SWP Allocation for 2015

- Initial allocation of 10% of requested deliveries
- **Revised allocation of 15%** (announced Jan. 15)
- May change based on volume of rain and snow the remainder of this winter

<table>
<thead>
<tr>
<th>Year</th>
<th>SWP Final Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>5%</td>
</tr>
<tr>
<td>2013</td>
<td>35%</td>
</tr>
<tr>
<td>2012</td>
<td>65%</td>
</tr>
<tr>
<td>2011</td>
<td>80%</td>
</tr>
</tbody>
</table>
Sierra Snowpack Conditions

<table>
<thead>
<tr>
<th>Snowpack Area</th>
<th>Percent of Normal for Jan. 20, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Sierra</td>
<td>34%</td>
</tr>
<tr>
<td>Central Sierra</td>
<td>31%</td>
</tr>
<tr>
<td>Southern Sierra</td>
<td>31%</td>
</tr>
<tr>
<td>Statewide</td>
<td>31%</td>
</tr>
</tbody>
</table>
Reservoir Conditions - Lake Oroville

Lake Oroville Levels: Various Past Water Years and Current Water Year, Ending At Midnight January 20, 2015

Total Reservoir Capacity: 3,537,577 AF

Data Updated 01/21/2015 09:15 AM
Percentage of State in Exceptional Drought

November (55%)

December (32%)

January (39%)
(as of Jan. 13)
Colorado River Hydrologic Conditions
January 20, 2015

- Water year 2015 precipitation
  - 85% of average (9.1 inches)
- Basin snowpack water content
  - 93% of average
- Combined storage in Lake Mead and Lake Powell
  - 2015: 22.2 MAF, 44% Capacity
  - 2014: 22.5 MAF, 45% Capacity
Local Service Area Conditions

- Local reservoir storage on December 29, 2014 was approximately 237,906 AF, or 41% of capacity

<table>
<thead>
<tr>
<th>Water Year 2015 Precipitation Through January 20, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Station</strong></td>
</tr>
<tr>
<td>Lindbergh Field</td>
</tr>
<tr>
<td>Ramona Airport</td>
</tr>
</tbody>
</table>
Fiscal Year Potable Water Use in Water Authority Service Area

Figures include urban and agricultural water use.
Precipitation Outlook
January 23 – 29, 2015
Precipitation Outlook
February 2015 – April 2015

THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID FMA 2015
MADE 15 JAN 2015

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW
Temperature Outlook
February 2015 – April 2015

THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID FMA 2015
MADE 15 JAN 2015

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW
U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period

Valid for January 15 - April 30, 2015
Released January 15, 2015

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

Author: David Miskus, Climate Prediction Center, NOAA

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain. The green areas imply drought removal by the end of the period (D0 or none)
Approve Modifications to Water Authority’s Water Shortage and Drought Response Plan Allocation Methodology (Action)

Water Planning Committee
January 22, 2015

Presentation by:
Dana Friehauf, Acting Water Resources Manager
Agenda

• Timing and factors surrounding potential MWD supply cutbacks
  • Cutback level necessary to establish member agency allocations

• Background on Water Authority Municipal and Industrial (M&I) Allocation Methodology

• Staff recommendation
Key Factors

- SWP Allocation
  - Timing
  - Median Condition Forecast
- Demand/Supply Balance
- Available Storage
Developing Hydrology Is Important

- Prepared to bring WSAP recommendation
- Timing is based on developing hydrology
- Current DWR forecast shows 45% to 55% SWP allocation under median hydrology
  - Supplies would balance with demands
- DWR’s dry forecast shows about 20% SWP allocation
  - WSAP would be necessary
Background on Water Authority M&I Allocation Methodology

- Adopted in 2006 as part of the Water Shortage and Drought Response Plan
- Modified April 2012
  - Based on “lessons learned” from implementation
- Strives for equity among member agencies
- Uses historic demands as basis for allocation
  - Three most recently completed fiscal years when WSDRP is not activated
  - Adjustments made to base period to ensure equitable allocation
  - Base period representative of current water use
WSDRP Implementation Coordination Efforts

SDCWA Board of Directors

GM Drought Cabinet

Member Agency Drought Advisory Team

Staff Drought Response Team

Member Agency J PIC/CC*

*Joint Public Information Council and Conservation Coordinators
Member Agency Drought Advisory Team

- Convened December 16, 2014 consistent with WSDRP
- Supported selection of FY 2014 as Transitional Special Agricultural Water Rate program base period
  - Consistent with 2008 Board direction to select most recently completed fiscal year
- Supported potential modifications to M&I allocation methodology
  - Selection of FYs 2013/2014 as base period
  - Adjustment for mandatory use restrictions in place during the base period
Determining Historic Base Period Demands from Most Recent Fiscal Years

Historic Base Period demand should reflect current water use

Staff recommendation: Utilize two-year average of FY 2013 and FY 2014
Adjustment for Mandatory Use Restriction in Place during Base Period

- Adjustment to MWD Water Supply Allocation Plan (WSAP) approved December 2014
- Part of updating base period to FYs 2013/2014
- Equity issue for agencies with restrictions during base period
  - Recognize some restrictions no longer available to reduce demands
  - Could require higher level of restrictions to obtain savings

Waste Prohibitions
Adjustment for Mandatory Use Restriction in Place during Base Period (continued)

- Potentially increase Water Authority allocation from MWD, if:
  1. Water Authority member agency has mandatory use restrictions during base period; and
  2. Able to document demand reduction

- Staff recommends proportionally passing through increase directly to those agencies causing impact
  - Adjustment ensures equitable allocation
## Preparing for Potential Allocations in 2015

### Tentative Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 20, 2014</td>
<td>Informational report on Allocation Methodology and potential adjustments to MWD WSAP</td>
</tr>
<tr>
<td>Dec 9, 2014</td>
<td>MWD Board approves adjustments to WSAP</td>
</tr>
<tr>
<td>Dec 16, 2014</td>
<td>Member Agency Drought Advisory Team supports staff recommended modifications to methodology</td>
</tr>
<tr>
<td>Jan 22, 2015</td>
<td><strong>Consider approval of allocation methodology modifications</strong></td>
</tr>
<tr>
<td>March 10, 2015</td>
<td>MWD Board <em>potentially</em> sets WSAP level and allocation period</td>
</tr>
<tr>
<td>Feb/March 2015</td>
<td>Advisory Team reviews staff recommended member agency supply allocations</td>
</tr>
<tr>
<td>March 26, 2015</td>
<td>SDCWA Board considers approval of member agency allocations <em>(predicated on MWD setting WSAP level in March)</em></td>
</tr>
</tbody>
</table>
Staff Recommendation

Approve the following modifications to the Water Authority’s Water Shortage and Drought Response Plan allocation methodology

1. Temporarily alter the methodology to allow use of water demands in fiscal years 2013 and 2014 as the base period for potential allocations during the current shortage period; and

2. Include an additional adjustment pertaining to mandatory use restrictions in place during the base period.
WaterSmart Turf Replacement Program and Pilot Artificial Turf Discount Program Updates

Legislation, Conservation and Outreach Committee
January 22, 2015
Need for Conservation

- Continuing drought
- SBX7-7 – 20 percent reduction by 2020
- Significant amount of water used outdoors

![Pie chart showing water use distribution]

- Outdoor: 53%
- Clothes Washer: 8%
- Toilet: 10%
- Shower/Bath: 10%
- Faucet: 9%
- Leaks: 8%
- Other: 2%

Source: California Single Family Water Use Efficiency Study, June 2011
Water Use Efficiency Policy Principles

- Encourage market transformation
- Minimize ratepayer impacts
- Use grants where possible
- Implement programs where most effective
WaterSmart Turf Replacement Program

- Implemented December 2012

- Incentive to replace turf with WaterSmart landscaping and irrigation systems
  - $1.50 per sq. foot
  - $3,000 residential maximum
  - $9,000 commercial, industrial, institutional maximum

- Consistent with policy principles

- Incentives grant funded on first-come, first-served basis
## Sources of Program Funding

<table>
<thead>
<tr>
<th>Turf Replacement Rebate Program Funding Sources</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureau of Reclamation Grants</td>
<td>$192,633</td>
</tr>
<tr>
<td>Department of Water Resources, IRWM Proposition 50 Grant (Original)</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Department of Water Resources, IRWM Proposition 50 Grant (Amended)</td>
<td>$343,340</td>
</tr>
<tr>
<td>Department of Water Resources, IRWM Proposition 84, Round 2 Grant</td>
<td>$162,433</td>
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<tr>
<td>Department of Water Resources, IRWM Proposition 84 Drought Grant</td>
<td>$400,000</td>
</tr>
<tr>
<td>Fiscal Years 12-13 Operating Budget (Program Marketing)</td>
<td>$6,927</td>
</tr>
<tr>
<td>Fiscal Years 14-15 Operating Budget (Administrative Costs)</td>
<td>$20,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,125,333</strong></td>
</tr>
</tbody>
</table>
Monthly Program Applications

Number of Applications

Month - Year

- Dec-12: 15
- Jan-13: 24
- Feb-13: 17
- Mar-13: 23
- Apr-13: 24
- May-13: 41
- Jun-13: 42
- Jul-13: 32
- Aug-13: 29
- Sep-13: 21
- Oct-13: 22
- Nov-13: 12
- Dec-13: 3
- Jan-14: 16
- Feb-14: 24
- Mar-14: 43
- Apr-14: 41
- May-14: 51
- Jun-14: 72
- Jul-14: 96
- Aug-14: 185
- Sep-14: 236
- Oct-14: 220
- Nov-14: 136
- Dec-14: 110
Before – After Images
Program Performance

- Approximately 1,000 participant sites
- Replace more than 1 million sq. feet of turf
- Water savings of 1,350 acre-feet over 10 years
- Estimated cost $1,555 per acre-foot
Program Status

- Grant funds exhausted by existing applicants
  - Stop accepting new applicants
  - Processing remaining funding

- Continue to pursue new grant funding
  - Bureau of Reclamation
  - Proposition 84
  - Proposition 1

- Refer customers to turf removal incentives offered through MWD
Conservation Programs

- **Landscape Training Classes**
  - WaterSmart Landscape Makeover Series
  - California Friendly Training Classes

- **Rebates and Incentives**
  - San Diego County Garden Friendly Plant Fairs
  - Turf Replacement Rebate Program
  - On-Site Retrofit Pilot Program
  - SoCal WaterSmart Program (water-efficient devices and turf removal)
  - Water Savings Incentive Program
  - Artificial Turf Discount Program (pilot)

- **Audits and Surveys**
  - WaterSmart Checkup Program

- **Tools**
  - eGuide to a WaterSmart Lifestyle
  - Web-based WaterSmart Landscaping Tool
  - Residential Water-Use Calculator

- **Other**
  - WaterSmart Landscape Efficiency Program
  - Agricultural Water Management Program
  - Leak Loss Detection Program
Artificial Turf Pilot
Partnership Development

- September 2014 – Issued Request for Information
  - Meet with artificial turf companies
  - Solicit feedback on feasibility of partnership program

- November 2014 – Issued Request for Proposals
  - Competitive bidding to establish level of customer discount
  - Five companies bid
  - Turf Evolutions, Inc., scored highest
  - Discount: 10 percent on products and services
Customer Choices

- Program open to companies willing to match discount
- Customer can choose professional installation or self-installation
- Water Authority contributes to partnership through marketing and outreach
Monitoring Program Performance

- Collect monthly participation data

<table>
<thead>
<tr>
<th>Name</th>
<th>Original Purchase Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Discount Amount</td>
</tr>
<tr>
<td>Retail Water Agency</td>
<td>Final Purchase Price</td>
</tr>
<tr>
<td>Email</td>
<td>Square Feet Installed</td>
</tr>
<tr>
<td>Phone Number</td>
<td>Date Installed</td>
</tr>
</tbody>
</table>

- Visit installation sites
- Estimate water savings
Launch program in late January

One-year agreement, option for two-year extension
Drought Response Outreach Update

Legislation, Conservation and Outreach Committee
January 22, 2015

Jason Foster
Director, Public Outreach and Conservation
December Messaging

- Pushed turning off irrigation
- News media
- Social media

- Received extensive coverage
Community Partnerships

• Rekindled U-T San Diego partnership
  • Weekly feature (Home + Garden)
  • Answer drought/conservation questions
  • Start date Feb. 7
• Approaching community newspapers
• Working to expand partners

Encinitas Fire Dept.
Message Transition

• Objective: Reduce outdoor water use as much as possible this winter
• Sought input from member agencies
• Resulting themes:
  • How Low Can You Go?
  • Low, Lower, Lowest
How Low Can You Go?

Reduce outdoor water use this winter.

Learn more at whenindrought.org

Supported by the San Diego County Water Authority and its 24 member agencies. Partial funding for the When in Drought campaign was provided by a grant from the state Department of Water Resources.
How low can YOU go?

Low.

WHEN IN DROUGHT

Save every day, every way.

whenindrought.org

San Diego County Water Authority
Communication Plan

• Tips on whenindrought.org
• Posters/Web pop-ups
• Member agency communications
• Social media
• Ad buy
  • Radio, online, social media, weather tags

Aztec Athletics e-blast
Online and Social Media Advertising

- Multiple Platforms
  - Google Adwords, Facebook, LinkedIn and Twitter
- Cost-effective
- Targeted
Google AdWords

Search Ad

In Drought, Save Water.
SDCWA.org/SavingWater
Save Every Day, Every Way!
San Diego Rebates, Tips, and More.

Top ad

In Drought, Save Water. - Save Every Day, Every Way
SDCWA.org/SavingWater
San Diego Rebates, Tips, and More.

Display Ad

In San Diego County,
we save for sunny days.

Thank you
for saving water.

Learn more at
whenindrought.org

Video Ad
Facebook Ads

News Feed

Right Column

Mobile Feed Ad
Social Media (Free)

- Facebook, Twitter, LinkedIn and other
- Member Agencies
- Community/civic organizations, chambers
- Popular users
Federal Legislative Priorities

Legislation, Conservation, and Outreach Committee
January 22, 2015
Developing a Federal Legislative Action Plan

- Carpi & Clay actively represents the Water Authority and its interests in Washington, D.C.
- Federal advocacy based on Board policy direction within the Legislative Policy Guidelines
- The purpose of this product is to outline the implementation program to advance the Board’s policy objectives
- Staff will look for opportunities to coordinate with Member Agencies to advance regional federal legislative agenda
# Federal Legislative Priorities

<table>
<thead>
<tr>
<th>Federal Legislative Priorities (At-A-Glance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Participate and engage closely to influence the direction of emerging regulatory issues.</td>
</tr>
<tr>
<td>2. Communicate the Water Authority’s interests in the Bay–Delta Conservation Plan with the San Diego congressional delegation and other key federal officials.</td>
</tr>
<tr>
<td>3. Pursue continued federal funding appropriations for important regional water projects.</td>
</tr>
<tr>
<td>4. Continue to regularly apprise members of the San Diego congressional delegation of developments regarding the Water Authority’s interests in the Colorado River and Salton Sea restoration.</td>
</tr>
<tr>
<td>5. Communicate the Water Authority’s interests in federal efforts to provide relief for drought conditions in California and within the Colorado River Basin.</td>
</tr>
<tr>
<td>6. Continue to inform the regional congressional delegation regarding the Water Authority’s energy needs and contributions and explore options for federal funding support or regulatory relief to reduce energy costs and improve energy efficiency for the Water Authority.</td>
</tr>
<tr>
<td>7. Regularly apprise the San Diego congressional delegation and other key federal officials regarding the importance of tax-exempt public financing tools in meeting the Water Authority’s goals</td>
</tr>
</tbody>
</table>
Actions identified to advocate the Water Authority’s interests in Washington

- Close coordination with San Diego congressional delegation – regular program of education/information
- Work with industry associations to build strong advocacy coalitions
- Engage with congressional delegation and relevant legislators/staff to pursue Water Authority project-specific financial assistance
Actions to Implement Board’s Policy Direction

- More actions identified to advocate the Water Authority’s interests in Washington
  - Monitor legislative and regulatory actions to ensure prompt information sharing with the Water Authority
  - Identify opportunities for Water Authority’s direct advocacy – Board and management – with congressional delegation and in Washington
### Project Elements

<table>
<thead>
<tr>
<th>Project Name</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Marcos Vent</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Pipeline 3 Relining</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Twin Oaks Plant Modifications</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conveyance Pipeline</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carlsbad Treatment Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Commissioning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pipeline 3 Relining

- Physical work completed (1670 liners installed, portals restored, etc.)
- Hydrostatically tested
- Will be tested with entire 15 mile system when Conveyance Pipeline and Interconnect Facility completed.

- Final contract amount $24,416,768
- Notice of Completion at March 26, 2015 board meeting.
TOVWTP Modifications

- New 54-inch Dia. Connection and Valve Vault
- Existing Pipeline 3
- Clearwell Upgrades
- New 54-inch Dia. Piping
- Chemical Feed Facilities Upgrades
- TWFCF Upgrades

Existing Pipeline 3
Twin Oaks Improvements

- 54-inch steel pipeline connecting Pipeline 3 to clearwells
- Modify Clearwell 1
- Modify Clearwell 2
- Complete meter vault
- Complete chemical feed facilities
- Complete isolation valve vault
- Installation of ammonia valve
Conveyance Pipeline Progress to Date

- Safety: (319,000 work-hours) Two lost time injuries.
- Design: Over 100% complete
- Amount of pipe installed 34,500 48,000 feet (out of 53,000)
- Current work areas
  - Trench and tunnel work along Faraday Avenue – Multiple locations (Carlsbad)
  - Macario Tunnel (tunneling from Cannon Road is complete, and tunneling from Faraday Avenue is starting)
  - Work continues on pipeline interconnect facility
Desalination Plant

Desalination Conveyance Pipeline 10 miles of new 54-inch Pipe

TOVWTP Improvements

Pipeline 3 Relining

Pipeline 3 Work

Current Work

Aqueduct Connection Facilities

Desalination Plant

Progress on Macario Tunnel

Current Plant Tunnel Trench Work

Trench Work On Faraday

Tunnel at Melrose & Faraday

Scale (Feet)
Progress on Macario Tunnel

Desalination Plant

Current Plant Tunnel Trench Work

Agua Hedionda

Pacific Ocean
Desalination Plant Progress

- Safety: Two lost time injuries (359,000 man hours)
- Total working on project: 393 425
- Amount of concrete poured: 35,387 36,207 Cubic yards (92%) (94%)
- Amount of reinforcement steel: 3,573 3,845 tons (92%) (99%)
- Amount of conduit/pipe placed: 39,337 67,849 feet (49%) (73%)
- Design is 100% complete
- Overall: 62% 73% complete
Site Aerial: Facing North
Plant Construction – Intake Pump Station
Plant Construction – Pretreatment
Plant Construction – *Product Water Tank Pumps*
Product Water Tank
Carlsbad Desalination Conveyance Facilities  
“Contract Administration Memoranda”

<table>
<thead>
<tr>
<th>Contract Administration Memoranda Number/Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Credit</strong>: San Marcos Street Improvements not required</td>
<td>($190,000)</td>
</tr>
<tr>
<td>2. <strong>Credit</strong>: Department of Public Health cutoff wall and monitoring wells not required</td>
<td>($125,000)</td>
</tr>
<tr>
<td>3. <strong>Add</strong>: Property for air release and vacuum valve structures</td>
<td>$100,000</td>
</tr>
<tr>
<td>4. <strong>Add</strong>: Costs to permit and develop Macario tunnel design</td>
<td>$185,000</td>
</tr>
<tr>
<td>5. <strong>Administrative</strong>: Schedule of Values</td>
<td>No Cost</td>
</tr>
<tr>
<td>6. <strong>Add</strong>: Carlsbad Valve Vault (Reimbursable)</td>
<td>$ 29,300</td>
</tr>
<tr>
<td>7. <strong>Add</strong>: Vallecitos 9 Flow Control (Reimbursable)</td>
<td>$219,300</td>
</tr>
<tr>
<td>8. <strong>Credit</strong>: Pipe Coating Modifications</td>
<td>($209,930)</td>
</tr>
<tr>
<td>9. <strong>Credit</strong>: Reimbursement for Review of Over-pressurized Pipe</td>
<td>($ 17,390)</td>
</tr>
<tr>
<td>10. <strong>Add</strong>: Flow Meter Test</td>
<td>$ 54,000</td>
</tr>
</tbody>
</table>
## Carlsbad Desalination Conveyance Facilities

### “Contract Administration Memoranda” (cont.)

<table>
<thead>
<tr>
<th>Contract Administration Memoranda Number/Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowance for measures to handle pipeline pressure</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>• Final Modification Cost</td>
<td>$ 6,989,000</td>
</tr>
<tr>
<td>Current Balance</td>
<td>$ 3,011,000</td>
</tr>
</tbody>
</table>
### Carlsbad Desalination Project Budget Summary

<table>
<thead>
<tr>
<th>Task/Activity</th>
<th>Lifetime Budget ($ Millions)</th>
<th>Expended ($ Millions)</th>
<th>% Expended</th>
<th>% Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desalination Plant Water Purchase Agreement</td>
<td>$4.45</td>
<td>$1.96</td>
<td>44%</td>
<td>62%</td>
</tr>
<tr>
<td>Desalination Product Water Conveyance Pipeline</td>
<td>$11.77</td>
<td>$7.48</td>
<td>64%</td>
<td>80%</td>
</tr>
<tr>
<td>Pipeline 3 Desalination Relining</td>
<td>$31.90</td>
<td>$28.70</td>
<td>90%</td>
<td>99%</td>
</tr>
<tr>
<td>San Marcos Vent Desalination Modifications</td>
<td>$2.57</td>
<td>$2.57</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Twin Oaks Treatment Plant Modifications</td>
<td>$17.35</td>
<td>$16.36</td>
<td>94%</td>
<td>99%</td>
</tr>
<tr>
<td>Carlsbad and Vallecitos New Facilities for Desalination</td>
<td>$0.34</td>
<td>$0.02</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Desalination Intake Upgrade</td>
<td>$0.075</td>
<td>$ -</td>
<td>0%</td>
<td></td>
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<tr>
<td>Warranty</td>
<td>$0.52</td>
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<tr>
<td>Carlsbad Desalination Project Contingencies</td>
<td>$4.6</td>
<td>$ -</td>
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<tr>
<td>De-appropriated</td>
<td>$6.3</td>
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<tr>
<td>Total</td>
<td>$80.0</td>
<td>$57.17</td>
<td>71.5%</td>
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<tr>
<td>Proposition 50 Grant</td>
<td>$4.73</td>
<td></td>
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</tbody>
</table>
Environmental compliance activities underway:

- Water Authority to serve as “lead agency”

Starts with Notice of Preparation for the Supplemental EIR

- 30-day public review period
- Public scoping meeting to be held in Carlsbad
- Comments received will be considered during preparation of the Supplemental EIR
Current Intake Upgrade Schedule

November 2014 – April 2016: Env. Review / Permitting

July 2016 – late 2017: Design and Construction
Carlsbad Desalination Commissioning Approach

Engineering & Operations Committee
January 22, 2015
Water Authority Role in Commissioning

- WPA defines Water Authority role during plant commissioning
- Water Authority approvals required at key points during commissioning
  - Verify and acknowledge Plant has achieved Mechanical Completion
    - Required to begin Performance Test
  - Verify Plant has met the Performance Criteria during the Performance Test
  - Provide a certificate of Provisional Acceptance acknowledging start of commercial operations
  - Provide a certificate of Project Completion
## Commissioning Schedule

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Pre-commissioning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry/Wet Commissioning</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Overall Plant Commissioning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Commissioning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Operation</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Project Completion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>
### Why Commissioning?

<table>
<thead>
<tr>
<th># of instruments: 1,300</th>
<th># of membranes: 16,000</th>
</tr>
</thead>
<tbody>
<tr>
<td># of motors: 146</td>
<td># of vessels: 2,016</td>
</tr>
<tr>
<td># of pumps: 121</td>
<td># of energy recovery units: 144</td>
</tr>
<tr>
<td># of valves: 3,200</td>
<td># of flocculation chambers: 4</td>
</tr>
<tr>
<td># of actuators: 652</td>
<td># of filter basins: 18</td>
</tr>
<tr>
<td>Miles of onsite pipe: 15</td>
<td>Miles of new conveyance pipe: 10</td>
</tr>
<tr>
<td>Miles of conduit: 50</td>
<td>Miles of relined aqueduct pipe: 5</td>
</tr>
<tr>
<td># of Micronic filters: 16</td>
<td># of labor hours: 1,126,000</td>
</tr>
</tbody>
</table>

All working together to produce 50 Million Gallons a Day
Plant Commissioning Activities

- Pre-commissioning
  - Process & Instrument Diagram Walkthroughs
  - Instrument Calibration
  - Equipment & Valve Checkout
  - Loop Checks
- Dry Commissioning
  - Pump motors uncoupled
- Wet Commissioning
  - Pumping water through system
- Plant Commissioning
  - Plant operates in closed loop
  - Meet WPA water quality requirements
System Commissioning

- Full System Test
  - Pump water from Desal Plant to TOVWTP
  - 3-7 day test to confirm operation of combined system

- Performance Test
  - 30 day test to confirm sustained plant performance at required flow rates and product water quality

- Surge Test
Continuation of Investment Policy Update and Adoption

Administrative and Finance Committee
January 22, 2015

Presented by: Lisa Marie Harris,
Director of Finance
December A&F Committee Summary

- Existing policy was continued to allow further discussion
- Staff recommended Supranationals be added as a permitted investment, per amended State Code 1/1/2015
- Committee directed changes to the maximum portfolio allocation (Maximum set to 10%)
- Committee questions focused on:
  - Supranationals use as an asset class
  - Past performance of the asset class
  - Security/Structure of transactions
  - Use of funds – How are the proceeds spent?
## Overview of Supranationals

- California Government Code permits investment in the following Washington, D.C. based Supranational organizations, effective January 1, 2015:

<table>
<thead>
<tr>
<th>Name</th>
<th>Ownership/Year Founded</th>
<th>U.S. Shareholder Percent</th>
<th>Mission</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-American Development Bank</td>
<td>48 Member Countries/1959</td>
<td>30%</td>
<td>Lending operations in the agricultural, energy, and transportation industries</td>
<td>Aaa/AAA/AAA</td>
</tr>
<tr>
<td>International Bank for Reconstruction and Development</td>
<td>188 Member Countries/1944</td>
<td>16%</td>
<td>Loans to middle-income developing and low-income countries</td>
<td>Aaa/AAA/AAA</td>
</tr>
<tr>
<td>International Finance Corporation</td>
<td>184 Member Countries/1956</td>
<td>24%</td>
<td>Lending to the private sector in developing countries</td>
<td>Aaa/AAA</td>
</tr>
</tbody>
</table>
Key Points

- LAIF has been investing in Supranationals since 2009
  - Held approximately $400M on 9/30/2014
- Code change (effective 1/1/2015)
  - Expect it to be widely adopted by local agencies
    - City and County of San Francisco
    - City of San Diego
    - County of San Diego
    - Metropolitan Water District
    - Padre Dam Municipal Water District
- California Debt and Investment Advisory Commission’s research
  - Survey of investment advisors found overwhelming support behind adding the asset class to the Code
* The OAS is a measurement of the yield difference between a fixed income security and a similar maturing Treasury security (risk free rate) adjusting for any embedded options.
# Security for the Debt

<table>
<thead>
<tr>
<th>Entity</th>
<th>The World Bank</th>
<th>Inter-American Development Bank</th>
<th>International Finance Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Debt Outstanding</td>
<td>$79.1B</td>
<td>$40.6B</td>
<td>$25.1B</td>
</tr>
<tr>
<td>Security for Debt</td>
<td>Paid-in capital plus capital commitments of member shareholders</td>
<td>Paid-in capital plus capital commitments of member shareholders</td>
<td>Paid-in capital and quality of investment portfolio</td>
</tr>
<tr>
<td>Past Debt Restructuring?</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

- Rating agency general comments on credit quality
  - Significant member commitments
  - Level of leverage (well below limits)
  - Management of the investment portfolio

- Liquidity is comparable to that of Agencies
Supranationals’ uses of funds

- Loans are issued based upon governing policy goals and objectives
- Lending projects have included:
  - Mass transit development
  - Water supply, irrigation and sanitation
  - Renewable energy
  - Farming
- Projects are not the security for the debt

| Project Funding Regions | Worldwide; Latin America, the Caribbean, Europe and Central Asia represent 50% of loans | Americas, but most of the loans are held by South America countries | Worldwide; Asia, Europe and Central Asia represent 47% of loans |
Today’s Action

- Adopt the Annual Statement of Investment Policy, as amended, and continue to delegate authority to the Treasurer to invest Water Authority funds for calendar year 2015.
Agenda

Overall purpose:
- To solicit input from the Board on the development of the upcoming multi-year budget.

Agenda:
- Review framework of current budget
- Highlight accomplishments to date
- Identify key factors impacting upcoming budget
- Discuss future Board schedule
- Seek Board feedback
Framework of the FYs 14&15 Budget

- Gradually improving economy
- Emphasis on water efficiency and the true value of water
- Effort to supplement Water Authority programs with outside funding
- Ensure the full benefit of QSA to regional water supply reliability
- Continued focus on MWD activities and rate case
- Effort to identify Bay Delta solution
- Continued focus of cost containment
- Full transition to multi-faceted operating organization
- Carlsbad Desalination Project integration
- Asset Management Program
Continuous Improvement

- Organizational Restructuring
  - Consolidation of departments

- Allocation of resources
  - Transfer of positions
  - Downgrading classification
  - Position elimination

- Performance Improvement Projects
  - Evaluate Energy Program
  - Fleet Assessment
  - Succession Planning Program Expansion
  - Computer Purchase Assessment
  - Right-of-Way (ROW) Management Assessment
  - Accounts Payable Assessment
  - Grant Management and Administration Assessment
Highlights during FYs 14&15

**Carlsbad Desal**
- 80% complete on pipe
- 62% complete on plant
- 100% 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

**San Vicente Dam Raise**
- Completed July 2014
- 152,000 AF additional regional storage
- Marina will be complete in Spring 2015
Highlights during FYs 14&15

Bay Delta Conservation Plan (BDCP)
Highlights during FYs 14&15

- 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, MWH, Andritz and Archer-Western on Lake Hodges Projects ($31M)
- Defeased 2004 COPs - $3.7M annual savings through 2034
- Issued $50M of Extendable Commercial Paper saving $288,000 annually
  - Received A1+ rating from Standard and Poor’s
Factors impacting the development of the FYs 16&17 Budget

- Challenging water conditions
  - Likelihood of water supply allocations
  - Additional drought management efforts
- Asset Management Program implementation
- Continue to focus on efficiencies and effectiveness
  - Cost containment
  - Leveraging partnerships
- Carlsbad desalination deliveries
  - Water Purchase Agreement administration
- Secure Proposition 1 funding
## Schedule

<table>
<thead>
<tr>
<th>Key Board Dates</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 22</td>
<td>Discussion on development of FYs 16&amp;17 Recommended Budget</td>
</tr>
<tr>
<td>March 26</td>
<td>Consideration of Fiscal Sustainability Recommendations</td>
</tr>
<tr>
<td>April 23</td>
<td>Preliminary rate and charge guidance for CY16</td>
</tr>
<tr>
<td>May 28</td>
<td>A&amp;F Committee Presentation of Recommended Budget</td>
</tr>
<tr>
<td></td>
<td>Notice of public hearing for 2016 Rates and Charges</td>
</tr>
<tr>
<td>June 9 &amp; 11</td>
<td>Special A&amp;F Committee Meeting – Budget Workshops</td>
</tr>
<tr>
<td>June 25</td>
<td>Consideration/Adoption of Recommended Budget</td>
</tr>
<tr>
<td></td>
<td>Hold public hearing on 2016 Rates and Charges</td>
</tr>
</tbody>
</table>
Questions for Board

- Are there any other significant drivers that have not been identified?

- Where should the Authority’s efforts be focused for FY 2016 and FY 2017?

- Are there any areas that should receive more or less attention?
Board Requested Direction

- Provide Board input for consideration into the development of the Fiscal Years 2016 & 2017 multi-year budget.
  - Operational priorities
  - Capital priorities
  - Policy consideration/guidance
Agenda

- Highlights of November 20th A&F Committee Discussion
  - Status of Member Agency General Managers/Finance Officers Meetings (December 9th, December 16th, January 15th)
- Alternatives being considered
- Upcoming discussions
- Schedule
Summarized Member Agency Meetings to Date
- Preference to manage annual revenue volatility with reserves
- Identified scenarios for additional member agency local supply development
- Focused on options to enhance fixed revenue for supply
  - New supply reliability fixed charge recognizes the benefit of past investments
- Member agency proposals for new fixed charge
  - City of San Diego
  - Olivenhain
- Issue around new fixed charge:
  - Access to reliable supply has a value to all member agencies
  - Member Agencies local supply investment and regional benefit?
Reviewed Sustainability Issue: Change in SDCWA Cost Structure

- Policy Issues
  - Increasing Fixed Costs
  - Decreasing fixed Revenues
  - Member Agency Equity
    - Beneficiaries pay

- Challenge
  - How to value reliability benefit
## Alternatives being considered

<table>
<thead>
<tr>
<th>No Fixed Charge Alternative (Otay Proposal)</th>
<th>Desal Charge (City of SD Proposal)</th>
<th>Reliability Charge (Olivenhain Proposal)</th>
<th>Reliability Charge Staff  Strawman 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay for reliable supplies through annual purchases</td>
<td>New fixed charge for Carlsbad Desal costs only</td>
<td>New fixed charge for Carlsbad Desal and IID Transfer costs</td>
<td>New fixed charge for 15% of fixed Desal and QSA costs</td>
</tr>
<tr>
<td>All QSA/Desal costs on supply rate</td>
<td>Cost difference between MWD rate and Carlsbad Desal supply cost</td>
<td>Cost differential between MWD rate and melded Carlsbad Desal and IID Transfer rate</td>
<td>Based on supply reliability metric eg: frequency of shortages, reliance on storage</td>
</tr>
<tr>
<td>No additional fixed charges</td>
<td>Allocated on 3 year rolling average</td>
<td>Allocated on 5 year rolling average</td>
<td>Allocated on 10 year rolling average</td>
</tr>
</tbody>
</table>
Impact on Fixed Revenue to Fixed Cost Ratio

- Fixed Revenues vs. Fixed Costs (Otay's Proposal)
- Fixed Revenues vs. Fixed Costs (City's Proposal)
- Fixed Revenues vs. Fixed Costs (Olivenhain's Proposal)
- Fixed Revenues vs. Fixed Costs (Strawman 1 @ 15% Proposal)

Calendar Year

% of Fixed Costs Covered By Fixed Revenues

2015 2020 2025 2030 2035 2040

45% 43% 42% 36% 33%
43% 42% 41% 39%
36% 33% 38% 30%
20% 25% 29% 35%
Impact on Fixed Revenue as a Percent of Total Revenue

Calendar Year

- % Fixed of Total Revenue (Otay's Proposal)
- % Fixed of Total Revenue (City's Proposal)
- % Fixed of Total Revenue (Strawman 1 @15% Proposal)
- % Fixed of Total Revenue (Olivenhain's Proposal)
Upcoming Discussions

- Develop a proposed methodology for charge based on reliability nexus
  - Discuss and begin to finalize methodology at January 29th mtg
- Compare all Alternatives at February meetings
  - Select a preferred alternative prior to March 12th A&F workshop
- Outstanding Items from CY15 Rate Setting Process
  - Allocation of non-commodity revenues to Treatment
  - Extension of Supply discount for TSAWR
Schedule

- Upcoming Member Agency General Managers and Finance Officers meetings
  - January 29, 2015 at 9:30am
  - Two meetings to be scheduled in February
- March 12 Special A&F Workshop on Fiscal Sustainability
  - Additional Member Agency Meetings in March
- March 26 A&F Committee
  - Consideration of fiscal sustainability recommendations