The Delta: Heart of California’s Water System
The Need for Statewide Solutions

• Delta conveyance problems can no longer be ignored

• Bay Delta Conservation Plan under way to address long-term Delta issues

• Delta solutions are more likely to succeed as part of a statewide comprehensive action plan
The Need for Statewide Solutions
War or Peace?

Or singing from the same song sheet?
Statewide Water Action Plan

• ACWA-convened process to develop a statewide action plan

• Broad cross-section of water interests

• Goal: Recommend a specific plan to the Governor that can be broadly supported by water community and serve as sustainable path forward for California

• Input from DWR, other state agencies
Statewide Water Action Plan

Broad Geographic Participation

**Bay Area**
- East Bay Municipal Utility District
- Contra Costa Water District
- Sonoma County Water Agency
- Santa Clara Valley Water District

**West & Southern San Joaquin Valley / Southern California**
- MWD of Southern California
- Westlands Water District
- Kern County Water Agency
- San Luis / Delta-Mendota Water Authority
- San Joaquin River Exchange Contractors
- San Diego County Water Authority

**Sacramento Valley**
- Glenn-Colusa Irrigation District
- Northern California Water Association

**Delta and Sacramento Region**
- City of Sacramento
- San Juan Water District
- Regional Water Authority
- Reclamation District 2068

**Mountain Counties**
- Mountain Counties Water Resources Association
- El Dorado County Water Agency
- Placer County Water Agency

**San Joaquin & Kings Rivers**
- San Joaquin Tributaries Authority
- Merced Irrigation District
- Friant Water Authority
- Turlock Irrigation District
- Kings River Conservation District

*Participation in plan development does not necessarily imply formal endorsement of final document.*
Growing Support for the SWAP
Statewide Water Action Plan

• Unanimous vote by ACWA Board of Directors on Sept. 27

• SWAP creates possibility of statewide unity on key water issues

• Provides strong support base for statewide action by Governor Brown
15 Key Action Elements

• Actions to Improve Statewide Water Supply

• Actions to Protect Water Rights

• Actions to Protect the Integrity of the System

• Actions to Promote Better Stewardship
Statewide Water Action Plan

Actions to Improve Statewide Water Supply

• Expand storage
• Invest in WUE/ IRWMPs
• Facilitate water transfers
• Protect and improve water quality
• Pass a water bond
Actions to Protect Water Rights

- Respect area of origin commitments
- Operational assurances: We should not plan on reservoirs going to dead pool
Statewide Water Action Plan

Actions to Protect the Integrity of the System

• Complete a BDCP, consistent with these principles

• Invest in levee improvements / maintenance

• Prepare for emergencies to protect public safety

• Improve and expand groundwater management
Statewide Water Action Plan

Actions to Promote Better Stewardship

• Integrate headwaters management to sustain the environment and improve statewide water quality and supply

• Coordinate state and federal regulatory actions

• Implement flow regulations through a collaborative, science-based process to promote the co-equal goals
Brown Administration Draft Action Plan


• California Natural Resources Agency, Cal/EPA and Dept. of Food and Agriculture taking lead

• Identifies 10 key actions over next five years

• State agencies to work with stakeholders to gather input

• Final plan expected in early December
Brown Administration Draft Action Plan

10 Key Actions

- Conservation
- Regional Self-Reliance
- Co-Equal Goals for the Delta
- Ecosystem Restoration
- Drought Preparedness

- Water Storage
- Safe Drinking Water
- Flood Protection
- Operational and Regulatory Efficiency
- Financing
ACWA’s Initial Take

• Appears to contain the right elements

• Some areas seem consistent with ACWA’s SWAP, others may need some improvement

• ACWA continues to analyze

• Will provide formal comments in the coming weeks
Statewide Water Action Plan

We Need Your Support for ACWA’s SWAP

• Learn more about the plan at www.acwa.com/spotlight/SWAP

• Pass a resolution of support (sample resolution at acwa.com)

• Educate your citizens, elected officials and other local leaders

• ACWA is going to fight for a statewide solution
The 2014 Water Bond

- Public financing is critical to the coequal goals
- ACWA supported original 2009 package and bond
- Changes needed to existing bond to assure success
ACWA’s Direction on the 2014 Water Bond

• Support a smaller bond
• Avoid “earmarks”
• Rely on competitive processes
• Emphasize statewide investments
  ▪ Delta ecosystem restoration
  ▪ Public benefits of storage
• Include funds for groundwater cleanup and local resources investment
• Provide assistance for disadvantaged communities that do not have safe drinking water
## Proposal for a Modified Water Bond (in billions)

### Category 1: Local Resources Development Support
- Disadvantaged Communities: $0.300
- IRWMP / Rural Support: $0.450
- IRWMP / Urban Support: $0.650
- Groundwater Quality: $0.300
- Recycling and Conservation: $0.450

### Category 2: Delta Ecosystem Rest. & Watersheds
- Delta Sustainability: $2.250
- Watersheds: $0.800

### Category 3: Storage for Coequal Goals

### Total Investments (in billions)
- Total Investments: $8.200
Three Distinct Proposals on the Table

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>ACWA Proposal</th>
<th>SB 42 (Wolk)</th>
<th>AB 1331 (Rendon)</th>
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</thead>
<tbody>
<tr>
<td>Local resources development</td>
<td>$2.15 billion</td>
<td>$2.8 billion</td>
<td>$2.5 billion</td>
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<tr>
<td>Delta sustainability</td>
<td>$2.25 billion</td>
<td>$0.6 billion</td>
<td>$1.0 billion</td>
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<tr>
<td>Watersheds</td>
<td>$0.8 billion</td>
<td>$1.1 billion</td>
<td>$1.5 billion</td>
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<tr>
<td>Floods</td>
<td>$0.0 billion</td>
<td>$0.975 billion</td>
<td>$0.0 billion</td>
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<tr>
<td>Storage</td>
<td>$3 billion*</td>
<td>$1 billion</td>
<td>$1.5 billion*</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$8.2 billion</strong></td>
<td><strong>$6.475 billion</strong></td>
<td><strong>$6.5 billion</strong></td>
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</table>

*continuous appropriation
California Has a Decision to Make

• ACWA’s core philosophy: Invest in statewide system to accomplish the coequal goals
  o Restoring the Delta ecosystem
  o Improving water supply reliability statewide

• California must move forward with comprehensive solutions, even when we have to deal with controversy
Questions?

Tim Quinn
Executive Director
916.441.4545
timq@acwa.com
www.acwa.com
California Department of Water Resources
State Water Plan Update

Water Planning Committee
November 21, 2013

Presented by: Mark Stadler, Principal Water Resources Specialist
State Water Plan

- Strategic plan for guiding management and development of water resources statewide
  - Provides roadmap to inform planning and decision-making at all levels of government
- Plan presents information about California’s water resources
- Plan does not create mandates, prioritize actions, allocate funds or recommend projects
Plans reflect era

- Each Water Plan reflects top issues of that era
- First plan set stage for 1960 ballot measure that created State Water Project
- Until 2005, plan update was best known for forecasting supply and demand
Focus of recent plan updates

- Since 2005, updates reflect shift from large-scale state projects to focus on regional efforts
- Recent updates still provide basic information about gap between supply and demand
- New focus on integrated (regional) water management
The new update

- 1 vision, 1 mission, 7 goals, 10 principles, 17 objectives, 30 resource management strategies
- Call for action: State faces “unacceptable risks”
- How to pay for needed improvements?
  - 82% of investment done at regional and local level
Themes of 2013 California Water Plan

*Integrated water management*

provides a set of principles
and practices that include
government agency alignment
through open and transparent
planning process. This leads to
stakeholder and decision-maker
support for investment ...
in innovation and infrastructure.

---

**Integrated Water Management**

System flexibility and resiliency
Advocacy from implementers and financiers
Delivery of benefits using fewer resources

---

**Government Agency Alignment**

Clarification of state roles
Reduction in implementation time and costs
Efficient achievement of multiple objectives

---

**Investment in Innovation and Infrastructure**

Stable and strategic funding
Priority-driven funding decisions
Equitable and innovative finance strategies
Planning approach

- 2013 update continues scenario-based planning approach
  - Past trends don’t necessarily foreshadow future
- Multiple future scenarios designed to capture uncertainty that affects water management
- DWR used scenarios to evaluate combinations of resource management strategies
  - Conditions will vary among regions
Finance Planning Framework

- Began with intent to develop first-ever finance plan for State Water Plan
  - Recommend financial strategies and revenue sources to fill funding gaps
  - Diverse, intense stakeholder involvement, including Water Authority staff
- Effort evolved into something more abstract
  - Framework for consideration of needs, perspectives and financial information
  - First step toward identifying and providing solutions for finance issues affecting water management
Staff involvement in update

- Represented Water Authority on public advisory committee and finance framework workgroup
- Helped to plan regional forums
- Participated in development of several objectives and resource management strategies
- Provided comments on public review draft
  - Focus on regional report, finance framework and objectives
Initial Table A allocation for CY 2014 is 5%.

Last time the initial allocation was this low was in 2009 for CY 2010, which eventually was increased to 50%.

Allocation based largely on storage levels in the major SWP reservoirs.

Conservative estimate made early in the water year.

DWR will update the allocation through the year based on rainfall and snowpack through the year.
Northern Sierra 8-Station Water Year Precipitation Index

Water year 2014 through November 15, 2013: 0.7 inches, 12% of average

Average (1922 - 1998)

WY 2013

WY 1977 (2nd driest)
Colorado River Hydrologic Conditions

- Water year 2014 precipitation through November 18, 2013 was 101% of average
- Combined storage in Lake Mead and Lake Powell
  - November 18, 2013: 22.9 MAF, 45% Capacity
  - November 19, 2012: 26.7 MAF, 53% Capacity
Local Service Area Conditions

- Local reservoir storage on October 31, 2013 was approximately 230,110 AF, or 84% of average

<table>
<thead>
<tr>
<th>Station</th>
<th>Actual in.</th>
<th>% Normal</th>
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</thead>
<tbody>
<tr>
<td>Lindbergh Field</td>
<td>0.26</td>
<td>23%</td>
</tr>
<tr>
<td>Ramona Airport</td>
<td>1.66</td>
<td>111%</td>
</tr>
</tbody>
</table>
Member Agency Fiscal Year Potable Water Use

- July – October of FY 2014 is 3% less than in FY 2013
- FY 2013 potable use is 5% greater than FY 2012, but 24% less than FY 2007
## Comparison of Supply Conditions in 2007 and 2013

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2007</th>
<th>2013</th>
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<tbody>
<tr>
<td>Member agency fiscal year potable water use</td>
<td>721,000 AF</td>
<td>546,500 AF</td>
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<tr>
<td>Estimated MWD end-of-year storage reserve levels*</td>
<td>1.8 MAF</td>
<td>2.2-2.4 MAF</td>
</tr>
<tr>
<td>Colorado River QSA transfers</td>
<td>73,350 AF</td>
<td>180,200 AF</td>
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</tbody>
</table>

* Excludes MWD’s emergency storage reserves. Source: October 7, 2013, MWD Water Planning and Stewardship Committee.
Conclusion

- It is still early in water year 2014, and the weather outlook is uncertain for upcoming winter and spring
- No shortages are anticipated in 2014
  - Healthy storage reserves in southern California
  - San Diego region has increased ability to manage potential shortages through investments in supply
  - Water use remains low
- Continue to encourage water use efficiency
- Monitor conditions and report to the Board into spring 2014
Sponsored Legislation for 2014

Legislation, Conservation, & Outreach Committee
November 21, 2013
Staff Review of Legislative Proposals

- Staff solicited ideas, concepts, and legislative proposals from:
  - Water Authority staff
  - Member agencies
  - Board members

- Staff evaluated six proposals for possible sponsorship of legislation in 2014

- Staff is recommending Water Authority sponsorship of two legislative proposals
Recommended Proposal #1

Streamline the state’s administration of the IRWM Program

Issues

◦ IRWM application process is cumbersome and expensive
◦ Round 2 funding distribution of Prop. 84 IRWM funds is inconsistent with proportional allocation in statute
◦ IRWM project invoice reimbursement is untimely – negatively affects smaller NGOs
◦ Processing of contracts and contract amendments is untimely
◦ DWR routinely takes more than 5% of funds for administrative purposes
Recommended Proposal #1 (cont.)

- Proposed legislative approach—two parallel strategies
  - Bill sponsorship strategy
    - Focus on streamlining the IRWM grant distribution process for future bond measures
    - Continuation of state role in IRWM planning, but shift responsibility for administering project contracts to Regional Water Management Group
  - Non-bill sponsorship strategy
    - Focus on addressing the existing and future Prop. 84 IRWM allocation and lack of proportionality of allocations
    - Pursue opportunities to increase San Diego region Round 2 allocation – revisit scoring; revisit award decisions; mid-year appropriations
**Recommended Proposal #2**

- Simplify and update reporting requirements for Urban Water Management Plans

**Issues**

- Legislation may be advanced by other parties requiring major changes to UWMP development, water resources project selection, and reporting
  - Evaluation of embedded energy costs
  - Energy intensity of water use
  - Avoided cost of water
  - DWR review/approval of UWMPs
  - Calculation of passive water savings from implementation of plumbing codes, building standards, landscape ordinances
Proposed legislative approach

- Less prescriptive requirements for how retail water agencies achieve SBX7–7 water conservation targets
  - Specific demand management measures only applied to retailers that are not on-track to meet targets
- Less prescriptive requirements for reporting water conservation achievements
  - Retailers that are on-track to meet targets would be authorized to provide a narrative explanation in their UWMP in lieu of meeting specific demand management measures
Staff Recommendation

- Approve sponsorship of legislation:
  - Streamlining the Integrated Resource Water Management grant process, and
  - Simplifying and updating reporting requirements for Urban Water Management Plans
WaterSmart Landscape Makeover Workshops

Legislation, Conservation and Outreach Committee
November 21, 2013

Jeff Stephenson
Principal Water Resources Specialist
Authorize the General Manager to award an 18-month professional services contract to DeLorenzo International in an amount not to exceed $289,000 to provide water conservation program implementation services for the WaterSmart Landscape Makeover Workshops.
Board adopted Water Use Efficiency Policy Principles (April 2012)

- Encourage market transformation
- Leverage grant funding
- Form collaborative partnerships
- Provide training, tools and resources
Pilot Program

- Spring 2012 – Spring 2013
  - 82 participants representing 16 member agencies

- Tailored to member agency needs

- Active learning (detailed hands-on lab)

- Partnered with San Diego Botanic Garden and Mira Costa College
Pilot Sample Project

Carlsbad, California

Controller
Hunter Lawn Genie
Pgm. A
Run Days: Every 2
Start Time: 7:00 AM

14'-8'
5'-8'
24'-2'

Irrigation Nozzle Legend
1. Rainbird 1/4" Quarter Nozzle
2. Rainbird 1/2" Half Nozzle
3. Rainbird 1/4" Half Nozzle
4. Rainbird 1/4" Full Nozzle

Low-cost conversion candidate
Use of Multi-stream nozzles

Tree Canopy

Zone 1
477 SQ. FT.
Dynamic Pressure 39 PSI
Run Time: 5 Min.
Estimated yearly water use: 17 H.C.F.
Cool Season Turf
Deficiencies: Low-head drainage

*Check Valve needed

WaterSmart Landscape Makeover Workshop
Pilot Sample Project
Actual Pilot Program Participant

Before Landscape Retrofit
Actual Pilot Program Participant

After Landscape Retrofit
Scope of Work

- Build on pilot program
- Conduct 16 workshop series over 18 months
  - 4 classes per series
  - Geographically diverse locations
- Manage curriculum, instruction, logistics, marketing
- Develop landscape workbook
  - Available to workshop participants and public
## Proposed Budget

<table>
<thead>
<tr>
<th>Grant</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Proposition 50 DROP Grant</td>
<td>$165,000</td>
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<tr>
<td>Hans and Margaret Doe Trust Grant</td>
<td>$25,000</td>
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<tr>
<td>Operating Budget</td>
<td>$99,000</td>
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<tr>
<td><strong>Total Program Budget</strong></td>
<td><strong>$289,000</strong></td>
</tr>
</tbody>
</table>
Authorize the General Manager to award an 18-month professional services contract to DeLorenzo International in an amount not to exceed $289,000 to provide water conservation program implementation services for the WaterSmart Landscape Makeover Workshops.
2014 Public Opinion Poll Content

Legislation, Conservation & Outreach Committee
Nov. 21, 2013
To seek Board input on focus areas for the 2014 public opinion poll
Since 2003, the Water Authority has used periodic public opinion polls to:

- Understand water-related views and knowledge
- Design outreach campaigns
- Track progress toward Business Plan goals
Overview

Surveys:

- 600 to 700 adult residents
- Approx. 60 questions
- Representative samples across region
- Conducted in English and Spanish
- Blend of consistent/new questions
Recommended Topics

CONSISTENT WITH RECENT POLLS

- Attitudes about current events/issues
- Attitudes about water supply reliability
- Value of water and services provided by public water agencies
- Factors driving current water use
  - Motivations to use water efficiently
  - Potential for a rebound in per capita water use
- Top concerns
Recommended Topics

SUGGESTED NEW/ EXPANDED AREAS

- Rate tolerance for local supply development
- Rate tolerance for investments in Bay-Delta projects
- Links between supply reliability and economy
- Value of “sustainability” projects and programs; willingness to pay those costs
- Support for agriculture
- Attitudes about current supply conditions
Recommended Topics

BUSINESS PLAN MEASUREMENTS

- Awareness and acceptance of potable reuse
- Support for supply diversification strategy
- Perception of water-use efficiency as a civic duty
Key Dates

- **November** – Select polling firm
- **December** – Design survey instrument
- **January** – Design/test survey
- **First quarter 2014** – Conduct survey
- **April** (tentative) – Present results to Board
Water Transfer Implementation Update

Imported Water Committee
November 21, 2013
# IID Water Transfer 10-Year Anniversary

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2013</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>Water Transfer</strong></td>
<td>10,000 AF</td>
<td>100,000 AF</td>
<td>600,000 AF</td>
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<tr>
<td><strong>$/AF</strong></td>
<td>$258/AF</td>
<td>$540/AF</td>
<td>$246 Million</td>
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<tr>
<td><strong>IID Conservation</strong></td>
<td>10,000 AF</td>
<td>251,000 AF</td>
<td>1.2 Million AF</td>
</tr>
</tbody>
</table>
Conserved Water Transfer Schedule

Conserved Water (AF)

200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0


Fallowing     Efficiency

Actual Conservation | Projected Conservation
IID’s Total QSA Conservation Commitments

Conserved Water (AF)

- Total Fallowing
- Total Efficiency
- IID-WA Fallowing
- IID-WA Efficiency

Year: 2003 to 2021

Water Conservation Commitments:
- Total: 375,738
- Fallowing: 283,000

IID-WA Water Conservation:
- Efficiency

San Diego County Water Authority
Conservation Programs

On-Farm Improvements

Solar Fallowing

Fallowing

Seepage Recovery
 IID Water Use History (AF)

Overuse

<table>
<thead>
<tr>
<th>Year</th>
<th>Water Use (AF)</th>
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<tbody>
<tr>
<td>2003</td>
<td>6,555</td>
</tr>
<tr>
<td>2004</td>
<td>8,957</td>
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<tr>
<td>2005</td>
<td>6,358</td>
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<tr>
<td>2006</td>
<td>-47,999</td>
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<td>2007</td>
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<td>2008</td>
<td>-207,925</td>
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<td>2010</td>
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</tr>
<tr>
<td>2011</td>
<td>93,190</td>
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<tr>
<td>2012</td>
<td>148,375</td>
</tr>
<tr>
<td>2013</td>
<td>-75,274</td>
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Estimated as of Nov. 1

Underuse

<table>
<thead>
<tr>
<th>Year</th>
<th>Water Use (AF)</th>
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<tbody>
<tr>
<td>2003</td>
<td>-166,408</td>
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<tr>
<td>2004</td>
<td>-159,881</td>
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<td>2012</td>
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<td>2013</td>
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</tbody>
</table>

Total Under/Overuse 2003-2013

- Overuse 263,435 AF
- Underuse 895,254 AF
IID 2013 Apportionment Program

Total Entitlement: 3.1 MAF

Obligations and System Losses:
- System Losses: 200 KAF
- System Conservation: 31 KAF
- Misc. PPRs: 11.5 KAF
- MWD Transfer: 105 KAF
- Canal Lining: 67.7 KAF

Available Water for Apportionment: 2.68 MAF

Allocations to Other Sectors:
- Env. Mitigation: 2.4 KAF
- Feed Lots, Dairies, Fish Farms: 33 KAF
- Industrial: 28 KAF
- Municipal: 43 KAF

Available Water for Agriculture: 2.58 MAF

473,311 Farmable Acres
5.45 AF/Acre
IID 2013 Apportionment Program

**FIELD A – Low Use**

- Size: 10 Acres
- Receives: 54.5 AF
- Requires: 47 AF
- Balance: +7.5 AF

**FIELD B – High Use**

- Size: 10 Acres
- Receives: 54.5 AF
- Requires: 60 AF
- Balance: -5.5 AF

**Crop Type**

- [Image of Crop Type]

**Farming Practices**

- [Image of Farming Practices]

**Soil Type**

- [Image of Soil Type]
Projected Cost of the QSA Supplies and MWD Water (Full-Service Untreated)
Environmental & Socioeconomic Mitigation

Environmental Mitigation

Future Funding $308M
Committed $45M
Unallocated $19M
Other $2M
Habitat/Wildlife Studies $12M
Managed Marsh $6M
Air Quality $3M
Mitigation Water $22M

Socioeconomic Mitigation

Future Funding $22M
Committed or Spent $17M
Unallocated $11M
San Diego County Water Authority
# Key Water Transfer Future Milestones

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<tbody>
<tr>
<td><strong>QSA JPA Mitigation</strong></td>
<td>Water Authority &amp; CVWD funding for QSA JPA</td>
<td>IID funding for QSA JPA</td>
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<tr>
<td><strong>Managed Marsh</strong></td>
<td>Phase II</td>
<td>Managed Marsh</td>
<td>Phase III</td>
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<tr>
<td><strong>Salton Sea</strong></td>
<td>Mitigation Water to the Salton Sea</td>
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<td><strong>Air Quality</strong></td>
<td><strong>Air Quality Pilot Studies</strong></td>
<td><strong>Mitigate for AQ from Exposed Playa from Project</strong></td>
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<tr>
<td><strong>IID Water Transfer</strong></td>
<td>100 KAF</td>
<td>Early Termination Window</td>
<td>$1 Billion, 2.2 MAF</td>
<td>200 KAF</td>
<td>Early Termination</td>
<td>End of Initial Transfer</td>
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<tr>
<td><strong>Scheduled Conservation Measures</strong></td>
<td><strong>Fallowing &amp; Efficiency</strong></td>
<td><strong>Efficiency</strong></td>
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<tr>
<td><strong>Socioeconomic Mitigation</strong></td>
<td><strong>Socioeconomic Mitigation Funding</strong></td>
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<tr>
<td><strong>IID Supply Rate</strong></td>
<td><strong>Set Schedule</strong></td>
<td>Based on GDPIPD</td>
<td>Market Price</td>
<td></td>
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<tr>
<td><strong>Transportation</strong></td>
<td>Exchange Agreement Term</td>
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</tr>
<tr>
<td><strong>Supply Cost Comparison</strong></td>
<td>MWD Supply costs &lt; QSA Supply</td>
<td>QSA Supply costs &lt; MWD Supply</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Financial Review of Metropolitan Water District’s Mid-Term Biennial Budget

Imported Water Committee
November 21, 2013

Amy Chen, Director of MWD Program
Overview

- Financial Position when adopted 2013 & 2014 Biennial Budget and Rates
- Review of Fiscal Years 2012 & 2013 Outcomes, reserve balances and Fiscal Year 2014 outlook
- 2015 & 2016 Budget and Rate Setting Process
MWD’s Adopted Biennial Budget and Rates: FYs 2013 & 2014 and CYs 2013 & 2014

- **Adopted in April 2012**
  - Consistently overestimated sales (sales declined by more than 26%)
  - Highly unstable financial conditions in prior 5 years
    - Increased rates by 65%; Insufficient revenues to meet expenses in 3 of 5 years
  - Staff proposed 7.5% and 5% average rate increases for CYs 2013 & 2014, respectively
  - 5%/5% average rate increases adopted

- **Key Budget Assumptions**
  - Water sales and exchanges of 1.7 MAF
  - Average rate increases of 3%-5% for FYs 2015-2017 required to ensure reserves to remain at minimum levels through FY 2017
Financial Indicators Presented in April 2012

Fiscal Year Ending

Million Dollars

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>6% 14% 20%</td>
<td>6%</td>
<td>14%</td>
<td>20%</td>
<td>7.5%</td>
<td>7.5%</td>
<td>5%</td>
<td>5%</td>
<td>3%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Sales, MAF</td>
<td>2.3</td>
<td>2.2</td>
<td>1.8</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
</tr>
<tr>
<td>PAYGO, $M</td>
<td>43</td>
<td>30</td>
<td>37</td>
<td>45</td>
<td>45</td>
<td>55</td>
<td>125</td>
<td>125</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>Rev. Bond Cvg</td>
<td>1.8</td>
<td>1.8</td>
<td>1.6</td>
<td>1.5</td>
<td>1.5</td>
<td>1.6</td>
<td>1.9</td>
<td>1.9</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Fixed Chg Cvg</td>
<td>1.3</td>
<td>1.3</td>
<td>1.1</td>
<td>1.0</td>
<td>1.1</td>
<td>1.2</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

* Includes Water Stewardship Fund and SDCWA litigation amount FY2013 and beyond are based on modified accrual

F&I Committee

April 10, 2012
## Updated Financial Indicators

### Fiscal Year Ending

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales, MAF</strong></td>
<td>2.3</td>
<td>2.2</td>
<td>1.8</td>
<td>1.7</td>
<td>1.7</td>
<td>1.86</td>
<td>1.70</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
</tr>
<tr>
<td><strong>PAYGO, $M</strong></td>
<td>43</td>
<td>30</td>
<td>37</td>
<td>45</td>
<td>45</td>
<td>55</td>
<td>125</td>
<td>125</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td><strong>Rev. Bond Cvg</strong></td>
<td>1.8</td>
<td>1.8</td>
<td>1.6</td>
<td>1.5</td>
<td>1.8</td>
<td>2.4</td>
<td>1.9</td>
<td>2.1</td>
<td>2.0</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Fixed Chg Cvg</strong></td>
<td>1.3</td>
<td>1.3</td>
<td>1.1</td>
<td>1.0</td>
<td>1.3</td>
<td>1.8</td>
<td>1.3</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

*Includes Water Stewardship Fund

FY2013 and beyond are based on modified accrual.
# MWD’s FYs 2012–2014 Finances

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Reserve Levels</th>
<th>Amount Over-</th>
<th>Amount Over Max. Reserve Level (millions)</th>
<th>MWD Board Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Budgeted</td>
<td>Actual</td>
<td>Collected (millions)</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>295.1</td>
<td>$373</td>
<td>$97</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>• Adopted 5% rate increases for both 2013 and 2014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>$221</td>
<td>$537&lt;sup&gt;1&lt;/sup&gt;</td>
<td>$251&lt;sup&gt;1&lt;/sup&gt;</td>
<td>$63&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>• Approved use of $75M excess reserves for unbudgeted programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Maintained Ad Valorem Tax Rate (~$4.4M increase in FY 2014 revenues)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>$205</td>
<td>$507&lt;sup&gt;3&lt;/sup&gt;</td>
<td>$123&lt;sup&gt;3&lt;/sup&gt;</td>
<td>~$33&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>• Approved use of ~$30M excess reserves for unbudgeted programs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. **Reported in June:** close FY 2013 with $245M surplus, bumping reserves to $549M ($75 over maximum target)
2. **Reported in October:** reserves exceed max target by ~$63M even after $75M unbudgeted withdrawals; the increase is partially due to accounting changes (cash year to accrual)
3. **Projected amounts,** based on data from first quarter of FY 2014 (water sales exceeded budget by 61.1 TAF); currently sales are tracking at 115.5 TAF over budget, will further add to the over-collection (MWD had not provided updated data)
Upcoming Budget & Rate Setting Process

- January 2014
  - Transmit proposed budget, revenue requirements and rates

- February 2014
  - Present proposed budget, revenue requirements and rates
  - Set date for the public hearing on budget and rates
  - Hold budget & rate board workshop #1 (Executive Committee)

- March 2014
  - Hold public hearing
  - Hold board workshop #2 (Finance & Insurance Committee)

- April 2014
  - Board adoption of budget & rates for 2015 & 2016
Water Authority Delegates Positions

- Refund FY 2013 over-collection (6/2013)
  - MWD board acted to spend on unbudgeted programs
- Do not suspend ad valorem tax rate limitation (6/2013)
  - MWD board acted to suspend tax rate limitation, increase FY 2014 revenues by $4.4M
- Reconsider CY 2014 rates (6/2013 and ongoing)
  - Rescind CY 2014 rate increase
  - Minimize over-collection of funds
  - Ensure rates meet cost of service
- Return to annual rate-setting
- Restart long range financial planning effort to address financial policy issues and provide scenario planning
State Water Project
Hydrology and Operations Update

Imported Water Committee
November 21, 2013

Amy Chen, Director of the MWD Program
Sources of Imported Water to Southern California
State Water Project Facilities (shown with Central Valley Project)
Hydrology

California hydrologic conditions are highly variable from year to year (and sometimes within the same year)

For water year 2013:

- Second consecutive dry year
- Cumulative precipitation for the Northern Sierra 8-Station Index was about “average”
- Statewide snowpack was about 48% normal on April 1
- Statewide runoff was about 59% normal
- SWP Table A allocation at 35%
Statewide Hydrologic Conditions
Percent of Average Precipitation

Precipitation (in)
11/1/2012 – 10/31/2013

Generated 11/11/2013 at HPRCC using provisional data.
Operational Constraints

- DWR altered operations to accommodate fish species listed under the ESAs, adversely impacting deliveries.
- SWP deliveries to contractors for 2008 through 2012 were reduced by about 2.3 MAF.
- Pumping restrictions for 2013 is estimated to be 596 AF (of that 298 AF impacts MWD).
- Cannot predict whether additional laws, regulations, judicial decisions or other determinations will impact SWP operations.
- Operational constraints likely to continue until long-term solution in Bay–Delta is identified and implemented.
# 2013 Water Supply & Demand Balance

<table>
<thead>
<tr>
<th>Demands, Obligations, Losses, &amp; Supply Balance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SWP Supply</td>
<td>713,000</td>
</tr>
<tr>
<td>CRA Supply</td>
<td>941,000</td>
</tr>
<tr>
<td><strong>ICS Losses</strong></td>
<td>–15,000</td>
</tr>
<tr>
<td><strong>Total Supply</strong></td>
<td><strong>1,639,000</strong></td>
</tr>
<tr>
<td><strong>Member Agency Demand</strong></td>
<td><strong>1,989,000</strong></td>
</tr>
<tr>
<td><strong>Obligations and Losses</strong></td>
<td><strong>60,000</strong></td>
</tr>
<tr>
<td><strong>Total Demand</strong>&lt;sup&gt;1&lt;/sup&gt;</td>
<td><strong>2,049,000</strong></td>
</tr>
<tr>
<td><strong>Net Water Balance</strong>&lt;sup&gt;2&lt;/sup&gt;</td>
<td><strong>410,000</strong></td>
</tr>
</tbody>
</table>

1. Current trend  
2. “Water balance” to be made up through storage and other water supplies

*Source: MWD Presentation 10/09/13.*
Controller’s Report
As of June 30, 2013
Report Format

Report Focus: Budget Variance Analysis and Discussion

*Attachments*

A: Water Sales Volumes (Acre-Feet)
B: Water Sales Revenues
C: Water Purchases & Treatment Costs
D: Multi-Year Budget Status Report
E: Operating Department
F: Schedule of Cash & Investments
WATER SALES VOLUMES
Budget Versus Actual (in Acre-Feet)
for the 24 Months Ended June 30, 2013

Actual

924,654

Budget

900,740 AF

Difference

23,914 AF

3%
WATER SALES REVENUES
Budget Versus Actual (in Millions $)
for the 24 Months Ended June 30, 2013

Difference
$23 million
2%

Actual
$966.8
Budget
$943.8
WATER PURCHASES AND TREATMENT COSTS
Budget Versus Actual (in Millions $)
for the 24 Months Ended June 30, 2013

Difference
$2.3 million
0%

Budget
$686.0

Actual
$683.7

*Budget (a)    Actual

in Millions $
### Net Water Sales Revenue

**at 100% of the Two-Year Budget Period**

<table>
<thead>
<tr>
<th></th>
<th>FY 12 &amp; 13 Amended Budget</th>
<th>FY 12 &amp; 13 24 Months Month-to-Date Actual</th>
<th>Variance 24 Months Budget - Actual Positive(Negative)</th>
<th>% Actual / Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Water Sales Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water sales</td>
<td>$ 943,801,989</td>
<td>$ 966,803,190</td>
<td>$ 23,001,201</td>
<td>102%</td>
</tr>
<tr>
<td>Water purchases &amp; treatment</td>
<td>(686,012,222)</td>
<td>(683,705,094)</td>
<td>2,307,128</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total Net Water Sales Revenue</strong></td>
<td>$ 257,789,767</td>
<td>$ 283,098,096</td>
<td>$ 25,308,329</td>
<td>110%</td>
</tr>
</tbody>
</table>
## Other Revenues and Expenditures

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure Access Charges</td>
<td>$56,978,000</td>
<td>$56,375,748</td>
<td>$(602,252)</td>
<td>99%</td>
</tr>
<tr>
<td>Property Taxes and In-Lieu Charges</td>
<td>21,077,900</td>
<td>20,678,843</td>
<td>(399,057)</td>
<td>98%</td>
</tr>
<tr>
<td>Investment Income</td>
<td>13,002,000</td>
<td>8,432,350</td>
<td>(4,569,650)</td>
<td>65%</td>
</tr>
<tr>
<td>Hydroelectric Revenue</td>
<td>1,800,000</td>
<td>3,867,554</td>
<td>2,607,554</td>
<td>215%</td>
</tr>
<tr>
<td>Other Income</td>
<td>43,609,030</td>
<td>29,779,780</td>
<td>(13,829,250)</td>
<td>68%</td>
</tr>
<tr>
<td>Capital Contributions:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity Charges</td>
<td>21,365,000</td>
<td>28,808,415</td>
<td>7,443,415</td>
<td>135%</td>
</tr>
<tr>
<td>Water Standby Availability Charges</td>
<td>22,233,000</td>
<td>22,388,476</td>
<td>155,476</td>
<td>101%</td>
</tr>
<tr>
<td>Contributions in Aid of CIP</td>
<td>8,220,000</td>
<td>11,943,248</td>
<td>3,723,248</td>
<td>145%</td>
</tr>
<tr>
<td><strong>Total Revenues and Other Income</strong></td>
<td>$188,284,930</td>
<td>$182,274,414</td>
<td>$(6,010,516)</td>
<td>97%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenditures</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stored Water Purchases</td>
<td>$2,000,840</td>
<td>$</td>
<td>$(2,000,840)</td>
<td>0%</td>
</tr>
<tr>
<td>Debt Service</td>
<td>280,310,426</td>
<td>265,395,109</td>
<td>14,915,317</td>
<td>95%</td>
</tr>
<tr>
<td>QSA Mitigation</td>
<td>12,461,000</td>
<td>12,461,050</td>
<td>(50)</td>
<td>100%</td>
</tr>
<tr>
<td>Hodges Pumped Storage</td>
<td>4,002,299</td>
<td>1,716,401</td>
<td>2,285,898</td>
<td>43%</td>
</tr>
<tr>
<td>Equipment Replacement</td>
<td>1,219,851</td>
<td>1,189,037</td>
<td>30,814</td>
<td>97%</td>
</tr>
<tr>
<td>Other Expenditures</td>
<td>20,532,604</td>
<td>10,049,835</td>
<td>10,482,769</td>
<td>49%</td>
</tr>
<tr>
<td>Operating Departments</td>
<td>89,765,458</td>
<td>82,041,958</td>
<td>7,723,500</td>
<td>91%</td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
<td>$410,292,478</td>
<td>$372,853,390</td>
<td>$37,439,088</td>
<td>91%</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------------------------------</td>
<td>---------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Administrative Services</td>
<td>$11,311,834</td>
<td>$10,736,743</td>
<td>$575,091</td>
<td>95%</td>
</tr>
<tr>
<td>Colorado River Program</td>
<td>2,716,091</td>
<td>2,397,874</td>
<td>318,217</td>
<td>88%</td>
</tr>
<tr>
<td>Engineering</td>
<td>6,842,582</td>
<td>6,306,684</td>
<td>535,898</td>
<td>92%</td>
</tr>
<tr>
<td>Finance</td>
<td>4,428,163</td>
<td>4,028,127</td>
<td>400,036</td>
<td>91%</td>
</tr>
<tr>
<td>General Counsel</td>
<td>8,428,534</td>
<td>7,624,312</td>
<td>804,222</td>
<td>90%</td>
</tr>
<tr>
<td>General Manager/Board of Directors</td>
<td>5,057,977</td>
<td>4,314,583</td>
<td>743,394</td>
<td>85%</td>
</tr>
<tr>
<td>Human Resources</td>
<td>2,351,220</td>
<td>1,760,640</td>
<td>590,580</td>
<td>75%</td>
</tr>
<tr>
<td>MWD Program</td>
<td>3,424,663</td>
<td>3,044,374</td>
<td>380,289</td>
<td>89%</td>
</tr>
<tr>
<td>Operations &amp; Maintenance</td>
<td>29,658,407</td>
<td>27,532,983</td>
<td>2,125,424</td>
<td>93%</td>
</tr>
<tr>
<td>Public Outreach &amp; Conservation</td>
<td>7,717,929</td>
<td>6,762,850</td>
<td>955,079</td>
<td>88%</td>
</tr>
<tr>
<td>Water Resources</td>
<td>7,828,058</td>
<td>7,532,788</td>
<td>295,270</td>
<td>96%</td>
</tr>
<tr>
<td><strong>Total Operating Departments/Programs</strong></td>
<td><strong>$89,765,458</strong></td>
<td><strong>$82,041,958</strong></td>
<td><strong>$7,723,500</strong></td>
<td><strong>91%</strong></td>
</tr>
</tbody>
</table>
Attachment E

Operating Departments

Adopted Budget $87.7 M
Amended Budget $89.8 M
Actual Expenses $82.0 M
## San Diego County Water Authority
### Schedule of Cash and Investments
#### As of June 30, 2013, and June 30, 2011

<table>
<thead>
<tr>
<th>Fund</th>
<th>2013</th>
<th>2011</th>
<th>Target / Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Fund</td>
<td>$ 66,469,748</td>
<td>$ 76,484,907</td>
<td>$68.9 / $68.9</td>
</tr>
<tr>
<td>Stored Water Fund</td>
<td>73,025,245</td>
<td>44,697,342</td>
<td></td>
</tr>
<tr>
<td>Equipment Replacement Fund</td>
<td>7,819,199</td>
<td>8,915,398</td>
<td></td>
</tr>
<tr>
<td>Rate Stabilization Fund</td>
<td>63,705,451</td>
<td>43,456,187</td>
<td>$58.7 / $89.5</td>
</tr>
<tr>
<td><strong>Total Unrestricted Funds</strong></td>
<td><strong>211,019,643</strong></td>
<td><strong>173,553,834</strong></td>
<td></td>
</tr>
<tr>
<td>Pay As You Go Fund</td>
<td>151,237,694</td>
<td>119,558,427</td>
<td></td>
</tr>
<tr>
<td>CIP/Bond Construction Funds</td>
<td>193,639,934</td>
<td>435,517,268</td>
<td></td>
</tr>
<tr>
<td>Debt Service Reserve Funds</td>
<td>16,707,336</td>
<td>69,485,618</td>
<td></td>
</tr>
<tr>
<td><strong>Total Restricted Funds</strong></td>
<td><strong>361,584,964</strong></td>
<td><strong>624,561,313</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Cash and Investments</strong></td>
<td><strong>$572,604,607</strong></td>
<td><strong>$798,115,147</strong></td>
<td></td>
</tr>
</tbody>
</table>
Controller’s Report

Happiness is:
Debits = Credits
Statement of Debt Management Policy Update

Administrative and Finance Committee
November 21, 2013
Follow-Up Comments

- Why was the language removed from the “Selection Process” page 8 of the redline version?
  - The Administrative Code includes conflict of interest provisions and is more comprehensive than what was in the SDMP
  - In response, a specific reference to the Water Authority’s Administrative Code was added.
Today’s Action

- Adopt the updated Statement of Debt Management Policy
San Diego County Water Authority

Policy and Portfolio Review
November 21, 2013

PFM Asset Management LLC

Richard Babbe, CCM
50 California Street, Suite 2300
San Francisco, CA 94111
(415) 982-5544
Cell (949) 230-6896
Introduction

- **PFM Asset Management Overview**
  - SEC registered, independent investment advisor
  - Public sector focus
  - 30+ years of experience
  - Over $47 billion under management, including over $9 billion for California special districts, cities, self-insurance pools, and other local agencies

- **Scope of Work**
  - Review the Water Authority’s investment policy to determine its compliance with the California Government Code,
  - Provide investment policy recommendations, if needed, based on changes to state law and/or market conditions,
  - Review the Water Authority’s portfolio to evaluate its compliance with both the California Government Code and the Water Authority’s investment policy, and
  - Discuss factors that might affect the Water Authority’s investment portfolio and its investment strategy going forward.
Summary Findings

- The investment policy is in compliance with the California Government Code.
- The investment policy is comprehensive and reflects a proactive, conservative approach towards portfolio safety.
- The portfolio is in compliance with both the Government Code and with the Water Authority’s own investment policy.
- The portfolio composition and structure reflect a prudent investment approach. The portfolio:
  - Had excellent credit quality,
  - Was well diversified among a variety of sectors and issuers, and
  - Had excellent liquidity both in the types of investments held and in the allocation to investment pools.
- The portfolio has performed well relative to the Water Authority’s current performance benchmark.
Recommendations for Consideration

- Revise the deposit placement section to incorporate the provisions of AB279 that will take effect January 1, 2014 and will permit expanded use of FDIC insured deposits.
- Delete the policy’s exception to the 5% per corporate issuer limitation, to ensure continued diversification among issuers in the portfolio.
- Delete the reference to “enhanced” commercial paper, to clarify that, consistent with current practice, the policy does not permit the use of asset-backed commercial paper.
- Revise the commercial paper section’s credit requirement language regarding debt other than commercial paper, to maintain consistency with the Government Code.
- Consider changing the performance benchmark to one that is more closely aligned to the portfolio’s average maturity (such as the rolling average of the 2-year U.S. Treasury, with an average maturity of 1 year).
Staff Recommendations

• Adopt all of PFM’s recommendations:
  o Revise the deposit placement section to permit expanded use of FDIC insured deposits.
  o Delete the policy’s exception to the 5% per corporate issuer limitation.
  o Delete the reference to “enhanced” commercial paper.
  o Revise the commercial paper section’s credit requirement language.
  o Change the performance benchmark to the rolling average of the 2-year U.S. Treasury.

• All recommended changes are reflected in the red-lined version of the Investment Policy.
Board 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 2014.
Carlsbad Desal Project Update

Engineering and Operations Committee
November 21, 2013

Frank Belock
## Project Elements

<table>
<thead>
<tr>
<th>Project Element</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>0</td>
</tr>
<tr>
<td>Conveyance Pipeline</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carlsbad Desalination Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Commissioning</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

The timeline shows the progression of each project element over the years.
San Marcos Vent Structures
San Marcos Vent Progress

- Completed transient analysis.
- Design is 50% complete and submitted.
- Drill rig was onsite locating pipelines.
- Completed outreach to community and are coordinating with City of San Marcos.
TOWTP Modifications

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

Pipeline Construction March 2013 – December 2014
Macario Canyon Tunnel Approval Process

- Conceptual design approved including portals/shafts locations
- Environmental resource survey
- Board approved EIR addendum in Water Planning (September)
- Geotechnical work
- Easement language approved by agencies
- City of Carlsbad approved LCP consistency (November)
- Easements acquired
- SDG&E approval
- Coastal Commission approval (December)
Conveyance Pipeline Progress to Date

- Safety: No injuries
- Design: Over 90% complete
- Total working on project: 150
- Amount of pipe installed 12,300 feet (out of 53,000)
- Currently four work areas
  - Trench work at Cannon Road (Carlsbad) and Poinsettia Ave/ Lionshead Ave (Vista)
  - Tunnel work on Cannon Road beneath Interstate 5 (Carlsbad)
  - Prep work at Flow Control Facility (San Marcos)
Desalination Plant

Current Conveyance Pipeline
10 miles of new 54-inch Pipe

TOVWTP Improvements

Pipeline 3 Relining
(27,100 feet)

Preparing Tunnel Work
Current Tunnel Work

Desalination Conveyance Pipeline
10 miles of new 54-inch Pipe

Current Work

Current Tunnel Work
Aqueduct Connection Facilities

Current Tunnel Work

Scale (Feet)
0 2,000 4,000 8,000

Pacific Ocean
Community Outreach Update

› Friday eBlasts with construction updates to residents, property owners, and tenants began.
› One-on-one outreach in Carlsbad (Car Country, Legoland, Carlsbad Sheraton, etc.) and Vista (Target, Vista Palomar Park, etc.)
› Working with West Development on Avenida Encinas.
› Continued Carlsbad Research Center Outreach
  ◦ Open House Scheduled for January 29.
  ◦ Obtained contact information for 90% of businesses.
  ◦ Upcoming business walks to achieve 100% of the frontage businesses.
› Plant Outreach – YouTube time lapse videos to be updated monthly on website.
Desalination Plant Progress

- Safety: No injuries
- Total working on project: 200
- Amount of concrete poured: 10,168 Cubic yards (28%)
- Amount of reinforcement steel: 1.4 tons (43%)
- Amount of conduit/pipe placed: 5147 feet (6.5%)
- Design is 84% complete
- Overall: 16% complete
Plant Construction – Project Water Storage
Tank
Plant Construction – Clear Water Tank / Pumps
Plant Construction – Pretreatment
Plant Construction – RO Building
### 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>($130,000)</td>
</tr>
<tr>
<td>3. <strong>Add</strong>: Property for air release and vacuum valve structures</td>
<td>$200,000</td>
</tr>
<tr>
<td>4. <strong>Add</strong>: Costs to permit and develop Macario tunnel design</td>
<td>$150,000</td>
</tr>
<tr>
<td>5. <strong>Administrative</strong>: Tunnel Design Start Dates</td>
<td>No Cost</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>6. <strong>Add:</strong> Carlsbad Valve Vault (Reimbursable)</td>
<td>$43,000</td>
</tr>
<tr>
<td>7. <strong>Credit:</strong> Final pipeline design thickness</td>
<td>($4,830,000)</td>
</tr>
<tr>
<td>8. <strong>Add:</strong> Pipe thickness adjustment for bend/elbow thickness and tunnel alignment steel</td>
<td>$1,000,000 (e)</td>
</tr>
</tbody>
</table>

*There will be two changes related to Member Agency turnouts that are fully reimbursable.*
## Carlsbad Desalination Project Budget Summary

<table>
<thead>
<tr>
<th>Task/Activity</th>
<th>Lifetime Budget ($ Millions)</th>
<th>Expended ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desalination Plant Water Purchase Agreement</td>
<td>$3.97</td>
<td>$0.67</td>
</tr>
<tr>
<td>Desalination Product Water Conveyance Pipeline</td>
<td>$10.40</td>
<td>$2.28</td>
</tr>
<tr>
<td>Pipeline 3 Desalination Relining</td>
<td>$36.46</td>
<td>$0.88</td>
</tr>
<tr>
<td>San Marcos Vent Desalination Modifications</td>
<td>$3.20</td>
<td>$0.22</td>
</tr>
<tr>
<td>Twin Oaks Treatment Plant Modifications</td>
<td>$17.35</td>
<td>$4.27</td>
</tr>
<tr>
<td>Carlsbad MWD New Facilities for Desal</td>
<td>$0.12</td>
<td>$ –</td>
</tr>
<tr>
<td>Carlsbad Desalination Project Contingencies</td>
<td>$8.50</td>
<td>$ –</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$80.0</strong></td>
<td><strong>$8.32</strong></td>
</tr>
</tbody>
</table>
Consultant Construction Management Contract Amendments

Agenda Item 1C
Background

- Leidos (formerly SAIC) and Onsite Contracts awarded on July 2010 and July 2011, respectively.

- Conveyance Facility Project Delivery is using the Design-Build Method
  - Construction Management budget based on the assumption that our effort would be about a third of a normal project.
Consultant Construction Management Scope

- **Leidos Scope**
  - Resident Engineering Services
    - Submittals
    - Field Coordination
  - Inspection Services
  - Administrative Services

- **Onsite Technical Scope**
  - In-plant pipe fabrication quality assurance
    - Project structure QA/QC
    - Multiple manufacturing locations
    - Early-on manufacturing problems resolved
Reasons for Higher CM Costs than anticipated

- Project is in an urban setting
  - Traffic
  - Numerous property owners
  - Space constraints
  - Multiple utility restrictions / coordination
- Much higher level of community involvement
- Contractor (KSD) reaches out more to coordinate
  - Multiple standing meetings
- Construction Management budget now would be close to half of a normal project
Approve Leidos and Onsite contract amendments for $450,000 and $600,000, respectively.
Pipeline 3 Relining – San Marcos to Twin Oaks

Agenda Item 1B
MFL Tool in Pipeline 3
Pipeline 3 Condition Assessment

Magnetic Flux Technology

External Pipe Inspection
Corrosion location identified by MFL (Before coating is removed)
Corrosion location identified by MFL (After coating is removed)
Magnetic Flux Leakage (MFL) Inspection

- In-pipe Magnetic Flux Leakage Inspection Completed
- Results indicated pipeline is in overall good condition
- A few areas were identified where minor repairs were necessary due to isolated corrosion pitting and out-of-round induced stresses
Carlsbad Desalination Projects

PIPELINE 3 DESALINATION RELINING
SAN MARCOS TO TWIN OAKS (K0304)
(27,100 FEET)

TWIN OAKS VALLEY
WATER TREATMENT PLANT
DESALINATION MODIFICATIONS (K0306)

CARLSBAD DESALINATION
PLANT (K0302)

MACARIO CANYON TUNNEL

DESALINATION PRODUCT WATER
CONVEYANCE PIPELINE (K0303)
(10 MILES, 54-INCH PIPE)

SAN MARCOS VENT
DESALINATION
MODIFICATIONS (K0305)

ALUMINIUM CONNECTION POINT
Pipeline 3 Relining

- 72” and 75” in diameter / 5.2 miles
- Magnetic Flux Leakage analysis showed integrity of existing pipe is good
- Being re-purposed to carry desalinated water to Twin Oaks Treatment Plant (south to north)
- Completely different pressure regime
- Is beneath SR-78 and Sprinter tracks
- 15 portals / 17 property owners
Pipeline Relining
# Pipeline Relining

<table>
<thead>
<tr>
<th>Welding Liners in place</th>
<th>Grouting Annular Space</th>
</tr>
</thead>
</table>

![Welding Liners in place](image1)

![Grouting Annular Space](image2)
# Pipeline Relining

<table>
<thead>
<tr>
<th>Spin Lining Machine</th>
<th>Cement Mortar Lining</th>
</tr>
</thead>
</table>

![Spin Lining Machine](image1.png)

![Cement Mortar Lining](image2.png)
## Pipeline Relining

<table>
<thead>
<tr>
<th>Welding Portal Closure</th>
<th>Concrete Encasement</th>
</tr>
</thead>
</table>

![Welding Portal Closure](image1)

![Concrete Encasement](image2)
## Pipeline 3 Desal Relining

<table>
<thead>
<tr>
<th>Portal Backfill</th>
<th>Portal Restoration</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Portal Backfill Image" /></td>
<td><img src="image2.png" alt="Portal Restoration Image" /></td>
</tr>
</tbody>
</table>
## Bid Summary

**ADVERTISED BID RANGE $30M - $35M**

<table>
<thead>
<tr>
<th>NO.</th>
<th>GENERAL CONTRACTOR</th>
<th>BID AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>L.H. Woods &amp; Sons, Inc.</td>
<td>$25,270,000</td>
</tr>
<tr>
<td>2.</td>
<td>J.F. Shea Construction, Inc.</td>
<td>$26,711,653</td>
</tr>
<tr>
<td>3.</td>
<td>Mladen Buntich Construction Co., Inc.</td>
<td>$26,712,500</td>
</tr>
<tr>
<td>4.</td>
<td>Kiewit Infrastructure West Co.</td>
<td>$27,597,000</td>
</tr>
<tr>
<td>5.</td>
<td>Oscar Renda Contracting, Inc.</td>
<td>$28,449,000</td>
</tr>
<tr>
<td>6.</td>
<td>James W. Fowler</td>
<td>$28,650,000</td>
</tr>
<tr>
<td>7.</td>
<td>Steve P. Rados</td>
<td>$31,820,400</td>
</tr>
</tbody>
</table>
Authorize the General Manager to award a construction contract to L.H. Woods & Sons, Inc. in the amount of $25,270,000 for the Pipeline 3 Desal Relining San Marcos to Twin Oaks project.
San Vicente Dam Raise
Construction Update

Engineering & Operations Committee Meeting
November 21, 2013
Emergency Release System

- Reservoir
- Spillway Elevation 766 feet
- Completed Dam Raise
- Low Level Outlet Pipe
- Low Level Outlet Gate Structure
- Plunger Valve Elevation 486.5 feet
- Knife Gates
- Downstream Control Facility
- Emergency Release
- 108” Butterfly Valve
Plunger Valve Anchorage

Water Force

414,000 lbs

Anchorage
Plunger Valve Anchorage Fix

- EXISTING PLUNGER VALVE
- DOWNSTREAM CONTROL FACILITY
- THICKENED CONCRETE
- RELOCATE EMERGENCY RELEASE PROTECTIVE COVER TO NEW WALL FACE

EXISTING 108-INCH EMERGENCY RELEASE SYSTEM PIPE
Schedule Status

Contractor’s Baseline Schedule

(Construction Contract Duration) 6 Months??

Complete Outlet Works

Decommission Exist OW

May Begin Reservoir Fill*
* Subject to water availability

December 2013 FINISH??

RESERVOIR FILL TO EL.640 FALL 2014 - 2017

CONTRACTORS BASELINE SCHEDULE

Outlet Works Delay

San Diego County Water Authority
Upcoming Activities

- Award Package 4 Bypass Pipeline Construction - Summer of 2014
- Complete Marina Facilities Construction - Fall of 2014
- May Begin Filling to Height of Old Dam - Fall of 2014
- Obtain Division of Safety of Dams Certification - Summer of 2015
- Complete Package 4 Bypass Pipeline Construction - Fall of 2015
- May Begin Filling to Full Height of Raised Dam - Fall of 2015