DETACHMENT UPDATE

Board of Directors
August 27, 2020

Sandra L. Kerl
General Manager
Detachment Update


- Committee had useful discussion on a number of topics:
  
  a. **CEQA:** LAFCO has not made any CEQA decisions yet
  
  b. **LAFCO Powers:** LAFCO general counsel explained the general authority LAFCO possesses
  
  c. **Consultants:** LAFCO is analyzing what consultants to hire
  
  d. **Next Meeting:** October
Currently, Water Authority staff is working on detailed responses to the Fallbrook/Rainbow applications.

All responses to the applications are due at LAFCO on September 18. We encourage all our member agencies to weigh in at LAFCO by the deadline, and to fully participate in the process.

At our request, LAFCO has committed to notice our member agencies with LAFCO information.
FSTF Accomplishments

- **Permanent Special Agriculture Water Rate**
  - Following FSTF recommendation, in November 2019, the Board approved a new, permanent SAWR Program
  - New PSAWR Rate calculated during CY 2021 Rate Setting Process
    - PSAWR Rate to be evaluated every year as part of COS process
    - Water Resources in process of developing program details

- **FSTF Recommended Second Year of IAC Ramp Up**
  - Following November recommendation, Board approved IAC ramp-up as part of CY 2021 Rate Setting Process
  - Actual IAC less than originally forecasted due to multi-year debt management strategy

- **11 Meetings of education and feedback**
  - Nearly 30 hours of presentations and discussion
11 Meeting Covering Numerous Topics

Key Topics
- Special Agriculture Water Rate
- Infrastructure Access Charge
- Fixed/Variable Composition
- Roll-off and Detachment
- MWD Rates & Charges
- Member Agency Demand Profiles
- Transportation to Fixed
- Long Range Financing Plan

Subject Matter Overviews
- Demand Forecasting (Gage)
- Budget Development (Whyte)
- Rate Setting (Rossum)
- Cost of Service (Carollo)
- Operations & Maintenance (Fisher)
- Capital Budget & Planning (Reed)
FSTF August Recommendation

With the conclusion of the 2020 FSTF, the committee recommends to continue future work to address long-term Fiscal Sustainability issues, including, but not limited to:

- Revenue & Rate Design Alternatives
- Fixed vs Variable vs Rolling Rates
- Impacts of Roll-off
- Potential Detachment
- Financial Resilience
- Affordability
Business Plan
2019-2023 Final Performance Report and 2021-2025 Update

Administrative & Finance Committee
August 27, 2020

Sandra L. Kerl
General Manager
Business Plan History

- Guiding document to manage Water Authority:
  - Flexible
  - Adaptive
  - Accountable
  - Continuously improved
  - Responsive to change
Business Plan History

- 16 years of proven success
- Awarded 2012 ICMA Certificate of Achievement for Performance Measurement in Strategic Planning

Goal Success Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Success Rate</th>
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<tbody>
<tr>
<td>2004</td>
<td>74%</td>
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<tr>
<td>2008</td>
<td>63%</td>
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<tr>
<td>2015</td>
<td>79%</td>
</tr>
<tr>
<td>2018</td>
<td>81%</td>
</tr>
<tr>
<td>2020</td>
<td>84%</td>
</tr>
<tr>
<td>2021</td>
<td>84%</td>
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<tr>
<td>2022</td>
<td>87%</td>
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<tr>
<td>2023</td>
<td>78%</td>
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Business Planning Process

Monitor and Communicate Performance

Water Supply

Water Facilities

Business Plan

Business Services

Update every 2 years
2019-2023 Business Plan Overview

Key Focus Areas - 106 Objectives

- Water Supply
  - Imported Water
  - Local Water
  - Resource Planning
  - 30 Objectives

- Water Facilities
  - Infrastructure/Capital Improvement Program
  - Sustainability
  - Water System Management
  - 35 Objectives

- Business Services
  - Business Support
  - Communication and Messaging
  - Financial Management
  - Workforce Management
  - 41 Objectives
2019-2023 Business Plan Performance

1. Objective was completed by the target date.
2. Objective on track to be completed by the target date.
3. Objective not on track to be completed by the target date.
4. Objective is deleted or delayed due to decision of the Board.
5. Objective is deleted or delayed due to factors outside the Water Authority’s control.
Highlights

- Completed
  - Supported Poseidon in obtaining Carlsbad Desalination NPDES permit for the Plant Intake Modifications Project.
  - Secured more than $3.6 Million to support water-use efficiency programs.
  - Met 2020 Climate Action Plan emission targets.
  - Using innovative pipeline technologies, performed condition assessments over 27 miles of the treated water portion of the first aqueduct.
  - Completed the Kearny Mesa Headquarters Roof Rehabilitation project.
Highlights

- Completed:
  - Obtained Board approval for the updated 2019 Energy Management Policy.
  - Mission Trails Chlorination Facility.
  - Developed a new Rate and Charges Model.
  - Established a long-term pension funding strategy for future pension savings.
  - Developed a workforce management strategic plan that addresses diversity and inclusion.
Highlights

- Delayed
  - Preparation of annual water supply and demand assessment in coordination with member agencies.
  - Complete the Fallbrook Public Utility District 7/Rainbow Municipal Water District 14 Flow Control Facility project.
  - Complete the Hauck Mesa Storage Reservoir and Pipeline Surge Protection project.
  - Negotiate a draft project development agreement with a developer for Board consideration for the proposed San Vicente Energy Storage Facility.
Business Planning Process

Monitor and Communicate Performance

Water Supply

Water Facilities

Business Plan

Business Services

Update every 2 years
2021-2025 Business Plan Update

Water Supply
- Imported Water
- Local Water
- Resource Planning

Water Facilities
- Infrastructure/Capital Improvement Program
- Sustainability
- Water System Management

Business Services
- Business Support
- Communication and Messaging
- Financial Management
- Workforce Management
108 Objectives and Tactics

- Provides structure to achieve management strategies.

22 Key Performance Indicators

- Tracking continuous improvement
- Identified for each program
Water Supply Key Issues

- Ensure appropriate cost allocation and long-term viability of imported supplies.

- Maximize storage opportunities to provide operational flexibility.

- Support regulatory efforts for potable reuse.

- Advance long-term water use efficiency practices.
Water Supply Objectives

- Continue to explore QSA supply alternative conveyance.
- Participate on national Water Reuse Action Plan workgroup to evaluate NPDES permitting to support reuse projects.
- Advocate for state and federal funding opportunities
- Update Water Shortage Contingency Plan.
Water Facilities Key Issues

- Prioritize a long-term CIP identifying efficiencies and operating cost reductions.
- Balance facility growth with water demands.
- Manage facility operations, maintenance, and security to meet member agency water demands.
- Implement cost effective sustainability practices.

Robotic Pipe Assessment Tool
Water Facilities Objectives

- Complete an additional 4 miles of priority pipeline relining.

- Complete the Mission Trails and Flow Regulatory Storage II and Flow Control Facility project.

- Complete the rehabilitation and/or replacement of three priority flow control facilities.

- Perform comprehensive condition assessment of the untreated water portion of the first aqueduct.

- Complete the 2024 Climate Action Plan Update.

- Develop 3 acres of wetland mitigation at the San Luis Rey Kendall site.
Business Services Key Issues

- Adopt pioneering technology and protecting against cybersecurity threats.
- Continue effective communications with external stakeholders.
- Implementing long-term financial plans to provide rate and charges guidance.
- Attract, retain, and develop a high performing workforce.
Business Services Objectives

- Reduce energy use of the Kearny Mesa headquarters.
- Grow social media audience.
- Convene the Potable Reuse Coordinating Committee to support potable reuse in the San Diego region.
- Complete updated Long-Range Financing Plan.
- Conduct follow-up employee engagement survey.
Business Plan on the Internet

http://www.sdcwa.org/mission-vision-values-strategies
Regional Conveyance System Study
Phase B

Board of Directors Meeting
August 27, 2020

Gary Croucher
Colorado River Work Group Chair
Colorado River Work Group Update

▪ Met on August 24

▪ Received staff report and engaged in discussion

▪ Considered options and agreed on staff recommendation
Agenda

- Discuss key study drivers
- Highlight Phase A results
- Discuss and respond to MAM consultant report
- Describe and present recommendation
Letters in Opposition

- Joint letter - environmental justice groups
- Tubb Canyon Desert Conservancy
- Anza Borrego Foundation
- Fallbrook Public Utility District
- Olivenhain Municipal Water District
- Valley Center Municipal Water District
- Community letters
- Identical autogenerated letters
Letters in Support for Phase B

- Imperial Irrigation District
- San Diego Regional Chamber of Commerce
- San Diego Regional Economic Development Corporation
- Imperial Valley Water (IVH20)
- Five former SDCWA Board chairs
- California Restaurant Association
- Imperial Valley Economic Development Corporation
- Local Borrego Business Community
- Imperial Valley Environmental Justice
- Farmer, Owner, Oasis Farms
- Former IV Vegetable Growers Association Executive Director
Why Study Regional Conveyance?

- Decisions on supply and transportation
- QSA supplies are low cost and highly reliable and meet 50 percent of region’s demands
- IID conserved water transfer initial term ends in 2047 with potential extension
- Exchange Agreement with MWD ends in 2047
Why study it now?

- Decisions made in the mid 2020s will serve as a proxy for the next 50 years

- A delay in the study would forgo significant options for the region

- The Law of the River and the QSA contracts provide perspective as to why incremental and informed decision making is prudent
Current Two-Phase Study

- Incremental approach directed by Board
- Includes input from member agencies
- Offers several offramps
- Assesses potential fatal flaws
- Identifies potential partnerships
- Refines cost projections
- Conservative financial assessments
- Provides options for future resource mix
- Phase A focused on engineering and cost
# Phase B Funding

<table>
<thead>
<tr>
<th>Black &amp; Veatch</th>
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<tbody>
<tr>
<td><strong>Refine alternatives to update all-in cost estimates and select a preferred alternative</strong></td>
<td>$200,000</td>
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<tr>
<td><strong>Update demands based on 2020 UWMP and determine system operations requirements</strong></td>
<td>$95,000</td>
</tr>
<tr>
<td><strong>Perform quantitative risk assessment to determine potential cost and schedule impacts</strong></td>
<td>$150,000</td>
</tr>
<tr>
<td><strong>Engage with partners, quantify costs and benefits, determine partnership structures and project delivery platforms</strong></td>
<td>$145,000</td>
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<tr>
<td><strong>Total Black &amp; Veatch</strong></td>
<td><strong>$590,000</strong></td>
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<tr>
<td><strong>Staff Study Support and Project Management</strong></td>
<td><strong>$510,000</strong></td>
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<tr>
<td><strong>Legal Support and Reserves</strong></td>
<td><strong>$200,000</strong></td>
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<tr>
<td><strong>Total Phase B</strong></td>
<td><strong>$1,300,000</strong></td>
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Alternatives Under Study
# Phase A Financial Analysis

- Capital, Operations, Maintenance, & Replacement Costs

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<tr>
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<th>Alternative 3A</th>
<th>Alternative 5A</th>
<th>Alternative 5C</th>
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<tbody>
<tr>
<td>Capital Cost</td>
<td>$4.95 Billion</td>
<td>$4.96 Billion</td>
<td>$4.86 Billion</td>
</tr>
<tr>
<td>Annual Operations, Maintenance &amp; Replacement Costs</td>
<td>$143 Million</td>
<td>$149 Million</td>
<td>$258 Million</td>
</tr>
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Phase A Key Findings

- QSA water needed
- 3A, 5A & 5C technically viable
- 3A & 5A economically competitive
- Can be integrated into Water Authority system
- Several potential partnerships
Demand Risk

- DLM&G - “Demand Risk appears significant”

- Response - This should be evaluated based on accurate data
DLM&G Used a Flawed Demand Projection

- DLM&G used FY 2020 - Wet Year starting point
  - High Rainfall Year - 130% of Normal
  - COVID-19 Year - Shelter-in-place order
  - Skewed Results - Not representative of normal weather conditions
  - Suppressed Projected Demands - Should be 10% higher starting point based on normal weather conditions
  - Not Normalized

- Missing 43,000 AF/yr
  - Using DLM&G’s simplified methodology
  - Same Data Normalized = +43,000 AF/yr
DLM&G Misses County Population Growth

- SANDAG Growth Projections (2020-2040)
  - Only accounts for changing per capita demands
  - Missing ~72,000 Single-Family Units
  - Missing ~215,000 Multi-Family Units
  - Missing employment sector growth
QSA is Necessary to Support Local Development

- **Cost Effective Base** - QSA is the cheapest source of supply and lowers the melded rate of untreated supplies, supporting local supply development

- **Complementary** - QSA supplies are complementary to and not in competition with local supply development

- **Supply Needed** - In 2047, will need 200 KAF of new supplies beyond planned member agency projects
Options for Additional Local Supplies

- **Recycled Water - Potable**
  - Only 84KAF available @ estimated $2,500/AF to $3,500/AF
  - Need 116KAF @ estimated $3,000/AF to $4,000/AF

- **Ocean Desalination**
  - Already accounted for in UWMP
  - Difficult to Maintain constant deliveries due to fluctuation in demands

- **Local Runoff**

- **Recycled Water - Non Potable**

- **Groundwater**
  - Limited groundwater resources in San Diego County

- **Brackish Water Desalination**

**Melded Rate $3,370/AF**
Phase A
Economic Analysis

MAM Consultant Review
& Water Authority’s Response
DLM&G Review

- DLM Engineering & Gillingham Water
  - Hired by Member Agency Managers to Review Draft Phase A Results

- Water Authority supported DLM&G review:
  - Provided all requested information, including fully functional economic model
  - Participated in 8 hours of discussion over 4 meetings

- Report looks only to discredit RCS
  - Critiques Board directed phased approach
  - Findings are unsubstantiated and present overtly pessimistic outlook for RCS
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<tr>
<th>DLM&amp;G Review - Key Assertions</th>
<th>SDCWA Response</th>
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</thead>
<tbody>
<tr>
<td>1. “RCS technically feasibility appears reasonable”</td>
<td>✓</td>
</tr>
<tr>
<td>2. “Findings that RCS is economically competitive with other supply and transportation options is not reasonable”</td>
<td>✗</td>
</tr>
<tr>
<td>3. “A negotiated exchange option appears to offer economic advantages”</td>
<td>?</td>
</tr>
<tr>
<td>4. “Recommendation to refocus long-term QSA supply planning”</td>
<td>✗</td>
</tr>
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</table>
Economic Assumptions Reviewed by Industry Experts

- Following differences between Key Findings, the Water Authority sought an additional assessment of Staff’s underlying assumptions and the DLM&G Report

Rodney T. Smith, Ph.D., President, Stratecon, Inc.

- 46 years of experience in strategic planning and economics consultant specializing in the economics, finance, and policy of water resources

Robert Campbell, Principal, Water Resource Consultant

- 45 years of experience in providing planning, management, financial and rate expert advice to public and private water entities throughout California and was previously employed by MWD and the Water Authority
Stratecon is Critical of the DML&G Report

“The DLM&G Review includes many deficiencies in economic analysis, analytic methods, and lack of publicly available substantive data that provide a context for the economic analysis and risk assessment for the RCS.”

“The DLM&G Review of future uncertainty is puzzling. Their statements are at odds with the use of risk assessment by the Bureau of Reclamation, DWR, economics, business and finance over the past thirty years.”
DLM&G Assertions are Flawed

“RCS is not cost-competitive over standard periods of economic analysis”

“I disagree… Proper economic assessment must match the timing of estimated costs with the timing of estimated benefits. Water infrastructure generally has useful lives in excess of the term of initial project financing.”

- Rod Smith, PhD
“it seems prudent to us, and much more plausible, to assume MWD will make adaptations and adjustments to prevent rates from increasing to the point where they drive away most or all of their water sales... Nevertheless, the finding holds that rates are highly unlikely to increase at these levels relative to other supply options for the simple reason they cannot.”

“The economic analysis behind this narrative is missing”

“What are the adaptations and adjustments? None are discussed.”

“What are the price points that “drive away most or all” water sales? DLM&G Review is silent.”

“What is the levels of “other supply options”. DLM&G Review is silent.”

- Rod Smith, PhD
Why 20-Years? Silence Points to Bias

“Rates escalate at the default 5.1 percent per year, but only for 20 years, and thereafter, escalate at the default melded OMRR rate of 3.7 percent per year.”

Why 20-years?
No justification or support is provided

Note: Maintaining historical increases for 24-years shows RCS cost competitive
• DLM&G toggle is set to 5-yr intervals

NPV Differential at 25-years, rather than 20
“Escalation rates have limits” - DLM&G
Limit is apparently reached in 2040... when “MWD All-In” rate is $1,200/AF.
No evidence to counter 80-years of historical evidence

“We tweaked one number” - DLM&G
DLM&G modeled substantial 30% reduction to rate escalation assumption
Fact Based Assessment of MWD Rate Escalation

“Metropolitan’s real water price has been on an increasing trend since 1960. The real water price was increasing through the mid-1980s, then remained unchanged through 2007, and has been on a sharp upward trend thereafter. There is a stubborn dynamic of Metropolitan water rates increasing faster than inflation.”

- Rod Smith, PhD

“What is evident over all the above periods is that MWD’s [rates] have steadily trended upward over the duration of the 81-year period.”

- Robert Campbell

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<tbody>
<tr>
<td>Metropolitan Water Rate</td>
<td>11.3%</td>
<td>3.0%</td>
<td>6.4%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Inflation</td>
<td>5.4%</td>
<td>3.0%</td>
<td>1.6%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Real Metropolitan Water Rate</td>
<td>5.7%</td>
<td>0.0%</td>
<td>4.7%</td>
<td>3.1%</td>
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</tbody>
</table>
DLM&G Makes Statements Without Foundation

“SDCWA’s assumptions of MWD price escalation are highly implausible.”

“The escalation issue is one of the most critical issues..., yet the DLM&G use of an alternative escalation assumption is without any analytical or factual foundation.”

“I find the Water Authority staff escalation assumptions reasonable and the alternative advanced by the DLM&G Review not reasonable.”
- Rod Smith, PhD, Stratecon
Confirmation for Water Authority Reasonableness

“Key Drivers that Could Impact MWD’s Future Water Rates also Support SDCWA Projections”

- Extension of State Water Project Contract and Delta Tunnel Facility
- SWP Aqueduct Land Subsidence
- MWD’s Regional Recycled Water Program
- MWD Asset Management Program
- MWD Local Resource Program (LRP)
- Member Agency Water Supplies Developed without MWD Subsidies
- Reduced Demand for MWD Water
- Continued Disputes Over MWD Cost Allocation

“The Water Authority’s projections are, if anything, unduly conservative”

- Robert Campbell (Water Resource Consultants, Inc)
“DML&G View of a Negotiated Exchange Rate is Not Realistic

“A negotiated exchange option appears to offer economic advantages.”

“...detailed consideration of the future of MWD rate structures is beyond our scope of work.”

“Stratecon finds the DLM&G Review recommendation of a renegotiated exchange agreement incomplete and not cognizant of actual negotiations. The Water Authority has been trying to negotiate a fair wheeling agreement with Metropolitan for two decades, and there is no new information, insight or strategy provided by the DLM&G review.”

- Rod Smith, PhD
“A draft version of this report’s main economic findings and a draft of the Economic Model were made available to a group of member agency chief financial officers for quality review and comment. Their comments are summarized below.”

“while I identify many deficiencies in the analytic methods, assumptions and lack of data in the DLM&G Review, the review identifies relevant issues (especially in Appendix A, Comments from Member Agency Chief Financial Officers) that Stratecon recommends be part of ongoing comprehensive review of the Regional Conveyance System.

- Rod Smith, PhD
Questions
Phase A

*Economic Analysis (Continued)*
MWD Increases Far Exceed Inflation (2.1%)

20-Year Transportation Rate (SA + SP + WSR)

Avg Increase 4.5%

DLM&G Report correctly underscores the significance (sensitivity) of MWD rate assumption

“[historically] the untreated rate has increased at an average annual rate of 5.85%.”

“WRC’s analysis shows that the SDCWA baseline assumption is not just reasonable based on historical facts, but conservatively lower than the past 81-years of record.”
80 Years of History & Analysis of Future Costs

**Historical Support**

**Future Rate Drivers**

Factors and drivers that could materially influence future rate

1. Extension of SWP Contract
2. Delta Tunnel Facility
3. SWP Aqueduct Land Subsidence
4. MWD’s Regional RWP
5. MWD AMP
6. MWD LRP
7. MA Supplies Developed without MWD
8. Reduced Demand for MWD Water
9. Continued Disputes Over Cost Allocation

![Graph showing historical water rates](image)

**Table 2**

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# MWD Rates Historically Exceed Inflation (2.1%)

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<th>CY 2022</th>
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<tbody>
<tr>
<td>Tier 1 Supply ($/AF)</td>
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</tr>
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<td>System Access</td>
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<tr>
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<tr>
<td>Full Service Treated Tier 1</td>
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<tr>
<td>Readiness-to-Serve ($M)</td>
<td>$80</td>
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* 2-yr rate holiday, currently forecasted to return in CY '23
** Prior to holiday average increase, the last 18 years, was 7.7%
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- DLM&G Report Forecasts 5.1% for next 20 years, followed by 3.7% thereafter
- 44% less than historical rates without justification
## MWD Rates Historically Exceed Inflation (2.1%)

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<td>$344</td>
<td>8.3%</td>
</tr>
<tr>
<td>Full Service Treated Tier 1</td>
<td>$408</td>
<td>$1,143</td>
<td>5.7%</td>
</tr>
<tr>
<td>Readiness-to-Serve ($M)</td>
<td>$80</td>
<td>$140</td>
<td>3.4%</td>
</tr>
<tr>
<td>Capacity Charge ($/cfs)</td>
<td>$6,100</td>
<td>$12,200</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

* 2-yr rate holiday, currently forecasted to return in CY ’23
** Prior to holiday average increase, the last 18 years, was 7.7%

- 4.9% Avg 20-yr Inc.
- 4.6% as referenced in MWD’s Settlement Offer was prior to large ‘21 & ‘22 adopted increases
- DLM&amp;G forecasts average increase of less than 4%.
- Over 20% reduction from historical rates without justification
- 13% less than MWD’s own forecast
### MWD Rates Historically Exceed Inflation (2.1%)

<table>
<thead>
<tr>
<th>Rate Components</th>
<th>CY 2003</th>
<th>CY 2022</th>
<th>Avg Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Supply ($/AF)</td>
<td>$73</td>
<td>$243</td>
<td>7.1%</td>
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<tr>
<td>System Access</td>
<td>$141</td>
<td>$389</td>
<td>5.8%</td>
</tr>
<tr>
<td>System Power</td>
<td>$89</td>
<td>$167</td>
<td>4.8%</td>
</tr>
<tr>
<td>Water Stewardship (N/A to QSA)</td>
<td>$23</td>
<td>$0*</td>
<td>N/A**</td>
</tr>
<tr>
<td><strong>Full Service Tier 1</strong></td>
<td>$326</td>
<td>$799</td>
<td>5.0%</td>
</tr>
<tr>
<td>Treatment</td>
<td>$82</td>
<td>$344</td>
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</table>

* 2-yr rate holiday, currently forecasted to return in CY ’23
** Prior to holiday average increase, the last 18 years, was 7.7%

- WA utilized the Full Service Rate of 5.1% (prior to MWD’s rate adjustment).
- DLM&G adjusted individual rate components to the effect of lowering baseline assumptions.
- Resulted in 20% less annual increase than historical baseline.
The DLM&G’s Forecasted MWD Rates are Low

- DLM&G Forecast undercuts MWD’s own forecast by 13%
  - 20%+ lower than historical averages
  - MWD’s offer assumed 4.6% increases will continue through 2112

- DLM&G Report doesn’t account for significant rate impacts expected with Delta Conveyance or MWD’s Recycled Water Program
  - Consistent with Water Authority baseline; however, in combination with a lower escalator appears impractical

- DLM&G Report assumes demand bounce back at MWD
  - Up 33% from current levels

- DLM&G Report correctly underscores the significance (sensitivity) of MWD rate assumption
Key Economic Analysis Assumptions

- RCS Operational by January 1, 2045
- 2112 End Date
  - Aligns with 110-year Canal Lining Agreement
  - Better reflects RCS useful life (67 of ~100 yrs)
- Conservative Capital and OM&R baseline
- MWD escalation to match historical levels
  - Assumption is 33% lower than inflation adjusted average
- No partnership or outside funding included in baseline (i.e. P3, grants, etc.)
- QSA Supply cost status quo
## Baseline Assumptions Yield Long-Term Savings

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Transportation</th>
<th>Supply</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Local Supply (IID Exchange End 2047)</td>
<td>$10.7</td>
<td>$38.3</td>
<td>$49.0</td>
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<tr>
<td>MWD Reliance (IID Exchange Ends 2047)</td>
<td>$36.3</td>
<td>$14.6</td>
<td>$50.8</td>
</tr>
<tr>
<td>5A - Baseline</td>
<td>$25.8</td>
<td>$6.9</td>
<td>$32.7</td>
</tr>
<tr>
<td>3A - Baseline</td>
<td>$25.1</td>
<td>$6.9</td>
<td>$32.0</td>
</tr>
</tbody>
</table>

Net Present Value of 277,700 AF (2045-2112)
Questions
Phase A

Preliminary Economic Sensitivity Analysis
Preliminary Sensitivity Analysis Expands Savings

Limited sensitivity analysis performed to define key variables; review included:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Key Points</th>
</tr>
</thead>
</table>
| MWD               | • Historical increases far outpace inflation  
                    • Nothing on horizon for MWD to alter course |
| Capital Cost      | • +/- 40% of BV provided estimates                                           |
| Financing Cost    | • +/- 1% from 5% baseline                                                    |
| Energy            | • Energy accounts for 65% of annual OM&R  
                    • -1% from 4% baseline (renewable energy offtake) |
| Treatment         | • High Capital and OM&R Component  
                    • Consideration of local blending alternatives |
Capital Sensitivity Impacts Upfront Costs

Net Present Value Overview (2019-2112)

- **3A -40%**: $28.2 Billion (1st Year Savings: $2.1B, 1st Year Return on Investment: 2077)
- **3A - Baseline**: $32.0 Billion (1st Year Savings: $3.7B, 1st Year Return on Investment: 2084)
- **3A +40%**: $34.3 Billion (1st Year Savings: $5.5B, 1st Year Return on Investment: 2090)

- **+/ -8%** on overall NPV. High impact on upfront expenditures
- **OM&R majority of overall NPV**
Financing Sensitivity has Limited Impact

- +/-3% on overall NPV. Modest upfront impact
- OM&R majority of overall NPV
Energy Savings Yields Significant Savings

- Energy is 65% of Annual OM&R and assumes retail rates
Treatment Comes With Significant Costs

Net Present Value Overview (2019-2112)

- No Treatment: $20.2B
- 2050 Treatment: $31.5B
- 3A - Baseline: $32.0B

With affordability a primary focus, what is the correct level of service for the San Diego Region?
RCS Baseline Analysis Illustrates Significant Opportunity

RCS Baseline vs MWD Reliance (2047)

Red = $3.6B
- Assumes conservative assumptions & with outside funding
- $125M forecasted Expense between 2019-2035
- Majority of Difference (red) between 2040 & 2055

Black = $22B
- Maybe Higher, maybe lower
- Preliminary analysis warrants further review with probability/likelihood

RCS Cheaper
RCS More Expensive

Our Region’s Trusted Water Leader
San Diego County Water Authority
Risk and Probability - Focus of Phase B

- RCS Baseline = Conservative “Middle of the Road” Approach
- @3% Energy = Illustrates Sensitivity to Energy Costs (4% escalation @ Retail Rates)
- @4.6% MWD = Applies MWD’s 998 Forecast
- Without Treatment = Option for Board to Determine Level of Service

An appropriate analysis is more than a single assumption / single outcome.

Needs to assess probabilities and be continuously refined
Phase A Economic Analysis Key Takeaways

- RCS provides positive economic returns assuming MWD’s continuation of historical increases
  - Economics sensitive to MWD rate assumptions

- RCS is cost-competitive with MWD scenarios
  - Potentially Billions in Net Present Value Savings
  - Phase B would refine and provide additional scenarios

- RCS would maintain Supply Portfolio Resiliency & Reliability

- Phase A Outlined Conservative/Self Funded Approach
  - Phase B to provide full array of outcomes, including probability
Phase B to Identify Funding Strategies

- Concentrate on mitigating short term rate impacts
  - Grants | State/Federal Funding | Partnerships | P3s

- Develop rate strategies to provide initial program development funding

- Work with financial advisors to develop Plan of Finance

- Refine and analyze probability of key assumptions impacting NPV scenarios
Questions
Opportunity for Outreach

- Address complex issues and expansive reports
- Perform additional outreach over next three months
- Engage with stakeholders locally and throughout the Southwest
- Expend no more than $200,000
- Return to Board in November for action on Phase B
CRWG Concurred with staff’s recommendation to:

- Adopt the General Manager’s recommendation to defer expenditure of Phase B funding and proceed as described in her August 24 Letter (Attachment 4).
Debt Management Activities to Defease Outstanding Debt

Administrative and Finance Committee
August 27, 2020

Lisa Marie Harris
Director of Finance/Treasurer
June 25, 2020 Board approved comprehensive debt management strategy including the following:

1. Authorized issuance of Series 2020 and Series 2021 Water Revenue Refunding Bonds on taxable and forward delivery tax-exempt basis to generate significant savings

2. Front-load Refunding savings in the near term over multiple years creating significant rate relief through calendar year 2024

3. Defease (pay-off) high cost debt with cash (from PAYGO capital funding) over multiple year period creating further rate relief through calendar year 2024

4. Fund future CIP with a combination PAYGO cash and debt
Water Authority Strong Ratings Affirmed

- In June 2020 the rating agencies affirmed the Water Authority’s strong credit ratings, against the backdrop of COVID-19. In addition, Fitch upgraded the subordinate lien bonds from “AA” to “AA+” in parity with the Senior Lien bonds.

- Key Issues Raised by All Three Agencies
  - Ability to Raise and Collect Sufficient Revenue
  - Maintenance of strong levels of liquidity and reserves

<table>
<thead>
<tr>
<th>Rating Agency</th>
<th>Senior Lien</th>
<th>Subordinate Lien</th>
<th>Commercial Paper</th>
<th>Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P</td>
<td>AAA</td>
<td>AA+</td>
<td>A-1+</td>
<td>Stable</td>
</tr>
<tr>
<td>Fitch</td>
<td>AA+</td>
<td>AA+</td>
<td>F1+</td>
<td>Stable</td>
</tr>
<tr>
<td>Moody's</td>
<td>Aa2</td>
<td>Aa3</td>
<td>P-1</td>
<td>Stable</td>
</tr>
</tbody>
</table>
Today’s Actions

Debt Service on Outstanding Debt

- Declining fixed-rate long term debt service requirements will provide the Water Authority with future financial flexibility

* Planned interest-only on subordinate lien bonds, CP and ECP with 20-year amortization beginning in 2026
Service Contract with Electrical Reliability Services Inc. for Electrical Preventative Maintenance, Inspection, Testing and Repair Services

Engineering & Operations Committee
August 27, 2020

Jesus Meda
Operations and Maintenance Manager
Background

- WA utilizes a service contract to perform electrical maintenance, testing, inspection and repair services at its critical facilities
- One-year term, with option to extend annually for an additional 4 years
- Total not-to-exceed contract amount of $3,205,000
Request for Proposal Process

- RFP advertised to 63 firms
- Two proposals received
- Electrical Reliability Services selected based on their lower overall cost, technical expertise, knowledge of switchgear, past performance and commitment to accurate and timely documentation
Recommendation

Authorize the General Manager to execute a one-year services contract with Electrical Reliability Services Inc. for electrical preventative maintenance, inspection, testing and repair services with an option to extend the contract annually for an additional four years, for a total not-to-exceed amount of $3,205,000
San Diego County Water Authority
Our Region’s Trusted Water Leader
75 years of service
Asset Management Program Briefing

Meeting of the Board of Directors
August 27, 2020

Martin Coghill
Operations & Maintenance Manager
Asset Management Technology Showcase 2018
Agenda

- WHAT ...the program is
- WHERE ...the assets are
- WHEN ...we perform asset management activities
- WHICH ...tools we use
- WHY ...we do what we do
- WHO ...is dedicated to the management of assets
Definition...

- “...to derive the most value from an asset through its life cycle.”
Major Assets

- 310 Miles of Large-Diameter Pipelines
- 98 Flow Control Facilities
Major Assets - Pipelines

- Prestressed Concrete Cylinder Pipe
- Welded Steel Pipe
- Bar-wrapped Pipe
- Reinforced Concrete Pipe
Major Assets - Facilities
Agenda

- **WHAT**  ...the program is
- **WHERE** ...the assets are
- **WHEN**  ...we perform asset management activities
- **WHICH** ...tools we use
- **WHY**   ...we do what we do
- **WHO**   ...is dedicated to the management of assets

Our Region’s Trusted Water Leader
San Diego County Water Authority
Geographic Location

- **First Aqueduct**
  - 1947 - 1954

- **Second Aqueduct**
  - 1959 - 1983

- **East-West Pipelines**
  - 8 Pipelines:
    - 1964 - 2014
Timeline of Construction
Timeline of Construction

SDCWA Miles of Pipe Constructed

+4 miles per year (avg.)


Miles: 0, 50, 100, 150, 200, 250, 300, 350

Legend:
- RCP
- BWP
- WSP
- PCCP
- Total
Agenda

- WHAT ...the program is
- WHERE ...the assets are
- WHEN ...we perform asset management activities
- WHICH ...tools we use
- WHY ...we do what we do
- WHO ...is dedicated to the management of assets
Condition Assessment Timing

People

Pipelines

Elementary

Comprehensive
Condition Assessment Timing

Elementary Condition Assessments
- Visual

Comprehensive Condition Assessments
- Technologies

Our Region’s Trusted Water Leader
San Diego County Water Authority
Agenda

- WHAT  ...the program is
- WHERE  ...the assets are
- WHEN  ...we perform asset management activities
- WHICH  ...tools we use
- WHY  ...we do what we do
- WHO  ...is dedicated to the management of assets
Asset Management Toolbox

- **Cathodic Protection**
  - 42 Impressed-Current Systems
  - 93 Sacrificial Anode Systems
  - 1,371 Monitoring Test Stations

- **Visual Inspections**
  - Pipelines: 10-15 Years
  - 25-35 miles per year
  - Facilities: 4-6 years

- **Inspection Technologies**
  - Electromagnetic devices
  - Acoustic wire-break detection
  - Leak detection
Asset Management Toolbox

Prestressed Concrete Cylinder Pipe (PCCP)
Asset Management Toolbox

Welded Steel Pipe

- 40 miles - Magnetic Flux Leakage
Asset Management Toolbox

Welded Steel Pipe (First Aqueduct)

- 3 miles - LASER Profilometry and EM Acoustic Transfer
Asset Management Toolbox

Bar Wrapped Pipe

- 5 miles - Remote Field Technology
Asset Management Toolbox

- Reinforced Concrete Pipe (First Aqueduct)
  - 27 miles in 16 months - Remote and Near-Field Technologies
Agenda

- **WHAT** ...the program is
- **WHERE** ...the assets are
- **WHEN** ...we perform asset management activities
- **WHICH** ...tools we use
- **WHY** ...we do what we do
- **WHO** ...is dedicated to the management of assets
A Safe and Reliable Supply of Water

- **SAFETY**
  - Minimizing the risk of failure
  - Supporting water quality objectives

- **RELIABILITY**
  - Maintaining service levels for our Member Agencies
  - Assets perform when needed

- **COST-EFFECTIVENESS**
  - Repair & rehabilitate before failure
  - Maximize the value obtained from an asset
Asset Management Process

1. Inspections
   - Plan (5-year rolling)
   - Visual
   - Technology Scan

2. Data Analytics
   - Visualize
   - Analyze
   - Prioritize

3. Recommendations
   - CIP Project Packet
   - AM Committee
   - Board Approval
Agenda

- **WHAT**  ...the program is
- **WHERE** ...the assets are
- **WHEN**  ...we perform asset management activities
- **WHICH** ...tools we use
- **WHY**   ...we do what we do
- **WHO**   ...is dedicated to the management of assets
Asset Management Team

Martin

Tom

Eric

Mark

Rachael

William

John

Brian

Vacant: Asset Mgt. Specialist I
Asset Management Team (Extended)

Operations & Maintenance

Engineering

Finance
Admin. Services

Public Outreach
HR

Water Resources

GC Office
Asset Management Team (Extended)

Member Agencies

Innovating Asset Management
A Regional Collaboration

For more information, please contact Martin Coghill at: mcoghill@sdcwa.org
Legislature

- 2020 legislative session
  - Multiple legislative deadlines approaching

- August 31: Legislative session scheduled to conclude

- December 7: Legislature will convene to organize for 2021-22 legislative session
Sponsored Legislation - Pumped Hydro Storage

- Continuing to explore legislative and administrative (through CPUC proceeding) opportunities in 2020 and into 2021

- AB 1720 (Carrillo) - Sponsored by State Building Trades and Next Era Renewables
  - Failed to secure sufficient support for a hearing in the Senate Energy Committee

- Letter to Governor by Chair Madaffer
  - Calling for Executive Order to jump-start the procurement process at the CPUC for long-duration energy storage
Sponsored Legislation - SB 1386 (Moorlach)

- Water Authority co-sponsoring SB 1386 (Moorlach) during 2020 with Irvine Ranch Water District
- Objective is to clarify existing law (and Prop 218 compliance) regarding the imposition of fire-related water service charges across the customer base
- Passed Assembly on unanimous vote
  - Pending final consideration on Senate Floor
- Broad support from water agencies, municipalities, fire districts, professional fire fighter organizations
Economic Stimulus

- SB 815 - Budget Trailer Bill - Amended on August 24
- California Economic Improvement Tax Voucher Act
  - Would require the Franchise Tax Board to develop a program to provide for pre-payment of taxes through a newly-created tax voucher program
    - Comprehensive plan required to be submitted to Legislature by March 1, 2021
  - Proceeds from allocation of tax vouchers would be deposited in an account and would be available - upon appropriation by the Legislature - for the following:
    - Economic stimulus investments
    - Affordable housing investments
    - Homelessness reduction investments
    - Emergency preparation investments
    - Infrastructure investments
    - Green economy investments
Governor’s Water Resilience Portfolio

- **Section 19**: Modernize inter-regional conveyance to help regions capture, store, and move water
  - **Subsection 19.3**: Conduct a feasibility analysis for improved and expanded capacity of federal, state, and local conveyance facilities to enhance water transfers and water markets. The analysis must incorporate climate change projections of hydrologic conditions
  - **Subsection 19.4**: Assess a state role in financing conveyance projects that could help meet needs in a changing climate

- CA Water Commission initiating study, review, and stakeholder outreach regarding regional water conveyance
  - Stakeholder outreach during Fall 2020
  - Regional workshops during Winter 2020-21
  - Draft report and recommendations to CWC by Spring 2021
## 2020 Election: San Diego Legislative Delegation

<table>
<thead>
<tr>
<th>LEGISLATOR</th>
<th>TERM-OUT DATE</th>
<th>2020 GENERAL ELECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assm. Tasha Boerner-Horvath</td>
<td>2030</td>
<td>State Assembly</td>
</tr>
<tr>
<td><strong>Assm. Todd Gloria</strong></td>
<td>2028</td>
<td>San Diego Mayor</td>
</tr>
<tr>
<td>Assm. Lorena Gonzalez</td>
<td>2024</td>
<td>State Assembly</td>
</tr>
<tr>
<td>Assm. Brian Maienschein</td>
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<tr>
<td>Assm. Randy Voepel</td>
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<td>State Assembly</td>
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<tr>
<td>Assm. Marie Waldron</td>
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<td>State Assembly</td>
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<td>Assm. Shirley Weber</td>
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<tr>
<td>Senator Toni Atkins</td>
<td>2024</td>
<td>State Senate</td>
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<tr>
<td>Senator Patricia Bates</td>
<td>2022</td>
<td>No State Senate race</td>
</tr>
<tr>
<td>Senator Ben Hueso</td>
<td>2022</td>
<td>SD Board of Supervisors (No State Senate race)</td>
</tr>
<tr>
<td>Senator Brian Jones</td>
<td>2026</td>
<td>No State Senate race</td>
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</tbody>
</table>
QUESTIONS?