summary
##### April 2018 through April 2019

<table>
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<tr>
<th>Month</th>
<th>Year</th>
<th>Number of Securities</th>
<th>Total Invested</th>
<th>360 Equivalent</th>
<th>365 Equivalent</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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<td>April 2018</td>
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<td>326,198,345.22</td>
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Average: 91  351,628,323.33  2.112%  2.141%  2.663  5  3  793  430
May 15, 2019

Attention: Administrative and Finance Committee

Liquidity Facilities Supporting the Water Authority Tax Exempt Commercial Paper Program. (Action)

Staff recommendation
1. Adopt Resolution 2019-__ authorizing the issuance and sale of short-term revenue certificates, approving Bank of the West as the liquidity provider for the Series 10 Commercial Paper Notes and authorizing and approving certain actions in connection therewith; and
2. Adopt Resolution 2019-__ authorizing the extension of the term of a liquidity agreement with Bank of America, N.A., as the liquidity provider for the Series 9 Commercial Paper Notes program and authorizing and approving certain actions in connection therewith.

Alternative
1. The Board may choose not to approve the recommended liquidity provider for the Series 10 Commercial Paper Notes and direct staff to select one or more alternative liquidity providers.
2. The Board may choose not to approve the extension of the term of the liquidity agreement with Bank of America, N.A., for Series 9 Commercial Paper notes.

Fiscal Impact
The recommended debt management actions collectively reduce the estimated annual cost of the short-term debt portfolio’s bank fees by $190,000 per year. These savings are the result of lower fees and would be locked in for five years in the case of the Series 10 Tax Exempt Commercial Paper Notes (Series 10 CP Notes), and three years for the Series 9 Tax Exempt Commercial Paper Notes (Series 9 CP Notes). The recommended actions will impact the Customer Service, Storage, Supply, Treatment and Transportation water rate categories.

Background
As described in the Long-Range Financing Plan, the Water Authority funds its Capital Improvement Program with a combination of long-term fixed-rate debt, variable rate debt and available cash. As of June 30, 2018, outstanding debt consists of $1.836 billion in long-term debt (Certificates of Participation and Revenue Bonds), and $345 million in variable rate debt (Tax-Exempt Commercial Paper and Extendable Commercial Paper).

The Water Authority has worked hard to take advantage of the recent favorable interest rate environment. In the last year, the Water Authority executed a long-term debt refunding that yielded a total savings of nearly $18 million dollars in debt service on a present value basis. In addition, the short-term debt portfolio has been restructured over the past several years to take advantage of low short-term rates, lower Tax-Exempt Commercial Paper (TECP) liquidity facility costs and to introduce Extendable Commercial Paper (ECP) to the debt portfolio.
The Water Authority continues to actively manage its debt portfolio, which has resulted in a low cost of funds.

The Water Authority currently has two series of TECP and one series of ECP currently outstanding. The Series 8 Tax Exempt Commercial Paper Notes (Series 8 CP Notes) are currently outstanding in the aggregate principal amount of $110 million with liquidity provided by a line of credit from The Bank of Tokyo-Mitsubishi, UFJ, Ltd., acting through its New York Branch. The liquidity agreement for the Series 8 CP Notes terminates on June 26, 2019. The Series 9 CP Notes are currently outstanding in the aggregate principal amount of $135 million with liquidity provided by a line of credit from Bank of America, N.A. The liquidity agreement for the Series 9 CP Notes terminates on July 17, 2020. The Series 1 Extendable Commercial Paper Notes are currently outstanding in the aggregate principal amount of $100 million.

The dealers who place the TECP with investors are: BofA Securities, Inc., Citigroup Global Markets Inc., Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC, Loop Capital Markets LLC, Morgan Stanley & Co. LLC, and RBC Capital Markets LLC. Dealer diversification limits the TECP program’s exposure to a single dealer and allows the Water Authority better assess dealer performance.

Previous Board Action

On February 27, 2014, the Board approved a liquidity agreement with The Bank of Tokyo-Mitsubishi, UFJ, Ltd., acting through its New York Branch, for the Series 8 CP Notes. On April 27, 2017, the Board approved an extension of such liquidity agreement.

On February 25, 2016, the Board approved a liquidity agreement with Bank of America, N.A., for the Series 9 CP Notes. On October 26, 2017, the Board approved an extension of such liquidity agreement.

Discussion

Approve the selection of Bank of the West as the liquidity provider for the Series 10 Tax-Exempt Commercial Paper program and authorize the issuance and sale of short-term revenue certificates and related actions

On February 7, 2019, a Request for Proposals was issued through The Network Bid System to 34 vendors soliciting bids for a liquidity agreement to replace the liquidity agreement for the Series 8 CP Notes. Of the 34 vendors seventeen viewed the request, and five submitted proposals. Four proposals offered liquidity for TECP and one offered alternative debt products. The firms offering liquidity included Bank of America N.A., Wells Fargo Bank, Bank of the West, and Sumitomo Mitsui Banking Corporation. Goldman Sachs proposed alternative debt products.
In connection with the Series 10 CP Notes, staff evaluated the proposals based upon the following criteria:

1. Fees and overall cost;
2. Terms and conditions;
3. Bank credit ratings;
4. Trading value (penalty or discount) includes consideration of scarcity value (i.e., how much existing public finance exposure each bank has);
5. Bank commitment to the public finance market; and
6. Diversification of banks supporting the TECP program.

Taking into account the proposed terms and conditions of the banks’ proposals and the Water Authority’s goal of maintaining diversification in the banks supporting the TECP program, staff is recommending that the Water Authority select the Bank of the West to provide a line of credit to support the Series 10 CP Notes, which will replace the existing line of credit supporting the Series 8 CP Notes. The facility annual fee for this series will go from 35 bps to 30 bps, which results in an annual savings of $55,000.

Approve the extension of Bank of America N.A. as the liquidity provider and authorize the issuance and sale of short-term revenue certificates and related actions

In connection with the Series 9 CP Notes, staff is recommending the extension of the Bank of America N.A. liquidity agreement for three reasons:

1. The fees proposed by the bank are lower than the fees currently paid by the Water Authority by 10 basis points\(^1\) (bps);
2. Issuance costs are minimized since no significant changes to the agreement must be made; and
3. The bank supported TECP trades well and has a history of solid performance.

The recommendation maintains the current level of bank diversification and minimizes the impact any single institution can have on the program’s performance. A renewal for an additional three-year term keeps the maturity of the TECP facility’s spread out so that market risk is also diversified. The facility annual fee for this series will be reduced from 38 bps to 28 bps, which results in an annual savings of $135,000. The cost associated with procuring and executing a new bank contract would significantly exceed the additional annual cost and fees associated with this extension. No change to the TECP dealers or allocations is recommended.

Documents to be approved

In connection with the Series 10 CP Notes, which will replace the Series 8 CP Notes, the Water Authority will execute and deliver an Issuing and Paying Agent Agreement with U.S. Bank National Association, a Liquidity Agreement and Fee Letter with Bank of the West, Dealer Agreements with each of the dealers listed herein and an Offering Memorandum for the Series 10 CP Notes. A description of each document is provided below.

\(^1\) 100 basis points equals 1%
Issuing and Paying Agent Agreement
The Issuing and Paying Agent Agreement sets forth the terms pursuant to which the Series 10 CP Notes are issued. The form of Issuing and Paying Agent Agreement is on file with the clerk of the Board.

Liquidity Agreement and Fee Letter with Bank of the West
The Liquidity Agreement evidences the bank’s commitment to provide liquidity to the Water Authority if the dealers cannot find any investors for the maturing Series 10 CP Notes. The Liquidity Agreement contains the terms for, among other things, making advances and term loans, payment of fees, events of default and remedies. The Liquidity Agreement with Bank of the West is expected to terminate on June 6, 2024.

Dealer Agreements
The form of Dealer Agreement sets forth the terms pursuant to which a Dealer will solicit purchases of the Series 10 CP Notes allocated to such Dealer. The form of Dealer Agreement is on file with the clerk of the Board.

Offering Memorandum for Series 10 CP Notes
The Offering Memorandum (OM) for the Series 10 CP Notes serves two purposes. It is used by dealers to solicit investor interest and to satisfy the Water Authority’s obligations under applicable securities laws with respect to disclosure. The OM provides potential TECP investors with information to make an informed investment decision. To this end, the OM provides detailed information about the Liquidity Agreement and the bank securing the Series 10 CP Notes, as well as general and financial information regarding the Water Authority. Because TECP is a short-term debt instrument, the OM is focused more on the Liquidity Agreement and the bank than on information pertaining to the Water Authority. The form of the OM for the Series 10 CP Notes is provided as (Attachment 4).

In connection with the Series 9 CP Notes, the Water Authority will execute and deliver amendments to the existing Liquidity Agreement and Fee Letter with Bank of America, N.A., and an amendment to the Offering Memorandum for the Series 9 CP Notes. A description of each document is provided below.

Second Amendment to Liquidity Agreement and Fee Letter with Bank of America, N.A.
The Liquidity Agreement evidences the bank’s commitment to provide liquidity to the Water Authority if the dealers cannot find any investors for the maturing Series 9 CP Notes. The Liquidity Agreement contains the terms for, among other things, making advances and term loans, payment of fees, events of default and remedies. The Liquidity Agreement with Bank of America, N.A., as amended, is expected to terminate on May 28, 2022.
Amendment to Offering Memorandum for Series 9 CP Notes
The OM for the Series 9 CP Notes serves two purposes. It is used by dealers to solicit investor interest and to satisfy the Water Authority’s obligations under applicable securities laws with respect to disclosure. The OM provides potential TECP investors with information to make an informed investment decision. To this end, the OM provides detailed information about the Liquidity Agreement and the bank securing the Series 9 CP Notes, as well as general and financial information regarding the Water Authority. Because TECP is a short-term debt instrument, the OM is focused more on the Liquidity Agreement and the bank than on information pertaining to the Water Authority. The form of the OM for the Series 9 CP Notes is provided as (Attachment 3).

In approving Resolution 2019-__ the Board will take the following actions:
- Authorize the issuance of Series 10 CP Notes through June 6, 2024;
- Approve the forms of the principle transaction documents including:
  - OM for the Series 10 CP Notes
  - On file with the clerk of the Board and available upon request:
    - Liquidity Agreement and Fee Letter
    - Issuing and Paying Agent Agreement
    - Form of Dealer Agreement
- Delegate to Water Authority officers the authority to finalize, execute and deliver the documents, and complete the transaction. Water Authority officers include the Chair of the Board, the General Manager, and the Director of Finance/Treasurer

In approving Resolution 2019-__ the Board will take the following actions:
- Authorizing the amendment of the existing Liquidity Agreement with Bank of America to extend the term to May 28, 2022 and to adjust the fee downward by 10 bps.
- Approve the forms of the principal transaction documents including:
  - Amended OM for the Series 9 CP Notes
  - On file with the clerk of the Board and available upon request:
    - Second Amendment to Liquidity Agreement and Fee Letter
- Delegate to Water Authority officers the authority to finalize, execute and deliver the documents, and complete the transaction. Water Authority officers include the Chair of the Board, the General Manager, and the Director of Finance/Treasurer

Prepared by: David Gore, Senior Management Analyst
Reviewed by: Lisa Marie Harris, Director of Finance
Approved by: Dan Denham, Assistant General Manager

Attachments:
Attachment 1 - Water Authority Resolution Extending Series 9 TECP Program
Attachment 2 - Water Authority Resolution Establishing Series 10 TECP Program
Attachment 3 - Form of the Offering Memorandum for Series 9 CP Notes
Attachment 4 - Form of the Offering Memorandum for Series 10 CP Notes
RESOLUTION NO. 2019-_____  
RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY AUTHORIZING THE EXTENSION OF THE TERM OF A LIQUIDITY AGREEMENT AND THE AMENDMENT OF A FEE LETTER AND APPROVING CERTAIN ACTIONS IN CONNECTION THEREWITH

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 incur indebtedness through the issuance of short-term revenue certificates; and

WHEREAS, the Board of Directors of the Water Authority (the “Board”) has previously authorized the issuance, from time to time, of $135,000,000 aggregate principal amount of San Diego County Water Authority Commercial Paper Notes, Series 9 (the “Series 9 Notes”); and

WHEREAS, to provide liquidity for the Series 9 Notes, the Water Authority has entered into a Revolving Credit and Term Loan Agreement, as amended by the First Amendment to Revolving Credit and Term Loan Agreement (collectively, the “Series 9 Liquidity Agreement”), with Bank of America, N.A. (the “Bank”), and an Amended and Restated Fee Letter with the Bank relating thereto (the “Fee Letter”); and

WHEREAS, the Board has determined that it is in the best interest of the Water Authority to provide for the amendment of the Series 9 Liquidity Agreement to extend the term of such agreement by three years; and

WHEREAS, there have been presented to this meeting and placed on file with the Executive Secretary of the Water Authority a form of Second Amendment to Revolving Credit and Term Loan Agreement (the “Form of Series 9 Liquidity Agreement Amendment”) and a form of Second Amended and Restated Fee Letter (the “Form of Fee Letter Amendment”), each between the Water Authority and the Bank;

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 amending of the Series 9 Liquidity Agreement and the Fee Letter do exist, have happened and have been performed in regular and due time, form and manner as required by law, and the Water Authority is now duly authorized and empowered, pursuant to each and every requirement of law, to consummate such financing for the purpose, in the manner and upon the terms herein provided;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the San Diego County Water Authority as follows:
Section 1. **Findings.** The Water Authority hereby specifically finds and declares that the statement, findings and determinations of the Water Authority set forth in the preambles of the documents approved herein are true and correct, and that the foregoing recitals are true and correct and the Water Authority hereby so finds and determines.

Section 2. **Amendment of Series 9 Liquidity Agreement.** The Form of Series 9 Liquidity Agreement Amendment is hereby approved. The Chair or Vice Chair of the Board or the General Manager or Director of Finance/Treasurer of the Water Authority (the “Authorized Officers”) are each hereby authorized and directed to execute and deliver an amendment to the Series 9 Liquidity Agreement in substantially such form, with any changes, additions and completions thereto as such Authorized Officer, with the concurrence of the General Counsel of the Water Authority, may require or approve, such approval to be conclusively evidenced by the execution and delivery thereof.

Section 3. **Amendment of Fee Letter.** The Form of Fee Letter Amendment is hereby approved. The Authorized Officers are each hereby authorized and directed to execute and deliver an amendment to the Fee Letter in substantially such form, with any changes, additions and completions thereto as such Authorized Officer, with the concurrence of the General Counsel of the Water Authority, may require or approve, such approval to be conclusively evidenced by the execution and delivery thereof.

Section 4. **Amendment of the Offering Memorandum.** The General Manager of the Water Authority and the Director of Finance/Treasurer of the Water Authority are each hereby authorized and directed to approve the distribution of an Offering Memorandum for the Series 9 Notes, amended to reflect the extension of the term of the Series 9 Liquidity Agreement Amendment, and with any other changes or additions thereto as such officer may require or approve.

Section 5. **Additional Authorization.** The Authorized Officers, and all officers, agents and employees of the Board or the Water Authority, are authorized and directed to do any and all things necessary, and to execute and deliver any and all certificates, requisitions, agreements, notices, consents, and other documents, which they may deem necessary or advisable in order to amend the Series 9 Liquidity Agreement and the Fee Letter and to effect the purposes of this Resolution, and any such actions previously taken by the aforementioned officers are hereby ratified, confirmed and approved.

Section 6. **Delegation of Authority.** The authority of the General Manager, Director of Finance/Treasurer, General Counsel and Clerk of the Board under this Resolution may be delegated as provided in the Administrative Code of the Water Authority.
Section 7. **Effective Date.** The effective date of this Resolution shall be the date of its adoption.

PASSED, APPROVED AND ADOPTED, this 23rd day of May, 2019:

AYES: Unless noted below all Directors voted aye.

NOES:

ABSTAIN:

ABSENT:

________________________
Jim Madaffer, Chair

ATTEST:

________________________
Christy Guerin, Secretary

I, Melinda Nelson, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution No. 2019-_____ was duly adopted at the meeting of the Board of Directors on the date stated above.

________________________
Melinda Nelson, Clerk
Clerk of the Board
RESOLUTION NO. 2019-____

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY AUTHORIZING THE ISSUANCE AND SALE OF SHORT-TERM REVENUE CERTIFICATES AND AUTHORIZING AND APPROVING CERTAIN ACTIONS IN CONNECTION THEREWITH

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 incur indebtedness through the issuance of short-term revenue certificates; and

WHEREAS, the Board of Directors of the Water Authority (the “Board”) adopted, on May 11, 1989, and amended on December 11, 1997, and December 17, 2009, Resolution No. 89-21 of the Water Authority providing for the allocation of water system revenues and establishing covenants to secure the payment of obligations payable from the net water revenues (the “General Resolution”); and

WHEREAS, the Board has previously authorized the issuance, from time to time, of $110,000,000 aggregate principal amount of San Diego County Water Authority Commercial Paper Notes, Series 8 (the “Series 8 Notes”); and

WHEREAS, the Board has determined that it is in the best interest of the Water Authority to provide for the issuance of an additional series of short-term revenue certificates (the “Series 10 Notes”) to refund all of the Series 8 Notes; and

WHEREAS, there have been presented to this meeting and placed on file with the Executive Secretary of the Water Authority the following documents;

(1) A form of revolving credit and term loan agreement (the “Form of Liquidity Agreement”);

(2) A form of fee letter relating to the revolving credit and term loan agreement (the “Form of Fee Letter”);

(3) A form of dealer agreement (the “Form of Dealer Agreement”);

(4) A form of issuing and paying agent agreement (the “Form of Issuing and Paying Agent Agreement”); and

(5) A form of offering memorandum (the “Form of Offering Memorandum”);

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 entering into or amending of an issuing and paying agent agreement providing for the issuance of Series 10 Notes and the consummation of the financing authorized hereby do exist, have happened and have been performed in regular and due time, form and manner as required by law, and the Water Authority is now duly authorized and empowered, pursuant to each and every requirement of law, to consummate such financing for the purpose, in the manner and upon the terms herein provided;

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

Section 1. Findings. The Water Authority hereby specifically finds and declares that the statements, findings and determinations of the Water Authority set forth in the preambles of the documents approved herein are true and correct, and that the foregoing recitals are true and correct and the Water Authority hereby so finds and determines.

Section 2. Issuance of Series 10 Notes: Terms of Series 10 Notes. The Board hereby authorizes the issuance, from time to time, of Series 10 Notes in the aggregate principal amount not to exceed $110,000,000 to be outstanding at any one time. The Board hereby also authorizes the issuance of Bank Notes (as such term is defined in the hereinafter defined Issuing and Paying Agent Agreement) in the aggregate principal amount not to exceed $110,000,000 outstanding at any one time. Such Series 10 Notes and Bank Notes shall constitute “Subordinate Obligations” for purposes of the General Resolution.

Within the parameters set forth in this Resolution, each representative of the Board designated by the Board pursuant to Section 8 of this Resolution (the “Designated Representative”) is hereby delegated the authority to deliver an Issuance Request (as defined herein), to determine when Series 10 Notes shall be issued and to establish the face amount, the date, the effective interest rate, the amount of interest and the maturity date with respect to each Series 10 Note issued; provided however that no Series 10 Note shall have a term in excess of two hundred seventy (270) days. In setting such terms, the Designated Representative shall consult with the hereinafter defined Dealers designated herein and may consult with the municipal advisors of the Water Authority, if necessary, and take into account market conditions. In addition, the Designated Representative shall be authorized to certify as to certain matters relating to the Water Authority and the Series 10 Notes from time to time as may be required by the Issuing and Paying Agent Agreement, the hereinafter defined Dealer Agreements and the hereinafter defined Liquidity Agreement (collectively, the “Documents”).

Execution and delivery of each set of instructions, pursuant to the Issuing and Paying Agent Agreement, by the Designated Representative (each an “Issuance Request”), containing the maturities, the principal amounts, the purchase prices, the interest rates, the amounts of interest and the dates for each Series 10 Note to be issued at such time, within the parameters set forth in this Resolution and the Issuing and Paying Agent Agreement, shall constitute conclusive evidence of the Water Authority’s approval of such maturities, principal amounts, purchase prices, interest rates, amounts of interest and dates for such issue of Series 10 Notes.

Section 3. Form of Series 10 Notes. The Series 10 Notes and the Issuing and Paying Agent’s Certificate of Authentication to appear thereon shall be in a form appropriate to
adequately reflect the terms of such Series 10 Notes and the obligations represented thereby as are permitted or required by this Resolution and the related Issuing and Paying Agent Agreement and may have such letters, numbers or other marks of identification and such legends, endorsements and opinions thereon as may, consistent herewith, be approved by the Designated Representative.

Section 4. Approval of Form of Dealer Agreement. The Form of Dealer Agreement is hereby approved. The Chair of the Board or the General Manager or Director of Finance/Treasurer of the Water Authority (collectively, the “Authorized Officers” and individually, an “Authorized Officer”) are hereby authorized and directed to execute and deliver Dealer Agreements, in substantially such form, with any changes, additions and completions thereto as such Authorized Officer, with the concurrence of the General Counsel of the Water Authority, may require or approve, such approval to be conclusively evidenced by the execution and delivery thereof (as finally executed and delivered, the “Dealer Agreements”). The Authorized Officers are hereby authorized to appoint from Citigroup Global Markets Inc., Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC, Loop Capital Markets LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated (or BofA Securities, Inc. as may be applicable), Morgan Stanley & Co. LLC and RBC Capital Markets, LLC, dealers for the Series 10 Notes (collectively, the “Dealers” and individually, a “Dealer”) in such amounts as such officers shall determine.

Section 5. Approval of Form of Issuing and Paying Agent Agreement. The Form of Issuing and Paying Agent Agreement is hereby approved. The Authorized Officers are hereby authorized and directed to execute and deliver an Issuing and Paying Agent Agreement with U.S. Bank National Association, or such other financial institution as shall be selected by the Authorized Officers (the “Issuing Paying Agent”), in substantially such form, with any changes, additions and completions thereto as such Authorized Officer, with the concurrence of the General Counsel of the Water Authority, may require or approve, such approval to be conclusively evidenced by the execution and delivery thereof (as finally executed and delivered, the “Issuing and Paying Agent Agreement”).

Section 6. Approval of Form of Liquidity Agreement. The Form of Liquidity Agreement is hereby approved. The Authorized Officers are hereby authorized and directed to execute and deliver a Liquidity Agreement with Bank of the West, or such other financial institution as shall be selected by the Authorized Officers (the “Liquidity Provider”), in substantially such form, with any changes, additions and completions thereto as such Authorized Officer, with the concurrence of the General Counsel of the Water Authority, may require or approve, such approval to be conclusively evidenced by the execution and delivery thereof (as finally executed and delivered, the “Liquidity Agreement”).

Section 7. Approval of Form of Fee Letter. The Form of Fee Letter is hereby approved. The Authorized Officers are hereby authorized and directed to execute and deliver a Fee Letter with the Liquidity Provider in substantially such form, with any changes, additions and completions thereto as such Authorized Officers, with the concurrence of the General Counsel of the Water Authority, may require or approve, such approval to be conclusively evidenced by the execution and delivery thereof (as finally executed and delivered, the “Fee Letter”).

Section 8. Approval of Form of Offering Memorandum. The Form of Offering Memorandum is hereby approved. The General Manager of the Water Authority or the Director
of Finance/Treasurer of the Water Authority is hereby authorized and directed to approve the
distribution of Offering Memoranda in substantially such form with any changes, additions or
completions thereto as such officer may require or approve. Each Offering Memorandum so
distributed shall first be approved by the General Manager of the Water Authority or the Director
of Finance/Treasurer of the Water Authority. The Dealers are hereby authorized to distribute the
Offering Memoranda in final form to market the Series 10 Notes from time to time, which Offering
Memoranda may include copies of the Water Authority’s most recent annual audited financial
statements and such other information relating to the Water Authority as the General Manager of
the Water Authority or the Director of Finance/Treasurer of the Water Authority shall require or
approve.

Section 9. Designated Representative. The Board hereby appoints the Director
of Finance/Treasurer of the Water Authority, and such other officer or officers of the Water
Authority as such officer shall from time to time designate, to serve as Designated Representatives
of the Water Authority. The Designated Representatives shall be authorized and each of whom
are hereby directed to perform those duties set forth in the Documents including, without
limitation, the execution of Issuance Requests. The Designated Representatives are also
authorized to make representations and warranties concerning the Series 10 Notes as and when
required by the Documents.

Section 10. Attestation. The Clerk of the Board of the Water Authority is hereby
authorized and directed to attest the signatures of the Authorized Officers as may be required or
appropriate in connection with the execution and delivery of the Documents.

Section 11. Execution by Authorized Officer / Additional Authorization. Whenever the Authorized Officers are, by this Resolution, authorized and directed to execute and
deliver any document, the execution and delivery of that document by any of Authorized Officer
shall be sufficient. The Authorized Officers and General Counsel, and agents and employees
designated by the Authorized Officers or General Counsel, are authorized and directed to do any
and all things necessary, including (without limitation) appointment of a substitute Issuing and
Paying Agent for the Series 10 Notes or replacement of a Dealer for the Series 10 Notes, or
appointment of an additional Dealer, if desirable, and appointment of a substitute qualified
financial institution to provide liquidity for the Series 10 Notes, to effect the execution and delivery
of the Series 10 Notes, the Issuing and Paying Agent Agreement, the Dealer Agreements, the
Liquidity Agreement, the Fee Letter and the Offering Memorandum and to carry out the terms
thereof; and to execute and deliver any and all certificates, requisitions, agreements, notices,
consents, and other documents, including the tax certificate, the letter of representations to a bond
depository, other insurance or credit agreements, if any, and closing certificates, which they may
decem necessary or advisable in order to consummate the issuance, sale and delivery of the Series
10 Notes from time to time as contemplated by the Issuing and Paying Agent Agreement, to pay
the fees and expenses of the Liquidity Provider, rating agency fees, the fees and expenses of the
issuing and paying agent, the Water Authority’s municipal advisor and bond counsel, and all other
amounts required to be paid by the Water Authority to effect the purposes of this Resolution, and
any such actions previously taken by the aforementioned officers are hereby ratified, confirmed
and approved.
Section 12. **Delegation of Authority.** The authority of the General Manager, Director of Finance/Treasurer, General Counsel and Clerk of the Board under this Resolution may be delegated as provided in the Administrative Code of the Water Authority.

Section 13. **Effective Date.** The effective date of this Resolution shall be the date of its adoption.

PASSED, APPROVED AND ADOPTED, this 23rd day of May 2019:

AYES: Unless noted below all Directors voted aye.

NOES:

ABSTAIN:

ABSENT:

________________________________________
Jim Madaffer, Chair

ATTEST:

________________________________________
Christy Guerin, Secretary

I, Melinda Nelson, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution No. 2019-_____ was duly adopted at the meeting of the Board of Directors on the date stated above.

________________________________________
Melinda Nelson, Clerk
Clerk of the Board
$135,000,000
Commercial Paper Notes, Series 9

The Series 9 Notes (the “Series 9 Notes”) to be offered hereby are part of an issue of Commercial Paper Notes of the San Diego County Water Authority (the “Water Authority”) which are issued from time to time pursuant to the Issuing and Paying Agent Agreement (as defined herein). The Series 9 Notes will be issued as interest-bearing obligations, in book-entry form, in denominations of $100,000 and integral multiples of $1,000 in excess thereof. The Water Authority has appointed Citigroup Global Markets Inc., Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC, Loop Capital Markets LLC, BofA Securities, Inc., Morgan Stanley & Co. LLC and RBC Capital Markets, LLC, as co-dealers for the Series 9 Notes.

On May 11, 2016, Orrick, Herrington & Sutcliffe LLP, San Francisco, California, Bond Counsel to the Water Authority, delivered its opinion that, based on an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 9 Notes, when issued in accordance with the Issuing and Paying Agent Agreement and the Tax Certificate (as defined herein), is excluded from gross income for federal income tax purposes and exempt from State of California personal income taxes. Bond Counsel’s opinion stated that interest on the Series 9 Notes is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Bond Counsel observed that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. Bond Counsel expressed no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Series 9 Notes. See “TAX EXEMPTION” herein.

The Series 9 Notes will constitute limited obligations of the Water Authority, payable solely from a pledge of Net Water Revenues (as defined herein), and neither the full faith and credit nor the taxing power of the Water Authority, the State of California or any of its political subdivisions is pledged for the payment thereof. Payment of the Series 9 Notes from Net Water Revenues is subordinate to the payment of any Prior Obligations (as defined herein) presently outstanding or hereafter incurred by the Water Authority in accordance with the General Resolution (as defined herein). The Water Authority has entered into a Revolving Credit and Term Loan Agreement, as amended (the “Liquidity Agreement”), with Bank of America, N.A. (the “Bank”), pursuant to which the Bank has agreed, subject to certain conditions precedent, to provide funds in an amount not to exceed $135,000,000 for the payment of the principal of the Series 9 Notes. Unless terminated earlier or extended in accordance with its terms, the Liquidity Agreement will terminate on [May 28, 2022].

UNDER CERTAIN CIRCUMSTANCES, THE OBLIGATION OF THE BANK TO MAKE ADVANCES UNDER THE LIQUIDITY AGREEMENT WILL TERMINATE OR BE SUSPENDED IMMEDIATELY, AUTOMATICALLY AND WITHOUT NOTICE TO HOLDERS OF THE SERIES 9 NOTES. IN SUCH EVENT, SUFFICIENT FUNDS MAY NOT BE AVAILABLE TO PAY SUCH SERIES 9 NOTES.

BofA Merrill Lynch  Citigroup  Goldman Sachs & Co.
J.P. Morgan  Loop Capital Markets  Morgan Stanley  RBC Capital Markets

Dated: May [__], 2019
$135,000,000
San Diego County Water Authority
Commercial Paper Notes, Series 9

INFORMATION CONCERNING THE OFFERING

Citigroup Global Markets Inc., Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC, Loop Capital Markets LLC, BofA Securities, Inc., Morgan Stanley & Co. LLC and RBC Capital Markets, LLC (collectively the “Dealers”) have been appointed to serve as exclusive dealers for the Commercial Paper Notes, Series 9 (the “Series 9 Notes”) of the San Diego County Water Authority (the “Water Authority”). This Offering Memorandum relates to the offering, from time to time, of up to $135,000,000 aggregate principal amount of the Series 9 Notes under the Issuing and Paying Agent Agreement (Series 9), dated as of May 1, 2016 (the “Issuing and Paying Agent Agreement”), between the Water Authority and U.S. Bank National Association (the “Issuing and Paying Agent”). The aggregate principal amount of the Series 9 Notes outstanding may change from time to time as provided in the Issuing and Paying Agent Agreement.

THE COMMERCIAL PAPER NOTES

Purpose of the Series 9 Notes

Proceeds of the Series 9 Notes will be used to provide funds to refinance the cost of design, acquisition and construction of water system improvements in furtherance of the Water Authority’s Capital Improvement Program.

Description of the Series 9 Notes

The Series 9 Notes will be dated the date of their respective authentication, will be issued as interest bearing obligations in denominations of $100,000 and integral multiples of $1,000 in excess thereof and, except as described below, will be issued in book-entry form through the book-entry system of The Depository Trust Company (“DTC”). Each note will bear interest from its date of issuance at the rate determined at the date of issuance payable at maturity. The Series 9 Notes will mature no later than 270 days from the date of issuance; provided that, so long as the Liquidity Agreement (as defined herein) is in effect, no Series 9 Notes may be issued with a maturity date after the business day prior to the scheduled expiration date of the Liquidity Agreement or, if an Alternate Facility (as defined in the Liquidity Agreement) will be available with respect to the Series 9 Notes, after the business day prior to the scheduled expiration date of the Alternate Facility. Interest will be computed on the basis of a 365- or 366-day year, and the actual number of days elapsed. The principal of and interest on the Series 9 Notes in book-entry form will be paid at maturity to DTC and distributed by it to its participants as described below.

The Series 9 Notes will be delivered as fully registered certificates and registered in the name of Cede & Co., as registered owner and nominee for DTC. Beneficial ownership interests in the Series 9 Notes will be available in book-entry form only, and purchasers of the Series 9 Notes will not receive certificates representing their interests in the Series 9 Notes purchased. While held in book-entry only form, the Issuing and Paying Agent will make all payments of principal and interest with respect to the Series 9 Notes by wire transfer to DTC or its nominee as the sole registered owner of the Series 9 Notes. Payments to the beneficial owners are the responsibility of DTC and its participants. See Appendix D – “Information Regarding DTC and the Book-Entry Only System.”
Security for the Series 9 Notes

The Water Authority expects to pay the principal of the Series 9 Notes with the proceeds of additional Series 9 Notes until the Water Authority provides permanent financing for those water system improvements refinanced with the Series 9 Notes or until, from time to time, revenues of the Water Authority are available to pay for the Series 9 Notes.

The Series 9 Notes will constitute limited obligations of the Water Authority, payable solely from Net Water Revenues, and neither the full faith and credit nor the taxing power of the Water Authority, the State of California or any of its political subdivisions is pledged for the payment thereof. Payment of the Series 9 Notes from Net Water Revenues is subordinate to the payment of any Prior Obligations (as defined herein) presently outstanding or hereafter incurred by the Water Authority in accordance with Resolution 89-21, adopted by the Board of Directors of the Water Authority on May 11, 1989, as supplemented by Resolution No. 97-52, adopted by the Board of Directors of the Water Authority on December 11, 1997, and by Resolution No. 09-23, adopted by the Board of Directors of the Water Authority on December 17, 2009 (as supplemented, the “General Resolution”).

Pursuant to a Revolving Credit and Term Loan Agreement dated as of May 11, 2016, and amended by the First Amendment to Revolving Credit and Term Loan Agreement dated as of October 30, 2017, and by the Second Amendment to Revolving Credit and Term Loan Agreement dated as of [May 28], 2019 (as amended, the “Liquidity Agreement”), by and between the Water Authority and Bank of America, N.A. (the “Bank”), the Bank has agreed, subject to certain conditions precedent, to provide funds in an amount not to exceed $135,000,000 for the payment of Series 9 Notes principal when due. Unless terminated earlier or extended in accordance with its terms, the Liquidity Agreement will terminate on [May 28, 2022]. See “SUMMARY OF CERTAIN PROVISIONS OF THE LIQUIDITY AGREEMENT” herein.

UNDER CERTAIN CIRCUMSTANCES, THE OBLIGATION OF THE BANK TO MAKE ADVANCES UNDER THE LIQUIDITY AGREEMENT WILL TERMINATE OR BE SUSPENDED IMMEDIATELY, AUTOMATICALLY AND WITHOUT NOTICE TO HOLDERS OF THE SERIES 9 NOTES. IN SUCH EVENT, SUFFICIENT FUNDS MAY NOT BE AVAILABLE TO PAY SUCH SERIES 9 NOTES.

The Water Authority may deliver an Alternate Facility in place of the Liquidity Agreement; provided, no such delivery may result in the termination of the Liquidity Agreement then in effect so long as Series 9 Notes for the payment of the principal of which such Liquidity Agreement is providing liquidity remain outstanding.

To provide security for the payment of the principal of and interest on the Series 9 Notes as the same shall become due and payable, the Issuing and Paying Agent Agreement grants a lien on and pledge of, subject only to the provisions of the Issuing and Paying Agent Agreement permitting the application thereof for purposes of the terms and conditions set forth therein, (i) the proceeds from the sale of Series 9 Notes issued pursuant to the Issuing and Paying Agent Agreement for the purpose of refinancing, renewing or refunding the Series 9 Notes, (ii) the amount held in the Commercial Paper Note Payment Fund (on a pro rata basis with any other commercial paper notes secured by such fund) until the amounts deposited therein are used for authorized purposes, (iii) amounts held by the Issuing and Paying Agent in the Issuing and Paying Agent Fund, (iv) the amounts held in the Commercial Paper Note Construction Fund (on a pro rata basis with any other commercial paper notes secured by such fund), (v) the proceeds of any other indebtedness of the Water Authority issued or incurred solely for the payment of principal of and interest on the Series 9 Notes, (vi) any other moneys of the Water Authority hereafter pledged by the Water Authority for the payment of principal of and interest on the Series 9 Notes and (vii) the proceeds of Advances (as defined in the Liquidity Agreement), and the principal of and interest on the Series 9 Notes.
are equally and ratably secured by and payable from a lien on and pledge of the sources hereinabove identified in clauses (i) through (vii) above, subject and subordinate only to the exceptions noted therein.

Additionally, to provide for the payment of the principal of and interest on the Series 9 Notes as the same shall become due and payable, the Water Authority shall, from Net Water Revenues on deposit in the Subordinate Obligations Payment Fund established under the General Resolution on a parity with all other Subordinate Obligations (as defined herein), deposit in the Commercial Paper Note Payment Fund from time to time amounts sufficient, together with other moneys available therefor for the timely payment of principal of and interest on the Series 9 Notes. Such payment shall be subject and subordinate to the application of Net Water Revenues to the payment of principal and accreted value of, premium, if any, interest on, and any reserve fund requirements for, or other obligations with respect to, any senior obligations of the Water Authority.

Unless the Series 9 Notes are paid from the source described in the clauses (i) through (vii) above, such payment is to be made from Net Water Revenues deposited in the Commercial Paper Note Payment Fund.

For purposes of the foregoing:

“General Resolution” means Resolution No. 89-21 adopted by the Board of Directors of the Water Authority on May 11, 1989, entitled “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,” as supplemented by Resolution No. 97-52, adopted by the Board of Directors of the Water Authority on December 11, 1997, and Resolution No. 09-23, adopted by the Board of Directors of the Water Authority on December 17, 2009, as it may be further modified, amended or supplemented.

“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.

“Water Revenues” means Current Water Revenues plus deposits to the Water Revenue Fund established under the General Resolution from amounts on deposit in the Rate Stabilization Fund, established under the General Resolution, less amounts transferred to the Rate Stabilization Fund.

“Current Water Revenues” means all gross income and revenue received or receivable by the Water 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 Water Authority for the Water Service and other services of the Water System and all other income and revenue howsoever derived by the Water Authority from the ownership or operation of the Water System or arising from the Water System, and also including investment income with respect to certain funds and accounts.

“Maintenance and Operation Costs” means all costs paid or incurred by the Water Authority for maintaining and operating the Water System, determined in accordance with Generally Accepted Accounting Principles, including all costs of water purchased by the Water 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 Water Authority, such as salaries and wages of employees, overhead, taxes (if any) and insurance premiums, and including all other costs of the Water Authority or charges required to be paid by it to comply with the terms of the General Resolution 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, seller, lender or lessor 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.)


“Subordinate Obligations” means the Series 9 Notes, the San Diego County Water Authority Commercial Paper Notes, Series 8 (the “Series 8 Notes”), the San Diego County Water Authority Extendable Commercial Paper Notes, Series 1 (the “ECP Notes”), the San Diego County Water Authority Subordinate Lien Water Revenue Refunding Bonds, Series 2016S-1 (the “2016S-1 Bonds”), and any other obligations of the Water Authority authorized and executed by the Water 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 as Subordinate Obligations under the General Resolution. The Water Authority expects to refund all of the Series 8 Notes from proceeds of the San Diego County Water Authority Commercial Paper Notes, Series 10 (the “Series 10 Notes”) on June 6, 2019. The Series 10 Notes are not being offered pursuant to this Offering Memorandum.

“Bonds” means revenue bonds of the Water Authority, the principal and interest on which are payable from Net Water Revenues on a parity with the Prior Obligations.

“Contracts” means installment sale agreements, leases or contracts of indebtedness, the principal and interest with respect to which are payable by the Water Authority from Net Water Revenues on a parity with the Prior Obligations.

“Certificates” means any certificates of participation representing interests in payments to be made by the Water Authority pursuant to Contracts.

Rate Covenant

The Water Authority covenants under the General Resolution that it 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 non-discriminatory and which will be at least sufficient to yield during the next succeeding fiscal year of the Water 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 120% of the Debt Service on all Bonds and Contracts for such fiscal year. The Water 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 covenant.

The Water Authority further covenants under the Issuing and Paying Agreement that it will prescribe, revise and collect such rates and charges for the services, facilities, availability and water of the Water System which, after making allowances for contingencies and error in estimates, will provide Water Revenues at least sufficient to pay the following amounts in the order set forth:

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1. Maintenance and Operation Costs;

2. Principal and accreted value of, premium, if any, and interest on all Prior Obligations as and when the same shall become due and payable, and any required deposits into any reserve funds or accounts for the Prior Obligations, all in accordance with the Prior Obligation Documents (as defined in the Issuing and Paying Agreement);

3. To the extent the same are reasonably anticipated by the Water Authority to be paid with Net Water Revenues (e.g., not paid from the proceeds of additional Series 9 Notes or other refunding obligations), the principal of and interest on the Series 9 Notes and any other amounts due the Bank under the Liquidity Agreement, in each case as and when the same shall become due; and

4. Any other obligations which are payable from the Water Revenues including, without limitation, the Subordinate Obligations.

The Series 9 Notes are Subordinate Obligations payable on a parity with the Series 8 Notes, the ECP Notes, the 2016S-1 Bonds and any other Subordinate Obligations secured by the Subordinate Obligation Payment Fund established under the General Resolution. The Water Authority expects to refund all of the Series 8 Notes from proceeds of the Series 10 Notes on \([June 6], 2019\). The Series 10 Notes are not being offered pursuant to this Offering Memorandum.

THE WATER AUTHORITY

The Water Authority is a county water authority organized and existing under the County Water Authority Act, California Statutes 1943, Chapter 545, as amended (the “Act”). The Water Authority was organized on June 9, 1944, for the primary purpose of supplying water to San Diego County for wholesale distribution to the Water Authority’s member agencies in order to meet their respective needs for beneficial uses and purposes.

The Water Authority has 24 member agencies, consisting of six cities, including the City of San Diego, 17 special districts and the Pendleton Military Reservation. A 36-member Board of Directors (the “Board”) governs the Water Authority with each of the member agencies having at least one voting representative on the Board. Any member agency may appoint one additional representative for each full five percent (5%) of total assessed value of property taxable for Water Authority purposes that is within the public agency service area. As a result, the City of San Diego is currently entitled to representation by 10 directors and the Helix Water District, the Otay Water District and Carlsbad Municipal Water District are each currently entitled to representation by two directors. Directors are appointed to six-year terms by the chief executive officers of the respective member agencies, subject to approval by the agencies’ governing bodies. Under the Act, a member agency’s weighted vote is based on its “total financial contribution” to the Water Authority as determined annually by the Board of Directors. Total financial contribution includes all amounts paid in taxes, assessments, fees and charges paid to or on behalf of the Water Authority and The Metropolitan Water District of Southern California excluding charges for water treatment with respect to property located within each member agency.

The Water Authority is authorized to acquire water and water rights within or outside the State of California; to develop, store and transport such water; to provide, sell and deliver water for beneficial uses and purposes and to provide, sell and deliver water of the Water Authority not needed or require for beneficial purposes of its member agencies to areas outside the boundaries of the Water Authority.

The Water Authority is further authorized by the Act (i) to utilize its water, works, facilities, improvements and property used for the development, storage or transportation of water, to provide,
generate and deliver hydroelectric power, and may acquire, construct, operate and maintain any and all works, facilities, improvements and property necessary or convenient for that utilization; (ii) to provide, sell and deliver hydroelectric power to the United States of America or to any board, department or agency thereof, to the State of California for the State Water Project and to any other public agency, private corporation or any other person or entity engaged in the sale of electric power at retail or wholesale; (iii) to acquire, construct, own, operate, control or use works for supplying its member public agencies with gas or electricity; and (iv) to purchase gas, electricity or related services from the United States of America or any board, department or agency thereof, the State of California, any public agency, person or private company and provide, sell, exchange or deliver them to any public agency, private company, or person engaged in the sale of gas or electricity at retail.

The most recent descriptions of the Water Authority, the member agencies, the service area, the water supply, the water facilities and other considerations may be found either in the Water Authority’s most recent Official Statement or Offering Memorandum or the Water Authority’s Continuing Disclosure Annual Report filed annually with the Municipal Securities Rulemaking Board (the “MSRB”). Pursuant to the provisions of the Act, additional entities are authorized to join the Water Authority. The Act also entitles member agencies to withdraw from the Water Authority, subject to certain restrictions.

The Capital Improvement Program

The Water Authority’s goal is to provide a safe and reliable supply of water to its member agencies serving the San Diego region by maintaining an operationally flexible water storage, treatment and distribution system. To achieve this goal, the Water Authority has implemented a strategic plan, a component of which is known as the Capital Improvement Program (the “CIP”).

The Water Authority staff prepares periodic studies to project the future water demands in its service area. These Water Authority studies review the most recent information on member agency projected water demands, demographics and population estimates by the San Diego Association of Governments. These projections are incorporated into the CIP.

A description of the Water Authority’s Long-Range Financing Plan, the CIP and other obligations issued to fund the CIP may be found either in the Water Authority’s most recent Official Statement or Offering Memorandum or the Water Authority’s Continuing Disclosure Annual Report filed annually with the MSRB. See “OTHER MATTERS.”

Sources of Revenue

Water rates generate the majority of the Water Authority’s revenue stream. The Water Authority’s Board of Directors determines water rates which, under the General Resolution, must be reasonably fair and nondiscriminatory. See “THE COMMERCIAL PAPER NOTES – Rate Covenant” above. These rates are not subject to regulation by the California Public Utilities Commission or by any other local, state or federal agency. The Water Authority bills member agencies for water deliveries monthly. The Water Authority also imposes standby charges, capacity charges and infrastructure access charges and receives property tax revenues and in-lieu charges. The imposition of taxes, assessments, rates and charges by the Water Authority is subject to various constitutional and statutory limitations, including some requirements of Articles XIIIA, XIIIB, XIIIC and XIIID of the California Constitution, and are subject to reduction or repeal through the initiative process as provided in Article XIIIC of the California Constitution.
Outstanding Debt

As of May 1, 2019, the Water Authority had $1,505,635,000 aggregate principal amount of Prior Obligations outstanding.

The Series 8 Notes are currently outstanding in the aggregate principal amount of $110,000,000, with liquidity provided by a line of credit from The Bank of Tokyo-Mitsubishi, UFJ, Ltd., acting through its New York Branch.

The ECP Notes are currently outstanding in the aggregate principal amount of $100,000,000.

The 2016S-1 Bonds are currently outstanding in the aggregate principal amount of $86,685,000.

The Series 8 Notes, the ECP Notes and the 2016S-1 Bonds are Subordinate Obligations under the General Resolution and are payable on parity with payment of the Series 9 Notes. The Water Authority expects to refund all of the Series 8 Notes from proceeds of the Series 10 Notes on [June 6], 2019. The Series 10 Notes are not being offered pursuant to this Offering Memorandum. Liquidity for the Series 10 Notes is expected to be provided by a line of credit issued by Bank of the West.

Desalination Costs

On December 24, 2012, the California Pollution Control Financing Authority issued $530,345,000 aggregate principal amount of Water Furnishing Revenue Bonds, Series 2012 (Poseidon Resources (Channelside) LP Desalination Project) (the “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 “2012 Pipeline Bonds”) to finance a desalination project located in Carlsbad, California, including a desalination plant and a 10-mile pipeline to deliver desalinated water from the desalination plant to the Water Authority’s water system. The Claude “Bud” Lewis Carlsbad Desalination Plant began commercial operation in December 2015. On February 20, 2019, the California Pollution Control Financing Authority issued $183,155,000 aggregate principal amount of Water Furnishing Revenue Refunding Bonds, Series 2019 (San Diego County Water Authority Desalination Project Pipeline) (the “2019 Pipeline Bonds”) to refund and redeem the outstanding 2012 Pipeline Bonds. The 2012 Plant Bonds and the 2019 Pipeline Bonds are collectively referred to herein as the “Desalination Bonds”.

In connection with the desalination project, the Water Authority entered into a Carlsbad Seawater Desalination Project Water Purchase Agreement, dated December 20, 2012 (the “Desalination 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, as amended (the “Desalination Installment Sale Agreement”), 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 Desalination Bonds, contingent on attainment of certain operating and product water delivery conditions. Purchases of water pursuant to the Desalination Water Purchase Agreement constitute Maintenance and Operation Costs (as defined in the General Resolution), while installment payments to be made pursuant to the Desalination Installment Sale Agreement are obligations payable from amounts constituting Net Water Revenues on deposit in the General Reserve Fund established under the General Resolution, subordinate to the pledge of Net Water Revenues for the payment of Bonds, Contracts, Reimbursement Payments (as defined in the General Resolution) and Subordinate Obligations.
Investment Policy

The investment policies and practices of the Board of Directors and the Treasurer for the Water Authority are based upon limitations placed on it by governing legislative bodies. The investment policy of the Water Authority is reviewed and submitted annually to the Board of Directors of the Water Authority and is subject to change. A copy of the Water Authority’s Annual Statement of Investment Policy for Calendar Year [2018] is attached hereto as Appendix C.

Water Authority Financial Statements

The financial statements of the Water Authority for the fiscal year ending June 30, 2018, are attached hereto as Appendix A. Additional financial and operating data relating to the Water Authority’s water system may be found in the Water Authority’s most recent Continuing Disclosure Annual Report filed annually with the MSRB. See “OTHER MATTERS.”

DESCRIPTION OF THE BANK

The following information has been provided by the Bank for inclusion in this Offering Memorandum. None of the Water Authority or the Dealers make any representation as to the accuracy or completeness of this information or as to the absence of material adverse changes with respect to the Bank or its financial condition subsequent to the date hereof.

Bank of America, N.A. (the “Bank”) is a national banking association organized under the laws of the United States, with its principal executive offices located in Charlotte, North Carolina. The Bank is a wholly-owned indirect subsidiary of Bank of America Corporation (the “Corporation”) and is engaged in a general consumer banking, commercial banking and trust business, offering a wide range of commercial, corporate, international, financial market, retail and fiduciary banking services. As of December 31, 2018, the Bank had consolidated assets of $1.783 trillion, consolidated deposits of $1.457 trillion and stockholder’s equity of $207.73 billion based on regulatory accounting principles.

The Corporation is a bank holding company and a financial holding company, with its principal executive offices located in Charlotte, North Carolina. Additional information regarding the Corporation is set forth in its Annual Report on Form 10-K for the fiscal year ended December 31, 2018, together with its subsequent periodic and current reports filed with the Securities and Exchange Commission (the “SEC”).

The SEC maintains a website at www.sec.gov which contains the filings that the Corporation files with the SEC such as reports, proxy statements and other documentation. The reports, proxy statements and other information the Corporation files with the SEC are also available at its website, www.bankofamerica.com.

The information concerning the Corporation and the Bank is furnished solely to provide limited introductory information and does not purport to be comprehensive. Such information is qualified in its entirety by the detailed information appearing in the referenced documents and financial statements referenced therein.

The Bank will provide copies of the most recent Bank of America Corporation Annual Report on Form 10-K, any subsequent reports on Form 10-Q, and any required reports on Form 8-K (in each case, as filed with the SEC pursuant to the Securities Exchange Act of 1934, as amended), and the publicly available portions of the most recent quarterly Call Report of the Bank delivered to the Comptroller of the Currency.
without charge, to each person to whom this document is delivered, on the written request of such person. Written requests should be directed to:

Bank of America Corporation  
Office of the Corporate Secretary/Shareholder Relations  
Hearst Tower, 214 North Tryon Street  
NC1-027-18-05  
Charlotte, NC 28255

THE SERIES 9 NOTES ARE NOT DEPOSITS OR OBLIGATIONS OF THE CORPORATION OR ANY OF ITS AFFILIATED BANKS AND ARE NOT GUARANTEED BY ANY OF THESE ENTITIES. THE SERIES 9 NOTES ARE NOT INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION OR ANY OTHER GOVERNMENTAL AGENCY AND ARE SUBJECT TO CERTAIN INVESTMENT RISKS, INCLUDING POSSIBLE LOSS OF THE PRINCIPAL AMOUNT INVESTED.

The delivery of this information shall not create any implication that there has been no change in the affairs of the Corporation or the Bank since the date of the most recent filings referenced herein, or that the information contained or referred to in this section is correct as of any time after the referenced date.

SUMMARY OF CERTAIN PROVISIONS OF THE LIQUIDITY AGREEMENT

General

The following description is a summary of certain provisions of the Liquidity Agreement. Such summary does not purport to be a complete description or restatement of the material provisions of the Liquidity Agreement. Investors should obtain and review a copy of the Liquidity Agreement in order to understand all of the terms of that document.

Subject to the terms and conditions of the Liquidity Agreement, the Bank agrees to make Advances (as defined in the Liquidity Agreement) from time to time on any Business Day (as defined in the Liquidity Agreement) during the Commitment Period (as defined in the Liquidity Agreement) in amounts which, together with the principal amount of any Advances and Term Loans (as defined in the Liquidity Agreement) then outstanding, shall not exceed at any time outstanding the Commitment (as defined in the Liquidity Agreement). Each Advance shall be made solely for the purpose of providing funds to pay the principal of Series 9 Notes on the maturity date thereof to the extent that proceeds of other Series 9 Notes or Net Water Revenues are not available therefor. The aggregate principal amount of all Advances made on the date of any Advance shall not exceed the Available Commitment (as defined in the Liquidity Agreement) (calculated without giving effect to any Advances made on such date) at 9:00 a.m. (New York City time) on such date. The proceeds of Advances shall not be available to pay interest on Series 9 Notes.

Under certain circumstances described below, the obligation of the Bank to purchase the Series 9 Notes may be immediately suspended or terminated without notice to the holders thereof. In such event, sufficient funds may not be available to purchase Series 9 Notes.

Certain Definitions

For purposes of this Section, the Liquidity Agreement defines “Basic Documents”, “Collateral”, “Debt”, “Prior Obligations” and “Revenues Secured Debt” as follows:
“Basic Documents” means the Issuing and Paying Agent Agreement, the Fee Letter, the Revolving Note, the Term Note, the General Resolution and the Dealer Agreement (each as defined in the Liquidity Agreement).

“Collateral” means those funds and other assets pledged to secure the Series 9 Notes, the Revolving Note and the Term Note pursuant to the Issuing and Paying Agent Agreement and the General Resolution.

“Debt” means (a) all Bonds (as defined in the Liquidity Agreement), Contracts (as defined in the Liquidity Agreement) and other evidences of indebtedness or obligations of the Water Authority, including, without limitation, Subordinate Obligations (as defined in the Liquidity Agreement), that are payable from or secured by Net Water Revenues and are evidenced by bonds, debentures, notes or other similar instruments, including, without limitation, the Series 9 Notes, the Revolving Note and the Term Note, (b) all other indebtedness of the Water Authority for borrowed money, (c) obligations of the Water Authority as lessee under any lease of property, real or personal, that, in accordance with GAAP (as defined in the Liquidity Agreement), would be required to be capitalized on a balance sheet of the lessee thereof, (d) obligations of the Water Authority on or with respect to letters of credit, banker’s acceptances or other evidences of indebtedness representing extensions of credit, whether or not representing obligations for borrowed money, (e) all obligations for the deferred purchase price of property or services (other than trade accounts payable occurring in the ordinary course of business), (f) any obligation of the Water Authority guaranteeing or in effect guaranteeing any other Debt, whether directly or indirectly and (g) all obligations arising under or pursuant to any Swap Contract (as defined in the Liquidity Agreement).

“Prior Obligations” means (i) Bonds and Contracts (including Certificates (as defined in the Liquidity Agreement) evidencing undivided interests therein), (ii) any bonds, notes, certificates, debentures or other evidence of similar indebtedness issued by or on behalf of the Water Authority secured by a lien on the Collateral ranking senior to or on a parity with the Series 9 Notes, the Revolving Note and the Term Note, (iii) the obligations which are scheduled payments of the Water Authority under any Swap Contract (which are secured pursuant to the Issuing and Paying Agent Agreement by a lien on the Collateral ranking senior to or on a parity with the Series 9 Notes, the Revolving Note and the Term Note) providing interest rate support with respect to any indebtedness issued by or on behalf of the Water Authority pursuant to the Issuing and Paying Agent Agreement by a lien on the Collateral ranking senior to or on a parity with the Series 9 Notes, the Revolving Note and the Term Note, (iv) any obligation of the Water Authority as lessee under a capital lease secured by a lien on the Collateral ranking senior to or on a parity with the Series 9 Notes, the Revolving Note and the Term Note (x) which is not subject to appropriation or abatement or (y) which is rated by each Rating Agency then rating the Series 9 Notes at a level equal to or higher than the long-term unenhanced debt rating assigned by each such Rating Agency (as defined in the Liquidity Agreement) to the Water Authority’s Bonds and Contracts (including Certificates evidencing undivided interests therein) and (v) any Guarantee by the Water Authority secured by a lien on the Collateral ranking senior to or on a parity with the Series 9 Notes, the Revolving Note and the Term Note (provided, however, that the failure to pay any such Guarantee (as defined in the Liquidity Agreement) as a result of any set-off, recoupment or counterclaim or any other defense to payment under such Guarantee by the Water Authority shall not constitute a failure to pay Prior Obligations for purposes of the Liquidity Agreement).

“Revenues Secured Debt” means (i) Bonds, (ii) Contracts payable from or secured by Net Water Revenues and of a type described in or similar in nature to those described in clauses (a) and (c) of the definition of Debt, (iii) Reimbursement Payments (as defined in the Liquidity Agreement) (other than any such payments that have been accelerated under the applicable Reimbursement Agreement), (iv) the Series 2016S-1 Bonds and (v) other Debt payable from or secured by Net Water Revenues and described in clauses (a), (c) and (g) of the definition thereof (and in the case of obligations arising under or pursuant to any Swap Contract as described in clause (g) of the definition thereof, only with respect to (A) Swap Contracts that
provide interest rate support and (B) obligations that constitute regularly scheduled payments that relate to Bonds, Contracts and other obligations described in clause (a) of the definition thereof the payment of which is secured by a pledge of or Lien (as defined in the Liquidity Agreement) on Net Water Revenues senior to or on a parity with the payment of the Series 9 Notes.

**Termination Events**

Each of the following events shall constitute a Termination Event (as defined in the Liquidity Agreement) under the Liquidity Agreement. Reference is made to the Liquidity Agreement for a complete listing of all Termination Events:

(a) the Water Authority shall fail to pay (i) any amount of interest on any Series 9 Notes when the same shall become due and payable in accordance with its terms or (ii) any principal of, or interest on, the Revolving Note, the Term Note, any Advance, or any Term Loan, when the same shall become due and payable in accordance with its terms (other than as a result of the acceleration thereof as a result of certain Events of Default (as defined in the Liquidity Agreement)); or

(b) the Water Authority shall fail to pay when due and payable (whether by scheduled maturity, required prepayment or acceleration) any Revenues Secured Debt of the Water Authority, or any interest or premium thereon, and such failure shall continue beyond any applicable period of grace specified in any underlying resolution, indenture, contract or instrument pursuant to which such Revenues Secured Debt has been issued, or pursuant to the provisions of any such resolution, indenture, contract or instrument the maturity of any such Revenues Secured Debt, as a result of a payment default, shall have been or may be accelerated or required to be prepaid prior to the stated maturity thereof; provided that no Termination Event shall occur under this paragraph (b) as a result of the failure to pay when due and payable any Series 9 Notes if such failure to pay (i) is due solely to the Bank’s failure to honor a properly presented request for an Advance in accordance with the terms of the Liquidity Agreement or (ii) the principal on any Series 9 Note or any other commercial paper note payable from Water Revenues that has liquidity support from an entity other than the Water Authority; or

(c) one or more final, unappealable judgments or orders for the payment of money which, individually or in the aggregate, equal or exceed $15,000,000 and are payable from Water Revenues (as defined herein) or attachment against the Water Revenues shall be rendered against the Water Authority and such judgment or order shall continue unsatisfied, unstayed or undismissed for a period of sixty (60) days; or

(d) (i) The Water Authority shall commence any case, proceeding or other action (A) under any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization or relief of debtors, seeking to have an order for relief entered with respect to it, or seeking to adjudicate it as bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, winding-up, liquidation, dissolution, composition or other relief with respect to it or its Debts payable from or secured by Water Revenues, or (B) seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or any substantial part of the assets of the Water System (as defined in the Liquidity Agreement), or the Water Authority shall make a general assignment for the benefit of its creditors, or a debt moratorium, debt restructuring, or comparable extraordinary restriction on repayment of debt shall have been declared, announced or imposed with respect to the Bonds (as defined in the Liquidity Agreement), or any Revenues Secured Debt; or (ii) there shall be commenced against the Water Authority any case, proceeding or other action of a nature referred to in clause (i) above which (x) results in an order for such relief or in the appointment of a receiver or similar official or (y) remains undischarged, undischarged or unbonded for a period of sixty (60) days; or (iii) there shall be commenced against the Water Authority, any case, proceeding or other action seeking the issuance of a warrant of attachment, execution, restraint or similar
process against all or any substantial part of the assets of the Water System or the Water Revenues, which
results in the entry of a final and non-appealable order or ruling for any such relief which shall not have
been vacated, discharged, or stayed or bonded pending appeal within sixty (60) days from the entry thereof;
or (iv) the Water Authority shall take any action in furtherance of, or indicating its consent to, approval of,
or acquiescence in, any of the acts set forth in clause (i), (ii) or (iii) above; or (v) the Water Authority shall
admit in writing its inability to pay its debts; or

(e) any provision of the Liquidity Agreement, the Act, the Revolving Note, the Term
Note, any Series 9 Note, the Issuing and Paying Agent Agreement or the General Resolution relating to (A)
the Water Authority's ability or obligation to make payments of principal or interest on the Series 9 Notes,
the Term Note, the Revolving Note, any Advance or any Term Loan or any other Revenues Secured Debt
or (B) the validity or enforceability of the pledge of and lien on the Collateral shall at any time and for any
reason cease to be valid and binding on the Water Authority or shall be deemed to be null and void, invalid
or unenforceable pursuant to a final, nonappealable judgment or order of any court or other Governmental
Authority (as defined in the Liquidity Agreement) having jurisdiction over the Water Authority with respect
to such matters; or

(f) the long-term unenhanced ratings assigned by Moody’s, Fitch and S&P to any of
the Bonds, Certificates or Subordinate Obligations (if rated) shall be withdrawn or suspended (but excluding
withdrawals or suspensions if the Rating Agency stipulates in writing that the rating action is being taken
for non-credit related reasons) or reduced below “Baa3” (or its equivalent), “BBB-” (or its equivalent) and
“BBB-” (or its equivalent), respectively.

Suspension Events

Each of the following events shall constitute a Suspension Event (as defined in the Liquidity
Agreement) under the Liquidity Agreement. Reference is made to the Liquidity Agreement for a complete
listing of all Suspension Events:

(a) (i) Any Governmental Authority with jurisdiction to rule on the validity or
enforceability of the Liquidity Agreement, the Act, the Revolving Note, the Term Note, any Series 9 Notes,
the Issuing and Paying Agent Agreement or the General Resolution, shall find or rule, in a judicial or
administrative proceeding, that any material provision of any of the foregoing relating to (A) the ability or
the obligation of the Water Authority to pay, when due, the principal or interest payable on the Series 9
Notes, the Term Note, the Revolving Note, any Advance or any Term Loan or any other Revenues Secured Debt
or (B) the Lien (as defined in the Liquidity Agreement) on or pledge of Net Water Revenues securing
the Series 9 Notes, the Term Note, any Term Loan or any other Revenues Secured Debt is not valid or not
binding on, or enforceable against, the Water Authority; or (ii) the Water Authority (A) makes a claim in a
judicial or administrative proceeding that the Water Authority has no further liability or obligation under
the Liquidity Agreement, the Act, the Revolving Note, the Term Note, any Series 9 Notes, the Issuing and
Paying Agent Agreement or the General Resolution, or any Revenues Secured Debt, as and to the extent
the Water Authority has obligations thereunder, to pay, when due, the principal or interest payable on the
Series 9 Notes, the Term Note, any Term Loan or any other Revenues Secured Debt, or (B) contests in a
judicial or administrative proceeding the validity or enforceability of any provision of the Liquidity
Agreement, the Act, the Revolving Note, the Term Note, any Series 9 Notes, the Issuing and Paying Agent
Agreement or the General Resolution, or any other Revenues Secured Debt secured by and relating to (1)
the ability or the obligation of the Water Authority to pay, when due, the principal or interest payable on
the Series 9 Notes, the Term Note, the Revolving Note, any Advance or any Term Loan or any other
Revenues Secured Debt or (2) the Lien on or pledge of Net Water Revenues (as defined in the Liquidity
Agreement) securing the Series 9 Notes, the Term Note, the Revolving Note, any Advance or any Term
Loan or any other Revenues Secured Debt; or
(b) there shall be commenced against the Water Authority any case, proceeding or other action seeking the issuance of a warrant of attachment, execution, distraint or similar process against all or any substantial part of the assets of the Water System or the Water Revenues, which shall not have been vacated, discharged, or stayed or bonded pending appeal; or

c) there shall be commenced against the Water Authority in a United States court of competent jurisdiction any case, proceeding or other action (i) under any existing or future law of any United States jurisdiction relating to bankruptcy, insolvency, reorganization or relief of debtors, seeking to have an order for relief entered with respect to the Water Authority, or seeking to adjudicate it as bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, winding up, liquidation, dissolution, composition or other relief with respect to it, or seeking to declare a moratorium with respect to (x) any Series 9 Note, the Revolving Note, the Term Note, any Advance or any Term Loan or (y) all Revenues Secured Debt, or (ii) seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or any substantial part of the assets of the Water System or the Water Revenues, or the Water Authority shall make a general assignment for the benefit of its creditors which remains undismissed, undischarged or unbonded.

Notice Event of Default

Each of the following events shall constitute a Notice Event of Default (as defined in the Liquidity Agreement) under the Liquidity Agreement. Reference is made to the Liquidity Agreement for a complete listing of all Notice Events of Default:

(a) the Water Authority shall fail to pay when due any amount payable under the Liquidity Agreement or under the Fee Letter (other than amounts described in paragraph (a) under the heading “Termination Events” above) within five days after written demand by the Bank in respect thereof; or

(b) any representation, warranty, certification or statement made by the Water Authority in the Liquidity Agreement or in any Basic Document or in any certificate, financial statement or other document delivered pursuant to the Liquidity Agreement or any Basic Document shall (in any such case) have been incorrect or untrue in any materially adverse respect when made or deemed to have been made and such representation, warranty, certification or statement shall remain incorrect or continue for 30 days after written notice thereof shall have been given to the Water Authority by the Bank; or

(c) the Water Authority shall default in the due performance or observance of certain terms, covenants or agreements set forth in the Liquidity Agreement; or

(d) the Water Authority shall default in the due performance or observance of any term, covenant or agreement contained in the Liquidity Agreement (other than those covered by paragraph (a) or (b) under the heading “Termination Events” above and paragraph (a) or (c) under this heading “Notice Event of Default”) and such default, if capable of being remedied, shall remain unremedied for thirty (30) days after written notice thereof shall have been given to the Water Authority by the Bank; provided, however, such breach shall not constitute an Event of Default after such thirty (30) day period for such period of time as the Water Authority is diligently pursuing a cure or correction of such breach, but in no event for a period of time of more than sixty (60) days after such written notice; or

(e) an “Event of Default” as defined in the Issuing and Paying Agent Agreement or any “event of default” under the General Resolution shall occur and be continuing or the Water Authority shall default in the due performance or observance of any material term, covenant or agreement contained in any other Basic Document and the same shall not have been cured within any applicable cure period; or
(f) the Water Authority shall fail to pay when due and payable (whether by scheduled maturity, required prepayment or acceleration) any other Debt of the Water Authority having an aggregate principal amount or notional amount in excess of $15,000,000 and such failure shall continue beyond any applicable period of grace specified in any underlying indenture, contract or instrument providing for the creation thereof; or

(g) (i) any of Moody’s, S&P or Fitch shall withdraw or suspend the long-term unenhanced rating on the Bonds or Certificates or (ii) any two of Moody’s, S&P or Fitch shall reduce the long-term unenhanced rating on the Bonds or Certificates below “A2” (or its equivalent), “A” (or its equivalent), or “A” (or its equivalent), respectively; provided that any such withdrawal or suspension referred to in clause (i) of this paragraph (g) shall not constitute an Event of Default under this paragraph (g) if (x) such withdrawal or suspension is the result of a determination by the Water Authority to cease maintaining such rating and (y) following such withdrawal or suspension the Water Authority shall maintain at least one long-term rating on the Revolving Note and the Term Note; or

(h) any Governmental Authority shall declare a financial emergency with respect to the Water Authority and shall appoint or designate with respect to the Water Authority, an entity such as an organization, board, commission, authority, agency or body to manage the affairs and operations of the Water System; or

(i) the occurrence of any “default” resulting from a failure by the Water Authority to perform any of its obligations under any agreement or instrument providing credit enhancement or liquidity support with respect to any Prior Obligations or Subordinate Obligations, or pursuant to which the related holders purchased and continues to hold the same, which default results in an acceleration of such Prior Obligations or Subordinate Obligations, as applicable, or the obligations of the Water Authority under such agreement or instrument; or

(j) any material provision of the Liquidity Agreement, the Revolving Note, the Term Note, any Series 9 Note, the Issuing Agreement or the General Resolution, other than a provision described in paragraph (e) under the heading “Termination Events”, shall at any time and for any reason cease to be valid and binding on the Water Authority as a result of a ruling, finding, decree, order, legislative act or similar action by a Governmental Authority having jurisdiction over the Water Authority with respect to such matters or shall be declared in a final nonappealable judgment by any court having jurisdiction over the Water Authority to be null and void, invalid, or unenforceable, or the validity or enforceability thereof shall be publicly contested by the Water Authority.

Remedies

The following are remedies available to the Bank under the Liquidity Agreement upon the occurrence of certain events of default thereunder:

(a) Immediate Termination. Upon the occurrence of any Termination Event, (i) the Commitment and the obligation of the Bank to make Advances under the Liquidity Agreement shall immediately and automatically terminate, without notice from the Bank, and (ii) all amounts due under the Liquidity Agreement and under the Revolving Note and the Term Note shall immediately become due and payable; provided that the Event of Default described in paragraph (b) under the heading “Termination Events” above as it pertains to the failure to pay principal on any Series 9 Notes will not constitute a “Termination Event” under the Liquidity Agreement if such Event of Default results from a failure to draw on a liquidity facility for commercial paper notes and is cured on or before the next Business Day.
(b) **Suspension Events.** (i) Upon the occurrence of an Event of Default described under paragraph (a) under the heading “Suspension Events” above, the obligation of the Bank to make Advances under the Liquidity Agreement shall be immediately and automatically suspended from the time of the occurrence of such Event of Default, *provided, however,* that if the provisions of the Liquidity Agreement, the Act, the Revolving Note, the Term Note, the Series 9 Notes, the Issuing and Paying Agent Agreement or the General Resolution in question are upheld in their entirety, then the Bank’s obligations under the Liquidity Agreement shall be automatically reinstated and the terms of the Liquidity Agreement will continue in full force and effect (unless the Liquidity Agreement shall have otherwise expired or been terminated in accordance with its terms) as if there had been no such suspension.

(ii) Upon the occurrence of an Event of Default under paragraphs (b) or (c) under the heading “Suspension Events” above, the obligation of the Bank to make Advances under the Liquidity Agreement shall be immediately and automatically suspended, without notice, until the proceeding referred to therein is terminated, discharged or dismissed, as applicable, prior to the court entering an order granting the relief sought in such proceeding. In the event such proceeding is terminated, discharged or dismissed, as applicable, the obligation of the Bank to make Advances under the Liquidity Agreement shall be reinstated and the terms of the Liquidity Agreement will continue in full force and effect (unless the obligation of the Bank to make Advances under the Liquidity Agreement shall have otherwise expired or terminated in accordance with the terms of the Liquidity Agreement or there has occurred a Termination Event) as if there had been no such suspension.

(c) **All Events of Default.** In the event any Event of Default, including, without limitation, any Termination Event, has occurred and is continuing, the Bank (i) may by written notice to the Water Authority declare all amounts due under the Liquidity Agreement or under any Revolving Note or the Term Note to be immediately due and payable, whereupon the same shall immediately become due and payable, (ii) may by written notice to the Water Authority and the Issuing and Paying Agent (a “No-Issuance Notice”) in substantially the form attached to the Liquidity Agreement declare the Commitment to be reduced to the principal amount of Series 9 Notes then outstanding and to be permanently reduced further on the maturity date of each such Series 9 Note by an amount equal to the principal amount of such Series 9 Note with the Commitment to be terminated upon the last maturity date applicable to all such Series 9 Notes, (iii) may petition a court of competent jurisdiction to issue a mandamus order to the Water Authority to compel specific performance of the covenants of the Water Authority contained in the Issuing and Paying Agent Agreement, in the Liquidity Agreement or in any other Basic Document and (iv) may pursue any other rights or remedies under the Liquidity Agreement, the Issuing and Paying Agent Agreement, any other Basic Document, applicable law or otherwise. Except as expressly provided under this heading “Remedies,” procurement, demand, protest and all other notices of every kind are expressly waived. Following receipt of a No-Issuance Notice, the Water Authority shall not issue any additional Series 9 Notes.

(d) **Timing of No-Issuance Notice.** A No-Issuance Notice that is received by the Issuing and Paying Agent at or before 12:00 p.m. (New York City time) shall be effective when received. A No-Issuance Notice that is received by the Issuing and Paying Agent after 12:00 p.m. (New York City time) shall not be effective until the opening of business on the next succeeding Business Day.

(e) **Copies of Notices.** Concurrently with the occurrence of a Termination Event pursuant to paragraph (a) under this heading “Remedies” or a No-Issuance Notice pursuant to paragraph (c) under this heading “Remedies,” the Water Authority shall give notice to the Issuing and Paying Agent and the Dealer.

In addition, concurrently with giving such notice to the Water Authority and the Issuing and Paying Agent, the Bank shall provide a copy thereof to the Dealer at their respective addresses referred to in the
Liquidity Agreement; *provided, however*, that the Bank shall not incur any liability as a result of its failure to provide a copy of such a notice in accordance with this sentence.

**TAX EXEMPTION**

The following is a summary of certain of the United States federal income tax consequences of the ownership of the Series 9 Notes as of the date of this Offering Memorandum. Each prospective investor should consult with its own tax advisor regarding the application of United States federal income tax laws, as well as any state, local, foreign or other tax laws, to its particular situation.

On May 11, 2016, Orrick, Herrington & Sutcliffe LLP, San Francisco, California, Bond Counsel to the Water Authority, delivered its opinion that, based on an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 9 Notes, when issued in accordance with the Issuing and Paying Agent Agreement and the Tax Certificate of the Water Authority (the “Tax Certificate”), is excluded from gross income for federal income tax purposes and exempt from State of California personal income taxes. Bond Counsel’s opinion also stated that interest on the Series 9 Notes is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Bond Counsel observed that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. The form of such opinion is attached hereto as Appendix B.

Notice 94-84, 1994-2 C.B. 559, states that the Internal Revenue Service (the “IRS”) is studying whether the amount of the payment at maturity on short-term debt obligations (i.e., debt obligations with a stated fixed rate of interest which mature not more than one year from the date of issue) that is excluded from gross income for federal income tax purposes is (i) the stated interest payable at maturity or (ii) the difference between the issue price of the short-term debt obligations and the aggregate amount to be paid at maturity of the short-term debt obligations (the “original issue discount”). For this purpose, the issue price of the short-term debt obligations is the first price at which a substantial amount of the short-term debt obligations is sold to the public (excluding bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers). Until the IRS provides further guidance with respect to tax-exempt short-term debt obligations, taxpayers may treat either the stated interest payable at maturity or the original issue discount as interest that is excluded from gross income for federal income tax purposes. However, taxpayers must treat the amount to be paid at maturity on all tax-exempt short-term debt obligations in a consistent manner. Prospective purchasers of the Series 9 Notes should consult their own tax advisors with respect to the tax consequences of ownership of Series 9 Notes if the owner elects original issue discount treatment.

Series 9 Notes purchased, whether at original issuance or otherwise, for an amount higher than their principal amount payable at maturity (or, in some cases, at their earlier call date) (“Premium Notes”) will be treated as having amortizable bond premium. No deduction is allowable for the amortizable bond premium in the case of notes, like the Premium Notes, the interest on which is excluded from gross income for federal income tax purposes. However, the amount of tax-exempt interest received, and an owner’s basis in a Premium Note, will be reduced by the amount of amortizable bond premium properly allocable to such owner. Owners of Premium Notes should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

The Internal Revenue Code of 1986, as amended (the “Code”) imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal tax purposes of interest on obligations such as the Series 9 Notes. The Water Authority has made certain representations and has covenanted to comply with certain restrictions designed to assure that the interest on the Series 9 Notes will not be included in federal gross income. Inaccuracy of these representations or failure to comply with these
covenants may result in interest on the Series 9 Notes being included in federal gross income, possibly from the date of first issuance of the Series 9 Notes. The opinion of Bond Counsel assumed the accuracy of these representations and compliance with these covenants. Bond Counsel did not undertake to determine (or to inform any person) whether any actions taken (or not taken), or events occurring (or not occurring) or any other matters coming to Bond Counsel’s attention after May 11, 2016, may adversely affect the value of, or the tax status of interest on, such Series 9 Notes. Accordingly, the opinion of Bond Counsel is not intended to, and may not, be relied upon in connection with any such actions, events or matters.

Although Bond Counsel rendered an opinion on May 11, 2016, that interest on the Series 9 Notes, when issued in accordance with the Issuing and Paying Agent Agreement and the Tax Certificate, is excluded from gross income for tax purposes and is exempt from State of California personal income taxes, the ownership or disposition of, or the accrual or receipt of amounts treated as interest on, the Series 9 Notes may otherwise affect the owner’s federal, state, or local tax liability. The nature and extent of these other tax consequences depend upon the owner’s particular tax status and the owner’s other items of income or deduction. Bond Counsel expressed no opinion regarding any such other tax consequences.

Current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the Series 9 Notes to be subject, directly or indirectly, in whole or in part, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent owners from realizing the full current benefit of the tax status of such interest. The introduction or enactment of any such future legislative proposals, or clarification of the Code or court decisions, may also affect, perhaps significantly, the market price for, or marketability of, the Series 9 Notes. Prospective purchasers of the Series 9 Notes should consult their own tax advisors regarding the potential impact of any pending or proposed federal or state tax legislation, regulations or litigation, as to which Bond Counsel expresses no opinion.

The opinion of Bond Counsel delivered on May 11, 2016 was based on then current legal authority, covered certain matters not directly addressed by such authorities, and represented Bond Counsel’s judgment as to the proper treatment of interest on the Series 9 Notes for federal income tax purposes. It will not be binding on the IRS or the courts. Furthermore, Bond Counsel cannot give and has not given any opinion or assurance about the activities of the Water Authority after the date of such opinion, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the IRS. The Water Authority has covenanted, however, to comply with the requirements of the Code.

The IRS has an ongoing program of auditing tax-exempt obligations to determine whether, in the view of the IRS, interest on such tax-exempt obligations is includable in the gross income of the owners thereof for federal income tax purposes. Unless separately engaged, Bond Counsel is not obligated to defend the Water Authority or the owners of the Series 9 Notes regarding the tax-exempt status of interest on the Series 9 Notes in the event of an audit examination by the IRS. Under current procedures, parties other than the Water Authority and its appointed counsel, including the owners of the Series 9 Notes, would have little, if any, right to participate in the audit examination process. Moreover, because achieving judicial review in connection with an audit examination of tax-exempt bonds is difficult, obtaining an independent review of IRS positions with which the Water Authority legitimately disagrees, may not be practicable. Any action of the IRS, including but not limited to selection of the Series 9 Notes for audit, or the course or result of such audit, or an audit of bonds presenting similar tax issues may affect the market price for, or the marketability of, the Series 9 Notes, and may cause the Water Authority or the owners of the Series 9 Notes to incur significant expense.

RATINGS
The Series 9 Notes have been rated “F1” by Fitch Ratings, Inc. (“Fitch”), One State Street Plaza, New York, New York, “P-1” by Moody’s Investors Service, Inc. (“Moody’s”), 99 Church Street, New York, New York, and “A-1+” by S&P Global Ratings, a division of Standard & Poor’s Financial Services LLC, 55 Water Street, New York, New York (“Standard & Poor’s”). The ratings assigned by Fitch, Moody’s and Standard & Poor’s express only the views of the rating agencies. The explanation of the significance of the ratings may be obtained from Fitch, Moody’s and Standard & Poor’s, respectively. There is no assurance such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by the rating agencies, if in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the Series 9 Notes.

RELATED PARTIES

BofA Securities, Inc., one of the Dealers for the Series 9 Notes, and Bank of America, N.A., the provider of the Liquidity Agreement for the Series 9 Notes, are both wholly-owned, indirect subsidiaries of Bank of America Corporation.

OTHER MATTERS

The Dealers have provided the following sentence for inclusion in this Offering Memorandum. The Dealers have reviewed the information in this Offering Memorandum in accordance with, and as part of, their responsibility to investors under the federal securities law as applied to the facts and circumstances of this transaction, but the Dealers do not guarantee the accuracy or completeness of such information.

The information and expressions of opinion in this Offering Memorandum are subject to change without notice and neither the delivery of this Offering Memorandum nor any sale hereunder shall, under any circumstances, create any implication that there has been no change in such information or expressions of opinion since the date hereof.

The financial statements of the Water Authority for the fiscal year ended June 30, 2018, and the form of the opinion delivered by Bond Counsel are attached hereto as Appendices. The Water Authority will make available on request a copy of the Liquidity Agreement and copies of the Water Authority’s most recent Continuing Disclosure Annual Report and Official Statement. For additional information please contact the following:

Director of Finance/Treasurer
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123
(858) 522-6671

Additional information may be obtained from the Water Authority’s website at http://www.sdcwa.org/financials-investor-relations
ATTACHMENTS

Appendix A – Water Authority Financial Statements

Appendix B – Form of Opinion of Bond Counsel

Appendix C – Annual Statement of Investment Policy Calendar Year [2018]

Appendix D – Information Regarding DTC and the Book-Entry Only System
Appendix A

Water Authority Financial Statements
Appendix B

Form of Opinion of Bond Counsel

On May 11, 2016, the Water Authority received an opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel, in the following form:

Board of Directors
San Diego County Water Authority
San Diego, California

San Diego County Water Authority
Commercial Paper Notes, Series 9
(Final Opinion)

Ladies and Gentlemen:

We have acted as bond counsel to the San Diego County Water Authority (the “Issuer”) in connection with authorization of issuance of up to $135,000,000 aggregate principal amount (at any time Outstanding) of commercial paper notes by the Issuer, pursuant to and by authority of the provisions of Section 8.2 of the County Water Authority Act, Resolution No. 89-21 adopted by the Board of Directors of the Issuer on May 11, 1989, entitled “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”, as amended (the “General Resolution”), and an Issuing and Paying Agent Agreement (Series 9), dated as of May 1, 2016 (the “Issuing and Paying Agent Agreement”), between the Issuer and U.S. Bank National Association (the “Issuing and Paying Agent”), and designated San Diego County Water Authority Commercial Paper Notes, Series 9 (the “Notes”). Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the General Resolution.

In such connection, we have reviewed the General Resolution, the Issuing and Paying Agreement, the Tax Certificate of the Issuer, dated the date hereof (the “Tax Certificate”), certificates of the Issuer, the Issuing and Paying Agent and others, opinions of counsel to the Issuer and the Issuing and Paying Agent and such other documents, opinions and matters to the extent we deemed necessary to render the opinions set forth herein.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions, and cover certain matters not directly addressed by such authorities. Such opinions may be affected by actions taken or omitted or events occurring after the date hereof and before or after Notes are issued. We have not undertaken to determine, or to inform any person, whether any such actions are taken or omitted or events do occur or any other matters come to our attention after the date hereof. Accordingly, this letter speaks only as of its date and is not intended to, and may not, be relied upon or otherwise used in connection with any such actions, events or matters. We disclaim any obligation to update this letter. We have assumed the genuineness of all documents and signatures presented to us (whether as originals or as copies) and the due and legal execution and delivery thereof by, and validity against, any parties other than the Issuer. We have assumed, without undertaking to verify, the accuracy (as of the date hereof and as of each date of issuance from time to time of the Notes) of the factual matters represented, warranted or certified in the documents, and of the legal conclusions contained in the opinion, referred to in the second paragraph hereof. Furthermore, we have assumed compliance with all covenants
Based on and subject to the foregoing and in reliance thereon, as of the date hereof, we are of the following opinions:

1. The General Resolution has been duly adopted by the Board of Directors of the Issuer and is in full force and effect, and the Issuing and Paying Agent Agreement has been duly executed and delivered by, and constitutes a valid and binding obligation of, the Issuer.

2. The Notes, when duly issued from time to time in the form authorized by and otherwise in compliance with the Issuing and Paying Agent Agreement, executed by a duly authorized official of the Issuer and authenticated by the Issuing and Paying Agent against payment therefor, will constitute the valid and binding limited obligations of the Issuer, payable solely from Net Water Revenues, and neither the full faith and credit nor the taxing power of the Issuer, the State of California or any of its political subdivisions is pledged for the payment thereof.

3. Interest on the Notes, when issued in accordance with the Issuing and Paying Agent Agreement and the Tax Certificate, will be excluded from gross income for federal income tax purposes under section 103 of the Internal Revenue Code of 1986 and exempt from State of California personal income taxes. The amount treated as interest on the Notes and excluded from gross income will depend upon the taxpayer’s elective under Internal Revenue Service Notice 94-84. Interest on the Notes is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although we observe that interest on the Notes is included in adjusted current earnings when calculating corporate alternative minimum taxable income. We express no opinion regarding other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Notes.

Faithfully yours,

ORRICK, HERRINGTON & SUTCLIFFE LLP

per
Appendix C

Annual Statement of Investment Policy
Calendar Year [2018]
Appendix D

Information Regarding DTC and the Book-Entry Only System

Neither the Water Authority nor the Issuing and Paying Agent will have any responsibility or obligation to DTC Participants, Indirect Participants or Beneficial Owners with respect to the payments or the providing of notice to DTC Participants, Indirect Participants or Beneficial Owners. Neither the Water Authority nor the Issuing and Paying Agent can give any assurances that DTC, DTC Participants, Indirect Participants or others will distribute payments of principal of and interest on the Series 9 Notes paid to DTC or its nominee, as the registered Holder, or any notices, to the Beneficial Owners, or that they will do so on a timely basis or that DTC will serve and act in the manner described in this Offering Memorandum.

The following information regarding DTC and its book-entry only system has been furnished by DTC for inclusion herein. The Water Authority cannot and does not make any representation as to the accuracy or completeness thereof, or the absence of material adverse changes therein subsequent to the date hereof. Beneficial Owners should confirm the following information with DTC or the Participants, as the case may be.

The Depository Trust Company (“DTC”), New York, New York, will act as securities depository for the Series 9 Notes. The Series 9 Notes will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Series 9 Note will be issued in the aggregate authorized principal amount of the Series 9 Notes and will be deposited with DTC.

DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Series 9 Notes under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 9 Notes on DTC’s records. The ownership interest of each actual purchaser of each Series 9 Note (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the
transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 9 Notes are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Series 9 Notes, except in the event that use of the book-entry system for the Series 9 Notes is discontinued.

To facilitate subsequent transfers, all Series 9 Notes deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Series 9 Notes with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 9 Notes; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Series 9 Notes are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Series 9 Notes may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 9 Notes, such as tenders, defaults, and proposed amendments to the Series 9 Note documents. For example, Beneficial Owners of Series 9 Notes may wish to ascertain that the nominee holding the Series 9 Notes for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Series 9 Notes unless authorized by a Direct Participant in accordance with DTC’s MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Water Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.’s consenting or voting rights to those Direct Participants to whose accounts Series 9 Notes are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal and interest with respect to the Series 9 Notes will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC’s practice is to credit Direct Participants’ accounts upon DTC’s receipt of funds and corresponding detail information from the Water Authority or the Issuing and Paying Agent on payable date in accordance with their respective holdings shown on DTC’s records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in “street name,” and will be the responsibility of such Participant and not of DTC, the Issuing and Paying Agent or the Water Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest with respect to the Series 9 Notes to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Water Authority or the Issuing and Paying Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Series 9 Notes at any time by giving reasonable notice to the Water Authority or the Issuing and Paying Agent. Under such
circumstances, in the event that a successor depository is not obtained, Series 9 Note certificates are required to be printed and delivered, as described in the Issuing and Paying Agent Agreement.

The Water Authority may decide to discontinue use of the system of book-entry only transfers through DTC (or a successor securities depository). In that event, Series 9 Note certificates will be printed and delivered to DTC as described in the Issuing and Paying Agent Agreement.

The information in this Appendix D concerning DTC and DTC’s book-entry system has been obtained from sources that the Water Authority believes to be reliable, but the Water Authority takes no responsibility for the accuracy thereof.

The foregoing description of the procedures and record-keeping with respect to beneficial ownership interests in the Series 9 Notes, payment of the principal, interest and other payments with respect to the Series 9 Notes to DTC Participants or Beneficial Owners, confirmation and transfer of beneficial ownership interests in such Series 9 Notes and other related transactions by and between DTC, the DTC Participants and the Beneficial Owners is based solely on information provided by DTC. Accordingly, no representations can be made concerning these matters and neither the DTC Participants nor the Beneficial Owners should rely on the foregoing information with respect to such matters, but should instead confirm the same with DTC or the DTC Participants, as the case may be.

The Water Authority cannot and does not give any assurances that DTC will distribute to DTC Participants, or that DTC Participants or others will distribute to the Beneficial Owners, payments of principal and interest with respect to the Series 9 Notes paid or any notices or that they will do so on a timely basis or will serve and act in the manner described in this Offering Memorandum. The Water Authority is not responsible or liable for the failure of DTC or any DTC Participant or Indirect Participant to make any payments or give any notice to a Beneficial Owner with respect to the Series 9 Notes or any error or delay relating thereto.

So long as Cede & Co. is the registered owner of the Series 9 Notes, as nominee of DTC, references herein to the Holders or registered holders of the Series 9 Notes, shall mean Cede & Co., as aforesaid, and shall not mean the Beneficial Owners of the Series 9 Notes.
$110,000,000

Commercial Paper Notes, Series 10

The Series 10 Notes (the “Series 10 Notes”) to be offered hereby are part of an issue of Commercial Paper Notes of the San Diego County Water Authority (the “Water Authority”) which are issued from time to time pursuant to the Issuing and Paying Agent Agreement (as defined herein). The Series 10 Notes will be issued as interest-bearing obligations, in book-entry form, in denominations of $100,000 and integral multiples of $1,000 in excess thereof. The Water Authority has appointed Citigroup Global Markets Inc., Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC, Loop Capital Markets LLC, BofA Securities, Inc., Morgan Stanley & Co. LLC and RBC Capital Markets, LLC, as co-dealers for the Series 10 Notes.

On [June 6], 2019, Orrick, Herrington & Sutcliffe LLP, San Francisco, California, Bond Counsel to the Water Authority, will deliver its opinion that, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 10 Notes, when issued in accordance with the Issuing and Paying Agent Agreement and the Tax Certificate (as defined herein), will be excluded from gross income for federal income tax purposes and exempt from State of California personal income taxes. Bond Counsel’s opinion will state that interest on the Series 10 Notes is not a specific preference item for purposes of the federal alternative minimum tax. Bond Counsel will express no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Series 10 Notes. See “TAX EXEMPTION” herein.

The Series 10 Notes will constitute limited obligations of the Water Authority, payable solely from a pledge of Net Water Revenues (as defined herein), and neither the full faith and credit nor the taxing power of the Water Authority, the State of California or any of its political subdivisions is pledged for the payment thereof. Payment of the Series 10 Notes from Net Water Revenues is subordinate to the payment of any Prior Obligations (as defined herein) presently outstanding or hereafter incurred by the Water Authority in accordance with the General Resolution (as defined herein). The Water Authority will enter into a Revolving Credit and Term Loan Agreement (the “Liquidity Agreement”) with Bank of the West (the “Bank”), pursuant to which the Bank will agree, subject to certain conditions precedent, to provide funds in an amount not to exceed $110,000,000 for the payment of the principal of the Series 10 Notes. Unless terminated earlier or extended in accordance with its terms, the Liquidity Agreement will terminate on [June 6, 2024].

UNDER CERTAIN CIRCUMSTANCES, THE OBLIGATION OF THE BANK TO MAKE ADVANCES UNDER THE LIQUIDITY AGREEMENT WILL TERMINATE OR BE SUSPENDED IMMEDIATELY, AUTOMATICALLY AND WITHOUT NOTICE TO HOLDERS OF THE SERIES 10 NOTES. IN SUCH EVENT, SUFFICIENT FUNDS MAY NOT BE AVAILABLE TO PAY SUCH SERIES 10 NOTES.

BofA Merrill Lynch              Citigroup              Goldman Sachs & Co.
J.P. Morgan                   Loop Capital Markets       Morgan Stanley                   RBC Capital Markets

Dated: May [___], 2019
INFORMATION CONCERNING THE OFFERING

Citigroup Global Markets Inc., Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC, Loop Capital Markets LLC, BoF Securities, Inc., Morgan Stanley & Co. LLC and RBC Capital Markets, LLC (collectively the “Dealers”) have been appointed to serve as exclusive dealers for the Commercial Paper Notes, Series 10 (the “Series 10 Notes”) of the San Diego County Water Authority (the “Water Authority”). This Offering Memorandum relates to the offering, from time to time, of up to $110,000,000 aggregate principal amount of the Series 10 Notes under the Issuing and Paying Agent Agreement (Series 10), dated as of June 1, 2019 (the “Issuing and Paying Agent Agreement”), between the Water Authority and U.S. Bank National Association (the “Issuing and Paying Agent”). The aggregate principal amount of the Series 10 Notes outstanding may change from time to time as provided in the Issuing and Paying Agent Agreement.

THE COMMERCIAL PAPER NOTES

Purpose of the Series 10 Notes

Proceeds of the Series 10 Notes will be used to provide funds to refinance the cost of design, acquisition and construction of water system improvements in furtherance of the Water Authority’s Capital Improvement Program.

Description of the Series 10 Notes

The Series 10 Notes will be dated the date of their respective authentication, will be issued as interest bearing obligations in denominations of $100,000 and integral multiples of $1,000 in excess thereof and, except as described below, will be issued in book-entry form through the book-entry system of The Depository Trust Company (“DTC”). Each note will bear interest from its date of issuance at the rate determined at the date of issuance payable at maturity. The Series 10 Notes will mature no later than 270 days from the date of issuance; provided that, so long as the Liquidity Agreement (as defined herein) is in effect, no Series 10 Notes may be issued with a maturity date after the business day prior to the scheduled expiration date of the Liquidity Agreement or, if an Alternate Facility (as defined in the Liquidity Agreement) will be available with respect to the Series 10 Notes, after the business day prior to the scheduled expiration date of the Alternate Facility. Interest will be computed on the basis of a 365- or 366-day year, and the actual number of days elapsed. The principal of and interest on the Series 10 Notes in book-entry form will be paid at maturity to DTC and distributed by it to its participants as described below.

The Series 10 Notes will be delivered as fully registered certificates and registered in the name of Cede & Co., as registered owner and nominee for DTC. Beneficial ownership interests in the Series 10 Notes will be available in book-entry form only, and purchasers of the Series 10 Notes will not receive certificates representing their interests in the Series 10 Notes purchased. While held in book-entry only form, the Issuing and Paying Agent will make all payments of principal and interest with respect to the Series 10 Notes by wire transfer to DTC or its nominee as the sole registered owner of the Series 10 Notes. Payments to the beneficial owners are the responsibility of DTC and its participants. See Appendix D – “Information Regarding DTC and the Book-Entry Only System.”
Security for the Series 10 Notes

The Water Authority expects to pay the principal of the Series 10 Notes with the proceeds of additional Series 10 Notes until the Water Authority provides permanent financing for those water system improvements refinanced with the Series 10 Notes or until, from time to time, revenues of the Water Authority are available to pay for the Series 10 Notes.

The Series 10 Notes will constitute limited obligations of the Water Authority, payable solely from Net Water Revenues (as defined herein), and neither the full faith and credit nor the taxing power of the Water Authority, the State of California or any of its political subdivisions is pledged for the payment thereof. Payment of the Series 10 Notes from Net Water Revenues is subordinate to the payment of any Prior Obligations (as defined herein) presently outstanding or hereafter incurred by the Water Authority in accordance with Resolution 89-21, adopted by the Board of Directors of the Water Authority on May 11, 1989, as supplemented by Resolution No. 97-52, adopted by the Board of Directors of the Water Authority on December 11, 1997, and by Resolution No. 09-23, adopted by the Board of Directors of the Water Authority on December 17, 2009 (as supplemented, the “General Resolution”).

Pursuant to a Revolving Credit and Term Loan Agreement to be dated as of [June 6], 2019 (the “Liquidity Agreement”), by and between the Water Authority and Bank of the West (the “Bank”), the Bank will agree, subject to certain conditions precedent, to provide funds in an amount not to exceed $110,000,000 for the payment of Series 10 Notes principal when due. Unless terminated earlier or extended in accordance with its terms, the Liquidity Agreement will terminate on [June 6, 2024]. See “SUMMARY OF CERTAIN PROVISIONS OF THE LIQUIDITY AGREEMENT” herein.

UNDER CERTAIN CIRCUMSTANCES, THE OBLIGATION OF THE BANK TO MAKE ADVANCES UNDER THE LIQUIDITY AGREEMENT WILL TERMINATE OR BE SUSPENDED IMMEDIATELY, AUTOMATICALLY AND WITHOUT NOTICE TO HOLDERS OF THE SERIES 10 NOTES. IN SUCH EVENT, SUFFICIENT FUNDS MAY NOT BE AVAILABLE TO PAY SUCH SERIES 10 NOTES.

The Water Authority may deliver an Alternate Facility in place of the Liquidity Agreement; provided, no such delivery may result in the termination of the Liquidity Agreement then in effect so long as Series 10 Notes for the payment of the principal of which such Liquidity Agreement is providing liquidity remain outstanding.

To provide security for the payment of the principal of and interest on the Series 10 Notes as the same shall become due and payable, the Issuing and Paying Agent Agreement grants a lien on and pledge of, subject only to the provisions of the Issuing and Paying Agent Agreement permitting the application thereof for purposes of the terms and conditions set forth therein, (i) the proceeds from the sale of Series 10 Notes issued pursuant to the Issuing and Paying Agent Agreement for the purpose of refinancing, renewing or refunding the Series 10 Notes, (ii) the amount held in the Commercial Paper Note Payment Fund (on a pro rata basis with any other commercial paper notes secured by such fund) until the amounts deposited therein are used for authorized purposes, (iii) amounts held by the Issuing and Paying Agent in the Issuing and Paying Agent Fund, (iv) the amounts held in the Commercial Paper Note Construction Fund (on a pro rata basis with any other commercial paper notes secured by such fund), (v) the proceeds of any other indebtedness of the Water Authority issued or incurred solely for the payment of principal of and interest on the Series 10 Notes, (vi) any other moneys of the Water Authority hereafter pledged by the Water Authority for the payment of principal of and interest on the Series 10 Notes and (vii) the proceeds of Advances (as defined in the Liquidity Agreement), and the principal of and interest on the Series 10 Notes are equally and ratably secured by and payable from a lien on and pledge of the sources hereinabove identified in clauses (i) through (vii) above, subject and subordinate only to the exceptions noted therein.
Additionally, to provide for the payment of the principal of and interest on the Series 10 Notes as the same shall become due and payable, the Water Authority shall, from Net Water Revenues on deposit in the Subordinate Obligations Payment Fund established under the General Resolution on a parity with all other Subordinate Obligations (as defined herein), deposit in the Commercial Paper Note Payment Fund from time to time amounts sufficient, together with other moneys available therefor for the timely payment of principal of and interest on the Series 10 Notes. Such payment shall be subject and subordinate to the application of Net Water Revenues to the payment of principal and accreted value of, premium, if any, interest on, and any reserve fund requirements for, or other obligations with respect to, any senior obligations of the Water Authority.

Unless the Series 10 Notes are paid from the source described in the clauses (i) through (vii) above, such payment is to be made from Net Water Revenues deposited in the Commercial Paper Note Payment Fund.

For purposes of the foregoing:

“General Resolution” means Resolution No. 89-21 adopted by the Board of Directors of the Water Authority on May 11, 1989, entitled “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,” as supplemented by Resolution No. 97-52, adopted by the Board of Directors of the Water Authority on December 11, 1997, and Resolution No. 09-23, adopted by the Board of Directors of the Water Authority on December 17, 2009, as it may be further modified, amended or supplemented.

“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.

“Water Revenues” means Current Water Revenues plus deposits to the Water Revenue Fund established under the General Resolution from amounts on deposit in the Rate Stabilization Fund, established under the General Resolution, less amounts transferred to the Rate Stabilization Fund.

“Current Water Revenues” means all gross income and revenue received or receivable by the Water 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 Water Authority for the Water Service and other services of the Water System and all other income and revenue howsoever derived by the Water Authority from the ownership or operation of the Water System or arising from the Water System, and also including investment income with respect to certain funds and accounts.

“Maintenance and Operation Costs” means all costs paid or incurred by the Water Authority for maintaining and operating the Water System, determined in accordance with Generally Accepted Accounting Principles, including all costs of water purchased by the Water 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 Water Authority, such as salaries and wages of employees, overhead, taxes (if any) and insurance premiums, and including all other costs of the Water Authority or charges required to be paid by it to comply with the terms of the General Resolution 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, seller, lender or lessor 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.)


“Subordinate Obligations” means, upon the issuance of the Series 10 Notes, the Series 10 Notes, the San Diego County Water Authority Commercial Paper Notes, Series 9 (the “Series 9 Notes”), the San Diego County Water Authority Extendable Commercial Paper Notes, Series 1 (the “ECP Notes”), the San Diego County Water Authority Subordinate Lien Water Revenue Refunding Bonds, Series 2016S-1 (the “2016S-1 Bonds”), and any other obligations of the Water Authority authorized and executed by the Water 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 as Subordinate Obligations under the General Resolution. The Water Authority expects to refund all of the San Diego County Water Authority Commercial Paper Notes, Series 8 (the “Series 8 Notes”) from proceeds of the Series 10 Notes on [June 6], 2019.

“Bonds” means revenue bonds of the Water Authority, the principal and interest on which are payable from Net Water Revenues on a parity with the Prior Obligations.

“Contracts” means installment sale agreements, leases or contracts of indebtedness, the principal and interest with respect to which are payable by the Water Authority from Net Water Revenues on a parity with the Prior Obligations.

“Certificates” means any certificates of participation representing interests in payments to be made by the Water Authority pursuant to Contracts.

Rate Covenant

The Water Authority covenants under the General Resolution that it 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 non-discriminatory and which will be at least sufficient to yield during the next succeeding fiscal year of the Water 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 120% of the Debt Service on all Bonds and Contracts for such fiscal year. The Water 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 covenant.

The Water Authority further covenants under the Issuing and Paying Agreement that it will prescribe, revise and collect such rates and charges for the services, facilities, availability and water of the Water System which, after making allowances for contingencies and error in estimates, will provide Water Revenues at least sufficient to pay the following amounts in the order set forth:

1. Maintenance and Operation Costs;
2. Principal and accreted value of, premium, if any, and interest on all Prior Obligations as and when the same shall become due and payable, and any required deposits into any reserve funds or accounts for the Prior Obligations, all in accordance with the Prior Obligation Documents (as defined in the Issuing and Paying Agreement);

3. To the extent the same are reasonably anticipated by the Water Authority to be paid with Net Water Revenues (e.g., not paid from the proceeds of additional Series 10 Notes or other refunding obligations), the principal of and interest on the Series 10 Notes and any other amounts due the Bank under the Liquidity Agreement, in each case as and when the same shall become due; and

4. Any other obligations which are payable from the Water Revenues including, without limitation, the Subordinate Obligations.

Upon the issuance of the Series 10 Notes, the Series 10 Notes will be Subordinate Obligations payable on a parity with the Series 9 Notes, the ECP Notes, the 2016S-1 Bonds and any other Subordinate Obligations secured by the Subordinate Obligation Payment Fund established under the General Resolution. The Water Authority expects to refund all of the Series 8 Notes from proceeds of the Series 10 Notes on [June 6], 2019.

THE WATER AUTHORITY

The Water Authority is a county water authority organized and existing under the County Water Authority Act, California Statutes 1943, Chapter 545, as amended (the “Act”). The Water Authority was organized on June 9, 1944, for the primary purpose of supplying water to San Diego County for wholesale distribution to the Water Authority’s member agencies in order to meet their respective needs for beneficial uses and purposes.

The Water Authority has 24 member agencies, consisting of six cities, including the City of San Diego, 17 special districts and the Pendleton Military Reservation. A 36-member Board of Directors (the “Board”) governs the Water Authority with each of the member agencies having at least one voting representative on the Board. Any member agency may appoint one additional representative for each full five percent (5%) of total assessed value of property taxable for Water Authority purposes that is within the public agency service area. As a result, the City of San Diego is currently entitled to representation by 10 directors and the Helix Water District, the Otay Water District and Carlsbad Municipal Water District are each currently entitled to representation by two directors. Directors are appointed to six-year terms by the chief executive officers of the respective member agencies, subject to approval by the agencies’ governing bodies. Under the Act, a member agency’s weighted vote is based on its “total financial contribution” to the Water Authority as determined annually by the Board of Directors. Total financial contribution includes all amounts paid in taxes, assessments, fees and charges paid to or on behalf of the Water Authority and The Metropolitan Water District of Southern California excluding charges for water treatment with respect to property located within each member agency.

The Water Authority is authorized to acquire water and water rights within or outside the State of California; to develop, store and transport such water; to provide, sell and deliver water for beneficial uses and purposes and to provide, sell and deliver water of the Water Authority not needed or require for beneficial purposes of its member agencies to areas outside the boundaries of the Water Authority.

The Water Authority is further authorized by the Act (i) to utilize its water, works, facilities, improvements and property used for the development, storage or transportation of water, to provide, generate and deliver hydroelectric power, and may acquire, construct, operate and maintain any and all works, facilities, improvements and property necessary or convenient for that utilization; (ii) to provide,
sell and deliver hydroelectric power to the United States of America or to any board, department or agency thereof, to the State of California for the State Water Project and to any other public agency, private corporation or any other person or entity engaged in the sale of electric power at retail or wholesale; (iii) to acquire, construct, own, operate, control or use works for supplying its member public agencies with gas or electricity; and (iv) to purchase gas, electricity or related services from the United States of America or any board, department or agency thereof, the State of California, any public agency, person or private company and provide, sell, exchange or deliver them to any public agency, private company, or person engaged in the sale of gas or electricity at retail.

The most recent descriptions of the Water Authority, the member agencies, the service area, the water supply, the water facilities and other considerations may be found either in the Water Authority’s most recent Official Statement or Offering Memorandum or the Water Authority’s Continuing Disclosure Annual Report filed annually with the Municipal Securities Rulemaking Board (the “MSRB”). Pursuant to the provisions of the Act, additional entities are authorized to join the Water Authority. The Act also entitles member agencies to withdraw from the Water Authority, subject to certain restrictions.

The Capital Improvement Program

The Water Authority’s goal is to provide a safe and reliable supply of water to its member agencies serving the San Diego region by maintaining an operationally flexible water storage, treatment and distribution system. To achieve this goal, the Water Authority has implemented a strategic plan, a component of which is known as the Capital Improvement Program (the “CIP”).

The Water Authority staff prepares periodic studies to project the future water demands in its service area. These Water Authority studies review the most recent information on member agency projected water demands, demographics and population estimates by the San Diego Association of Governments. These projections are incorporated into the CIP.

A description of the Water Authority’s Long-Range Financing Plan, the CIP and other obligations issued to fund the CIP may be found either in the Water Authority’s most recent Official Statement or Offering Memorandum or the Water Authority’s Continuing Disclosure Annual Report filed annually with the MSRB. See “OTHER MATTERS.”

Sources of Revenue

Water rates generate the majority of the Water Authority’s revenue stream. The Water Authority’s Board of Directors determines water rates which, under the General Resolution, must be reasonably fair and nondiscriminatory. See “THE COMMERCIAL PAPER NOTES – Rate Covenant” above. These rates are not subject to regulation by the California Public Utilities Commission or by any other local, state or federal agency. The Water Authority bills member agencies for water deliveries monthly. The Water Authority also imposes standby charges, capacity charges and infrastructure access charges and receives property tax revenues and in-lieu charges. The imposition of taxes, assessments, rates and charges by the Water Authority is subject to various constitutional and statutory limitations, including some requirements of Articles XIIIA, XIIIB, XIIIC and XIIID of the California Constitution, and are subject to reduction or repeal through the initiative process as provided in Article XIIIC of the California Constitution.

Outstanding Debt

As of May 1, 2019, the Water Authority had $1,505,635,000 aggregate principal amount of Prior Obligations outstanding.
The Series 8 Notes are currently outstanding in the aggregate principal amount of $110,000,000, with liquidity provided by a line of credit from The Bank of Tokyo-Mitsubishi, UFJ, Ltd., acting through its New York Branch. The Water Authority expects to refund all of the Series 8 Notes from proceeds of the Series 10 Notes on [June 6], 2019.

The Series 9 Notes are currently outstanding in the aggregate principal amount of $135,000,000, with liquidity provided by a line of credit from Bank of America, N.A.

The ECP Notes are currently outstanding in the aggregate principal amount of $100,000,000.

The 2016S-1 Bonds are currently outstanding in the aggregate principal amount of $86,685,000.

Upon the issuance of the Series 10 Notes, the Series 9 Notes, the ECP Notes and the 2016S-1 Bonds will be Subordinate Obligations under the General Resolution and are payable on parity with payment of the Series 10 Notes.

Desalination Costs

On December 24, 2012, the California Pollution Control Financing Authority issued $530,345,000 aggregate principal amount of Water Furnishing Revenue Bonds, Series 2012 (Poseidon Resources (Channelside) LP Desalination Project) (the “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 “2012 Pipeline Bonds”) to finance a desalination project located in Carlsbad, California, including a desalination plant and a 10-mile pipeline to deliver desalinated water from the desalination plant to the Water Authority’s water system. The Claude “Bud” Lewis Carlsbad Desalination Plant began commercial operation in December 2015. On February 20, 2019, the California Pollution Control Financing Authority issued $183,155,000 aggregate principal amount of Water Furnishing Revenue Refunding Bonds, Series 2019 (San Diego County Water Authority Desalination Project Pipeline) (the “2019 Pipeline Bonds”) to refund and redeem the outstanding 2012 Pipeline Bonds. The 2012 Plant Bonds and the 2019 Pipeline Bonds are collectively referred to herein as the “Desalination Bonds”.

In connection with the desalination project, the Water Authority entered into a Carlsbad Seawater Desalination Project Water Purchase Agreement, dated December 20, 2012 (the “Desalination 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, as amended (the “Desalination Installment Sale Agreement”), 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 Desalination Bonds, contingent on attainment of certain operating and product water delivery conditions. Purchases of water pursuant to the Desalination Water Purchase Agreement constitute Maintenance and Operation Costs (as defined in the General Resolution), while installment payments to be made pursuant to the Desalination Installment Sale Agreement are obligations payable from amounts constituting Net Water Revenues on deposit in the General Reserve Fund established under the General Resolution, subordinate to the pledge of Net Water Revenues for the payment of Bonds, Contracts, Reimbursement Payments (as defined in the General Resolution) and Subordinate Obligations.

Investment Policy

The investment policies and practices of the Board of Directors and the Treasurer for the Water Authority are based upon limitations placed on it by governing legislative bodies. The investment policy
of the Water Authority is reviewed and submitted annually to the Board of Directors of the Water Authority and is subject to change. A copy of the Water Authority’s Annual Statement of Investment Policy for Calendar Year [2018] is attached hereto as Appendix C.

**Water Authority Financial Statements**

The financial statements of the Water Authority for the fiscal year ending June 30, 2018, are attached hereto as Appendix A. Additional financial and operating data relating to the Water Authority’s water system may be found in the Water Authority’s most recent Continuing Disclosure Annual Report filed annually with the MSRB. See “OTHER MATTERS.”

**DESCRIPTION OF THE BANK**

*The following information has been provided by the Bank for inclusion in this Offering Memorandum. None of the Water Authority or the Dealers make any representation as to the accuracy or completeness of this information or as to the absence of material adverse changes with respect to the Bank or its financial condition subsequent to the date hereof.*

Bank of the West is a financial services company headquartered in San Francisco with $87.4 billion in assets as of December 31, 2018. With community bank roots dating back more than 140 years, the Bank operates a network of retail, wealth, commercial and business banking branches and offices in 24 states. The Bank has more than 10,400 team members serving the needs of 2.06 million customers.

Through major business areas – Commercial Banking, Consumer Banking, and Wealth Management – the Bank originates commercial, small business and consumer loans and leases, and offers a wide range of banking, trust and investment solutions for individuals and businesses.

In addition to banking products offered by the Bank, investment and insurance services are offered through its subsidiary, BancWest Investment Services, a registered broker/dealer.

The Bank is a subsidiary of BNP Paribas, a leading bank in Europe, which has a presence in 72 countries with more than 200,000 employees.

As of the quarter ending December 31, 2018, the Bank had total assets of approximately $87.4 billion and total deposits of $66.3 billion. The Bank reported fourth 2018 earnings of $182.2 million. As of December 31, 2018, the Tier I Risk-Based Capital Ratio was 12.32%; Total Risk-Based Capital Ratio was 13.27%; and Tier I Leverage Ratio 10.20%.

As of the year ending December 31, 2018, the Bank had total assets of approximately $87.4 billion and total deposits of $66.3 billion. The Bank reported 2018 earnings of $182.2 million. As of December 31, 2018, the Tier I Risk-Based Capital Ratio was 12.32%; Total Risk-Based Capital Ratio was 13.27%; and Tier I Leverage Ratio 10.20%.

The principal offices of the Bank are located at 180 Montgomery Street, San Francisco, California, 94104, and its telephone number is (925) 942-8300. The Bank files financial reports with the Federal Deposit Insurance System (“FDIC”) and those reports may be viewed on the FDIC’s web site at: http://www.fdic.gov.
SUMMARY OF CERTAIN PROVISIONS OF THE LIQUIDITY AGREEMENT

General

The following description is a summary of certain provisions of the Liquidity Agreement. Such summary does not purport to be a complete description or restatement of the material provisions of the Liquidity Agreement. Investors should obtain and review a copy of the Liquidity Agreement in order to understand all of the terms of that document.

Subject to the terms and conditions of the Liquidity Agreement, the Bank agrees to make Advances (as defined in the Liquidity Agreement) from time to time on any Business Day (as defined in the Liquidity Agreement) during the Commitment Period (as defined in the Liquidity Agreement) in amounts which, together with the principal amount of any Advances and Term Loans (as defined in the Liquidity Agreement) then outstanding, shall not exceed at any time outstanding the Commitment (as defined in the Liquidity Agreement). Each Advance shall be made solely for the purpose of providing funds to pay the principal of Series 10 Notes on the maturity date thereof to the extent that proceeds of other Series 10 Notes or Net Water Revenues are not available therefor. The aggregate principal amount of all Advances made on the date of any Advance shall not exceed the Available Commitment (as defined in the Liquidity Agreement) (calculated without giving effect to any Advances made on such date) at 9:00 a.m. (New York City time) on such date. The proceeds of Advances shall not be available to pay interest on Series 10 Notes.

Under certain circumstances described below, the obligation of the Bank to purchase the Series 10 Notes may be immediately suspended or terminated without notice to the holders thereof. In such event, sufficient funds may not be available to purchase Series 10 Notes.

Certain Definitions

For purposes of this Section, the Liquidity Agreement defines “Basic Documents”, “Collateral”, “Debt”, “Prior Obligations” and “Revenues Secured Debt” as follows:

“Basic Documents” means the Issuing and Paying Agent Agreement, the Fee Letter, the Revolving Note, the Term Note, the General Resolution and the Dealer Agreement (each as defined in the Liquidity Agreement).

“Collateral” means those funds and other assets pledged to secure the Series 10 Notes, the Revolving Note and the Term Note pursuant to the Issuing and Paying Agent Agreement and the General Resolution.

“Debt” means (a) all Bonds (as defined in the Liquidity Agreement), Contracts (as defined in the Liquidity Agreement) and other evidences of indebtedness or obligations of the Water Authority, including, without limitation, Subordinate Obligations (as defined in the Liquidity Agreement), that are payable from or secured by Net Water Revenues and are evidenced by bonds, debentures, notes or other similar instruments, including, without limitation, the Series 10 Notes, the Revolving Note and the Term Note, (b) all other indebtedness of the Water Authority for borrowed money, (c) obligations of the Water Authority as lessor under any lease of property, real or personal, that, in accordance with GAAP (as defined in the Liquidity Agreement), would be required to be capitalized on a balance sheet of the lessee thereof, (d) obligations of the Water Authority on or with respect to letters of credit, banker’s acceptances or other evidences of indebtedness representing extensions of credit, whether or not representing obligations for borrowed money, (e) all obligations for the deferred purchase price of property or services (other than trade accounts payable occurring in the ordinary course of business), (f) any obligation of the Water Authority
guaranteeing or in effect guaranteeing any other Debt, whether directly or indirectly and (g) all obligations arising under or pursuant to any Swap Contract (as defined in the Liquidity Agreement).

“Prior Obligations” means (i) Bonds and Contracts (including Certificates (as defined in the Liquidity Agreement) evidencing undivided interests therein), (ii) any bonds, notes, certificates, debentures or other evidence of similar indebtedness issued by or on behalf of the Water Authority secured by a lien on the Collateral ranking senior to or on a parity with the Series 10 Notes, the Revolving Note and the Term Note, (iii) the obligations which are scheduled payments of the Water Authority under any Swap Contract (which are secured pursuant to the Issuing and Paying Agent Agreement by a lien on the Collateral ranking senior to or on a parity with the Series 10 Notes, the Revolving Note and the Term Note) providing interest rate support with respect to any indebtedness issued by or on behalf of the Water Authority pursuant to the Issuing and Paying Agent Agreement by a lien on the Collateral ranking senior to or on a parity with the Series 10 Notes, the Revolving Note and the Term Note, (iv) any obligation of the Water Authority as lessee under a capital lease secured by a lien on the Collateral ranking senior to or on a parity with the Series 10 Notes, the Revolving Note and the Term Note (x) which is not subject to appropriation or abatement or (y) which is rated by each Rating Agency then rating the Series 10 Notes at a level equal to or higher than the long-term unenhanced debt rating assigned by each such Rating Agency (as defined in the Liquidity Agreement) to the Water Authority’s Bonds and Contracts (including Certificates evidencing undivided interests therein) and (v) any Guarantee by the Water Authority secured by a lien on the Collateral ranking senior to or on a parity with the Series 10 Notes, the Revolving Note and the Term Note (provided, however, that the failure to pay any such Guarantee (as defined in the Liquidity Agreement) as a result of any set-off, recoupment or counterclaim or any other defense to payment under such Guarantee by the Water Authority shall not constitute a failure to pay Prior Obligations for purposes of the Liquidity Agreement).

“Revenues Secured Debt” means (i) Bonds, (ii) Contracts payable from or secured by Net Water Revenues and of a type described in or similar in nature to those described in clauses (a) and (c) of the definition of Debt, (iii) Reimbursement Payments (as defined in the Liquidity Agreement) (other than any such payments that have been accelerated under the applicable Reimbursement Agreement), (iv) the Series 2016S-1 Bonds and (v) other Debt payable from or secured by Net Water Revenues and described in clauses (a), (c) and (g) of the definition thereof (and in the case of obligations arising under or pursuant to any Swap Contract as described in clause (g) of the definition thereof, only with respect to (A) Swap Contracts that provide interest rate support and (B) obligations that constitute regularly scheduled payments that relate to Bonds, Contracts and other obligations described in clause (a) of the definition thereof) the payment of which is secured by a pledge of or Lien (as defined in the Liquidity Agreement) on Net Water Revenues senior to or on a parity with the payment of the Series 10 Notes.

Termination Events

Each of the following events shall constitute a Termination Event (as defined in the Liquidity Agreement) under the Liquidity Agreement. Reference is made to the Liquidity Agreement for a complete listing of all Termination Events:

(a) the Water Authority shall fail to pay (i) any amount of interest on any Series 10 Notes when the same shall become due and payable in accordance with its terms or (ii) any principal of, or interest on, the Revolving Note, the Term Note, any Advance, or any Term Loan, when the same shall become due and payable in accordance with its terms (other than as a result of the acceleration thereof as a result of certain Events of Default (as defined in the Liquidity Agreement)); or

(b) the Water Authority shall fail to pay when due and payable (whether by scheduled maturity, required prepayment or acceleration) any Revenues Secured Debt of the Water Authority, or any interest or premium thereon, and such failure shall continue beyond any applicable period of grace specified
in any underlying resolution, indenture, contract or instrument pursuant to which such Revenues Secured Debt has been issued, or pursuant to the provisions of any such resolution, indenture, contract or instrument the maturity of any such Revenues Secured Debt, as a result of a payment default, shall have been or may be accelerated or required to be prepaid prior to the stated maturity thereof; provided that no Termination Event shall occur under this paragraph (b) as a result of the failure to pay when due and payable any Series 10 Notes if such failure to pay (i) is due solely to the Bank’s failure to honor a properly presented request for an Advance in accordance with the terms of the Liquidity Agreement or (ii) the principal on any Series 10 Note or any other commercial paper note payable from Water Revenues that has liquidity support from an entity other than the Water Authority; or

(c) one or more final, unappealable judgments or orders for the payment of money which, individually or in the aggregate, equal or exceed $15,000,000 and are payable from Water Revenues (as defined herein) or attachment against the Water Revenues shall be rendered against the Water Authority and such judgment or order shall continue unsatisfied, unstayed or undismissed for a period of sixty (60) days; or

(d) (i) The Water Authority shall commence any case, proceeding or other action (A) under any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization or relief of debtors, seeking to have an order for relief entered with respect to it, or seeking to adjudicate it as bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, winding-up, liquidation, dissolution, composition or other relief with respect to it or its Debts payable from or secured by Water Revenues, or (B) seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or any substantial part of the assets of the Water System (as defined in the Liquidity Agreement), or the Water Authority shall make a general assignment for the benefit of its creditors, or a debt moratorium, debt restructuring, or comparable extraordinary restriction on repayment of debt shall have been declared, announced or imposed with respect to the Bonds (as defined in the Liquidity Agreement), or any Revenues Secured Debt; or (ii) there shall be commenced against the Water Authority any case, proceeding or other action of a nature referred to in clause (i) above which (x) results in an order for such relief or in the appointment of a receiver or similar official or (y) remains undismissed, undischarged or unbonded for a period of sixty (60) days; or (iii) there shall be commenced against the Water Authority, any case, proceeding or other action seeking the issuance of a warrant of attachment, execution, restraint or similar process against all or any substantial part of the assets of the Water System or the Water Revenues, which results in the entry of a final and non-appealable order or ruling for any such relief which shall not have been vacated, discharged, or stayed or bonded pending appeal within sixty (60) days from the entry thereof; or (iv) the Water Authority shall take any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the acts set forth in clause (i), (ii) or (iii) above; or (v) the Water Authority shall admit in writing its inability to pay its debts; or

(e) any provision of the Liquidity Agreement, the Act, the Revolving Note, the Term Note, any Series 10 Note, the Issuing and Paying Agent Agreement or the General Resolution relating to (A) the Water Authority’s ability to make payments of principal or interest on the Series 10 Notes, the Term Note, the Revolving Note, any Advance or any Term Loan or any other Revenues Secured Debt or (B) the validity or enforceability of the pledge of and lien on the Collateral shall at any time and for any reason cease to be valid and binding on the Water Authority or shall be deemed to be null and void, invalid or unenforceable pursuant to a final, nonappealable judgment or order of any court or other Governmental Authority (as defined in the Liquidity Agreement) having jurisdiction over the Water Authority with respect to such matters; or

(f) the long-term unenhanced ratings assigned by Moody’s, Fitch and S&P to any of the Bonds, Certificates or Subordinate Obligations (if rated) shall be withdrawn or suspended (but excluding withdrawals or suspensions if the Rating Agency stipulates in writing that the rating action is being taken
for non-credit related reasons) or reduced below “Baa3” (or its equivalent), “BBB-” (or its equivalent) and “BBB-” (or its equivalent), respectively.

Suspension Events

Each of the following events shall constitute a Suspension Event (as defined in the Liquidity Agreement) under the Liquidity Agreement. Reference is made to the Liquidity Agreement for a complete listing of all Suspension Events:

(a) (i) Any Governmental Authority with jurisdiction to rule on the validity or enforceability of the Liquidity Agreement, the Act, the Revolving Note, the Term Note, any Series 10 Notes, the Issuing and Paying Agent Agreement or the General Resolution, shall find or rule, in a judicial or administrative proceeding, that any material provision of any of the foregoing relating to (A) the ability or the obligation of the Water Authority to pay, when due, the principal or interest payable on the Series 10 Notes, the Term Note, the Revolving Note, any Advance or any Term Loan or any other Revenues Secured Debt or (B) the Lien (as defined in the Liquidity Agreement) on or pledge of Net Water Revenues securing the Series 10 Notes, the Term Note, any Advance or any other Revenues Secured Debt is not valid or not binding on, or enforceable against, the Water Authority; or (ii) the Water Authority (A) makes a claim in a judicial or administrative proceeding that the Water Authority has no further liability or obligation under the Liquidity Agreement, the Act, the Revolving Note, the Term Note, any Series 10 Notes, the Issuing and Paying Agent Agreement or the General Resolution, or any Revenues Secured Debt, as and to the extent the Water Authority has obligations thereunder, to pay, when due, the principal or interest payable on the Series 10 Notes, the Term Note, any Advance or any other Revenues Secured Debt, or (B) contests in a judicial or administrative proceeding the validity or enforceability of any provision of the Liquidity Agreement, the Act, the Revolving Note, the Term Note, any Series 10 Notes, the Issuing and Paying Agent Agreement or the General Resolution, or any other Revenues Secured Debt secured by and relating to (1) the ability or the obligation of the Water Authority to pay, when due, the principal or interest payable on the Series 10 Notes, the Term Note, the Revolving Note, any Advance or any Term Loan or any other Revenues Secured Debt or (2) the Lien on or pledge of Net Water Revenues (as defined in the Liquidity Agreement) securing the Series 10 Notes, the Term Note, the Revolving Note, any Advance or any Term Loan or any other Revenues Secured Debt; or

(b) there shall be commenced against the Water Authority any case, proceeding or other action seeking the issuance of a warrant of attachment, execution, distraint or similar process against all or any substantial part of the assets of the Water System or the Water Revenues, which shall not have been vacated, discharged, or stayed or bonded pending appeal; or

(c) there shall be commenced against the Water Authority in a United States court of competent jurisdiction any case, proceeding or other action (i) under any existing or future law of any United States jurisdiction relating to bankruptcy, insolvency, reorganization or relief of debtors, seeking to have an order for relief entered with respect to the Water Authority, or seeking to adjudicate it as bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, winding up, liquidation, dissolution, composition or other relief with respect to it, or seeking to declare a moratorium with respect to (x) any Series 10 Note, the Revolving Note, the Term Note, any Advance or any Term Loan or (y) all Revenues Secured Debt, or (ii) seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or any substantial part of the assets of the Water System or the Water Revenues, or the Water Authority shall make a general assignment for the benefit of its creditors which remains undismissed, undischarged or unbonded.
Notice Event of Default

Each of the following events shall constitute a Notice Event of Default (as defined in the Liquidity Agreement) under the Liquidity Agreement. Reference is made to the Liquidity Agreement for a complete listing of all Notice Events of Default:

(a) the Water Authority shall fail to pay when due any amount payable under the Liquidity Agreement or under the Fee Letter (other than amounts described in paragraph (a) under the heading “Termination Events” above) within five days after written demand by the Bank in respect thereof; or

(b) any representation, warranty, certification or statement made by the Water Authority in the Liquidity Agreement or in any Basic Document or in any certificate, financial statement or other document delivered pursuant to the Liquidity Agreement or any Basic Document shall (in any such case) have been incorrect or untrue in any materially adverse respect when made or deemed to have been made and such representation, warranty, certification or statement shall remain incorrect or continue for 30 days after written notice thereof shall have been given to the Water Authority by the Bank; or

(c) the Water Authority shall default in the due performance or observance of certain terms, covenants or agreements set forth in the Liquidity Agreement; or

(d) the Water Authority shall default in the due performance or observance of any term, covenant or agreement contained in the Liquidity Agreement (other than those covered by paragraph (a) or (b) under the heading “Termination Events” above and paragraph (a) or (c) under this heading “Notice Event of Default”) and such default, if capable of being remedied, shall remain unremedied for thirty (30) days after written notice thereof shall have been given to the Water Authority by the Bank; provided, however, such breach shall not constitute an Event of Default after such thirty (30) day period for such period of time as the Water Authority is diligently pursuing a cure or correction of such breach, but in no event for a period of time of more than sixty (60) days after such written notice; or

(e) an “Event of Default” as defined in the Issuing and Paying Agent Agreement or any “event of default” under the General Resolution shall occur and be continuing or the Water Authority shall default in the due performance or observance of any material term, covenant or agreement contained in any other Basic Document and the same shall not have been cured within any applicable cure period; or

(f) the Water Authority shall fail to pay when due and payable (whether by scheduled maturity, required prepayment or acceleration) any other Debt of the Water Authority having an aggregate principal amount or notional amount in excess of $15,000,000 and such failure shall continue beyond any applicable period of grace specified in any underlying indenture, contract or instrument providing for the creation thereof; or

(g) (i) any of Moody’s, S&P or Fitch shall withdraw or suspend the long-term unenhanced rating on the Bonds or Certificates or (ii) any two of Moody’s, S&P or Fitch shall reduce the long-term unenhanced rating on the Bonds or Certificates below “A2” (or its equivalent), “A” (or its equivalent), or “A” (or its equivalent), respectively; provided that any such withdrawal or suspension referred to in clause (i) of this paragraph (g) shall not constitute an Event of Default under this paragraph (g) if (x) such withdrawal or suspension is the result of a determination by the Water Authority to cease maintaining such rating and (y) following such withdrawal or suspension the Water Authority shall maintain at least one long-term rating on the Revolving Note and the Term Note; or
(h) any Governmental Authority shall declare a financial emergency with respect to the Water Authority and shall appoint or designate with respect to the Water Authority, an entity such as an organization, board, commission, authority, agency or body to manage the affairs and operations of the Water System; or

(i) the occurrence of any “default” resulting from a failure by the Water Authority to perform any of its obligations under any agreement or instrument providing credit enhancement or liquidity support with respect to any Prior Obligations or Subordinate Obligations, or pursuant to which the related holders purchased and continues to hold the same, which default results in an acceleration of such Prior Obligations or Subordinate Obligations, as applicable, or the obligations of the Water Authority under such agreement or instrument; or

(j) any material provision of the Liquidity Agreement, the Revolving Note, the Term Note, any Series 10 Note, the Issuing Agreement or the General Resolution, other than a provision described in paragraph (e) under the heading “Termination Events”, shall at any time and for any reason cease to be valid and binding on the Water Authority as a result of a ruling, finding, decree, order, legislative act or similar action by a Governmental Authority having jurisdiction over the Water Authority with respect to such matters or shall be declared in a final nonappealable judgment by any court having jurisdiction over the Water Authority to be null and void, invalid, or unenforceable, or the validity or enforceability thereof shall be publicly contested by the Water Authority.

Remedies

The following are remedies available to the Bank under the Liquidity Agreement upon the occurrence of certain events of default thereunder:

(a) Immediate Termination. Upon the occurrence of any Termination Event, (i) the Commitment and the obligation of the Bank to make Advances under the Liquidity Agreement shall immediately and automatically terminate, without notice from the Bank, and (ii) all amounts due under the Liquidity Agreement and under the Revolving Note and the Term Note shall immediately become due and payable; provided that the Event of Default described in paragraph (b) under the heading “Termination Events” above as it pertains to the failure to pay principal on any Series 10 Notes will not constitute a “Termination Event” under the Liquidity Agreement if such Event of Default results from a failure to draw on a liquidity facility for commercial paper notes and is cured on or before the next Business Day.

(b) Suspension Events. (i) Upon the occurrence of an Event of Default described under paragraph (a) under the heading “Suspension Events” above, the obligation of the Bank to make Advances under the Liquidity Agreement shall be immediately and automatically suspended from the time of the occurrence of such Event of Default, provided, however, that if the provisions of the Liquidity Agreement, the Act, the Revolving Note, the Term Note, the Series 10 Notes, the Issuing and Paying Agent Agreement or the General Resolution in question are upheld in their entirety, then the Bank’s obligations under the Liquidity Agreement shall be automatically reinstated and the terms of the Liquidity Agreement will continue in full force and effect (unless the Liquidity Agreement shall have otherwise expired or been terminated in accordance with its terms) as if there had been no such suspension.

(ii) Upon the occurrence of an Event of Default under paragraphs (b) or (c) under the heading “Suspension Events” above, the obligation of the Bank to make Advances under the Liquidity Agreement shall be immediately and automatically suspended, without notice, until the proceeding referred to therein is terminated, discharged or dismissed, as applicable, prior to the court entering an order granting the relief sought in such proceeding. In the event such proceeding is terminated, discharged or dismissed, as applicable, the obligation of the Bank to make Advances under the Liquidity Agreement shall be reinstated
and the terms of the Liquidity Agreement will continue in full force and effect (unless the obligation of the Bank to make Advances under the Liquidity Agreement shall have otherwise expired or terminated in accordance with the terms of the Liquidity Agreement or there has occurred a Termination Event) as if there had been no such suspension.

(c) All Events of Default. In the event any Event of Default, including, without limitation, any Termination Event, has occurred and is continuing, the Bank (i) may by written notice to the Water Authority declare all amounts due under the Liquidity Agreement or under any Revolving Note or the Term Note to be immediately due and payable, whereupon the same shall immediately become due and payable, (ii) may by written notice to the Water Authority and the Issuing and Paying Agent (a “No-Issuance Notice”) in substantially the form attached to the Liquidity Agreement declare the Commitment to be reduced to the principal amount of Series 10 Notes then outstanding and to be permanently reduced further on the maturity date of each such Series 10 Note by an amount equal to the principal amount of such Series 10 Note with the Commitment to be terminated upon the last maturity date applicable to all such Series 10 Notes, (iii) may petition a court of competent jurisdiction to issue a mandamus order to the Water Authority to compel specific performance of the covenants of the Water Authority contained in the Issuing and Paying Agent Agreement, in the Liquidity Agreement or in any other Basic Document and (iv) may pursue any other rights or remedies under the Liquidity Agreement, the Issuing and Paying Agent Agreement, any other Basic Document, applicable law or otherwise. Except as expressly provided under this heading “Remedies,” procurement, demand, protest and all other notices of every kind are expressly waived. Following receipt of a No-Issuance Notice, the Water Authority shall not issue any additional Series 10 Notes.

(d) Timing of No-Issuance Notice. A No-Issuance Notice that is received by the Issuing and Paying Agent at or before 12:00 p.m. (New York City time) shall be effective when received. A No-Issuance Notice that is received by the Issuing and Paying Agent after 12:00 p.m. (New York City time) shall not be effective until the opening of business on the next succeeding Business Day.

(e) Copies of Notices. Concurrently with the occurrence of a Termination Event pursuant to paragraph (a) under this heading “Remedies” or a No-Issuance Notice pursuant to paragraph (c) under this heading “Remedies,” the Water Authority shall give notice to the Issuing and Paying Agent and the Dealer.

In addition, concurrently with giving such notice to the Water Authority and the Issuing and Paying Agent, the Bank shall provide a copy thereof to the Dealer at their respective addresses referred to in the Liquidity Agreement; provided, however, that the Bank shall not incur any liability as a result of its failure to provide a copy of such a notice in accordance with this sentence.

TAX EXEMPTION

On [June 6], 2019, Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Water Authority, will deliver its opinion that, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 10 Notes, when issued in accordance with the Issuing and Paying Agent Agreement and the Tax Certificate of the Water Authority (the “Tax Certificate”), will be excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the “Code”) and exempt from State of California personal income taxes. Bond Counsel’s opinion will also state that interest on the Series 10 Notes is not a specific preference item for purposes of the federal alternative minimum tax. The proposed form of such opinion is attached hereto as Appendix B.
Notice 94-84, 1994-2 C.B. 559, states that the Internal Revenue Service (the “IRS”) is studying whether the amount of the payment at maturity on short-term debt obligations (i.e., debt obligations with a stated fixed rate of interest which mature not more than one year from the date of issue) that is excluded from gross income for federal income tax purposes is (i) the stated interest payable at maturity or (ii) the difference between the issue price of the short-term debt obligations and the aggregate amount to be paid at maturity of the short-term debt obligations (the “original issue discount”). For this purpose, the issue price of the short-term debt obligations is the first price at which a substantial amount of the short-term debt obligations is sold to the public (excluding bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers). Until the IRS provides further guidance with respect to tax-exempt short-term debt obligations, taxpayers may treat either the stated interest payable at maturity or the original issue discount as interest that is excluded from gross income for federal income tax purposes. However, taxpayers must treat the amount to be paid at maturity on all tax-exempt short-term debt obligations in a consistent manner. Prospective purchasers of the Series 10 Notes should consult their own tax advisors with respect to the tax consequences of ownership of Series 10 Notes if the owner elects original issue discount treatment.

Series 10 Notes purchased, whether at original issuance or otherwise, for an amount higher than their principal amount payable at maturity (or, in some cases, at their earlier call date) (“Premium Notes”) will be treated as having amortizable bond premium. No deduction is allowable for the amortizable bond premium in the case of notes, like the Premium Notes, the interest on which is excluded from gross income for federal income tax purposes. However, the amount of tax-exempt interest received, and an owner’s basis in a Premium Note, will be reduced by the amount of amortizable bond premium properly allocable to such owner. Owners of Premium Notes should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal tax purposes of interest on obligations such as the Series 10 Notes. The Water Authority will make certain representations and will covenant to comply with certain restrictions designed to assure that the interest on the Series 10 Notes will not be included in federal gross income. Inaccuracies of these representations or failure to comply with these covenants may result in interest on the Series 10 Notes being included in federal gross income, possibly from the date of first issuance of the Series 10 Notes. The opinion of Bond Counsel will assume the accuracy of these representations and compliance with these covenants. Bond Counsel will not undertake to determine (or to inform any person) whether any actions taken (or not taken), or events occurring (or not occurring) or any other matters coming to Bond Counsel’s attention after [June 6], 2019, may adversely affect the value of, or the tax status of interest on, such Series 10 Notes. Accordingly, the opinion of Bond Counsel is not intended to, and may not, be relied upon in connection with any such actions, events or matters.

Although Bond Counsel will render an opinion on [June 6], 2019, that interest on the Series 10 Notes, when issued in accordance with the Issuing and Paying Agent Agreement and the Tax Certificate, will be excluded from gross income for tax purposes and is exempt from State of California personal income taxes, the ownership or disposition of, or the accrual or receipt of amounts treated as interest on, the Series 10 Notes may otherwise affect the owner’s federal, state or local tax liability. The nature and extent of these other tax consequences depend upon the owner’s particular tax status and the owner’s other items of income or deduction. Bond Counsel will express no opinion regarding any such other tax consequences.

Current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the Series 10 Notes to be subject, directly or indirectly, in whole or in part, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent owners from realizing the full current benefit of the tax status of such interest. The introduction or enactment of any such future legislative proposals, or clarification of the Code or court decisions, may also
affect, perhaps significantly, the market price for, or marketability of, the Series 10 Notes. Prospective purchasers of the Series 10 Notes should consult their own tax advisors regarding the potential impact of any pending or proposed federal or state tax legislation, regulations or litigation, as to which Bond Counsel will express no opinion.

The opinion of Bond Counsel to be delivered on [June 6], 2019, will be based on then current legal authority, will cover certain matters not directly addressed by such authorities, and will represent Bond Counsel’s judgment as to the proper treatment of interest on the Series 10 Notes for federal income tax purposes. It will not be binding on the IRS or the courts. Furthermore, Bond Counsel cannot give and will not give any opinion or assurance about the activities of the Water Authority after the date of such opinion, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the IRS. The Water Authority will covenant, however, to comply with the requirements of the Code.

The IRS has an ongoing program of auditing tax-exempt obligations to determine whether, in the view of the IRS, interest on such tax-exempt obligations is includable in the gross income of the owners thereof for federal income tax purposes. Unless separately engaged, Bond Counsel is not obligated to defend the Water Authority or the owners of the Series 10 Notes regarding the tax-exempt status of interest on the Series 10 Notes in the event of an audit examination by the IRS. Under current procedures, parties other than the Water Authority and its appointed counsel, including the owners of the Series 10 Notes, would have little, if any, right to participate in the audit examination process. Moreover, because achieving judicial review in connection with an audit examination of tax-exempt bonds is difficult, obtaining an independent review of IRS positions with which the Water Authority legitimately disagrees, may not be practicable. Any action of the IRS, including but not limited to selection of the Series 10 Notes for audit, or the course or result of such audit, or an audit of bonds presenting similar tax issues may affect the market price for, or the marketability of, the Series 10 Notes, and may cause the Water Authority or the owners of the Series 10 Notes to incur significant expense.

RATINGS

The Series 10 Notes have been rated “[___]” by Fitch Ratings, Inc. (“Fitch”), One State Street Plaza, New York, New York, “[___]” by Moody’s Investors Service, Inc. (“Moody’s”), 99 Church Street, New York, New York, and “[___]” by S&P Global Ratings, a division of Standard & Poor’s Financial Services LLC, 55 Water Street, New York, New York (“Standard & Poor’s”). The ratings assigned by Fitch, Moody’s and Standard & Poor’s express only the views of the rating agencies. The explanation of the significance of the ratings may be obtained from Fitch, Moody’s and Standard & Poor’s, respectively. There is no assurance such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by the rating agencies, if in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the Series 10 Notes.

OTHER MATTERS

The Dealers have provided the following sentence for inclusion in this Offering Memorandum. The Dealers have reviewed the information in this Offering Memorandum in accordance with, and as part of, their responsibility to investors under the federal securities law as applied to the facts and circumstances of this transaction, but the Dealers do not guarantee the accuracy or completeness of such information.

The information and expressions of opinion in this Offering Memorandum are subject to change without notice and neither the delivery of this Offering Memorandum nor any sale hereunder shall, under
any circumstances, create any implication that there has been no change in such information or expressions of opinion since the date hereof.

The financial statements of the Water Authority for the fiscal year ended June 30, 2018, and the proposed form of the opinion to be delivered by Bond Counsel are attached hereto as Appendices. The Water Authority will make available on request a copy of the Liquidity Agreement and copies of the Water Authority’s most recent Continuing Disclosure Annual Report and Official Statement. For additional information please contact the following:

Director of Finance/Treasurer  
San Diego County Water Authority  
4677 Overland Avenue  
San Diego, CA 92123  
(858) 522-6671

Additional information may be obtained from the Water Authority’s website at  
http://www.sdcwa.org/financials-investor-relations
ATTAChMENTS

Appendix A – Water Authority Financial Statements

Appendix B – Proposed Form of Opinion of Bond Counsel

Appendix C – Annual Statement of Investment Policy Calendar Year [2018]

Appendix D – Information Regarding DTC and the Book-Entry Only System
Appendix A

Water Authority Financial Statements
Appendix B

Proposed Form of Opinion of Bond Counsel

On [June 6], 2019, the Authority will receive an opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel, in the following form:

Board of Directors
San Diego County Water Authority
San Diego, California

San Diego County Water Authority
Commercial Paper Notes, Series 10
(Final Opinion)

Ladies and Gentlemen:

We have acted as bond counsel to the San Diego County Water Authority (the “Issuer”) in connection with authorization of issuances of up to $110,000,000 aggregate principal amount (at any time Outstanding) of commercial paper notes by the Issuer, pursuant to and by authority of the provisions of Section 8.2 of the County Water Authority Act, Resolution No. 89-21, adopted by the Board of Directors of the Issuer on May 11, 1989, entitled “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”, as amended (the “General Resolution”), and an Issuing and Paying Agent Agreement (Series 10), dated as of June 1, 2019 (the “Issuing and Paying Agent Agreement”), between the Issuer and U.S. Bank National Association, as issuing and paying agent (the “Issuing and Paying Agent”), and designated the San Diego County Water Authority Commercial Paper Notes, Series 10 (the “Notes”). Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the General Resolution.

In such connection, we have reviewed the General Resolution, the Issuing and Paying Agent Agreement, the Tax Certificate of the Issuer, dated the date hereof (the “Tax Certificate”), certificates of the Issuer, the Issuing and Paying Agent and others, an opinion of counsel to the Issuer and such other documents, opinions and matters to the extent we deemed necessary to render the opinions set forth herein.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions, and cover certain matters not directly addressed by such authorities. Such opinions may be affected by actions taken or omitted or events occurring after the date hereof and before or after Notes are issued. We have not undertaken to determine, or to inform any person, whether any such actions are taken or omitted or events do occur or any other matters come to our attention after the date hereof. Accordingly, this letter speaks only as of its date and is not intended to, and may not, be relied upon or otherwise used in connection with any such actions, events or matters. We disclaim any obligation to update this letter. We have assumed the genuineness of all documents and signatures presented to us (whether as originals or as copies) and the due and legal execution and delivery thereof by, and validity against, any parties other than the Issuer. We have assumed, without undertaking to verify, the accuracy (as of the date hereof and as of each date of issuance from time to time of the Notes) of the factual matters represented, warranted or certified in the documents, and of the legal conclusions contained in the opinion, referred to in the second paragraph hereof. Furthermore, we have assumed compliance with all covenants and agreements contained in the General Resolution, the Issuing and Paying Agent Agreement and the Tax Certificate, including (without limitation) covenants and agreements compliance with which is necessary.
to assure that future actions, omissions or events will not cause interest on the Notes to be included in gross income for federal income tax purposes, possibly retroactive to the date on which the first Notes were issued. We call attention to the fact that the rights and obligations under the Notes, the General Resolution, the Issuing and Paying Agent Agreement and the Tax Certificate and their enforceability may be subject to bankruptcy, insolvency, receivership, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors’ rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against county water authorities in the State of California. We express no opinion with respect to any indemnification, contribution, liquidated damages, penalty (including any remedy deemed to constitute a penalty), right of set-off, arbitration, judicial reference, choice of law, choice of forum, choice of venue, non-exclusivity of remedies, waiver or severability provisions contained in the foregoing documents, nor do we express any opinion with respect to the state or quality of title to or interest in any of the assets described in or as subject to the lien of the Issuing and Paying Agent Agreement or the accuracy or sufficiency of the description contained therein of, or the remedies available to enforce liens on, any such assets. Our services did not include financial or other non-legal advice. Finally, we undertake no responsibility for the accuracy, completeness or fairness of the Offering Memorandum or other offering material relating to the Notes and express no opinion with respect thereto.

Based on and subject to the foregoing and in reliance thereon, as of the date hereof, we are of the following opinions:

1. The General Resolution has been duly adopted by the Board of Directors of the Issuer and is in full force and effect, and the Issuing and Paying Agent Agreement has been duly executed and delivered by, and constitutes a valid and binding obligation of, the Issuer.

2. The Notes, when duly issued from time to time in the form authorized by and otherwise in compliance with the Issuing and Paying Agent Agreement, executed by a duly authorized official of the Issuer and authenticated by the Issuing and Paying Agent against payment therefor, will constitute the valid and binding limited obligations of the Issuer, payable solely from Net Water Revenues, and neither the full faith and credit nor the taxing power of the Issuer, the State of California or any of its political subdivisions is pledged for the payment thereof.

3. Interest on the Notes, when issued in accordance with the Issuing and Paying Agent Agreement and the Tax Certificate, will be excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and exempt from State of California personal income taxes. The amount treated as interest on the Notes and excluded from gross income will depend upon the taxpayer’s election under Internal Revenue Service Notice 94-84. Interest on the Notes is not a specific preference item for purposes of the federal alternative minimum tax. We express no opinion regarding other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Notes.

Faithfully yours,

ORRICK, HERRINGTON & SUTCLIFFE LLP

per
Appendix D

Information Regarding DTC and the Book-Entry Only System

Neither the Water Authority nor the Issuing and Paying Agent will have any responsibility or obligation to DTC Participants, Indirect Participants or Beneficial Owners with respect to the payments or the providing of notice to DTC Participants, Indirect Participants or Beneficial Owners. Neither the Water Authority nor the Issuing and Paying Agent can give any assurances that DTC, DTC Participants, Indirect Participants or others will distribute payments of principal and interest on the Series 10 Notes paid to DTC or its nominee, as the registered Holder, or any notices, to the Beneficial Owners, or that they will do so on a timely basis or that DTC will serve and act in the manner described in this Offering Memorandum.

The following information regarding DTC and its book-entry only system has been furnished by DTC for inclusion herein. The Water Authority cannot and does not make any representation as to the accuracy or completeness thereof, or the absence of material adverse changes therein subsequent to the date hereof. Beneficial Owners should confirm the following information with DTC or the Participants, as the case may be.

The Depository Trust Company ("DTC"), New York, New York, will act as securities depository for the Series 10 Notes. The Series 10 Notes will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Series 10 Note will be issued in the aggregate authorized principal amount of the Series 10 Notes and will be deposited with DTC.

DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Series 10 Notes under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 10 Notes on DTC’s records. The ownership interest of each actual purchaser of each Series 10 Note (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing
details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 10 Notes are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Series 10 Notes, except in the event that use of the book-entry system for the Series 10 Notes is discontinued.

To facilitate subsequent transfers, all Series 10 Notes deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Series 10 Notes with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 10 Notes; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Series 10 Notes are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Series 10 Notes may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 10 Notes, such as tenders, defaults, and proposed amendments to the Series 10 Note documents. For example, Beneficial Owners of Series 10 Notes may wish to ascertain that the nominee holding the Series 10 Notes for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Series 10 Notes unless authorized by a Direct Participant in accordance with DTC’s MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Water Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.’s consenting or voting rights to those Direct Participants to whose accounts Series 10 Notes are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal and interest with respect to the Series 10 Notes will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC’s practice is to credit Direct Participants’ accounts upon DTC’s receipt of funds and corresponding detail information from the Water Authority or the Issuing and Paying Agent on payable date in accordance with their respective holdings shown on DTC’s records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in “street name,” and will be the responsibility of such Participant and not of DTC, the Issuing and Paying Agent or the Water Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest with respect to the Series 10 Notes to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Water Authority or the Issuing and Paying Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Series 10 Notes at any time by giving reasonable notice to the Water Authority or the Issuing and Paying Agent. Under such
circumstances, in the event that a successor depository is not obtained, Series 10 Note certificates are required to be printed and delivered, as described in the Issuing and Paying Agent Agreement.

The Water Authority may decide to discontinue use of the system of book-entry only transfers through DTC (or a successor securities depository). In that event, Series 10 Note certificates will be printed and delivered to DTC as described in the Issuing and Paying Agent Agreement.

The information in this Appendix D concerning DTC and DTC’s book-entry system has been obtained from sources that the Water Authority believes to be reliable, but the Water Authority takes no responsibility for the accuracy thereof.

The foregoing description of the procedures and record-keeping with respect to beneficial ownership interests in the Series 10 Notes, payment of the principal, interest and other payments with respect to the Series 10 Notes to DTC Participants or Beneficial Owners, confirmation and transfer of beneficial ownership interests in such Series 10 Notes and other related transactions by and between DTC, the DTC Participants and the Beneficial Owners is based solely on information provided by DTC. Accordingly, no representations can be made concerning these matters and neither the DTC Participants nor the Beneficial Owners should rely on the foregoing information with respect to such matters, but should instead confirm the same with DTC or the DTC Participants, as the case may be.

The Water Authority cannot and does not give any assurances that DTC will distribute to DTC Participants, or that DTC Participants or others will distribute to the Beneficial Owners, payments of principal and interest with respect to the Series 10 Notes paid or any notices or that they will do so on a timely basis or will serve and act in the manner described in this Offering Memorandum. The Water Authority is not responsible or liable for the failure of DTC or any DTC Participant or Indirect Participant to make any payments or give any notice to a Beneficial Owner with respect to the Series 10 Notes or any error or delay relating thereto.

So long as Cede & Co. is the registered owner of the Series 10 Notes, as nominee of DTC, references herein to the Holders or registered holders of the Series 10 Notes, shall mean Cede & Co., as aforesaid, and shall not mean the Beneficial Owners of the Series 10 Notes.
Attention: Administrative & Finance Committee

General Manager’s Recommended Budget for Fiscal Years 2020 and 2021. (Presentation)

Purpose
The General Manager’s Recommended Budget for Fiscal Years 2020 and 2021 reflects the Water Authority’s continued commitment to innovation and leadership on water resource issues locally, statewide and across the Southwest, 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 2019-2023 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 23, and the Acting General Manager will present an overview of the Recommended Budget for Fiscal Years 2020 and 2021 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 23, 2019
General Manager to present budget overview
Set public hearing for Calendar Year 2020 rates and charges

June 11 & 13, 2019
1:30 to 4:00 p.m.
Special Administrative and Finance Committee Meetings – budget hearings to 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 27, 2019
Consideration to adopt Fiscal Years 2020 and 2021 budget
Hold public hearing on Calendar Year 2020 proposed rates and charges
Consideration to adopt Calendar Year 2020 proposed rates and charges

Prepared by: Liana M. Whyte, Budget & Treasury Manager
Reviewed by: Lisa Marie Harris, Director of Finance/Treasurer
Approved by: Dan Denham, Assistant General Manager
May 15, 2019

Attention: Administrative and Finance Committee

Resolution setting a Public Hearing date for Rates and Charges. (Action)

Purpose
The purpose of this report is to review the recommended rates and charges for calendar year 2020 and to adopt a resolution setting a time and place for a public hearing for the consideration and adoption of the recommended rate and charge increases for water, services and facilities.

Staff recommendation
1. Adopt Resolution Number 2019-__ setting the time and place for a public hearing on June 27, 2019, 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 recommended rates and charges to be effective January 1, 2020.

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

Fiscal Impact
The recommended 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 recommended M&I total cost of water increase for CY 2020 is $65/AF or 4.8% for untreated water and $69/AF or 4.3% for treated water. In order to mitigate upward rate pressures, a $22 million withdraw from the Rate Stabilization Fund (RSF) is forecast for FY 2019. These increases are further mitigated by a projected RSF draw of approximately $38 million in FY 2020, as well as up to 10,000 AF of Operational Storage.

Executive Summary
- Treated Water Cost increasing from the CY 2019 rate of $1,617 to $1,686 in CY 2020 rates, a $69 or 4.3% increase.
- Untreated Water Cost increasing from the CY 2019 cost of $1,341 to $1,406 in CY 2020 rates, a $65 or 4.8% increase.
- Rate Stabilization Fund: A $22 million drawdown is forecasted in FY 2019, and an additional $38 million drawdown in FY 2020 to offset what would have been higher rate increases.
- Infrastructure Access Charge: For CY 2020, the IAC will increase from its current level of $3.01 per meter equivalent to $3.66 per meter equivalent.
- Supply Reliability Charge: For CY 2020, the SRC will increase from its current level of $30.2M to $37.4M.
Background

Metropolitan Water Rate Increases

On April 10, 2018, MWD’s Board of Directors adopted rate and charge increases for calendar years 2019 and 2020. For CY 2020 this resulted in increases of 2.7% and 3.3% to volume-sensitive treated and untreated Full Service MWD supplies, respectively. MWD’s non-volume sensitive Readiness-to-Serve (RTS) and Capacity Charges, which are passed straight through to the Water Authority’s Member Agencies, increased by 2.3% and 2.3% respectively. While the overall cost of MWD supplies experienced a modest increase, the costs of transporting the Quantification Settlement Agreement (QSA) water to the San Diego region will increase by 6.4% in CY 2020 due to the increases in the System Access Charge and the System Power Charge.

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 principles 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 transfer. 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**

The Water Authority engaged Carollo Engineers (Carollo) to perform a Cost of Service Study to review, calculate, and validate the Recommended Calendar Year (CY) 2020 water rates and charges. In addition to this scope, Carollo was working with the Water Authority to replace the aging Financial Rate Modeling Program (FRMP). In meeting this scope, Carollo delivered an updated rate model and reviewed the Water Authority’s existing cost of service methodology and financial model for continued compliance with California legal requirements, as described in the Cost of Service Study Section 2.4, American Water Works Association cost of service standards, industry best practices, and Water Authority Board Policies, as described in the Cost of Service Study Section 2.3. Together, these establish the cost of service standard that is referenced throughout the report.

**Water Authority Staff participates with Member Agencies on Cost of Service Activities**

Beginning in January 2019, Member Agencies, Water Authority staff and the Cost of Service Consultant have participated in meetings, presentations, and workshops in support of the CY 2020 cost of service and upcoming rates. The six presentations included an overview of the cost of service process, a comprehensive review of water rate methodologies, board policies, and rate compliance with industry standards and law, as well as detailed discussion on rate assumptions that determine the net revenue requirement.

**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.
Discussion

There are four primary drivers behind the recommended CY 2020 rate and charge increases. The drivers are:

- **MWD Rate and Charge Increases** – The cost of purchasing Full Service Untreated and Treated water increased 3.3% ($24/AF) and 2.7% ($28/AF) respectively. The cost to transport QSA water to the service area increased 6.4% or $29/AF. MWD’s Readiness-to-Serve and Capacity Charges both increased 2.3%, with the amount allocated to the Water Authority set at $25.6 million ($12.9 million net Standby Charge credit1) and $8.0 million, respectively. Translated to a per acre-foot costs, the RTS and Capacity Charge equate to $342/AF and $106/AF of MWD deliveries, respectively. The RTS allocation is based on the proportion of deliveries over the last ten years, and the Capacity Charge is allocated based on the demand placed on MWD’s system during the peak demand day for each of the last three years. As directed by the Board, these charges are passed straight through to Member Agencies and are not part of the Water Authority’s net revenue requirement, or reflected in rates and charges.

- **Scheduled Increase in IID Water Transfer Deliveries** – In CY 2020, the IID water transfer deliveries will increase by 32,500 AF, which results in a $13.2M increase in the total cost of water. Deliveries will continue to ramp up through 2021 until the primary transfer volume is stabilized at 200,000 AF.

- **Reduced Water Sales Environment** – It is anticipated that, while the region will continue to experience modest recovery in total demand from the period of emergency water use regulations, water sales are expected to be flat due to member agency utilization of local supplies.

- **Utilization of the Rate Stabilization Fund** - CY 2020 rate and charge increases are being mitigated by a projected $38M draw from the RSF in FY 2020, which results in approximately $95/AF of rate relief. The draw helps offset the net impact of increases to MWD rates, the volumetric increase in the IID transfer, and reduced water sales.

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 CY 2020 recommended rates and charges are within that guidance. The Water Authority’s total cost of untreated water is recommended to increase by 4.8% and the cost for treated water is recommended to increase by 4.3%. It should be noted that the actual cost of water will vary by member agency based upon each agency’s fixed charge allocations.

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1 The Standby Charge is collected on property tax rolls. Any Standby Charge amounts collected are applied as a credit against the participating member agency’s RTS Charge obligation.
Setting Water Rates and Charges

On an annual basis, the Water Authority staff develops recommended 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 recommended CY 2020 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 draft Carollo report is provided as Attachment 2.

Description of Recommended Rates and Charges

Table 2 summarizes the Water Authority’s recommended CY 2020 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 2, MWD’s RTS and Capacity Charges are passed through to Water Authority member agencies.

<table>
<thead>
<tr>
<th>Water Authority Rates and Charges</th>
<th>CY 2018 Previous</th>
<th>CY 2019 Current</th>
<th>CY 2020 Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melded Supply Rate ($/AF)</td>
<td>$894</td>
<td>$909</td>
<td>$925</td>
</tr>
<tr>
<td>Melded Treatment Rate ($/AF)</td>
<td>$300</td>
<td>$276</td>
<td>$280</td>
</tr>
<tr>
<td>Transportation Rate ($/AF)</td>
<td>$115</td>
<td>$120</td>
<td>$132</td>
</tr>
<tr>
<td>Untreated Transitional Special Agricultural Water Rate ($/AF)(^1)</td>
<td>$695</td>
<td>$731</td>
<td>$755</td>
</tr>
<tr>
<td>Treated Transitional Special Agricultural Water Rate ($/AF)(^1)</td>
<td>$995</td>
<td>$1,007</td>
<td>$1,035</td>
</tr>
<tr>
<td>Infrastructure Access Charge(^2)</td>
<td>$3.01/ME(^4)</td>
<td>$3.01/ME(^4)</td>
<td>$3.66/ME(^4)</td>
</tr>
</tbody>
</table>
Table 3 summarizes MWD’s rates and charges that the Water Authority passes through to its member agencies.

<table>
<thead>
<tr>
<th>MWD Rates and Charges</th>
<th>CY 2018 Previous</th>
<th>CY 2019 Current</th>
<th>CY 2020 Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated Tier 2 Supply Rate $/AF</td>
<td>$781</td>
<td>$817</td>
<td>$842</td>
</tr>
<tr>
<td>Replenishment Water Rate Untreated ($/AF)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Replenishment Water Rate Treated ($/AF)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>MWD Capacity Charge</td>
<td>$9,902,340</td>
<td>$8,262,020</td>
<td>$8,019,440</td>
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<tr>
<td>Readiness-to-Serve Charge</td>
<td>$16,291,858</td>
<td>$14,870,729</td>
<td>$12,909,485</td>
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</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. Net of Stand-by-Charge and Admin Fee.

The following rates and charges will be effective July 1, 2019:

**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 2019-2020. The recommended Standby Availability Charge rate would be effective July 1, 2019.

**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 updated Annexation Processing Fee of $10,749 per application would be effective July 1, 2019.

The following rates and charges are being recommended effective on January 1, 2020:
Melded Untreated Supply Rate (exclusive of TSAWR 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 4 on the following page shows the calculation of the Melded Supply Rate.

Table 4 – Untreated Melded Supply Rate Calculation

<table>
<thead>
<tr>
<th>CY 2020</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acre-Foot Sales (000's)</strong></td>
<td></td>
</tr>
<tr>
<td>MWD Tier I Deliveries</td>
<td>37.4</td>
</tr>
<tr>
<td>IID Deliveries</td>
<td>192.5</td>
</tr>
<tr>
<td>Canal Water Deliveries</td>
<td>77.7</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>359.6</td>
</tr>
</tbody>
</table>

| **Water Purchase Cost (in Millions)** |        |
| MWD Tier 1 Water Purchases* | $29.0  |
| IID Water Purchases         | 223.6  |
| Canal Water Purchases       | 38.7   |
| Operational Storage Utilization | 0.0    |
| Desalinated Water Supply Costs | 103.1  |
| **Subtotal Water Purchases** | $394.4 |

| **Additional Costs (in Millions)** |        |
| Supply Revenue Requirement      | $16.8  |
| Pension Liability               | 0.8    |
| QSA Environmental**             | 0.0    |
| **Subtotal Other Costs**        | $17.2  |

| **Offsetting Revenues (in Millions)** |        |
| Supply Reliability Charge Revenues | ($37.4) |
| Cash and Reserves                 | (41.6)  |
| **Total Net Supply Costs****      | $332.6  |

| **A/F RATE (Total Net Supply Cost /Total AF Sales)** | $925/AF |
| *Includes system losses due to meter inaccuracies of +/-0.5 percent. |
| ** Cost recovery deferred to provide CY 2020 rate relief. |

Based upon these options, the Melded Supply Rate would increase from its current level of $909/AF to $925/AF in CY 2020.
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 $731/AF to $755/AF in CY 2020. In addition, the treated TSAWR will increase from $1,007/AF in CY 2019 to $1,035/AF in CY 2020. 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 2020, the Melded Treatment Rate will increase from its current level of $276/AF to $280/AF. In CY 2020, the Water Authority is forecasting an increase in treated production from 66,358 AF in CY 2019 to 68,884 AF. This represents a 4% increase in AF, while the Water Authority’s related treatment costs are only forecast to increase 1.4%. At these Water Authority treatment levels, Twin Oaks represents a discount to the treatment surcharge of $323/AF levied by MWD (versus the recommended melded rate of $280/AF). Table 5 shows the calculation of the Melded Treatment Rate.

**Table 5 – Melded Treatment Rate Calculation**

<table>
<thead>
<tr>
<th>Acre-Foot Sales (A/F) (000's)*</th>
<th>CY 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD</td>
<td>34.0</td>
</tr>
<tr>
<td>Water Authority</td>
<td>68.9</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>160.9</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost (in Millions)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD</td>
<td>$11.0</td>
</tr>
<tr>
<td>Water Authority</td>
<td>20.3</td>
</tr>
<tr>
<td>Helix</td>
<td>2.0</td>
</tr>
<tr>
<td>Desalinated Water**</td>
<td>11.8</td>
</tr>
<tr>
<td><strong>TOTAL TREATMENT COSTS</strong></td>
<td><strong>$45.1</strong></td>
</tr>
</tbody>
</table>

**A/F RATE (Total Treatment Costs/Total A/F Sales)** $280/AF

*Includes treated water deliveries intended for agriculture
**Based on recommended cost of treated water (42,000AF*$280 = $11.8M)

**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 2020, the Transportation Rate will increase from its current level of $120/AF to $132/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. Starting with the CY 2020 rates, the infrastructure access charge will increase as part of a two-year ramp up. This ramp up will facilitate the Water Authority’s transition from a partially debt-funded to a wholly PayGo funded capital program. The increases will also enable greater flexibility in using reserves as potential revenue shortfalls are limited. The CY 2020 IAC will increase to $3.66/ME and the CY 2021 charge is currently forecasted to increase to $4.43/ME.

As the infrastructure access charge is a revenue offset, any fee of less than the recommended $3.66/ME would result in a corresponding increase to water rates. As rate revenue is subject to demand volatility, the Water Authority’s forecasted drawdown of reserves would need to be reassessed.

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 2020, the Customer Service Charge will remain at $25.6M.

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 2020, the Storage Charge will remain constant at its CY 2019 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 2020, the SRC will increase from its current level of $30.2M to $37.4M.

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. The change reflects an increase of 0.64% in the Engineering News Record - Los Angeles Consumer Cost Index.

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 $5,267/ME for each new meter equivalent will be administratively adjusted to $5,301/ME effective January 1, 2020.
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 $146/ME for each new meter equivalent will be administratively adjusted to $147/ME effective January 1, 2020.

Table 6 presents a summary of the CY 2020 Capacity Charge schedule that will be in effect January 1, 2020.

<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>$5,301</td>
<td>$147</td>
</tr>
<tr>
<td>1&quot;</td>
<td>1.6</td>
<td>8,482</td>
<td>235</td>
</tr>
<tr>
<td>1.5&quot;</td>
<td>3</td>
<td>15,903</td>
<td>441</td>
</tr>
<tr>
<td>2&quot;</td>
<td>5.2</td>
<td>27,565</td>
<td>764</td>
</tr>
<tr>
<td>3&quot;</td>
<td>9.6</td>
<td>50,890</td>
<td>1,411</td>
</tr>
<tr>
<td>4&quot;</td>
<td>16.4</td>
<td>86,936</td>
<td>2,411</td>
</tr>
<tr>
<td>6&quot;</td>
<td>30</td>
<td>159,030</td>
<td>4,410</td>
</tr>
<tr>
<td>8&quot;</td>
<td>52</td>
<td>275,652</td>
<td>7,644</td>
</tr>
<tr>
<td>10&quot;</td>
<td>78</td>
<td>413,478</td>
<td>11,466</td>
</tr>
<tr>
<td>12&quot;</td>
<td>132</td>
<td>699,732</td>
<td>19,404</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.¹

MWD Capacity Charge. For CY 2020, the Capacity Charge is $8,800 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 $8,019,440. 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.

¹ The Water Authority has challenged MWD’s cost of service methodology associated with these charges.
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 $133 million to $136 million. The Authority’s share is set at $25,635,294 for Fiscal Year 2019-2020. After credits from the MWD Standby Charge, and administrative costs, the net Water Authority share is $12,909,485. 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 27, 2019.

Prepared by: David Gore, Senior Management Analyst
Reviewed by: Pierce Rossum, Rate and Debt Manager
Reviewed by: Lisa Marie Harris, Director of Finance/Treasurer
Approved by: Dan Denham, Assistant General Manager

Attachments:
Attachment 1 - 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; (3) Changes to the system and treatment capacity charges; and (4) Changes to the Rates Stabilization Fund Policy.
Attachment 2 - Carollo’s draft Cost of Service Study for Calendar Year 2020 Rates and Charges
RESOLUTION NO. 2019-

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 27, 2019, 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 27, 2019, at 9:00 a.m. or as soon thereafter as may practically 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 15, 2019 on file with the Clerk of the Board.
The following rates and charges will be effective July 1, 2019:

**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 2019-2020. The Standby Availability Charge rate is effective July 1, 2019. 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 Application Fee may increase from its current level of $10,681 to $10,749 effective July 1, 2019.

The following rates and charges are being proposed effective on January 1, 2020:

**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 2020, the Melded Supply Rate may increase from its current level of $909/AF to $925/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 2020, the Melded Treatment Rate may decrease from its current level of $276/AF to $280/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 2020, the Transportation Rate may increase from its current level of $120/AF to $132/AF.

**Transitional Special Agricultural Water Program Rates (TSAWR).** The untreated TSAWR may increase from its current level of $731/AF to $755/AF in CY 2020. The treated TSAWR may increase from $1,007/AF in CY 2019 to $1,035/AF in CY 2020.
**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 2020, the infrastructure access charge may remain at its current level of $3.66/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 2020, the Customer Service Charge is recommended to remain at its CY 2019 level of $25.6M.

**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 2020, the Storage Charge will remain constant at its CY 2019 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 2020, the SRC may increase from its current level of $30.2M to $37.4M.

**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 $5,267/ME for each new meter equivalent will be administratively increased to $5,301/ME. The adjustment will be effective January 1, 2020.

**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 $146/ME for each new meter equivalent will be administratively adjusted to $147/ME. The adjustment will be effective January 1, 2020.
The following MWD rates and charges are passed on directly or allocated to the member agencies as follows:

**MWD Capacity Charge.** For CY 2020, the Capacity Charge is $8,800 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 for the Water Authority will be set at $8,019,440. 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 $133 million to $136 million. The Water Authority’s share will be set at $25,635,294 for Fiscal Year 2019-2020. After credits from the MWD Standby Charge, and administrative costs, the net Water Authority will likely be $12,175,214. 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 Nelson,
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 23rd day of May 2019.

AYE:

Unless noted below all Directors voted aye.

NOES:

ABSTAIN:

ABSENT:

___________________________
Jim Madaffer, Chair

ATTEST:

___________________________
Christy Guerin, Secretary

I, Melinda Nelson, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution No. 2019-____ was duly adopted at the meeting of the Board of Directors on the date stated above.

___________________________
Melinda Nelson
Clerk of the Board
Cost of Service Study

DRAFT | May 2019

San Diego County Water Authority
Calendar Year 2020 Rates and Charges
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Section 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, Inc. (Carollo) to perform a Cost of Service Study to review, calculate, and validate the proposed Calendar Year (CY) 2020 water rates and charges. In addition to this scope, Carollo worked with the Water Authority to develop a new streamlined model to replace its existing Financial Rate Modeling Program (FRMP), which after years of usage became overly complex and cumbersome. In meeting this scope, Carollo reviewed and updated the existing CY 2019 rate analysis 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 2020 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 previous Cost of Service Reports (2014, 2016, and 2018). 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 Rates 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 (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 (three years for customer service and storage and five years for supply reliability charges). The volumetric 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, 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 water from the Water Authority.

The Water Authority also imposes System Capacity and Treatment Capacity Charges on users that obtain new or updated water meters. These charges fairly and reasonably recover the costs associated with providing additional system capacity for new users. In addition, the Water Authority collects additional 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, develop policies, and 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, provide operational flexibility and drought protection.

- **Supply Reliability Charge:** The Supply Reliability Charge is a 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 reliable local sources 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 QSA, and supply and acquisition costs related to the Poseidon water purchase agreement associated with the Carlsbad Desalination Project.

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1 Customer Service Charge allocation excludes member agency wheeled water.
• **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 cost of treating water. The Melded Municipal and Industrial (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.

### 1.2 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 process 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 remain 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.

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*Costs 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.*
1.3 Carollo Independent Review Process

Carollo independently performed Steps 1 through 4 above when evaluating the proposed CY 2020 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 to 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 Fiscal Year (FY) 2019, 2020, and 2021 cost projections provided by the Water Authority’s Finance Department, the 2018 Comprehensive Annual Financial Report (CAFR), 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 previous 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. As part of the FY 2020 and FY 2021 budget development process, Water Authority staff updated these internal allocations to reflect any forecasted change in service or operations.

The details of this analysis are presented within the body of this report.

1.4 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 confirms that the Water Authority’s cost of service approach and the proposed CY 2020 rates and charges as determined in this report comply with cost of service principles, industry best practices, and applicable legal requirements.

Table 1.1 presents the Water Authority’s proposed CY 2020 rates and charges.

<table>
<thead>
<tr>
<th>Water Rates and Charges</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service Charge ($M)</td>
<td>$25.6</td>
</tr>
<tr>
<td>Storage Charge ($M)</td>
<td>$65.0</td>
</tr>
<tr>
<td>Supply Reliability Charge ($M)</td>
<td>$37.4</td>
</tr>
<tr>
<td>Melded M&amp;I Supply Rate ($/AF)</td>
<td>$925</td>
</tr>
<tr>
<td>Melded M&amp;I Treatment Rate ($/AF)</td>
<td>$280</td>
</tr>
<tr>
<td>Transportation Rate ($/AF)</td>
<td>$132</td>
</tr>
</tbody>
</table>
Section 2

INTRODUCTION

Carollo conducted an independent review of the Water Authority’s CY 2020 water rates and charges. The purpose of this Cost of Service Study is to calculate and affirm the proposed CY 2020 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 consists of the following steps:

- **Revenue Requirement Analysis**
  
  *Review 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 2020 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 principal 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 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 and redesigned the existing 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 amendment, 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 amendment 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 borrowing rates. The Board Action, implementing the RMWG Financial Policy Proposal, is included as Appendix C.

Based on a recommendation stemming from the CY 2019 Rate Study, the Water Authority Board approved Ordinance No. 2018-03 to update the RSF methodology to better align with current water demand conditions and continued improvements in water use efficiency.

2.3.4 Administrative and Finance Committee Recommendations (2015)

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 charges 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.
Section 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 2020 revenue requirements.

<table>
<thead>
<tr>
<th>Revenue Component</th>
<th>CY 2020 Total</th>
<th>Description</th>
<th>Report Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Costs</td>
<td>$55.0</td>
<td>The Operating Department's 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>$137.2</td>
<td>The Water Authority uses debt to fund capital and refund previous debt (long-term debt only).</td>
<td>3.3.1</td>
</tr>
<tr>
<td>Offsetting Revenues</td>
<td>$(93.9)</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>$98.2</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>$15.0</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>$113.3</td>
<td>Revenue requirements including miscellaneous cost recovery.</td>
<td></td>
</tr>
<tr>
<td>Remaining Coverage &amp; Reserve Driven Needs</td>
<td>$55.0</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>$168.2</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 2020, the Water Authority's operating costs are projected to be $55.0 million.

<table>
<thead>
<tr>
<th>Operating Costs</th>
<th>FY 2020 &amp; 2021 Expenditures$1(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2020 Operating Budget</td>
<td>$55.9</td>
</tr>
<tr>
<td>FY 2021 Operating Budget</td>
<td>$54.1</td>
</tr>
<tr>
<td>Total FY 2020 and 2021 Operating Costs used for rates and charges</td>
<td>$110.0</td>
</tr>
<tr>
<td>Calculated CY 2020 Operating Costs$2(2)</td>
<td>$55.0</td>
</tr>
</tbody>
</table>

Notes:
(1) Presented in million dollars, calculations in tables may not sum due to rounding.
(2) CY 2020 Operating Costs are calculated by averaging the Total FYs 2020 and 2021 Operating Costs used for rates and charges, 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 $15.0 million in CY 2020, which is allocated to rate categories based on the nature of the cost that was incurred. Miscellaneous Cost Recovery includes the following:

**Emergency Storage Project Evaporation & System Losses:** This cost accounts for the cost of purchased water that is lost due to surface water evaporation or other system losses. As this is a function of storage, the $9.2 million cost has been allocated to the storage rate component and will be recovered through the CY 2020 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. A total of $5.1 million will be recovered through the CY 2020 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 $0.7 million will be recovered through the CY 2020 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. While the Water Authority has historically utilized both PAYGO and debt financing to fund capital improvements, the forecasted CIP program is 100 percent PAYGO funded (rates or reserves).

3.3.1 Annual Debt Service

The Water Authority has adopted a comprehensive set of financial policies. The Debt Management Policy sets forth comprehensive guidelines for the issuance and management of the Water Authority’s debt.

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 did not have the financial reserves available that would otherwise be required to solely fund the CIP nor would it have been advisable 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 2020 long-term debt service expenditure for allocation is $123.2 million. Short-term debt service expenditures, excluding Helix, for FY 2020 are projected at $12.36 million. 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 has historically augmented 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 $81.2 million in cash expenditures for capital projects in FY 2020. No additional debt is forecasted in the near-term.
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 2020 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>$16.61</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>$0.46</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>$11.11</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. It 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>$0.69</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>$13.87</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>$40.83</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. Amount varies from Table 3-4 due to account growth.</td>
</tr>
</tbody>
</table>
Table 3.3  

<table>
<thead>
<tr>
<th>Revenue Component</th>
<th>CY 2020 Revenues</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Earnings</td>
<td>$3.40</td>
<td>Interest earnings on operating funds.</td>
</tr>
<tr>
<td>Specific Revenues</td>
<td>$6.07</td>
<td>Revenues reflect directly allocated revenues for the reimbursement of previous capital outlays or reimbursements. For example, one revenue reflects a 25-year payback to customer service for the upfront investment in the implementation of Twin Oaks Valley Water Treatment Plant.</td>
</tr>
<tr>
<td>Misc. Revenue</td>
<td>$0.87</td>
<td>Includes other nominal revenues.</td>
</tr>
<tr>
<td><strong>Total Offsets</strong></td>
<td><strong>$93.91</strong></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 has 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 equals the forecasted four-year average of debt service (long- and short-term debt) plus 80 percent of forecasted four-year average O&M costs, times 25 percent, 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 to 25 percent multiplied by 110 percent. This accounts for potential fluctuations in expenditures and offsetting revenues, as well as costs yet to be identified in the four-year budget forecast.

As the Water Authority is forecasting 100 percent PAYGO, as opposed to historically issuing some debt, the IAC should also reflect the fixed costs related to system maintenance and replacement (PAYGO). Based on conversations with Water Authority staff, the method of funding capital (debt or cash) should not be viewed differently as both are a fixed cost to the agency. As such, a two-year ramp up of IAC is recommended to enable recovery of fixed costs related to PAYGO funding, which is the main driver behind the IAC increase.

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 $40.49 million in revenue offsets against the required water rate and charge 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 2020, the monthly IAC is proposed at $3.66 per household meter equivalent.

Table 3.4 illustrates the calculation of the proposed IAC.
Table 3
Infrastructure Access Charge Calculation (in $ millions)

<table>
<thead>
<tr>
<th>Description</th>
<th>4-Year Average FY 2020 – FY 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-Term Debt Service</td>
<td>$125.63</td>
</tr>
<tr>
<td>Fixed Capital Cost (PAYGO) Ramp Up</td>
<td>33.00</td>
</tr>
<tr>
<td>Total Short Term Debt Service and Costs</td>
<td>13.95</td>
</tr>
<tr>
<td>Administration and Maintenance times 80%</td>
<td>44.61</td>
</tr>
<tr>
<td>Total Local Supply Development Costs times 80%</td>
<td>4.07</td>
</tr>
<tr>
<td>ESP Evaporation and System Losses times 80%</td>
<td>7.84</td>
</tr>
<tr>
<td>Desalination FY Pipeline Cost</td>
<td>9.97</td>
</tr>
<tr>
<td><strong>Total Fixed Costs</strong></td>
<td><strong>$239.09</strong></td>
</tr>
<tr>
<td><strong>Total Fixed Costs Times 110% Times 25%</strong></td>
<td><strong>$65.75</strong></td>
</tr>
<tr>
<td>Less:</td>
<td></td>
</tr>
<tr>
<td>Other Tax Receipts</td>
<td>($14.15)</td>
</tr>
<tr>
<td>Standby Availability Charge Rev</td>
<td>(11.11)</td>
</tr>
<tr>
<td><strong>Remaining Fixed Cost Need (IAC Revenue)</strong></td>
<td><strong>$40.49</strong></td>
</tr>
<tr>
<td>Average Number of Meter Equivalents Used in Calculation</td>
<td>923,673</td>
</tr>
<tr>
<td><strong>Proposed CY 2020 IAC Per Meter Equivalent (Monthly in dollars)</strong></td>
<td><strong>$3.66</strong></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

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.

3.7.1 Debt Service Coverage Ratio

The Water Authority has a legally required minimum bond coverage ratio of 1.20x on senior lien debt service \(^3\). 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 3.1, the Water Authority is projected to meet the Board policy target of 1.50x for FY 2020. The last time the Water Authority fell short of the Board target was in FY 2012 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.

![Senior Debt Service Coverage](image)

Figure 3.1 Senior Debt Service Coverage

3.7.2 Rate Stabilization Fund (RSF)

In 2006, the Board strengthened key financial metrics, including establishing a target funding level for the RSF that better protected the Water Authority against the financial impact of reduced water sales. The Board revisited this Policy in 2018 with the adoption of Ordinance No. 2018-03.

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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.
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 in which 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.

Reduced water sales were based on the assumption of 2.5 years of wet weather (3.5 years max). At that time (2006), it was calculated that during a wet weather period, the Water Authority would experience a 25 percent reduction in water sales. However, in 2018 Carollo and staff recommended this policy be revised to 15 percent reduction in sales.

This change in the reserve policy was driven by continued improvements in water use efficiency. A 47 percent decline in per capita water use from 1990 to 2017 in the Water Authority’s service area is an indicator of increasingly efficient water use practices throughout the region. As water use efficiency continues, regional water demand “hardens,” becoming less susceptible to significant demand reduction due to wet weather. Carollo recommended, and the Board adopted, a staggered reduction process to draw down the reserve gradually over the next few years and provide greater rate smoothing. Figure 3.2 details the forecasted Rate Stabilization Fund levels based on the updated RSF methodology and recommended rates. While the RSF ending fund balance is forecasted to exceed this maximum level in FY 2019, planned continued withdrawals put the ending balance below target levels beginning in FY 2020 with plan to begin rebuilding the fund in FY 2023. As the RSF policy defines balances below the target level are to be replenished within three years, forecasted balances will regularly reviewed as part of the annual rate setting process.

As a result of recommended rate methodology and the Water Authority’s desire to moderate rate increases, the Water Authority has forecasted a withdrawal of roughly $22 million in FY 2019. It is forecasted that the Water Authority will continue planned draws on the RSF as the methodology fully resets and as cost pressures necessitate.

For CY 2020, the Water Authority’s revenue requirements continue to be coverage driven. In order to meet this policy bond coverage target, the Water Authority must collect an additional $55 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.
Section 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 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. Costs 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, and 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, as well as desalinated water costs allocated to this rate and may recover certain other costs associated with the delivery of treated water. As treated water is a result of the desalination process, the treatment rate is also used a proxy for deriving the treatment cost associated with production of the desalination supply. The resulting cost is also recovered through the Treatment Rate.

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. 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 principles 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 2020 and FY 2021 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. Based on Carollo’s review, 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 2020 operating costs to each rate category based upon the total weighted average FY 2020 and FY 2021 expenditure allocation.

<table>
<thead>
<tr>
<th>CY 2020 Allocation</th>
<th>CY 2020 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>$54.99</td>
<td>$19.49</td>
<td>$4.45</td>
<td>$9.78</td>
<td>$20.38</td>
<td>$0.89</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 2020 debt service by functional rate category.

<table>
<thead>
<tr>
<th>Revenue Requirement(2)</th>
<th>FY 2020 Total</th>
<th>Customer Service</th>
<th>Storage</th>
<th>Supply</th>
<th>Transportation(1)</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTD Service</td>
<td>$124.34</td>
<td>$10.65</td>
<td>$53.27</td>
<td>$10.38</td>
<td>$41.05</td>
<td>$8.99</td>
</tr>
<tr>
<td>STD Service</td>
<td>$12.82</td>
<td>$1.10</td>
<td>$5.49</td>
<td>$1.07</td>
<td>$4.23</td>
<td>$0.93</td>
</tr>
<tr>
<td>Total Debt Service</td>
<td>$137.16</td>
<td>$11.74</td>
<td>$58.77</td>
<td>$11.45</td>
<td>$45.28</td>
<td>$9.92</td>
</tr>
</tbody>
</table>

Notes:
(1) Includes Super Subordinate rate for Desalination Pipeline (Transportation - LTD).
(2) May not sum due to rounding.
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. Table 4.3 provides the allocation factors that are used to distribute each offsetting revenue.

<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>9.2%</td>
<td>46.2%</td>
<td>9.0%</td>
<td>35.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Treatment Only</td>
<td>Treatment Capacity Charge</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Total Capital</td>
<td>Water Standby Charges</td>
<td>8.6%</td>
<td>42.8%</td>
<td>8.3%</td>
<td>33.0%</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>PAYGO Earning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Misc. Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
(1) These allocation factors do not cover all offsetting revenues, notably those that are allocated to specific functions.

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.

Some non-rate revenues are directly attributable to a specific function. These specific revenues are thus directly allocated to the function that is receiving the direct benefit or provided the upfront capital outlay to complete the project. This includes, but is not limited to, the Twin Oak Reimbursement, Hydroelectric revenues, and desalination reimbursements.
Table 4.4 illustrates the offsetting revenues and allocated offsets to each rate component.

<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>$16.61</td>
<td>$1.53</td>
<td>$7.67</td>
<td>$1.49</td>
<td>$5.91</td>
<td>$-</td>
</tr>
<tr>
<td>Standby Availability Charge</td>
<td>11.11</td>
<td>0.95</td>
<td>4.76</td>
<td>0.93</td>
<td>3.67</td>
<td>0.80</td>
</tr>
<tr>
<td>Treatment Capacity Charge</td>
<td>0.46</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.46</td>
</tr>
<tr>
<td>PAYGO Earnings</td>
<td>0.69</td>
<td>0.06</td>
<td>0.30</td>
<td>0.06</td>
<td>0.23</td>
<td>0.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating Offsets</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>Property Tax</td>
<td>$13.87</td>
<td>$2.07</td>
<td>$4.41</td>
<td>$1.63</td>
<td>$5.53</td>
<td>$0.24</td>
</tr>
<tr>
<td>IAC</td>
<td>40.83</td>
<td>6.08</td>
<td>12.98</td>
<td>4.78</td>
<td>16.29</td>
<td>0.70</td>
</tr>
<tr>
<td>Interest Earnings</td>
<td>3.40</td>
<td>0.51</td>
<td>1.08</td>
<td>0.40</td>
<td>1.36</td>
<td>0.06</td>
</tr>
<tr>
<td>General Misc. Revenue</td>
<td>0.87</td>
<td>0.13</td>
<td>0.28</td>
<td>0.10</td>
<td>0.35</td>
<td>0.01</td>
</tr>
<tr>
<td>Specific. Revenues</td>
<td>6.07</td>
<td>4.70</td>
<td>-</td>
<td>0.09</td>
<td>1.27</td>
<td>0.02</td>
</tr>
<tr>
<td>Total Offsets</td>
<td>$93.91</td>
<td>$16.03</td>
<td>$31.47</td>
<td>$9.47</td>
<td>$34.61</td>
<td>$2.33</td>
</tr>
</tbody>
</table>

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. 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>
<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 Development</td>
<td>5.06</td>
<td>5.06</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ESP Evaporation &amp; Losses</td>
<td>9.23</td>
<td>-</td>
<td>9.23</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Expense</strong></td>
<td><strong>$15.03</strong></td>
<td><strong>$5.06</strong></td>
<td><strong>$9.23</strong></td>
<td><strong>$-</strong></td>
<td><strong>$-</strong></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 revenue requirements defined above, the Water Authority must generate an additional $55 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>
<thead>
<tr>
<th>Remaining Coverage &amp; Reserve Driven Needs</th>
<th>CY 2020 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>54.95</td>
<td>5.33</td>
<td>24.02</td>
<td>5.01</td>
<td>18.95</td>
<td>1.63</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.
## Table 4

Revenue Requirements Summary (in $ millions)

<table>
<thead>
<tr>
<th>Revenue Requirement</th>
<th>CY 2020 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>$54.99</td>
<td>$19.49</td>
<td>$4.45</td>
<td>$9.78</td>
<td>$20.38</td>
<td>$0.89</td>
</tr>
<tr>
<td>Debt Service (LTD + STD)</td>
<td>137.16</td>
<td>11.74</td>
<td>58.77</td>
<td>11.45</td>
<td>45.28</td>
<td>9.92</td>
</tr>
<tr>
<td>Offsetting Revenues</td>
<td>(93.91)</td>
<td>(16.03)</td>
<td>(31.47)</td>
<td>(9.47)</td>
<td>(34.61)</td>
<td>(2.33)</td>
</tr>
<tr>
<td>Operating Rev Req Before Coverage</td>
<td>98.24</td>
<td>15.20</td>
<td>31.75</td>
<td>11.75</td>
<td>33.06</td>
<td>8.48</td>
</tr>
<tr>
<td>Additional Expenses</td>
<td>15.03</td>
<td>5.06</td>
<td>9.23</td>
<td>-</td>
<td>-</td>
<td>0.74</td>
</tr>
<tr>
<td>O&amp;M Rev Req Before Coverage</td>
<td>113.27</td>
<td>20.26</td>
<td>40.98</td>
<td>11.75</td>
<td>31.06</td>
<td>9.22</td>
</tr>
<tr>
<td>Remaining Coverage &amp; Reserve Driven Needs</td>
<td>54.95</td>
<td>5.33</td>
<td>24.02</td>
<td>5.01</td>
<td>18.95</td>
<td>1.63</td>
</tr>
</tbody>
</table>

| Water Sales Rev Req                      | $168.21       | $25.60           | $65.00  | $16.76 | $50.00         | $10.85    |
Section 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 2020 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 purchases.

5.1.1 Customer Service Charge

Based on the cost of service analysis, $25.6 million must be recovered through the customer service water rate in CY 2020. 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 purchases, excluding member agency wheeled water.

<table>
<thead>
<tr>
<th>CUSTOMER SERVICE REVENUE REQUIREMENT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD &amp; STD)</td>
<td>$11.74</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures</td>
<td>19.49</td>
</tr>
<tr>
<td>Additional Expenses</td>
<td>5.06</td>
</tr>
<tr>
<td><strong>Gross Revenue Requirements</strong></td>
<td><strong>$36.29</strong></td>
</tr>
<tr>
<td>Less: Offsetting Revenues</td>
<td></td>
</tr>
<tr>
<td>Capital Related</td>
<td>(2.54)</td>
</tr>
<tr>
<td>Operating Related</td>
<td>(13.48)</td>
</tr>
<tr>
<td><strong>RR before Coverage and RSF Support</strong></td>
<td><strong>$20.26</strong></td>
</tr>
<tr>
<td>Additional Coverage</td>
<td>5.33</td>
</tr>
<tr>
<td><strong>Total Revenue Requirement</strong></td>
<td><strong>$25.6</strong></td>
</tr>
</tbody>
</table>
5.1.2 Storage

Based on the cost of service analysis, $65.0 million is to be recovered through the storage charge in CY 2020. 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>STORAGE REVENUE REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD &amp; STD) $58.77</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures 4.45</td>
</tr>
<tr>
<td>Additional Expenses 9.23</td>
</tr>
<tr>
<td><strong>Gross Revenue Requirements</strong> $72.45</td>
</tr>
<tr>
<td>Less: Offsetting Revenues</td>
</tr>
<tr>
<td>Capital Related (12.73)</td>
</tr>
<tr>
<td>Operating Related (18.74)</td>
</tr>
<tr>
<td><strong>RR before Coverage and RSF Support</strong> $40.98</td>
</tr>
<tr>
<td>Additional Coverage 24.02</td>
</tr>
<tr>
<td><strong>Total Revenue Requirement</strong> $65.0</td>
</tr>
</tbody>
</table>

5.1.3 Supply Reliability Charge

Based on recommendations from the A&F Committee and approval of the Board, the Supply Reliability 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 M&I deliveries.
The approved methodology for determining the Supply Reliability Charge is as follows:

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

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 2020 Supply Reliability Charge.

<table>
<thead>
<tr>
<th>SUPPLY RELIABILITY CHARGE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Desal Deliveries (TAF)</td>
<td>42.0</td>
</tr>
<tr>
<td>IID Transfer Deliveries (TAF)</td>
<td>192.5</td>
</tr>
<tr>
<td>Desal Supply Cost ($/AF)</td>
<td>$2,666</td>
</tr>
<tr>
<td>IID Transfer Cost ($/AF)</td>
<td>$1,162</td>
</tr>
<tr>
<td>MWD Tier 1 Untreated Rate ($/AF)</td>
<td>$755</td>
</tr>
<tr>
<td>Reliable Water Cost ($M)</td>
<td>$326.73</td>
</tr>
<tr>
<td>MWD Comparison Cost ($M)</td>
<td>$177.05</td>
</tr>
<tr>
<td>Differential ($M)</td>
<td>$149.68</td>
</tr>
<tr>
<td>Supply Reliability Needs</td>
<td>$37.43</td>
</tr>
</tbody>
</table>

As used in the above formula, Desalination Deliveries are 42,000 AF/Y and IID Water Transfer Deliveries are 192,500 AF/Y in CY 2020. 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 a per acre-foot basis. The rate is a combination of direct and indirect costs. The revenue requirement apportioned to the supply rate component is $16.76 million and is detailed in Table 5.4.

<table>
<thead>
<tr>
<th>MELDED SUPPLY REVENUE REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD &amp; STD)</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures</td>
</tr>
<tr>
<td>Additional Expenses</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</td>
</tr>
<tr>
<td>Total Revenue Requirement</td>
</tr>
</tbody>
</table>

For CY 2020, the total supply costs are projected to total $374.20 million, before any use of reserves. The Water Authority projected sales of 359,570 acre-feet at a cost of $394.39 million. An additional $17.24 million must be recovered through rates to fund the supply’s revenue requirements and costs associated with the IID cost differential, storage, and QSA costs. Additionally, the Supply Reliability Charge provides a revenue offset of $37.43 million. In order to provide rate smoothing, the melded supply rate also includes a $41.6 million use of reserves. By dividing the total supply cost (and use of reserves) by total water sales, a per acre-foot cost of $925 is calculated.
### Table 5-5: Proposed CY 2020 Melded Supply Rate

<table>
<thead>
<tr>
<th>Melded Supply Rate</th>
<th>Acre-Foot Supplies (A/F) (000's)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD Tier I Deliveries</td>
<td>37.4</td>
</tr>
<tr>
<td>Carlsbad Desalination Water Production</td>
<td>42.0</td>
</tr>
<tr>
<td>IID Deliveries</td>
<td>192.5</td>
</tr>
<tr>
<td>Operational Storage</td>
<td>10.0</td>
</tr>
<tr>
<td>Canal Water Deliveries</td>
<td>77.7</td>
</tr>
<tr>
<td><strong>Total A/F Supplies</strong></td>
<td><strong>359.6</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Additional Costs($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSA Environmental</td>
</tr>
<tr>
<td>Supply Revenue Requirement</td>
</tr>
<tr>
<td>Canal Cost Differential</td>
</tr>
<tr>
<td>Pension Liability</td>
</tr>
<tr>
<td><strong>Total Additional Costs</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offsetting Revenues ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Reliability Credit</td>
</tr>
<tr>
<td>IID Socioeconomic Credit</td>
</tr>
<tr>
<td>Cash &amp; Reserves(^1)</td>
</tr>
<tr>
<td><strong>Total Supply Cost</strong></td>
</tr>
</tbody>
</table>

**Proposed Melded Supply Rate**

$925/AF

**Notes:**
- 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 a per acre-foot basis, designed to recover the Water Authority’s cost of treating water. The Water Authority’s direct cost related to Treatment is $10.12 million as detailed in Table 5.6.
In addition, the rate will be set to recover the costs of purchasing treated water from MWD, the Levy and Olivenhain treatment plants, and the Water Authority’s Twin Oaks Valley Water Treatment Plant, as well as desalinated water costs allocated to this rate and may recover certain other costs associated with the delivery of treated water.

<table>
<thead>
<tr>
<th>MELDED TREATMENT REVENUE REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD &amp; STD)</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures</td>
</tr>
<tr>
<td>Additional Expenses</td>
</tr>
<tr>
<td><strong>Gross Revenue Requirements</strong></td>
</tr>
<tr>
<td>Less: Offsetting Revenues</td>
</tr>
<tr>
<td>Capital Related</td>
</tr>
<tr>
<td>Operating Related</td>
</tr>
<tr>
<td><strong>RR before Coverage and RSF Support</strong></td>
</tr>
<tr>
<td>Additional Coverage</td>
</tr>
<tr>
<td><strong>Total Revenue Requirement</strong></td>
</tr>
</tbody>
</table>

Table 5.7 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 ($9.47 million) will be recovered through the CY 2020 rates outside the revenue requirements outlined in Table 5.6.

<table>
<thead>
<tr>
<th>MELDED TREATMENT RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M&amp;I Treatment Demands - (AF 000's)</strong></td>
</tr>
<tr>
<td>MWD</td>
</tr>
<tr>
<td>Carlsbad Desalination Production</td>
</tr>
<tr>
<td>CWA (Twin Oaks)</td>
</tr>
<tr>
<td>Helix</td>
</tr>
<tr>
<td><strong>Total Demands</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>M&amp;I Treatment Costs ($ Millions)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD</td>
</tr>
<tr>
<td>Desalination Water</td>
</tr>
<tr>
<td>Treatment Revenue Requirement</td>
</tr>
<tr>
<td>CWA Contract Treatment Cost</td>
</tr>
<tr>
<td>Helix</td>
</tr>
<tr>
<td><strong>Total Treatment Cost</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed Melded Treatment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$280/AF</strong></td>
</tr>
</tbody>
</table>

The Water Authority spreads the Melded Treatment costs over the forecasted acre-feet demands. The proposed CY 2020 Melded Treatment rate is $280 per acre-foot.
5.2.3 Transportation

The Transportation rate is a uniform rate set to recover capital and 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>TRANSPORTATION RATE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures (LTD &amp; STD)</td>
<td>$45.28</td>
</tr>
<tr>
<td>O&amp;M + Share of Agency Operating Expenditures</td>
<td>20.38</td>
</tr>
<tr>
<td>Additional Expenses</td>
<td></td>
</tr>
<tr>
<td>Gross Revenue Requirements</td>
<td>$65.67</td>
</tr>
<tr>
<td>Less: Offsetting Revenues</td>
<td></td>
</tr>
<tr>
<td>Capital Related</td>
<td>(9.81)</td>
</tr>
<tr>
<td>Operating Related</td>
<td>(24.80)</td>
</tr>
<tr>
<td>RR before Coverage and RSF Support</td>
<td>$31.06</td>
</tr>
<tr>
<td>Additional Coverage</td>
<td>18.95</td>
</tr>
<tr>
<td>Total Revenue Requirement</td>
<td>$50.00</td>
</tr>
<tr>
<td>Proposed Transportation Rate</td>
<td>$132/AF</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 2020 Transportation rate is $132 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 a 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 TSWAR 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 2020, this rate is $755 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 $280 per acre-foot in CY 2020, as shown above. Transportation and customer service related costs are recovered through each member agency’s Transportation and Customer Service rates.

5.4 Capacity Charge Increase

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.

Based on the 2018 Capacity Charge Report, Carollo found 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. Consistent with Ordinance 2018-04, Carollo also recommended that, between studies (every three to five years), the Water Authority continue its policy to escalate the implemented charges by an appropriate inflationary metric.

Based on this analysis, both the System and Treatment Capacity Charges are thus escalated to CY 2020 levels using the Engineering News-Record Construction Cost Index (ENR-CCI) index for the City of Los Angeles. The percent increase in the index from December 2017 to December 2018 for Los Angeles (0.64 percent) is used as an escalator for the system and treatment capacity charges as shown in Table 5-9.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>System Capacity Charge ($/new MEU)</th>
<th>Treatment Capacity Charge ($/new MEU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
<td>$5,267</td>
<td>$146</td>
</tr>
<tr>
<td>CY 2020</td>
<td>$5,301</td>
<td>$147</td>
</tr>
</tbody>
</table>
Section 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 2020 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, and proposed two-year ramp up, 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.
- A combination of revenue adjustments and RSF utilization are necessary to cover the Water Authority’s budget requirements. The revenue requirements for CY 2020 are coverage driven, as existing revenues fall below the desired DSCR target of 1.50x and necessary withdrawals from the RSF.
- Based on the current RSF balance and the recent revision to the RSF methodology, the proposed CY 2020 water rates and charges plan a roughly $22 million utilization of the RSF in FY 2019 and another $38 million in FY 2020. As a result, the Water Authority will continue to meet the Board’s DSCR target of 1.50x. However, the planned RSF utilization will draw down the RSF balance to below the calculated target beginning in 2020 until a planned rebuilding of the RSF to target levels beginning in 2023.
- Adjust the System and Treatment Capacity Charge schedules based on the annual percentage change in the ENR-CCI LA (0.64%)
Appendix 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 XIIIIC and XIID 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:

   Carlsbad Municipal Water District    $ 25,385
   City of Del Mar                    $  2,442
   City of Escondido                  $ 30,744
   Fallbrook Public Utilities District $ 10,261
   Helix Water District              $ 62,433
   City of National City              (See Sweetwater Authority)
   City of Oceanside                  $ 49,222
   Olivenhain Municipal Water District $ 17,125
   Otay Water District                $ 37,988
   Padre Dam Municipal Water District $ 24,678
   City of Poway                      $ 14,829
   Pendleton Military Reservation     $  -0- 
   Rainbow Municipal Water District   $ 11,157
   Ramona Municipal Water District    $  9,967
   Rincon del Diablo Municipal Water District $  8,938
   City of San Diego                 $354,539
   San Dieguito Water District       $ 14,591
   Santa Fe Irrigation District      $ 10,269
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

I:\IACRES.DOC
### SDCWA Active Retail Meters Equivalent to 3/4" or Smaller (as of 12/31/97)

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Attachment 2 to Resolution No. 

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.
Appendix 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."

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 January 1, 2003 as part of the Supply Charge, 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.

[Space intentionally left blank.]
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:  Lewinger

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
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Grand Totals 846,566 $10,158,792 $846,566
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<td>21,347</td>
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<td>17,482</td>
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Note: Values in table contain greater precision than displayed.
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<tr>
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<td>44,267</td>
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Note: Values in table contain greater precision than displayed.
### Table 4. Capacity Reservation Charge

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**TOTALS**                   |         |        |         |         | $7,905,600      | $686,800                                  |                                             |

Note: Values in table contain greater precision than displayed.
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<th>Net Stand-by Charge Credit*</th>
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<td>Average Firm Deliveries</td>
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<td><strong>$10,141,374</strong></td>
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*Net of MWD Standby Charge Program Administrative Costs of $175,689.
Note: Values in table contain greater precision than displayed.
Appendix 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
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 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 sets a target funding level for the 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.
Appendix 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 Sale 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, about 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.

SECTION 4.07. **Accounting Records and Financial Statements.**

(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

[SEAL]

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, Calist, 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

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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
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:

Claude A. "Bud" Lewis

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:

[Signature]

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.

[Signature]

Doria F. Lore, Board Secretary
Appendix E
A&N TECHNICAL SERVICES, INC – SUPPLY RELIABILITY CHARGE MEMO
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 objectives².

**Description of the Supply Reliability Charge**

The proposed Supply Reliability Charge will create a new fixed charge for the functional incremental supply costs³ 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  = \[(\text{Desalination Water Cost} + \text{IID Water Transfer Cost}) - \text{MWD Tier 1 Equivalent Cost}\] × 25%

Desalination Water Cost  = (\text{Water Purchase Agreement Contract Price}^4 - \text{Melded Treatment Rate}) \times \text{Desalination Deliveries}

IID Water Transfer Cost  = (\text{IID Water Contract Price} + \text{MWD Transportation Rate}) \times \text{IID Water Deliveries}

MWD Tier 1 Equivalent Cost  = (\text{MWD Tier 1 Full Service Untreated Rate} \times \text{Total Reliability Deliveries})

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 15, 2019

Attention: Administrative and Finance Committee

Innovation Program Update (Presentation)

Purpose
This presentation provides an update on the Water Authority’s Innovation Program.

Discussion
The Water Authority’s Innovation Program provides structure and processes to identify creative ideas, which assist the Water Authority in meeting our goals. The Innovation Program fosters a supportive organizational environment to identify and implement ideas ranging from optimizing existing business practices to implementing game-changing transformative innovation.

This presentation will provide an Innovation Program overview, including a status update of the Bright Ideas Program and our external outreach efforts.

Prepared by: Gary W. Bousquet, Deputy Director of Engineering
Approved by: Sandra L. Kerl, Acting General Manager
May 15, 2019

Attention: Administrative and Finance Committee

Controller’s Report on Monthly Financial Activity. (Information)

Purpose
The purpose of the Controller’s Report is to provide summarized financial information on a monthly basis to the Board of Directors.

Financial Information
Attached for review by the Administrative and Finance Committee and the Board of Directors are the following financial documents comprising the Controller’s Report:

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. Schedule of Cash and Investments

A summary of the Fiscal Years 2018 and 2019 Budget Status Report (in millions) for the twenty-one-month period of July 1, 2017 through March 31, 2019 are as follows:

<table>
<thead>
<tr>
<th>FY 18 &amp; 19</th>
<th>Amended Budget</th>
<th>Amended Budget</th>
<th>Actual</th>
<th>Variance</th>
<th>Positive/ (Negative)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Sales</td>
<td>$1,302.3</td>
<td>$1,121.7</td>
<td>$1,041.4</td>
<td>$ (80.3)</td>
<td>-7%</td>
<td></td>
</tr>
<tr>
<td>Water Purchases &amp; Treatment</td>
<td>1,029.5</td>
<td>879.1</td>
<td>790.0</td>
<td>89.1</td>
<td>-10%</td>
<td></td>
</tr>
<tr>
<td>Net Water Sales Revenues</td>
<td>272.8</td>
<td>242.6</td>
<td>251.4</td>
<td>8.8</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Revenues &amp; Other Income</td>
<td>218.5</td>
<td>180.2</td>
<td>195.5</td>
<td>15.3</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Total Revenues</td>
<td>491.3</td>
<td>422.8</td>
<td>446.9</td>
<td>24.1</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Expenses</td>
<td>436.0</td>
<td>381.8</td>
<td>348.0</td>
<td>33.8</td>
<td>-9%</td>
<td></td>
</tr>
<tr>
<td>Net Revenues Before CIP</td>
<td>55.3</td>
<td>41.0</td>
<td>98.9</td>
<td>57.9</td>
<td>141%</td>
<td></td>
</tr>
<tr>
<td>CIP Expenses</td>
<td>137.6</td>
<td>124.4</td>
<td>114.6</td>
<td>9.8</td>
<td>-8%</td>
<td></td>
</tr>
<tr>
<td>Net Fund Withdraws</td>
<td>$ (82.3)</td>
<td>$ (83.4)</td>
<td>$ (15.7)</td>
<td>$ 67.7</td>
<td>-81%</td>
<td></td>
</tr>
</tbody>
</table>

Net Revenues after CIP
At March 2019, the Water Authority is twenty-one months into its two-year budget and is showing a favorable variance of $67.7 million in Net Revenues after CIP. The period-to-date budget provided for a withdrawal from fund balance of $83.4 million at this point, but only a withdrawal of $15.7 million has been required. This has been due to a combination of increased revenues and lower expenses caused in part by delays to CIP projects. However, by the end of the full two-year budget, an increased amount will have been withdrawn from reserves as there
will be large year-end payments to fund the May debt service requirements and CIP program expenses.

The Budget Status Report (Attachment 4) compares actual revenues and expenses, on a budgetary basis, to the period-to-date adopted budget, as amended by the Board. Period-to-date budgeted amounts for the twenty-one-month period are presented on a straight-line basis unless adjusted for the timing of periodic items, as noted on Attachment 4 footnote (o). Water sales and water purchases are budgeted based on projected monthly volume in acre-feet.

**Net Water Sales Revenue**

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, storage, infrastructure access charge, and supply reliability. Cost of water includes payments to three water suppliers: Metropolitan Water District (MWD), IID, and Poseidon Resources (Channelside) LP.

Net Water Sales Revenue was $251.4 million, or 4 percent higher than the budgeted amount of $242.6 million. Actual Water Purchase and Treatment Costs were lower than budgeted by 10 percent due to lower than projected water sales of 7 percent. Detailed information relating to Net Water Sales Revenue is described below and shown on Attachments 1, 2, and 3.

Total acre-feet (AF) of water sold was budgeted at 752,111 AF. Actual water sales volume was 699,590 AF or 7 percent lower than budgeted (Attachment 1). Total Water Sales Revenue was $1,041.4 million or 7 percent lower than the budget of $1,121.7 million (Attachment 2). Lower water sales volume can be attributed to the following primary factors: 1) the commencement of deliveries through the Indian Water Authority to Vista and Escondido that directly offset budgeted sales to those agencies, 2) greater than projected member agency uses of local surface water supplies, and 3) the effect of the heavy rains.

Total Water Purchases and Treatment costs were budgeted at $879.1 million. Actual costs were $790.0 million or 10 percent lower than budgeted (Attachment 3). This cost category included $143.6 million for 219,999 AF of water purchased from IID, $154.6 million for MWD’s conveyance charges related to IID, Coachella Canal and All-American Canal water, and $178.3 million of water purchased from Poseidon Resources (Channelside) LP. The primary driver for the variance is the shutdown that occurred at the Plant in the summer of 2017 (FY18) for 53 days due to a mechanical coupling failure and resulted in replacement water purchases from MWD. In addition, when the Plant is not producing at levels required by the Water Purchase Agreement, Poseidon is obligated to make a shortfall payment. A provision exists in the Water Purchase Agreement that allows Poseidon to make up for shortfalls within the fiscal year, but they were not able to make up the cumulative difference by the end of Fiscal Year 2018. In Fiscal Year 2019, however, Poseidon has been delivering water as requested.

**Revenues and Other Income**

As shown in Attachment 4, total Revenues and Other Income were budgeted at $180.2 million for the twenty-one-month period ended March 31, 2019. Actual revenues were $195.5 million or 8 percent higher than budget.
Actual revenues materially higher than the period-to-date budget are as follows:

- **Capacity Charges**: $12.7 million higher than budgeted due to a greater number of permits issued than anticipated because of several major housing developments in San Diego, Santee, and Escondido
- **Other Income**: $10.2 million more than budgeted due to shortfall revenue related to the Claude “Bud” Lewis Carlsbad Desalination Plant of $7.3 million, $2.0 million of net miscellaneous revenue reimbursements received, and an insurance refund for the Emergency and Carryover Storage Project of $0.9 million

Actual revenues materially lower than the period-to-date budget are as follows:

- **Grant Reimbursements**: $7.4 million lower than budgeted due to grantee project startup delays for new projects and longer completion schedules for projects underway related to the Integrated Regional Water Management Program (IRWMP)
- **Contributions in Aid of Capital Improvement Program**: $1.6 million lower than budgeted as there has been minimal corresponding revenues due to timing of projects
- **Build America Bonds Subsidy**: $1.3 million lower than budgeted due to subsidies reduced by Congressionally-mandated sequestration rates

**Expenses**

As shown in Attachment 4, total Expenses were budgeted at $381.8 million for the twenty-one-month period ended March 31, 2019. Actual expenses were $348.0 million or 9 percent lower than budget.

Actual expenses materially lower than the period-to-date budget are as follows:

- **Debt Service**: $19.5 million lower than budgeted due to the timing of payments
- **Grant Expenses**: $9.5 million lower than budgeted due to project delays as noted with corresponding grant revenues
- **Operating Departments**: $4.1 million below budgeted due to vacant staff position savings and lower professional and technical services costs from the timing of projects

Actual expenses materially higher than the period-to-date budget are as follows:

- **Other Expenses**: $1.4 million more than budgeted and contributing to the variance are project costs related to the following two projects: (1) $926,291 to construct the Mission Trails Chlorine Injection structure to treat water and (2) $625,741 of design, procurement and construction costs to install a low-flow meter requested by the Water Authority to reduce the quantity of treated water flow received from the Metropolitan Water District’s Skinner Water Treatment Plant

**CIP Expenses**

Attachment 4 shows CIP Expenses were budgeted at $124.4 million through March but actual expenses amounted to $114.6 million or 8 percent lower than budget. This was due to project work delays as well as contractors revising their timing schedule for invoice submission. However, budgeted CIP program expenses in total are projected to be within a few million dollars under the two-year budget total.
Cash and Investments
As of March 31, 2019, the Water Authority’s cash and investments balance was $393.6 million, approximately 77 percent unrestricted funds with the remaining 23 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. For additional information, see the Schedule of Cash and Investments (Attachment 5).

Prepared by: Jocelyn Matsuo, Senior Accountant
Reviewed by: Geena Xiaoqing Balistrieri, CPA, Accounting Supervisor
Approved by: Christopher Woidzik, CPA, 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 – Schedule of Cash and Investments
*Budgeted amounts are based on the Adopted Multi-Year Budget for Fiscal Years 2018 and 2019.

**Table: Fiscal Year 2018 Cumulative Water Sales (AF)**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><em>Budget (a)</em></td>
<td>50,172</td>
<td>100,133</td>
<td>144,944</td>
<td>183,572</td>
<td>214,851</td>
<td>242,655</td>
<td>266,443</td>
<td>288,214</td>
<td>315,331</td>
<td>348,044</td>
<td>386,055</td>
<td>431,353</td>
</tr>
<tr>
<td>Actual</td>
<td>41,812</td>
<td>85,217</td>
<td>124,748</td>
<td>166,200</td>
<td>199,748</td>
<td>222,937</td>
<td>247,082</td>
<td>271,036</td>
<td>292,608</td>
<td>325,042</td>
<td>360,219</td>
<td>399,826</td>
</tr>
<tr>
<td>AF Difference (b)</td>
<td>(8,360)</td>
<td>(14,916)</td>
<td>(20,196)</td>
<td>(17,372)</td>
<td>(15,103)</td>
<td>(19,718)</td>
<td>(19,361)</td>
<td>(22,723)</td>
<td>(23,002)</td>
<td>(25,836)</td>
<td>(31,527)</td>
<td></td>
</tr>
<tr>
<td>Cum. Actual AF</td>
<td>-17%</td>
<td>-15%</td>
<td>-14%</td>
<td>-9%</td>
<td>-7%</td>
<td>-8%</td>
<td>-7%</td>
<td>-6%</td>
<td>-7%</td>
<td>-7%</td>
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<td>-7%</td>
</tr>
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</table>

**Table: Fiscal Year 2019 Cumulative Water Sales (AF)**

<table>
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</tr>
</thead>
<tbody>
<tr>
<td><em>Budget (a)</em></td>
<td>50,735</td>
<td>101,256</td>
<td>146,963</td>
<td>186,363</td>
<td>218,268</td>
<td>246,628</td>
<td>270,892</td>
<td>293,098</td>
<td>320,758</td>
<td>354,125</td>
<td>393,337</td>
<td>439,980</td>
</tr>
<tr>
<td>Actual</td>
<td>48,357</td>
<td>101,940</td>
<td>147,252</td>
<td>185,585</td>
<td>222,989</td>
<td>247,584</td>
<td>266,872</td>
<td>282,920</td>
<td>299,764</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AF Difference (b)</td>
<td>(2,378)</td>
<td>684</td>
<td>289</td>
<td>(778)</td>
<td>4,721</td>
<td>956</td>
<td>(4,020)</td>
<td>(10,178)</td>
<td>(20,994)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cum. Actual AF</td>
<td>-5%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
<td>-1%</td>
<td>-3%</td>
<td>-7%</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Table: Budget vs. Actual**

<table>
<thead>
<tr>
<th></th>
<th>FY18</th>
<th>FY19 through Mar-19</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget</td>
<td>431,353</td>
<td>320,758</td>
<td>752,111</td>
</tr>
<tr>
<td>Actual</td>
<td>399,826</td>
<td>299,764</td>
<td>699,590</td>
</tr>
<tr>
<td>Difference</td>
<td>(31,527)</td>
<td>(20,994)</td>
<td>(52,521)</td>
</tr>
<tr>
<td>% Difference</td>
<td>-7%</td>
<td>-7%</td>
<td>-7%</td>
</tr>
</tbody>
</table>
*Budgeted amounts are based on the Adopted Multi-Year Budget for Fiscal Years 2018 and 2019.

**Fiscal Year 2018 Cumulative Water Sales (in Millions $)**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>*Budget (a)</td>
<td>$68.0</td>
<td>$135.9</td>
<td>$197.7</td>
<td>$253.0</td>
<td>$300.1</td>
<td>$343.5</td>
<td>$383.5</td>
<td>$421.3</td>
<td>$464.8</td>
<td>$514.8</td>
<td>$570.7</td>
<td>$635.1</td>
</tr>
<tr>
<td>Actual</td>
<td>58.2</td>
<td>117.8</td>
<td>173.2</td>
<td>230.9</td>
<td>278.4</td>
<td>317.1</td>
<td>357.1</td>
<td>397.0</td>
<td>433.6</td>
<td>482.7</td>
<td>535.0</td>
<td>591.8</td>
</tr>
<tr>
<td>Difference (b)</td>
<td>(9.8)</td>
<td>(18.1)</td>
<td>(24.5)</td>
<td>(22.1)</td>
<td>(21.7)</td>
<td>(26.4)</td>
<td>(26.4)</td>
<td>(24.3)</td>
<td>(31.2)</td>
<td>(32.1)</td>
<td>(35.7)</td>
<td>(43.3)</td>
</tr>
<tr>
<td>Cum. Actual</td>
<td>-14%</td>
<td>-13%</td>
<td>-12%</td>
<td>-9%</td>
<td>-7%</td>
<td>-8%</td>
<td>-7%</td>
<td>-6%</td>
<td>-7%</td>
<td>-6%</td>
<td>-6%</td>
<td>-7%</td>
</tr>
</tbody>
</table>

**Fiscal Year 2019 Cumulative Water Sales (in Millions $)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>*Budget (a)</td>
<td>$71.1</td>
<td>$141.9</td>
<td>$206.9</td>
<td>$264.9</td>
<td>$314.2</td>
<td>$359.5</td>
<td>$401.4</td>
<td>$441.0</td>
<td>$486.6</td>
<td>$539.2</td>
<td>$598.6</td>
<td>$667.2</td>
</tr>
<tr>
<td>Actual</td>
<td>67.2</td>
<td>139.4</td>
<td>202.3</td>
<td>257.6</td>
<td>312.1</td>
<td>351.7</td>
<td>385.9</td>
<td>417.3</td>
<td>449.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Difference (b)</td>
<td>(3.9)</td>
<td>(2.5)</td>
<td>(4.6)</td>
<td>(7.3)</td>
<td>(2.1)</td>
<td>(7.8)</td>
<td>(15.5)</td>
<td>(23.7)</td>
<td>(37.0)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cum. Actual</td>
<td>-5%</td>
<td>-2%</td>
<td>-2%</td>
<td>-3%</td>
<td>-1%</td>
<td>-2%</td>
<td>-4%</td>
<td>-5%</td>
<td>-8%</td>
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</tr>
</tbody>
</table>

**WATER SALES REVENUES (in Millions $)**

Budget Versus Actual for the 21 Months Ended March 31, 2019

**FY18**

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$635.1</td>
<td>$591.8</td>
</tr>
</tbody>
</table>

**FY19 through Mar-19**

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$1,121.7</td>
<td>$1,041.4</td>
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</table>

**Difference**

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$(43.3)</td>
<td>$(80.3)</td>
</tr>
</tbody>
</table>

**% Difference**

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Actual</th>
</tr>
</thead>
</table>
| Total   | -7%    | -8%    | -7%


*Budgeted amounts are based on the Adopted Multi-Year Budget for Fiscal Years 2018 and 2019.

### Fiscal Year 2018 Cumulative Cost of Water Purchases and Treatment (in Millions $)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><em>Budget (a)</em></td>
<td>$53.9</td>
<td>$107.6</td>
<td>$155.6</td>
<td>$198.5</td>
<td>$233.8</td>
<td>$265.8</td>
<td>$296.6</td>
<td>$325.9</td>
<td>$369.4</td>
<td>$398.8</td>
<td>$443.1</td>
<td>$495.1</td>
</tr>
<tr>
<td>Actual</td>
<td>$44.9</td>
<td>$87.4</td>
<td>$124.7</td>
<td>$168.6</td>
<td>$203.6</td>
<td>$232.9</td>
<td>$263.8</td>
<td>$295.8</td>
<td>$324.5</td>
<td>$358.4</td>
<td>$397.2</td>
<td>$442.4</td>
</tr>
<tr>
<td>Difference (b)</td>
<td>$(9.0)</td>
<td>$(20.2)</td>
<td>$(30.9)</td>
<td>$(32.9)</td>
<td>$(30.1)</td>
<td>$(32.8)</td>
<td>$(32.8)</td>
<td>$(30.1)</td>
<td>$(34.9)</td>
<td>$(40.4)</td>
<td>$(45.9)</td>
<td>$(52.7)</td>
</tr>
<tr>
<td>Cum. % Difference (b/a)</td>
<td>-17%</td>
<td>-19%</td>
<td>-20%</td>
<td>-15%</td>
<td>-13%</td>
<td>-12%</td>
<td>-11%</td>
<td>-9%</td>
<td>-10%</td>
<td>-10%</td>
<td>-10%</td>
<td>-11%</td>
</tr>
</tbody>
</table>

### Fiscal Year 2019 Cumulative Cost of Water Purchases and Treatment (in Millions $)

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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Budget (a)</em></td>
<td>$56.2</td>
<td>$112.2</td>
<td>$163.0</td>
<td>$208.4</td>
<td>$246.0</td>
<td>$280.3</td>
<td>$314.4</td>
<td>$346.9</td>
<td>$384.0</td>
<td>$427.6</td>
<td>$476.8</td>
<td>$534.4</td>
</tr>
<tr>
<td>Actual</td>
<td>$48.3</td>
<td>$102.5</td>
<td>$150.2</td>
<td>$193.7</td>
<td>$232.0</td>
<td>$265.0</td>
<td>$293.2</td>
<td>$317.5</td>
<td>$347.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Difference (b)</td>
<td>$(7.9)</td>
<td>$(9.7)</td>
<td>$(12.8)</td>
<td>$(14.7)</td>
<td>$(15.3)</td>
<td>$(21.2)</td>
<td>$(29.4)</td>
<td>(36.4)</td>
<td>(36.4)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cum. % Difference (b/a)</td>
<td>-14%</td>
<td>-9%</td>
<td>-8%</td>
<td>-7%</td>
<td>-6%</td>
<td>-5%</td>
<td>-7%</td>
<td>-8%</td>
<td>-9%</td>
<td>-9%</td>
<td>-9%</td>
<td>-9%</td>
</tr>
</tbody>
</table>

### Water Purchases and Treatment Costs (in Millions $)

- **Fiscal Year 2018 Total**: $495.1
- **Fiscal Year 2019 through Mar-19 Total**: $384.0
- **Total**: $879.1

### Summary

- **Budget** $495.1
- **Actual** $442.4
- **Difference** $52.7
- **% Difference** -11%

---

Page 251 of 323
San Diego County Water Authority  
Fiscal Years 2018 and 2019 Budget Status Report  
For the 21 Months Ended March 31, 2019  

Unaudited

<table>
<thead>
<tr>
<th>[A]</th>
<th>[B]</th>
<th>[C]</th>
<th>Revenues = [-B + C]</th>
<th>Expenses = [B - C]</th>
<th>[C / A]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2018 &amp; 2019 Amended Period-to-Date</td>
<td>21 Months Period-to-Date</td>
<td>Actual</td>
<td>Variance</td>
<td>FY 2018 &amp; 2019 Amended Period-to-Date</td>
<td></td>
</tr>
<tr>
<td>Net Water Sales Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Sales</td>
<td>$1,302,329,168</td>
<td>$1,121,720,915</td>
<td>$1,041,410,146</td>
<td>$ (80,310,769)</td>
<td>80%</td>
</tr>
<tr>
<td>Water Purchases &amp; Treatment</td>
<td>1,029,543,474</td>
<td>879,136,389</td>
<td>789,965,852</td>
<td>89,170,537</td>
<td>77%</td>
</tr>
<tr>
<td>Total Net Water Sales Revenue</td>
<td>2,331,872,642</td>
<td>1,994,560,304</td>
<td>1,831,376,000</td>
<td>163,284,304</td>
<td>87%</td>
</tr>
</tbody>
</table>

Revenues and Other Income

| | | | | |
| Infrastructure Access Charges | 67,991,290 | 59,112,755 | 57,371,637 | (1,741,118) | 84% |
| Property Taxes and In-Lieu Charges | 25,360,573 | 20,894,804 | 22,628,051 | 1,733,247 | 89% |
| Investment Income | 10,421,636 | 7,788,190 | 9,944,693 | 2,156,503 | 95% |
| Hydroelectric Revenue | 7,105,700 | 6,177,318 | 6,908,319 | 731,001 | 97% |
| Grant Reimbursements | 26,635,000 | 21,052,500 | 13,669,194 | (7,383,306) | 51% |
| Build America Bonds Subsidy | 22,605,916 | 19,780,176 | 17,773,861 | (2,006,315) | 80% |
| Other Income | 985,432 | 737,098 | 10,921,798 | 10,184,700 | 1108% |
| Total Revenues | 507,022,641 | 452,598,487 | 446,926,247 | 8,072,240 | 91% |

Expenses

| | | | | |
| Debt Service | 280,945,000 | 243,792,190 | 224,300,842 | 19,491,348 | 80% |
| QSA Mitigation | 18,829,481 | 18,829,481 | 18,829,481 | - | 100% |
| Equipment Replacement | 4,865,000 | 4,243,270 | 2,098,450 | 2,144,820 | 43% |
| Grant Expenses | 27,135,000 | 18,015,066 | 17,773,861 | (241,205) | 80% |
| Other Expenses | 1,000,000 | 874,000 | 2,320,484 | (1,446,484) | 232% |
| Operating Departments (see below) | 103,202,095 | 90,371,583 | 86,236,258 | 4,135,325 | 84% |
| Total Expenses | 435,966,576 | 381,826,514 | 348,000,150 | 33,826,364 | 80% |

Net Revenues Before CIP

| | | | | |
| Net Revenues Before CIP | $55,276,236 | $41,006,901 | $98,926,097 | $57,919,196 | 179% |
| CIP Expenses* | $137,617,918 | $124,392,508 | $114,643,552 | $9,748,956 | 83% |
| Net Fund Withdraws | $ (82,341,682) | $ (83,358,607) | $ (15,717,455) | $67,668,152 | |

*(CIP Expenses are all funded by Pay-As-You-Go Fund)

Operating Departments Detail

| | | | | |
| Administrative Services | $11,917,783 | $10,436,115 | $9,734,207 | $701,908 | 82% |
| Colorado River Program | 3,521,607 | 3,083,786 | 2,418,429 | 665,357 | 69% |
| Engineering | 7,656,312 | 6,704,448 | 5,863,738 | 840,710 | 77% |
| Finance | 5,138,185 | 4,500,260 | 4,097,936 | 402,324 | 80% |
| General Counsel | 6,795,957 | 5,951,055 | 4,416,275 | 1,534,780 | 65% |
| General Manager & Board of Directors | 9,197,612 | 8,054,127 | 7,322,170 | 731,957 | 80% |
| MWD Program | 4,286,991 | 3,754,015 | 3,469,594 | 284,421 | 81% |
| Operations & Maintenance | 38,557,860 | 33,764,187 | 30,298,132 | 3,466,055 | 97% |
| Public Outreach and Conservation | 8,036,212 | 7,037,117 | 5,688,983 | 1,348,134 | 71% |
| Water Resources | 8,092,576 | 7,086,473 | 6,276,107 | 810,366 | 78% |
| Additional Pension Expense | - | - | 6,650,687 | (6,650,687) | |
| Total Operating Departments | $103,202,095 | $90,371,583 | $86,236,258 | $13,668,152 | 84% |
Notes to the Budget Status Report:

a) Period-to-date budgeted amounts are 21/24ths (88%) of Fiscal Years 2018 and 2019 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 $559,402 for Fiscal Year 2018 and $596,454 for Fiscal Year 2019 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 are due semi-annually on November 1 and May 1. Pipeline Bonds, Series 2019 debt service payments are 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 gain/loss on refunding are excluded because they are non-cash transactions. Short-term debt for Commercial Paper are paid monthly.
j) The QSA mitigation payments includes: QSA JPA Fiscal Year 2018 contributions of $1,850,000 is due in July 2017 and $8,314,814 is due in December 2017; QSA JPA Fiscal Year 2019 contributions of $1,750,000 is due in July 2018 and $6,914,667 is due in December 2018.
k) Amounts include capital equipment purchases included in the project budget and not funded through the Equipment Replacement Fund.
l) 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.
m) In June 2018, the Board amended the Capital Improvement Program two-year appropriation by an increase of $19.0 million.
n) Includes withdraws from fund balances.
o) Period-to-date budgeted amounts adjusted based on items occurring on a periodic basis.
p) FY18 Actuarial amounts related to pension expense for measurement period ended June 30, 2017.
San Diego County Water Authority
Schedule of Cash and Investments
As of March 31, and February 28, 2019
Unaudited

<table>
<thead>
<tr>
<th>Fund Category</th>
<th>March</th>
<th>February</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Fund</td>
<td>$146,030,485</td>
<td>$138,013,463</td>
<td>$85,596,000</td>
</tr>
<tr>
<td>Equipment Replacement Fund</td>
<td>210,322</td>
<td>323,976</td>
<td></td>
</tr>
<tr>
<td>Rate Stabilization Fund</td>
<td>156,689,534</td>
<td>156,767,538</td>
<td>$147,000,000</td>
</tr>
<tr>
<td><strong>Total Unrestricted Funds</strong></td>
<td>77% 302,930,341</td>
<td>75% 295,104,977</td>
<td>23% 90,672,447</td>
</tr>
<tr>
<td>Pay-As-You-Go Fund (1)</td>
<td>68,693,162</td>
<td>75,741,799</td>
<td></td>
</tr>
<tr>
<td>Debt Service Reserve Funds</td>
<td>21,979,285</td>
<td>21,973,525</td>
<td></td>
</tr>
<tr>
<td><strong>Total Restricted Funds</strong></td>
<td>23% 90,672,447</td>
<td>25% 97,715,324</td>
<td></td>
</tr>
<tr>
<td><strong>Total Cash and Investments</strong></td>
<td>$393,602,788</td>
<td>$392,820,301</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
(1) Total Unrestricted Funds and the Pay-As-You-Go Fund represent the Pooled Funds in the Treasurer's Report.

**Reserve Fund Categories**

**Operating Fund:** The Water Authority's working capital and emergency operating reserve. The Operating Fund's policy requires a maximum of 45 days of average annual operating expenses to be kept in reserves as assessed on an annual basis.

**Stored Water Fund (SWF):** This fund provides working capital to purchase water inventory necessary to fully utilize the Water Authority's storage facilities. A 70,000 acre-feet target was established for Carryover Storage inventory along with a maximum of 100,000 acre-feet, which is the storage capacity. The SWF is to only hold a cash position if the cost to replace the target amount is below the current value of water inventory in the fund.

**Equipment Replacement Fund (ERF):** The ERF is funded by transfers from the Operating Fund for capital equipment purchases such as computers, vehicles, and SCADA systems and is used to replace equipment which has reached the end of its effective useful life.

**Rate Stabilization Fund (RSF):** The RSF holds the 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. The RSF target balance is equal to the financial impact of 2.5 years of wet weather or mandatory restrictions and the maximum fund balance is equal to the financial impact of 3.5 years of wet weather or mandatory restrictions. The current balance in this fund represents approximately 107% of the targeted value of $147.0 million and 74% of the maximum balance of $211.2 million.

**Pay-As-You-Go Fund (PAYGO):** The PAYGO fund collects Capacity Charges and Water Standby Availability Charges to be used to pay for the cash portion of the CIP. The funds are dedicated for construction outlays as well as debt service.

**Debt Service Reserve Fund:** This fund contains the required legal reserve for Water Authority debt issues. Such reserves are held for the purpose of making an issue's annual debt service payments in the event the Water Authority should be unable to make such payments. The funds are held by trustees and interest earned is transferred into the Operating Fund and is not restricted.
JUNE 2019
• 05 MWD Delegates meeting at 11:00 a.m.
• 11 Special Administrative & Finance Committee Meeting re: Budget Workshop - 1:30 to 4:00 p.m.
• 13 Special Administrative & Finance Committee Meeting re: Budget Workshop - 1:30 to 4:00 p.m.
• 27 Committees begin at 9:00 a.m.
  Formal Board meeting begins at 2:30 p.m.

JULY 2019
• 03 MWD Delegates meeting at 11:00 a.m.
• 11 Tentative Special Board Meeting
• 25 Committees begin at 9:00 a.m.
  Formal Board meeting begins at 2:30 p.m.

AUGUST 2019
• 08 Tentative Special Board Meeting
• 14 MWD Delegates meeting at 11:00 a.m.
• 22 Committees begin at 9:00 a.m.
  Formal Board meeting begins at 2:30 p.m.
• 26 Audit Committee Meeting – 10:00 a.m.
May 15, 2019

Attention: Administrative and Finance Committee

CLOSED SESSION:
Conference with the Labor Negotiator
Government Code §54957.6
Agency Designated Representatives: Gretchen Spaniol, Jason Foster, Liana Whyte, Rick Bolanos
Employee Organization: Teamsters Local 911

Purpose
The Acting General Manager has asked that a closed session be scheduled, pursuant to Government Code §54957.6, to discuss the above-referenced matter at the May 23, 2019 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
May 15, 2019

Attention: Administrative and Finance Committee

CLOSED SESSION:
Conference with the Labor Negotiator
Government Code §54957.6
Agency Designated Representatives: Sandra L. Kerl, Gretchen Spaniol
Unrepresented Employees: Executive, Senior Management, and Confidential Groups

Purpose
The Acting General Manager has asked that a closed session be scheduled, pursuant to Government Code §54957.6, to discuss the above-referenced matter at the May 23, 2019 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
IMPORTED WATER COMMITTEE

AGENDA FOR

MAY 23, 2019

Keith Lewinger – Chair    Michael Hogan
David Barnum – Vice Chair    Jim Madaffer
David Cherashore – Vice Chair    John Masson
Betty Evans    Ron Morrison
Lois Fong-Sakai    Jose Preciado
Christy Guerin    Elsa Saxod
Matt Hall    Joel Scalzitti

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.    MWD Delegates
   (Discussion) (Supplemental Materials)

2. Colorado River Programs.
   2-A Colorado River Board Representative’s report.    Doug Wilson
   (Discussion) (Supplemental Materials)

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

III. INFORMATION

1. Metropolitan Water District Program Report.    Amy Chen
IV. CLOSED SESSIONS

1. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   SDCWA v. Metropolitan Water District of Southern California; San Francisco Superior Court Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004; CPF-16-515282; CPF-16-515391; CGC-17-563350; CPF-18-516389; California Court of Appeal (1st District) Case Nos. A146901; A148266; A154325; California Supreme Court Case Nos. S243500; and S251025
   Mark Hattam

2. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   California Department of Water Resources v. All Persons Interested; Sacramento Superior Court Case No. 34-2017-00215965-CU-MC-GDS; and JCCP 4942
   Mark Hattam

3. Conference with Legal Counsel – Existing Litigation
   Government Code §§54956.9(d)(1)
   Food & Water Watch and Center for Food Safety v. Metropolitan Water District of Southern California and All Persons Interested in the Matter; Los Angeles Superior Court Case No. BC 720692
   Mark Hattam

V. ADJOURNMENT

Melinda Nelson
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.
Attention: Imported Water Committee

Colorado River hydrology update. (Presentation)

Purpose
This report provides an update on current Colorado River hydrology, reservoir operations, and shortage predictions as well as recent activity on the Drought Contingency Plan (DCP).

Executive Summary
- In 2019, the Colorado River has experienced very good hydrology with above average conditions throughout the Basin.
- The Bureau of Reclamation (Reclamation)’s April mid-year review confirms an above average release of 9.0 million acre-feet (MAF) from Lake Powell in 2019.
- Reclamation’s updated modeling projections indicate there will not be an official shortage in 2020, but there will be DCP contributions if finalized.
- The DCP is in the final stages of completion and is expected to be implemented as part of 2020 river operations.

Background
A combination of hydrology, storage, and other factors are used to determine reservoir operations for Lake Powell and Lake Mead, the two major Colorado River system reservoirs, each year. The current agreement that defines criteria for annual reservoir operations is 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 balance storage levels between Lake Powell and Lake Mead based on annual runoff projections and existing storage. Annual operating conditions are determined based on hydrologic modeling performed by Reclamation. While Reclamation performs monthly updates, it completes more comprehensive modeling three times a year in January, April, and August. Reclamation’s August projections are the most critical, as they determine operations for these reservoirs for the upcoming calendar year including the release volume from Lake Powell and determination of Lower Basin allocations. For the Lower Basin this includes the determination of whether or not there is an official shortage. In April, a mid-year review is performed which has potential to adjust the annual Lake Powell release volume for the current year based on actual conditions. The August 2018 modeling indicated the release volume from Lake Powell would most likely be 9.0 MAF. The April 2019 modeling officially confirms the release of 9.0 MAF for 2019.

Colorado River allocations have historically been guaranteed, with all states and users receiving their full annual allocations. An official shortage has never been declared on the river, which would result in reduced allocations to Arizona and Nevada, but no cuts to California users due to its higher priority water rights. Shortage criteria and associated reductions to users are defined in the 2007 Interim Guidelines. The Colorado River Basin has been experiencing long-term drought conditions since 2000. This prolonged drought caused the likelihood of a Lower Basin shortage to increase significantly, resulting in the development of an alternative plan known as the DCP, to serve as an overlay to the 2007 Interim Guidelines. The DCP is in the final stages of completion and is expected to be implemented as part of 2020 river operations. The DCP
includes voluntary volume contributions from all Lower Basin water users to build elevation in Lake Mead and reduce the chance of reaching critically low elevation levels. DCP contributions are separate from and in addition to any shortage cutback volumes. Both shortage cutbacks and DCP contribution volumes are determined by elevation-based trigger levels in Lake Mead.

**Discussion**

In 2019, the Colorado River Basin has experienced above average hydrologic conditions, with snowpack and precipitation reaching record levels in some areas. This year’s improved Upper Basin snowpack at 138 percent of normal and high precipitation at 119 percent of normal have resulted in a projected 2019 water year unregulated inflow to Lake Powell of 12.1 MAF, which is 112 percent of average. Total system storage as of May 6, 2019 is 27.5 MAF or 46 percent of capacity. Storage has decreased during the current drought period, as annual inflows were supplemented with storage reserves to meet annual Colorado River allocations to water users. 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 MAF is released from Lake Powell each year, but depending on reservoir conditions, more or less water can be released. Reclamation’s April 2019 modeling confirms the final release volume for 2019 will be an increased release of 9.0 MAF.

Decreases in storage coincide with falling reservoir elevations. In Lake Mead, reservoir levels are particularly important as shortages are determined by elevation-based trigger levels of 1,075 feet, 1,050 feet, and 1,025 feet. These trigger elevations result in defined cuts to annual allocations to certain users. DCP volume contributions are also elevation-based, with the first contributions required at or below Lake Mead elevation 1,090 feet and additional triggers down to 1,025 feet. Table 1 shows the shortage cuts and DCP volumes at each of the elevation levels.

<table>
<thead>
<tr>
<th>Lake Mead Elevation (FT)</th>
<th>Arizona (TAF)</th>
<th>Nevada (TAF)</th>
<th>California (TAF)</th>
<th>BOR (TAF)</th>
<th>Mexico (TAF)</th>
<th>Total (TAF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007 DCP Total</td>
<td>2007 DCP Total</td>
<td>2007 DCP Total</td>
<td>2007 DCP Total</td>
<td>2007 DCP Total</td>
<td>2007 DCP Total</td>
</tr>
<tr>
<td>≤1,090 - &gt;1,075</td>
<td>0 192 192</td>
<td>0 8 8</td>
<td>0 0 0</td>
<td>100</td>
<td>0 41 41</td>
<td>341</td>
</tr>
<tr>
<td>≤1,075 - &gt;1,050</td>
<td>320 192 512</td>
<td>13 8 21</td>
<td>0 0 0</td>
<td>100</td>
<td>50 30 80</td>
<td>713</td>
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<tr>
<td>≤1,050 - &gt;1,045</td>
<td>400 192 592</td>
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<td>100</td>
<td>70 34 104</td>
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<tr>
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<tr>
<td>≤1,025</td>
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<td>20 10 30</td>
<td>0 350 350</td>
<td>100</td>
<td>125 150 275</td>
<td>1,475</td>
</tr>
</tbody>
</table>

Table 1. Annual Shortage Reductions and DCP Volume Contributions for the Lower Basin States (2007 Interim Guidelines, DCP) and Mexico (Minute 323 Shortage Sharing and Binational Water Scarcity Contingency Plan)
A shortage is not automatically triggered when the lake drops to a trigger elevation. Per the procedures in the 2007 Interim Guidelines, an official shortage declaration is based on the projected end-of-year elevation of Lake Mead established in Reclamation’s August modeling results. Similar procedures apply to annual elevation-based volume contributions required under the DCP. Reclamation’s current April 2019 modeling results project that Lake Mead’s elevation will be 1,084 feet on January 1, 2020, which is above the first shortage trigger of 1,075 feet. However, because this elevation falls below 1,090 feet it would trigger DCP contributions for Arizona, Nevada, Reclamation, and Mexico, assuming the DCP is finalized as expected. The April projection provides an initial estimate for next year’s operations, but the upcoming August update will provide the official determination for 2020 operations. Reclamation’s five-year outlook on the likelihood of a Lower Basin shortage also provides insight on future operations. The five-year outlook is currently being updated and is expected to be released later this month. Based on the improved hydrology, it is expected there will not be a shortage in 2020 and there will be a reduced chance of shortage over the next five years.

Even with the very good hydrologic year for the river, continued drought has heightened concerns regarding long-term supply reliability in the Colorado River Basin. Finalization and subsequent implementation of the DCP will help maintain Lake Mead levels and protect supplies. California does not face reductions in a shortage but would make DCP contributions at some of the lower elevation triggers. The Water Authority’s independent Colorado River supplies are highly reliable and substantially insulated from shortage impacts due to their high priority status within California’s priority water rights system. The Metropolitan Water District of Southern California (MWD) is responsible for the vast majority of DCP contributions for California under the current intrastate DCP agreements. MWD plans to make any required DCP contributions using existing and future stored water in Lake Mead under the Intentionally Created Surplus (ICS) program, as well as interstate water obtained through an agreement with Nevada. The Water Authority has approved supplies eligible for storage in Lake Mead to help the Colorado River Basin and potentially aid California in meeting its DCP requirements and continues to work towards obtaining an ICS storage account to utilize this benefit.

Prepared by: Kara Mathews, Senior Water Resources Specialist
Reviewed by: Kelly Rodgers, Director of the Colorado River Program
Approved by: Dan Denham, Assistant General Manager

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1 Mexico’s shortage-sharing volume reductions (similar to U.S. shortage cutbacks) and Binational Water Scarcity Contingency Plan (BWSCP) volume contributions (similar to U.S. DCP contributions) are defined in Minute 323.
May 15, 2019

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 13 and 14, 2019 meetings of the MWD Board of Directors. The MWD Board will meet next on June 10 and 11, 2019.

Central Basin Municipal Water District’s Local Resource Program
The MWD Board authorized the General Manager to enter into a Local Resources Program (LRP) agreement with Central Basin Municipal Water District (Central Basin) for Central Basin’s Recycled Water Expansion Phase I Project. Central Basin’s project will expand its recycled water system throughout cities in southeastern Los Angeles County. The LRP agreement is for Phase I of the recycled water system expansion, which will convey an additional 500 acre-feet per year (AFY) of recycled water with deliveries expected to start in winter 2019. The project’s LRP agreement is for sliding-scale subsidies up to $340 per acre-foot over a 25-year term, making MWD’s maximum financial commitment $4.2 million. This is the first LRP agreement the MWD Board approved since increasing the LRP’s interim “target” to 170,000 AFY (from 68,000 AFY) last October.1

Changes to MWD Offering Statement’s Appendix A
The MWD Board authorized the distribution of Appendix A for use in the issuance and remarketing of MWD’s bonds. Appendix A, a component of MWD’s offering statement, discloses essential information to investors about MWD’s water supply, delivery system, capital investment plan, governance and management, revenues and expenses, and power. Federal securities regulations require that bond disclosures not misstate or omit facts that could mislead investors. In June 2016, MWD changed its Appendix A review procedures to a biannual basis, instead of the longstanding practice of providing a draft Appendix A for the Board to review and approve each time bonds are proposed to be sold, or remarshaled, prior to finalizing bond offering statements that include Appendix A. When MWD changed its procedure, the Water Authority Delegates raised several concerns, including that the new process limits the Board’s opportunity to fully review of MWD’s disclosure documents prior to actual bond issuances.2 The Water Authority Delegates did not support this month’s action because of their concern with the draft’s lack of adequate disclosure.

1 For background information on the LRP see the Water Authority’s memo “Metropolitan Water District Demand Management Program update” in its January 2019 Board Packet starting on page 7 here: https://www.sdcwa.org/sites/default/files/2016-12/Board/2019_Agendas/2019_01_24FormalBoardPacketSEC_0.pdf
2 To read more about the Water Authority’s objection to the biannual review process, see the MWD Delegates’ June 11, 2016 letter here: https://mwdprograms.sdcwa.org/wp-content/uploads/2016/06/2016-06-11-WA-ltr-re-MWD-Board-Memo-8-2-Appendix-A.pdf
MWD’s Emergency Storage Objective Update

During the Water Planning and Stewardship committee meeting, MWD presented the 2018 Evaluation of Regional Storage Portfolio white paper, which described the history, policy, and criteria for evaluating a regional planning estimate for the amount of water MWD should hold in its emergency storage portfolio in the event of a major earthquake that would halt deliveries from the region’s imported water systems. A workgroup, composed of member agency and MWD staff, evaluated emergency storage objective based on these key updated assumptions:

- Updated outage durations (based on M 7.8 earthquake):
  - Colorado River Aqueduct (CRA):
    - Two to six months (recovery of 80 percent CRA capacity)
    - Three to five years (recovery of 100 percent CRA capacity)
  - California Aqueduct — East Branch: 12 to 24 months;
  - California Aqueduct — West Branch: 6 to 12 months;
  - Los Angeles Aqueduct: 18 months;
- A range of 25 percent to 35 percent retail cutbacks; and
- A loss of 10 percent to 20 percent of local supply production.

Following the workgroup review process, MWD staff recommends increasing its emergency storage volume from 626,000 acre-feet to 750,000 acre-feet. Additionally, MWD plans to revisit the emergency storage objective periodically and incorporate its analysis into the Integrated Water Resources Plan update process.3

The MWD Committees and Board also:

- Authorized an agreement with Southern California Edison in an amount not to exceed $421,932 to implement a relay coordination system on the Eagle Mountain-Iron Mountain 230kV transmission line to improve the reliability of the CRA 230kV transmission system;
- Adopted a resolution to continue MWD's Water Standby Charge for fiscal year 2020;4
- Authorized a professional services agreement with PFM Asset Management, LLC to provide investment management services;
- Authorized an increase of $100,000, to an amount not-to-exceed $300,000, for existing General Counsel contract with Olson Hagel Fishburn LLP to review and make recommendations to modify the Ethics Office policies, procedures, guidelines and applicable provisions of MWD’s Administrative Code;
- Authorized the Employee Village Enhancement Program and agreement with Roesling Nakamura Terada Architects in the amount not to exceed $1.5 million to prepare a conceptual master plan and to conduct property assessments for District housing;
- Authorized agricultural leases on MWD-owned land to Joey DeConinck Farms, Quail Mesa Ranch, Nish Noroian Farms, and Red River Farms in the Palo Verde Valley;

3 For more information on MWD’s emergency storage objective, see the Water Authority’s memo “Metropolitan Water District’s Evaluation of Regional Storage Portfolio effort” in its December 2019 Board Packet starting on page 190 here: https://www.sdcwa.org/sites/default/files/2016-12/Board/2018_Agendas/2018_12_06FormalBoardPacketSEC.pdf
4 To read the Water Authority General Counsel’s letter opposing the resolution to continue MWD’s standby charge for fiscal year 2019/20, see the May 2, 2019 letter here: https://mwdprograms.sdcwa.org/wp-content/uploads/2019-05-02-WA-ltr-to-MWD-re-Standby-Charge.pdf
• Went into closed session to review settlement proposal received from the Water Authority and receive a report on Water Authority v. MWD (rate litigation);
• Inducted Director Sylvia Ballin onto its Board as San Fernando’s representative (replacing Yazdan Emrani); and
• Heard oral reports on:
  o Disadvantaged Communities Program;
  o Stormwater Pilot for Direct Use;
  o Demand Management Cost Allocation;
  o Financing Overview;
  o Water Surplus and Drought Management Plan;
  o Energy Sustainability Plan;
  o Renewal Status of MWD’s Property and Casualty Insurance Program;
  o MWD’s Construction Outreach: Being a Good Neighbor in Local Communities;
  o Conservation;
  o Existing Bay-Delta and State Water Project Litigation;
  o Succession Planning: Diversity, Inclusion, Culture, Equity; and
  o Succession Planning: Recruitment and Hiring.

Prepared by: Skylar Stephens, Management Analyst
Reviewed by: Amy Chen, Director of MWD Program
Approved by: Dan Denham, Assistant General Manager
May 15, 2019

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;
San Francisco Superior Court Case Nos. CPF-10-510830; CPF-12-512466;
CPF-14-514004; CPF-16-515282; CPF-16-515391; CGC-17-563350;
CPF-18-516389; California Court of Appeal (1st District) Case Nos.
A146901; A148266; A154325; California Supreme Court Case Nos.
S243500; and S251025

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 23, 2019 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
May 15, 2019

Attention: Imported Water Committee

CLOSED SESSION:
Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1)
Name of Case: California Department of Water Resources v. All Persons Interested;
Sacramento Superior Court Case No. 34-2017-00215965-CU-MC-GDS; and
JCCP 4942

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 23, 2019 meeting.

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Prepared by: Mark J. Hattam, General Counsel
May 15, 2019

Attention: Imported Water Committee

CLOSED SESSION:
Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1)
Name of Case: Food & Water Watch and Center for Food Safety v. Metropolitan Water District of Southern California and All Persons Interested in the Matter; Los Angeles Superior Court Case No. BC 720692

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 23, 2019 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 23, 2019

Jerry Butkiewicz – Chair
Matt Hall – Vice Chair
Mel Katz – Vice Chair
David Cherashore
Gary Croucher
Jim Desmond
Christy Guerin
Frank Hilliker

Tom Kennedy
Barry Leonard
Jim Madaffer
John Masson
Marty Miller
Joe Mosca
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: Glenn Farrel

   1-A Adopt a position of Support on AB 841 (Ting), relating to drinking water contaminants.

   1-B Adopt a position of Oppose on AB 854 (Mayes), relating to Imperial Irrigation District board membership.

   1-C Adopt of position of Support on AJR 8 (Quirk), relating to eradication and control of nutria.

   1-D Adopt a position of Oppose Unless Amended on SB 332 (Hertzberg), relating to limitations on discharge of treated wastewater through ocean outfalls.
1-E   Adopt a position of Support on H.R. 2313 (Huffman), relating to income tax exclusion for water conservation rebates.  (Action)

2. Amendment to Professional Services Contract with Building Blocks Entertainment, Inc., to conduct assembly programs for elementary public and private schools in San Diego County.

Staff recommendation: Approve an amendment to the professional services contract with Building Blocks Entertainment, Inc., to increase the contract value to a not-to-exceed amount of $200,000 and to extend the contract for two years. The amended contract would terminate on June 30, 2021, at which time the Water Authority would seek bids on a new two-year contract.  (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

2. Quarterly Water Conservation Garden report.  (Presentation)  Betty Evans

3. Update on Brought to You by Water activities.  (Presentation)  Mike Lee

III. INFORMATION

1. Government Relations Update.  Glenn Farrel

IV.  CLOSED SESSION

V.  ADJOURNMENT  Melinda Nelson

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 15, 2019

Attention: Legislation and Public Outreach Committee

Adopt positions on various state bills. (Action)

Staff recommendation

- Adopt a position of Support on AB 841 (Ting), relating to drinking water contaminants.
- Adopt a position of Oppose on AB 854 (Mayes), relating to Imperial Irrigation District board membership.
- Adopt a position of Support on AJR 8 (Quirk), relating to eradication and control of nutria.
- Adopt a position of Oppose Unless Amended on SB 332 (Hertzberg), relating to limitations on discharge of treated wastewater through ocean outfalls.
- Adopt a position of Support on H.R. 2313 (Huffman), relating to income tax exclusion for water conservation rebates.

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.

Executive Summary

- This proposed action is to allow the Board to consider adopting positions on state legislation.
- The legislation identified in this report would have some material effect on the Water Authority or its member agencies, or would advance an important interest.
- The recommended positions on legislation are based on an analysis of each bill with the Board’s adopted 2019 Legislative Policy Guidelines.
- Water Authority staff and legislative advocates will advance the Board’s policy positions during the current legislative session.

Discussion

**AB 841 (Ting) – Drinking Water: Contaminants: Perfluoroalkyl and Polyfluoroalkyl Substances**

Existing law, the California Safe Drinking Water Act, requires the State Water Resources Control Board (SWRCB) to administer provisions relating to the regulation of drinking water to
protect public health. The Act requires the SWRCB to adopt primary drinking water standards for contaminants in drinking water and requires the Office of Environmental Health Hazard Assessment (OEHHA) to prepare and publish an assessment of the risks to public health posed by each contaminant for which the SWRCB proposes a primary drinking water standard.

AB 841, as amended on March 30, 2019, would require the following of OEHHA with regard to perfluoroalkyl and polyfluoroalkyl substances (PFAS):

- Adopt and complete a work plan by January 1, 2021 to assess which PFAS should be identified as a potential risk to human health.

- Consider which substances have the potential to be detected in California waters based on the prevalence of use of PFAS in California and which substances are technically feasible to detect based on current detection methodologies.

- Provide the Legislature with an update on the assessment.

- Assess PFAS annually as new information, scientific research, and detection methodologies become available.

- Coordinate with the SWRCB to collect water monitoring data on PFAS, as provided by the federal Unregulated Contaminant Monitoring Rule, established by the U.S. Environmental Protection Agency (EPA) or the SWRCB’s investigative order authority.

As identified by the SWRCB, PFAS are a group of human-made chemicals which are generally resistant to heat, water, and oil. They have been used extensively in consumer products such as carpets, clothing, fabrics for furniture, paper packaging for food, fire-fighting foams, and other materials designed to be waterproof, stain-resistant, or non-stick. PFAS can be found in groundwater that may be used for water supplies or private drinking water wells. Such contamination is typically localized and associated with a specific facility, such as an industrial facility where these chemicals were manufactured or used in other products, or an airfield which used the chemicals for firefighting.

In February 2019, the U.S. EPA released a PFAS Action Plan which states their intention to propose a national drinking water regulatory determination. The Action Plan describes the U.S. EPA’s approach to identifying and understanding PFAS, approaches to addressing current PFAS contamination, preventing future contamination, and effectively communicating with the public about PFAS. However, the U.S. EPA has not yet established a timeline for when a PFAS maximum contaminant level (MCL) might be adopted.

In July 2018, the SWRCB established PFAS guidelines for local water agencies to follow in detecting and reporting the presence of PFAS. The guidelines adopted by the SWRCB for two PFAS chemicals set interim notification levels of 14 parts per trillion (ppt) for perfluorooctanoic acid (PFOA) and 13 ppt for perfluorooctanesulfonic acid (PFOS). These guidelines were based on levels set by other states and followed a recommendation by OEHHA. The interim
notification guidelines do not require water agencies to test their water for these contaminants, although most California water systems serving more than 10,000 people already do. If testing is conducted and the notification level is exceeded, then water agencies are required to report the results to their local governing bodies and the SWRCB. Water agencies are also encouraged to report this information to their customers.

The establishment of a notification level is often an initial step in the process of adopting a formal MCL. On March 6, 2019, the SWRCB conducted a PFAS workshop to discuss the need for PFAS monitoring and reporting. During the workshop, the SWRCB expressed the desire to create a state action plan on PFAS, similar to that of the U.S. EPA, which will identify a timeline for activities and data gaps. However, the SWRCB made it clear that they were not asking OEHHA to set a public health goal, which would be the start of the state’s MCL process.

It is clear that multiple government agencies at both the state and federal level are focused on addressing PFAS contamination. Since amended, AB 841 seems to add to that focus, by proposing clear timelines on how an assessment of PFAS impacts is to be executed. Similar legislation – AB 756 (C. Garcia) – would require that a public water system monitor for the entire PFAS family of chemicals and would establish new notification criteria for customers. AB 841 proposes a much more modest and reasoned approach to regulating PFAS, especially when considering alternative legislation that may be advanced in this regard. AB 841 takes the reasonable first step of establishing a beginning point for the State to begin the process of assessing the impacts of PFAS and making recommendations to the Legislature, rather than immediately jumping several steps ahead to mandatory monitoring and testing protocols.

The Water Authority’s legislative policy guidelines state that the Water Authority shall support initiatives that:

- Incorporate sound scientific principles in adopting drinking water standards for drinking water contaminants.

- Establish appropriate quality standards, testing procedures, and treatment processes for emerging contaminants.


**Staff recommends a position of Support on AB 841.**

**AB 854 (Mayes) – Imperial Irrigation District: Retail Electric Service**

The Irrigation District Law requires a director on the board of an irrigation district that provides electricity for residents of the district to be a voter of the district and a resident of the district that the director represents. Existing law also authorizes an irrigation district to sell, dispose of, and distribute electricity for use outside of the district’s boundaries.
AB 854 would advance the following provisions with respect to the Imperial Irrigation District (IID):

- Increase the IID Board of Directors from five to 11 members
  - The six new members would all be required to be residents of Riverside County, giving that County a majority of members on the IID Board of Directors
- The six new Board members would be required to be elected at the 2020 general election
- If a new public utility district is formed that provides electricity service outside the territory of IID and there are provisions that include a board of directors for the new public utility district with a majority of seats representing Riverside County, then the IID Board of Directors may adopt a resolution to take their membership back down to five Board members

Established by a vote of the people in 1911, IID is one of the nation’s largest irrigation districts. IID entered the electric power business in 1936 in conjunction with the construction of the All-American Canal. Congress authorized construction of the All-American Canal to Coachella Valley. However, in negotiating repayment contracts with the United States, it was necessary that both the water and power rights of IID and the Coachella Valley Water District be determined as a key component of those agreements.

According to the terms of a complex 1934 agreement between Imperial and Coachella, IID was given first rights to water delivered through the All-American Canal and a 99-year lease on any power rights Coachella had on the canal. As rental for power rights, IID agreed to pay Coachella Valley Water District (CVWD) a percentage of the net proceeds from its power system and CVWD in turn authorized IID to provide power service to the Coachella Valley. Currently, IID’s district boundaries encompass all of Imperial County. IID also provides electrical service to parts of San Diego County, as well as the cities of Indio, Coachella, Desert Mirage, and La Quinta in the Coachella Valley, all of which are located in Riverside County.

According to the author’s office, Riverside County ratepayers make up 60 percent of the IID electricity service territory, and Riverside County ratepayers provide IID with the majority of its revenue. However, under the existing statutes governing IID, its Board of Directors may only be elected by Imperial County voters and nobody outside of Imperial County is eligible to serve on the IID Board. The author argues that residents of Riverside County have no voice in how their electricity provider is managed and that local representation is a fundamental aspect of the democratic process.

AB 854 would add six new board members to the IID Board, all from Riverside County. The residents of Riverside County do not receive any of the irrigation services provided by IID – they only receive electric services. AB 854 would effectively give control of the water service provisions of IID to a majority of board members that are not impacted at all by that service. As
a result, AB 854 could significantly result in the impairment of existing obligations by altering control over IID’s long-standing water rights. The ultimate effect on these water rights is unclear, but the unintended consequences of such a shift in the governing board could have a negative effect on long-standing water rights.

In addition, AB 854 represents a drastic legislative intervention into a local matter, which poses a negative precedent for other water service providers and local government entities throughout the state. There are likely other means that could be undertaken locally and outside of the state legislative process to address the concerns and resolve the issues. For instance, existing law authorizes the formation of municipal utility districts that can provide electricity as a service. Local agency formation commission (LAFCO) law provides the process by which local communities can petition the LAFCO to begin the formation process. The LAFCO then conducts a review of the formation’s feasibility and conducts a public process to approve or deny the formation of the district. Utilizing these procedures, local communities are able to engage and decide if the formation of a utility district makes sense. AB 854 appears to be an unwarranted intrusion into local affairs that can be best managed through existing processes at the local level.

The Water Authority’s legislative policy guidelines state that the Water Authority shall oppose initiatives that:

- Limit the local water agency’s ability to establish local priorities for water resources planning decisions.


**Staff recommends a position of Oppose on AB 854.**

**AJR 8 (Quirk) – Invasive Species: Federal Nutria Eradication and Control Act of 2003**

The federal Nutria Eradication and Control Act of 2003 authorizes the Secretary of the Interior, subject to the availability of appropriations, to provide financial assistance to the State of Maryland and the State of Louisiana for a program to implement measures to eradicate or control nutria and restore marshland damaged by nutria. Under the Act, the federal share of the costs of the program is prohibited from exceeding 75% of the total costs of the program.

AJR 8 would urge the United States Congress to specifically add California to the Nutria Eradication and Control Act of 2003 and to authorize an appropriation of $4 million to help the state implement a nutria eradication program.

Nutria are invasive aquatic water rodents with a particularly prolific rate of reproduction and have recently been reestablished in California’s waterways. Nutria cause various kinds of damage through burrowing, extensive herbivory, and carrying pathogens and parasites. Nutria burrow into banks and levees, creating complex dens that often cause severe streambank erosion, increased sedimentation, levee failures, and roadbed collapses. Nutria also consume up to 25% of their body weight in above- and below-ground plant material each day. Due to their feeding
habits, nutria destroy up to ten times the amount of plant material as is consumed, causing extensive damage to the native plant community, soil structure, and nearby agricultural crops.

In 2017, a reproducing population of nutria was discovered in the San Joaquin Valley. As of March 7, 2019, 404 nutria have been taken in California, with additional animals confirmed present in Merced, Stanislaus, San Joaquin, Fresno, Tuolumne, and Mariposa Counties. In September 2018, the first reproducing population of nutria within the legal Sacramento-San Joaquin Delta boundary was discovered south of Lathrop in San Joaquin County. The California Department of Fish and Wildlife is collaborating with other agencies and local partners to develop an effective strategy for eradicating nutria from California.

AJR 8 would urge Congress to assist California as it works to address the nutria infestation, which is an existential threat to landowners, agricultural crops, flood management infrastructure, and public lands—especially in the wetlands of the Sacramento-San Joaquin Delta and the Sacramento-San Joaquin Valley. The additional federal resources requested by AJR 8 would be extremely helpful in working towards the eradication of nutria in California’s waterways.

The Water Authority’s legislative policy guidelines state that the Water Authority shall support initiatives that:

- Support the eradication of nutria (myocaster coypus) or prevent the species from becoming established in the Delta.

(2019 Legislative Policy Guidelines, Biological and Habitat Preservation: Environmental & Conservation Planning—Support, Page 8, item 6).

**Staff recommends a position of Support on AJR 8.**

**SB 332 (Hertzberg) – Wastewater treatment: recycled water**

The California Constitution requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable and that the waste or unreasonable use or unreasonable method of use of water be prevented. In addition, under existing law, the State Water Resources Control Board (SWRCB) and the regional water quality control boards prescribe waste discharge requirements in accordance with the federal national pollutant discharge elimination (NPDES) permit program established by the federal Clean Water Act and state law.

SB 332, as amended on April 30, 2019, would declare that the discharge of treated wastewater from ocean outfalls, except in compliance with the provisions of SB 332, is a waste and unreasonable use of water. SB 332 would require each wastewater treatment facility that discharges through an ocean outfall (and affiliated water suppliers) to reduce the facility’s annual flow through the ocean outfall by the following schedule:

- 50 percent reduction by January 1, 2030
- 95 percent reduction by January 1, 2040
SB 332 would subject the owner or operator of a wastewater treatment facility, as well as the affiliated water suppliers, to a civil penalty of $2,000 per acre-foot of water above the required reduction in overall volume discharge for the failure to meet the reduction deadlines.

SB 332 would also require a holder of an NPDES permit authorizing the discharge of wastewater through an ocean outfall (and affiliated water suppliers) to submit and update a plan to meet these discharge reduction requirements to the executive director of the SWRCB, and would require periodic reporting to update progress toward meeting the reduction in annual flow deadlines. The measure would subject an NPDES permit holder and affiliated water suppliers to a penalty of up to $10,000 for failing to submit a report by its deadline, and would also make an NPDES permit holder and affiliated water suppliers that fail to timely submit a report ineligible for a state loan or grant until the delinquent report has been submitted.

While the Water Authority, its member agencies, and the entirety of the San Diego region has been and continues to be highly supportive of developing recycled water projects and increasing recycled water production and use in the future, the statewide ocean discharge limitation advanced by SB 332 is problematic for a variety of reasons, including the following:

- A statewide mandate will cost local public agencies tens of billions of dollars, most if not all of which will be borne by local ratepayers, some in disadvantaged communities.
- A statewide mandate is not a feasible, practical, or efficient method to promote water recycling. Regional and watershed differences are crucial, and barriers are multiple.
- Significant efforts are already underway to expand production and use of recycled water. SB 332 would undermine these efforts, hindering recycled water goals rather than promoting them.
- Several regulatory efforts must be completed before agencies can examine the full suite of reuse options, including development of direct potable reuse regulations.

The Costs to Implement SB 332 Would be Substantial

The costs to implement a 95 percent reuse mandate on all ocean dischargers in the state would be substantial. Initial estimates provided by many of the state’s major cities and ocean dischargers are in the range of tens of billions of dollars, and would include massive treatment facility upgrades, significant infrastructure costs, and a fundamental shift in how wastewater operations with ocean outfalls are managed today. These costs would be borne, in part or in whole, by local ratepayers, which could result in wastewater bills that are three, four, or even five times current wastewater rates. In some cases, these cost impacts would significantly affect disadvantaged communities within the jurisdiction of the local wastewater agency.

To comply with the SB 332 discharge limitation mandate, ocean dischargers would be required to add advanced treatment infrastructure such as filtration, microfiltration, reverse osmosis, and/or ultraviolet disinfection with advanced oxidation. Nearly all agencies would be required to
develop expansive additional distribution infrastructure to deliver this new water. In combination, these actions would cost billions of dollars. Despite recent increases in grant and low interest loan funds for recycled water through Proposition 1 and the State Revolving Fund (SRF) Loan program, the current level of assistance is nowhere near enough to make the discharge limit mandates feasible or affordable for local ratepayers. SB 332 offers no practical solutions to address this funding shortfall.

At a projected total cost of nearly $3 billion, with full build-out of the City of San Diego’s PureWater project in 2035, it is estimated that the ocean discharge at Point Loma would be reduced by approximately 67 percent – far short of the 95 percent discharge reduction target that would be required to be achieved under SB 332 by 2040. The incremental costs to further reduce that discharge by an additional 28 percent would be substantial for San Diegans.

**A Substantial Statewide Ocean Discharge Reduction is Not Feasible, Practical, or Efficient**

California has more than fifty ocean dischargers across the state, ranging in size from agencies that discharge a few hundred thousand gallons per day up to 330 million gallons per day. Every watershed, region, treatment facility, and outfall is different, and the capability to beneficially reuse water varies widely. A reliable and feasible end use for recycled water is not always available, and is dependent on factors other than simply the ocean discharger’s technical ability to supply recycled water. The discharge limitation mandate approach contemplated by SB 332 simply would not work because of this variability and the need to account for local conditions. For example:

- In many cases the regional demand simply does not exist to reuse 95 percent of an agency’s ocean discharge. Some agencies are also long distances from groundwater basins or reservoirs suitable for recharge or storage, making such alternatives impractical.

- Many wastewater agencies are not water purveyors and have complex relationships with local water supply agencies, leaving limited options for distribution of recycled water.

- Some communities are built out and densely populated, making the development of purple pipes and distribution infrastructure for nonpotable water exceedingly difficult and prohibitively expensive.

- Advanced treatment produces brine, which must be managed and ultimately discharged, meaning a true ocean discharge prohibition is unattainable.

- Public acceptance of beneficial reuse of wastewater, both for direct potable and indirect potable reuses, still remains an obstacle in some regions of the state. While water and wastewater agencies and others are actively seeking to educate the public and dispel misconceptions regarding the safety of recycled water, this remains an issue that needs to be addressed.
SB 332 Would be Counterproductive to Existing Water Recycling Efforts
Not only is the approach contemplated by SB 332 infeasible, the specter of a 50 or 95 percent statewide mandate could interfere with existing water recycling efforts currently under way. Water and wastewater agencies are already actively planning for the future and looking for opportunities to maximize recycled water production and beneficial reuse. Agencies throughout the San Diego region and the state are producing hundreds of thousands of acre-feet of recycled water each year, and with recent funding initiatives and the potential for additional financial incentives on the horizon, California is well on its way to meeting the recycled water goals set forth by the SWRCB. The ocean discharge reduction targets in SB 332 would undermine these efforts. Many agencies already have capital projects planned for long-term time horizons, are pursing joint projects with other agencies, and are otherwise managing and balancing their water supply goals. If the discharge mandates in SB 332 go into effect, agencies would be forced to significantly modify their long-term planning and budgeting priorities and spend billions of ratepayer dollars to focus solely on achieving this ocean discharge prohibition.

There is Currently an Incomplete Regulatory Framework
Aside from the enormous practical and cost implications of moving to a 95 percent reuse mandate for ocean dischargers, the proposal is premature in light of pending regulatory efforts intended to lay the foundation for additional recycled water production and beneficial uses moving forward. Specifically, an existing “regulatory gap” needs to be filled before wastewater agencies can determine what methods, processes, and types of reuse make the most sense for the required increase in use of recycled water in their service areas.

The SWRCB is continuing to develop criteria for direct potable reuse. Depending on the results of that process and any regulations or actions that arise, the suite of options for wastewater agencies to beneficially reuse their water could change and expand dramatically. The availability of direct potable reuse is essential for maximizing recycled water production and beneficial use in the state, yet SB 332 would attempt to impose a mandate before that process has been completed. The SWRCB is also currently developing regulations regarding surface water augmentation with recycled water. That process will inform available options for those agencies not in close proximity to groundwater basins conducive to replenishment with recycled water, and could change the dynamics of decision making at certain agencies.

These regulatory processes need to be finalized before agencies can fully evaluate their options as it relates to appropriate levels of treatment, available outlets for recycled water, and the best “fit” for a particular region and situation. Adopting a mandate in advance of the completion of these regulations and processes would require agencies to pursue paths that might not be the most beneficial to the agency, the ratepayers, or water supply in the region or state.

The Application of Certain Provisions Within SB 332 Would Extend to Ocean Water Desalination Facilities
While the specific numerical targets for reduced ocean discharge embodied in SB 332 would apply to a “wastewater treatment facility” that discharges through an ocean outfall, other provisions of the bill are more expansive in terms of their application to “each holder of a national pollutant discharge elimination system (NPDES) permit authorizing the discharge of
wastewater through an ocean outfall.” Based on the definitions provided in SB 332, it could be argued that the provisions related to submittal of plans to reduce ocean discharges to the SWRCB and the application of monetary penalties for reporting violations would apply to a much broader universe of discharges, including the Carlsbad Desalination Project.

Significant amendments are needed to address the concerns raised above. To achieve the broad goal of increasing the use of recycled water, SB 332 should be recast in a manner that addresses the following proposed amendments:

- Eliminate the mandates, the associated enforcement provisions, and the declaration of waste and unreasonable use

- Require the SWRCB to identify barriers and develop clear recommendations and a specific timeline to eliminate those barriers

- Require the SWRCB to consider local and regional factors, such as:
  - Groundwater basins, topography, climate, and markets
  - The impact of a significant increase in recycled water on water and wastewater rates and the effect of these increases on low-income ratepayers
  - The availability of state and federal funding to advance recycled water projects
  - The effect on climate change mitigation efforts including changes in greenhouse gas emissions
  - Gaps in the state's regulatory framework
  - Jurisdictional and water rights issues

- Require the SWRCB to work with stakeholders via a formal process such as a task force

The Water Authority’s legislative policy guidelines state that the Water Authority shall oppose initiatives that:

- Establish unreasonable regulatory requirements or fees relative to the safe use of recycled water which may unreasonably impede or create a disincentive to its further development.

- Mandate the reduction of wastewater discharges to the ocean absent inclusion of funding to offset the significant costs of implementation.


**Staff recommends a position of Oppose Unless Amended on SB 332.**

**Suggested Amendments:** SB 332 should be amended as described above.
H.R. 2313 (Huffman) – Water Conservation Rebate Tax Parity Act

H.R. 2313 would amend the Internal Revenue Code to expand the exclusion for certain conservation subsidies to include subsidies for water conservation or efficiency measures and storm water management measures.

For many years, water agencies throughout California have been offering water use efficiency rebates to promote water conservation, including turf removal programs, acquisition and installation of water-efficient appliances and fixtures, and improvement of irrigation systems and other landscape efficiency measures. Under California income tax statutes, a qualified water use efficiency rebate received from a water agency is excluded from gross income for the purposes of filing state income taxes. However, the Internal Revenue Code does not provide parallel income exclusion for these rebates. H.R. 2313 is intended to provide similar income tax relief as is presently afforded under California law for water conservation and efficiency rebates.

Rebate programs provided by water agencies for water conservation activities are very important in promoting and stimulating private investment in responsible and reduced water use. Taxing water conservation rebates acts as a significant disincentive for millions of Americans willing to do their part in promoting water conservation. This simple, but important, proposal embodied in H.R. 2313 is critical to ensuring residents continue to participate in water conservation programs that play an important role in responding to the ongoing, prolonged drought facing California.

Water use efficiency is a core element of the San Diego County Water Authority’s long-term strategy to improve the reliability of the region’s water supply by diversifying our 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 that include incentives on water-efficient devices, legislative efforts, and outreach campaigns and programs. The region is on track to meet the state’s mandate to reduce per capita water use 20 percent by 2020.

In the 2016 legislative session, the Water Authority Board of Directors adopted a Support position on H.R. 4615 (Huffman) that would have amended the Internal Revenue Code to exclude from gross income amounts received from a water agency for a water conservation efficiency measure or water runoff management improvement. That measure failed to advance.

The Water Authority’s legislative policy guidelines state that the Water Authority shall support initiatives that:

- 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.


Staff recommends a position of Support on H.R. 2313
May 15, 2019

Attention: Legislation, Conservation and Outreach Committee

Amendment to Professional Services Contract with Building Blocks Entertainment, Inc., to conduct assembly programs for elementary public and private schools in San Diego County. (Action)

Staff recommendation
Approve an amendment to the professional services contract with Building Blocks Entertainment, Inc., to increase the contract value to a not-to-exceed amount of $200,000 and to extend the contract for two years. The amended contract would terminate on June 30, 2021, at which time the Water Authority would seek bids on a new two-year contract.

Alternatives
Do not approve the amendment to the professional services contract.

Fiscal impact
Approval of the staff recommendation would increase the contract value by $100,000, for a not-to-exceed amount of $200,000. A portion of the increase in contract value, $20,000, would be contingent upon Board approval of the Fiscal Years 2020-2021 budget. The remaining $80,000 will be paid using state grant funds. The rate category is customer service.

Background
In April 2017, the Water Authority issued a request for proposals to provide a water education assembly program to reach large groups of elementary school students in public and private schools in San Diego County in a creative and interactive way. The Water Authority panel selected Building Blocks Entertainment as the most qualified to provide the program. The General Manager executed a professional services contract with Building Blocks Entertainment for $100,000 in June 2017, with the option to extend the contract for two years at end of the initial two-year period.

The Water Authority provides the program free of charge to participating schools in the Water Authority’s service area. The Water Authority primarily used state grant funds for this program during the current contract period of Fiscal Years 2018-2019.

Discussion
The Water Authority has a long history of providing K-12 programs throughout the region. Through the assembly program, the Water Authority supports its member agencies by bringing water-related education programs to their schools. The Water Authority has secured state grant and Metropolitan Water District of Southern California Member Agency Administration funds that have supplemented operating budget funds to schedule extra assemblies and programs for member agencies. Building Blocks Entertainment features one-person and two-person shows that feature music and other entertaining techniques to engage children to increase their knowledge.
about water conservation and other water-related matters. The company works closely with the Water Authority to incorporate conservation and if appropriate, drought themes into the shows.

In the past two years, the assembly program reached a total audience of 69,860 students and teachers at 137 schools throughout the Water Authority’s service area.

Teachers have consistently provided positive feedback about the shows. A fifth-grade teacher at Chase Avenue Elementary School in El Cajon provided the following comment about “H2O, Where Did You Go?”: “One of the best and I’ve been teaching for 28 years. It was so clever, so entertaining, and so educational. (In that order! You can see what I value – same as the kids.) I’ve told everyone about this assembly and would recommend it to any school.”

This amendment would use the existing contractual option for a two-year extension and ensure continuity of a successful and popular assembly program.

Prepared by:  Denise Vedder, Director of Public Outreach and Conservation
Reviewed by:  Jason Foster, Director of Administrative Services
Approved by:  Sandra L. Kerl, Acting General Manager
May 15, 2019

Attention: Legislation and Public Outreach Committee

Update on Brought to You by Water activities. (Presentation)

Purpose
This presentation will update the Board on recent activity in the Brought to You by Water outreach and education program and provide a preview of upcoming activities.

Background
Beginning June 17, the Water Authority will launch its “Summer of Social Influence.” Jon Foreman, lead singer of the local band Switchfoot, is featured in a series of short videos designed to attract new audiences to learn how water is used in San Diego County. The videos will be featured in a six-month social media program. Also, to leverage program impact, the Water Authority will sponsor water stations at the Bro-Am Beach Fest, the popular surf and music event produced by and featuring Switchfoot on June 29.

In January 2019, the Board of Directors approved the continuation of the Brought to You by Water program to communicate the value of water to the region’s economy and quality of life. The first year of the program focused on four key sectors of the economy: Tourism, manufacturing, brewing and agriculture. Staff is preparing to feature additional water-dependent industries such as life sciences, healthcare and defense in the coming months.

Prepared by: Mike Lee, Public Affairs Supervisor
Reviewed by: Denise Vedder, Director of Public Outreach and Conservation
Approved by: Sandra L. Kerl, Acting General Manager
May 15, 2019

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 has moved past its first major deadline of the 2019 legislative session – passage of bills from policy committees – and now all attention is focused on fiscal committee and Assembly and Senate Floor action. The last day for bills to pass out of each of the houses of origin and to remain active in 2019 is May 31. Following the important May 31 deadline, attention will be shifted to policy committee action in the second house for all bills and a looming June 15 deadline for the Legislature to pass a state budget.

Sponsored Legislation
At its December 6, 2018 meeting, the Water Authority Board approved sponsorship of legislation for 2019.

- AB 1588 (Gloria/Gray) – co-sponsored by the Water Authority and Otay Water District – would provide a path of reciprocity and crediting for military veterans to apply their skills, experiences, and education gained during military service toward water and wastewater system operator certifications. AB 1588 is scheduled to be considered in the Assembly Appropriations Committee on May 16, 2019.

- Senator Ben Hueso has introduced and is advancing placeholder legislation to work on creating opportunities for bulk energy storage projects to advance as assets to improve grid reliability and integration of renewable energy sources into the broader statewide energy system.

Governor’s Executive Order Regarding Water Resiliency
On April 29, 2019, Governor Newsom issued an Executive Order directing state agencies – the Natural Resources Agency, the California Environmental Protection Agency, and the Department of Food and Agriculture – to collaborate on the preparation of a water resilience portfolio for California. According to the Governor’s press release that accompanied the Executive Order, the water resilience portfolio will “identify and assess a suite of complementary actions to ensure safe and resilient water supplies, flood protection and healthy waterways for the state’s communities, economy, and environment.” The Executive Order also directs the state agencies to inventory and assess current water supplies and the health of waterways, future
demands, and challenges. The Executive Order further directs the agencies to assess “current planning to modernize conveyance through the Bay Delta with a new single tunnel project.”

In terms of timing and next steps, the Executive Order directs the state agencies involved to conduct extensive outreach including a wide swath of stakeholder groups to fully inform this process moving forward. In the coming weeks, the agencies will be undertaking listening sessions, information workshops, and other public meetings that will help inform the water resilience portfolio that will be recommended to the Governor.

On May 6, 2019, Water Authority Chair Jim Madaffer corresponded with Governor Newsom, expressing a commitment that the Water Authority will be actively pursuing opportunities to engage with the Governor and his designated cabinet secretaries regarding the Water Authority’s interest and willingness to be a partner with the Administration in the development of a long-term water resiliency plan for California that includes a portfolio approach to water supply development and management. In addition, the communication shared with the Governor that the Water Authority is interested in advancing a series of concepts, proposals, and initiatives within the context of the Governor’s water resiliency planning effort that will involve water, conveyance, storage, treatment, and energy opportunities with strategic partners in Imperial Valley, Mexico, and across the Southwest, with the objective of improving California’s water conditions for the benefit of multiple urban, suburban, and agricultural communities and regions.

**Administration Announcement on California WaterFix**

On May 2, 2019, the Administration announced formal action with respect to the next steps for the WaterFix project. The Department of Water Resources will be taking formal steps to withdraw proposed permits for the WaterFix project (twin tunnels) and, building on work already conducted, “begin a renewed environmental review and planning process for a smaller, single tunnel project.” This approach is consistent with the Governor’s state-of-the-state address earlier this year and the Governor’s Executive Order directing state agencies to develop a portfolio of statewide water actions and investments.

The Administration has indicated that it is committed to community and public engagement as this new process moves forward, and will be announcing information regarding schedule, opportunities for public review, and other updates in the coming weeks.

Staff in the MWD Department and Government Relations Program will continue to collaborate to provide updates to the Board and member agencies as information emerges.

**Status Report on Legislation and Legislative Positions**

Water Authority staff is currently actively reviewing and analyzing 45 bills that have been introduced at this early stage of the legislative session 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 2019 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 legislation under review by Water Authority staff as of May 15, 2019.

**Lobbyist Activities**
Steve Cruz of Cruz Strategies 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.
- Actively engaged in efforts to influence the resolution of outstanding issues relative to the Carlsbad Desalination Plant intake facility Temporary Order.
- Participated in briefings within the Capitol and with state agencies regarding pumped hydropower storage and the Water Authority’s 2019 legislative priorities.
- Represented the Water Authority in a variety of venues on Water Authority issues.
- Coordinated with 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.
- Actively engaged in efforts to influence the resolution of outstanding issues relative to the Carlsbad Desalination Plant intake facility Temporary Order.
- Communicated with legislative leadership, the Administration, and stakeholders regarding the San Diego region’s interests relative to bulk energy storage and the Carlsbad intake funding issue.
- Coordinated with Steve Cruz and Water Authority staff on various legislative issues of importance to the Water Authority.

Audra Hartmann of Smith, Watts & Hartmann reports that she performed the following regulatory advocacy activities on behalf of the Water Authority over the past month:
• Coordinated meetings with SWRCB members and staff relative to the issue of the Carlsbad Desalination facility intake modifications.

• Participated in SWRCB meetings regarding emerging water quality issues of interest to the Water Authority.

• Provided strategic advice and information regarding the Water Authority’s regulatory interests.

• Coordinated with Water Authority staff on various regulatory issues of interest 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, Legislative Analyst
Approved by: Dan Denham, Assistant General Manager

Attachment: Substantive Legislation Report – May 15, 2019
Substantive State Legislation Under Review by Water Authority Staff
May 15, 2019

AB 56 (Garcia, Eduardo D) Electricity: procurement by the California Alternative Energy and Advanced Transportation Financing Authority.
Current Text: Amended: 4/30/2019  html, pdf
Introduced: 12/3/2018
Status: 5/1/2019-Re-referred to Com. on APPR.
Summary: Would authorize the Public Utilities Commission, if it makes certain findings, to authorize the California Alternative Energy and Advanced Transportation Financing Authority to undertake procurement of electricity to meet the state's climate, clean energy, and reliability goals that are not satisfied by load-serving entities. The bill would authorize the authority to undertake procurement consistent with specified objectives and to manage the resale of electricity for its contracted resources. The bill would provide for the reduction in procurement compliance obligations for load-serving entities for the electricity procured by the authority.

AB 134 (Bloom D) Safe Drinking Water Restoration.
Current Text: Amended: 5/1/2019  html, pdf
Introduced: 12/5/2018
Status: 5/2/2019-Re-referred to Com. on APPR.
Summary: Would, by July 1 of each year, would require the State Water Resources Control Board to adopt an assessment of need for state financial assistance to provide safe drinking water that identifies failed water systems throughout the state. The bill would require the assessment of need to prioritize the systems with the most urgent need for state financial assistance in light of specified factors. The bill would require each regional engineer to arrange for a prescribed comprehensive assessment of each failed water system in the region of the drinking water regional office to be completed within 2 years of the board identifying the failed water system in the assessment of need.

AB 217 (Garcia, Eduardo D) Safe Drinking Water for All Act.
Current Text: Amended: 5/1/2019  html, pdf
Introduced: 1/16/2019
Status: 5/2/2019-Re-referred to Com. on APPR.
Summary: Would enact the Safe Drinking Water for All Act and would establish the Safe and Affordable Drinking Water Fund in the State Treasury and would provide that moneys in the fund are continuously appropriated to the State Water Resources Control Board to provide a source of funding to secure access to safe drinking water for all Californians, while also ensuring the long-term sustainability of drinking water service and infrastructure. The bill would authorize the board to provide for the deposit into the fund of federal contributions, voluntary contributions, gifts, grants, bequests, and settlements from parties responsible for contamination of drinking water supplies, and to contribute funding available from other sources related to water quality.

AB 223 (Stone, Mark D) California Safe Drinking Water Act: microplastics.
Current Text: Introduced: 1/16/2019  html, pdf
Introduced: 1/16/2019
Status: 4/26/2019-Failed Deadline pursuant to Rule 61(a)(2). (Last location was E.S. & T.M. on 2/4/2019) (May be acted upon Jan 2020)
Summary: The California Safe Drinking Water Act requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health. Current law requires the state board, on or before July 1, 2020, to adopt a definition of microplastics in drinking water and, on or before July 1, 2021, to adopt a standard methodology to be used in the testing of drinking water for microplastics and requirements for 4 years of testing and reporting of microplastics in drinking water, including public disclosure of those results. This bill would require the state board, to the extent possible, and where feasible and cost effective, to work with the State Department of Public Health in complying with those requirements.

AB 292 (Quirk D) Recycled water: raw water and groundwater augmentation.
Introduced: 1/28/2019
Summary: Current law requires the State Water Resources Control Board, on or before December 31, 2023, to adopt uniform water recycling criteria for direct potable reuse through raw water augmentation, as specified. Current law defines "direct potable reuse" and "indirect potable reuse for groundwater recharge" for these purposes. This bill would eliminate the definition of "direct potable reuse" and instead would substitute the term "groundwater augmentation" for "indirect potable reuse for groundwater recharge" in these definitions. The bill would revise the definition of "treated drinking water augmentation."
**AB 402** (Quirk D) State Water Resources Control Board: local primacy delegation: funding stabilization program.

**Current Text:** Amended: 3/5/2019  [html](HTML)  [pdf](PDF)

**Introduced:** 2/6/2019

**Status:** 3/20/2019-In committee: Set, first hearing. Referred to suspense file.

**Summary:** The California Safe Drinking Water Act requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health. The act requires the state board to provide the local primacy agency, to the extent funds are available from the Safe Drinking Water Account, with an annual drinking water surveillance program grant to cover the costs of conducting inspection, monitoring, surveillance, and water quality evaluation activities specified in the local primacy agreement. The act requires the state board to adopt a schedule of fees and requires a public water system under the jurisdiction of a local primacy agency to pay these fees to the local primacy agency in lieu of the state board. This bill would include enforcement costs as costs covered by an annual drinking water surveillance program grant.

**AB 405** (Rubio, Blanca D) Sales and use taxes: exemption: water treatment.

**Current Text:** Amended: 4/25/2019  [html](HTML)  [pdf](PDF)

**Introduced:** 2/7/2019

**Status:** 5/6/2019-Action From REV. & TAX: Do pass.To APPR..

**Summary:** Would, on and after January 1, 2020, and before January 1, 2025, exempt from that Sales and Use Tax the gross receipts from the sale in this state of, and the storage, use, or other consumption in this state of, chemicals used by a city, county, public utility, and sanitation district to treat water, recycled water, or wastewater regardless of whether those chemicals or other agents become a component part thereof and regardless of whether the treatment takes place before or after the delivery to consumers.

**AB 441** (Eggman D) Water: underground storage.

**Current Text:** Amended: 3/27/2019  [html](HTML)  [pdf](PDF)

**Introduced:** 2/11/2019

**Status:** 4/24/2019-In committee: Set, first hearing. Referred to APPR. suspense file.

**Summary:** Under current law, the right to water or to the use of water is limited to that amount of water that may be reasonably required for the beneficial use to be served. Current law provides for the reversion of water rights to which a person is entitled when the person fails to beneficially use the water for a period of 5 years. Current law declares that the storing of water underground, and related diversions for that purpose, constitute a beneficial use of water if the stored water is thereafter applied to the beneficial purposes for which the appropriation for storage was made. This bill would instead provide that any diversion of water to underground storage constitutes a diversion of water for beneficial use for which an appropriation may be made if the diverted water is put to beneficial use, as specified.

**AB 456** (Chiu D) Public contracts: claim resolution.

**Current Text:** Introduced: 2/11/2019  [html](HTML)  [pdf](PDF)

**Introduced:** 2/11/2019


**Summary:** Current law prescribes various requirements regarding the formation, content, and enforcement of state and local public contracts. Current law establishes, until January 1, 2020, 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, as defined. Current law defines a claim for these purposes 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. This bill would remove the January 1, 2020, repeal date on these provisions, thereby making this claim resolution process operative indefinitely.

**AB 510** (Cooley D) Local government records: destruction of records.

**Current Text:** Introduced: 2/13/2019  [html](HTML)  [pdf](PDF)

**Introduced:** 2/13/2019

**Status:** 5/3/2019-Failed Deadline pursuant to Rule 61(a)(3). (Last location was L. GOV. on 2/21/2019) (May be acted upon Jan 2020)

**Summary:** Current law authorizes the head of a department of a county or city, or the head of a special district to destroy recordings of telephone and radio communications maintained by that county, city, or special district after 100 days if that person receives approval from the legislative body and the written consent of the agency attorney. This bill would exempt the head of a department of a county or city, or the head of a special district from these recording retention requirements if the county, city, or special district adopts a records retention policy governing recordings of routine video monitoring and recordings of telephone and radio communications.
AB 533 (Holden D) Income taxes: exclusion: turf removal water conservation program.
Introduced: 2/13/2019
Summary: Current law, for taxable years beginning on or after January 1, 2014, and before January 1, 2019, excludes from gross income under both laws any amount received as a rebate, voucher, or other financial incentive issued by a local water agency or supplier for participation in a turf removal water conservation program. Current law limits the collection and use of taxpayer information and provides that any unauthorized use of this information is punishable as a misdemeanor. This bill would extend the operative date of the provisions excluding from gross income specified amounts received in a turf removal water conservation program to taxable years beginning before January 1, 2024.

AB 557 (Wood D) Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program.
Introduced: 2/13/2019
Summary: Would appropriate $9,250,000 from the General Fund to the Department of Water Resources in the 2019–20 fiscal year to operate the Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program.

AB 600 (Chu D) Local government: organization: disadvantaged unincorporated communities.
Introduced: 2/14/2019
Status: 5/7/2019-Action From SECOND READING: Read second time. To THIRD READING.
Summary: Under current law, an application to annex a contiguous disadvantaged community is not required if, among other things, a local agency formation commission finds that a majority of the registered voters within the disadvantaged unincorporated community are opposed to the annexation, as specified. This bill would additionally provide that an application to annex a contiguous disadvantaged community is not required if the commission finds that a majority of the registered voters within the affected disadvantaged unincorporated community would prefer to address the service deficiencies through an extraterritorial service extension.

AB 637 (Gray D) State Water Resources Control Board: disadvantaged communities: drinking water.
Introduced: 2/15/2019
Summary: Would require the State Water Resources Control Board, before taking an action that significantly impacts drinking water, to use existing information to identify impacted disadvantaged communities and to seek to reduce impacts to those communities to the greatest extent practicable. The bill would also require the board to ensure that disadvantaged communities are provided an opportunity to participate in the public process for a decision that significantly impacts drinking water by holding a public hearing in or near an impacted community.

AB 638 (Gray D) Department of Water Resources: water storage capacity.
Current Text: Introduced: 2/15/2019  html, pdf
Introduced: 2/15/2019
Summary: Current law requires the Department of Water Resources to update every 5 years the plan for the orderly and coordinated control, protection, conservation, development, and use of the water resources of the state, which is known as The California Water Plan. This bill would require the department, on or before January 1, 2021, with updates every 2 years thereafter, to identify the statewide water storage capacity, the adverse impacts to the capacity from the effects of climate change, and the mitigation strategies for anticipated adverse impacts.

AB 756 (Garcia, Cristina D) Public water systems: perfluoroalkyl substances and polyfluoroalkyl substances.
Introduced: 2/19/2019
Status: 5/2/2019-Read second time. Ordered to third reading.
Summary: Would authorize the State Water Resources Control Board to order a public water system to monitor for perfluoroalkyl substances and polyfluoroalkyl substances.

Introduced: 2/19/2019
on RLS. for assignment.

**Summary:** Would exempt from CEQA the acquisition, sale, or other transfer of interest in land by a public agency for certain purposes, or the granting or acceptance of funding by a public agency for those purposes, if the public agency conditions those transactions on environmental review in accordance with CEQA before making physical changes to the transferred land before making those changes.

**AB 841**

(Ting D) Drinking water: contaminants: perfluoroalkyl and polyfluoroalkyl substances.

*Current Text:* Amended: 3/20/2019  [html](#)  [pdf](#)

*Introduced:* 2/20/2019


*Summary:* Would require the Office of Environmental Health Hazard Assessment to adopt and complete a work plan within prescribed timeframes to assess which substances in the class of perfluoroalkyl and polyfluoroalkyl substances should be identified as a potential risk to human health, as provided. The bill would require the office, as part of those assessments, to determine which of the substances are appropriate candidates for notification levels to be adopted by the state board. The bill would require the Office of Environmental Health Hazard Assessment, by January 1, 2022, to provide to the Legislature an update on the assessment.

**AB 854**

(Mayes R) Imperial Irrigation District: retail electric service.

*Current Text:*Introduced: 2/20/2019  [html](#)  [pdf](#)

*Introduced:* 2/20/2019


*Summary:* Would require the membership of the board of directors of the Imperial Irrigation District to increase from 5 to 11 members, with the 6 additional directors meeting certain qualifications, including that each be a resident of and qualified as eligible to vote in the County of Riverside. The bill would provide for the election of the additional directors at the 2020 general district election. The bill would authorize the district board to adopt a resolution decreasing the number of directors and the divisions from which they are elected from 11 to 5 if a public utility district is formed that provides electricity outside the territory of the Imperial Irrigation District and consists of a board of directors with a majority of seats representing the County of Riverside.

**AB 868**

(Bigelow R) Electrical corporations: wildfire mitigation plans.

*Current Text:* Amended: 4/9/2019  [html](#)  [pdf](#)

*Introduced:* 2/20/2019

*Status:* 5/1/2019-In committee: Set, first hearing. Referred to APPR. suspense file.

*Summary:* Would require each electrical corporation that deenergizes portions of the distribution grid as a wildfire mitigation measure to adopt protocols for when deenergization will be undertaken and for providing notice and other steps to be taken to minimize any adverse effects from deenergization, as specified. The bill would require that the electrical corporation, in developing the protocols, consult with persons and institutions that are reasonably likely to be affected by a deenergization, including local schools, water suppliers, wastewater agencies, disability rights advocates, consumer groups, fire departments, law enforcement agencies, local government officials, local elected officials, hospitals, and communications providers.

**AB 915**

(Mayes R) California Renewables Portfolio Standards Program.

*Current Text:* Introduced: 2/20/2019  [html](#)  [pdf](#)

*Introduced:* 2/20/2019

*Status:* 4/26/2019-Failed Deadline pursuant to Rule 61(a)(2). (Last location was U. & E. on 3/14/2019) (May be acted upon Jan 2020)

*Summary:* Would require that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatthours of those products sold to their retail end-use customers achieve 68% of retail sales by December 31, 2033, 76% by December 31, 2036, and 80% by December 31, 2038. The bill would revise the definition of “eligible renewable resource” for purposes of the program to include, on and after January 1, 2026, an electrical generation facility that has a specified point source emission level of carbon dioxide equivalent at, or below, a specified level, if the marginal increase in the cost of procurement from other eligible renewable energy resources exceeds a specified level.

**AB 933**

(Petrie-Norris D) Ecosystem resilience: watershed protection: watershed coordinators.

*Current Text:* Amended: 4/1/2019  [html](#)  [pdf](#)

*Introduced:* 2/20/2019


*Summary:* Would authorize the Department of Conservation, to the extent funds are available, to establish and administer the Ecosystem Resilience Program to fund watershed coordinator positions, and other necessary costs, throughout the state for the purpose of achieving specified goals, including the goal of developing and implementing watershed improvement plans aligned with multiple
statewide and regional objectives across distinct bioregions. The bill would authorize the department to develop performance measures and accountability controls to track progress and outcomes.

**AB 939**  
**Frazier D**  
*Administrative Procedure Act: major regulations.*  
Current Text: Amended: 4/22/2019  
Introduced: 2/20/2019  
Summary: Current law requires a state agency proposing to adopt, amend, or repeal a major regulation to also prepare a standardized regulatory impact analysis, and defines a “major regulation” as a regulation that the state agency estimates will have an economic impact on California business enterprises and individuals in an amount exceeding $50,000,000. This bill would instead define “major regulation” to be a regulation that the state agency estimates will have an economic impact on California business enterprises and individuals in an amount exceeding $30,000,000.

**AB 945**  
**McCarty D**  
*Local government: financial affairs: surplus funds.*  
Current Text: Introduced: 2/20/2019  
Introduced: 2/20/2019  
Summary: Existing law prescribes the instruments and criteria by which a local agency, as defined, may invest and deposit its funds, including its surplus funds. This bill would, commencing January 1, 2020, authorize a local agency to invest and deposit the agency’s surplus funds in deposits at specified types of financial institutions whether those investments are certificates of deposit or another form, and would increase the percentage of the local agency’s funds that can be invested to 50%. The bill would make additional conforming changes.

**AB 1180**  
**Friedman D**  
*Water: recycled water.*  
Current Text: Amended: 3/28/2019  
Introduced: 2/21/2019  
Summary: The California Safe Drinking Water Act requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health. Current law requires, on or before January 1, 2020, the state board to adopt standards for backflow protection and cross-connection control through the adoption of a policy handbook, as specified. This bill would require that handbook to include provisions for the use of a swivel or changeover device to supply potable water to a dual-plumbed system during an interruption in recycled water service.

**AB 1184**  
**Gloria D**  
*Public records: writing transmitted by electronic mail: retention.*  
Current Text: Amended: 4/24/2019  
Introduced: 2/21/2019  
Summary: Would, unless a longer retention period is required by statute or regulation, require a public agency for purposes of the California Public Records Act to retain and preserve for at least 2 years every writing containing information relating to the conduct of the public’s business prepared, owned, or used by any public agency that is transmitted by electronic mail or other similar messaging system.

**AB 1220**  
**Garcia, Cristina D**  
*Metropolitan water districts.*  
Current Text: Amended: 3/28/2019  
Introduced: 2/21/2019  
Summary: Under the Metropolitan Water District Act, the board of a metropolitan water district is required to consist of at least one representative from each member public agency, as prescribed. The act authorizes each member public agency to appoint additional representatives not exceeding one additional representative for each 5% of the assessed valuation of property taxable for district purposes within the entire district that is within the boundaries of that member public agency. This bill would prohibit a member public agency from having fewer than the number of representatives it had as of January 1, 2019.

**AB 1588**  
**Gloria D**  
*Drinking water and wastewater operator certification programs.*  
Current Text: Amended: 4/2/2019  
Introduced: 2/22/2019  
Status: 4/10/2019-From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 9. Noes 0.) (April 9). Re-referred to Com. on APPR.  
Summary: Current law requires a person who operates a nonexempt wastewater treatment plant to
possess a valid, unexpired wastewater certificate or water treatment operator certificate of the appropriate grade. This bill, when applying for certification by the board as a water treatment operator, distribution system operator, or wastewater operator, would require operators of complex industrial facilities, including members of the military and military service veterans, to receive full equivalent experience credit and education credit for work and tasks performed that are directly related to the operation of water or wastewater facilities, as specified.

**AB 1672** (Bloom D) **Solid waste: flushable products.**  
**Current Text:** Amended: 4/25/2019 [html pdf]  
**Introduced:** 2/2/2019  
**Status:** 4/29/2019-Re-referred to Com. on APPR.  
**Summary:** The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery, generally regulates the disposal, management, and recycling of solid waste. This bill would, among other things, on or after January 1, 2021, prohibit a covered entity, as defined, from labeling a covered product as safe to flush, safe for sewer systems, or safe for septic systems, unless the product is a flushable wipe that meets certain performance standards. The bill would require nonflushable products to be labeled clearly and conspicuously to communicate that they should not be flushed, as specified.

**ACA 3** (Mathis R) **Clean Water for All Act.**  
**Current Text:** Amended: 3/20/2019 [html pdf]  
**Introduced:** 1/16/2019  
**Status:** 4/30/2019-In committee: Set, first hearing. Failed passage. Reconsideration granted.  
**Summary:** This measure, the Clean Water for All Act, would additionally require, commencing with the 2021–22 fiscal year, not less than 2% of specified state revenues to be set apart for the payment of principal and interest on bonds authorized pursuant to the Water Quality, Supply, and Infrastructure Improvement Act of 2014; water supply, delivery, and quality projects administered by the department, and water quality projects administered by the board, as provided.

**SB 1** (Atkins D) **California Environmental, Public Health, and Workers Defense Act of 2019.**  
**Current Text:** Amended: 4/11/2019 [html pdf]  
**Introduced:** 12/3/2018  
**Status:** 5/3/2019-Set for hearing May 13.  
**Summary:** Current state law regulates the discharge of air pollutants into the atmosphere. 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. This bill would require specified agencies to take prescribed actions regarding certain federal requirements and standards pertaining to air, water, and protected species, as specified.

**SB 45** (Allen D) **Wildfire, Drought, and Flood Protection Bond Act of 2020.**  
**Current Text:** Amended: 4/4/2019 [html pdf]  
**Introduced:** 12/3/2018  
**Status:** 5/1/2019-May 6 set for first hearing canceled at the request of author.  
**Summary:** Would enact the Wildfire, Drought, and Flood Protection Bond Act of 2020, which, if approved by the voters, would authorize the issuance of bonds in the amount of $4,300,000,000 pursuant to the State General Obligation Bond Law to finance projects to restore fire damaged areas, reduce wildfire risk, create healthy forest and watersheds, reduce climate impacts on urban areas and vulnerable populations, protect water supply and water quality, protect rivers, lakes, and streams, reduce flood risk, protect fish and wildlife from climate impacts, improve climate resilience of agricultural lands, and protect coastal lands and resources.

**SB 134** (Hertzberg D) **Water conservation: water loss performance standards: enforcement.**  
**Current Text:** Introduced: 1/15/2019 [html pdf]  
**Introduced:** 1/15/2019  
**Status:** 5/7/2019-Action From SECOND READING: Read second time. To THIRD READING.  
**Summary:** Current law authorizes the State Water Resources Control Board to issue information orders, written notices, and conservation orders to an urban retail water supplier that does not meet its urban water use objective, and existing law authorizes the board to impose civil liability for a violation of an order or regulation issued pursuant to these provisions, as specified. Current law requires the board, no earlier than January 1, 2019, and no later than July 1, 2020, to adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. This bill would prohibit the board from imposing liability for a violation of the performance standards for the volume of water losses except as part of the enforcement of an urban water use objective.

**SB 166** (Wiener D) **Process water treatment systems: breweries and wineries: study group.**
Current Text: Amended: 3/21/2019  html  pdf
Introduced: 1/28/2019
Status: 5/7/2019-Action From APPR.: Read second time. To THIRD READING.
Summary: Current law requires the State Water Resources Control Board to establish uniform statewide recycling criteria for each varying type of use of recycled water where the use involves the protection of public health. Current law requires, on or before December 1, 2022, the state board, in consultation with specified state agencies, to adopt regulations for risk-based water quality standards for the onsite treatment and reuse of nonpotable water, as provided. This bill would require the state board, on or before December 1, 2021, to convene a prescribed study group to advise the Legislature on policies regarding the onsite reuse of process water in breweries and wineries.

**SB 241** (Moorlach R)  Personal Income Tax: California Voluntary Contribution Program.
Introduced: 2/11/2019
Summary: Current law contains administrative provisions generally applicable to a new or extended voluntary tax contribution. Current law provides for various voluntary contribution funds to be listed on the personal income tax return, including the California Firefighters’ Memorial Fund and the California Peace Officer Memorial Foundation Fund, which are both repealed on January 1, 2021, except as otherwise provided. This bill would remove the repeal dates for the California Firefighters’ Memorial Fund and the California Peace Officer Memorial Foundation Fund, thereby allowing those voluntary contribution funds to be listed on the personal income tax return indefinitely.

**SB 255** (Bradford D)  Women, minority, disabled veteran, and LGBT business enterprise procurement: electric service providers: energy storage system companies: community choice aggregators.
Introduced: 2/12/2019
Summary: Current law directs the Public Utilities Commission to require every electrical corporation, gas corporation, water corporation, wireless telecommunications service provider, and telephone corporation with annual gross revenues exceeding $25,000,000, and their regulated subsidiaries and affiliates, to annually submit a detailed and verifiable plan for increasing procurement from women, minority, disabled veteran, and LGBT business enterprises, as defined, in all categories, including a renewable energy project, as defined, and wireless telecommunications, broadband, smart grid, and rail projects. Current law requires the reporting of certain information about the implementation of the plans. This bill would change the $25,000,000 annual gross revenue threshold above which these requirements become applicable to $1,000,000 in gross annual California revenues, and would extend these requirements to electric service providers, certain wholesale generators selling electricity to retail sellers, distributed energy resource contractors, and energy storage system companies, as specified.

**SB 288** (Wiener D)  Electricity: renewable resource self-generation and storage.
Current Text: Amended: 5/1/2019  html  pdf
Introduced: 2/13/2019
Summary: Would, by January 1, 2021, require the PUC and the governing board of each local publicly owned electric utility with an annual electrical demand exceeding 700 gigawathours to, among other things, create one or more tariffs for customer-sited energy storage systems that export electricity to the electrical grid and to consider one or more tariffs for customer-sited renewable energy and energy storage systems to support grid reliability and community resiliency in the event of emergencies or grid outages.

**SB 307** (Roth D)  Water conveyance: use of facility with unused capacity.
Current Text: Amended: 4/30/2019  html  pdf
Introduced: 2/15/2019
Summary: Current law prohibits the state or a regional or local public agency from denying a bona fide transferor of water from using a water conveyance facility that has unused capacity for the period of time for which that capacity is available, if fair compensation is paid for that use and other requirements are met. This bill would, notwithstanding that provision, prohibit a transferor of water from using a water conveyance facility that has unused capacity to transfer water from a groundwater basin underlying desert lands, as defined, that is in the vicinity of specified federal lands or state lands to outside of the groundwater basin unless the State Lands Commission, in consultation with the Department of Fish and Wildlife and the Department of Water Resources, finds that the transfer of the water will not adversely affect the natural or cultural resources of those federal or state lands, as provided.

**SB 332** (Hertzberg D)  Wastewater treatment: recycled water.
**SB 355**
(Portantino D)  **Joint powers agencies: County of Los Angeles or County of Ventura: meetings.**

Current Text: Amended: 5/2/2019  [html](#)  [pdf](#)

Introduced: 2/19/2019


Summary: Would authorize a local publicly owned electric utility that is an irrigation district to elect to credit its share of the total electricity generated by the Don Pedro Hydroelectric Project, commensurate with its ownership share of that project, as meeting its renewables portfolio standard procurement requirements. The bill would require that an election by an irrigation district to apply its proportionate share of the electricity generated by the Don Pedro Hydroelectric Project to meet its renewables portfolio standard procurement requirements would be for all of its proportionate share of the generation, including any portion of the electricity that is an eligible renewable energy resource because it results from efficiency improvements at the project.

**SB 386**
(Caballero D)  **California Renewables Portfolio Standard Program: irrigation districts.**

Current Text: Amended: 5/1/2019  [html](#)  [pdf](#)

Introduced: 2/20/2019

Status: 5/1/2019-Read second time and amended. Ordered to third reading.

Summary: Would authorize a local publicly owned electric utility that is an irrigation district to elect to credit its share of the total electricity generated by the Don Pedro Hydroelectric Project, commensurate with its ownership share of that project, as meeting its renewables portfolio standard procurement requirements. The bill would require that an election by an irrigation district to apply its proportionate share of the electricity generated by the Don Pedro Hydroelectric Project to meet its renewables portfolio standard procurement requirements would be for all of its proportionate share of the generation, including any portion of the electricity that is an eligible renewable energy resource because it results from efficiency improvements at the project.

**SB 414**
(Caballero D)  **Small System Water Authority Act of 2019.**


Introduced: 2/20/2019


Summary: Would create the Small System Water Authority Act of 2019 and state legislative findings and declarations relating to authorizing the creation of small system water authorities that will have powers to absorb, improve, and competently operate noncompliant public water systems. The bill, no later than March 1, 2020, would require the state board to provide written notice to cure to all public agencies, private water companies, or mutual water companies that operate a public water system that has either less than 3,000 service connections or that serves less than 10,000 people, and are not in compliance, for the period from July 1, 2018, through December 31, 2019, with one or more of its ownership share of that project, as meeting its renewables portfolio standard procurement requirements would be for all of its proportionate share of the generation, including any portion of the electricity that is an eligible renewable energy resource because it results from efficiency improvements at the project.

**SB 487**
(Caballero D)  **Department of Water Resources: aerial snow survey.**

Current Text: Introduced: 2/21/2019  [html](#)  [pdf](#)

Introduced: 2/21/2019


Summary: Would require the Department of Water Resources’ California snow survey program to conduct aerial surveys of the snowpack in the Trinity Alps and Sierra Nevada Mountains, including hydrologic areas that drain or supply water to certain major reservoirs and lakes. The bill would require the department to collect the aerial survey data up to 10 times per year in each hydrologic area and to summarize and make publicly available the data obtained and digital products used to produce runoff forecasts, as specified.

**SB 513**
(Hurtado D)  **California Disaster Assistance Act.**


Introduced: 2/21/2019


Summary: The California Disaster Assistance Act, authorizes the Office of Emergency Services to establish a model process that would be made available to assist a community in recovering from an emergency proclaimed by the Governor and would provide that the process may consider, among other things, the role of the office to facilitate the use of temporary services, including, but not limited to, the provision of potable water. This bill would authorize that process to consider the provision of potable water.
and domestic water, including, for wells that have gone dry.

SB 785  (Committee on Natural Resources and Water)  Public resources: parklands, freshwater resources, and coastal resources: off-highway motor vehicles: public lands.
Current Text: Amended: 4/30/2019  html  pdf
Introduced: 3/11/2019
Summary: Current law, until January 1, 2020, generally prohibits a person from possessing, importing, shipping, or transporting in the state, or from placing, planting, or causing to be placed or planted in any water within the state, dreissenid mussels, and authorizes the Director of Fish and Wildlife or the director's designee to engage in various enforcement activities with regard to dreissenid mussels. Among those activities, current law authorizes the director to conduct inspections of waters of the state and facilities located within waters of the state that may contain dreissenid mussels and, if those mussels are detected or may be present, order the closure of the affected waters or facilities to conveyances or otherwise restrict access to the affected waters or facilities, with the concurrence of the Secretary of the Natural Resources Agency. This bill would extend to January 1, 2030, the repeal date of those provisions.

Total Measures: 45
Total Tracking Forms: 12
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 23, 2019
2:30 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 Imported Water Committee meeting of April 11, 2019 and the Formal Board of Directors’ meeting of April 25, 2019.

6. Opportunity for members of the public who wish to address the Board on matters within the Board’s jurisdiction.

7. PRESENTATIONS & PUBLIC HEARINGS

8. REPORTS BY CHAIRS

8-A Chair’s Report: Chair Madaffer

8-B Report by Committee Chairs
   Engineering and Operations Committee   Director Fong-Sakai
   Water Planning and Environmental Committee   Director Heinrichs
   Administrative and Finance Committee   Director Hilliker
   Imported Water Committee   Director Lewinger
   Legislation and Public Outreach Committee   Director Butkiewicz

9. CONSENT CALENDAR

9-1. Design-Build contract with Gracon LLC for the Rancho Peñasquitos Hydroelectric Facility Improvements Project.
Authorize the General Manager to award a design-build contract to Gracon LLC in the amount of $4,280,000 for the Rancho Peñasquitos Hydroelectric Facility Improvements project.
9-2. **Authorization of Professional Services Agreement with Mission Resource Conservation District for WaterSmart Field Services.**

Authorize the General Manager to execute a three-year professional services agreement with Mission Resource Conservation District in an amount not to exceed $260,000 for administration of the WaterSmart Field Services Program through June 30, 2022, with an option for a two-year extension.

9-3. **Monthly Treasurer’s Report on Investments and Cash Flow.**

Note and file the Treasurer’s report.

9-4. **Liquidity Facilities Supporting the Water Authority Tax Exempt Commercial Paper Program.**

a) Adopt Resolution 2019-__ authorizing the issuance and sale of short-term revenue certificates, approving Bank of the West as the liquidity provider for the Series 10 Commercial Paper Notes and authorizing and approving certain actions in connection therewith; and

b) Adopt Resolution 2019-__ authorizing the extension of the term of a liquidity agreement with Bank of America, N.A., as the liquidity provider for the Series 9 Commercial Paper Notes program and authorizing and approving certain actions in connection therewith.

9-5. **Resolution setting a Public Hearing date for Rates and Charges.**

Adopt Resolution No. 2019-___ setting the time and place for a public hearing on June 27, 2019, 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, 2020.

9-6. **Adopt positions on various state bills:**

A) Adopt a position of Support on AB 841 (Ting), relating to drinking water contaminants.

B) Adopt a position of Oppose on AB 854 (Mayes), relating to Imperial Irrigation District board membership.

C) Adopt of position of Support on AJR 8 (Quirk), relating to eradication and control of nutria.

D) Adopt a position of Oppose Unless Amended on SB 332 (Hertzberg), relating to limitations on discharge of treated wastewater through ocean outfalls.

E) Adopt a position of Support on H.R. 2313 (Huffman), relating to income tax exclusion for water conservation rebates.
9-7. **Amendment to Professional Services Contract with Building Blocks Entertainment, Inc., to conduct assembly programs for elementary public and private schools in San Diego County.** Approve an amendment to the professional services contract with Building Blocks Entertainment, Inc., to increase the contract value to a not-to-exceed amount of $200,000 and to extend the contract for two years. The amended contract would terminate on June 30, 2021, at which time the Water Authority would seek bids on a new two-year contract.

10. **ACTION / DISCUSSION / INFORMATION**

10-A General Manager recruitment update. (Information) – Chair Madaffer

11. **SPECIAL REPORTS**

11-A ACTING GENERAL MANAGER’S REPORT – Ms. Kerl
11-B GENERAL COUNSEL’S REPORT – Mr. Hattam
11-C SANDAG REPORT – Director Morrison
   SANDAG Subcommittees: Borders Committee – Director Saxod
   Regional Planning Committee – Director Leonard
11-D AB 1234 Compliance Reports – Directors

12. **CLOSED SESSION(S)**

12-A Conference with Legal Counsel – Anticipated Litigation
   Government Code §54956.9(d)(2)
   One Case

12-B Conference with the Labor Negotiator
   Government Code §54957.6
   Agency Designated Representatives: Gretchen Spaniol, Jason Foster, Liana Whyte, Rick Bolanos
   Employee Organization: Teamsters Local 911

12-C Conference with the Labor Negotiator
   Government Code §54957.6
   Agency Designated Representatives: Sandra L. Kerl, Gretchen Spaniol
   Unrepresented Employees: Executive, Senior Management, and Confidential Groups

12-D Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   SDCWA v. Metropolitan Water District of Southern California; San Francisco Superior Court Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004; CPF-16-515282; CPF-16-515391; CGC-17-563350; CPF-18-516389; California Court of Appeal (1st District) Case Nos. A146901; A148266; A154325; California Supreme Court Case Nos. S243500; and S251025
12-E Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1)
California Department of Water Resources v. All Persons Interested; Sacramento Superior Court Case No. 34-2017-00215965-CU-MC-GDS; and JCCP 4942

12-F Conference with Legal Counsel – Existing Litigation
Government Code §§54956.9(d)(1)
Food & Water Watch and Center for Food Safety v. Metropolitan Water District of Southern California and All Persons Interested in the Matter; Los Angeles Superior Court Case No. BC 720692

12-G Public Employee Performance Evaluation
Government Code §54957 - Title: General Counsel
Conference with Labor Negotiators, Government Code §54957.6
Designated Board Representatives: Chair, Vice-Chair, Secretary
Unrepresented Employee: General Counsel

13. ACTION FOLLOWING CLOSED SESSION

14. OTHER COMMUNICATIONS

15. ADJOURNMENT

Melinda Nelson
Clerk of the Board

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.
SPECIAL IMPORTED WATER COMMITTEE  
April 11, 2019

CALL TO ORDER / ROLL CALL  
Chair Lewinger called the Special Imported Water Committee meeting to order at 1:32 p.m. Committee members present were Chair Lewinger, Vice Chairs Barnum and Cherashore, and Directors Evans, Fong-Sakai, Hall, Hogan, Madaffer, Morrison, Preciado, Saxod, and Scalzitti. Committee member absent was Director Guerin. Also present were Directors Arant, Bebee, Boyle, Butkiewicz, Cate, Croucher, Hedberg, Hilliker, Kennedy, Leonard, Miller, Mosca, Murtland, Smith, Steiner, Udrys, Watkins, Wilson, and MWD Delegate Goldberg. 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 Acting General Manager Kerl, General Counsel Hattam, Assistant General Manager Denham, MWD Program Director Chen, and Colorado River Program Director Rodgers.

ADDITIONS TO 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 Lewinger gave a brief update on the Drought Contingency Plan and ongoing work by the Bureau of Reclamation and Basin States. He announced additional details would be discussed during the staff presentation.

DIRECTORS’ COMMENTS  
There were no Directors’ comments.

Colorado River Issues  
Colorado River Work Group Chair Croucher reviewed the purpose of the Work Group and efforts to provide guidance and make recommendations for Board consideration on various issues related to the Colorado River. He stated the presentation would cover the Basin States side, Lake Mead storage, Salton Sea, and the proposed Regional Conveyance System Study.

Mr. Denham explained Drought Contingency Plan key deadlines, Lake Mead Storage, and the State Salton Sea Management Program.

Staff responded to questions and comments posed by the Board.

Mr. Denham continued with the Regional Conveyance System Study covering the Colorado River Work Group and MWD Delegates recommendations.
Ms. Rodgers presented information from the March 29, 2019 Special Member Agency General Manager’s meeting. She explained the Colorado River Regional Conveyance System Study including purpose, the reason for the study, results of past studies, the original plan of Phase A and Phase B, the revised plan, and costs.

Mr. Denham explained the elements of a conveyance decision, and next steps.

Staff responded to questions and comments posed by the Board.

CLOSED SESSIONS
Mr. Hattam took the committee into Closed Session at 4:16 p.m.

1. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   SDCWA v. Metropolitan Water District of Southern California; San Francisco Superior Court Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004; CPF-16-515282; CPF-16-515391; CGC-17-563350; CPF-18-516389; California Court of Appeal (1st District) Case Nos. A146901; A148266; A154325; California Supreme Court Nos. S243500; and S251025

2. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   California Department of Water Resources v. All Persons Interested; Sacramento Superior Court Case No. 34-2017-00215965-CU-MC-GDS; and JCCP 4942

3. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   Food & Water Watch and Center for Food Safety v. Metropolitan Water District of Southern California and All Persons Interested in the Matter; Los Angeles Superior Court Case No. BC 720692

Mr. Hattam brought the committee out of Closed Session at 4:25 p.m. and stated there was no reportable action.

V. ADJOURNMENT
There being no further business to come before the Special Imported Water Committee, Chair Lewinger adjourned the meeting at 4:26 p.m.
MINUTES OF THE FORMAL BOARD OF DIRECTORS’ MEETING
APRIL 25, 2019

ENGINEERING AND OPERATIONS COMMITTEE
CALL TO ORDER / ROLL CALL

Chair Miller called the Engineering and Operations Committee meeting to order at 9:01 a.m. Committee members present were Chair Miller, Vice Chairs Fong-Sakai and Watkins, and Directors Arant, Bebee, Hedberg, Heinrichs, Mosca, Murtland, Scalzitti*, Smith, Steiner, and Udrys. Committee members absent were Directors Preciado and Simpson. Also present were Directors Butkiewicz, Hall, Hilliker, Katz, Leonard, Lewinger, Madaffer, Masson, Saxod, 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 Acting General Manager Kerl, General Counsel Hattam, Assistant General Manager Denham, Director of Operations and Maintenance Fisher, Director of Engineering Reed, Deputy Director of Engineering Bousquet, and Operations and Maintenance Manager Faber. Also present was Caroline Kreiser of The Miller Hull Partnership, LLP (Miller Hull).

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 Miller announced the Water Authority received a Project Achievement award from the Construction Management Association of America in the category of “Public Works Greater than $15 Million” for the Pipeline 3 Relining Lake Murray to Sweetwater Reservoir project. Additionally, the Water Authority and City of San Diego was awarded the “2019 Outstanding Project of the Year” in the Parks and Recreation category from the American Society of Civil Engineers for the San Vicente Marina Facilities project

I. CONSENT CALENDAR
There were no Consent Calendar items.

II. ACTION/DISCUSSION/PRESENTATION

Chair Miller began by explaining the space needs study and the subcommittee process. He introduced Mr. Fisher and Caroline Kreiser from Miller Hull to provide background and
history on the existing Escondido site which included a summary of the space needs study. Chair Miller concluded the presentation with the subcommittee agreeing with the study results and understanding the General Manager included a new project in the FY2020-2021 proposed budget for consideration in June 2019. He reminded the committee that two Escondido facility tours would take place May 1, 2019 from 10:30 a.m.–12:00 p.m., and May 13, 2019 from 1:00 p.m.–2:30 p.m.


Mr. Faber presented information on the History of Asset Management and Use of Technology and Tools including historical failures and asset management, data analytics, and rehabilitation. He explained technology used which included: acoustic fiber optic monitoring, live leak detection, and magnetic flex leakage scanning. He concluded the presentation with future plans including continued innovation, searching for new technologies, and regional collaboration.

* Director Scalzitti arrived at 9:31 a.m.

3. Update on Water Quality Conditions.

Mr. Fisher presented an update on water quality conditions including State Water Project blend percentages from 2011 to present-day, explanation of nitrification, levels of nitrification, and free chlorine status.

III. INFORMATION

There were no Information items.

IV. CLOSED SESSION

There were no Closed Session items.

V. ADJOURNMENT

There being no further business to come before the Engineering and Operations Committee, Chair Miller adjourned the meeting at 10:01 a.m.

LEGISLATION AND PUBLIC OUTREACH COMMITTEE

CALL TO ORDER/ROLL CALL

Chair Butkiewicz called the Legislation and Public Outreach Committee to order at 10:10 a.m. Committee members present were Chair Butkiewicz, Vice Chairs Hall and Katz, and Directors Cherashore, Hilliker, Kennedy, Leonard, Madaffer, Masson, Miller, Mosca, and Steiner. Committee members absent were Directors Croucher, Guerin, and Supervisor Desmond. Also present were Directors Arant, Ayala, Bebee, Cate, Fong-Sakai, Hedberg, Heinrichs, Hogan, Lewinger, Murtland, Saxod, Scalzitti, Smith, Udrys, 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 Acting General Manager Kerl, General Counsel Hattam, Assistant General Manager Denham, Director of Public Outreach and Conservation Vedder, Government Relations Manager Farrel, and Public Affairs Supervisor Lee. Also present was legislative representative Ken Carpi.

**ADDITIONS TO 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 Butkiewicz informed the Board that the Water Authority had earned two Awards of Distinction in a statewide contest hosted by the California Association of Public Information Officials.

**DIRECTORS’ COMMENTS**

Vice Chair Katz provided a summary of his trip to Sacramento on April 1, 2019 with Board Chair Madaffer, LPO Chair Butkiewicz, and Director Croucher, where they visited with members of the San Diego legislative delegation. He reported that the trip was productive, and they were working to facilitate tours of San Diego regional facilities as a follow up.

I. **CONSENT CALENDAR**

1. **Adopt positions on various state bills.**

   **Staff recommendations:**

   1-A Adopt a position of Oppose Unless Amended on AB 217 (Garcia), relating to safe drinking water.
   1-B Adopt a position of Support on AB 868 (Bigelow), relating to energy system deenergization protocols.
   1-C Adopt a position of Support on AB 1180 (Friedman), relating to recycled water.
   1-D Adopt a position of Support on SB 134 (Hertzberg), relating to water system loss enforcement.
   1-E Adopt a position of Support on SB 487 (Caballero), relating to aerial snow surveys.
   1-F Adopt a position of Support on SB 785 (Senate Committee on Natural Resources and Water), relating to exchange of property.

   Director Steiner moved, Director Katz seconded, and the motion to approve staffs’ recommendations passed unanimously.
II. ACTION/DISCUSSION/PRESENTATION

1. Legislative issues.

   Mr. Carpi provided a Washington report which included updates related to issues of interest to the Water Authority.

   1-B Sacramento Report.

   Mr. Farrel provided a Sacramento report which included an update on status of Water Authority Sponsored bills and other key measures.

2. Update on Brought to You by Water activities.

   Mr. Lee provided the Board with a review of the Brought to You by Water campaign activities and the next phase which would focus on agriculture in the San Diego region.

III. INFORMATION

The following Information items were received and filed:

1. Quarterly report on Public Outreach and Conservation activities.
2. Government Relations Update.

IV. CLOSED SESSION

There were no Closed Session items.

V. ADJOURNMENT

There being no further business to come before the Legislation and Public Outreach Committee, Chair Butkiewicz adjourned the meeting at 11:01 a.m.

ADMINISTRATIVE AND FINANCE COMMITTEE
CALL TO ORDER / ROLL CALL

Chair Hilliker called the Administrative and Finance Committee meeting to order at 11:10 a.m. Committee members present were Chair Hilliker, Vice Chairs Ayala and Leonard, and Directors Cate, Katz, Murtland, Saxod, Smith, Udrys, Watkins, and Wilson. Committee members absent were Directors Boyle, Croucher, Evans, and Simpson. Also present were Directors Arant, Bebee, Butkiewicz, Fong-Sakai, Hall, Heinrichs, Hogan, Kennedy, Lewinger, Madaffer, Masson, Miller, Mosca, Preciado, Scalzitti, and Steiner. 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 Acting General Manager Kerl, General Counsel Hattam, Assistant General Manager Denham, Director of Finance/Treasurer Harris, Director of Administrative Services Foster, Deputy Director of Engineering Bousquet, Rate and Debt Manager Rossum,
Formal Board  
Agenda Item Number 5  
May 23, 2019  
(April 25, 2019 minutes)

Budget and Analysis Manager Whyte, Controller Woidzik, and Acting Information Systems Manager Bartolome.

ADDITIONS TO AGENDA
There were no additions to the agenda.

PUBLIC COMMENT
There were no members of the public who wished to speak.

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 Treasurer’s report.

2. Approve Capacity Fee Refund to Bosa Development California, Inc.  
   Staff recommendation: Authorize the Acting General Manager to issue a capacity charges refund in the amount of $138,718 to Bosa Development California, Inc.

   Staff recommendation: Authorize the General Manager to execute an agreement with SoftwareOne in the amount of $448,571 to renew the Water Authority’s Microsoft Office 365 software licenses and provide related Microsoft services for a three-year period ending in May 2022.

   Vice Chair Ayala moved, Vice Chair Leonard seconded and the motion to approve the Consent Calendar passed unanimously.

II. ACTION/DISCUSSION/PRESENTATION
1. Preliminary Assessments for Calendar Year (CY) 2020 Rates and Charges.

   Ms. Harris began the presentation with information on the Cost of Service Rate development and review process, recommended increases to the infrastructure access charge, previous untreated rate (high/low) guidance, rate stabilization target forecast, and baseline calendar year 2020 assumptions. Mr. Rossum continued with information on calendar year 2020 rate and charge drivers, historical and forecasted water sales, MWD rates and charges, ramp-up of Imperial Irrigation District (IID) deliveries, preliminary calendar year 2020 untreated and treated rates, cost of water breakdown, Rate Stabilization Fund forecast and preliminary calendar year 2020 rates and fixed charges. He concluded with a review of next
steps which include a Public Hearing to adopt the calendar year 2020 rates and charges at the June 27, 2019 Board meeting.

Directors shared comments and asked questions. Staff provided answers. Director Cate requested additional information on the breakdown of MWD and IID rates.

2. Innovation Program Update.

Chair Hilliker announced that in the interest of time, item II-2. would be moved to the May 23, 2019 committee meeting.

III. INFORMATION
The following information items were received and filed:
2. Board Calendar.

IV. CLOSED SESSION
Mr. Hattam took the committee into Closed Session at 11:40 a.m.

1. Conference with the Labor Negotiator
   Government Code §54957.6
   Agency Designated Representatives: Gretchen Spaniol, Jason Foster, Liana Whyte, Rick Bolanos
   Employee Organization: Teamsters Local 911

Mr. Hattam brought the committee out of Closed Session at 12:30 p.m. and stated there was no reportable action.

V. ADJOURNMENT
There being no further business to come before the Administrative and Finance Committee, Chair Hilliker adjourned the meeting at 12:31 p.m.
Staff present was Acting General Manager Kerl, General Counsel Hattam, Assistant General Manager Denham, MWD Program Director Chen, Colorado River Program Director Rodgers, and Principal Water Resources Specialist Mathews.

**ADDITIONS TO AGENDA**
Chair Lewinger announced the Closed Session items would be covered first.

**PUBLIC COMMENT**
There were no members of the public who wished to speak.

**IV. CLOSED SESSION**
Mr. Hattam took the committee into Closed Session at 1:04 p.m.

1. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   SDCWA v. Metropolitan Water District of Southern California; San Francisco Superior Court Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004; CPF-16-515282; CPF-16-515391; CGC-17-563350; CPF-18-516389; California Court of Appeal (1st District) Case Nos. A146901; A148266; A154325; California Supreme Court Nos. S243500; and S251025

2. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   California Department of Water Resources v. All Persons Interested; Sacramento Superior Court Case No. 34-2017-00215965-CU-MC-GDS; and JCCP 4942

3. Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(d)(1)
   Food & Water Watch and Center for Food Safety v. Metropolitan Water District of Southern California and All Persons Interested in the Matter; Los Angeles Superior Court Case No. BC 720692

Mr. Hattam brought the committee out of Closed Session at 2:26 p.m. and stated there was no reportable action.

**CHAIR'S REPORT**
Chair Lewinger provided a brief update on the Oroville Dam spillway.

**DIRECTORS’ COMMENTS**
There were no Directors’ comments.

**I. CONSENT CALENDAR**
There were no Consent Calendar items.
II. ACTION/DISCUSSION/PRESENTATION
1. MWD Issues and Activities Update.
   1-A Metropolitan Water District Delegates Report.

   Chair Lewinger requested the Board refer to the report in the Board packet.

2. Colorado River Programs.
   2-A Colorado River Board Representative’s report.

   Chair Lewinger requested the Board refer to the report in the Board packet.

   2-B Colorado River Hydrology update.

   Chair Lewinger announced item II-2B. would be deferred to the May 23, 2019 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 Lewinger adjourned the meeting at 2:28 p.m.

WATER PLANNING AND ENVIRONMENTAL COMMITTEE
CALL TO ORDER/ROLL CALL
   Chair Heinrichs called the Water Planning and Environmental Committee meeting to order at 2:33 p.m. Committee members present were Chair Heinrichs, Vice Chair Wilson, and Directors Ayala, Barnum, Bebee, Butkiewicz, Cate, Hogan, Kennedy, Lewinger, Morrison, and Supervisor Desmond. Committee members absent were Vice Chair Boyle, and Directors Arant and Hedberg. Also present were Directors Cherashore, Fong-Sakai, Hall, Hilliker, Leonard, Masson, Miller, Mosca, Murtland, Saxod, Scalzitti, Smith, Steiner, 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 Acting General Manager Kerl, General Counsel Hattam, Assistant General Manager Denham, Director of Water Resources Gage, Director of Public Outreach and Conservation Vedder, Water Resources Managers Crutchfield and Lovsted, Principal Water Resources Specialist Stephenson, and Water Resources Specialist Schnell.

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 Heinrichs welcomed everyone and invited members of the Board to talk with the Science Fair winners during the 15-minute break before the Formal Board meeting.

DIRECTORS’ COMMENTS
There were no Directors’ comments.

I. CONSENT CALENDAR
There were no Consent Calendar items.

II. ACTION/DISCUSION/PRESENTATIONS
1. Claude “Bud” Lewis Carlsbad Desalination Plant.
   1-A Water Purchase Agreement Contract Administration Memorandum
       Regarding the First Phase of Intake and Discharge System Modifications.
       Staff recommendation: Authorize the General Manager to execute a Water Purchase Agreement Contract Administration Memorandum (CAM) between the Water Authority and Poseidon Resources (Channelside) LP to support Temporary Stand-Alone Operations of the intake and discharge facilities at the Lewis Carlsbad Desalination Plant (CDP).

       Mr. Crutchfield provided background information on the Lewis Carlsbad Desalination Plant, an update on the status of plant operations, and an overview of the transition to stand-alone operations. He discussed the Temporary Stand-Alone Operations Period, addressed risk transfer, duration, cost components, and total cost adjustment. He reviewed cap provisions in the Water Purchase Agreement, presented an overview of the draft permit process, and outlined next steps for Poseidon and the Water Authority.

       Staff responded to questions and comments posed by Directors Hogan, Steiner, and Miller.

       Director Bebee moved, Vice Chair Wilson seconded, and the motion to approve staffs’ recommendation passed unanimously.

   1-B Resolution to Submit Application under Department of Water Resources Water Desalination Grant Program’s Continuous Application Process.
       Staff recommendation: Adopt Resolution No. 2019-08 establishing that:
       a) The General Manager is authorized to sign and file for, on behalf of the Water Authority, a grant application for funding from the Department of Water Resources Desalination Grant Program (Continuous Application Process) in an amount not to exceed $1,250,000 for the Lewis Carlsbad
Desalination Plant (CDP) Wedgewire Screen Demonstration Project.

b) The Water Authority will comply with all applicable state and federal statutory and regulatory requirements related to any federal and state funds received.

c) The General Manager or designee is authorized to negotiate and execute a funding agreement and any amendments thereof, and certify funding disbursements on behalf of the Water Authority.

Mr. Crutchfield continued the presentation with an overview of the Department of Water Resources Desalination Grant Program.

Vice Chair Wilson moved, Director Lewinger seconded, and the motion to approve staffs’ recommendation passed unanimously.

2. Update on water supply conditions.

No presentation was provided.

3. Update on Senate Bill 606 and Assembly Bill 1668 Implementation.

No presentation was provided.

III. INFORMATION

The following Information item was received and filed:


IV. ADJOURNMENT

There being no further business to come before the Water Planning and Environmental Committee, Chair Heinrichs adjourned the meeting at 2:58 p.m.

FORMAL BOARD OF DIRECTORS’ MEETING OF APRIL 25, 2019

1. CALL TO ORDER Chair Madaffer called the Formal Board of Directors’ meeting to order at 3:18 p.m.

2. SALUTE TO THE FLAG Director Katz led the salute to the flag.

3. ROLL CALL, DETERMINATION OF QUORUM Clerk of the Board Nelson called the roll. Directors present were Ayala, Butkiewicz, Cate, Cherashore, Fong-Sakai, Hall, Heinrichs, Hilliker, Hogan, Katz, Leonard, Lewinger, Madaffer, Masson, Miller, Morrison, Mosca, Murtland, Preciado, Saxod, Scalzitti, Smith, Steiner, Udrys, Watkins, and Wilson. Directors absent were Arant, Barnum, Bebee, Boyle, Croucher, Evans, Guerin, Hedberg, Kennedy, Simpson, and Supervisor Desmond.
3-A **Report on proxies received.** No proxies were received.

4. **ADDITIONS TO AGENDA**
   There were no additions to the agenda.

5. **APPROVAL OF MINUTES**
   Director Preciado moved, Director Mosca seconded, and the motion carried at 69.40% of the vote to approve the minutes of the Special Formal Board of Directors’ meeting and Special Engineering and Operations Committee meeting of March 14, 2019 and Formal Board of Directors’ meeting of March 28, 2019.

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.

7. **PRESENTATIONS & PUBLIC HEARINGS**
   **7-A Presentation of Science Fair Award Winners.**
   
   Vice Chair Madaffer recognized the winners of the Science Fair. Principal Public Affairs Representative Baron introduced the winners to the Board, and they each provided a brief explanation of their projects and project findings.

8. **REPORTS BY CHAIRS**
   **8-A Chairs report: Chair Madaffer reported on meeting with the MWD Settlement Negotiation Team regarding ongoing settlement negotiations and stated the next meeting was scheduled for May 2019. He added that MWD Chair Gray was very supportive of trying to resolve litigation.**

   Chair Madaffer announced as part of the Brought To You by Water campaign, the Water Authority had partnered with the Agricultural Industry and an event was being held at the Carlsbad Flowers Fields, hosted by the San Diego County Farm Bureau, which would be attended by several Directors.

   He reminded the Board that General Counsel annual evaluation forms were due to the Clerk of the Board by Friday May 10, 2019. He stated the Board would meet on the item during Closed Session at the May 23, 2019 Formal Board meeting.

   In closing, Chair Madaffer presented Director Steiner with a Commemorative Resolution from Metropolitan Water District recognizing her for 10 years of service on the MWD Board of Directors.
8-B Report by Committee Chairs:
Administrative and Finance Committee. Director Hilliker reviewed the meeting and the action taken.
Legislation and Public Outreach Committee. Director Butkiewicz reviewed the meeting and the action taken.
Engineering and Operations Committee. Director Miller reviewed the meeting and stated no action was taken.
Imported Water Committee. Director Lewinger reviewed the meeting and stated no action was taken.
Water Planning and Environmental Committee. Director Heinrichs reviewed the meeting and the action taken.

9. **CONSENT CALENDAR**
Director Mosca moved, Director Cate seconded, and the motion carried at 69.40% of the vote to approve the Consent Calendar. Directors voting no, or abstaining are listed under the item.

9-1. **Adopt positions on various state bills:**
The Board adopted positions on various state bills: a position of Oppose Unless Amended on AB 217 (Garcia), relating to safe drinking water; Support on AB 868 (Bigelow), relating to energy system deenergization protocols; Support on AB 1180 (Friedman), relating to recycled water; Support on SB 134 (Hertzberg), relating to water system loss enforcement; Support on SB 487 (Caballero), relating to aerial snow surveys; and Support on SB 785 (Senate Committee on Natural Resources and Water), relating to exchange of property.

9-2. **Monthly Treasurer’s Report on Investments and Cash Flow.**
The Board noted and filed the Treasurer’s report.

9-3. **Approve Capacity Fee Refund to Bosa Development California, Inc.**
The Board authorized the Acting General Manager to issue a capacity charges refund in the amount of $138,712 to Bosa Development California, Inc.

9-4. **Microsoft Office 365 Service Renewal.**
The Board authorized the General Manager to execute an agreement with SoftwareOne in the amount of $448,571 to renew the Water Authority’s Microsoft Office 365 software licenses and provide related Microsoft services for a three-year period ending in May 2022.

9-5. **Water Purchase Agreement Contract Administration Memorandum Regarding the First Phase of Intake and Discharge System Modifications.**
The Board authorized the General Manager to execute a Water Purchase Agreement Contract Administration Memorandum (CAM) between the Water Authority and Poseidon Resources (Channelside) LP to support Temporary Stand-Alone
Operations of the intake and discharge facilities at the Lewis Carlsbad Desalination Plant (CDP).

Resolution to Submit Application under Department of Water Resources Water Desalination Grant Program’s Continuous Application Process.
The Board adopted Resolution No. 2019-08 establishing that: a) the General Manager is authorized to sign and file for, on behalf of the Water Authority, a grant application for funding from the Department of Water Resources Desalination Grant Program (Continuous Application Process) in an amount not to exceed $1,250,000 for the Lewis Carlsbad Desalination Plant (CDP) Wedgewire Screen Demonstration Project; b) the Water Authority will comply with all applicable state and federal statutory and regulatory requirements related to any federal and state funds received; and, c) the General Manager or designee is authorized to negotiate and execute a funding agreement and any amendments thereof, and certify funding disbursements on behalf of the Water Authority.

10. ACTION/DISCUSSION
There were no Action/Discussion items on the agenda.

11. SPECIAL REPORTS
11-A GENERAL MANAGER’S REPORT – Ms. Kerl reminded the Board that there was no Special Board meeting scheduled for May 2019. She also reminded the Board of the two upcoming Special Budget Meetings scheduled for June 6 and June 11, 2019 at 1:30 p.m.

11-B GENERAL COUNSEL’S REPORT – Mr. Hattam stated he had nothing further to report.

11-C SANDAG REPORT – Director Morrison announced the meeting was scheduled for April 26, 2019.
SANDAG Subcommittees:
Borders Committee – Director Saxod stated she would also be attending the meeting on April 26, 2019.
Regional Planning Committee – Director Leonard stated he had nothing to report.

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 the Labor Negotiator
Government Code §54957.6
Agency Designated Representatives: Gretchen Spaniol, Jason Foster, Liana
Whyte, Rick Bolanos
Employee Organization: Teamsters Local 911

12-B Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1)
SDCWA v. Metropolitan Water District of Southern California; San Francisco Superior Court Case Nos. CPF-10-510830; CPF-12-512466; CPF-14-514004; CPF-16-515282; CPF-16-515391; CGC-17-563350; CPF-18-516389; California Court of Appeal (1st District) Case Nos. A146901; A148266; A154325; California Supreme Court Case Nos. S243500; and S251025

12-C Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(d)(1)
California Department of Water Resources v. All Persons Interested; Sacramento Superior Court Case No. 34-2017-0021565 - CU-MC-GDS; and JCCP 4942

12-D Conference with Legal Counsel – Existing Litigation
Government Code §§54956.9(d)(1)
Food & Water Watch and Center for Food Safety v. Metropolitan Water District of Southern California and All Persons Interested in the Matter; Los Angeles Superior Court Case No. BC 720692

13. **ACTION FOLLOWING CLOSED SESSION**

14. **OTHER COMMUNICATIONS**

15. **ADJOURNMENT**

There being no further business to come before the Board, Chair Madaffer adjourned the meeting at 3:45 p.m.

_______________________________  _______________________________
Jim Madaffer, Chair               Gary Croucher, Vice Chair

_______________________________
Melinda Nelson, Clerk of the Board
May 15, 2019

Attention: Board of Directors

General Counsel’s Report – April/May 2019

Purpose
This report discusses certain meaningful legal matters receiving attention during the months of April/May 2019.

Significant Developments in Pending Litigation

MWD Rate Cases

2010/2012 Rate Cases: After being remitted to the trial court in San Francisco by the Court of Appeal on October 24, 2017, these consolidated cases are now pending before Judge Mary Wiss.

On July 25, 2018, Judge Wiss issued an order defining the scope of the case on remand. In that order, she ruled that (1) on its contract claim, the Water Authority is entitled to damages of $28,678,191, plus prejudgment interest; (2) the Water Authority is entitled to declaratory relief, and may be entitled to monetary restitution, for MWD's imposition of its illegal RSI clause and termination of Water Authority-related Local Resource Project contracts; and (3) the Water Authority waived, and thus may not litigate in the 2010/2012 case, the issue whether MWD was required to provide the Water Authority with a credit against Exchange Water wheeling charges for the offsetting benefits to MWD provided by the Exchange Water. On November 7, 2018, Judge Wiss set a schedule for deciding the scope of relief on the RSI claim, which included a one-week evidentiary hearing beginning on April 8, 2019.

In light of ongoing settlement discussions, the Water Authority proposed that the Court vacate the April 8 hearing date, and continue all deadlines, in order to provide the parties a 90-day litigation time-out in which to continue negotiating without the pressures of discovery and an upcoming hearing. MWD did not oppose. On February 5, 2019, the Court entered an order vacating all deadlines and setting the next case management conference for May 9, 2019. On May 6, 2019, with settlement discussions still ongoing and at the joint request of the parties, the Court entered a further continuance of the next CMC date to July 15, 2019.

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 Curtis Karnow, and remains stayed. Because Judge Karnow was transferred out of the Complex Division, this case is now assigned to Judge Anne-Christine Massullo.

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 Wiss. The 2016 case was
initially stayed by the parties pending resolution of the 2010/2012 case appeal. The parties then agreed to a further stay pending resolution of post-remand proceedings in the 2010/2012 cases, which stay was entered by the Court on July 31, 2018.

**2017 Rate Case**: The case was filed in Los Angeles Superior Court on June 9, 2017, following MWD’s April 2017 approval of Readiness-to-Serve and Capacity Charges to be charged in 2018, and amended on July 18, 2017, after the MWD Board approved an amended RTS Charge for 2018. The case was transferred to San Francisco Superior Court, assigned to Judge Wiss, and stayed by stipulation of the parties on July 31, 2018.

**2018 Rate Case**: This case was filed in Los Angeles Superior Court on June 8, 2018, following MWD’s April 2018 approval of its rates and charges for 2019 and 2020. The case was transferred to San Francisco Superior Court on November 2, 2018; it has not been assigned to a judge. The Water Authority amended its complaint on January 31, 2019, to add claims for breach of contract. By stipulation of the parties, the case is now stayed pending resolution of the 2010/2012 cases.

**Department of Water Resources v. All Persons Interested**

Due to the change of position on the scope of WaterFix by new Governor Newsom, the Department of Water Resources filed a request for dismissal of this validation lawsuit, as DWR’s bond authorizations were being rescinded – making the case moot. The action should now be concluded once the Court enters its order on the dismissal.

**Food & Water Watch and Center for Food Safety v. Metropolitan Water District of Southern California and All Persons Interested**

On November 26 the Water Authority filed a Demurrer to the Complaint by Food and Water Watch, challenging the Complaint’s Proposition 26 claim against MWD. MWD also demurred, and Plaintiffs filed an amended Complaint. The Water Authority and MWD again filed demurrers, which were heard on March 15, 2019. The Water Authority and MWD’s pleading challenges were granted, and the case was dismissed without leave to amend. The decisions have been appealed. We do not yet know if MWD’s WaterFix authorizations will be rescinded, as DWR’s were rescinded (as noted above in the DWR validation matter), which could also moot this case as well.

**Kimball Matter**

This dispute over a real property conveyance was subject to a Demurrer filed by the Water Authority and set to be heard on December 7, 2018 in San Diego Superior Court. The Demurrer was granted, with leave to amend. The amended Complaint was filed, and the Water Authority again filed a demurrer seeking dismissal of the Water Authority from the case, which demurrer was heard on March 15, 2019. The Court sustained the Water Authority’s demurrer without leave to amend, and dismissed us from the case. We have tendered $48,013.32 in defense costs to the Hollands under a defense and indemnity provision.

**Amicus Issues**

No new issues to report.
**Requests Pursuant to the Public Records Act**

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<th>Documents Requested</th>
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<td>SmartProcure</td>
<td>Employee/staff contact information</td>
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Prepared by:  Mark J. Hattam, General Counsel

Attachment:  Special Counsel Expenditure Report
## On-going Litigation

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<th>Project</th>
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## Non-Litigation

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<tr>
<td>Liebert Cassidy Whitmore</td>
<td>Personnel Issues</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.
May 15, 2019

Attention: Board of Directors

CLOSED SESSION:

Public Employee Performance Evaluation
Government Code §54957 - Title: General Counsel

Conference with Labor Negotiators, Government Code §54957.6
Designated Board Representatives: Chair, Vice-Chair, Secretary
Unrepresented Employee: General Counsel

Purpose
This memorandum is to recommend a closed session, pursuant to Government Codes §54957 and §54957.6, to discuss the above-referenced matter at the May 23, 2019 meeting.

Prepared by: Mark J. Hattam, General Counsel