PIPELINE 4 RELINING AT LAKE MURRAY PROJECT
LAKE MURRAY INTERCONNECT
BEGIN PIPELINE 4 RELINING
STATION 4362+04

PORTAL 1

PORTAL 2

ALVARADO TREATMENT PLANT
END PIPELINE 4 RELINING
STATION 4416+08
Portal - Construction

2016/11/29
Portal - Restoration
Alvarado Hydro-Electric Facility
Alvarado Hydro-Electric Facility Decommissioned
## Contract Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract Amount</td>
<td>$6,777,000</td>
</tr>
<tr>
<td>Change Orders</td>
<td>($348,601)</td>
</tr>
<tr>
<td><strong>Final Contract Amount</strong></td>
<td><strong>$6,428,398</strong></td>
</tr>
</tbody>
</table>
Staff Recommendation

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

Engineering & Operations Committee Meeting
May 25, 2017

Chris Castaing
System Operations and Maintenance Manager
Operations Scenario 1:
Gravity Flow: North-South
Operations Scenario 2:
Gravity Flow:
North-South + East-West
Operations Scenario 3: Supplemental Flow

- Fallbrook
- Rainbow
- Valley Center
- Oceanside
- Twin Oaks Treatment Plant
- Desalination Plant
- Pipelines 1 & 2
- Yuima
- Valley Center
- Escondido
- Vallecitos
- Vista
- Rincon Del Diablo

Pump Station
Mitigation Measures:

Online Water Quality Analyzers

Pipelines 1 & 2
Yuima
Valley Center
Valley Center
Escondido
Vallecitos
Vista
Rincon Del Diablo

Pipeline 4
Fallbrook
Rainbow
Valley Center
Oceanside
Rainbow
Pump Station
Water Conservation Garden Operating Agreement Extension

Water Planning Committee
May 25, 2017

Betty Evans, Water Authority Representative to Water Conservation Garden JPA
Jason Foster, Director, Public Outreach and Conservation
Background

- Garden part of Water Authority’s conservation program since 2001
  - Member of JPA
  - Other members: San Diego, Helix, Otay, Sweetwater and Cuyamaca College

- Surveys indicate visits help advance conservation
  - 80% said their experience influenced landscape, irrigation*

*2015 Water Authority survey of regional conservation program participants
Garden Funding Transition

- New multi-year Operating Agreement signed in 2010

- JPA contracts with non-profit Friends of the Water Conservation Garden to run Garden operations

- Agreement designed to foster greater fiscal sustainability
  - JPA provide supplemental funds during transition
  - Friends increase revenue from non-JPA sources
  - Garden reduces reliance on JPA funding long-term
Non-JPA Revenue Increasing

- 2010-2012 average: $160,000/year
- 2015-2017 average: $595,000/year
- Required investments in marketing, development staff
Updating the Operating Agreement

- Discussions between JPA, Friends began late 2016

- Both groups interested in amendments
  - Clarify purpose of – and further reduce – JPA funding
  - Clarify scope of authority for Friends as contractor
  - Facilitate more-efficient Garden operations

- Use amendments to shape new multi-year operating agreement
Proposed April 2017

Limit JPA agencies to funding ongoing operations and maintenance
- Close gap in deferred maintenance over five years
- Modest reduction in JPA dues

Funds raised by Friends would primarily support educational programming

Establish appropriate maintenance reserve fund
JPA Seeking More Information

- Exact contractor scope of work and terms
- Closer analysis of ongoing operating and deferred maintenance costs
  - Define core and non-core exhibits/facilities
- Results of Garden’s maintenance reserve study
- Potential changes to JPA bylaws
Review of issues under way
- Raise additional revenue to cover operating costs

Propose refined terms to JPA Board by November

Approved agreement terms would return to Boards of JPA agencies for final approval
Recommended Action

Presentation Agenda

- San Diego County Reservoirs
- Water Authority Storage
  - Operational, Carryover and Emergency
- Carryover Storage Evaluation
- Emergency Storage Evaluation
24 Reservoirs
743,588 acre-feet capacity
60% full (as of Apr. 2017)
8 Reservoirs connected to Water Authority Aqueduct:
- San Vicente
- Lower Otay
- Sweetwater
- Olivenhain
- Miramar
- Lake Murray
- Lake Poway
- Lake Dixon
Typical Reservoir Storage Pools

- Freeboard
- Operational Storage
- Carryover Storage
- Emergency Storage
- Dead Storage
Carryover Storage

- Supplement regional water supplies during extended periods of drought or water supply shortage

- Benefits:
  - Enhanced reliability
  - Increased system efficiency
  - Improved supply management
Dedicated storage in San Vicente Reservoir and in ground water basins in Central Valley


- Utilization Trigger
- Planned use over five consecutive dry years
- Withdraw evenly
- Not available to TSAWR customers
- Annual storage evaluation
# Current Storage Levels

**Status as of March 2017**

<table>
<thead>
<tr>
<th>Location</th>
<th>Capacity – Total (AF)</th>
<th>Volume Stored (AF)</th>
<th>Capacity – Remaining (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carryover Storage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Vicente Reservoir</td>
<td>105,563</td>
<td>98,457</td>
<td>7,106</td>
</tr>
<tr>
<td>Semitropic–Rosamond Water Bank Authority</td>
<td>40,000</td>
<td>0</td>
<td>40,000</td>
</tr>
<tr>
<td>Semitropic Original Water Bank</td>
<td>30,000</td>
<td>16,117</td>
<td>13,883</td>
</tr>
<tr>
<td>Sub Total</td>
<td>175,563</td>
<td>114,574</td>
<td>60,989</td>
</tr>
</tbody>
</table>
Management of Carryover Storage

- Carryover storage assessment considerations
  - Current hydrologic conditions
  - Availability of Water Authority and member agency supplies
  - Water demand trend
  - Current storage levels
  - Progression of state regulations

- No planned withdrawals from carryover storage reserves through May 2018
  - Concern over potential abrupt return of multi-year dry conditions similar to 2012

- No storage puts through May 2018 to offset San Vicente Reservoir storage evaporation and seepage losses
Emergency Storage

- Protect region against catastrophic events
- Assures minimum 75% level of service for M&I customers:
  - 2-month event is a complete outage of imported supplies
  - 6-month event is a partial outage of imported State Water Project/Colorado River supplies
- TSAWR customers will reduce use at twice the rate of M&I customers
## Emergency Storage Pools

Status as of March 2017

<table>
<thead>
<tr>
<th>Location</th>
<th>Capacity – Total (AF)</th>
<th>Volume Stored (AF)</th>
<th>Capacity – Remaining (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Vicente Reservoir</td>
<td>52,100</td>
<td>32,711</td>
<td>19,389</td>
</tr>
<tr>
<td>Lake Hodges</td>
<td>20,000</td>
<td>0</td>
<td>20,000</td>
</tr>
<tr>
<td>Olivenhain Reservoir</td>
<td>18,000</td>
<td>18,000</td>
<td>0</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td><strong>90,100</strong></td>
<td><strong>50,711</strong></td>
<td><strong>39,389</strong></td>
</tr>
</tbody>
</table>

- Current ESP storage is more than sufficient to meet ESP delivery obligations of approximately 24,000 AF
Management of Emergency Storage

- Emergency storage analysis considerations
  - Operational flexibility
  - Projected economic growth
  - Conservative perspective on emergency reserves

- Withdraw 10 TAF from emergency storage during calendar year 2018 to bring storage more in-line with current modeled requirement
Update on MWD Fixed Treatment Charge

Imported Water Committee
May 25, 2017

Amy Chen, Director of MWD Program
MWD Treatment Costs

- About 16% of MWD’s total costs
  - 100% volumetric rate

- During 2016 rate process:
  - Shifted ~10% of costs to other rates
  - Proposed a fixed treatment charge (38%)
  - Original recommendation established minimum in perpetuity
  - Final recommendation similar to RTS and CC

Ultimately, MWD Board did not adopt a fixed treatment charge but the Board would define new charge objectives and further analyze alternatives.
Treatment Workgroup

- MWD chose member agency workgroup process
  - Severe limitation placed on workgroup

- Workgroup “recommendations”
  - Policy Principles
    - Consistent with cost-of-service principles
    - Cost containment provisions
  - Fixed Treated Water Charge
    - Recovery of demand cost only (~16%)
    - Similar to existing CC, based on peak day over rolling 3-year period
  - Implementation Considerations
    - No sooner than CY 2021
April 2017 MWD Action

- April 10, 2017 F&I Committee Meeting:
  - MWD staff recommended Workgroup’s proposal
  - Water Authority advocated alternative:
    - Adopt policy principles only
    - Committee approved alternative

- April 11, 2017 Board Meeting:
  - Substitute motion to committee’s recommendation: approve Workgroup’s proposal
    - Failed: 35.59% support
  - Committee’s recommendation
    - Approved: 75.25% support

- MWD Treatment Rate: Continues to be 100% Volumetric
**CURRENT CONDITIONS**

As of May 22, 2017

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Storage</th>
<th>% of Capacity</th>
<th>Elevation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Powell</td>
<td>13.10 MAF</td>
<td>54%</td>
<td>3,614 FT</td>
</tr>
<tr>
<td>Lake Mead</td>
<td>10.25 MAF</td>
<td>39%</td>
<td>1,083 FT</td>
</tr>
<tr>
<td>Total System</td>
<td>31.36 MAF</td>
<td>53%</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hydrologic Indicator</th>
<th>Measurement</th>
<th>% of Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecasted WY Runoff</td>
<td>12.4 MAF</td>
<td>115%</td>
</tr>
<tr>
<td>WY Precipitation</td>
<td>27.0&quot;</td>
<td>118%</td>
</tr>
<tr>
<td>Peak Snowpack – April 1</td>
<td>20.3&quot;</td>
<td>128%</td>
</tr>
</tbody>
</table>
## Updated Shortage/Surplus Projections

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortage (April 2017)</td>
<td>0</td>
<td>0</td>
<td>31</td>
<td>32</td>
<td>34</td>
<td>39</td>
</tr>
<tr>
<td>1st Level (Elevation 1,075 to 1,050 ft)</td>
<td>0</td>
<td>0</td>
<td>31</td>
<td>31</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>2nd Level (Elevation 1,050 to 1,025 ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>3rd Level (Elevation below 1,025 ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>3</td>
</tr>
<tr>
<td>Shortage (Aug 2016)</td>
<td>0</td>
<td>48</td>
<td>60</td>
<td>60</td>
<td>56</td>
<td>--</td>
</tr>
<tr>
<td>SURPLUS (April 2017)</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>13</td>
<td>18</td>
<td>21</td>
</tr>
</tbody>
</table>

Based on Bureau of Reclamation data
DROUGHT CONTINGENCY PLAN

- Voluntary cuts to CA, NV, AZ
- Ongoing development of:
  - Lower Basin DCP
  - Upper Basin Plan
  - CA agreements
- Potential impacts to Salton Sea
Binational Update

- Minute 319 expires at the end of 2017
  - Includes shortage-sharing

- Ongoing Negotiation of Minute 32X
  - Continues shortage-sharing by Mexico
  - Water Scarcity Contingency Plan, dependent on Lower Basin DCP
SUMMARY

- Improved hydrology in 2017
- Improved shortage/surplus outlook
- Expected progress on U.S. and binational agreements in 2017
- 2018 operations determined in August
David Binder Research

• San Francisco-based public opinion research firm with 25 years of experience conducting quantitative and qualitative research for issue campaigns, candidates for office, non-profits and private sector clients throughout the country.

• Served as primary pollster for dozens of statewide and local issue campaigns in California, including most recently:
  o LA County Measure H, Sales Tax Increase to Finance Homelessness Programs (2017)
  o Extension of Prop 30 Income Tax Rate, 2016
  o Proposition 64, Marijuana Legalization, 2016
  o Proposition 46, MICRA, 2014
  o Proposition 47, Californians for Safe Neighborhoods and Schools, 2014

• Other clients include President Barack Obama’s campaigns in both 2008 and 2012, the Democratic National Committee (2009-2016), Kamala Harris for U.S. Senate (2016)
Methodology

- Online survey of 1000 residents of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties.

- Respondents were recruited from online panels, and indicated that they voted in the November 2016 election.

- The following number of interviews were conducted in each county:
  - San Diego County: 200 (6.9% Margin of Error)
  - Los Angeles County: 200 (6.9% Margin of Error)
  - Orange County: 200 (6.9% Margin of Error)
  - Riverside County: 150 (8.0% Margin of Error)
  - San Bernardino County: 150 (8.0% Margin of Error)
  - Ventura County: 100 (9.8% Margin of Error)

- Results in each county reflect the demographic composition of November 2016 voters

- Region-wide results were weighted to reflect the population distribution of the 6 counties. The Margin of Error for the entire sample is +/-3.1%
Key Findings

- Water issues are not top of mind
- Ratepayers have significant concerns over MWD’s actions
- The Water Authority’s presentation of MWD’s actions is impactful
- Ratepayers support MWD reform
Access to water ranks relatively low as an important issue facing Southern California, although concern is higher outside of LA county.

Which of the following do you feel is the most important/2nd Most Important issue facing Southern California today?

<table>
<thead>
<tr>
<th>Issue</th>
<th>2nd Most Important %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobs and the...</td>
<td>39</td>
</tr>
<tr>
<td>Taxes and Fees</td>
<td>29</td>
</tr>
<tr>
<td>Affordable Housing</td>
<td>21</td>
</tr>
<tr>
<td>Traffic</td>
<td>19</td>
</tr>
<tr>
<td>The Environment</td>
<td>18</td>
</tr>
<tr>
<td>Access to Water</td>
<td>17</td>
</tr>
<tr>
<td>K-12 Education</td>
<td>9</td>
</tr>
<tr>
<td>Higher Education</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
</tbody>
</table>

% Saying Access to Water is Most Important or Second Most Important:

<table>
<thead>
<tr>
<th>County</th>
<th>Access to Water %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles</td>
<td>13</td>
</tr>
<tr>
<td>Orange</td>
<td>18</td>
</tr>
<tr>
<td>Riverside</td>
<td>21</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>27</td>
</tr>
<tr>
<td>San Diego</td>
<td>21</td>
</tr>
<tr>
<td>Ventura</td>
<td>21</td>
</tr>
</tbody>
</table>
About half say we are in a drought, and 45 percent of those say they are very concerned about it.

Q15: Based on what you know, is Southern California currently in a drought?

Yes 51
No 49

Q16: And what is your level of concern about the drought facing Southern California?

Very Concerned 45
Somewhat Concerned 46
Not Very Concerned 9
Not at All Concerned 1

(n=513)
About half approve of the job MWD is doing, although opinions are extremely soft, and LA County drives up approval.

Q19: Do you approve or disapprove of the job that the Metropolitan Water District of Southern California is doing?

- Approve
  - Strong: 14
  - Total: 36
- Disapprove
  - Strong: 9
  - Total: 13
- Don't Know
  - Total: 37
Most compelling is that MWD is overcharging ratepayers

Q21-23: MWD has overcharged XX County water users more than $XX million in recent years, causing our water rates to double unnecessarily.*

Q28: MWD overspent its budget by $1.2 billion over the last four years, leaving us to pick up the tab in the form of higher water bills.

Q24: MWD was forced to borrow $900 million because of their irresponsible over-spending.

*Message split tested

Q21-36: Below are some statements that have been made about the Metropolitan Water District or MWD. Indicate how concerning each statement is below.
Major shift in opinion when ratepayers learn of MWD activities

Once again, do you approve or disapprove of the job that the Metropolitan Water District of Southern California is doing?

<table>
<thead>
<tr>
<th></th>
<th>Disapprove: First Ask</th>
<th>Disapprove: After Messages</th>
<th>Gain in Disapprove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>13%</td>
<td>58%</td>
<td>+45</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>9</td>
<td>48</td>
<td>+37</td>
</tr>
<tr>
<td>Orange</td>
<td>14</td>
<td>68</td>
<td>+54</td>
</tr>
<tr>
<td>Riverside</td>
<td>12</td>
<td>71</td>
<td>+59</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>17</td>
<td>67</td>
<td>+50</td>
</tr>
<tr>
<td>San Diego</td>
<td>22</td>
<td>62</td>
<td>+40</td>
</tr>
<tr>
<td>Ventura</td>
<td>7</td>
<td>61</td>
<td>+53</td>
</tr>
</tbody>
</table>

Q46: Once again, do you approve or disapprove of the job that the Metropolitan Water District of Southern California is doing?
Some have suggested enacting significant reforms to MWD. Based on what you know, would you support or oppose these reforms?

Majority of ratepayers support reform of MWD

Q47. Some have suggested enacting significant reforms to the Metropolitan Water District of Southern California. Based on what you know, would you support or oppose these reforms?
Most long-term water use efficiency bills sent to Appropriations Committee “Suspense File” for later action
- AB 869 (Rubio) – Passed to Assembly Floor

<table>
<thead>
<tr>
<th>Bill/Author</th>
<th>Estimated Fiscal Impact</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB 968 (Rubio)</td>
<td>$3.63 million</td>
<td>Suspense File</td>
</tr>
<tr>
<td>AB 1323 (Weber)</td>
<td>$900,000</td>
<td>Suspense File</td>
</tr>
<tr>
<td>AB 1654 (Rubio)</td>
<td>$150,000</td>
<td>Suspense File</td>
</tr>
<tr>
<td>AB 1667 (Friedman)</td>
<td>$1.87 million</td>
<td>Suspense File</td>
</tr>
<tr>
<td>AB 1668 (Friedman)</td>
<td>$300,000</td>
<td>Suspense File</td>
</tr>
<tr>
<td>AB 1669 (Friedman)</td>
<td>$7.67 million</td>
<td>Suspense File</td>
</tr>
</tbody>
</table>
Assembly Water Conservation Working Group

- Assm. WPW Committee Chair Eduardo Garcia
  - Assm. Laura Friedman
  - Assm. Shirley Weber
  - Assm. Frank Bigelow
  - Assm. Richard Bloom
  - Assm. Anna Caballero
  - Assm. Blanca Rubio
  - Assm. Jim Gallagher
  - Assm. Joaquin Arambula
  - Assm. Brian Dahle

- Two meetings so far
  - Working on developing broad policy principles
  - Staffed by Speaker’s Office and WPW Committee Consultants
  - Preliminary intent to work through Summer
Governor’s Budget Trailer Bills

- Governor’s office has convened working group of stakeholders
  - Parallel activity to Assembly working group
    - No apparent coordination with Legislature
    - Potentially different process objectives
  - Involves water, environmental, and business community stakeholders – DWR and SWRCB well represented
  - Unclear path forward to address concerns within budget trailer bills and process issues
Update on San Diego County Garden Friendly Plant Fairs

Legislation and Public Outreach Committee
May 25, 2017

Joni German, Water Resources Specialist
Mike Rivera, North San Diego District Manager, The Home Depot
Brief History

- 2009 – Water Authority approached retail plant suppliers to accelerate market transformation in landscape sector
- 2010 – The Home Depot formed partnership with Inland Empire water agencies
- 2011 – Water Authority and 11 member agencies formed partnership with The Home Depot
- 2012 – First San Diego County Garden Friendly Plant Fairs held at ten local stores with 11 member agencies
The Results

2012–2017

- 85 plant fairs
- 16 member agencies
- 12,000 participants
The Partnership: Roles & Responsibilities

The Home Depot:
• Event set-up in parking lot
• Children’s activities
• Food & music
• Street signs, where allowed
• In-store flyers (created by Altman Plants)
• Plant labels and signage

The Water Authority & member agencies:
• Promote event via social media & website advertising, flyers & bill stuffers
• Provide event staffing, literature, giveaways & advice
• Recruit partners to participate (SDG&E, City of Chula Vista, Water Conservation Garden)

Together:
• Meet to schedule dates and locations
• Identify low-water-use plants & other landscape materials for sale
• Finalize events w/ store managers & agency reps

Plant Fair This Saturday!
9 am to 1 pm
Great savings on low-water-use plants
Fun for the whole family

Save Money. Save Water.
GARDEN FRIENDLY PLANT FAIRS
Are We Making a Difference?

We are changing landscapes *more than* one plant at a time

- Sales of annuals trending downward
- Succulent sales trending upward (double-digit increases)
- Container gardening with controlled watering continues upward trend
- Sod sales dropped 50 percent in last 5 years
- Drip irrigation sales double-digit increases in last 5 years
- Product mix has changed dramatically – #1 is Smart Planet

Customers look for water saving signs and symbols

Yes, we are making a difference!
Proposed Assessment of Calendar Year 2018 Rates and Charges

Administrative and Finance Committee
May 25, 2017

Lisa Marie Harris, Director of Finance
Agenda

• Carollo cost of service study
• CY 2018 rate and charge drivers
• Proposed CY 2018 rate and charge assessment
• Restructure of annexation fee
• Next steps
CY 2018 Rate and Charge Drivers

• Drivers
  – Water sales uncertainty due to long-term impacts of state water regulations
  – MWD’s CY 2018 rate and charge increases
  – Extended timeframe for MWD rate litigation resolution
    • LRFP assumed resolution and legal MWD rates and charges effective CY 2018
  – Ramp up of IID water deliveries starting in CY 2018
    • 30,000 AF increase
  – Meeting rate and charge goals and objectives

• Rate Relief
  – Utilization of Rate Stabilization Fund
  – Current budget period debt refundings have saved $78.3 million on a present value basis
MWD’s Rates and Charges

<table>
<thead>
<tr>
<th>Adopted MWD ($/AF)</th>
<th>CY 2017</th>
<th>CY 2018</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Supply</td>
<td>$201</td>
<td>$209</td>
<td>4.0%</td>
</tr>
<tr>
<td>System Access</td>
<td>$289</td>
<td>$299</td>
<td>3.5%</td>
</tr>
<tr>
<td>Water Stewardship</td>
<td>$52</td>
<td>$55</td>
<td>5.8%</td>
</tr>
<tr>
<td>System Power</td>
<td>$124</td>
<td>$132</td>
<td>6.5%</td>
</tr>
<tr>
<td>Treatment</td>
<td>$313</td>
<td>$320</td>
<td>2.2%</td>
</tr>
<tr>
<td>Tier 1 Untreated</td>
<td>$666</td>
<td>$695</td>
<td>4.4%</td>
</tr>
<tr>
<td>Tier 1 Treated</td>
<td>$979</td>
<td>$1,015</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Transportation increase of 4.5%

- CY 2018 total fixed charge increases
  - Readiness-to-Serve Charge (RTS) - $140M for an increase of 3.7%
  - Capacity Charge - $8,700/CFS for an increase of 8.7%
MWD Remains the Largest Share of Water Cost

- Excludes MWD’s fixed RTS and Capacity charges, which are not recovered on the Melded Supply Rate
*Excludes the debt service for capital projects and recovery of settlement expenditures. Includes both canal and conservation transfer costs

MWD Represents 53% of the Cost of Water
Meeting Goals and Objectives

- Smooth and predictable rates
  - Mitigating upward rate and charge pressures
    - Continued low water sales environment
    - Increase in QSA supply costs
    - Extended timeframe for MWD lawsuit resolution
  - Utilizing the RSF
    - Projected FY 2018 draw of $5M
      - ~$13 per acre-foot of rate relief
## Proposed CY 2018 Rates and Charges

<table>
<thead>
<tr>
<th>Water Authority Rates and Charges</th>
<th>CY 2016 Previous</th>
<th>CY 2017 Current</th>
<th>CY 2018 Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable Rates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melded Supply Rate ($/AF)</td>
<td>$780</td>
<td>$855</td>
<td>$894</td>
</tr>
<tr>
<td>Melded Treatment Rate ($/AF)</td>
<td>280</td>
<td>290</td>
<td>300</td>
</tr>
<tr>
<td>Transportation Rate ($/AF)</td>
<td>105</td>
<td>110</td>
<td>115</td>
</tr>
<tr>
<td>Untreated Special Agricultural Water Rate¹ ($/AF)</td>
<td>594</td>
<td>666</td>
<td>695</td>
</tr>
<tr>
<td>Treated Special Agricultural Water Rate¹ ($/AF)</td>
<td>874</td>
<td>956</td>
<td>995</td>
</tr>
<tr>
<td><strong>Fixed Charges</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Service Charge ($ Millions)</td>
<td>$26.4</td>
<td>$26.4</td>
<td>$26.4</td>
</tr>
<tr>
<td>Storage Charge ($ Millions)</td>
<td>63.2</td>
<td>65.0</td>
<td>65.0</td>
</tr>
<tr>
<td>Supply Reliability Charge¹ ($ Millions)</td>
<td>26.0</td>
<td>24.8</td>
<td>28.6</td>
</tr>
<tr>
<td><strong>Other Rates and Charges</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure Access Charge² ($/ME)</td>
<td>$2.76</td>
<td>$2.87</td>
<td>$3.01</td>
</tr>
<tr>
<td>Standby Availability Charge³,⁴ ($)</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>System Capacity Charge ($/ME)</td>
<td>4,840</td>
<td>5,029</td>
<td>5,099</td>
</tr>
<tr>
<td>Treatment Capacity Charge ($/ME)</td>
<td>123</td>
<td>128</td>
<td>141</td>
</tr>
<tr>
<td>MWD Capacity Charge ($)</td>
<td>12,406,380</td>
<td>9,105,600</td>
<td>9,902,340</td>
</tr>
<tr>
<td>MWD Readiness-to-Serve Charge⁴ ($)</td>
<td>22,145,912</td>
<td>18,623,577</td>
<td>16,291,858</td>
</tr>
<tr>
<td>Annexation Application Fee (Per Application)⁵ ($)</td>
<td>3,000</td>
<td>3,000</td>
<td>10,340</td>
</tr>
</tbody>
</table>

¹ Supply Reliability Charge was effective Jan. 1, 2016
² ME means meter equivalent as defined in the Resolution establishing the IAC
³ Per parcel or acre, whichever is greater
⁴ Fiscal Year
⁵ New fee is effective July 1, 2017
### Proposed CY 2018 Total Cost of Water Breakdown*

**Actual member agency increases will vary. Includes water rates and charges and excludes the Water Authority’s IAC and MWD’s RTS and Capacity charges.**

<table>
<thead>
<tr>
<th>Water Rates and Charges ($/AF)</th>
<th>CY 2017 Rates</th>
<th>Proposed CY 2018 Rates</th>
<th>Proposed CY 2018 Change in Rate</th>
<th>Proposed Year/Year Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melded Supply Rate</td>
<td>$855</td>
<td>$894</td>
<td>$39</td>
<td>4.6%</td>
</tr>
<tr>
<td>Melded Treatment Rate</td>
<td>290</td>
<td>300</td>
<td>10</td>
<td>3.4%</td>
</tr>
<tr>
<td>Transportation</td>
<td>110</td>
<td>115</td>
<td>5</td>
<td>4.5%</td>
</tr>
<tr>
<td>Storage¹</td>
<td>167</td>
<td>162</td>
<td>(5)</td>
<td>-3.0%</td>
</tr>
<tr>
<td>Customer Service¹</td>
<td>61</td>
<td>61</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Supply Reliability Charge¹</td>
<td>63</td>
<td>71</td>
<td>8</td>
<td>12.7%</td>
</tr>
<tr>
<td>Treated Water Cost*</td>
<td>$1,546</td>
<td>$1,603</td>
<td>$57</td>
<td>3.7%</td>
</tr>
<tr>
<td>Untreated Water Cost*</td>
<td>$1,256</td>
<td>$1,303</td>
<td>$47</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

*Customer Service, Storage and Supply Reliability Charges converted to $/AF based on sales forecast.
Estimated Breakdown of the CY 2018 Treated Water Rate and Charge Increases*

Breakdown of $57/AF Increase

- Melded Supply Rate $39 (68%)
- Melded Treatment Rate $10 (18%)
- Storage $(-5) (-9%)
- Transportation $5 (9%)
- Customer Service $- (0%)
- Supply Reliability Charge $8 (14%)

Breakdown of the Melded Supply Rate Increase of $39/AF

- MWD Impact $22 (56%)
- QSA & Desal Impact $17 (44%)

*Actual member agency increases will vary. Includes water rates and charges and excludes the Water Authority’s IAC and MWD’s RTS and Capacity charges.
Proposed Treated Water Costs

2015 LRFP High/Low Treated Water Costs

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Status Quo - High Rate Scenario</th>
<th>Status Quo - Low Rate Scenario</th>
<th>Lawsuit Win - High Rate Scenario</th>
<th>Lawsuit Win - Low Rate Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,674</td>
<td>1,514</td>
<td>1,674</td>
<td>1,528</td>
</tr>
<tr>
<td>2018</td>
<td>1,802</td>
<td>1,516</td>
<td>1,802</td>
<td>1,516</td>
</tr>
<tr>
<td>2019</td>
<td>1,963</td>
<td>1,554</td>
<td>1,963</td>
<td>1,410</td>
</tr>
<tr>
<td>2020</td>
<td>2,084</td>
<td>1,629</td>
<td>2,084</td>
<td>1,766</td>
</tr>
<tr>
<td>2021</td>
<td>2,221</td>
<td>1,686</td>
<td>2,221</td>
<td>1,766</td>
</tr>
<tr>
<td>2022</td>
<td>2,328</td>
<td>1,740</td>
<td>2,328</td>
<td>1,929</td>
</tr>
<tr>
<td>2023</td>
<td>2,424</td>
<td>1,779</td>
<td>2,424</td>
<td>2,007</td>
</tr>
<tr>
<td>2024</td>
<td>2,543</td>
<td>1,829</td>
<td>2,543</td>
<td>2,089</td>
</tr>
<tr>
<td>2025</td>
<td>2,690</td>
<td>1,893</td>
<td>2,690</td>
<td>2,182</td>
</tr>
<tr>
<td>2026</td>
<td>2,819</td>
<td>1,939</td>
<td>2,819</td>
<td>2,302</td>
</tr>
<tr>
<td>2027</td>
<td>2,894</td>
<td>1,987</td>
<td>2,894</td>
<td>2,452</td>
</tr>
</tbody>
</table>

$/AF

Current CY 2017 Treated Water Cost: $1,546 (5.9%)
Proposed CY 2018 Treated Water Cost: $1,603 (3.7%)

1Includes water rates and charges and excludes the Water Authority’s IAC and MWD’s RTS and Capacity charges. Lawsuit win rate guidance assumes resolution of MWD lawsuit and rate restructure in CY 2019.
Proposed Untreated Water Costs

2015 LRFP High/Low Untreated Water Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>Current CY 2017 Untreated Water Cost</th>
<th>Proposed CY 2018 Untreated Water Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$1,256 (6.4%)</td>
<td>$1,303 (3.7%)</td>
</tr>
</tbody>
</table>

Includes water rates and charges and excludes the Water Authority’s IAC and MWD’s RTS and Capacity charges.

Lawsuit win rate guidance assumes resolution of MWD lawsuit and rate restructure in CY 2019.
Financial Performance Metrics

Debt Service Coverage Ratios

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Senior Lien Debt Service Coverage</th>
<th>Overall Debt Service Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>1.50</td>
<td>1.40</td>
</tr>
<tr>
<td>2019</td>
<td>1.50</td>
<td>1.32</td>
</tr>
<tr>
<td>2020</td>
<td>1.50</td>
<td>1.30</td>
</tr>
<tr>
<td>2021</td>
<td>1.50</td>
<td>1.29</td>
</tr>
<tr>
<td>2022</td>
<td>1.50</td>
<td>1.27</td>
</tr>
</tbody>
</table>

1 Coverage requirement for senior debt service is 1.20x
2 Overall coverage requirement is 1.00x. Overall debt service coverage includes subordinate lien debt such as the commercial paper program and medium term notes

• Achieves the Board’s policy target of 1.50x in FYs 2018 – 2022
## Financial Performance Metrics

### Rate Stabilization (RSF) Fund Balance Requirements

*(Current Board Policy)*

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Rate Stabilization Fund Ending Balance</th>
<th>Target Ending Balance</th>
<th>Maximum Allowable Ending Balance</th>
<th>(Deposit)/Draw</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>120</td>
<td>83</td>
<td>121</td>
<td>8</td>
</tr>
<tr>
<td>2018</td>
<td>117</td>
<td>92</td>
<td>135</td>
<td>5</td>
</tr>
<tr>
<td>2019</td>
<td>114</td>
<td>99</td>
<td>144</td>
<td>5</td>
</tr>
<tr>
<td>2020</td>
<td>109</td>
<td>108</td>
<td>153</td>
<td>6</td>
</tr>
<tr>
<td>2021</td>
<td>112</td>
<td>112</td>
<td>157</td>
<td>(1)</td>
</tr>
<tr>
<td>2022</td>
<td>122</td>
<td>113</td>
<td>158</td>
<td>(8)</td>
</tr>
</tbody>
</table>

*Note: The diagram shows the trend of the Rate Stabilization Fund Ending Balance over the years from 2017 to 2022.*
Financial Performance Metrics

Current Board Policy - Cash Balances by Fund
(Excludes Debt-Related Funds)

- PAYGO funds are projected to be utilized to pay for the CIP
Wholesale Monthly Household Cost

Estimated CY 2018 Wholesale Costs per Household*

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD Costs</td>
<td>$27.74</td>
</tr>
<tr>
<td>IID/QSA &amp; Desalination Supply costs</td>
<td>$17.31</td>
</tr>
<tr>
<td>Water Authority Capital Costs</td>
<td>$22.10</td>
</tr>
<tr>
<td>Water Authority Operating Costs</td>
<td>$5.36</td>
</tr>
</tbody>
</table>

TOTAL: $72.51/month

- Cost of water purchases is 62% of the wholesale cost of water
- The remaining 38% or $27.46/month is for the Water Authority to:
  - Deliver water and maintain the system
  - Rapidly diversify the region’s water supplies
  - Provide in-region emergency water storage
  - Develop in-region water storage capacity
  - Administer conservation and demand management programs

*Based upon 0.5 AF of consumption a year and includes meter charges and MWD pass-through costs
Restructure of Annexation Fee

- Past annexation fee structure
  - Administration Fee ($3,000) paid at time of application
  - Annexation Fee ($2,929/acre) paid at time of annexation approval

- Proposed annexation fee structure
  - Proposed Annexation Application Fee effective July 1, 2017 - $10,340
  - Elimination of the Annexation Fee
Today’s Actions

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

• Hold public hearing and take action on CY 2018 rates and charges
  – June Board Meeting
Transfer Balance from Stored Water Fund for CalPERS Unfunded Liability

Lisa Marie Harris
Director of Finance/Treasurer
Background

- Board adopted Stored Water Fund Policy in December 2016
- Excess funds identified - $9.5 million
  - Funds available due to the lower than expected cost to fill dam
  - Initial recommendation was to use for capital expenditures
- Staff revised recommendation is to fund the Water Authority’s CalPERS long-term liability
  - PayGo has sufficient funds to support CIP over the next 5 years
California Public Employees Retirement System

- Fund employer contributions to CalPERS on annual basis
- Projected contributions will be increasing annually into the foreseeable future
- Payment would improve funding level of Water Authority’s CalPERS plan by approximately 5%
  - GASB best practice to fund outstanding pension and OPEB liabilities
  - Lowering unfunded liability will significantly reduce future contributions – providing rate relief
  - Contribution made by May 31, 2017 will be reflected in the future actuarial reports
Authorize the General Manager to transfer balance of $9.5 million from the Stored Water Fund for unfunded accrued liability payment to the California Public Employees Retirement System.
CY 2018 Cost of Service Review
San Diego County Water Authority

Jennifer Ivey
Vice-President
Agenda: Present findings of CY 2018 Rates and Charges review
Study Objectives
The Water Authority sets water rates and charges, when combined with other revenues, that are sufficient to pay:

1. Operating expenses
2. Maintenance and repair of facilities
3. Repayment of debt
4. Reserve funding consistent with bond covenants and sound fiscal management
Review Process: Applied multi level framework upon the Water Authority’s rate setting process

• Independently reviewed application of rate methodologies for equity and consistency with AWWA guidelines and Board policies

• Met with Water Authority staff to review operating expenditures and offsetting revenue allocations to rate and charge categories

• Analyzed historical CIP and Debt Service allocation expenditures

• Evaluated cost allocation to functional rate and charges categories
  − Supply, Treatment, Transportation, Storage, and Customer Service

• Developed CY 2018 water rates and charges recommendations
Cost of Service Overview
## Cost of Service Requirements & Key Governing Board Policies

<table>
<thead>
<tr>
<th><strong>Proposition 26, GC § 50076, GC §54999.7</strong></th>
<th><strong>Ordinance No. 2002-03</strong></th>
<th><strong>Resolution No. 98-6</strong></th>
<th><strong>Board Financial Management Policy (August 2006 &amp; March 2015)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Water Authority rates must adhere to California constitutional and statutory requirements</td>
<td>• Transitioned from a &quot;postage stamp&quot; water rate structure to assigning revenue requirements to functional categories</td>
<td>• Established the IAC to pay at least 25 percent of the estimated annual fixed costs of the Authority</td>
<td>• Set a 1.50x coverage target for senior lien debt service • Also set a new target and maximum fund balance for the Rate Stabilization Fund • Established the Supply Reliability Charge</td>
</tr>
</tbody>
</table>
CY 2018 Water Rates and Charges: Calculation Process

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

**Functional Allocation by Rate Category**
- Allocated revenue requirements and offsetting revenues to the Water Authority's 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**
- Allocated expenditures to each member agency based on water demand patterns and other key metrics
Revenue Requirement Analysis

- Operating Costs
- Annual Debt Service
- Miscellaneous Cost Recovery
- Coverage and Reserve Driven Needs
- Application of Offsetting Revenues
  - IAC Allocation, Supply Reliability, Standby Availability Charge, Capacity Charges, Property Tax, Interest Earning, Misc. Revenue
CY 2018 Water Rate and Charge: Calculation Process

**Functional Allocation**

- Melded Supply
- Melded Treatment
- Transportation

- Storage
- Customer Service
- Supply Reliability
Supply Rate recovers the cost of water supply incurred by the Water Authority, including the purchase of water from MWD, the IID, the Coachella Canal and the All-American Canal, desalinated water, costs of MWD wheeling for non-MWD water supplies

Transportation Rate recovers cost of Water Authority’s aqueduct system, including all facilities used to physically transport the water to member agency meters

Treatment Rate recovers the costs of treating water, including costs associated with MWD, Helix, Olivenhain

Storage Charge recovers the costs associated with the Emergency Storage Program (ESP)

Customer Service Charge recovers costs incurred to support the functioning of the Water Authority, to develop policies and to implement programs that benefit the region as a whole

Supply Reliability Charge recovers incremental cost of new, reliable water supplies above the cost of MWD supplies (least reliable supplies)

IAC recovers a set amount of fixed costs and is levied based upon meter size/capacity
CY 2018 Water Rate and Charge: Calculation Process

Water Rates & Charges

- Variable Rates
  - Melded Supply
  - Melded Treatment
  - Transportation

- Fixed Charges
  - Storage
  - Customer Service
  - Supply Reliability
Independent Review: Findings & Results

✓ Sound basis for existing and proposed water rates and charges

✓ Continued adherence to Board policies, cost of service principles, and California legal requirements

✓ Validated that the CY 2018 rates and charges continue incorporation of Fiscal Sustainability process recommendations:
  ✓ Supply Reliability Charge
  ✓ Allocation of non-commodity revenues
  ✓ TSAWR
Capacity Charges

System & Treatment
Prerequisites: System and Treatment Capacity Charge

- §45 - 5.9 of the County Water Authority Act permits the Water Authority to fix and impose capacity charges
- Subject to California Government Code §66000
- One-time payment for new or upsized meters to purchase system capacity
- Requires a reasonable nexus between the fee and the cost to provide/construct capacity
- May include components for water resources, production, storage, distribution, and financial reserves
Hybrid Methodology: Recovers proportionate share of capacity for existing system and planned future improvements

- **Adjusted RCNLD* for Existing System**
- **PV of Future CIP**

\[ \text{Total Value of Capacity} = \text{Adjusted RCNLD* for Existing System} + \text{PV of Future CIP} \]

**Existing + Future Customers**

**Total Meter Equivalent Projection**

* Replacement Cost New Less Depreciation

Capacity Charges continue to be consistent with applicable AWWA and industry standards, Board policy, and applicable legal requirements
Annexation Application Fee
### Application Fee: Recovers the administrative costs incurred throughout the annexation process

<table>
<thead>
<tr>
<th><strong>Purpose</strong></th>
<th><strong>Approach</strong></th>
</tr>
</thead>
</table>
| • Identify the costs associated with processing the application and define an equitable recovery fee  
• Last updated in 1983 and is currently referred to a Processing Fee  
• Annexation process is typically completed over an 18-month period | • Carollo interviewed staff to determine the process and estimated time by task  
• Primary effort is related to meetings, coordination, and confirmation of the accuracy of the application  
• Staff estimated 170 hours  
• **Recommended full cost recovery on a per application basis** |
General Manager’s Recommended Budget for Fiscal Years 2018 & 2019

Maureen A. Stapleton, General Manager
May 25, 2017
Agenda

- FYs 2016 & 2017 Accomplishments
- Components of FYs 2018 & 2019 Budget
- Factors Impacting FYs 2018 & 2019 Budget
- Water Authority Budget
- FYs 2018 & 2019 Budget Themes
- Key Initiatives and Projects
- Schedule
FYs 2016 & 2017 Accomplishments

- Claude “Bud” Lewis Carlsbad Desalination Plant Commercial Operations
  - 50 million gallons per day
  - Drought-Resilient
FYs 2016 & 2017 Accomplishments

- **Emergency & Carryover Storage Project**
  - OPAL Award for Outstanding Civil Engineering Achievement

- **Water Storage & Dry Year Supplies**
  - Total Storage 159,000 acre-feet
  - Emergency Supplies 51,000 acre-feet
FYs 2016 & 2017 Accomplishments

- When in Drought Campaign Success
- 2015 Urban Water Management Plan
- 2015 Long Range Financing Plan
- Secured $31.3 million in grant funding
- Debt Refunding Resulted in $78.3 million Savings
- Obtained AAA credit Rating from S&P Global Ratings
FYs 2018 & 2019 Budget is the implementation tool for planning documents and Board policies including:

- 2017–2021 Business Plan
- Long Range Financing Plan
- Urban Water Management Plan
- Energy Management Policy
- Water Facilities Optimization and Master Plan Update
Factors Impacting FYs 2018 & 2019
Overall Budget

- Water Supply and Demand
  - Water Sales, Purchases and Treatment
- Lifting of Drought Regulations
- State Long-Term Water Use Efficiency Legislation
- Capital Improvement Program
- Asset Management
- Litigation with MWD
Factors Impacting FYs 2018 & 2019 Operating Departments Budget

- Increased complexity of water supply and delivery systems
- CalPERs Employer Contribution Rate Increase
- Health Insurance Premiums
- Utility Increases
- Grant Opportunities
FYs 2018 & 2019 Recommended Budget

- Water Purchases & Treatment: $1,048,373 (66%)
- Debt Service: $280,945 (18%)
- CIP Expenditures: $118,618 (7%)
- Operating Departments: $103,202 (7%)
- Other & Grants: $28,135 (<2%)
- Equipment Replacement: $4,855 (<1%)

Total: $1,584,128 (100%)

91% of TOTAL BUDGET
FYs 2018 & 2019 Sources of Funds

<table>
<thead>
<tr>
<th>Revenue Source</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Sales</td>
<td>$1,302,329</td>
<td>82%</td>
</tr>
<tr>
<td>Infrastructure Access Charges</td>
<td>$67,991</td>
<td>4%</td>
</tr>
<tr>
<td>Net Fund Withdraws</td>
<td>$63,341</td>
<td>4%</td>
</tr>
<tr>
<td>Build America Bonds &amp; Investment Income</td>
<td>$33,028</td>
<td>2%</td>
</tr>
<tr>
<td>Capacity Charges</td>
<td>$33,424</td>
<td>2%</td>
</tr>
<tr>
<td>Property Taxes &amp; In-Lieu Charges</td>
<td>$25,361</td>
<td>2%</td>
</tr>
<tr>
<td>Water Standby Availability Charges</td>
<td>$22,245</td>
<td>1%</td>
</tr>
<tr>
<td>All Other Revenue Sources</td>
<td>$36,409</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,584,128</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Totals may not foot due to rounding.*
FYs 2018 & 2019 Budget Themes

- Security – Cyber security and Facilities security
- State and Federal Drivers
- Regulatory and Legislative leadership
- Energy Program and Energy Services
- Efficiencies through Innovation
- Asset Management
- Workforce Management
Key Initiatives and Projects FYs 2018 & 2019

Pioneering

- Use of Drone Aerial Technology
- First Aqueduct and Pipeline 3 Inspections
- Sustainable Landscapes Program
- Mobile Workstations
- Solar Power Battery Storage
- 3D Monitoring/Scanning
- Quality of Hire Metric Development
- Water Resources Billing and Data Management System
- Increased Analytics and Data Utilization
Key Initiatives and Projects FYs 2018 & 2019

Visionary

- Underwater Inspection Camera System
- Floating Photovoltaic Power
- Integrated Project Controls Management System
- 2020 Urban Management Plan
- Qualified Water Efficient Landscaper Program
- Energy Program – Opportunities with San Vicente Energy Storage
Key Initiatives and Projects
FYs 2018 & 2019

Agile

› Optimized Asset Management
› Control Room Staffing – 24 hour operations with 2 operators
› Water Shortage and Drought Response Plan
› Cloud Technology
› Aqueduct Communication System
› Comprehensive Employee Classification Study
› Utilization of Grant Funding
› Live WaterSmart Campaign
› Future Debt Refundings
Key Initiatives and Projects FYs 2018 & 2019

Driven

- Citizens Water Academy
- Expanded Water Quality Monitoring
- Cyber Security
- Full Cost of Service Focus
- Alvarado Hydroelectric Facility Rehabilitation
- Lake Hodges O&M Conversion
Schedule

- Budget Workshops
  June 6 and 8, 2017 (1:30 p.m. to 3:30 p.m.)
  - Overview
  - Capital Improvement Program
  - Operating Departments
  - Key Budget Initiatives and Projects
  - Significant Changes

- Board Meeting – June 22, 2017
  - Consideration for Adoption
Claude “Bud” Lewis Carlsbad Desalination Project
Conveyance Pipeline Refunding and the Update of
the Water Authority’s Debt Management Policy

Administrative and Finance Committee
May 25, 2017

Lisa Marie Harris, Director of Finance
Agenda

• Market Update 2
• Market Highlights 4
• Carlsbad Desalination Project and Credit Highlights 5
• Projected Refunding Savings 6
• Next Steps 7
• Debt Policy Actions 8
• Today’s Actions 9
Historical Tax Exempt Yields – Last 12 Months

- After rising sharply following the election, yields have declined since March and are near their 2017 lows
The muni yield curve is higher and steeper than its post-Brexit lows, but has fallen and flattened significantly since the post-election sell-off.
Market Highlights

- **U.S. fixed income markets performing well**
  - Current yield levels incorporate expectations for two more Fed rate hikes this year
  - 85% market implied probability of 0.25% Fed Funds rate increase in June
  - Fed Funds rate target expected to be at 1.25% – 1.50% by year-end
  - However, current geo-political environment creates increased uncertainty

- **Continued strong demand from municipal investors**
  - Positive funds flows
  - Tax reform discussions not visibly impairing demand
# Carlsbad Desalination Project and Credit Highlights

<table>
<thead>
<tr>
<th>Key Project Dates</th>
<th>Project Credit Highlights</th>
</tr>
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<tbody>
<tr>
<td>Pipeline and Plant Bond Issuance (December 24, 2012)</td>
<td><strong>Strong credit ratings:</strong></td>
</tr>
<tr>
<td>First day of commercial operations (December 23, 2015)</td>
<td>• SDCWA is Aa2/AAA/AA+ offtaker</td>
</tr>
<tr>
<td>Pipeline Bond first optional redemption date (July 1, 2017)</td>
<td>• Project credit of Baa3/BBB-</td>
</tr>
<tr>
<td><strong>Key Responsibilities</strong></td>
<td><strong>Ownership and financing structure meets Water Authority’s fundamental business objectives</strong></td>
</tr>
<tr>
<td>Poseidon:</td>
<td>• Poseidon bears operating risk</td>
</tr>
<tr>
<td>• Own, Operate &amp; Maintain Carlsbad Desalination Plant</td>
<td>• Water Purchase Agreement functioning as designed</td>
</tr>
<tr>
<td>• Supply Product Water up to 56,000 AF/Yr</td>
<td><strong>Carlsbad Plant in second year of operations</strong></td>
</tr>
<tr>
<td>San Diego County Water Authority:</td>
<td>• Strong operational track record</td>
</tr>
<tr>
<td>• “Take or Pay” for Product Water (minimum commitment of 48,000 AF/Yr)</td>
<td>• Experienced operator and strong cost recovery mechanism</td>
</tr>
<tr>
<td>• Own, operate and maintain the Product Water Pipeline</td>
<td><strong>Rating Agency Meetings</strong></td>
</tr>
<tr>
<td>• Unified credit structure is designed to insulate Water Authority from Plant operating risk</td>
<td>• Fitch (May 4, 2017)</td>
</tr>
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<td></td>
<td>• Moody’s (May 8, 2017)</td>
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Projected Refunding Savings

**Projected Refunding Results**
(Rates as of 5/12/2017)

- Net Present Value Savings of $11.7 million (5.7% of refunded par)
- Estimated True Interest Cost of 4.49%
- Does not extend bond maturities
- Escalating annual savings ranging from $490,000 to $1.1 million

**Summary of Sources and Uses ($000s)***

<table>
<thead>
<tr>
<th>Sources</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Bond Par</td>
<td>191,910</td>
</tr>
<tr>
<td>Bond Premium</td>
<td>13,840</td>
</tr>
<tr>
<td>Release of 2012 Pipeline Reserve Fund</td>
<td>10,161</td>
</tr>
<tr>
<td>Accrued Interest</td>
<td>1,213</td>
</tr>
<tr>
<td><strong>Total Sources</strong></td>
<td><strong>217,124</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Uses</th>
<th></th>
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<tbody>
<tr>
<td>Refunding Escrow</td>
<td>204,429</td>
</tr>
<tr>
<td>2017 Pipeline Reserve Fund</td>
<td>9,595</td>
</tr>
<tr>
<td>Costs of Issuance</td>
<td>3,100</td>
</tr>
<tr>
<td><strong>Total Uses</strong></td>
<td><strong>217,124</strong></td>
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*Based on interest rates as of May 15, 2017

**Estimated Debt Service Schedule**

![Graph showing annual debt service schedule from 2018 to 2046]
Next Steps

**Plant Layout**

- Discharge
- Intake
- Pretreatment
- RO Building
- Chemical Storage
- Product Water Tank
- Mouth of Lagoon

**Key Future Dates**

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<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tr>
<td>Receive authorization from California Pollution Control Financing Authority</td>
<td>June 20, 2017</td>
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<tr>
<td>Rating agency meetings</td>
<td>Late June/ Early July</td>
</tr>
<tr>
<td>Investor outreach</td>
<td>Late June/ Early July</td>
</tr>
<tr>
<td>Series 2017 Pipeline Bond sale &amp; Bond closing</td>
<td>Summer/ Fall 2017</td>
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**Pipeline Route**

![Pipeline Route Image]
Debt Policy Actions

- Periodic updates to the Statement of Debt Management are a best management practice
- Minor changes to reflect recent changes in debt management regulation and law
  - SEC Municipal Advisor Regulation Rules – role of municipal advisors is now regulated
  - Senate Bill No. 1029 – enhances debt management activities by requiring certain activities related to debt management

Water Authority Outstanding Debt

- Long-Term Fixed Rate 79%
- Fixed Rate Notes 4%
- Extendible Commercial Paper 5%
- Commercial Paper 12%
Today’s Actions

1. Adopt Resolution No. 2017____ approving the refunding of California Pollution Control Financing Authority $203,215,000 Water Furnishing Revenue Bonds, Series 2012 (San Diego County Water Authority Desalination Project Pipeline) via a negotiated sale; a Preliminary Limited Offering Memorandum, a Bond Purchase Agreement and other documents and agreements necessary to accomplish tax exempt project refinancing through the California Pollution Control Financing Authority (CPCFA); and

2. Approve the updated Statement of Debt Management Policy to reflect recent regulatory changes.
Agreement for Carlsbad Desalination Project Sales Tax Recovery

Administrative and Finance Committee
May 25, 2017

Bob Yamada
Director of Water Resources
2013 legislation provides for a partial state sales tax exemption for certain manufacturing and equipment purchases

- Lowered **statewide** sales tax rate by 4.1875 percentage points thru December 31, 2016

Letter opinion from State Board of Equalization in late 2016 allows desalination plants to qualify for exemption

- Can be applied retroactively to July 1, 2014
Potential to recover sales tax paid as part of construction of Carlsbad Desalination Plant and Pipeline.
  ◦ Water Authority Desalination Improvements may also be eligible

As purchaser of the water produced, Water Authority is entitled to sales tax recovered

Potential for sales tax recovery could approach $12–16 million, depending on what qualifies
Sales Tax Recovery Opportunity

- Professional assistance required to pursue tax recovery
- DuCharme, McMillen and Associates (DMA) is uniquely qualified to do this work
  - Worked directly with Board of Equalization on letter opinion that allows partial sales tax exemption
  - DMA is a national firm specializing in sales tax consulting services

- Contract with DMA would be contingency-based
  - Percentage to be negotiated (20%-30% range)
  - No payment unless sales tax is recovered

- Companion contingency-based agreement would be executed with Poseidon (10% range)
Authorize the General Manager to execute a professional services agreement with Ducharme, McMillen and Associates to pursue the recovery of sales tax paid as part of the construction of the Carlsbad Desalination Project