Construction Contract for the Northern First Aqueduct Structures and Lining Rehabilitation Project

Engineering & Operations Committee
December 6, 2018

Jerry Reed, Director of Engineering
Brent Fountain, Senior Engineer
History

- Pipeline 1: 1945-1947
- Pipeline 2: 1952-1954
- Flow Control Facilities: 1954-1987
Assessment

- Pipeline structures
- Steel pipe lining
- Aqueduct operational constraints
Project Schedule

Phase IA
- 3600-ft Lining Rehabilitation
- 6 Pipeline Structures

Phase I
- 5000-ft Lining Rehabilitation
- 25 Pipeline Structures
- 6 Flow control facility turnouts

Phase II
- 5900-ft Lining Rehabilitation
- 29 Pipeline Structures
Construction Cost Estimate

- June 28 Board Information Item
  - $12M to $14M

- September 28 Advertisement
  - $19M to $23M
  - Estimate Omissions - $3M
  - Market Conditions - $4M

- November 1 Bid Opening
  - $22M to $26M
  - Groundwater Treatment Allowance - $3M
# Bid Summary

Bid Range: $22 to $26 Million

<table>
<thead>
<tr>
<th>NO.</th>
<th>GENERAL CONTRACTOR</th>
<th>BID AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abhe &amp; Svoboda*</td>
<td>$27,912,254</td>
</tr>
<tr>
<td>2</td>
<td>Kiewit Infrastructure West, Inc.</td>
<td>$30,400,000</td>
</tr>
<tr>
<td>3</td>
<td>J.F. Shea Construction, Inc.</td>
<td>$31,349,555</td>
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</tbody>
</table>

*Deemed non-responsive
Project Alternatives

- Delay Project for Market Conditions
  - Wait 2 to 5 years for market to change
  - Unknown cost savings / potential increase

- Split into 3 smaller projects
  - Increased bidder pool
  - 1 year delay to re-package
  - Approx. $3M cost increase

- Self Perform Construction
  - 1 year delay to re-structure and increase staff
  - Take on construction risk
  - Out of normal Water Authority scope
Construction Cost Analysis

Annual Percent Change in Indices

Percent Change from Previous Year


15% 10% 5% 0% -5% -10% -15%

ENR Tunnel Pipeline Relining Concrete Vault Pipeline Pump Station
Recommendation

- Authorize the General Manager to award a construction contract to Kiewit Infrastructure West, Inc. in the amount of $30,400,000 for the Northern First Aqueduct Structures and Lining Rehabilitation Project.
Final Report on the Engineering and Operations Committee Work Plan for Calendar Years 2017 & 2018

Engineering and Operations Committee
December 6, 2018

Chair Tony Heinrichs
Capital Improvement Program

- Completed Nob Hill Improvements
- Completed Miramar Pump Station Rehabilitation
- Completed Carlsbad 6 Flow Control Facility
- Completed Pipeline 3 Relining - Lake Murray to Sweetwater Reservoir
- Completed Pipeline 4 Relining - Lake Murray Interconnect to Alvarado WTP
Completed physical security assessments of critical facilities

Installed surveillance cameras at both new and existing facilities
Energy Program

- Lake Hodges Hydroelectric Facility
- Rancho Peñasquitos Hydroelectric Facility
- Installed 1MW Battery System at the Twin Oaks Valley Water Treatment Plant
- San Vicente Energy Storage Facility
Lewis Carlsbad Desalination Plant
Intake and Discharge Modifications

Water Planning Committee Meeting
December 6, 2018
Kelley Gage, Director of Water Resources
1. Update on the Lewis Carlsbad Desalination Plant intake modifications project

1. Expected closure of NRG Encina Power Station in December 2018 will require a new, permanent stand-alone intake for CDP

2. 2015 Ocean Plan Amendment

3. New intake and discharge facilities require new permits
   - Amended NPDES permit (Regional Water Board)
   - Amended Coastal Development Permit (Coastal Commission)
   - State Lands Commission
Need for Phasing of Intake Modifications

- Power Plant shutdown schedule
- Regulatory delays in development of the NPDES permit
- Additional permitting and pilot testing for preferred intake design (Alt. 21)
  - ACOE permitting
  - New intake technology and siting validation
Phasing Schedule

- Phased implementation/operation planned:
  - Temporary 12-month operation of NRG Pumps (2019)
  - Interim circulation pump system (2020-2023)
  - Permanent intake/discharge facilities (2024+)

- Five year time frame to come into full compliance with the Ocean Plan; by 2024

- Water Purchase Agreement pricing will be adjusted according to agreed upon costs for each phase
  - Cost allocation and WPA cost caps to be applied
Current/Temporary Operations
Interim Operations

Diagram showing the process of intake and discharge with key labels:
- Discharge
- Intake
Draft Permit Overview

- Five year compliance schedule
  - Recognizes phased implementation
  - Allows time for demonstration testing and technology validation

- Intake Configuration
  - Alternative 21 - wedgewire screens in Aqua Hedionda Lagoon
  - Fish-friendly pumps providing brine dilution flow

- Performance Monitoring/Reporting
  - Ocean discharge monitoring
  - Follow up performance verification studies
Draft Permit Overview, cont.

- Environmental Mitigation
  - Utilizes previously approved Otay River Estuary Restoration Project
  - Potential for incremental additional acreage
Current Activities

- Detailed review of draft NPDES permit
- Negotiation of Temporary Standalone Operations contract provisions
- Review of Poseidon procurement documents for Interim Operations
- Detailed review of Poseidon cost estimates and proposed cost allocation
- Ongoing pursuit of external funding opportunities
  - WIFIA low interest loan application (EPA selection to apply)
  - BOR WIIN grant application
  - Demonstration Project grant opportunities
1. Update on draft Regional Board permit for the Lewis Carlsbad Desalination Plant intake

<table>
<thead>
<tr>
<th>Professional Services Support</th>
<th>Berger</th>
<th>CEC</th>
<th>Hawkins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substantiation of Poseidon costs and cost allocation (WPA cap vs. OPA)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Permit review</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Negotiation for Temporary Standalone Operation contract provisions (WPA CAM)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Negotiation for Interim Operation contract provisions (WPA CAM)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Review of Poseidon procurement and construction documents for Interim Operations</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Water Authority engagement in Poseidon financing (WIFIA/Private Activity Bonds/Equity)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Unit price analysis and validation</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>WPA Supplement (pricing adjustments)</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Recommendation

- Authorize the General Counsel to:
  - Amend the legal services agreement with Hawkins Delafield & Wood LLP as special counsel to include new transactional legal work for the Claude “Bud” Lewis Carlsbad Desalination Plant (CDP) project intake and discharge system modifications phased implementation. This will add $318,000 to the contract, increasing the authorized cumulative amount from $180,000 to $498,000.
Authorize the General Manager to:

- Amend the professional services contract with Clean Energy Capital Securities LLC to include work for the CDP project intake and discharge system modifications phased implementation. This will add $257,500 to the contract, increasing the authorized cumulative amount from $140,000 to $397,500 and extend the term from its current end date of December 31, 2018 to June 30, 2020.

- Amend the professional services contract with Louis Berger Group to include work for the CDP project intake and discharge system modifications phased implementation. This will add $250,400 to the contract, increasing the authorized cumulative amount from $1,287,692 to $1,538,092 and extend the term from its current end date of December 31, 2018 to June 30, 2021.
Final Report on the Water Planning Committee Work Plan for Calendar Years 2017 & 2018

Water Planning Committee
December 6, 2018

Chair David Cherashore
Water Resources Planning

• New Water Billing & Information Management System*
• Long-Range Demand Forecast Update*
• Annexation Policies and Requests
• San Luis Rey Habitat Area Restoration Project

* Items related to the 2017-2021 Business Plan
Conservation

• MWD Funding for Member Agency Administered Program (MAAP)
• Landscape Transformation Program
Update on Water Supply Conditions

Water Planning Committee
December 6, 2018

Alexi Schnell
Water Resources Specialist
Review of Water Year (WY) 2018

- **WY 2018 = Oct. 1, 2017 - Sept. 30, 2018**

- Defined as a “dry year” in terms of precipitation
  - Statewide snowpack on April 1 at 58 percent of average
  - San Diego region had less than half of average annual precipitation

- Despite dry conditions, most State Water Project (SWP) reservoirs at near- or above-average levels to start WY 2019
Northern Sierra Precipitation 8-Station Index

Accumulated Precipitation (in)

76% of Normal (December 5, 2018)

Source: Department of Water Resources
Snow Accumulation in the Sierra Nevada

November 20, 2018

December 2, 2018

Source: NASA
Lake Oroville Storage Volume - SWP

Source: Department of Water Resources

29% of Capacity
48% of Average
(December 4, 2018)
Status of Lake Oroville Spillway Repairs

- **Main spillway**
  - Met reconstruction goal of Nov. 1, 2018
  - Built to original design capacity of 270,000 cfs
  - Effort took more than 700 workers, day and night, over past 1 ½ years

- **Emergency spillway**
  - Splashpad and buttress completed
  - Structural cap connection to be completed early 2019
San Luis Reservoir Storage Volume - SWP

Initial CY 2019 SWP Allocation: 10%

- 60% of Capacity
- 98% of Average (December 4, 2018)

Source: Department of Water Resources
As of Dec. 3, 2018:

- Precipitation 115% of normal
- Snow water equivalent 114% of normal
## Local Conditions

### Water Year 2019 Precipitation

<table>
<thead>
<tr>
<th>Station</th>
<th>December 1-5, 2018</th>
<th>October 1, 2018 - December 5, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>% Normal</td>
</tr>
<tr>
<td>Lindbergh Field</td>
<td>0.50 in.</td>
<td>238%</td>
</tr>
<tr>
<td>Ramona Airport</td>
<td>0.48 in.</td>
<td>185%</td>
</tr>
</tbody>
</table>

Total reservoir storage as of November 26 at 340,500 AF, or 46 percent of storage capacity
Resolution to Set Preliminary, Informal Terms and Conditions for the Lakeside Water District’s Proposed Yerba Valley Annexation

Water Planning Committee
December 6, 2018

Jeff Stephenson
Principal Water Resources Specialist
Background on Proposed Yerba Valley Annexation

- Requested by Lakeside Water District to address:
  - Uncertain well flows
  - Trucking in water
  - Fire protection needs

- 115.9 acres

- 20 parcels with single-family homes

- Estimated demand of 4.6 acre-feet per year
  - Demand included in Water Authority’s 2015 Urban Water Management Plan
  - No adverse impact to member agency supply reliability
Proposed Yerba Valley Annexation Area
# Major Actions Required to Process an Annexation

<table>
<thead>
<tr>
<th>Step*</th>
<th>Action</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Member agency submits resolution requesting concurrent annexation to Water Authority and Metropolitan</td>
<td>Complete (October 2018)</td>
</tr>
<tr>
<td>2</td>
<td><strong>Water Authority Board sets preliminary, informal terms and conditions, and requests Metropolitan set formal terms and conditions</strong></td>
<td>Today’s Staff Recommendation</td>
</tr>
<tr>
<td>3</td>
<td>Metropolitan Board adopts resolution setting formal terms and conditions</td>
<td>--</td>
</tr>
<tr>
<td>4</td>
<td>Member agency adopts resolution accepting the Water Authority and Metropolitan’s terms and conditions</td>
<td>--</td>
</tr>
<tr>
<td>5</td>
<td>Water Authority Board verifies all policies have been met; adopts resolution approving, conditionally approving, or denying the annexation</td>
<td>--</td>
</tr>
<tr>
<td>6</td>
<td>San Diego Local Agency Formation Commission files notice of completion after the terms and conditions are satisfied</td>
<td>--</td>
</tr>
</tbody>
</table>

* The process will stop, if at any step the Water Authority or Metropolitan denies approval, but the agencies may reinstate the process upon later application.
Water Authority Annexation Policies

- Adopted by Board in 2006 (updated in 2016 and 2017)
- 13 policies provide guidance on how to process annexation requests
- Policies address various topics, including:
  - Protection of member agency supply reliability (Policy #2)
  - Requirement for concurrent annexation (Policy #6)
  - Annexation application fee (Policy #12)
- Two policies not met for Yerba Valley Annexation
  - Policy #8 - Environmental Compliance
  - Policy #11 - Avoid formation of islands/windows
Policy #8 - Environmental Compliance

- Annexation subject to the California Environmental Quality Act (CEQA)
- Environmental compliance has not yet been satisfied
- Water Authority Resolution No. 2018-___ requires environmental documentation be prepared in accordance with CEQA
- As lead agency under CEQA, Lakeside will be responsible for filing required environmental documentation
Policy #11 - Avoid Formation of Islands/Windows

- Board shall not approve annexation that creates a “window” unless Board determines Water Authority’s interests will not be adversely affected

- Window would be formed within annexation area
  - One property owner declined to participate despite 3-year effort to bring parcel into annexation

- Lakeside committed to ensure water service to window will not be directly or indirectly established

- No identified adverse impacts to Water Authority
Staff Recommendation

Adopt Resolution No. 2018-__, establishing preliminary, informal terms and conditions for the Lakeside Water District’s proposed Yerba Valley Annexation, and requesting that the Metropolitan Water District of Southern California set formal terms and conditions.
Claude “Bud” Lewis Carlsbad Desalination Project Conveyance Pipeline Refunding and Related Debt Management Activities

Administration and Finance
December 6, 2018

Dan Denham
Assistant General Manager
Agenda

- Timeline

- Market Highlights

- Carlsbad Desalination Project and Credit Highlights

- Projected Refunding Savings

- Next Steps

- Amend Services Agreements

- Today’s Actions
Timeline

Board approved Pipeline Bonds refinancing

Market conditions less favorable & plant operational issues-refinancing placed on hold

Market conditions improved suggesting significant potential savings, resumed refinancing

May 2017 | Summer 2017 | Fall 2017 | Fall 2018 | January 2019

Bond team formed to execute refinancing

Anticipated bond pricing
Market Highlights

- **U.S. fixed income markets evolving in the wake of tax reform**
  - Total new issue supply is currently about $300 billion YTD, -16% lower from the supply levels seen this time last year
  - Continued strength of the economy and labor markets point toward a fourth Fed Funds rate hike in December 2018 bringing the target rate to 2.25% - 2.50% by year end
  - The already flat MMD curve is expected to flatten further with an anticipated Fed Funds rate hike in December followed by as many as three more hikes in 2019
  - Tax-exempt interest rates have increased an average of 80 basis points across the curve since year-end 2017

- **Domestic and geopolitical factors resulting in volatility**
  - Volatility continues to persist as the trade war with China, the Mueller investigation, and disruptions in relations in the Middle East, Asia and Europe continue to provide uncertainty
  - Mid-term elections resulted in a split Congress and the expectation of continued partisan agendas and rhetoric
**Carlsbad Desalination Project and Credit Highlights**

<table>
<thead>
<tr>
<th>Key Project Dates</th>
<th>Project Credit Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pipeline and Plant Bond Issuance <em>(December 24, 2012)</em></td>
<td>- <strong>Strong credit ratings:</strong></td>
</tr>
<tr>
<td>- First day of commercial operations <em>(December 23, 2015)</em></td>
<td>- SDCWA is Aa2/AAA/AA+ offtaker</td>
</tr>
<tr>
<td>- Pipeline Bond first optional redemption date <em>(July 1, 2017)</em></td>
<td>- Project credit of Baa3/BBB-</td>
</tr>
<tr>
<td></td>
<td>- <strong>Ownership and financing structure meets SDCWA’s fundamental business objectives</strong></td>
</tr>
<tr>
<td></td>
<td>- Poseidon bears operating risk</td>
</tr>
<tr>
<td></td>
<td>- Water Purchase Agreement functioning as designed</td>
</tr>
<tr>
<td></td>
<td>- <strong>Carlsbad Plant in third year of operations</strong></td>
</tr>
<tr>
<td></td>
<td>- Experienced operator and strong cost recovery mechanism</td>
</tr>
<tr>
<td></td>
<td>- Recent operational issues appear to be largely resolved</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Poseidon:</strong></td>
</tr>
<tr>
<td>- Own, Operate &amp; Maintain Carlsbad Desalination Plant</td>
</tr>
<tr>
<td>- Supply Product Water up to 56,000 AF/Yr</td>
</tr>
<tr>
<td><strong>San Diego County Water Authority:</strong></td>
</tr>
<tr>
<td>- “Take or Pay” for Product Water (minimum commitment of 48,000 AF/Yr)</td>
</tr>
<tr>
<td>- Own, operate and maintain the Product Water Pipeline</td>
</tr>
<tr>
<td>- Unified credit structure is designed to insulate Water Authority from Plant operating risk</td>
</tr>
</tbody>
</table>

**Rating Agency Meetings**

- Fitch *(scheduled for mid-December 2018)*
- Moody’s *(scheduled for mid-December 2018)*
Projected Refunding Savings

Projected Refunding Results
(Rates as of 11/14/2018)

- Net Present Value Savings of $13.6 million (6.7% of refunded par)
- Estimated True Interest Cost of 4.39%
- Does not extend bond maturities
- Escalating annual savings ranging from $296,000 to $1.4 million

Estimated Sources and Uses ($000s) *

<table>
<thead>
<tr>
<th>Sources</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Bond Par</td>
<td>$185,900</td>
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<tr>
<td>Bond Premium</td>
<td>15,471</td>
</tr>
<tr>
<td>Release of 2012 Pipeline Reserve Fund</td>
<td>10,518</td>
</tr>
<tr>
<td>Accrued Interest</td>
<td>975</td>
</tr>
<tr>
<td><strong>Total Sources</strong></td>
<td>$212,864</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Uses</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Proceeds Fund</td>
<td>$201,580</td>
</tr>
<tr>
<td>2019 Pipeline Reserve Fund</td>
<td>8,391</td>
</tr>
<tr>
<td>Costs of Issuance</td>
<td>2,893</td>
</tr>
<tr>
<td><strong>Total Uses</strong></td>
<td>$212,864</td>
</tr>
</tbody>
</table>

* Based on interest rates as of November 14, 2018

Estimated Debt Service Schedule

- Annual Debt Service in Millions ($)

- Refunding Debt Service
- Existing Debt Service
Next Steps

Plant Layout

Key Future Dates

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating agency meetings</td>
<td>Mid-Dec 2018</td>
</tr>
<tr>
<td>Receive authorization from California Pollution Control Financing Authority</td>
<td>Jan 15, 2019</td>
</tr>
<tr>
<td>Investor outreach</td>
<td>Jan 16-28, 2019</td>
</tr>
<tr>
<td>Series 2019 Pipeline Bond sale</td>
<td>Week of Jan 28, 2019</td>
</tr>
</tbody>
</table>

Pipeline Route
Amend Service Agreements

- Amend bond counsel service agreement
  - February 23, 2017 - Board approved contract amount of $344,000 for as-needed services
  - Refunding requires increasing contract amount to $519,685

- Amend financial advisory service agreements
  - February 23, 2017 - Board approved contract amount of $976,250 for debt refinancing transaction fees
  - Refunding requires increasing contract amount to $1,236,250
Today’s Actions

1. Adopt Resolution No. 2018_____ approving the refunding of California Pollution Control Financing Authority $203,215,000 Water Furnishing Revenue Bonds, Series 2012 (San Diego County Water Authority Desalination Project Pipeline) via a negotiated sale; a Preliminary Limited Offering Memorandum, a Bond Purchase Agreement and other documents and agreements necessary to accomplish tax exempt project refinancing through the California Pollution Control Financing Authority (CPCFA).

2. Amend the Financial Advisory Service Agreement contracts amount to $1,236,250.

3. Amend the Bond Counsel Service Agreement contract amount to $519,685.
Proposed Sponsored Legislation for 2019

Legislation and Public Outreach Committee
December 6, 2018

Glenn Farrel
Government Relations Manager
During 2018, the Water Authority sponsored three bills in the State Legislature
- AB 2064 (Gloria/Weber) - Advanced payments for IRWM grants to disadvantaged community partners
- AB 2371 (Carrillo) - Improved landscape water use efficiency measures recommended by the Independent Technical Panel convened by DWR
- SB 1277 (Hueso) - Creation and implementation of Salton Sea governance and administrative structure

Final disposition of Water Authority sponsored bills during 2018
- AB 2064 was vetoed by Governor
- AB 2371 was signed into law
- SB 1277 failed passage in the Legislature
2019 Recommended Bill Sponsorship: Proposal #1

- **Issues**
  - DWR rejected Water Authority’s application for grant funding under Prop 1 for the Carlsbad desalination intake project
  - DWR asserts that the structure of the public-private partnership between the Water Authority and Poseidon creates ineligibility

- **Proposed legislative approach**
  - Introduce stand-alone legislation to ensure eligibility for P3 desalination projects under Prop 1 and subsequent bond funds
  - Navigate legislation through the Legislature and also pursue opportunities to address issue through the State Budget process
  - On a parallel effort, pursue funding of $10 million toward the Carlsbad desalination intake project through the State Budget
2019 Recommended Bill Sponsorship: Proposal #2

- **Issues**
  - Legislation advanced during 2018 - AB 2787 (Quirk) - would have mandated CAISO procurement of bulk energy storage
  - AB 2787 failed passage in the Legislature
  - A repeat of the AB 2787 approach may not have a successful path through the legislative process in 2019
    - Concerns regarding circumventing the CPUC’s IRP process
    - Concerns regarding mandating CAISO procurement of storage
    - Environmental concerns regarding other pumped hydro storage projects

- **Proposed legislative approach**
  - Advance legislation agreed upon through partnership with City of San Diego to at least improve incremental opportunities for the San Vicente Energy Storage project to assist in grid reliability and integration of renewable energy
    - Build off prior Water Authority sponsored legislation - AB 33 (Quirk)
2019 Recommended Bill Sponsorship: Proposal #3

- **Issues**
  - Water managers throughout the state are challenged with attracting employees to water/wastewater treatment system operator occupations.
  - Military veterans transitioning to civilian occupations are not provided equivalency credit toward water/wastewater system operator certifications for work performed during military service.

- **Proposed legislative approach**
  - Co-sponsor legislation with Otay Water District to statutorily provide an equivalency standard process for military veterans transitioning to civilian water/wastewater system occupations.
  - Address water system operator certification challenges for those pursuing advanced treatment operator licenses for work in potable reuse systems.
Staff Recommendation

- Approve sponsorship of legislation to:
  - Provide eligibility for P3 desalination projects to compete for voter-approved bond funds
  - Improve incremental opportunities for the San Vicente Energy Storage project to assist in grid reliability and integration of renewable energy

- Approve co-sponsorship of legislation with Otay Water District to:
  - Statutorily provide an equivalency standard process for military veterans transitioning to civilian water and wastewater system occupations and address water system operator certification challenges
Legislative Policy Guidelines

- Annual update for 2019
- Legislative Policy Guidelines provide guidance on policy issues of importance and a framework to evaluate legislative and regulatory issues
- Staff presented DRAFT Legislative Policy Guidelines for discussion and input at the Board’s October 25 meeting
Proposed Substantive Content Changes to LPGs

- Based on Board input, the following reflect substantive changes to the Legislative Policy Guidelines from the October 25 version:
  - Under Imported Water Issues, a proposed substantive modification to include the creation of a stand-alone WaterFix category to fully capture and reflect the Board’s August 9, 2018 Bay-Delta policy principles (at request of Director Arant)
  - Under Imported Water Supply: Colorado River, there is a proposed modification to “allow for the option” to create an alternate conveyance approach (at request of Director Arant)
  - Under Water Facilities and Facility Operations: Water System Operations, there is a proposed modification to delete the word “source” in reference to water meter testing to allow broader applicability of the LPG (at request of Director Guerin)
Staff Recommendation

- Adopt proposed 2019 Legislative Policy Guidelines
Sacramento Update

Legislation and Public Outreach Committee
December 6, 2018

Glenn Farrel
Government Relations Manager
Legislature

- The newly-constituted Legislature convened on December 3 for an organizational session

- All legislators were sworn-in, legislative leadership was elected, and bills began to be introduced
Major Election Take-Away #1

- California is a **very blue** state!
  - Large super-majorities in both the Assembly and Senate

<table>
<thead>
<tr>
<th>HOUSE</th>
<th>PRE-ELECTION</th>
<th>POST-ELECTION</th>
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<tbody>
<tr>
<td>State Assembly</td>
<td>D: 55</td>
<td>D: 60</td>
</tr>
<tr>
<td></td>
<td>R: 25</td>
<td>R: 20</td>
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<tr>
<td>State Senate</td>
<td>D: 26</td>
<td>D: 29</td>
</tr>
<tr>
<td></td>
<td>R: 14</td>
<td>R: 11</td>
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</table>

- California congressional delegation overwhelmingly Democrat

<table>
<thead>
<tr>
<th>PRE-ELECTION</th>
<th>POST-ELECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>D: 39</td>
<td>D: 46</td>
</tr>
<tr>
<td>R: 14</td>
<td>R: 7</td>
</tr>
</tbody>
</table>

- Highest ranking Republican official in California is Ted Gaines - State Board of Equalization
Major Election Take-Away #2

- Two-thirds vote bills in the State Legislature will be more difficult to stop than in previous years.

- Majority vote bills will become nearly impossible to defeat.
  - Democrats have 60 seats in the Assembly, and only 41 votes are needed to pass a majority-vote bill.
  - Democrats have 29 seats in the Senate, and only 21 votes are needed to pass a majority-vote bill.

- Focusing on amendments to address concerns will become increasingly important.
**Major Election Take-Away #3**

- Efforts to begin constructing a water bond for the 2020 or 2022 ballot could begin very soon

<table>
<thead>
<tr>
<th>BALLOT MEASURE</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposition 3 - Water Bond</td>
<td>YES: 49.2%</td>
</tr>
<tr>
<td></td>
<td>NO: 50.8%</td>
</tr>
</tbody>
</table>
## San Diego County - State Senate Delegation

<table>
<thead>
<tr>
<th>SENATE DISTRICT</th>
<th>PRE-ELECTION</th>
<th>POST-ELECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD 36</td>
<td>Patricia Bates (R)</td>
<td>Patricia Bates (R): 51.6% Marggie Castellano (D): 48.4%</td>
</tr>
<tr>
<td>SD 38</td>
<td>Joel Anderson (R)</td>
<td>Jeff Griffith (D): 46.9% Brian Jones (R): 53.1%</td>
</tr>
<tr>
<td>SD 40</td>
<td>Ben Hueso (D)</td>
<td>Ben Hueso (D): 65.7% Luis Vargas (R): 34.3%</td>
</tr>
</tbody>
</table>
## San Diego County - State Assembly Delegation

<table>
<thead>
<tr>
<th>ASSEMBLY DISTRICT</th>
<th>PRE-ELECTION</th>
<th>POST-ELECTION</th>
</tr>
</thead>
</table>
| AD 71             | Randy Voepel (R) | James Elia (D): 39.3%  
                        |              | Randy Voepel (R): 60.7% |
| AD 75             | Marie Waldron (R) | Alan Geraci (D): 43.5%  
                        |              | Marie Waldron (R): 56.5% |
| AD 76             | Rocky Chavez (R) | Tasha Horvath (D): 54.6%  
                        |              | Elizabeth Warren (D): 45.4% |
| AD 77             | Brian Maienschein (R) | Sunday Gover (D): 49.8%  
                        |              | Brian Maienschein (R): 50.2% |
| AD 78             | Todd Gloria (D) | Maggie Campbell (R): 29%  
                        |              | Todd Gloria (D): 71% |
| AD 79             | Shirley Weber (D) | John Moore (R): 33.4%  
                        |              | Shirley Weber (D): 66.6% |
| AD 80             | Lorena Gonzalez (D) | Lorena Gonzalez (D): 74.8%  
                        |              | Lincoln Pickard (R): 25.2% |
Governor Newsom Administration

- Recent appointments
  - Chief of Staff: Ann O’Leary
  - Cabinet Secretary: Ana Matasantos
- “All In California” transition team
  - Leaders from throughout the state
  - San Diego representative
    - State Senator Christine Kehoe (Ret.)
Legislation

• Reviewed and considered positions on 63 pieces of legislation that affected the Water Authority and/or its member agencies over the two-year legislative session.

• Sponsored five bills during the two legislative sessions.

• Participated in 14 trips to Sacramento and Washington, D.C., and held one series of in-district briefings with the San Diego legislative delegation.

• Held three roundtables for elected officials. A fourth is scheduled for December 17.
Public Outreach and Public Opinion Research

• Continued to support a 20 percent small business goal for the Water Authority and moved from quarterly to twice yearly briefings on small business outreach efforts.

• Provided leadership and direction on the Water Authority’s outreach and education efforts, including the successful Brought to You by Water program.

• Provided direction to staff to engage in efforts to educate the public about the proposed water tax.

• Provided input and heard the results of the Water Authority public opinion poll.

• Reviewed findings of staff research to improve effectiveness of future public opinion polling.
MWD’s Emergency Storage Requirement

Imported Water Committee
December 6, 2018

Liz Mendelson-Goossens
Senior Water Resources Specialist
MWD’s Dry-Year and Emergency Storage

Emergency Storage in later years = 626,000 acre-feet

End-of-Calendar Year Storage balances
Seismic Event on San Andreas Fault

* Source: Dr. Ken Hudnut (USGS)
# Outage Durations

<table>
<thead>
<tr>
<th>Aqueduct</th>
<th>Estimated Outage Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado River Aqueduct</td>
<td>2-6 months (80% capacity) 3-5 years (100% capacity)</td>
</tr>
<tr>
<td>Los Angeles Aqueduct</td>
<td>18 months</td>
</tr>
<tr>
<td>California Aqueduct: West Branch</td>
<td>6-12 months</td>
</tr>
<tr>
<td>California Aqueduct: East Branch</td>
<td>12-24 months</td>
</tr>
</tbody>
</table>
Emergency Storage Requirement Criteria

- **Outage Period**: 6 to 12 months
- **Retail demand Cutback**: Range: 25% to 35%
- **Local Production**: Range: 80% to 100%
- **Emergency Storage Capacity in Existing Reservoirs**: DWR and Metropolitan surface reservoir

- **CRA**: 2-6 months (80%, ~960 TAF)
- **SWP (West Branch)**: 6-12 months
- **“Firm” demands**: Based on 2015 IRP projections
- **Based on 2015 IRP projections**
### "Envelope Concept"

MWD staff recommends emergency storage requirement of **650,000 acre-feet**

<table>
<thead>
<tr>
<th>Emergency Storage</th>
<th>0%</th>
<th>25%</th>
<th>35%</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>1,120,600</td>
<td><strong>629,700</strong></td>
<td>457,300</td>
<td>254,500</td>
</tr>
<tr>
<td>90%</td>
<td>1,236,200</td>
<td>701,000</td>
<td>520,300</td>
<td>281,900</td>
</tr>
<tr>
<td>80%</td>
<td>1,373,100</td>
<td>782,500</td>
<td>591,500</td>
<td>332,500</td>
</tr>
</tbody>
</table>

Local supply and retail demand cutback based on the projections for 2018 included in MWD’s 2015 IRP
Water Authority’s Key Concerns

- Insufficient analysis to support 650,000 acre-feet recommended emergency storage requirement
  - Relied on data provided in 2015 IRP update
  - Changed conditions
- MWD includes 90,000 acre-feet of Water Authority’s ESP supplies to offset regional needs
  - Other member agency emergency supplies are **not** included
  - Identifies 152,000 acre-feet of “unused” local supply production
- Water Authority submitted Nov. 13 comment letter
Next Steps

- Currently: MWD incorporating feedback on white paper
- Winter 2019: Present white paper to Board
- Later: Spatial analysis
- Once emergency storage portfolio re-assessment complete, onto evaluating overall storage portfolio
### Assumed Local Supply Production (100%)

<table>
<thead>
<tr>
<th>Agencies at 6 month Outage</th>
<th>Total Retail Demand</th>
<th>Groundwater</th>
<th>Surface Production</th>
<th>Recycling + GW Recovery</th>
<th>Reclamation</th>
<th>Other Imports</th>
<th>Seawater Desal</th>
<th>Local Storage</th>
<th>IRP Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foothill MWD</td>
<td>9,204</td>
<td>3,970</td>
<td>200</td>
<td>120</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>67</td>
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<td>Pasadena</td>
<td>16,217</td>
<td>6,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>118</td>
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<tr>
<td>San Marino</td>
<td>2,700</td>
<td>2,250</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20</td>
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<tr>
<td>Three Valleys MWD</td>
<td>63,226</td>
<td>21,650</td>
<td>3,100</td>
<td>4,384</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>447</td>
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<tr>
<td>Upper San Gabriel MWD</td>
<td>106,945</td>
<td>74,163</td>
<td>4,500</td>
<td>4,354</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>625</td>
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<td>Anaheim</td>
<td>34,253</td>
<td>23,932</td>
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<td>0</td>
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<td>0</td>
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<td>Fullerton</td>
<td>14,315</td>
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<tr>
<td>MWDOC</td>
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<td>107,945</td>
<td>2,000</td>
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<td>0</td>
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<td>1,651</td>
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<td>19,074</td>
<td>13,478</td>
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<td>0</td>
<td>0</td>
<td>139</td>
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<tr>
<td>Eastern MWD</td>
<td>126,051</td>
<td>40,400</td>
<td>1,550</td>
<td>25,112</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>890</td>
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<tr>
<td>Western MWD</td>
<td>147,318</td>
<td>73,700</td>
<td>2,750</td>
<td>21,295</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>IEUA</td>
<td>143,302</td>
<td>74,800</td>
<td>16,240</td>
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<td>0</td>
<td>969</td>
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<tr>
<td>San Diego County Water Authority</td>
<td>315,373</td>
<td>5,900</td>
<td>24,595</td>
<td>19,956</td>
<td>0</td>
<td>25,319</td>
<td>90,000</td>
<td>2,204</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Agencies at 12 month Outage</th>
<th>Total Retail Demand</th>
<th>Groundwater</th>
<th>Surface Production</th>
<th>Recycling + GW Recovery</th>
<th>Reclamation</th>
<th>Other Imports</th>
<th>Seawater Desal</th>
<th>Local Storage</th>
<th>IRP Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Basin MWD</td>
<td>296,066</td>
<td>182,300</td>
<td>0</td>
<td>55,972</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1,590</td>
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<tr>
<td>Compton</td>
<td>7,766</td>
<td>6,400</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>56</td>
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<tr>
<td>Long Beach</td>
<td>68,633</td>
<td>28,700</td>
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<td>10,118</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>462</td>
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<td>Torrance</td>
<td>28,420</td>
<td>2,700</td>
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<td>0</td>
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<td>207</td>
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<tr>
<td>West Basin MWD</td>
<td>179,750</td>
<td>34,600</td>
<td>0</td>
<td>33,621</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>1,173</td>
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<td>Santa Monica</td>
<td>13,732</td>
<td>8,200</td>
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<td>145</td>
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<td>27,819</td>
<td>300</td>
<td>0</td>
<td>13,995</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>159</td>
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<tr>
<td>Glendale</td>
<td>30,319</td>
<td>1,500</td>
<td>0</td>
<td>8,994</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>221</td>
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<tr>
<td>Los Angeles</td>
<td>566,486</td>
<td>77,794</td>
<td>0</td>
<td>11,681</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4,070</td>
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<tr>
<td>San Fernando</td>
<td>3,150</td>
<td>3,143</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>23</td>
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<tr>
<td>Calleguas MWD</td>
<td>164,638</td>
<td>27,700</td>
<td>0</td>
<td>7,483</td>
<td>13,100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1,198</td>
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<tr>
<td>Beverly Hills</td>
<td>11,938</td>
<td>0</td>
<td>0</td>
<td>700</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>87</td>
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<tr>
<td>Las Virgenes MWD</td>
<td>28,413</td>
<td>100</td>
<td>0</td>
<td>4,804</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>207</td>
</tr>
</tbody>
</table>

**MWD TOTAL**: 2,735,617  832,000  54,935  353,797  13,100  25,319  90,000  18,087  1,387,238

**Note**: Member agency local production are approximations for year 2018 based on 2015 IRP and are estimated for the outage periods indicated.

This table shows individual member agency estimates used to develop Metropolitan’s Emergency Storage Objective for the region.

For agencies along the Rialto Pipeline, see discussion on page 5 related to system limitations for receiving CRA supplies.
Final Report on the Imported Water Committee Work Plan for Calendar Years 2017 & 2018

Imported Water Committee
December 6, 2018

Chair Lois Fong-Sakai
Metropolitan Water District Program

• MWD Rate Litigation*
  - Sept 2017: CA Supreme Court denied Water Authority’s Petition, finalizing June 2017 Appellate Court ruling

• Bay-Delta Proposal Review*
  - Aug 2018 vote to conditionally support California WaterFix and update Bay-Delta policy principles

* Items related to the 2017-2021 Business Plan
Colorado River Program

• Quantification Settlement Agreement Timeline*
  - Dec 2017 vote to extend Exchange Agreement

• Salton Sea*
  - November 2017 adopted Stipulated Order by SWRCB

• Basin State Issues*
  - SD Chamber of Commerce Washington, DC Trips

* Items related to the 2017-2021 Business Plan