Aqueduct Operating Plan

Engineering & Operations Committee
June 26, 2014
Aqueduct Operating Plan (AOP)

- Improve communication
- Coordinate operations
- Maximize regional resources
- Monthly Operating Heads meeting
Aqueduct Operating Plan

1. Water Supply/Conveyance (Treated and Untreated)
   Untreated Water Distribution Priorities
2. Aqueduct Shutdowns
3. Member Agency Shutdowns
4. Energy Production/Consumption
5. Reservoir Operation/Coordination
6. Asset Management Activities
Treated Water: Projected Demand vs Deliveries for Fiscal Year (FY) 2014

Historical High Demand (FY2004)

Treated Water: Projected Demand vs Deliveries for Fiscal Year (FY) 2014
Untreated Water: Projected Demand vs Deliveries for FY2014
Treated Water Delivery (FY2015)

Average Monthly Flow (cfs)

Historical High Demand (FY2004)

Percent Treated Water System Capacity
Untreated Water Delivery (FY2015)
Untreated Distribution Priorities

**Summer Untreated Water Delivery Priority**
1) Member Agency Treatment Plants  
2) Water Authority Treatment Plants  
3) Storage

**Winter Untreated Water Delivery Priority**
1) Member Agency Treatment Plants  
2) Storage  
3) Water Authority Treatment Plants

June 1, 2014 - October 31, 2014  
November 1, 2014 - May 31, 2015
Aqueduct Shutdowns and Outages

Oct 19 – Dec 10, 2014: Untreated
1. Pipeline 3 Condition Assessment from Delivery Point to Twin Oaks
2. Pipeline 3 Reline – San Luis Rey valley (SR76 Reline)
3. MLP valve repairs, RPH cooling water repairs and turbine inspection

Nov 3 – Nov 12, 2014: Untreated
1. Lake Hodges Hydroelectric Facility annual maintenance

Feb 5 – Mar 30, 2014: Untreated
4. Pipeline 3 Reline – San Luis Rey valley (SR76 Reline)

Mar 2 – Mar 11, 2015: Untreated
4. Lake Hodges Hydroelectric Facility semi-annual maintenance

Jan 20, 2015 – Jan 29, 2015: Treated
2. Pipeline 4 bulkhead removal at San Luis Rey (SR76 Reline)
3. North County Distribution Pipeline and Flow Regulatory Structure inspection
4. Ramona Pipeline pump well installation

Feb 23 – March 31, 2015: Treated
6. Desalination Interconnection Facilities – Pipeline 4 connection

Apr 6 – Apr 15, 2015: Treated
5. P2A Pipeline – Control valve and meter replacement, AV/AR valve installation

Jan 20 – Jan 29, 2015: Treated
3. Miramar Meter Vault Inspection

Nov 12 – Nov 21, 2014: Treated
1. Pipeline 4 bulkhead installation at San Luis Rey (SR76 Reline)
2. Valley Center Pump Station Isolation

Nov 12 – Nov 21, 2014: Treated
1. Pipeline 4 bulkhead installation at San Luis Rey (SR76 Reline)
2. Valley Center Pump Station Isolation

Treated P4 flows will terminate at FB 4 with “special operating condition”:
Nov 12, 2014 - Jan 29, 2015

Valley Center Pump Station will be out of service for expansion: Nov 2014 - Aug 2015

* Green= untreated shutdown, Blue= treated shutdown, Orange= outage
Member Agency Shutdowns

8/18/2014 – 10/10/2014
Raw Water Valve Replacement
(Helix)

2/2015 – 3/2015
San Vicente Reservoir By-Pass
Pipeline Replacement
(San Diego)

8/15/2014 – 9/15/2014
El Monte Pipeline Inspection
(San Diego)
FY2014 Energy Production

- Rancho Peñasquitos
  - Actual (11 Months): $984,825
- Lake Hodges Pump Storage
  - Actual (11 months): $2,576,306
Reservoirs and Regional Storage

- **Regional Usable Capacity**
  - 570,217 Acre Feet (AF)

- **June 2 Usable Inventory**
  - 218,726 AF (38%)
Asset Management Activities

Last year included:

- Rehabilitation: Ramona 1 Flow Control Facility (FCF) and Tri-Agency Pipeline air valves
- Painting: Fallbrook 3/Rainbow 1, Olivenhain 1 and NCSB 1 FCF’s, and Escondido 3 and Escondido 4 Take-offs (TO’s)
- Demolished: Otay 3 FCF
- Cone valve refurbishment: Olivenhain Pump Station
- New actuator pilot test: San Diego 11 FCF
Asset Management Activities

Next Year:

- Demolish: Rainbow 5 and Fallbrook5/Rainbow4 FCF’s/TO’s
- Valve/Meter replacement: San Diego 11 FCF
- Actuator replacement: Oceanside 6 FCF
- Isolation joint installation: North County Distribution Pipeline
Aqueduct Operating Plan – Future

- Operating Heads (monthly)
- FY2016 AOP Schedule
  - Shutdown schedule to Operating Heads/MWD - Jan 2015
  - General Managers - June 2015
  - Board - June 2015
San Vicente Dam Raise
Contract Actions and Construction Update

Engineering & Operations Committee Meeting
June 26, 2014
Agenda

- San Vicente Dam Raise – Notice of Completion (Action)

- DSOD Certification Program – Award Professional Services Contract (Action)

- Marina Facilities - Construction Update (Information)

- Bypass Pipeline – Advertisement for bids (Information)
Emergency Storage Project

- Adopted ESP 1998
- Four Phases - $1.5 billion
- System of pipelines, pump stations and reservoirs
- Provide more flexible water deliveries
- Over 90,000 AF
- Meet needs through 2030
Construction Packaging

- Package 1 - Test Quarry (completed)
- Package 2 - Dam Foundation Work (completed)
- Package 2B - Vegetation Cutting and Erosion Control (completed)
- Package 3 - Dam Raise (in construction)
- Package 4 - Bypass Pipeline (in design)
- Package 5 - New Marina (in construction)
- Package 6 - Post Construction Habitat Restoration (in planning)
San Vicente Dam Raise
June 2014

Downstream Control Facility

Gallery Access Building
Outlet Tower
Saddle Dam
Contract Summary

- Original Contract Value: $140,206,850
- Estimated Change Order Total: $(4,320,304)
- Estimated Final Contract Price: $135,885,746
- Decrease in Contract Value: 3.1%
Cost Recovery to Date

- Liquidated Damages at $50,000/day of Delay ~ $18 million
- Inspection Reimbursement: ~ $1 Million
Authorize the General Manager to accept the San Vicente Dam Raise Package 3 – Roller Compacted Concrete Dams and Appurtenant Facilities project as complete and record the Notice of Completion. The funds held in retention will be administered in consultation with General Counsel.
DSOD Certification and Reservoir Fill

- Begin DSOD Certification Program – Fall of 2014
- Complete Marina Facilities – Fall of 2014
- Obtain DSOD Certification - Summer of 2015
- Complete Bypass Pipeline Construction - Fall of 2015
- May Begin Filling Water Behind Raised Dam - Fall of 2015
Core Extraction
Bond Strength Testing
Award a Professional Service Contract (Action)

- Crux Subsurface, Inc. - $1.96 Million

- Scope of Work:
  - Design and build downstream face platforms
  - Drill about 1,400 feet of 6-inch cores
  - Transport cores for testing
  - Fill core holes with concrete
Authorize the General Manager to award a professional service contract to Crux Subsurface, Inc. in the amount of $1,960,100 to drill and provide core samples from the San Vicente Dam for the San Vicente Dam Certification Program.
San Vicente Dam Raise – Notice of Completion (Action)

DSOD Certification Program – Award Professional Services Contract (Action)

Marina Facilities - Construction Update (Information)

Bypass Pipeline – Advertisement for bids (Information)
MARI NA
October 2013
MARI NA
Wave Erosion Control
Project Risk Management

- Manage Water Level
- Coordinate Marina and Dam Raise Construction
- Complete Project on Time
Agenda

- San Vicente Dam Raise – Notice of Completion (Action)
- DSOD Certification Program – Award Professional Services Contract (Action)
- Marina Facilities - Construction Update (Information)
- Bypass Pipeline – Advertisement for bids (Information)
Future Bypass Pipeline

- **NEW TERMINAL STRUCTURE**
- **NEW BYPASS PIPELINE TRENCH SECTION**
- **NEW TERMINAL STRUCTURE ACCESS ROAD**
- **EXISTING BYPASS PIPELINE (ABANDON IN PLACE)**
- **NEW BYPASS PIPELINE PORTION INSTALLED IN MARINA CONTRACT**
- **NEW BYPASS PIPELINE CONNECTION**

San Vicente Reservoir
Project Risk Management

- Manage Water Level
- Coordinate Marina and Bypass Pipeline construction.
- Complete Project on Time
Bypass Pipeline Advertisement for Public Bid

- Construction estimate: $17M to $20M
- Advertise: Summer 2014
- Recommend award: Fall 2014
- Complete: Fall 2015
San Vicente Dam
San Vicente Dam Raise
Artist Rendering
San Vicente Dam Raise Complete 2014
San Vicente Dam Raise Dedication

July 16, 2014
10:00 am
San Vicente Pumped Storage Study Work Plan

Engineering & Operations Committee
June 26, 2014
Work Plan Elements

- In partnership with the City of San Diego:
  - Assess possible impacts to Indirect Potable Reuse (IPR)
  - Select alternatives for further development / environmental document
  - Continue to investigate and develop value of the project
  - Continue to interact with energy partners and determine any legislation strategy
  - Application of decision analysis tool to project’s decisions points, benefits, and risks
  - Develop and discuss possible project delivery structures
    - Investigate retaining a firm experienced with different methods
Analysis of Impacts to IPR

- **Near-term Technical Evaluations**
  - Limnology Study
    - Water quality modeling for IPR as part of the City’s Pure Water Program
  - Optimize Inlet/Outlet location and elevation of pumped storage facility
  - Equipment configuration refinement
Financial

- Work with the Hydropower Task Force and Subcommittee to establish financial metrics
- Develop the value of the project
- Expand upon financial analysis completed during Phase 1 initial study using:
  - Additional power market forecasting
  - Refined capital and operating cost estimates
  - Refined engineering configuration
  - Preliminary site screening of upper reservoir alternatives
  - Refine value of services, including value of storage
Continue Important Relationships

- Continue to interact with:
  - Federal Energy Regulatory Commission (FERC)
  - California Public Utilities Commission (PUC)
  - California Independent System Operator (CAISO)
  - San Diego Gas & Electric
  - Others as appropriate
Legislative Efforts

- How to position pumped storage as a “preferred resource”
- Emphasizing pumped storage as part of new Clean Energy Standard
- Expanding the current mandate to include pumped storage

Next steps

- Explore timing of any legislation
- Engage in joint discussions with other public and private pumped storage advocates
- Sponsor legislation?
Decision Making Analysis

- Use of decision making tools to facilitate the project’s decision points and analyzing benefits and risks
  - Assist in determination of project delivery method
  - Assess which risks are significant and selecting mitigation measures
  - Assist in selection of upper reservoir alternatives
Identify Risks

- **Types of Risks**
  - Technical - Planning, environmental, and design-related
  - Contracting - Project delivery and outside influences.
  - Construction - Site and coordination
  - Institutional - Regulatory and other stakeholders
What are the results of decision analysis?

- **End results**
  - An organized list of criteria or objectives
  - Documented performance of the alternatives
  - A final choice with acceptable risks
  - An action plan for successful implementation
Decision Software

- Predictive modeling and/or Monte Carlo Simulation
- Supports tactical decision-making
- Provides insight into factors affecting risk
- Assists in making decisions based on the most important variables
- Could simulate future performance
- Examples: Criterium Decision Plus and Oracle Crystal Ball
FERC Preliminary Permit

- 3rd Renewal submitted July 1, 2013 (Lake Hodges was licensed after 3rd renewal)
- Additional information was provided over the course of the last year
- June 24, 2014 – Received Denial
  - Denial order relied on information from original submittal
    - Concerned that progress only made on Dam Raise
    - Typical concern about land banking
  - Subsequent information was not considered
- Going forward
  - Re-hearing may be requested within 30 days
Schedule

- Hydropower Task Force Meetings (next July 15, 2014)
  - Discuss three examples of similar projects
  - Discuss example of a public-private partnership
  - Discuss FERC re-hearing process
  - Discuss financial metrics/analysis and project delivery methods
- Apply for FERC re-hearing – prior to July 24, 2014
- Future Actions
  - Contract Amendments
  - City Agreement
- Possible E&O Committee Workshop – August 2014
- E&O Committee Updates
Recommendation

- Approve the addition of the San Vicente Pumped Storage Study to the Capital Improvement Program
- Approve the Scope of Work for Fiscal Year 2015
- Approve the transfer of $1.2M* from the San Vicente Dam Raise to the San Vicente Pumped Storage Study

Note: Expenditures will be authorized upon Board approval of City agreement and amendments to Consultant contracts

*To be shared with the City of San Diego
Proposed Calendar Year 2015
Rates and Charges

Administrative and Finance Committee
June 26, 2014

David Shank, Financial Planning Manager
Agenda

• Rate and Charge Drivers and Highlights
• Proposed CY 2015 Rates and Charges
• Key Financial Performance Metrics
CY 2015 Rate and Charge Drivers

• MWD’s Treatment Rate Increase
• Cost of desalinated water
  – Earlier water delivery increases CY 2015 costs
• Securing a prudent financial position
  – Smooth and predictable rates and charges
  – Position to achieve the RSF target levels
Adopted MWD CY 2015 Rates

<table>
<thead>
<tr>
<th>Adopted MWD</th>
<th>CY 2014</th>
<th>CY 2015</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Supply</td>
<td>$148</td>
<td>$158</td>
<td>6.76%</td>
</tr>
<tr>
<td>System Access</td>
<td>$243</td>
<td>$257</td>
<td>5.76%</td>
</tr>
<tr>
<td>Water Stewardship</td>
<td>$41</td>
<td>$41</td>
<td>0.0%</td>
</tr>
<tr>
<td>System Power</td>
<td>$161</td>
<td>$126</td>
<td>-21.74%</td>
</tr>
<tr>
<td>Treatment</td>
<td>$297</td>
<td>$341</td>
<td>14.81%</td>
</tr>
<tr>
<td>Tier 1 Untreated</td>
<td>$593</td>
<td>$582</td>
<td>-1.85%</td>
</tr>
<tr>
<td>Tier 1 Treated</td>
<td>$890</td>
<td>$923</td>
<td>3.71%</td>
</tr>
</tbody>
</table>

Transportation decrease of 4.72%

• CY 2015 fixed charge increases
  – Readiness-to-Serve Charge (RTS) - $158M for a decrease of 4.8%
  – Capacity Charge - $11,100/cfs for an increase of 29.1%
• Excellent progress on the project
• Expected production date moved up to Fall 2015
  – Estimated delivery of 16K AF in CY 2015
• Financial impact of early production
  – Net increase of $22M in costs
• Rates and charges impacted
  – Supply
  – Transportation
  – IAC
Meeting Rate and Charge Goals/Objectives

• Smooth and predictable rates
  – Mitigating the CY 2016 rate impact of desalination
    • First full year of desalination costs
  – Facing potential supply challenges and demand uncertainty (Success of conservation efforts)

• Meeting Rate Stabilization Fund (RSF) target
  – RSF target increases significantly as revenues become more subject to volatility

[Graph showing RSF Target Ending Balance and RSF Maximum Allowable Ending Balance from 2014 to 2018.]
Quantification Settlement Agreement

- Colorado River QSA Supplies
  - Imperial Irrigation District transfer
    - 200,000 AF/year for 45 to 75 years
  - Canal-lining projects
    - 80,000 AF/year for 110 years
- Key to supply diversification strategy
  - Provide 180,000 acre-feet in 2015
- By 2021, 34% of region’s supply

IID and Canal Lining Deliveries 2003-2021

![Lining the Coachella Canal](image)
MWD Remains the Largest Share of Water Cost

Excludes MWD’s fixed RTS and CRC charges, which are not recovered on the Melded Supply Rate
*Excludes the debt service for capital projects and recovery of settlement expenditures
Water Authority’s Treatment Costs

- MWD treatment costs increase by 14.8% while Water Authority costs decreased by approximately 8%

Total Cost = $56.0M
## Proposed CY 2015 Rates & Charges

<table>
<thead>
<tr>
<th>Water Authority Rates and Charges</th>
<th>CY 2013 Previous</th>
<th>CY 2014 Current</th>
<th>CY 2015 Proposed</th>
<th>% Change</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>$714</td>
<td>$732</td>
<td>$764</td>
<td>4.4%</td>
</tr>
<tr>
<td>Melded Treatment Rate ($/AF)</td>
<td>$256</td>
<td>$274</td>
<td>$278</td>
<td>1.5%</td>
</tr>
<tr>
<td>Transportation Rate ($/AF)</td>
<td>$93</td>
<td>$97</td>
<td>$101</td>
<td>4.1%</td>
</tr>
<tr>
<td><strong>Fixed Charges</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Charge (millions)</td>
<td>$60.2</td>
<td>$63.2</td>
<td>$63.2</td>
<td>0%</td>
</tr>
<tr>
<td>Customer Service Charge (millions)</td>
<td>$26.4</td>
<td>$26.4</td>
<td>$26.4</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Other Rates and Charges</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Untreated Special Agricultural Water Rate ($/AF)</td>
<td>$593</td>
<td>$593</td>
<td>$582</td>
<td>-1.9%</td>
</tr>
<tr>
<td>Treated Special Agricultural Water Rate ($/AF)</td>
<td>$849</td>
<td>$867</td>
<td>$860</td>
<td>-0.1%</td>
</tr>
<tr>
<td>IAC</td>
<td>$2.65/ME&lt;sup&gt;1&lt;/sup&gt;</td>
<td>$2.68/ME</td>
<td>$2.76/ME</td>
<td>3.0%</td>
</tr>
<tr>
<td>Standby Availability Charge&lt;sup&gt;2&lt;/sup&gt; per parcel or acre, whichever is greater</td>
<td>$10</td>
<td>$10</td>
<td>$10</td>
<td>0%</td>
</tr>
<tr>
<td>System Capacity Charge</td>
<td>$4,326/ME</td>
<td>$4,681/ME</td>
<td>$4,681/ME</td>
<td>0%</td>
</tr>
<tr>
<td>Treatment Capacity Charge</td>
<td>$166/ME</td>
<td>$119/ME</td>
<td>$119/ME</td>
<td>0%</td>
</tr>
</tbody>
</table>

<sup>1</sup> ME means meter equivalent as defined in the resolution establishing the Infrastructure Access Charge

<sup>2</sup> Fiscal year charge
Proposed CY 2015 “All-in” M&I Water Rate Breakdown

<table>
<thead>
<tr>
<th>Rates and Charges ($/AF)</th>
<th>Adopted CY 2014 Rates</th>
<th>Proposed CY 2015 Rates</th>
<th>Proposed CY 2015 Change in Rate</th>
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<tr>
<td>Melded Supply Rate</td>
<td>$732</td>
<td>$764</td>
<td>$32</td>
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<tr>
<td>Melded Treatment Rate</td>
<td>274</td>
<td>278</td>
<td>4</td>
<td>1.5%</td>
</tr>
<tr>
<td>Transportation</td>
<td>97</td>
<td>101</td>
<td>4</td>
<td>4.1%</td>
</tr>
<tr>
<td>Storage*</td>
<td>144</td>
<td>140</td>
<td>-4</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Customer Service*</td>
<td>56</td>
<td>54</td>
<td>-2</td>
<td>-3.6%</td>
</tr>
<tr>
<td><strong>Total Cost of Treated Water</strong></td>
<td><strong>$1,303</strong></td>
<td><strong>$1,337</strong></td>
<td><strong>$34</strong></td>
<td><strong>2.6%</strong></td>
</tr>
<tr>
<td><strong>Total Cost of Untreated Water</strong></td>
<td><strong>$1,029</strong></td>
<td><strong>$1,059</strong></td>
<td><strong>$30</strong></td>
<td><strong>2.9%</strong></td>
</tr>
</tbody>
</table>

*Fixed charges converted to $/AF using sales forecast and may not foot due to rounding
Estimated Breakdown of the CY 2015 Treated Water Rate and Charge Increases

“All-in”* Increase Distribution
$34/AF

- Melded Supply 69% ($32)
- Transportation 9% ($4)
- Storage -9% ($4)
- Customer Service -4% ($2)
- Melded Treatment 9% ($4)

Melded Supply Rate Increase
$32/AF

- Desalination ($38)
- MWD Supply & Wheeling (-$14)
- QSA Supplies ($6)
- Other ($2)

*Excludes Water Authority meter charge and MWD pass-through costs.
Customer Service and Storage Charges converted to $/AF based on sales forecast
# Proposed CY 2015 Rate and Charge Summary

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<td>Storage¹</td>
<td>144</td>
<td>140</td>
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<th>Proposed CY 2015 Change in Rate</th>
<th>Percent Change</th>
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</thead>
<tbody>
<tr>
<td>IAC</td>
<td>$2.68/ME/Month</td>
<td>$2.76/ME/Month</td>
<td>$0.08</td>
<td>3.0%</td>
</tr>
<tr>
<td>Standby Availability²</td>
<td>$10/acre or parcel less than 1 acre</td>
<td>$10/acre or parcel less than 1 acre</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>MWD Capacity Charge³</td>
<td>$8,268,900</td>
<td>$10,738,140</td>
<td>$2,469,240</td>
<td>29.9%</td>
</tr>
<tr>
<td>MWD Readiness-to-Serve²,³</td>
<td>$24,498,074</td>
<td>$25,043,402</td>
<td>$545,328</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

²Fiscal Year Charge
³Adopted by the MWD Board on April 8, 2014
Proposed All-in Treated Water Rate

All-in Treated Water Rate

- Current Rate: $1,303
- Proposed CY 2015 All-in Treated Water Rate: $1,337 (2.6%)
- 2011 Rate Forecast High Rate Scenario: $1,717
- 2011 Rate Forecast Low Rate Scenario: $1,530

Calendar Year

2014 2015 2016 2017

$/AF

- $1,231
- $1,280
- $1,404
- $1,648
- $1,717
History of Rate Increases

Board Adopted Treated and Untreated Rate Increases

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Proposed CY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>3.1% 3.0%</td>
</tr>
<tr>
<td>2005</td>
<td>4.3% 4.1%</td>
</tr>
<tr>
<td>2006</td>
<td>9.2% 5.8%</td>
</tr>
<tr>
<td>2007</td>
<td>4.1% 8.1%</td>
</tr>
<tr>
<td>2008</td>
<td>8.9% 8.1%</td>
</tr>
<tr>
<td>2009</td>
<td>15.0% 12.0%</td>
</tr>
<tr>
<td>2010</td>
<td>18.1% 15.4%</td>
</tr>
<tr>
<td>2011</td>
<td>14.7% 11.3%</td>
</tr>
<tr>
<td>2012</td>
<td>7.5% 7.7%</td>
</tr>
<tr>
<td>2013</td>
<td>9.6% 9.7%</td>
</tr>
<tr>
<td>2014</td>
<td>2.6% 3.5%</td>
</tr>
<tr>
<td>2015</td>
<td>2.9% 2.6%</td>
</tr>
</tbody>
</table>

Legend:
- Blue: Percent All-in Untreated Rate Increase
- Green: Percent All-In Treated Rate Increase
Financial Performance Metrics – Debt Service Coverage Ratios

- Achieves the Board’s policy target of 1.50x in FYs 2014 – 2018
Financial Performance Metrics

- Significant withdrawals from the PAYGO fund are projected
Impact of CY 2015 Rate Increase on Composite Monthly Residential Bill

• 5 Retail Agency Average Composite Cost (CY 2014)
  – Fixed Charge: $19.89 monthly
  – Commodity Charge: $54.32
  – Composite Monthly Residential Bill: $74.21

<table>
<thead>
<tr>
<th>Wholesale Charges</th>
<th>Proposed Increase in Monthly Retail Cost</th>
<th>Percent Retail Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>$1.03</td>
<td>1.4%</td>
</tr>
<tr>
<td>Treated</td>
<td>$1.17</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Actual rate impact will vary by member agency

Notes:
1. Analysis based on retail rates for the City of Carlsbad, Helix Water District, the City of San Diego, Sweetwater Authority, and Otay Water District.
2. Tier 1 and Tier 2 pricing blocks vary by member agency.
3. Historic water demand used to calculate member agency specific weighting factors.
4. Individual member agency commodity charge calculated using its average single family residential water use (hcf).
5. Composite commodity charge is the sum of the individual member agency's commodity charge times its weighting factor.
Wholesale Monthly Household Cost

Cost of water purchases is 62% of the wholesale cost of water.

The remaining 38% or $23.54/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

Estimated CY 2015 Wholesale Costs per Household*

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD Costs</td>
<td>$29.55</td>
</tr>
<tr>
<td>IID/QSA &amp; Desalination Supply Costs</td>
<td>$8.38</td>
</tr>
<tr>
<td>Water Authority Operating Costs</td>
<td>$4.25</td>
</tr>
<tr>
<td>Water Authority Capital Costs</td>
<td>$19.29</td>
</tr>
<tr>
<td><strong>Total: $61.47/month</strong></td>
<td></td>
</tr>
</tbody>
</table>

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

• Key rate and charge drivers
  – Delivery of desalinated water – Fall 2015
  – Maintaining Board financial policies
• Rate and charge volatility mitigation
  – Very successful debt management
  – Improving sales environment and continued cost control measures
• Some of the smallest annual increases in the past decade
  – Treated increase 2.6%
  – Untreated increase 2.9%
• Overall rate and charge increase will vary by member agency depending upon the fixed charge allocations
Today’s Board Actions

1. Accept Carollo Engineers’ San Diego County Water Authority Desalination Cost Allocation Cost of Service Rate Study dated May 13, 2014 and letter amending the study, included in Attachment A of this report.

2. Adopt Ordinance No. 2014-___ an ordinance of the Board of Directors of the San Diego County Water Authority setting rates and charges for the delivery and supply of water, use of facilities, and provision of services;

3. Adopt Ordinance No. 2014-___ an ordinance of the Board of Directors of the San Diego County Water Authority extending the Transitional Special Agricultural Water Rate Program through December 31, 2015; and

4. Find the actions exempt from CEQA pursuant to Public Resources Code § 21080(b)(8) and authorize the General Manager to file a notice of exemption.
Fiscal Years 2014 and 2015
Mid-Term Budget Update

Administrative and Finance Committee
June 26, 2014
We built

- Completed construction of San Vicente Dam Raise
- Completed relining Pipeline 4 from SR-52 to Lake Murray and short section of Pipeline 3 near Lake Murray under budget and on schedule
- Awarded construction contract to reline Pipeline 3 from Sweetwater Reservoir to Lower Otay Reservoir
- Carlsbad Desalination Project
  - 50% complete on pipe
  - 50% complete on plant
  - 98% complete on treatment plant modifications
Accomplishments

Carlsbad Desal
- 50% complete on pipe
- 50% complete on plant
- 98% complete on treatment plant modifications

Relining
- Completed relining Pipeline 4 from SR-52 to Lake Murray
- Awarded contract to reline Pipeline 3 from Sweetwater Reservoir to Lower Otay Reservoir
Accomplishments

We planned

* 2013 Regional Water Facilities Optimization and Master Plan Update approved
* 2013 San Diego Integrated Regional Water Management Plan approved
* Bay Delta Conservation Plan (BDCP) analysis
  * Conducted 58 meetings in FY14
  * Issued comment letter
We responded

* Activated voluntary stage of Water Shortage and Drought Response Plan
* Launched WaterSmart Landscape Makeover Series Program, eGuide to a WaterSmart Lifestyle, WaterSmart Landscape Efficiency Program, When in Drought campaign
Accomplishments

Bay Delta Conservation Plan (BDCP)
Accomplishments

We saved

* Restructured Tax-Exempt Commercial Paper program
* Issued $50M of Extendable Commercial Paper saving $288,000 annually
  * Received A1+ rating from Standard and Poor’s
* Reduced annual premium for daily business insurance by 23%
* Secured additional $600,000 in grant funding for turf replacement program
Accomplishments

We maintained

* Completed comprehensive condition assessment on 11 miles of Pipeline 4 and visual inspections on 30 miles of pipeline
* Completed 9 aqueduct shutdowns

* Upgraded the Maximo maintenance management software to version 7.5
* Upgraded the Twin Oaks Valley Water Treatment Plant SCADA system
We managed

* Transferred 180,200 AF of Colorado River Water
* Implemented 8 recommendations from Phase I - Energy Conservation Opportunities
* 1.0 OSHA incident rate (Industry standard = 4.9)
* 0.71 workers’ compensation experience modifier rate (Industry standard = 1.0, WA’s insurance carrier pool = 1.19)
* Completed FY14 without a single property claim
* Completed 18 recruitments; 6 in progress
* Resolved long-standing “Top Ten” encroachment
* Education programs reached approx. 52,000 students and 2,000 teachers
We succeeded

* Won trial court verdict in Phase 1 of the 2010 and 2012 rate cases, invalidating MWD’s rates
* Successful verdict on federal QSA litigation and appeals
* Satisfactorily reached a negotiated settlement between the Water Authority, MWD, Andritz and Archer-Western on Lake Hodges Projects
* Won Public Records Act lawsuits and recovered $251,000 in attorney’s fees
# Sources of Funds—Summary

<table>
<thead>
<tr>
<th>Sources of Funds (in millions)</th>
<th>Amended FY14&amp;15</th>
<th>Projection FY14&amp;15</th>
<th>Variance $</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Sales</td>
<td>$1,106.7</td>
<td>$1,139.6</td>
<td>$33.0</td>
<td>3.0%</td>
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<tr>
<td>Infrastructure Access Charges</td>
<td>59.1</td>
<td>59.1</td>
<td>0.0</td>
<td>0.1%</td>
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<tr>
<td>Property Taxes and In-Lieu</td>
<td>22.3</td>
<td>22.8</td>
<td>0.5</td>
<td>2.1%</td>
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<tr>
<td>Investment Income</td>
<td>12.7</td>
<td>8.5</td>
<td>(4.2)</td>
<td>-33.2%</td>
</tr>
<tr>
<td>Hydroelectric Revenue</td>
<td>5.4</td>
<td>7.2</td>
<td>1.8</td>
<td>32.4%</td>
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<tr>
<td>Grant Reimbursement</td>
<td>20.9</td>
<td>18.3</td>
<td>(2.6)</td>
<td>-12.5%</td>
</tr>
<tr>
<td>Build America Bonds Subsidy</td>
<td>22.6</td>
<td>20.9</td>
<td>(1.7)</td>
<td>-7.6%</td>
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<tr>
<td>Other Income</td>
<td>0.0</td>
<td>26.7</td>
<td>26.7</td>
<td>--%</td>
</tr>
<tr>
<td>Capital Contributions:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity Charges</td>
<td>29.8</td>
<td>33.0</td>
<td>3.2</td>
<td>10.8%</td>
</tr>
<tr>
<td>Water Standby Availability</td>
<td>22.5</td>
<td>22.5</td>
<td>0.0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Contributions in Aid of CIP</td>
<td>15.9</td>
<td>6.6</td>
<td>(9.2)</td>
<td>-58.3%</td>
</tr>
<tr>
<td><strong>Subtotal Revenue</strong></td>
<td><strong>$1,317.9</strong></td>
<td><strong>$1,365.3</strong></td>
<td><strong>$47.4</strong></td>
<td><strong>3.6%</strong></td>
</tr>
<tr>
<td>Net Fund Withdraws</td>
<td>183.0</td>
<td>78.1</td>
<td>(104.9)</td>
<td>-57.3%</td>
</tr>
<tr>
<td><strong>Total Sources of Funds</strong></td>
<td><strong>$1,500.9</strong></td>
<td><strong>$1,443.4</strong></td>
<td><strong>(57.6)</strong></td>
<td><strong>-3.8%</strong></td>
</tr>
</tbody>
</table>

Totals may not foot due to rounding
## Uses of Funds—Summary

<table>
<thead>
<tr>
<th>Uses of Funds (in millions)</th>
<th>Amended FY14&amp;15</th>
<th>Projected FY14&amp;15</th>
<th>Variance $</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Purchases &amp; Treatment</td>
<td>$786.2</td>
<td>$800.9</td>
<td>$14.7</td>
<td>1.9%</td>
</tr>
<tr>
<td>Stored Water Purchases</td>
<td>30.1</td>
<td>23.3</td>
<td>(6.8)</td>
<td>-22.6%</td>
</tr>
<tr>
<td>Capital Improvements Program (CIP)</td>
<td>259.9</td>
<td>206.0</td>
<td>(53.9)</td>
<td>-20.8%</td>
</tr>
<tr>
<td>Debt Service</td>
<td>281.5</td>
<td>274.0</td>
<td>(7.5)</td>
<td>-2.7%</td>
</tr>
<tr>
<td>QSA Mitigation</td>
<td>16.4</td>
<td>18.4</td>
<td>2.0</td>
<td>12.2%</td>
</tr>
<tr>
<td>Operating Departments</td>
<td>98.6</td>
<td>94.3</td>
<td>(4.3)</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Hodges Pumped Storage</td>
<td>4.1</td>
<td>4.0</td>
<td>(0.1)</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Equipment Replacement</td>
<td>3.1</td>
<td>3.4</td>
<td>0.3</td>
<td>8.1%</td>
</tr>
<tr>
<td>Grant Expenditures</td>
<td>20.9</td>
<td>18.3</td>
<td>(2.6)</td>
<td>-12.5%</td>
</tr>
<tr>
<td>Other Expenditures</td>
<td>0.0</td>
<td>0.8</td>
<td>0.8</td>
<td>--%</td>
</tr>
<tr>
<td><strong>Total Uses of Funds</strong></td>
<td><strong>$1,500.9</strong></td>
<td><strong>$1,443.4</strong></td>
<td><strong>($57.6)</strong></td>
<td><strong>-3.8%</strong></td>
</tr>
</tbody>
</table>

*Totals may not foot due to rounding*
Major Drivers

- **Water Sales**
  - FY14 sales estimated to be 9% higher than original projection
  - Original estimate $384.4M; Revised estimate $401.0M
- **Revenue**
  - $26.7 M from Lake Hodges settlement (net of avoided costs, release/use of retention fund & addl expenses)
  - Total settlement equaled $30.1
- **CIP spending**
  - Project cost savings: $29.2M
  - Project deferrals: $24.7M
  - Reviewing options on debt strategy and will return to Board in August for discussion
Key Budget Highlights

- Capital Improvement Program (CIP)
- Water Sales
- Quantification Settlement Agreement (QSA) Joint Powers Agreement (JPA)
- Equipment Replacement Fund (ERF)
- Enhanced Outreach
- CIP Project Transfers
- Personnel
### Key Budget Highlights

**Capital Improvement Program (CIP)**

<table>
<thead>
<tr>
<th>Project Cost Savings</th>
<th>(In millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relining and Pipe Replacement Program</td>
<td>$ 19.9</td>
</tr>
<tr>
<td>Carlsbad Desalination Project</td>
<td>6.3</td>
</tr>
<tr>
<td>ESP - San Vicente Dam Raise</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Subtotal Project Cost Savings</strong></td>
<td><strong>$ 29.2</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Deferrals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Aqueduct Pipeline - CalTrans Highway 76 Realignment</td>
<td>$ 7.4</td>
</tr>
<tr>
<td>Mission Trails Flow Regulatory Structure (FRS) II</td>
<td>6.5</td>
</tr>
<tr>
<td>Colorado River Canal Linings - Post Construction Mitigation Monitoring</td>
<td>3.2</td>
</tr>
<tr>
<td>Camp Pendleton Desalination</td>
<td>1.7</td>
</tr>
<tr>
<td>Mitigation Program</td>
<td>4.7</td>
</tr>
<tr>
<td>ESP - Pump Station at Pipeline 3 and Interconnect</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Subtotal Project Deferrals</strong></td>
<td><strong>$ 24.7</strong></td>
</tr>
</tbody>
</table>

**Total Two-Year Savings** $ 53.9
CIP Major Drivers
Relining and Pipe Replacement Program

* $19.9M in project cost savings
  * Relining construction contract was lower than anticipated
    * Lower Steel Costs
    * Competitive bidding environment
CIP Major Drivers
Carlsbad Desalination Project

- $6.3M in project cost savings
  - Relining construction contract was lower than anticipated
    - Lower steel costs
    - Competitive bidding environment
CIP Major Drivers
ESP - San Vicente Dam Raise

* $3M in project cost savings
  * Spent less on change orders than expected
**CIP Major Drivers**
Second Aqueduct Pipeline - Caltrans Highway 76 Realignment

- $7.4M Project Deferral
  - Extended negotiations with Caltrans delayed design
    - $6.1 million reimbursement
CIP Major Drivers
Mission Trails Flow Regulatory Structure (FRS) II

* $6.5M Project Deferral
  * 2013 Master Plan evaluated project alternatives
  * New approach reduces current appropriation
CIP Major Drivers
Colorado River Canal Linings - Post Construction Mitigation Monitoring

* $3.2M Project Deferral
  * Delay in negotiations with California Department of Fish and Wildlife (CDFW)
  * Construction contract lower than anticipated
    * Competitive bidding environment
$1.7M Project Deferral

- Evaluated in Master Plan as available option to meet long-term supply needs
- Further development to follow adaptive management approach
CIP Major Drivers
Mitigation Program

* $4.7M Project Deferral
  * New mitigation area is being considered
CIP Major Drivers
ESP - Pump Station at Pipeline 3 and Interconnect

- $1.2M Project Deferral
- 2013 Master Plan deferred project
- A planning study will start in FY15
Key Budget Highlights

Water Sales

FY14 Water Sales Volumes (AF)
Budgeted vs. Actual
Key Budget Highlights

QSA JPA

Background

- The QSA JPA, comprised of the Water Authority, Coachella Valley Water District (CVWD), the Imperial Irrigation District (IID), and the California Department of Fish and Wildlife (CDFW) was established to provide and administer funding for environmental mitigation projects associated with the QSA transfers.
QSA JPA
Financial Obligations

* Contributions are calculated in 2003 dollars using a discount rate of 6%

<table>
<thead>
<tr>
<th>Current Funding Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Water Authority</td>
</tr>
<tr>
<td>IID</td>
</tr>
<tr>
<td>CVWD</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

* CDFW responsible for all financial obligations in excess $133M
QSA JPA
Advanced Funding

* Current mitigation spending projected to exceed QSA JPA agency contributions
* Similar cash-flow problem occurred in 2007 due to non-uniform agency contribution schedule
  * Water Authority Board authorized the advance of $6.3M and saved $5.6M over a two year period
* The need for additional advances anticipated in 2015
  * Water Authority share estimated to be $2M; savings of $1M likely depending on timing of advance
  * IID and CVWD contributions will range from $2M – $7M
* QSA JPA agencies currently discussing future advances based on long-term implementation schedule
**Key Budget Highlights**

**Equipment Replacement Fund - Lake Hodges**

**Vibration Monitoring System**
- Procured in 2005
- In service 2011
- Normal life expectancy 7-10 years
- Currently experiencing equipment inefficiencies
- Equipment is obsolete
- Total to replace: $120,000

**Control System**
- Procured in 2005
- In service 2011
- Normal Life expectancy 5 years
- Currently experiencing equipment inefficiencies
- Equipment is obsolete
- Total to replace: $350,000

* Total request of $470,000 is offset by savings in fund of $220,000
May 2014: Board approved additional funding to expand civic engagement and outreach

Accomplished via transfers – no budget increase

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Department(s)</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultants</td>
<td>MWD, POC</td>
<td>$230,000</td>
</tr>
<tr>
<td>Staffing</td>
<td>MWD, POC</td>
<td>$200,000</td>
</tr>
<tr>
<td>Partnerships, memberships</td>
<td>POC, GMs/Board of Directors</td>
<td>$120,000</td>
</tr>
<tr>
<td>Collateral materials</td>
<td>POC</td>
<td>$50,000</td>
</tr>
<tr>
<td>Engagement, events</td>
<td>POC, GMs/Board of Directors</td>
<td>$50,000</td>
</tr>
</tbody>
</table>
Key Budget Highlights
Enhanced Outreach

* Transfer $650,000 within the Operating Departments appropriations for an overall net zero impact for the Board-approved enhanced outreach program.

<table>
<thead>
<tr>
<th>Department</th>
<th>Transfer Out</th>
<th>Department</th>
<th>Transfer In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>-$200,000</td>
<td>MWD Program</td>
<td>+$200,000</td>
</tr>
<tr>
<td>Public Outreach and Conservation</td>
<td>-$350,000</td>
<td>MWD Program</td>
<td>+$190,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GM’s/Board of Directors</td>
<td>+$160,000</td>
</tr>
<tr>
<td>Public Outreach and Conservation (L&amp;B)</td>
<td>-$100,000</td>
<td>Public Outreach and Conservation (Services)</td>
<td>+$100,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-$650,000</td>
<td></td>
<td>+$650,000</td>
</tr>
</tbody>
</table>
Transfer $6,141,247 within the CIP Lifetime Budget for an overall net zero impact.

<table>
<thead>
<tr>
<th>Project</th>
<th>Transfer Out</th>
<th>Project</th>
<th>Transfer In</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Vicente Dam Raise</td>
<td>-$1,950,000</td>
<td>Twin Oaks Valley Treatment Plant Expanded Service Area</td>
<td>+$750,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>San Vicente Pumped Storage Study*</td>
<td>+$1,200,000</td>
</tr>
<tr>
<td>ESP-Post Construction Activities</td>
<td>-$4,191,247</td>
<td>Olivenhain-Hodges Pumped Storage</td>
<td>+$2,850,204</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ESP-Lake Hodges Pump Station and Inlet/Outlet</td>
<td>+$1,341,043</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-$6,141,247</td>
<td></td>
<td>+$6,141,247</td>
</tr>
</tbody>
</table>

*50% reimbursable
Negotiated MOU provides a cost of living adjustment for represented and confidential employees based on the CPI for San Diego All Urban Consumers minus the medical portion of CPI

- minimum of 2.0%, if actuals are higher, staff will return to Board to modify accordingly, maximum of 3.0%

Classification Modifications

- Financial Resources Manager – Salary Range H to G
- Colorado River Program Director – Salary Range E to D
- MWD Program Director – Salary Range E to D
Recommendations for Action

NET CHANGE TO BUDGET: $37.0M DECREASE or 2.5%

**Decrease ($53.9M)**
1. Decrease CIP appropriations by $53.9M

**Increase ($16.95M)**
2. Increase appropriations for Water Purchases by $14.7M
3. Increase appropriations for QSA Mitigation by $2.0M
4. Increase appropriations for Equipment Replacement by $250K

**Net Zero Impact**
5. Transfer $650K for board-approved Enhanced Outreach
6. Transfer among existing projects $6.1M within CIP

**Other**
7. Amend Class and Salary Schedule for FY15
2014 IRWM Drought Solicitation Implementation Grant Application

Water Planning Committee
June 26, 2014

Presented by: Mark Stadler, Principal Water Resources Specialist
San Diego IRWM Implementation Grants

<table>
<thead>
<tr>
<th>Funding source</th>
<th>Year awarded</th>
<th># of projects funded</th>
<th>Grant award</th>
<th>Costs billed to date</th>
<th>Projects completed</th>
<th>Projects at least 80% complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prop 50</td>
<td>2008</td>
<td>19</td>
<td>$25 million</td>
<td>$12.8 million</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Prop 84, Round 1</td>
<td>2011</td>
<td>11</td>
<td>$7.9 million</td>
<td>$2.2 million</td>
<td>--</td>
<td>2</td>
</tr>
<tr>
<td>Prop 84, Round 2</td>
<td>2014</td>
<td>7</td>
<td>$10.3 million</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37</strong></td>
<td><strong>19</strong></td>
<td><strong>$43.2 million</strong></td>
<td><strong>$15 million</strong></td>
<td><strong>6</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>
Drought Solicitation Grant Program

- New IRWM funding round expedited for drought relief
  - Statewide competition for $200 million
- Funding to regions with greatest drought impacts
- Applicants must:
  - Describe 2014 drought impacts
  - Projected 2015 drought impacts
  - Conservation measures implemented due to drought
To be funded, project must accomplish at least one of the following:

- Provide immediate regional drought preparedness
- Increase local water supply reliability and delivery of safe drinking water
- Assist in implementation of conservation programs (not cost-effective locally)
- Reduce water quality or ecosystem conflicts created by drought
Project selection process

1. Submit to Database
2. Numeric Scoring and Ranking
3. Project Selection Workgroup
4. RAC Approval
5. Prepare Grant Application

Suite of projects for grant application

- Ground-water projects
- Recycling projects
- Conservation projects
Project Selection Workgroup

Project evaluation criteria

- DWR grant application guidelines
- San Diego IRWM Plan goals and objectives
Workgroup recommendation

- 7 recommended projects
- Total Project Costs: $60,233,000
- Grant Funds: $15,075,025
- Approved by RAC, recommended to Water Authority Board
<table>
<thead>
<tr>
<th>Project</th>
<th>Sponsor</th>
<th>Grant Request</th>
<th>Estimated AF/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reynolds Groundwater Desalination Facility Expansion</td>
<td>Sweetwater Authority</td>
<td>$5,150,000</td>
<td>5,200</td>
</tr>
<tr>
<td>Fallbrook Plant Nurseries Recycled Water Distribution System Expansion</td>
<td>Fallbrook Public Utility District</td>
<td>$795,160</td>
<td>544</td>
</tr>
<tr>
<td>Regional Demand Management Program Expansion</td>
<td>Water Authority</td>
<td>$1,039,270</td>
<td>191</td>
</tr>
<tr>
<td>San Diego Water Use Program</td>
<td>City of San Diego</td>
<td>$720,506</td>
<td>381</td>
</tr>
<tr>
<td>Rincon Customer-Driven Demand Management Program</td>
<td>Rincon del Diablo MWD</td>
<td>$618,955</td>
<td>505</td>
</tr>
<tr>
<td>Regional Emergency Storage &amp; Conveyance System Intertie Optimization</td>
<td>City of San Diego</td>
<td>$2,631,135</td>
<td>To be determined</td>
</tr>
<tr>
<td>Carlsbad Recycled Water Plant &amp; Distribution System Expansion</td>
<td>Carlsbad MWD</td>
<td>$4,120,000</td>
<td>363</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$15,075,025</td>
<td>at least 7,284</td>
</tr>
</tbody>
</table>
Staff recommendations

• Adopt Resolution No. 2014-_____ authorizing the General Manager to submit a 2014 IRWM Drought Solicitation implementation grant application for $15,075,025, accept grant funds that are awarded, and enter into contracts to distribute the funds to the project sponsors.

• Authorize the General Manager to enter into contracts to distribute $10,551,255 in funding from the San Diego Region’s Prop 84, Round 2 IRWM grant to Olivenhain MWD, Water ReUse Research Foundation, Rural Communities Assistance Corporation, County of San Diego, San Diego River Park Foundation and Jacobs Center for Neighborhood Innovation
Water Supply Conditions

U.S. Drought Monitor

June 17, 2014
(Released Thursday, Jun. 19, 2014)
Valid 8 a.m. EDT

Drought Impact Types:

~ Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

Water Planning Committee
June 26, 2014

Presented by: Lesley Dobalian
Water Resources Specialist
MWD 2014 Water Supply and Demand Balance

<table>
<thead>
<tr>
<th>Water Balance</th>
<th>Acre-Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Supplies</strong></td>
<td>858,000</td>
</tr>
<tr>
<td><em>Colorado River</em></td>
<td>755,000</td>
</tr>
<tr>
<td><em>State Water Project</em></td>
<td>103,000</td>
</tr>
<tr>
<td><strong>Estimated Member Agency Demands</strong></td>
<td>1,937,000</td>
</tr>
<tr>
<td><strong>New Water Balance</strong></td>
<td>-1,079,000</td>
</tr>
</tbody>
</table>

- Excludes Water Authority Colorado River Transfer supplies
- Negative balance made up through storage and other supplies
- Actual balance may change as year progresses

Source: MWD June 10, 2014 Water Planning and Stewardship Committee
Due to reduced storage reserves, MWD may implement its Water Supply Allocation Plan in 2015 if conditions continue to be dry.
Fiscal Year Potable Water Use in Water Authority Service Area

Notes:  
July – May of FY 2014 was 4% higher than FY 2013  
Nov – May of FY 2014 was significantly warmer than FY 2013
Average Daily Maximum Temperature at Lindbergh Field - Departure from Normal (°F)

Ave Daily Max Temp:
November – May of FY 2014 was 4.3°F warmer than normal
May 2014 was 7.3°F warmer than normal
Summer Outlook

Temperature Outlook
July – September 2014

Climate Prediction Center: Chance of El Niño is 70% during the summer and reaches 80% during fall and winter (June 23, 2014)

San Diego County Water Authority
Potential Emergency Regulations in Response to Governor’s April 25, 2014 Executive Order

- Executive Order contains directives to SWRCB
  - Request update from urban agencies on actions to reduce water usage
  - Adopt emergency regulations as necessary
- SWRCB survey sent to urban water suppliers
  - Technical disagreement over time period for comparison
  - Using 2011 - 2013 base period doesn’t reflect southern California conservation gains
Potential SWRCB Emergency Drought Regulations

- Information item at SWRCB Board Meeting on June 17
- Proposed emergency regulations at July 15 SWRCB meeting
  - Current focus on water waste prohibitions
  - Ongoing discussion about what will be in proposed regulations
- Discuss with member agency managers on July 15
Conclusion

- Staff closely monitor SWRCB actions
- Participate in MWD Member agency review process of WSAP this summer
- Prepare 2015 outlook scenarios
- Return with detailed report in fall
MWD’s
Evolving Reliance on Storage

Amy Chen, Director of MWD Program
June 26, 2014
Key points

- Events that shifted MWD’s reliance on storage
  1. 1987–92 drought
  2. 2003 loss of CRA surplus supplies (662,000 AF/Yr)
  3. 2007 “Wanger” decision (SWP “short” 7 out of 10 years)

- Unprecedented storage draw in 2014
  - ~1.1 MAF (46%)

- If 2015 remains dry, what is MWD’s plan?
**Storage**

**CRA**
- **Powell**
  - Storage = 60 MAF
- **Mead**
  - Contracted Amount = 15 MAF
- **So Cal**

**SWP**
- **Oroville**
  - Storage = 5.8 MAF
- **San Luis**
  - Contracted Amount = 4.1 MAF
- **So Cal**
Shifting of Reliance of Supply Sources

### Source: MWD

- **Storage (CY)**
- **SWP System**
- **CRA System**
- **Sales (CY)**

#### Calendar Year
- **1976**
- **1978**
- **1980**
- **1982**
- **1984**
- **1986**
- **1988**
- **1990**
- **1992**
- **1994**
- **1996**
- **1998**
- **2000**
- **2002**
- **2004**
- **2006**
- **2008**
- **2010**
- **2012**
- **2014**

- **1987–92 Drought**
- **IRP**
- **Loss CR Priority 5**
- **“Wanger” decision**
- **Estimated withdrawal from storage to meet needs**

**Note:**
- Estimated withdrawal from storage to meet needs.
MWD’s Storage Capacity Growth

Source: MWD Presentation, April 7, 2014
### MWD’s Storage Balances

**Storage Capacity:**
- 6.044 Million Acre-Feet

#### MWD Sales (MAF)
- 2010: 1.62
- 2011: 1.58
- 2012: 1.52
- 2013: 1.85
- Potential 2015: ~1.94

#### SWP Allocation
- 2010: 50%
- 2011: 80%
- 2012: 65%
- 2013: 35%
- Potential 2015: 5%
# MWD’s 2015 Potential WSDM Balance

<table>
<thead>
<tr>
<th></th>
<th>5% SWP (AF)</th>
<th>30% SWP (AF)</th>
<th>55% SWP (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Storage Reserves, January 2015</td>
<td>1,245,000</td>
<td>1,245,000</td>
<td>1,245,000</td>
</tr>
<tr>
<td>SWP Supply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWP Total</td>
<td>103,000</td>
<td>580,450</td>
<td>1,058,325</td>
</tr>
<tr>
<td>CRA Supply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRA Total</td>
<td>755,000</td>
<td>755,000</td>
<td>755,000</td>
</tr>
<tr>
<td>2015 Demands, Obligations, and Losses*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWD demands and losses</td>
<td>1,743,300</td>
<td>1,743,300</td>
<td>1,743,300</td>
</tr>
<tr>
<td>Net Water Supply and Demand Balance</td>
<td>-885,300**</td>
<td>-407,850</td>
<td>70,025</td>
</tr>
<tr>
<td>Potential Storage Reserves, December 2015</td>
<td>359,700</td>
<td>837,150</td>
<td>1,315,025</td>
</tr>
</tbody>
</table>

* Assumes MWD demands drop by 10 percent due to increased conservation messaging
** Assumes MWD could deliver CRA water to previously SWP exclusive areas without limitations.
Summary

- Storage’s role at MWD has evolved
- Large 2014 withdrawal
- 55% SWP allocation (and 10% demand reduction when compared to 2014) in 2015 would avoid storage withdrawal
- If dry conditions continue, MWD may allocate supplies in 2015
- Water Authority delegates have requested information
  - No discussions have occurred between MWD and member agency managers on MWD plans
  - MWD staff reported this month:
    - Summer – overview of WSAP (member agency review process)
    - Fall – discussion and potential adjustments to WSAP following member agency review process
Drought Response/Conservation Outreach Update

Legislation, Conservation and Outreach Committee
June 26, 2014
Advertising

- Radio and online ads continue
- TV, Google about to start
San Diego County Fair

15 awards!
Taxpayers Association Dinner

Centerpiece sponsorship garnered praise -- and media attention

Diane Bell column, U-T San Diego

Leslie Lopez, KUSI
Partnerships

Pre-game scoreboard messages
Community Association Outreach

- July 17
  - Landscape Irrigation Manager Workshop
    - Partners: DWR, UC Davis, Mission Resource Conservation District

- July 31
  - San Diego Landscape Water Conference
    - Partners: California Landscape Contractors Association, Hunter, Ewing, Toro, Rainbird
Fall Planning Under Way

- Coordinating with J PIC/Conservation Coordinators on:
  - Updated creative and messaging
  - Communication tools
  - Partnership targets
Small Contractor Outreach and Opportunities Program

Legislation, Conservation and Outreach Committee
June 26, 2014

Teresa Penunuri, Public Affairs Supervisor
SCOOP Program

- Outreach
  - Education on Water Authority contracts
    - Primes and subs
    - Participation goal

- Facilitation
  - The Network
  - Government agency nuances
Fiscal Year 2014 Initiatives

- Small Business Participation Goal: 30%

<table>
<thead>
<tr>
<th>Results Through Third Quarter (July 1, 2013 - March 31, 2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total contracts</td>
</tr>
<tr>
<td>Small business awards</td>
</tr>
<tr>
<td>Amount awarded to small businesses</td>
</tr>
<tr>
<td>Small Business Percentage</td>
</tr>
</tbody>
</table>
Fiscal Year 2014 Initiatives

- Sheltered Market – Launched late 2013
  - Procurements greater than $10,000 and up to $150,000

- Recent/Upcoming Opportunities
  - Environmental assessment – 11 bids received

  - Manhole/Appurtenance Raising
    - Bids due July 9
Business Outreach

- Contractor Availability Study
  - Responses evaluated this summer

- Training
  - In-person
    - 382 Attendees
  - Online
    - 371 average monthly page views
  - Looking ahead
Water Authority Sponsored State Legislation 1991 – Present
Legislation, Conservation & Outreach Committee
June 26, 2014

Dennis A. Cushman, Assistant General Manager
Increasing San Diego County's Water Supply Reliability through Diversification

**1991**
- Metropolitan Water District: 28 TAF (5%)
- Imperial Irrigation District Transfer: 550 TAF (95%)
- Total: 578 TAF

**2013**
- Metropolitan Water District: 80 TAF (13%)
- Imperial Irrigation District Transfer: 27 TAF (4%)
- All American & Coachella Canal Lining: 21 TAF (3%)
- Local Surface Water: 46 TAF (7%)
- Total: 645 TAF

**2020**
- Metropolitan Water District: 80 TAF (10%)
- Imperial Irrigation District Transfer: 103 TAF (13%)
- All American & Coachella Canal Lining: 80 TAF (10%)
- Local Surface Water: 231 TAF (30%)
- Seawater Desalination: 56 TAF (7%)
- Recycled Water: 27 TAF (4%)
- Groundwater: 48 TAF (6%)
- Total: 779 TAF

TAF=Thousand Acre-Feet

- **Metropolitan Water District**: Yellow
- **Imperial Irrigation District Transfer**: Blue
- **All American & Coachella Canal Lining**: Dark Red
- **Conservation (existing and additional)**: Green
- **Local Surface Water**: Light Blue
- **Recycled Water**: Light Purple
- **Seawater Desalination**: Orange
- **Groundwater**: Grey
Historic Investments in Infrastructure

- San Vicente Dam Raise & Related Projects: $909 million
- Twin Oaks Valley Water Treatment Plant: $179 million
- Pipeline Relining: $786 million
- Carlsbad Seawater Desalination Pipeline Projects: $248 million
- Olivenhain Dam and Reservoir: $198 million
- All-American & Coachella Canal Lining Projects: $452 million ($198 million from the Water Authority)
- Lake Hodges Projects: $208 million

San Diego County Water Authority
Active Sponsor of Legislation

For more than two decades, Water Authority has sponsored many bills that have been signed into law

- Water conservation
- Water supply planning and Development
  - Recycling, including potable reuse
  - Seawater desalination
  - Long-term water supply planning
- Right of way security
- Finance
- Energy
Landmark Water Conservation Law

SB 1224 (Killea, 1991)
AB 952 (Kelley, 2001)
AB 1561 (Kelley, 2002)

AB 2717 (Laird, 2004)
AB 1881 (Laird, 2006)

AB 514 (Kehoe, 2003)
AB 2572 (Kehoe, 2004)
SB 1050 (NR&W, 2007)

SB 553 (Kelley, 2000)
AB 1465 (Hill, 2009)
Water Recycling and Seawater Desalination

- Eligibility for seawater desalination to receive state funding on par with other local supplies – AB 314 (Kehoe, 2003)
- Streamline state regulations on potable water reuse (SB 322, Hueso, 2013)
Water Supply Planning and Security of Water Utility Rights of Way

- Advance the California Colorado River 4.4 Plan (SB 1082, Kelley, 1997)
  - Evolved into the 2003 Colorado River Quantification Settlement Agreement
  - SB 1765 (Peace, 1998): canal lining projects
  - 2003 QSA bills (co-sponsored)

- Authorize Water Authority to adopt regulations and penalties to secure and protect its rights of way (SB 629, Kelley, 1999; AB 650, Plescia, 2002; and SB 373, Kehoe, 2005)
Energy Production and Utility Finance

- Authorize Water Authority to build major energy projects, such as pumped-storage projects (SB 552, Kelley, 2000)

- Authorize Water Authority to issue certificates of participation to lower borrowing costs (SB 133, Kelley, 1998, and SB 290, Kelley, 1999)

- Streamline contracting to lower costs (AB 2336, Zettel, 2000)
2014 Sponsor Legislation

- Streamlining state grant funding for local water supply projects and long-term water supply plan reporting requirements
  - **AB 1874** by Assemblymember Lorena Gonzalez: streamlines grant funding under the Integrated Regional Water Management Planning Act
    - Assembly Appropriations Committee
  - **AB 2067** by Assemblymember Shirley Weber: simplifies reporting by water agencies under the Urban Water Management Planning Act and revises deadlines to incorporate latest data
    - Senate Consent Calendar