Agenda

- Scope of Member Agency Discussion
- Remaining Work
- Other Items Discussed
- March 12th A&F Workshop
Scope of Member Agency Discussion

- **Fixed Revenue for Fixed Supply Obligations**
  - Reliability Charge
  - Selection of preferred Methodology

- **Response to 2013 Cost of Service Study**
  - Review inconsistent application of non-commodity revenues to Rate Categories
    - Should Treatment category receive a proportionate share of non-commodity revenue to offset a portion of treatment rates

- **Extension of the Transitional Special Agricultural Water Rate Program**
  - Program benefits & costs
Remaining Work

- Finalize recommendations at March 3rd member agency meeting
  - Application of non–commodity revenues to Treatment or maintain status quo
    - Majority of group including treated and untreated purchasers believe a portion of non-commodity revenues should offset treatment costs
    - Consistency with cost of service and policy application in main concern
    - Some agencies purchasing untreated water want more discussion
      - Incremental cost to untreated customers from status quo
Remaining Work (continued)

- Extend TSAWR Supply differential beyond 2015
  - TSAWR Pay MWD Tier 1 full service rate
  - Allocations during shortages based on MWD cutback level
    - Water Authority supplies not available to mitigate shortages (Colorado River transfers, Carlsbad seawater desalination supplies, dry-year transfers)
    - At least 5% differential between M&I and TSAWR cutback levels

<table>
<thead>
<tr>
<th>Supply Rate Differential – CY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDCWA Melded Supply Rate</td>
</tr>
<tr>
<td>MWD Tier 1 Full Service Rate</td>
</tr>
<tr>
<td>Rate Differential</td>
</tr>
</tbody>
</table>
Supply differential extended 2015
  ◦ Concern over adding firm demand during supply challenges
  ◦ Lack of available transfer water

Ag demand adds M&I supply from MWD during allocation
  ◦ Higher Ag cutback adds water available to M&I

Two droughts in the last 5-years and potential second allocation
  ◦ Benefit of local drought management action

Adds less than 3% to all-in cost of M&I
Other Items Discussed

- Annual Revenue Volatility
  - General consensus that fluctuation in annual revenue were best addressed through reserves
  - Existing RSF Policy would be sufficient to handle the volatility
    - Target is equal to the financial impact of 2.5-years of wet weather or mandatory restrictions

- Recognition of local supply benefit
  - Water Authority recognizes local supply benefits through drought allocation incentive
  - Member agencies asked for consideration of a future financial incentive for local supply development
    - Evaluate by MWD team. Discuss ideas with member agencies during FY 2016 and report results to Board.
  - Will be incorporated into presentation on Member Agency activities at March 12th A&F Workshop
March 12th A&F Workshop

- Comprehensive Review
- Review and Discuss Member Agency Recommendations
- Other Items
- Discussion of Next Steps
Refunding Guidelines and Capital Markets Overview

Administrative and Finance Committee
February 26, 2015

Presented by: Director of Finance, Lisa Marie Harris & Principal, Montague DeRose, Doug Montague
Agenda

- Summary of Statement of Debt Management
- Review of refunding guidelines
- Capital markets overview
Summary of the Debt Management Policy

- Provides written guidelines for debt management that focus on:
  - Approved types of debt
  - Limitations on debt issuance
  - Issuance process & roles and responsibilities
  - Refunding guidelines
  - Post issuance activities – Focus of recent SEC actions

- Requires periodic updates
  - Last updated at the end of 2013

- Important policy document
  - A GFOA best management practice

GFOA = Government Finance Officers Association
Overview of Refunding Guidelines

- Purpose is to provide framework to evaluate refunding opportunities
- Criteria considered
  - Net Present Value (NPV) Savings thresholds – 4%
  - Escrow yields – Escrow’s fund debt payments to call date
  - Interest rate environment – Where are interest rates compared to historical averages
  - Interest rate outlook – Where are rates going?
  - Debt management – Reasons like restructuring
What is a Refunding?

- A refunding achieves savings by exchanging previously issued debt for new debt that has a lower cost
  - Example: Refinance your home’s 30-year mortgage 15 years after purchase with a 15-year mortgage, which typically can lower your interest rate
Drivers of Refunding Opportunities

- Call option – Issuer can pay down bonds
  - Water Authority typically has a 10-year call option
- Movement down the yield curve as debt matures
  - Shorter maturity = lower interest rate
- Lower interest rate environment
Optimizing Refundings

- Evaluate savings by maturity
  - Pick maturities that meet goals
  - Level savings and no maturity extensions
- Escrow efficiency
  - How much of the savings are lost?
- Break even analysis on rates
  - How much can rates rise over time and not impact the economics
- Market indicators of future interest rates
  - Evaluate the forward rate curve

Goal – Maximize the savings
Market Update to the San Diego County Water Authority Administrative and Finance Committee

February 26, 2015
Presented by: Doug Montague
Interest Rates Are Near Post-War Lows
**15-Year MMD: Yield on Thompson Reuters Benchmark “AAA” Tax-Exempt Bond maturing in 15 years and callable in 10 years, weekly observations. Weighted average maturity of SDCWA’s 2015 Refunding Bonds is expected to be about 15 years.**
15-Year MMD: Yield on Thompson Reuters Benchmark “AAA” Tax-Exempt Bond maturing in 15 years and callable in 10 years, weekly observations. Weighted average maturity of SDCWA’s 2015 Refunding Bonds is expected to be about 15 years.
Rates Have Been Volatile Since Mid-January

- European Central Bank Quantitative Easing (Jan 22)
- Greek Election (Jan 25)
- Greek/Troika/ECB Negotiations
- Commodity Price Volatility
- US Economic Data
Factors that Could Influence Rates

<table>
<thead>
<tr>
<th></th>
<th>Higher Rates</th>
<th>Lower Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Economic Data</td>
<td>Primarily stronger inflation and employment data</td>
<td>Primarily weaker inflation and employment data</td>
</tr>
<tr>
<td>Fed Reserve Announcements</td>
<td>Earlier rate hike</td>
<td>Later rate hike</td>
</tr>
<tr>
<td>Greece</td>
<td>Successful Euro negotiations</td>
<td>Difficult Euro negotiations “Grexit”</td>
</tr>
<tr>
<td>Regional Conflicts</td>
<td>Sustained Ukraine cease–fire ISIS suppressed/contained</td>
<td>Escalated Ukraine conflict ISIS success</td>
</tr>
<tr>
<td>Commodities</td>
<td>Higher commodity prices</td>
<td>Lower/stable commodity prices</td>
</tr>
<tr>
<td>Municipal Market</td>
<td>Supply pressure Reduced fund flows Puerto Rico credit problems</td>
<td>Reduced refunding supply Continued good fund flows Cross-over buyers</td>
</tr>
</tbody>
</table>
Summary

- Current market conditions warrant monitoring refunding opportunities
- Potential for significant cost savings but markets are volatile
- In April, staff will seek Board approval for refunding authorization
- If market conditions warrant, a refunding will occur in the next six months
San Vicente Pumped Storage Study

Engineering and Operations Committee Meeting
February 26, 2015
February 12, 2015
Special E&O Committee Meeting

- Pumped Storage Overview
  - Purpose
  - Description
  - Value
  - Pure Water Project
- Regulatory Overview
- Questions/Answers Highlights
- Project Phasing, Timeline, and Budget
Prior Project Phases

- Initial Economic and Financial Feasibility Study
- Preliminary Power Market Analysis
- Preliminary Financial Analysis
- Inlet/Outlet Study
- San Vicente Reservoir Modeling
  - Compatibility of pumped storage with Pure Water project
Purpose of Today’s Recommendation

- Move forward with the necessary work to:
  - Meet FERC’s July 2015 deadline by completing project analysis
  - Further advance the partnership with the City of San Diego
Necessary Work to Meet FERC Timeline of July 2015

- Environmental, geotechnical and engineering studies
- Upper reservoir alternatives screening (reduce from four to two)
- Preliminary Application Document (PAD) application preparation
  - Initial Tribal Consultation Meeting
  - Proposed study plan and schedule
  - Preliminary Licensing Proposal (Selection of licensing track)
- Water Authority and City will equally share the cost of this work
Harvey Consulting Group, LLC

- Complete environmental studies
- Screen/narrow the upper reservoir alternatives
- Conduct outreach to tribes, resources agencies, and other stakeholder groups
- Prepare the FERC Preliminary Application Document
- Total cost: $150,000
Black & Veatch Corporation

- Perform engineering and geotechnical desktop studies for the upper reservoir screening
- Refine the overall engineering configuration and cost estimates contained in the initial study
- Support Harvey Consulting Group, LLC with the technical information required to complete the PAD
- Total cost: $250,000
Phase 1 - Work Needed for PAD Submittal

Board consideration of funds for FERC PAD/ NOI prep.

Feb 2015

Apr 2015

90-day abeyance ends

July 2015

FERC PAD Submittal

Move Forward to Phase 2

OR

Stop
Phase 2 - Acquisition of Development Partner

- Verify project marketability

- Select project delivery method
  - Neither Water Authority or City staff would recommend being the builder and/or operator of the Pumped Storage Project
Project Delivery Options

- **Design-Build-Operate**
  - Enter into PPA with an energy company (offtaker)
  - Offtaker designs, builds, and operates

- **Utility Partner**
  - Enter into an agreement with a retail energy provider
  - Retail energy provider would lead major project activities

- **Development Partner**
  - Enter into an agreement with a developer
  - Developer enters into PPA with offtaker/retail energy provider
San Vicente Pumped Storage Study

- Approve moving forward with all necessary Phase 1 work within the previously approved $525,000 appropriation, including the submittal of the City of San Diego as a co-applicant to the FERC preliminary permit; approval of the partnership agreement principles with the City of San Diego; and authorization of the General Manager to execute a contract for $150,000 to Harvey Consulting Group and Amendment #4 of the Black & Veatch contract for $250,000.
2015–2016 Bay–Delta Workplan

Imported Water Committee
February 26, 2015

Glenn Farrel, Government Relations Program
Next Steps for BDCP

- April 2015 – Recirculation of BDCP EIR, EIS, and Implementing Agreement
- September 2015 – Projected timeframe for final EIR/EIS
- October 2015 – Projected timeframe for Record of Decision/Notice of Determination
- 2016 – Permits, followed by commencement of construction
Bay–Delta Policy Principles

- Adopted by Water Authority Board in February 2012

- Bay–Delta policy principles guide staff in advocating for, and protecting, the region’s interests
  - Provide a framework to evaluate the potential impact of state and federal legislation

- Broad range of policy issues
  - Water supply reliability
  - Ecosystem restoration
  - Finance and funding
  - Facilities
  - Governance
Unanswered Questions

1. How big does the project need to be?
2. How much will it cost?
3. How much water will San Diego get?
4. What is the portion of the cost San Diego will be obligated to pay?
5. Who is going to commit to pay for it?
6. How will Water Authority ratepayers be protected from paying disproportionate share of BDCP costs?
7. Will the costs of BDCP to San Diego ratepayers negatively impact local supply development?
Objectives of Proposed 2015–2016 Bay–Delta Workplan

- Water Authority will continue active engagement at various decision-making levels to ensure:
  - Development and implementation of a cost-effective Delta solution
  - Solutions balance environmental needs of the Delta with improved water supply reliability and water quality
  - The Water Authority’s share of the financial obligations match benefits provided by the selected Delta solution
Staff Recommendation

- Adopt Proposed 2015–2016 Bay–Delta Workplan
State Water Project
Contractors Authority
Bay Delta Funding Discussions

Imported Water Committee
February 26, 2015

Dennis Cushman, Assistant General Manager
Amy Chen, Director of MWD Program
What is the SWPCA?

Joint Powers Authority, formed in 2003, composed of 22 of the 29 SWP Contractors

- Established framework for members to provide services to State
  - O&M of SWP
  - Acquisition and operation of related facilities
  - Acquisition of water and water rights
Definitions

- Bay Delta Conservation Plan (BDCP) – intended to secure water supply for California and a healthy Delta ecosystem

- Delta Habitat Conservation and Conveyance Plan (DHCCP) - formed to support the development of the BDCP’s conveyance facilities required by CEQA / NEPA
## BDCP and DHCCP Pre-Construction Costs

<table>
<thead>
<tr>
<th>Program</th>
<th>$’s in Millions</th>
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</thead>
<tbody>
<tr>
<td>BDCP Development Budget</td>
<td>$13.5</td>
</tr>
<tr>
<td>DHCCP (Environmental Review and Associated Preliminary Engineering Design)</td>
<td>$140.0</td>
</tr>
<tr>
<td>BDCP and DHCCP (Environmental Review and Associated Preliminary Engineering Design)</td>
<td>$100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Program Budget</th>
<th>$253.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDCP and DHCCP (Pre-Construction)</td>
<td>$1,200.0 - $1,300.0</td>
</tr>
<tr>
<td>Total</td>
<td>$1,453.5 - $1,553.5</td>
</tr>
</tbody>
</table>
Who will Fund $1.2 Billion–$1.3 Billion of Remaining Pre-Construction Costs?

- BDCP’s 2013 assumption: Costs to be split 50-50 between State Water Project and Central Valley Project contractor groups

- SWPCA had considered issuing $1.5 Billion in debt

“...A potential $1.5 billion bond issue is being considered through the State Water Project Contractors’ Authority JPA...”

-- Central Coast Water Authority Board Minutes, February 27, 2014.
SWP’s $600 Million Share

- SWP Share:
  - Earlier SWCPA discussions suggested MWD, Kern County Water Agency and Santa Clara Valley Water District would each issue share of SWP’s $600 million
  - Most recent documents show plans for MWD to issue $600 million in debt
    - Other contractors may share in repayment through cost-sharing agreements

“...the financing will be guaranteed by MWD, SCVWD, and potentially one other contractor.”
-- J.P. Morgan response to RFP.

Understanding the proposed interim structure, the financing will be guaranteed by MWD, SCVWD, and potentially one other contractor. As such, the credit analysis will primarily focus on MWD’s creditworthiness, as well as the credit of SCVWD and any other participating contractors. Assuming there is no step-up, the credit of the other contractor(s) will enter into the analysis. The nature of the obligation falls relative to other obligations of MWD, SCVWD and any other participating contractors.

San Diego County Water Authority
Water Authority has seen no documents showing how CVP’s $600 million share will be raised.

“Assuming a total pre-construction cost of $1.2 billion...it is our understanding that the participating federal Central Valley Project Contractors will deliver their share of pre-construction costs...”

-- Morgan Stanley response to RFP.
Discussions on Pre-Construction Funding

**November 2013:** $1.2 Billion more needed for pre-construction costs first came to light at Westlands Water District Board Meeting

**February 2014:**
Central Coast Water Authority reports to its Board that SWPCA is considering issuing a $1.5 Billion bond to continue BDCP pre-construction work

**March 2014:**
Multiple Financial Institutions respond to SWPCA’s RFP for Underwriting Services

**January 2015:**
SWPCA Financial Advisor Brian Thomas gives update on bond financing alternatives for $600 million under consideration by the SWP contractors
Jan. 8, 2015 SWPCA “DHCCCP Pre-Construction Funding Schedule”*

- Timetable for MWD to issue $600 million by October 2015
- Alternative path is for SWPCA to issue debt if MWD declines
  - SWPCA has never issued debt before; must establish initial credit rating

*Board packet: Pages 143–144
MWD Independently Funds BDCP Work

- Since BDCP’s inception in 2006, MWD has issued nearly 500 professional services agreements for work on the Bay Delta Conservation Plan (BDCP) and “Delta”

- Contracts authorize up to $78 million
  - Of $78 million, $26 million of contracts are labeled as “Bay Delta Conservation Plan” or “DHCCP”
  - Based upon contract descriptions, difficult to discern whether work labeled as “Delta” includes work on BDCP, in whole or in part
  - MWD staff reported this week that it had expended $2.98 million on BDCP contract work

- MWD also dedicates undisclosed staff time to BDCP work
Issues

- Growing BDCP pre-construction costs: up to $1.55 billion
- Recent SWPCA documents show MWD considering issuing $600 million debt on behalf of the SWP contractors for next phase of pre-construction work
  - Contractors have “...yet to make any decisions regarding either SWPCA or individual member agency participation.” -- SWPCA letter, Feb, 24, 2015
  - Lack of publicly available information on how costs will be allocated among participating SWP contractors
  - Unknown impacts of MWD’s participation on Water Authority
- Little or no information publicly disclosed as to whether or how Central Valley Project contractors will pay their $600 million share of remaining pre-construction costs
2015 Public Opinion Poll

Legislation, Conservation & Outreach Committee
Feb. 26, 2015

Presented by Mike Lee, Public Affairs Representative II
Purpose

- Understand, and track over time, water-related views and knowledge
- Help in design of outreach campaigns
- Track progress toward Strategic Plan and Business Plan goals
2015 Survey:

- 1,000 adult residents
  - Split between phone & online
- Approx. 60 response items
- Representative samples across county
- English & Spanish
- In the field mid-March
- Report results in April
Consistent Topics

- Current events & issues
- Diversification strategy
- Water use & water-use efficiency
- Water rate considerations & rate tolerance
- Water Authority projects & programs

“Top-of-Mind” County Issues

Q.1 “What do you feel is the most important issue facing San Diego County residents today?” (n=1,000)

- Poor economy/unemployment: 22%
- Water supply/drought: 16%
- Affordable housing: 6%
- Crime/safety: 5%
- Cost of living: 5%
- City politics: 5%
- Infrastructure: 5%
- Education: 4%
- City financial problems: 3%
- Immigration(border issues): 3%
- Other: 17%
- (Unsure): 9%

Base: All Respondents
Recommended Topics

- Willingness to pay
  - Value of water & services provided by public water agencies
  - Rate increase tolerance for local supply development
  - Preference for local supply development or Bay-Delta upgrades
  - Link between water supply reliability & regional economic health
Recommended Topics

- Factors driving water use
  - Awareness of, and compliance with, restrictions
  - Adoption of conservation practices
  - Motivations to use water efficiently
  - Awareness of water agency drought campaigns
Recommended Topics

- Other current issues
  - Willingness to remove turf grass
  - Supply reliability concerns
  - Awareness of Water Authority & its role
  - Preferred communications channels
Drought Response Outreach Update

Legislation, Conservation and Outreach Committee
February 26, 2015

Jason Foster
Director, Public Outreach and Conservation
Media Relations

• Recent reductions in water use

• Artificial Turf Discount Program

• Potential for supply allocations
Media Partnerships

• “Dear Drought Fighter” with U-T San Diego
Media Partnerships

- Tips in community papers

[Image of newspaper articles and headlines]
Community Partnerships

- Discounts on checks for leaks

March 16–22, 2015
Fix a Leak Week
Educational and Partnership Efforts

California Friendly Landscape Training

Garden Friendly Plant Fairs

WaterSmart Landscape Makeover Series
California Friendly Landscape Training

BECOME A MORE WATERWISE GARDENER

- Using a Holistic Approach to Gardening
- Building a Living Soil Sponge
- Rethinking Elements of Your Site
- Right Plant, Right Place
- Using Rainwater as a Resource
- Managing Irrigation

This class is geared for residential customers and provided at no cost.

The Natural Watershed Is A Balanced System

The Numbers Speak for Themselves

Traditional Landscape vs Sustainable Landscape

- Water
- Yard Waste
- Maintenance Hours

San Diego County Water Authority
Garden Friendly Plant Fairs

Spring 2015 Plant Fairs will take place from 8 am to noon at these The Home Depot locations:

- **February 21**: San Diego - 3555 Sports Arena Blvd
- **February 28**: San Diego - 4255 Genesee Ave
- **March 7**: San Diego - 12185 Carmel Mtn Rd
- **March 14**: Oceanside - 3836 W Vista Way
  Poway - 12175 Tech Center Dr
- **March 21**: Escondido - 1475 E Valley Pkwy
  San Diego - 255 Marketplace Ave
- **April 11**: San Diego - 10604 Westview Pkwy
- **April 18**: Chula Vista - 1320 Eastlake Pkwy
  San Marcos - 350 San Marcos Blvd
- **May 2**: Encinitas - 1001 N El Camino Real
- **May 30**: Oceanside - 5755 Mission Ave

Get great savings on a select set of low-water-use plants and learn more about how to use them in your garden.

To get ideas on plants, designs and more before you attend the plant fair, visit WaterSmartSD.org and look for our interactive California-Friendly Gardening tool, as well as other helpful resources.
WaterSmart Landscape Makeover Series

Partnerships with:
• Cuyamaca College
• MiraCosta College
• Southwestern College
• The Water Conservation Garden
• San Diego Botanic Garden
• SDG&E
• Hunter Industries
WaterSmart Landscape Makeover Series

Partnerships with:
• Department of Water Resources
• Hans & Margaret Doe Charitable Trust
• 24 member agencies
Geographic Distribution of Education & Partnership Efforts

- California Friendly Landscape Training
- Garden Friendly Plant Fairs
- WaterSmart Landscape Makeover Series
Contracts for Member Agency Purchase of Desalinated Water from the Water Authority-Carlsbad Seawater Desalination Project
Based on Board-adopted purchase principles

- Allow member agency to purchase desalinated seawater from Water Authority as local supply
- Provide guidance on essential terms of purchase contract
  - Full cost recovery to Water Authority
  - Benefits of local supply to member agency
  - Same risk profile as Water Authority

Member agency input from four meetings held July – September 2012

Board approved Uniform Contract terms October 2012
Purchase Contracts

- Member agencies provided Resolution of Intent to purchase a specific quantity

- Member agency is committed to fixed purchase amount
  - Part of Minimum Annual Demand Commitment under WPA (48 TAF)
    - Carlsbad: 2,500 acre-feet per year
    - Vallecitos: 3,500 acre-feet per year

- Member agency contract aligned with Water Purchase Agreement
  - 30-year term
  - Same performance obligations as Water Authority
Additional Product Water Deliveries

- If Water Authority purchases additional deliveries, member agency must also purchase additional deliveries
  - Pro-rata share based on their contract quantity
  - Pay variable price only – similar to Water Authority

- Member agency can permanently waive access to additional deliveries in contract

- Member agency can only purchase additional deliveries if Water Authority does
Characterization of Contract Quantity and Additional Deliveries

- Local supply in application of all Water Authority ordinances, plans, and programs
  - Local supply pursuant to Water Authority’s Water Shortage and Drought Response Plan (WSDRP)

- Treated water supply
  - Delivered in similar manner to other Water Authority treated deliveries
    - May not receive molecule of desalinated water
Project Components

Carlsbad Connection

San Marcos

TOVWTP Improvements

P3 relining 5-miles

New 54-inch steel pipe

10-miles

Pipeline Interconnection

Vallecitos Connection

Pipeline 4

Pipeline 3

Carlsbad

Encina Power Station

Desal WTP

Pacific Ocean
## Carlsbad Desalination Project Costs

### Water Purchase Agreements Payments

<table>
<thead>
<tr>
<th>Fixed Unit Price</th>
<th>Variable Unit Price</th>
<th>Management Fee/Incentive Payment</th>
<th>Plant &amp; Pipeline Design Review/ Constr. Mgmt.</th>
<th>Budgeted Pipeline O&amp;M Costs</th>
<th>Water Authority Admin Charge (Cost to administer WPA and Member Agency Agreements)</th>
<th>Transportation Charge (Adjusted for amounts paid under Project Costs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Quantity</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Additional Deliveries</td>
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<tr>
<td>Unexcused Demand Shortfall Units</td>
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<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Unexcused or Excused Supply Shortfall Units</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>No Payment for Project Water</td>
</tr>
</tbody>
</table>
Early Termination

- Early termination – member agency has ability to terminate contract
  - If Water Authority acquires Plant pursuant to WPA (other than upon expiration of agreement term)
  - If revisions to Water Authority WSDRP allocation methodology eliminate or materially reduce local supply benefit
Next Steps

- Finalize Costs
  - Water Purchase Agreement
    - Calculate escalation from 2012
  - FY 2016 Budget
    - Annual pipeline maintenance
    - Annual WPA administration
  - Incorporate into Proposed 2016 Rates and Charges
- Provide final estimates to Carlsbad and Vallecitos prior to action by their respective Boards
Authorize the General Manager to enter into individual contracts with Carlsbad Municipal Water District and Vallecitos Water District for the purchase of treated water from the Carlsbad Desalination Project, substantially in the form as presented to the Board.
Water Supply and Drought Management Update

― "Scant Precipitation, Warm Temperatures Produce Weak Snowpack"

Water Planning Committee
February 26, 2015

Presentation by:
Alexi Schnell, Water Resources Specialist
Northern Sierra Precipitation: 8-Station Index


Northern Sierra Precipitation: 8-Station Index, February 26, 2015

Percent of Average for this Date: 89%

Current Daily Precipitation: 30.3 inches

San Diego County Water Authority
Northern Sierra Snowpack
(As of February 24, 2015)

Water Content (in)

16% of Normal
Reservoir Conditions – Lake Oroville

Lake Oroville Conditions
(as of Midnight - February 24, 2015)

Current Level: 1,721,037.4 AF

49% (Total Capacity) | 70% (Historical Avg.)

Lake Oroville Storage Levels

Total Reservoir Capacity: 3,537,577 AF

- Historical Average (1922-1998)
- 2013-2014
- 2014-2015 (current)
Average Water Year Statewide Runoff Percent of Average (Water Year: Oct 1 – Sept 30)

2006: 173%
2007: 53%
2008: 60%
2009: 65%
2010: 91%
2011: 146%
2012: 62%
2013: 59%
2014: 35%
2015: 60%

*DWR Feb. 1, 2015 Forecast for Water Year

San Diego County Water Authority
Water Year Inflow to Lake Powell on the Colorado River

*BOR Feb. 17, 2015 Forecast for Water Year
Actual vs. Normal Rainfall
Lindbergh Field (inches)

78% Normal to Date for Water Year (As of February 24)

0% 37% 21% 9% 294%
Average Daily Maximum Temperature at Lindbergh Field – Departure from Normal (°F)

-2.0  0.0  2.0  4.0  6.0  8.0

Fiscal Year 2014  Fiscal Year 2015

Jul  Aug  Sep  Oct  Nov  Dec  Jan  Feb  Mar  Apr  May  Jun

Hotter  Cooler
Fiscal Year Potable Water Use in Water Authority Service Area

Acre-Feet

Figures include urban and agricultural water use.
National Weather Service Outlook
March – May 2015

Precipitation Outlook

A = Above Average
B = Below Average
EC = Equal Chances

Made February 19, 2015

Temperature Outlook

A = Above Average
B = Below Average
EC = Equal Chances

Made Feb. 19, 2015
U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period

Valid for February 19 - May 31, 2015
Released February 19, 2015

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short-lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

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).

Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center

Drought persists/intensifies
Drought remains but improves
Drought removal likely
Drought development likely

http://go.usa.gov/hHTe
SWRCB Emergency Water Conservation Regulations Status

March 3, 2015
- Present January 2015 water production figures

March 17, 2015
- Potential Actions
  - Extend regulations (set to expire April 2015)
  - Approve refinements to regulations
## Preparing for Potential Allocations in 2015

### Tentative Timeline

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<thead>
<tr>
<th>Date</th>
<th>Actions</th>
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<tbody>
<tr>
<td>Dec. 16, 2014</td>
<td>Member Agency Drought Advisory Team convened to provide input on drought management and supply allocations</td>
</tr>
<tr>
<td>Jan. 22, 2015</td>
<td>Board approval of allocation methodology modifications</td>
</tr>
<tr>
<td>Feb. - April 2015</td>
<td>Staff coordinates with Advisory Team to prepare recommended allocations</td>
</tr>
<tr>
<td>Feb. - April 2015</td>
<td>Board receives monthly updates on supply conditions, drought management activities and potential MWD cutbacks</td>
</tr>
<tr>
<td>April 14, 2015</td>
<td>MWD Board expected to set cutback level</td>
</tr>
<tr>
<td>April 23, 2015</td>
<td>SDCWA Board considers approval of member agency allocations <em>(predicated on MWD taken action in April)</em></td>
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<tr>
<td>July 1, 2015</td>
<td>If allocations enacted, cutbacks would begin</td>
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</tbody>
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