Proposed Assessment of Calendar Year 2019 Rates and Charges

Administrative and Finance Committee
May 24, 2018

Lisa Marie Harris, Director of Finance/Treasurer
Water Authority Cost of Service Review Process

CY 2019 Rate and Charge Drivers

Proposed CY 2019 Rate and Charge Assessment

Next Steps
Water Authority Cost of Service Review Process

- Comprehensive Cost of Service Review by Carollo
  - Rate Methodology
  - Board Policies
  - Compliance with CA law
  - Concluded Water Authority in full compliance

- Member Agency Manager/Finance Officer Engagement included 7 meetings to date:
  - Detailed revenue requirement, functional allocation and rate calculation discussions held over seven consecutive months (November 17 - May 2018)
  - Transparency with all rate assumptions
  - Technical rate model training workshop held in January 2018
CY 2019 Rate and Charge Drivers

- Water Sales Demand Forecast
- Ramp-up of QSA deliveries
- MWD Rates and litigation
- Utilization of the Rate Stabilization Fund
Calendar Year 2019 Water Authority Sales

- Total water demand increases approximately 1.5% from CY 2018 to CY 2019
  - Based on interim demand forecast

- Local supply estimates:
  - Accounts for current conditions (i.e. local surface production, recycled water use)
  - Trend toward UWMP verifiable local supplies for 2020 (adjusted for current conditions)
  - Includes 16,000 AF per year of San Luis Rey - Indian Water Authority “supplemental” deliveries to Escondido and Vista

- Slight reduction in sales from CY 2018 of approximately 4,000 AF
  - CY 2018: 423,600 AF
  - CY 2019: 419,700 AF
Ramp-up of QSA Deliveries

![Graph showing the ramp-up of QSA Deliveries from 2003 to 2022, with a significant increase in deliveries from 2018 onwards. The graph is divided into two categories: Canal Lining and IID Water Transfer.]
MWD Rate Assumptions and Cost Drivers

- April 10th MWD Board approved rates incorporated into CY 2019 rates

- Litigation
  - No assumptions made on MWD rates outside of Appeals Court decision
  - Court awarded damages of $44M for CY 2011-14 not applied to rate forecast
  - Reduction of $12M in MWD costs in 2018
  - Net savings of ~$15M in CY2019 otherwise charged to QSA supplies negated a 7.5% increase in Water Authority QSA melded supply costs
  - Other litigation benefits (LRP credits) are not included in Water Authority analysis
# MWD’s Proposed Rates and Charges

<table>
<thead>
<tr>
<th>Proposed MWD</th>
<th>CY 2018</th>
<th>CY 2019</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Supply ($/AF)</td>
<td>$209</td>
<td>$209</td>
<td>0.0%</td>
</tr>
<tr>
<td>System Access</td>
<td>$299</td>
<td>$326</td>
<td>9.0%</td>
</tr>
<tr>
<td>Water Stewardship <em>(MWD Supplies)</em></td>
<td>$55</td>
<td>$69</td>
<td>25.5%</td>
</tr>
<tr>
<td>Water Stewardship <em>(IID/Canal Supplies)</em></td>
<td>$55</td>
<td>$0</td>
<td>(100)%</td>
</tr>
<tr>
<td>System Power</td>
<td>$132</td>
<td>$127</td>
<td>(3.8)%</td>
</tr>
<tr>
<td>Treatment</td>
<td>$320</td>
<td>$319</td>
<td>(0.3)%</td>
</tr>
<tr>
<td>Tier 1 Full Service Untreated</td>
<td>$695</td>
<td>$731</td>
<td>5.2%</td>
</tr>
<tr>
<td>Tier 1 Full Service Treated</td>
<td>$1,015</td>
<td>$1,050</td>
<td>3.4%</td>
</tr>
<tr>
<td>Readiness-to-Serve ($M)</td>
<td>$140</td>
<td>$133</td>
<td>(5.0%)</td>
</tr>
<tr>
<td>Capacity Charge ($/cfs)</td>
<td>$8,700</td>
<td>$8,600</td>
<td>(1.1%)</td>
</tr>
</tbody>
</table>

**Transportation**
- 7.4% ↑ on MWD supply
- 6.8% ↓ on QSA Supply
MWD Remains the Largest Share of Water Cost

- Operational Storage: 2%
- Desalination: 24%
- QSA Water Purchases*: 28%
- MWD Exchange Agreement Costs: 28%
- MWD Costs: 18%

MWD Represents 46% of the Cost of Water

Does not include fixed RTS and Capacity Charges, which are not recovered on the Melded Supply Rate.
Recommended Policy Change to Rate Stabilization Fund

- Recommendation is driven by improvements in Water Efficiency
- Methodology being revised to reflect current demands
- A 47% decline in per capita water use from 1990 to 2017
- Increasingly efficient water use practices throughout the region
- As water use efficiency increases, region is less susceptible to significant demand reduction due to wet weather
- Existing 25% reduction level cut to 20% for ’19 & ’20 and 15% thereafter
Rate Stabilization Fund Change Impact

<table>
<thead>
<tr>
<th>CY 2018</th>
<th>CY 2019</th>
<th>CY 2020</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>$85</td>
<td>$113</td>
<td>$126</td>
<td>$189</td>
<td>$113</td>
<td>$85</td>
</tr>
</tbody>
</table>

- **Recommended Target Ending Balance**
- **Recommended Maximum Allowable Ending Balance**
- **Existing Target**
- **Existing Maximum Allowable**
Forecasted Rate Stabilization Fund w/ Board Approved Policy Change ($M)

2.5 yrs Target / 3.5 yrs Max

<table>
<thead>
<tr>
<th>CY 2018</th>
<th>CY 2019</th>
<th>CY 2020</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>$147</td>
<td>$131</td>
<td>$107</td>
<td>$91</td>
<td>$85</td>
<td>$86</td>
</tr>
</tbody>
</table>

**CY 2019 draw of $18.4M provides ~$49/AF or 3% of rate relief**
# Proposed CY 2019 Rates and Charges

<table>
<thead>
<tr>
<th>Water Authority Rates and Charges</th>
<th>CY 2017 Previous</th>
<th>CY 2018 Current</th>
<th>CY 2019 Proposed</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melded Supply Rate ($/AF)</td>
<td>855</td>
<td>894</td>
<td>909</td>
<td>1.7%</td>
</tr>
<tr>
<td>Melded Treatment Rate ($/AF)</td>
<td>290</td>
<td>300</td>
<td>276</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Transportation Rate ($/AF)</td>
<td>110</td>
<td>115</td>
<td>120</td>
<td>4.3%</td>
</tr>
<tr>
<td>Untreated TSAWR¹ ($/AF)</td>
<td>666</td>
<td>695</td>
<td>731</td>
<td>5.2%</td>
</tr>
<tr>
<td>Treated TSAWR¹ ($/AF)</td>
<td>956</td>
<td>995</td>
<td>1007</td>
<td>1.2%</td>
</tr>
<tr>
<td><strong>Fixed Charges</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Service Charge ($ Millions)</td>
<td>26.4</td>
<td>26.4</td>
<td>25.6</td>
<td>-3.0%</td>
</tr>
<tr>
<td>Storage Charge ($ Millions)</td>
<td>65.0</td>
<td>65.0</td>
<td>65.0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Supply Reliability Charge ($ Millions)</td>
<td>24.8</td>
<td>28.6</td>
<td>30.2</td>
<td>5.6%</td>
</tr>
<tr>
<td><strong>Other Rates and Charges</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure Access Charge ($/ME)²</td>
<td>2.87</td>
<td>3.01</td>
<td>3.01</td>
<td>0.0%</td>
</tr>
<tr>
<td>Standby Availability Charge ($)³</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>0.0%</td>
</tr>
<tr>
<td>System Capacity Charge ($/ME)²</td>
<td>5,029</td>
<td>5,099</td>
<td>5,267</td>
<td>3.3%</td>
</tr>
<tr>
<td>Treatment Capacity Charge ($/ME)²</td>
<td>128</td>
<td>141</td>
<td>146</td>
<td>3.3%</td>
</tr>
<tr>
<td>Annexation Application Fee (Per Application) ($)⁴</td>
<td>3,000</td>
<td>10,340</td>
<td>10,681</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

¹ Per current Board Policy, TSAWR is set to end December 31, 2020.
² ME means meter equivalent as defined in the resolution establishing the Infrastructure Access Charge.
³ Per parcel or acre, whichever is greater.
⁴ New fee is effective July 1, 2018.
## Proposed CY 2019 Total Cost of Water Breakdown

<table>
<thead>
<tr>
<th>Rates and Charges ($/AF)</th>
<th>CY 2018 Rates</th>
<th>Proposed CY 2019 Rates</th>
<th>Proposed Adjustment</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melded Supply Rate</td>
<td>$894</td>
<td>$909</td>
<td>$15</td>
<td>1.7%</td>
</tr>
<tr>
<td>Melded Treatment Rate</td>
<td>300</td>
<td>276</td>
<td>(24)</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Transportation</td>
<td>115</td>
<td>120</td>
<td>5</td>
<td>4.3%</td>
</tr>
<tr>
<td>Storage</td>
<td>162</td>
<td>171</td>
<td>9</td>
<td>5.6%</td>
</tr>
<tr>
<td>Customer Service</td>
<td>61</td>
<td>61</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Supply Reliability</td>
<td>71</td>
<td>80</td>
<td>9</td>
<td>12.7%</td>
</tr>
<tr>
<td><strong>Treated Water Cost</strong></td>
<td>$1,603</td>
<td>$1,617</td>
<td>$14</td>
<td>0.9%</td>
</tr>
<tr>
<td><strong>Untreated Water Cost</strong></td>
<td>$1,303</td>
<td>$1,341</td>
<td>$38</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

*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.

*Customer Service, Storage and Supply Reliability Charges converted to $/AF based on sales forecast.
Preliminary CY 2019 Treated Rate and Updated Rate Guidance:

*Updated Rate Guidance reflects current MWD Rate Case outcome*
Preliminary CY 2019
Untreated Rate and Updated Rate Guidance:

<table>
<thead>
<tr>
<th>Year</th>
<th>Proposed CY 2019 Rate</th>
<th>Updated Rate Guidance - Low</th>
<th>Updated Rate Guidance - High</th>
<th>2015 LRFP Guidance - Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY 2018</td>
<td>$1,303</td>
<td>$1,341</td>
<td>2.9% CY 2019 Projected Rate Increase</td>
<td></td>
</tr>
</tbody>
</table>

*Updated Rate Guidance reflects current MWD Rate Case outcome*
Breakdown of $14/AF Increase to Treatment Charge

- Melded Supply Rate, $9
- Melded Treatment Rate, $(24)
- Supply Reliability Charge, $9
- Transportation, $5
- Storage, $9

Breakdown of $15/AF Increase to Water Authority Supply Rate

- QSA & Desal $12
- Lawsuit Outcome $(29)
- MWD Impact $32.0

Proposed CY 2019 Treated Water Rate and Charge Estimated Breakdown
# Financial Performance Metrics ($/M)

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

<table>
<thead>
<tr>
<th></th>
<th>CY 2018</th>
<th>CY 2019</th>
<th>CY 2020</th>
<th>CY 2021</th>
<th>CY 2022</th>
<th>CY 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Replacement Fund</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pay As You Go Fund</td>
<td>120</td>
<td>89</td>
<td>65</td>
<td>67</td>
<td>67</td>
<td>80</td>
</tr>
<tr>
<td>RSF Ending Balance</td>
<td>136</td>
<td>119</td>
<td>96</td>
<td>79</td>
<td>73</td>
<td>75</td>
</tr>
<tr>
<td>Operating Fund Summary</td>
<td>127</td>
<td>129</td>
<td>142</td>
<td>136</td>
<td>142</td>
<td>133</td>
</tr>
</tbody>
</table>
**Whole Sale Monthly Household Cost**

### Water Authority Costs include:
- Water delivery
- Infrastructure maintenance
- Water supply diversification
- Emergency water storage availability
- Increasing water storage capacity
- Conservation program administration
- Demand management

#### Estimated CY 2019 Wholesale Costs per Household*

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD Costs</td>
<td>$19.48</td>
</tr>
<tr>
<td>QSA &amp; Desal Transp/Supply Costs</td>
<td>$17.17</td>
</tr>
<tr>
<td>Water Authority Capital Costs</td>
<td>$17.75</td>
</tr>
<tr>
<td>Water Authority Operating Costs</td>
<td>$4.42</td>
</tr>
</tbody>
</table>

**TOTAL: $58.82/month**

*Based upon 0.4 AF of consumption a year and includes meter charges and MWD pass-through costs*
Today’s Actions

- Adopt Resolution Number 2018-__ setting the time and place for a public hearing on June 28, 2018, 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, 2019.
Next Steps

- Hold public hearing and take action on CY 2019 rates and charges
  - June Board Meeting – Adopt CY 2019 Rates and Charges
AGENDA

• Program Overview
• Program Management
• Innovation Culture
  • Bright Idea Development
  • External Website
• Future Activities
INNOVATION PROGRAM GOALS

Capture the collective innovative power of the organization

Develop an innovation culture

All staff sees themselves as innovators

Provide a conduit for outside partners to submit ideas
INNOVATION COMMITTEE STRUCTURE

- Program Management
- External Liaison
- Term limits
MEMBER DUTIES

• Attend committee meetings
• Coordinate Bright Ideas
• Newsletter
• Presentations
• Process improvements
INTERNAL INNOVATION CULTURE

• Our Vision (PVAD)
• Bright Ideas
• Awards Program
• Outreach
133 BRIGHT IDEAS SINCE INCEPTION

<table>
<thead>
<tr>
<th>Year</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>23</td>
<td>17</td>
<td>14</td>
<td>12</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2017 Q1 2017 Q2 2017 Q3 2017 Q4 2018 Q1 2018 Q2 to date
133 BRIGHT IDEAS SINCE INCEPTION

Submissions by Department

Water Resources
Admin Services
Engineering
Finance
GM Office
O&M
POC
CO River
MWD Program
133 BRIGHT IDEAS SINCE INCEPTION

Bright Idea Tracking Stages

- Not Pursued
- Concept/Pilot
- Research/Execution
- Implemented
BRIGHT IDEAS

- Drone technology
- Dash cams

- Ground-penetrating radar
- Virtual reality headset for in-pipe experience

Not Pursued

Concept/Pilot

Implemented

Research/Execution

- Pipeline inspection tool
- Career training portal
- Maureen Minute
- Green Team
BRIGHT IDEA AWARDS PROGRAM

Annual Awards

• 1\textsuperscript{st} - $500 plus trophy
• 2\textsuperscript{nd} - $250
• 3\textsuperscript{rd} - $100

Quarterly Bright Idea Award

• $50 Gift Card
• One winner from all vetted ideas
• Brief summary and recognition at GM’s Briefing
2017 BRIGHT IDEAS OF THE YEAR

1st Place – Health and Wellness Committee

Kara Mathews

2nd Place – Fiber Optic Installation/Relining

Glenn Thorpe

3rd Place – Self-Service Database Reporting Tool

Matt Bartolome
Did you know that employees of the asset management group recently used an inflatable toy to inspect the pipelines? And that’s just one of many new technologies they have in the works.

Check out this interview with Martin Coghlin, Senior Water Resources Specialist from O&M, to learn more about what the asset management team is innovating.

From Big Ideas to Bright Ideas

We’ve changed the name of our Idea Campaign, from Big Ideas to Bright Ideas. Your idea doesn’t have to create the largest desalination plant in the Western Hemisphere or build the largest roller-compacted concrete dam race in the world to make a difference. No matter how big or small, we want to hear your Bright Ideas.

PVAD Photo Contest

Submit your photo and a brief description on how it demonstrates the Water Authority’s key mission to be pioneering visionary, agile driven. Prize: bragging rights.

Email entries to rmelillo@socwa.org by March 31, 2018.

Since November 2017
15 Big Ideas Submitted

San Diego County Water Authority

Innovation Program Update - March 2018

The Innovation Committee is excited to announce the launch of our newsletter with the goal of inspiring innovation right here at the Water Authority. Our e-blasts will highlight recent Bright Idea submissions, update you on the progress of implementing ideas and share stories of other agencies and how they’re improving through innovation. Since the program’s launch in 2016, we’ve received more than 100 submissions, keep ’em coming! We’re also having a PVAD photo contest this month. Details below.

Gary Bocquet, Innovation Program Manager

EMPLOYEE NEWSLETTER
INNOVATION

The San Diego County Water Authority is dedicated to identifying cutting-edge technologies that will help continue to manage the region’s diverse water supplies and improve long-term stewardship of the region’s most precious natural resource. The agency embraces opportunities for innovation through its Internal Innovation Program, input from entrepreneurs, and partnerships with regional, national and international organizations.

We also want to hear from you. If you have a product or concept that you would like to tell us about, we have an online form that will help us identify the appropriate team member to evaluate your idea and provide feedback. Our goal is to respond within seven business days. We will let you know if we have additional questions, if your product or idea may be a good fit for another agency or if it is not feasible within the scope of our operations.

Click here to submit a bright idea for review by the Water Authority staff.
FUTURE ACTIVITIES

• Regional Innovation Forum (Fall 2018)
• External Outreach
• Sustain Internal Bright Idea Culture
Sacramento Update

Legislation and Public Outreach Committee
May 24, 2018

Glenn Farrel, Government Relations Manager
Legislature

- May 25: All bills must pass through fiscal committees
- June 1: All bills must pass from their house of origin
- June 15: Budget bill must be passed by midnight
- July 6: Summer recess begins
May Revise of Proposed State Budget

May 11 – Governor released May Revise of proposed State Budget

Key changes from January budget proposal
- Additional $3+ billion in surplus revenues
- General fund spending proposal increased from $131.7 billion to $137.6 billion

Key new expenditures identified in May Revise
- $2 billion – deferred maintenance at state-owned and operated properties
- $359 – assistance for immediate efforts to address homelessness
- $312 million – mental health programs
Co-sponsored with NRDC to advance several Independent Technical Panel (ITP) recommendations to improve landscape irrigation efficiency

Pending hearing in Assembly Appropriations Committee

Removed provisions
  ◦ State facilities
  ◦ Plant labeling

Remaining provisions
  ◦ Landscape contractors examination
  ◦ WUCOLS updates
  ◦ Home inspections
Water Authority Sponsored Bills – 2018: AB 2064 (Gloria/Weber)

- AB 2064 is intended to fully address cashflow issues for non-profit organizations and DACS participating in IRWM programs
- AB 2064 is jointly authored by Assemblymembers Todd Gloria and Shirley Weber
- Pending consideration on the Assembly Appropriations Committee Suspense file
SB 1277 is a vehicle to create a governance and administrative structure to manage implementation of the 10-year Salton Sea Management Program.

A reliable structure for receiving funding, contract management, invoice processing, and priority project implementation does not yet exist.

Stakeholder working group discussions initiated.

Bill is inactive – failed to meet procedural deadlines.
Status of Water Tax Legislation

- **SB 623**
  - Assembly Rules Committee since September 1, 2017
  - Will require procedural actions and possible re-referral to policy and fiscal committees
  - No indication that any action is imminent – likely timetable for action is August

- Administration’s proposed budget trailer bill – Safe and Affordable Drinking Water Act
  - Hearings held in Assembly and Senate Budget Subcommittees on Resources during mid-March
  - Senate Budget Subcommittee did not take action on the BTB
  - Assembly Budget Subcommittee passed the BTB on May 22
    - Budget trailer bill now becomes an item subject to consideration by the Budget Conference Committee
Update on Long-Term Water Use Efficiency Legislation
Update on Long-Term Water Use Efficiency Legislation – AB 1668/SB 606

- AB 1668 (Friedman) and SB 606 (Hertzberg) have been passed by the Legislature
  - AB 1668 passed off Senate Floor on a 24–14 vote, and off Assembly Floor on a 43–23 vote
  - SB 606 passed off Assembly Floor on a 46–26 vote, and off Senate Floor on a 24–12 vote
    - All San Diego delegation voted along party lines

- Bills are pending action by the Governor
Negotiations from January through May

- A number of important issues were satisfactorily resolved through negotiations after the Legislature returned from its winter recess:
  - Indoor water use standard
  - Waiver for natural disasters
  - Variances
  - Data accuracy consideration
  - Reporting compliance/timelines and drought planning horizons

- However, the Water Authority and its coalition partners continued to advocate for five important policy amendments:
  - CII performance measures
  - Outdoor water standards
  - Enforcement
  - Drought resilient supplies
  - Potable reuse credit
Final Outcomes – CII Performance Measures and Outdoor Water Standards

- CII performance measures
  - Final amendments accepted by the authors would ensure cost effectiveness and technical feasibility are considered in CII performance measure implementation requirements

- Outdoor water standards
  - Final amendments provide for allowance of sufficient water for existing landscapes and provide clearly that landscapes irrigated with recycled water are special landscapes
Final Outcomes – Enforcement and Drought Resilient Supplies

- **Enforcement**
  - Final amendments accepted by the authors would limit SWRCB authority to direct specific enforcement (fines) action against customers of the local water supplier

- **Drought resilient supplies**
  - There were no amendments made to the package of bills on this issue – all efforts to amend the measures to protect the use of drought resilient water supplies were rejected
Final Outcomes – Potable Reuse Credit

- Water Authority proposed amendments seeking to ensure a 15% potable reuse credit/bonus incentive for all potable reuse projects included within a 2015 local or regional UWMP.

- Final amendment included by authors:

  Water Code Section 10609.20(d)(3):
  - 15% potable reuse credit/bonus incentive for “existing” projects
  - “Existing” projects defined as:
    - Facility has a certified EIR, mitigated negative declaration, or negative declaration by 1/1/19
    - Facility begins producing and delivering potable reuse water by 1/1/22
    - Facility uses microfiltration and reverse osmosis technologies to produce the potable reuse water
San Diego County potable reuse projects potentially eligible to receive **15%** bonus incentive under final version of bills:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Owner/Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURE Water – Phase 1</td>
<td>City of San Diego</td>
</tr>
<tr>
<td>San Luis Rey WRF</td>
<td>City of Oceanside</td>
</tr>
</tbody>
</table>

San Diego County potable reuse projects eligible to receive **10%** bonus incentive under final version of bills:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Owner/Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURE Water – Subsequent Phases</td>
<td>City of San Diego</td>
</tr>
<tr>
<td>East County Advanced Water Purification Program</td>
<td>Padre Dam MWD</td>
</tr>
<tr>
<td>SFID/SDWD/SEJPA Potable Reuse Project</td>
<td>Santa Fe Irrigation District</td>
</tr>
<tr>
<td>Potable Reuse</td>
<td>City of Escondido</td>
</tr>
<tr>
<td>New Local Supply</td>
<td>Rincon del Diablo MWD</td>
</tr>
<tr>
<td>San Elijo Valley/San Dieguito River Basin</td>
<td>Olivenhain MWD</td>
</tr>
<tr>
<td>Issue</td>
<td>Water Authority Requested Amendments</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CII Performance Measures</td>
<td>The measures must require the SWRCB to consider only those CII performance measures that are cost effective and technically feasible.</td>
</tr>
<tr>
<td>Drought Resilient Water Supplies</td>
<td>The measures must be amended to protect water suppliers’ ability to use drought resilient supplies identified in a supplier’s water shortage contingency plan and protect water suppliers’ ability to rely on the plans they develop to respond to drought and water shortage.</td>
</tr>
<tr>
<td>Enforcement</td>
<td>The measures should not provide opportunity for the State Water Resources Control Board to direct specific enforcement (fines) action against customers of the local water supplier.</td>
</tr>
<tr>
<td>Outdoor Water Use Standards</td>
<td>The measures must be amended to appropriately distinguish between new and existing landscapes within the context of MWELO application, provide clearly that landscapes irrigated with recycled water are special landscapes.</td>
</tr>
<tr>
<td>Potable Reuse Credit</td>
<td>The measures must be amended to include a potable reuse credit/bonus incentive of at least 15%.</td>
</tr>
</tbody>
</table>
Next Steps

- Attention now turns to implementation of the statutes
- SWRCB and DWR staff will likely begin the process of scoping the administrative and regulatory provisions that will be implemented over the coming months
- Committed engagement by the Water Authority and member agencies will be important to ensure:
  - Statutes are implemented as intended
  - Appropriate sideboards on SWRCB and DWR “reach”
Questions?
BROUGHT TO YOU BY WATER...

Legislation and Public Outreach Committee
May 24, 2018

Denise Vedder, Acting Director of Public Outreach & Conservation
Mike Lee, Public Affairs Supervisor
Goals

- Reinforce and strengthen the Water Authority and its member agencies as the region’s trusted leaders on water policy and reliability

- Enhance outreach communications tools for member agencies to help water users understand the need for continued investments in supply reliability and infrastructure
Energizing stakeholders

- May 2 ‘Soft Launch’
  - Coffee tasting
    - B2U mugs
  - Ambassadors kickoff
    - More than 25 signups
  - New awards program
    - Outstanding Advocacy
    - Social Influencer
    - Young Leader
    - H2O Champion
Energizing stakeholders
Energizing stakeholders

- Social media photo contest
  - 50+ entries
  - Hundreds of ‘likes’
  - Ends May 31
Enhancing outreach

- Microsite
- Outreach materials
- Videos
- Events
Next up

- Hard launch event
- Tool kits for member agencies
- Sector events
- Targeted advertising
- Water News Network
Water News Network

- Media clips
- Original content
  - Projects
  - Policies
  - Achievements
  - Advice
  - Activities
Cross Section of San Vicente Dam

- Carryover Storage Project: +100,000 acre-feet
- Emergency Storage Project: +52,000 acre-feet

- Total Dam Raise: +117 feet
- Existing Dam: 220 feet

Elevation

Upstream

Downstream
Original Dam Construction
Copper Water Stops at Construction Joints
Example of original joint

Some seepage is normal

Other dams do not perform this well
Current Lake Level

CARPI Waterproof Liner

Extend Liner Over Joint

10/08/2013 12:46
Staff Recommendation

- Authorize the General Manager to award a construction contract to CARPI USA, Inc., in the amount of $384,571 to mitigate San Vicente Dam water losses from construction joint seepage.
As-Needed Corrosion Support Services (Action)

Engineering & Operations Committee
May 24, 2018
What is Corrosion?

Hodges HEP Draft Tube

VAL 2 /VID 1

Access Hatch
Corrosion Impact

- Cost of Corrosion per year in Water Industry $36 Billion
- Corrosion Control practices estimated savings 15–35%

Pipeline 3
2006 Failure
Mission Trails
Regional Park
Corrosion and the Water Authority

1. Environmental
2. Galvanic
3. Cavitation
4. Stray Current
5. Microbiologically Induced
Corrosion Mitigation

Protective Coatings

Galvanic Cathodic Protection

Impressed Current Cathodic Protection
Water Authority’s CP System

310 Total Miles of Pipeline from 48” to 108” Diameter
✓ 92 Miles with Cathodic Protection

76 Flow Control Facilities
✓ 12 FCF with Cathodic Protection

7 Pump Stations
✓ 7 PS  with Cathodic Protection

2 Hydroelectric Facilities
✓ 2 HEF with Cathodic Protection

2 Concrete Roller Compacted Dams
✓ 2 Dams with Cathodic Protection

630 CP Test Stations
145 Galvanic Anode Ground Beds
40 Impressed Current Ground Beds
76 Remote Monitoring Sites
Corrosion Consultant Support

- Current Contract Expires June 2018
- Data Collection
- CIP Plan Review/CP Design
- Specialized Testing
- In Depth Analysis
- Internal Inspections
New Corrosion Contract

- As-Needed Corrosion Support Services
  - Corrosion Engineer
  - Corrosion Technician
  - Corrosion Maintenance
Staff Recommendations

1. Authorize the General Manager to award a professional services contract to HDR Engineering, Inc., for a not-to-exceed amount of $1,000,000, to provide as-needed corrosion support services for a period of two years with an option to renew for an additional two years.

2. Authorize the General Manager to award a professional services contract to Corrpro, Inc., for a not-to-exceed amount of $600,000, to provide as-needed corrosion support services for a period of two years with an option to renew for an additional two years.

3. Authorize the General Manager to award a professional services contract to V&A Consulting Engineers, Inc., for a not-to-exceed amount of $175,000, to provide as-needed corrosion support services for a period of two years with an option to renew for an additional two years.

4. Authorize the General Manager to award a professional services contract to Cathodic Dynamics, Inc., for a not-to-exceed amount of $225,000, to provide as-needed corrosion support services for a period of two years with an option to renew for an additional two years.
Lake Hodges Hydroelectric Pumped Storage In-house Operations Update

Engineering & Operations Committee
May 24, 2018
Background

- 40-megawatt Facility began commercial operations in August 2012
- 25-year Power Purchase Agreement
- WA O&M staff operated LHHPS throughout commissioning & start-up
- 5-Year contract with ProTrans effective November 1, 2012
Background

- Board approved FY18/19 Budget included WA assuming LHHPS O&M functions
  - WA staff prior experience
  - Complimentary work functions
  - Develop & maintain highly skilled staff
  - Overall projected savings near $500,000/year
Preparation Efforts

- Training, job shadowing and hiring
- Facility manuals, practices and procedures
- SDG&E/internal coordination
- SCADA communication and networking
- Maintenance contracts
- On-site maintenance & repair workshop
Facility Transition to WA

- October 31, 2017:
  Water Authority allowed vendor contract to expire

- November 1, 2017:
  Water Authority assumed operations and maintenance functions
Performance To Date

- Efficiency/Cost Saving Efforts
- Facility Metrics
  - Availability
  - Revenue
  - Budget
Performance To-Date Efficiencies

- Process Control System Alarms
- Hydraulic Fluid Leak: $6k savings
- Hydraulic Pumps Replacement: $2.4k savings
- Governor System Training
LHHPS Power Generation Availability Performance

ProTrans FY17 Availability Average: 97.3%
Water Authority 6-Month Average: 98.5%

WA Availability

97% Target
LHHPH Revenue Performance

Cumulative Annual Revenue

- Forecast
- Actual
- FY18 Goal

ProTrans

SDCWA

$2,800,000

$2,529,327
## FY 18 Budget Proposal

### ProTrans vs WA’s O&M

<table>
<thead>
<tr>
<th>Item</th>
<th>ProTrans</th>
<th>Water Authority</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Service Fee</td>
<td>$1,475,852</td>
<td>$998,342</td>
<td>$477,510</td>
</tr>
<tr>
<td>Bonus</td>
<td>$16,817</td>
<td>$0</td>
<td>$16,817</td>
</tr>
<tr>
<td>Corrective Maintenance</td>
<td>At cost + markup*</td>
<td>At cost</td>
<td>markup*</td>
</tr>
<tr>
<td>Total</td>
<td>$1,492,669</td>
<td>$998,342</td>
<td>$494,327</td>
</tr>
</tbody>
</table>

* 15% on parts, 5% on subcontractor costs
# FY 18 Actuals/Year End Projection

## ProTrans vs WA’s O&M

<table>
<thead>
<tr>
<th>Item</th>
<th>ProTrans</th>
<th>Water Authority</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Service Fee</td>
<td>$1,505,389</td>
<td>$1,009,968</td>
<td>$495,421</td>
</tr>
<tr>
<td>Bonus</td>
<td>$16,817</td>
<td>$0</td>
<td>$16,817</td>
</tr>
<tr>
<td>Corrective Maintenance</td>
<td>$105,864*</td>
<td>$93,460</td>
<td>$12,404</td>
</tr>
<tr>
<td>Total</td>
<td>$1,628,070</td>
<td>$1,103,428</td>
<td>$524,642</td>
</tr>
</tbody>
</table>

FY 18 Budget Proposal Savings: $494,327

*Includes ProTrans contractual markup
Overall Facility Summary

- Facility is running reliably and safely
- Facility’s availability and revenues are on target
- Facility’s overall budget is on track
  - Estimated Net Revenue $1.0M
- WA staff is highly motivated
San Diego 28 Flow Control & Alvarado Hydroelectric Facilities

Engineering & Operations Committee Meeting

May 24, 2018

Brent Fountain, Senior Engineer
Background

- San Diego 12 Flow Control Facility interim modifications
- Long term flow control and hydroelectric facilities rehabilitation
Design

- Structural / Seismic
- Mechanical
- Electrical
- Power Market Analysis
  - Minimum Annual Revenue - $600k
  - Payback 10 to 13 years
Construction

<table>
<thead>
<tr>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
</table>

**Procurement**
- Turbine Generator
- Electrical Equipment

**Construction**
- Flow Control
  - Meter Vault
  - Isolation Vault
  - Valves
- Hydroelectric
  - Turbine Generator
  - Commissioning
Colorado River Hydrology Update

Imported Water Committee
May 24, 2018
Overview

- Extended drought conditions since 2000
- Use storage to meet annual allocations to water users
- Lake Mead approaching elevation-based shortage triggers

Current status and shortage probability

Development of new drought-related agreements

Implications on the Water Authority’s supplies
Hydrology Update

Current Conditions
- Storage – 51% total system (31 MAF)
  - Powell - 52% of capacity (3,610 ft)
  - Mead - 39% of capacity (1,082 ft)
- Precipitation – 72% of average
- Snowpack – 45% of average

2018 Update
- Mid-year review confirms above average release from Lake Powell (9 MAF)
- Full allocations to Lower Basin users in 2018 (No shortage)

2019 Preview
- Expected 9 MAF release from Powell
- Lake Mead projection above shortage trigger of 1,075’
- Full allocations to Lower Basin users in 2019 (No shortage)
## Lower Basin 5-Year Shortage Projections

<table>
<thead>
<tr>
<th>Shortage Condition</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Level (Elevation 1,075 to 1,050 ft)</td>
<td>0</td>
<td>51</td>
<td>43</td>
<td>38</td>
<td>29</td>
</tr>
<tr>
<td>2nd Level (Elevation 1,050 to 1,025 ft)</td>
<td>0</td>
<td>1</td>
<td>21</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>3rd Level (Elevation below 1,025 ft)</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

Data from Bureau of Reclamation

Projections from April 2018
Drought-Related Agreements

**Minute 323**
- Complete
- Continues shortage sharing by Mexico
- New Water Scarcity Contingency Plan

**Drought Contingency Plan**
- In progress
- Additional cutbacks including CA
- Considered voluntary reductions

**Interim Guidelines Update**
- Planned
- Update operational, storage, shortage criteria
- Current guidelines expire end of 2025
2007 Interim Guidelines
- **No cuts** to CA under any defined shortage

Proposed DCP
- **Voluntary** CA cuts of conserved water, not “official reduction”

- **No reductions to the Water Authority’s QSA supplies**

Reductions under 1st shortage trigger in Lake Mead at 1,075’

- No Cut
- 320,000 AF (11%)
- 13,000 AF (4%)
Hypothetical Impacts to QSA Supplies in an Official Shortage

- Transfer volume reduced proportionally to IID’s Priority 3 reduction
- Any canal lining supply shortage cuts extend agreement term to recover lost volumes (~5,400 AF)
- Low vulnerability to large QSA volume reductions

**Example Calculation**

*For explanatory purposes only*

<table>
<thead>
<tr>
<th>Transfer Reduction in Official Shortage</th>
<th>Volume (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conserved Water Transfer</td>
<td>200,000</td>
</tr>
<tr>
<td>IID Priority 3 Water Right</td>
<td>3,100,000</td>
</tr>
<tr>
<td>Secretarial Reduction to IID’s Priority 3</td>
<td>210,000</td>
</tr>
</tbody>
</table>

Shortage Formula:

\[
\frac{200,000}{3,100,000} \times 210,000 = 13,548
\]
Next Steps

Hydrology
Shortage Projections
Drought Contingency Plan
Other Basin States Issues
Updated Bay–Delta Policy Principles

Imported Water Committee
May 24, 2018

Amy Chen, Director of MWD Program
Water Authority and the Bay–Delta

Sacramento-San Joaquin Bay-Delta

State Water Project (Bay-Delta) 17%

Local Supplies and Conservation 15%

Colorado River 68%

Supply %: 2012–2016 average
* Interim demand forecast reset, including verifiable & planned
Water Authority’s Investment in a Delta Solution

Delta Reform Act 2009

'Portfolio Approach' 2013

BDCP November 2013

EIR/S Documents

Water Authority multi-disciplinary Team Review of BDCP 2013-2014

California WaterFix and Eco Restore 2015
# MWD’s April 10 Action

<table>
<thead>
<tr>
<th>Costs</th>
<th>OPTION 1 (First Stage)</th>
<th>OPTION 2 (Full Facility)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital Costs (2017 dollars)</td>
<td>$11.1 billion</td>
<td>$16.7 billion</td>
</tr>
<tr>
<td>MWD Capital Costs</td>
<td>$5.2 billion (47.1%)</td>
<td>Up to $10.8 billion (64.6%)</td>
</tr>
<tr>
<td>MWD Total Annual Costs</td>
<td>$252 million</td>
<td>Up to $515 million</td>
</tr>
<tr>
<td>MWD Overall Cost Increase</td>
<td>16%</td>
<td>Up to 33%</td>
</tr>
<tr>
<td>Annual Cost Increase over 15 Years</td>
<td>1.1%</td>
<td>Up to 2.2%</td>
</tr>
<tr>
<td>Average Cost Increase per Acre-Foot</td>
<td>$148</td>
<td>Up to $303</td>
</tr>
<tr>
<td>Average Household Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Based on 70% residential spread</td>
<td>$2.40/month</td>
<td>Up to $4.80/month</td>
</tr>
<tr>
<td>over 6.2 million households)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Average MWD Supply Improvement</td>
<td>Approx. 405 – 455 TAF/yr plus additional flexibility from two intakes</td>
<td>Approx. 405 – 455 TAF/yr plus additional flexibility from three intakes</td>
</tr>
</tbody>
</table>
Cumulative rate increases of 33 percent

“Given the scope of the project” cost estimate may differ “materially”

MWD Share of 64.6% does not include additional “acquisition of transfers”

“No assurance” that permits and approvals will be obtained in a timely manner or at all

If project is forestalled or abandoned, expenditures incurred by MWD prior to that time may represent “sunk costs.”
WaterFix Financial Exposure
(MWD May Appendix A) (cont.)

1. As a SWP contractor
2. Through “various forms of additional financial support”
   • “Gap funding” (currently $86M)
   • SWP share ($5.2B)
     • “Financing JPA”
   • Unfunded CVP share ($5.6B)
     • MWD’s own debt

![Debt Capacity: <$2.5B]
Treatment of WaterFix Costs

MWD–SWP contract
(exe 11/4/1960)

- “Project conservation facilities” (supply)
- “Project transportation facilities” (transportation)

DWR Bulletin 132

- First issued: 1964
- Peripheral canal referenced: 1963 (“solving Delta problems”)
- Peripheral canal costs incorporated in cost estimates: 1965
In recent years, Appendix B to Bulletin 132

- Data and computations used to determine water charges
- Table 2: “Project Purpose Cost Allocation Factors”
  - Peripheral canal related costs are treated as “Project Conservation Facilities” (i.e., Supply)
2012 Bay–Delta Policies

- Water System Reliability
- Ecosystem Restoration
- Finance and Funding
- Facilities
- Governance
Key Updates to Policy Principals

- Fine-tune language and reflect current conditions
- Added “Equity and Transparency” section
  - Preserve “Project Conservation Facilities” definition
  - Ensure WaterFix costs are properly allocated on MWD supply rates
  - Oppose actions that result in MWD taking on additional cost share from CVP, or south of Delta SWP contractors
  - Regular updates on implementation progress
Next Steps

- Receive input from Board members
- Discuss with member agency managers in June
- Board action in June