San Diego County Water Authority
Cost of Service Study –
CY 2016 Rates & Charges Overview

June 25, 2015

Robert S. Grantham
Scope of Services

- Comprehensive cost of services study, including an independent review of CY 2016 rates for consistency with AWWA M1 guidelines, Board policy, and legal requirements
- Review the recommendations of the Fiscal Sustainability process
  - Supply Reliability Charge
  - Non-Commodity Allocation
  - TSAWR
- Calculate Proposed CY 2016 water rates and charges
CY 2016 Water Rate and Charge Calculation Process

Revenue Requirement Analysis

- Reviewed the total revenues required to fund operations, capital, debt service and coverage, and policy requirements.

Functional Allocation by Rate Category

- Allocate the revenue requirements and offsetting revenues to the Water Authority's five water rate and charge categories in a fair and equitable manner.

Water Rates and Charges

- Set rates to recover the revenue requirements from member agencies based on water sales projections.

Member Agency Allocation

- Allocate expenditures to each member agency based on water demand patterns and other key metrics.
Results of Independent Review

- Water Authority’s rates and charges continue to adhere to Board policies, cost of service principles, and California legal requirements
  - Confirm compliance with applicable case law and indirect implications of recent cases
- Validated that the CY 2016 rates and charges incorporate recommendation from Fiscal Sustainability process
  - Supply Reliability Charge
  - Allocation of non-commodity revenues
  - TSAWR
Proposed Calendar Year 2016 Rates and Charges

Administrative and Finance Committee
June 25, 2015
Lisa Marie Harris, Director of Finance
David Shank, Financial Planning Manager
Agenda

• Overview of CY 2016 rates and charges and fiscal sustainability recommendations
• Cost of Service Report – Carollo Engineers
• Recommended CY 2016 rates and charges
  – Rate and charge drivers/highlights
  – Proposed CY 2016 rates and charges
Summary of Fiscal Sustainability Recommendations

• Created a new fixed charge
  – Supply Reliability Charge

• Allocation of non-commodity revenues to treatment
  – Fully integrated treatment rate into rate and charge structure

• Extension of the Transitional Special Agricultural Water Rate (TSAWR) to December 31, 2020
CY 2016 Rate and Charge Drivers/Highlights

• Highlights
  – CY 2015 rate and charge increase helped smooth rates
    • Significant Rate Stabilization Fund (RSF) deposit planned – provides for subsequent draws
  – Debt optimization smoothed rates
    • Lowered senior Lien by $14.8M in FY 2016
    • Huge savings if coverage is included - $22.2M reduction in revenue requirement

• Drivers
  – Cost of desalinated water – full year of deliveries
  – MWD transportation rate – 3.3% impacts all but desal
  – Water sales levels
Independent Rate and Charge Review

- Engaged Carollo Engineers in a multi-year process to be an independent cost of service consultant
- Conducted comprehensive cost of service studies
  - CY 2014 and CY 2016
- Independent review of Board policy and policy implementation related to the cost of desalination
  - CY 2015 rates and charges
CY 2016 Rate and Charge Drivers

- Statewide regulations and water demand uncertainty
  - MWD’s mandatory supply allocations
- Cost of desalinated water
- MWD’s rate and charge increases
Regulations and Demand Uncertainty

- Water Demand forecasting extremely challenging
- SWRCB imposed an average 20% reduction
- Regulation translates to conservation levels ranging from 12% – 36% for retail member agencies

Drought Outlook through June

**KEY:**
- Drought persists or intensifies
- Drought remains but improves
- Drought removal likely
- Drought development likely

http://go.usa.gov/hHTe
• CY 2016 sales forecast is inline with the water use regulations
Carlsbad Desalination Costs

- Drought proof supply
- Excellent progress on the project
  - Expected to be completed in fall 2015
- Expect delivery of 42K AF in CY 2016
  - Represents 10% of water sales
- Financial Impact in CY 2016:
  - Supply - $34.1M increase
  - Transportation - $5.4M increase
Supply Reliability Charge

- **Methodology defined in Fiscal Sustainability recommendations**
  - Includes desal supply costs & IID transfer (including wheeling)
- **Member Agency Allocation**
  - 5-year rolling M&I deliveries
- **CY 2016 charge is $26M**
  - Based upon average sales $52/AF

### Supply Reliability Charge Calculation

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desal deliveries A/F (thousands)</td>
<td>42.0</td>
</tr>
<tr>
<td>IID Transfer deliveries A/F (thousands)</td>
<td>100.0</td>
</tr>
<tr>
<td>Desal supply costs ($/AF)</td>
<td>1,905</td>
</tr>
<tr>
<td>IID Transfer costs ($/AF)</td>
<td>1,085</td>
</tr>
<tr>
<td>MWD Tier 1 Untreated rate ($/AF)</td>
<td>594</td>
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<tr>
<td>Reliable Water Cost ($M)</td>
<td>188.5</td>
</tr>
<tr>
<td>MWD Comparison Cost ($M)</td>
<td>84.3</td>
</tr>
<tr>
<td>Differential ($M)</td>
<td>104.2</td>
</tr>
<tr>
<td>Supply Reliability charge ($M)</td>
<td>26.0</td>
</tr>
<tr>
<td>Projected Supply Reliability Charge $/AF</td>
<td>$52</td>
</tr>
</tbody>
</table>
Quantification Settlement Agreement

- Colorado River QSA supplies key to supply diversification strategy
- Agreements stabilized cost and supply of water in drought
  - 3.7% increase in transfer costs
  - 42% of projected sales
- By 2021, could represent more than 50% of region’s average year supply

IID and Canal Lining Deliveries 2003-2021

<table>
<thead>
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<tr>
<td>IID Water Transfer</td>
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</tr>
</tbody>
</table>

Calendar Year
## Adopted MWD CY 2016 Rates

<table>
<thead>
<tr>
<th>Adopted MWD</th>
<th>CY 2015</th>
<th>CY 2016</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Supply</td>
<td>$158</td>
<td>$156</td>
<td>-1.3%</td>
</tr>
<tr>
<td>System Access</td>
<td>$257</td>
<td>$259</td>
<td>0.8%</td>
</tr>
<tr>
<td>Water Stewardship</td>
<td>$41</td>
<td>$41</td>
<td>-</td>
</tr>
<tr>
<td>System Power</td>
<td>$126</td>
<td>$138</td>
<td>9.5%</td>
</tr>
<tr>
<td>Treatment</td>
<td>$341</td>
<td>$348</td>
<td>2.1%</td>
</tr>
<tr>
<td>Tier 1 Untreated</td>
<td>$582</td>
<td>$594</td>
<td>2.1%</td>
</tr>
<tr>
<td>Tier 1 Treated</td>
<td>$923</td>
<td>$942</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

### Transportation increase of 3.3%

- **CY 2016 fixed charge decreases**
  - Readiness-to-Serve Charge (RTS) - $153M for a decrease of 3.2%
  - Capacity Charge - $10,900/cfs for a decrease of 1.8%
MWD Remains the Largest Share of Water Cost

- MWD Costs: 31.4%
- Desalination: 24.4%
- IID Water Purchases*: 19.7%
- MWD Exchange Agreement Costs: 24.1%
- Canal Water Purchases: 0.3%

MWD Represents 55.5% of the Cost of Water

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’s 2.1% treatment rate increase mitigated

Total Cost = $47.3M

- MWD: 43%
- Twin Oaks: 24%
- Helix: 8%
- Desal: 25%

0.7% Rate Increase
Meeting Goals and Objectives

• Smooth and predictable rates
  – Mitigating the rate impact of mandatory water use regulations
  – First full year of desalination costs
  – Meeting the RSF target
    • Essential tool for rate and charge smoothing
    • RSF target increases significantly as revenues become more subject to volatility

Current Board Policy - RSF Fund Balance Requirements
# Proposed CY 2016 Rates & Charges

<table>
<thead>
<tr>
<th>Water Authority Rates and Charges</th>
<th>CY 2014 Previous</th>
<th>CY 2015 Current</th>
<th>CY 2016 Proposed</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Melded Supply Rate ($)/AF)</td>
<td>$732</td>
<td>$764</td>
<td>$780</td>
<td>2.1%</td>
</tr>
<tr>
<td>Melded Treatment Rate ($)/AF)</td>
<td>$274</td>
<td>$278</td>
<td>$280</td>
<td>0.7%</td>
</tr>
<tr>
<td>Transportation Rate ($)/AF)</td>
<td>$97</td>
<td>$101</td>
<td>$105</td>
<td>4.0%</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>$63.2</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>Supply Reliability Charge (millions)</td>
<td>-</td>
<td>-</td>
<td>$26.0</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Other Rates and Charges</strong></td>
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<td></td>
</tr>
<tr>
<td>Untreated Special Agricultural Water Rate ($)/AF)</td>
<td>$593</td>
<td>$582</td>
<td>$594</td>
<td>2.1%</td>
</tr>
<tr>
<td>Treated Special Agricultural Water Rate ($)/AF)</td>
<td>$867</td>
<td>$860</td>
<td>$874</td>
<td>1.6%</td>
</tr>
<tr>
<td>IAC</td>
<td>$2.68/ME(^1)</td>
<td>$2.76/ME</td>
<td>$2.76/ME</td>
<td>0%</td>
</tr>
<tr>
<td>Standby Availability Charge(^2) per parcel or acre, whichever is greater</td>
<td>$10</td>
<td>$10</td>
<td>$10</td>
<td>0%</td>
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<tr>
<td>System Capacity Charge(^3)</td>
<td>$4,681/ME</td>
<td>$4,681/ME</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Treatment Capacity Charge(^3)</td>
<td>$119/ME</td>
<td>$119/ME</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

\(^1\) ME means meter equivalent as defined in the resolution establishing the Infrastructure Access Charge
\(^2\) Fiscal year charge
\(^3\) Charges will be administratively adjusted effective January 2016.
## Proposed CY 2016 M&I Water Rate Breakdown

<table>
<thead>
<tr>
<th>Rates and Charges ($/AF)</th>
<th>Restated CY 2015 Rates</th>
<th>Proposed CY 2016 Rates</th>
<th>Proposed CY 2016 Change in Rate</th>
<th>Percent Change</th>
</tr>
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<tbody>
<tr>
<td>Melded Supply Rate</td>
<td>$764</td>
<td>$780</td>
<td>16</td>
<td>2.1%</td>
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<tr>
<td>Melded Treatment Rate</td>
<td>278</td>
<td>280</td>
<td>2</td>
<td>0.7%</td>
</tr>
<tr>
<td>Transportation</td>
<td>101</td>
<td>105</td>
<td>4</td>
<td>4.0%</td>
</tr>
<tr>
<td>Storage*</td>
<td>161</td>
<td>161</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Customer Service*</td>
<td>61</td>
<td>61</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Supply Reliability Charge*</td>
<td></td>
<td>52</td>
<td>52</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Total Cost of Treated Water</strong></td>
<td><strong>$1,365</strong></td>
<td><strong>$1,439</strong></td>
<td>74</td>
<td><strong>5.4%</strong></td>
</tr>
<tr>
<td><strong>Total Cost of Untreated Water</strong></td>
<td><strong>$1,087</strong></td>
<td><strong>$1,159</strong></td>
<td>72</td>
<td><strong>6.6%</strong></td>
</tr>
</tbody>
</table>

Excludes the Water Authority’s IAC and MWD’s RTS and Capacity charges.

* Customer Service, Storage and Supply Reliability Charges converted to $/AF based on sales forecast.
Estimated Breakdown of the CY 2016 Treated Water Rate and Charge Increases

Increase Breakdown*
$74/AF

- Melded Supply Rate 22%
- Melded Treatment Rate 3%
- Transportation 5%
- Supply Reliability 70%

Breakdown of the 5.4% Increase

- Melded Supply Rate 1.19%
- Melded Treatment Rate 0.16%
- Transportation 0.27%
- Supply Reliability 3.78%

*Excludes Water Authority meter charge and MWD pass-through costs. Customer Service and Storage Charges converted to $/AF based on sales forecast.
## Proposed CY 2016 Rate and Charge Summary

<table>
<thead>
<tr>
<th>Rates and Charges ($/AF)</th>
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<td>Customer Service(^1)</td>
<td>61</td>
<td>61</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Supply Reliability Charge(^1)</td>
<td>52</td>
<td>52</td>
<td>NA</td>
<td>NA</td>
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<td><strong>Total Cost of Treated Water</strong></td>
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<table>
<thead>
<tr>
<th>Rates and Charges</th>
<th>Adopted CY 2015 Rates</th>
<th>Proposed CY 2016 Rates</th>
<th>Proposed CY 2016 Change in Rate</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAC</td>
<td>$2.76/ME/Month</td>
<td>$2.76/ME/Month</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Standby Availability(^2)</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 Charge(^3)</td>
<td>$10,738,140</td>
<td>$12,406,380</td>
<td>$1,668,240</td>
<td>15.5%</td>
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<tr>
<td>MWD Readiness-to-Serve(^2,3)</td>
<td>$25,043,402</td>
<td>$22,145,912</td>
<td>($2,897,490)</td>
<td>-11.6%</td>
</tr>
</tbody>
</table>

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\(^1\) Fixed Charge  
\(^2\) Fiscal Year Charge  
\(^3\) Adopted by the MWD Board on May 12, 2015
Proposed Untreated Water Rate

**Untreated Water Rate**

- **Proposed CY 2016**
  - Untreated Water Rate: $1,159 (6.6%)

**Calendar Year**

- 2014: $986
- 2015: $1,033
- 2016: $1,146
- 2017: $1,210
- 2018: $1,273
- 2019: $1,334

**Rate Forecast**

- 2011 Rate Forecast
  - High Rate Scenario: $1,334
  - Low Rate Scenario: $1,210

**Current Restated Rate**

- $1,087
Proposed Treated Water Rate

Treated Water Rate

Proposed CY 2016 Treated Water Rate $1,439 (5.4%)

Current Restated Rate $1,365

2011 Rate Forecast High Rate Scenario

2011 Rate Forecast Low Rate Scenario

Calendar Year

$1,800
$1,750
$1,700
$1,650
$1,600
$1,550
$1,500
$1,450
$1,400
$1,350
$1,300
$1,250
$1,200
$1,231
$1,280
$1,300
$1,350
$1,400
$1,450
$1,500
$1,530
$1,550
$1,600
$1,650
$1,700
$1,750
$1,800

2014
2015
2016
2017

$1,418
$1,559
$1,648
$1,717
$1,231
$1,280
$1,404
$1,530
$1,400
$1,450
$1,500
$1,550
$1,600
$1,650
$1,700
$1,750
$1,800

Proposed CY 2016 Treated Water Rate $1,439 (5.4%)
Financial Performance Metrics – Debt Service Coverage Ratios

- Achieves the Board’s policy target of 1.50x in FYs 2016 – 2020
Financial Performance Metrics

Current Board Policy - RSF Fund Balance Requirements

- Rate Stabilization Fund
- RSF Target Ending Balance
- RSF Maximum Allowable Ending Balance
• Significant withdrawals from the PAYGO fund are projected
Impact of CY 2016 Rate Increase on Composite Monthly Residential Bill

- 5 Retail Agency Average Composite Cost (CY 2015)
  - Fixed Charge: $21.29 monthly
  - Commodity Charge: $58.05
  - Composite Monthly Residential Bill: $79.34

<table>
<thead>
<tr>
<th>Wholesale Charges</th>
<th>Proposed Rates Monthly Retail Cost</th>
<th>Percent Retail Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>$2.48</td>
<td>3.1%</td>
</tr>
<tr>
<td>Treated</td>
<td>$2.55</td>
<td>3.2%</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 63% of the wholesale cost of water
- The remaining 37% or $24.75/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

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Estimated CY 2016 Wholesale Costs per Household*

- MWD Costs: $27.22
- IID/QSA & Desalination Supply costs: $14.10
- Water Authority Capital Costs: $19.83
- Water Authority Operating Costs: $4.92

TOTAL: $66.07/month

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

• Extraordinary pressures
  – Mandatory SWRCB water use regulations – 20% average reduction in water usage
  – First full year of desalinated water deliveries
  – MWD rate and charge increases

• Proactive financial management
  – Debt defeasance and restructuring provided significant rate and charge relief
  – Level of rate increases reflect better preparation for this drought
  – Highlights how essential the Rate Stabilization Fund is to rate and charge smoothing

• Rate and charge increases inline with guidance
  – Treated increase 5.4%
  – Untreated increase 6.6%

• Overall rate and charge increase will vary by member agency depending upon the fixed charge allocations
Today’s Board Actions

b. Adopt Ordinance No. 2015-__ 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, and extending the Transitional Special Agricultural Water Rate Program;

c. Adopt Resolution No. 2015-__ a resolution of the Board of Directors of the San Diego County Water Authority continuing the Standby Availability Charge; and

d. 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.
Professional Services Contract with Delta Systems Engineering, Inc.

Engineering & Operations Committee Meeting
June 25, 2015
SCADA Maintenance

- Requires In-depth Knowledge of the SCADA system
- Software Upgrades and Failure Response
- Contract Extension negotiated back to 2014 rates
# As-needed Contracts

## Types of Services

<table>
<thead>
<tr>
<th>Construction Management</th>
<th>Acquisition Services</th>
<th>Traffic Control Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Management Support</td>
<td>Real Estate Title Services</td>
<td>Bridge Crane Cal/OSHA PM, Inspection, Testing and Repairs</td>
</tr>
<tr>
<td>Project Management &amp; Peak Support</td>
<td>2-way Radio Testing, PM, Repair and Installation</td>
<td>Manhole and Appurtenance Raising</td>
</tr>
<tr>
<td>In-Plant &amp; Field Inspection</td>
<td>Electrical Maintenance</td>
<td>Conservation Program Evaluations</td>
</tr>
<tr>
<td>Hydraulic Transient Analysis</td>
<td>Generator Maintenance</td>
<td>Water Use Efficiency Field Services</td>
</tr>
<tr>
<td>Controls and Electrical Design</td>
<td>Asphalt and Concrete Cutting Services</td>
<td>Agricultural Management Services</td>
</tr>
<tr>
<td>Structural Engineering</td>
<td>Heavy Equipment Hauling</td>
<td>Translation Services</td>
</tr>
<tr>
<td>Pipeline Condition Assessment &amp; Forensics</td>
<td>Calif. Dept. of Forestry (Cal FIRE)</td>
<td>Photography</td>
</tr>
<tr>
<td>Environmental Assessment</td>
<td>In-shop Fabrication, Repair, and Machine Shop Services</td>
<td>Regulatory Technical Support</td>
</tr>
<tr>
<td>Appraisal</td>
<td>On-call Valve Actuator Repair and Installation</td>
<td>Environmental Consulting Services</td>
</tr>
<tr>
<td>Land Survey</td>
<td>SCADA Maintenance</td>
<td>Post construction Habitat Restoration</td>
</tr>
</tbody>
</table>
Recommendation

- Approve Amendment 3 to the professional services contract with Delta Systems Engineering, Inc., to add one year to the term, changing the expiration date from June 30, 2016 to June 30, 2017 and adding $400,000 to the contract amount for a new contract amount of $1,350,000 for continued as-needed Supervisory Control and Data Acquisition software maintenance services.
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) 2015

FY 2015 AOP Projections vs. Historical High Demand (FY2004)

- Average Monthly Flow (cfs)
- Percent Treated Water System Capacity
Untreated Water: Projected Demand vs Deliveries for FY2015
Treated Water Delivery (FY2016)
Untreated Water Delivery (FY2016)

![Graph showing average monthly flows and historical high demand.]
Untreated Distribution Priorities

June 1, 2015 – October 31, 2016

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

November 1, 2015 – May 31, 2016
Aqueduct Shutdowns and Outages

Nov 1 – Nov 10, 2015: Untreated
1. RPH internal inspection
2. San Vicente Pipeline warranty inspection
3. San Vicente Bypass Pipeline/1st Aqueduct connection

Nov 3 – Nov 12, 2015: Untreated
2. Lake Hodges Hydroelectric Facility annual maintenance

Feb 28 – Mar 3, 2016: Treated
3. Carlsbad Desalination Plant semi-annual maintenance

Feb 28 – Mar 3, 2016: Treated
2. Pipeline 3 internal condition assessment (Diversion to Paint Mtn)
3. CR1 FCF Replacement (Feb 28 – Mar 8 only)
4. San Marcos Vent Modification warranty inspection (Feb 28 – Mar 8 only)

Oct 2015 – May 2016: Treated
1. Miramar Pump Station will be out of service for rehabilitation

Mar 7 – Mar 16, 2016: Untreated
4. Lake Hodges Hydroelectric Facility semi-annual maintenance

Dec 6 – Dec 19, 2015: Treated
1. Ramona Pipeline pump well and cathodic protection installation

Nov 3 – Nov 12, 2015: Untreated
2. Lake Hodges Hydroelectric Facility annual maintenance

Feb 28 – Apr 3, 2016: Treated
2. Pipeline 3 internal condition assessment (Diversion to Paint Mtn)
3. CR1 FCF Replacement (Feb 28 – Mar 8 only)
4. San Marcos Vent Modification warranty inspection (Feb 28 – Mar 8 only)

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

- **11/1/2015 – 1/31/2016 (Tentative)**
  - Meyer’s Siphon Replacement/Rehabilitation
    - (Vista)

- **11/30/2015 – 3/31/2016**
  - Cool Valley Reservoir Rehabilitation
    - (Valley Center)

- **11/1/2015 – 11/10/2015**
  - San Vicente Reservoir By-Pass Pipeline Connection
    - (San Diego)

- **12/10/2015 – 12/31/2015**
  - Weese WTP Shutdown
    - (Oceanside)

- **1/1/2016 – 1/31/2016**
  - Berglund WTP Shutdown
    - (Poway)
FY2015 Energy Production

- Rancho Peñasquitos
  - Actual (11 Months): $558,852

- Lake Hodges Pump Storage
  - Actual (11 months): $2,869,730
  (Sources of Revenue: 80% Availability/
   20% O&M Variability Payment)
FY2016 Projected Energy Production

- Rancho Peñasquitos
  - Goal: $700,000

- Lake Hodges Pump Storage
  - Goal: $2,800,000 (based on availability charges)
Regional Usable Capacity
- 570,399 Acre Feet (AF)

May 4 Usable Inventory
- 192,254 AF (34%)
Asset Management Activities

Last year included:

- Pipeline 3 Condition Assessment (Point of Delivery to Twin Oaks)
- Rancho Peñasquitos Hydroelectric Facility electric actuator replacements
- New control valve and venturi meter at San Diego 11 FCF
- Tri-Agencies Pipeline Leak Detection (Smart Ball)
- North County Distribution Pipeline Remote Operated Vehicle (ROV) inspection
Next Year:

- Pipeline 3 Condition Assessment (San Marcos to Rancho Peñasquitos)
- Ramona Pipeline Cathodic Protection Project
- Flow control facility electric actuator replacements (30 locations)
- Conversion of 37 facilities to an encrypted 3G/4G wireless technology for communication to the SCADA system
- Rotating equipment condition assessment
Aqueduct Operating Plan – Future

- Operating Heads (monthly)
- FY2017 AOP Schedule
  - Shutdown schedule to Operating Heads/MWD – Jan 2016
  - General Managers – June 2016
  - Board – June 2016
Update on Supply Conditions and Drought Response Activities

Water Planning Committee
June 25, 2015 Meeting

Presentation by:
Alexi Schnell, Water Resources Specialist
Lisa Marie Harris, Director of Finance
SWP & CRA Hydrology

State Water Project
- Less than 10% precipitation occurs May - September
- Hydrology no longer a driver for Water Year 2015
- SWP Allocation at 20%

Colorado River Basin
- Approximately 1/3 of precipitation occurs May – September
- May 2015 – 224% of normal precipitation
- Expect probability of shortages for 2016 to be reduced
  - BOR update around July 15th
State Water Project
Lake Oroville Storage


Current Year 41% Capacity

Last Year

Record Low

(as of June 23, 2015)
San Luis Reservoir Storage

- **Current Year**: 44% Capacity
- **Last Year**: (as of June 23, 2015)

San Luis Reservoir Reservoir Level (AF)

- **Total Reservoir Capacity**: 2,041,000 AF
- **Average (1922-1998)**
- **2013-2014**
- **2014-2015 (current)**

San Diego County Water Authority
Upper Colorado River Basin Hydrology

One third of the precipitation occurs May - Sep

88%*

* BOR June 16, 2015 Forecast for Water Year
Fiscal Year Potable Water Use in Water Authority Service Area

Acre-Feet

- Figures include urban and agricultural water use
Average Daily Maximum Temperature at Lindbergh Field – Departure from Normal (°F)

Fiscal Year 2014
Fiscal Year 2015

Fiscal Year 2014
Fiscal Year 2015

Hotter
Cooler

San Diego County Water Authority
Temperature Outlook: Above Normal
July 2015 – September 2015

Three-month outlook temperature probability
0.5 month lead
Valid JAS 2015
Made 18 Jun 2015

EC means equal chances for A, N, B
A means above
N means normal
B means below

San Diego County Water Authority
Greater than 90% chance El Niño will continue through fall 2015

Approximately 85% chance El Niño will continue through the 2015-16 winter

Harder to predict strength than duration, but El Niño continues to intensify

Forecasters currently favor a strong event for the fall/early winter

Very strong El Niño could bring substantial precipitation
SWRCB Emergency Regulation
Updated Member Agency Conservation Standards*

*Based on R-GPCD data current as of 6/11/15

Carlsbad: 28%
Escondido PUD: 20%
Fallbrook PUD: 36%
Helix WD: 20%
Lakeside WD: 20%
Oceanside: 20%
Olivenhain MWD: 20%
Otay WD: 20%
Padre Dam MWD: 20%
Poway: 20%
Rainbow MWD: 20%
Ramona MWD: 36%
Rincon del Diablo MWD: 36%
San Diego: 28%
San Dieguito WD: 28%
Santa Fe ID: 24%
Sweetwater Authority: 12%
Vallecitos WD: 16%
Valley Center MWD: 16%
Vista ID: 20%
Conservation Water Pricing
Conservation Water Pricing – State Water Resources Control Board (SWRCB)

- SWRCB soliciting comments on conservation water pricing by July 1

- SWRCB Board Hearing on July 8

- Discussed with Member Agency General Managers on June 16

- Water Authority preparing a letter including Member Agency comments by the July 1 deadline
Conservation Water Pricing

- SWRCB does not have the authority to impose/require the setting of specific rate structures
  - Seeking to assist and support urban water agencies with conservation water pricing

- Water conservation pricing is part of the answer to reaching the conservation targets - Multifaceted approach must be taken
  - Education and Outreach
  - Market Transformation
  - Efficiency Standards
  - Landscape Ordinance

- Water industry developed models, guidelines, BMP 1.4 which provide conservation water pricing

- SWRCB's role should focus on identifying information gaps which can be filled to assist water agencies
2015 IRWM Implementation Grant Application

Water Planning Committee
June 25, 2015

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

<table>
<thead>
<tr>
<th>Funding source</th>
<th>Date 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>
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<tbody>
<tr>
<td>Proposition 50</td>
<td>2008</td>
<td>19</td>
<td>$25 million</td>
<td>$19.6 million</td>
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<td>4</td>
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<tr>
<td>Proposition 84, Round 1</td>
<td>2011</td>
<td>11</td>
<td>$7.9 million</td>
<td>$3.8 million</td>
<td>--</td>
<td>2</td>
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<tr>
<td>Proposition 84, Round 2</td>
<td>2014</td>
<td>7</td>
<td>$10.5 million</td>
<td>$666,000</td>
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<td>--</td>
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<tr>
<td>Proposition 84, Drought Solicitation</td>
<td>2014</td>
<td>7</td>
<td>$15.1 million</td>
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<td>--</td>
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<tr>
<td>Totals</td>
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<td>44</td>
<td>$58.5 million</td>
<td>$24 million</td>
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</table>
IRWM 2015 Prop 84 Grant Program

- Final round of Prop 84 IRWM Implementation Grant funding
- $31.1 million remaining for San Diego region
- Grant application due: August 7, 2015
- Draft awards announced: October 2015
- Final awards announced: December 2015
Project selection process

Suite of projects for grant application

- Water supply projects
- Water quality projects
- Natural resource projects

Steps:
- Submit to Database
- Numeric Scoring and Ranking
- Project Selection Workgroup
- RAC Approval
- Prepare Grant Application
Project Selection Workgroup

Project evaluation criteria

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

Formal decisions required 2/3 vote

Unanimous recommendation went to RAC

Reviewed 20 projects in depth
# Recommended IRWM 2015 Grant Project Package

<table>
<thead>
<tr>
<th>Project</th>
<th>Sponsor</th>
<th>Workgroup Recommendation</th>
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<tbody>
<tr>
<td>Rural DAC Partnership Project – Phase III</td>
<td>Rural Community Assistance Corporation</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>San Diego River Healthy Headwaters Restoration Project</td>
<td>USDA Forest Service</td>
<td>$2,116,000</td>
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<tr>
<td>Conserving Water, Creating Energy in the Chollas Creek Watershed</td>
<td>Groundwork San Diego</td>
<td>$542,000</td>
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<tr>
<td>City of San Diego Water Conservation Enhancement Partnership Project</td>
<td>City of San Diego</td>
<td>$866,000</td>
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<tr>
<td>UC San Diego Water Conservation and Watershed Protection Project</td>
<td>UC San Diego</td>
<td>$1,435,000</td>
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<tr>
<td>Project</td>
<td>Sponsor</td>
<td>Workgroup Recommendation</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------------------------</td>
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<tr>
<td>Padre Dam Water Recycling Facility, Phase 1 Expansion</td>
<td>Padre Dam MWD</td>
<td>$6,000,000</td>
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<tr>
<td>2015 Regional Drought Response Program</td>
<td>San Diego County Water Authority</td>
<td>$3,800,000</td>
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<tr>
<td>Safari Park Drought Response and Outreach Project</td>
<td>Zoological Society of San Diego</td>
<td>$2,900,000</td>
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<td>Sweetwater Reservoir Wetlands Habitat Recovery Project</td>
<td>Sweetwater Authority</td>
<td>$1,500,000</td>
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<tr>
<td>City of Escondido’s MFRO Facility for Agriculture</td>
<td>City of Escondido</td>
<td>$2,000,000</td>
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</table>
### Recommended IRWM 2015 Grant Project Package (cont.)

<table>
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<tr>
<th>Project</th>
<th>Sponsor</th>
<th>Workgroup Recommendation</th>
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</thead>
<tbody>
<tr>
<td>Hodges Reservoir Natural Treatment System</td>
<td>City of San Diego</td>
<td>$2,886,472</td>
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<tr>
<td>Conservation 101</td>
<td>San Elijo Joint Powers Authority</td>
<td>$2,500,000</td>
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<tr>
<td>Ms. Smarty-Plants Grows Waterwise Schools</td>
<td>The Water Conservation Garden</td>
<td>$652,000</td>
</tr>
<tr>
<td>Grant Administration</td>
<td>San Diego County Water Authority</td>
<td>$933,943</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td><strong>$31,131,415</strong></td>
</tr>
</tbody>
</table>
13 recommended projects

- Total Project Costs: More than $190 million
- Total Grant Recommendation: $31.1 million
Water Authority Project

- 2015 Regional Drought Response Program
- Recommended $3.8 million funding to support 6 elements
  - WaterSmart Landscape Makeover Program
  - Correctional facility retrofit
  - Turf Replacement Rebate Program
  - Agricultural Water Use Efficiency Program
  - WaterSmart Field Services Program
  - Drought outreach and education
Why is Board Action Necessary?

Board approval is required by DWR before we may submit IRWM 2015 Implementation Grant application.

Also required so that Water Authority may accept grant funds that are awarded and enter into contracts to distribute the funds to the project sponsors.
Staff recommendation

- Adopt Resolution No. 2015-______ authorizing the General Manager to submit a 2015 Integrated Regional Water Management (IRWM) Final Round implementation grant application for $31,131,415, accept the grant funds that are awarded and enter into contracts to distribute the funds to the project sponsors.
Professional Services Contract
As-needed Environmental Consulting and Habitat Restoration Services
Coachella Canal Lining Post-Construction Mitigation

Imported Water Committee
June 25, 2015
Background—Canal Lining

Coachella Canal Lining Project

All-American Canal Lining Project

Salton Sea

Colorado River

Imperial Dam

Laguna Dam
Completed Mitigation Projects

- Wister Sport Fishery
- Fencing along the canal
- Mature Trees
- Wildlife Watering Ponds
CCLP Remaining Post Construction Mitigation Project Location

Dos Palmas Area of Critical Environmental Concern

SALTON SEA
Advertisement and Selection

- Request for Proposals advertised in San Diego and Riverside County

- Evaluation of Written Proposals and Oral Interviews

- Amec Foster Wheeler Environment & Infrastructure, Inc. is most Qualified
Staff Recommendation

Approve a professional services contract for a five-year term with Amec Foster Wheeler Environment & Infrastructure, Inc. to provide As-needed Environmental Consulting and Habitat Restoration Services for the Coachella Canal Lining Post Construction Mitigation Projects in an amount not to exceed $3,000,000.
Water Authority Outreach Efforts
First Quarter 2015

- Alpha Phi Sorority
- ASCE Infrastructure Symposium
- Boy Scout Troop, San Carlos
- Building Owners and Managers Association
- City Heights Area Planning Committee
- California Landscape Contractors Association, San Diego Chapter
- Citizens Water Academy (3)
- Community Planners Committee
- Conservation Action Committee
- Construction Specification Institute San Diego
- California Urban Water Conservation Council
- Cuyamaca College Professional Development's Environmental Sustainability Committee
- Daughters of the American Colonists
- Economic Development Corporation Roundtables (2)
- El Cerrito Community Council
- Elsevier Inc.
- Equinox Center
- Escondido Sunrise Rotary
- Harold Hilliker Farm Day
- Illumina Employees
- Incubator for Innovation
- International Society of Pharmaceutical Engineers
- LEAD San Diego County Water Authority
- Lunch+LEED
- Mission Federal Credit Union's Green Team
- National Active and Retired Federal Employees Association
- Past Grand Jurors Association of San Diego
- Point Loma Rotary Club
- Professional Women in Insurance
- Regional Construction Procurement Committee
- San Diego Association of Professional Landscape Designers
- San Diego Restaurant Association
- Santa Fe Trails Owners Association
- Sustainable Scripps Ranch
- Sustainable Turf and Landscape Seminar
- Technology Association
- Wednesday Club
Water Authority Outreach Efforts
Second Quarter 2015

- 2015 AEP Student Chapter
- Ardea Biosciences
- Asian Business Association
- Association of California Water Agencies
- AWWA ACE
- BIOCOM
- Building Industry Association, North County
- CAI HOA San Diego Chapter
- CAL State San Marcos
- California Apartment Association
- California Restaurant Association
- Carlsbad City Council
- Chamber Small Business
- Chambers Together
- Citizens Water Academy (3)
- Citizens Water Academy Alumni Event
- Construction Specification Institute
- Del Dios/Mt. Israel Town Council
- Del Mar Fairgrounds Board of Directors
- Economic Development Corporation
- Environmental Protection Agency
- Escondido Rotary
- Good Service Technology Center
- Green Scene San Diego
- greeNG Employee Resource Group, Northrup Gruman
- Industrial Environmental Association’s Sustainability Committee
- Industrial Environmental Association’s Water Committee
- Keller Williams Realty
- League of Women Voters
- League of Cities
- National City Neighborhood Council
- North County Civil Engineers and Land Surveyors
- North San Diego County Association of Realtors
- North County Chamber Executives
- North San Diego Business Chamber, Public Policy Committee
Water Authority Outreach Efforts
Second Quarter 2015 cont.

- Oceanside Economic Development Commission
- Our Gen Y Maritime
- Padre Dam Repurification Project Dedication
- Point Loma Optimists
- Port of San Diego Employees
- Press Club
- Prime Asset Management
- Rancho Santa Fe Democratic Club
- Rare Fruit Growers Association
- Realtors Association
- Regional Public Information Officers
- Smart Controller Workshop
- San Diego Chi Epsilon Alumni Association
- San Diego County Apartment Association
- San Diego County Fair "Enviro-Day"
- San Diego County Manager's Association
- San Diego County Sustainability
- San Diego Horticultural Society
- San Diego Regional Chamber Board
- San Diego Regional Chamber, Public Policy (2)
- Santa Fe Irrigation District Town Hall Meeting
- SDG&E Account Executives
- Sigma Alpha Epsilon Alumni Association
- Society of American Military Engineers
- Spirit of the Barrio
- Sunrise Rotary Chula Vista
- University Community Planning Group
- USD Associated Students
- Bernardo Elementary School Parent Reacher Association
- WateReuse San Diego Chapter
- WaterSmart Workshop (2)
- Western Governors Association
- Western Manufactured Housing Community Association
State Budget Update

Legislation, Conservation, and Outreach Committee
June 25, 2015

Glenn Farrel, Government Relations Manager
On June 15, the Legislature approved its version of the 2015–16 State Budget
  ◦ $117.5 billion in General Fund spending
  ◦ Approximately $2 billion more in spending than the Governor’s May Revise proposal

On June 19, the Legislature approved a compromise version of the 2015–16 State Budget
  ◦ $115.4 billion in General Fund spending

On June 24, the Governor signed the State Budget and all related trailer bills
Drought and Proposition 1

$1.4 B (Prop 1) to SWRCB
- $783 M – Groundwater contamination cleanup
- $132 M – Water recycling
- $180 M – Public water system infrastructure improvements
- $160 M – Wastewater treatment projects
- $100 M – Stormwater management projects

$162 M (Prop 1) to DWR
- $44.5 M – Desalination
- $38.8 M – Development of groundwater sustainability plans
- $30 M – Agricultural water use efficiency
- $45 M – Urban water conservation
- $4 M – Save Our Water public education/outreach program
Additional Emergency Drought Response Funding

$45 M (General Fund)
- Enhanced fire protection
- Farmworker assistance
- Water conservation at state facilities
- Rental relocation assistance
- Executive Order implementation
Trailer bills contain implementing language of the State Budget bill
- Typically approved concurrent with passage of budget bill
- Usually majority-vote only
- Often multiple issues combined into 1 or 2 related trailer bills

11 different trailer bills addressing water-related issues were circulated by the Administration

9 of the original proposals were ultimately approved in the Resources budget trailer bill – SB 88
Direct implementation of SWRCB mandatory water use restrictions and Governor’s Executive Order

- Drought expanded local enforcement authority (approved in SB 88)
- Drought penalties (approved in SB 88)
- Drought monitoring and reporting (approved in SB 88)
Water–Related Budget Trailer Bills

Additional drought response–related measures:
- Drought water system consolidation (approved in SB 88)
- Drought submetering (not included in TBL)
- CEQA exemption for groundwater wells (approved in SB 88)
- Drought stormwater plans (not included in TBL)
- CEQA exemption for drought mitigation (substantially narrowed version approved in SB 88)
- CEQA exemption for water recycling building codes (approved in SB 88)

Other water–related measures:
- Water Board drinking water program fees (approved in SB 83)
- Public well logs (approved in SB 83)
SB 88: Water System Consolidation

- Trailer bill language authorizes the SWRCB to:
  - Mandate consolidation of public water systems
  - Mandate extension of water service to an area outside of a public water system’s boundaries
- Trigger for SWRCB consolidation
  - “Where a public water system, or a state small water system within a disadvantaged community, consistently fails to provide an adequate supply of safe drinking water…”
- Outside scope of existing Local Agency Formation Commission (LAFCO) process
- Strong opposition coalition – statewide water and local government associations
- Approved by Legislature in SB 88
SB 88: CEQA Exemption for Drought Mitigation

- Trailer bill language exempts from CEQA:
  - Construction or expansion of recycled water pipeline and directly related infrastructure within existing rights of way
  - Infrastructure directly related to groundwater replenishment
  - Project must not affect wetlands or sensitive habitat
  - Construction impacts are fully mitigated consistent with law
  - Exemption only available during the drought state of emergency

- Approved by Legislature in SB 88
Questions?
Turf Replacement and Other Alternatives for Drought Response and Supply Reliability

Legislation, Conservation and Outreach Committee
June 25, 2015
Introduction

25% reduction by 02/28/16

$450 million Water Conservation Program Budget
Why Focus on Landscape Water Use?

Outdoor 53%

Indoor 47%

Source: 2011 California Single Family Water Use Efficiency Study
Water Authority’s Conservation Brand Identity

A Better Way to Beautiful
WaterSmart Turf Conversion Example
Location: Residence in City of San Diego

Before

After

Featured in “A Homeowner’s Guide to a WaterSmart Landscape”
# Water Authority Turf Replacement Rebate Program

## Rebate Amount by Sector*

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial</th>
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<tbody>
<tr>
<td></td>
<td>$1.50/SF</td>
<td>$1.50/SF</td>
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<tr>
<td>Max.</td>
<td>$3,000</td>
<td>$9,000</td>
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</table>

SF = square feet

- Converted areas must have existing turf and operational, in-ground irrigation system.
- Inspections required to measure project area.
- Participant must submit project-related receipts.
- Artificial turf or invasive plants not eligible.

*Grant-Funded

---
WaterSmart Turf Conversion Example
Location: HOA in Carlsbad

Before

After
MWD Turf Removal Program History

- **2008**: Member AgencyAdministered Program ($0.30/sq. ft.)
- **2009**: Rebate Increased ($1/sq. ft.)
- **2010**: Regional Program Launched
- **2011**: Board Increased Rebate to $2/sq. ft.
- **2012**: Additional Policies for Reservations over $100k
- **2013**: Board modified program; increased budget
- **2014**
- **2015**
Revised MWD Turf Removal Rebate Program

Rebate Amount by Sector:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Residential</th>
<th>Commercial</th>
<th>Public Agencies</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$2/SF</td>
<td>$1/SF</td>
<td>$2 per SF for 1st 3,000 SF; $1 per SF &gt; 3,000 SF Max. $50,000/yr.</td>
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<tr>
<td></td>
<td>Max. $6,000</td>
<td>Max. $25,000/yr.</td>
<td>Max. $50,000/yr.</td>
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</table>

- Converted areas must have existing live turf; irrigation system not required.
- Inspections and receipts not required.
- Artificial turf eligible; Invasive plants not mentioned.
- Nearly 100% coverage with gravel/mulch permitted.

SF = square feet
MWD Program Applications between 4/5/15 – 5/17/15

Number of Applications

<table>
<thead>
<tr>
<th>Date</th>
<th>Commercial</th>
<th>Residential</th>
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<tr>
<td>4/5/2015</td>
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<tr>
<td>4/12/2015</td>
<td>2,200</td>
<td>83</td>
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<tr>
<td>4/19/2015</td>
<td>2,500</td>
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<tr>
<td>4/26/2015</td>
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<td>5/3/2015</td>
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<td>5/10/2015</td>
<td>3,000</td>
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<tr>
<td>5/17/2015</td>
<td>2,000</td>
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Amount of Rebate Request ($ Millions)

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<thead>
<tr>
<th>Date</th>
<th>Commercial</th>
<th>Residential</th>
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<td>5/17/2015</td>
<td>$9.3</td>
<td>$7.3</td>
</tr>
</tbody>
</table>

Activity after Governor’s Executive Order
Effectiveness of Turf Programs

- Does not guarantee near-term water savings
  - Time to process and approve rebates
  - Potential planting during summer months
  - Establishment period water demands
- Regulations, education, devices achieve more immediate savings
## Comparative Cost of MWD Turf Program

Comparison of MWD Turf Removal and Device-Based Program Budget and Yield

<table>
<thead>
<tr>
<th>MWD Conservation Program</th>
<th>Budget</th>
<th>% of Dollars Budgeted</th>
<th>% of Total AF Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices</td>
<td>$92 million</td>
<td>26%</td>
<td>73%</td>
</tr>
<tr>
<td>Turf Removal</td>
<td>$256 million</td>
<td>74%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: MWD Water Planning & Stewardship Committee, May 11, 2015
In-Stem Regulators, CII
HE Large Rotor Nozzles, CII
HE Toilets, CII
FreeSprinklerNozzle.com Program
UL or Zero-Water Urinals, CII
Laminar Flow Restrictors, CII
Cooling Tower pH Controllers, CII
Cooling Tower Conductivity Controllers, CII
Industrial Pay-for-Performance
Large Landscape Customized Incentive
Connectionless Food Steamers (per Comp.), CII
WBIC, CII
WBIC < 1 Acre, Res.
Smart Timer Home Certification
HE Toilets (Flushometer), CII
Dry-Vacuum Pumps, CII
HE Nozzles, Res.
HE Pop-Up Spray Heads, CII
Industrial Program
Water Loss Control – Low
Sprayheads Incentive, Pressure-Regulating Body for Nozzles
Water Loss Control – High
Urinal Valve Retrofit Program
WBIC >= 1 acre, Res.
HE Clothes Washer, Res.
Water Loss Control – Low
Turf Removal
Spray to Drip Program
Air-Cooled Ice Machines
Water Budget Calculator Irrigation Schedule Modification
Hotel Program
MWD SoCal WaterSmart Cost Effectiveness

Source: CUWCC “Lessons Learned” Report
Program Controls (Fiscal)

Inaccuracy of Self-Reported Project Area

- 46% Underestimated Project Area
- 54% Overestimated Project Area

SDCWA inspections prevented overpayment of ~$300K
MWD program does not have similar controls
“Uglification” Effect

Project ineligible for Water Authority rebate; Project eligible for MWD rebate
Sustainable Landscapes

Achieving A New Normal in California Landscapes

Gathering to accelerate the pace of change toward more sustainable landscapes in California

2014 LANDSCAPE SYMPOSIA REPORT

California Urban Water Conservation Council

Sustainable Landscaping
Market Transformation Framework
Multiple Benefits

- Water efficiency
- Runoff reduction
- Embedded energy
- Green waste reduction
- Reduced greenhouse gas emissions
- Habitat restoration
- Labor reduction
Sustainable Landscapes Program
San Diego IRWM Prop. 84 Grant

- Long-term market transformation approach
- Multiple partners contribute program resources
Market Transformation “S Curve”

- Early Adoption
  - Information and Engagement
- Diffusion
  - Pilot Projects
  - Technical Assistance
  - Education and Training
  - Voluntary Guidelines
- Integration
  - Regulatory Changes
  - Codes and Ordinances
  - Continuous Improvement

Developed for SDCWA by A&N Technical Services
Drought Response Alternatives

Technical Assistance:
Landscape audits, leak detection and repair

Irrigation Management:
Pressure regulation, hardware upgrades, and water budgets

New Concepts:
“Tan lawn” incentives?
Long-Term Program Concepts

Homeowner Education

Industry Promotions

Workforce Training
Program Resources

- **Website**
- **Publications**
- **Technical Assistance**
- **Workshops**

**Want a Beautiful Water-saving Landscape?**

**Landscape Makeover Workshop Series**

Now accepting applications. Spring series begins February 23, 2013, at the San Diego Botanic Garden.

**FREE**

**WaterSmart Checkup**

**A Homeowner’s Guide to a WaterSmart Landscape**

**eGuide to a WaterSmart Lifestyle**

**Grow Smart!** Easy Ways to Plant a Water Saving Garden
Drought Response Outreach Update

Legislation, Conservation and Outreach Committee
June 25, 2015

Mike Lee and Lori Swanson
Public Outreach and Conservation Department
Advertising

• Extending ad buys through summer

CHECK WITH YOUR LOCAL WATER AGENCIES FOR DETAILS

CUT OUTDOOR WATERING TO NO MORE THAN TWICE A WEEK.
Whenindrought.org Traffic

Home Page Views

March 23–May 3: 5,000
May 4–June 14: 25,000
The ‘New’ Bucket List

• **Shower buckets in high demand**

Use them to:
• Collect warm-up water in the shower
• Collect water while rinsing dishes
• Collect water while rinsing fruits and vegetables
• Collect water used for boiling pasta or steaming vegetables
Partnerships

- Port of San Diego co-branded campaign
  - Signage
  - Online/social media
  - Tenant communications

Roadway median sign

Web/Facebook banner
Partnerships

• Armstrong Garden Centers
  • Messages in stores, classes

• Media Services Agency World Wide
  • Shopping center signs, billboards

Santee Trolley Square
Landscape Efficiency Classes

• Homeowners
  • Piloted 1-day classes with SDG&E
  • More convenient, larger audience
  • Proposed expansion in FY 2016

• Professionals
  • Water-efficient landscaper training in development

Homeowner design class at Rancho Santa Fe Garden Club
Partnerships with
San Diego Gas & Electric

- **Energy Saving Assistance Program**
  - Starts July 1
  - Free water-saving assistance for low-income residents

- **Sustainability Circles**
  - Two sessions in July
  - Provides business with a Sustainability Action Plan
Conservation Tools

• Regional water waste app
  • Multi-platform
  • Est. 4-6 weeks to launch

• Online landscape education for homeowners
  • Content development under way
  • Launch expected early fall
eGuide to a WaterSmart Lifestyle

• Monthly page views reach new high

• eGuide resources:
  • Links to videos, other tools
  • Free landscape design assistance
  • How to fix leaks
  • Gardening during drought