2017-2021 Business Plan

Administrative and Finance Committee
October 27, 2016
Business Planning Process

Water Supply

Water Facilities

Business Plan

Business Services
Mission: To provide a safe and reliable supply of water to its member agencies serving the San Diego region.

- Guiding document to achieve objectives:
  - Flexible
  - Adaptive
  - Accountable
  - Continuously improved
  - Responsive to change
Business Plan History

- 10+ years of proven success
- Awarded 2012 ICMA Certificate of Achievement for Performance Measurement in Strategic Planning

Goal Success Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>74%</td>
</tr>
<tr>
<td>2016</td>
<td>84%</td>
</tr>
<tr>
<td>2013</td>
<td>84%</td>
</tr>
<tr>
<td>2012</td>
<td>84%</td>
</tr>
</tbody>
</table>
Restructured 2017-2021 Business Plan

Modifications to provide clarity and ease of use

- Three Key Focus Areas
- Broadened Programs
- Updated Management Strategies
- New Objectives and Tactics
- Key Performance Indicators
2017-2021 Business Plan
Key Focus Areas

**Water Supply**
- Imported Water
- Local Water
- Resource Planning

**Water Facilities**
- Infrastructure/Capital Improvement Program
- Sustainability
- Water System Management

**Business Services**
- Communication and Messaging
- Financial Management
- Technology
- Workforce Management
2017-2021 Business Plan
Programs & Management Strategies

Broadened Programs and updated Management Strategies reflect continued emphasis on the following:

- Water System Management
- System Reliability
- Regulatory Compliance
- Financial Stability

Installation of 54-inch steel pipe
2017-2021 Business Plan
Objectives & Tactics

New emphasis in:
- Cybersecurity
- Energy Management
- Workforce Development

Continued emphasis in:
- Imported Water
- Asset Management
- Debt and Financial Management
2017-2021 Business Plan
Key Performance Indicators

- Added to track continuous improvement
- Identified for each program

**System Uptime**

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY17</td>
<td>99.96%</td>
<td>100%</td>
</tr>
<tr>
<td>FY18</td>
<td>99.96%</td>
<td>100%</td>
</tr>
<tr>
<td>FY19</td>
<td>99.96%</td>
<td>100%</td>
</tr>
<tr>
<td>FY20</td>
<td>99.96%</td>
<td>100%</td>
</tr>
<tr>
<td>FY21</td>
<td>99.96%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Eliminate unplanned service interruptions to Member Agencies by maintaining 100 percent system uptime each fiscal year.

**Investment Portfolio Performance**

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY16</td>
<td>1.06%</td>
<td>0%</td>
</tr>
<tr>
<td>FY17</td>
<td>0%</td>
<td>0.55%</td>
</tr>
<tr>
<td>FY18</td>
<td>1%</td>
<td>0.55%</td>
</tr>
<tr>
<td>FY19</td>
<td>2%</td>
<td>0.55%</td>
</tr>
<tr>
<td>FY20</td>
<td>2%</td>
<td>0.55%</td>
</tr>
<tr>
<td>FY21</td>
<td>2%</td>
<td>0.55%</td>
</tr>
</tbody>
</table>

Monitor and compare the Water Authority’s investment portfolio performance using the Bank of America Merrill Lynch 0-3 Year U.S. Treasury & Agency Index as a performance benchmark.
Water Supply Key Issues

- Ensuring long term viability of imported supplies
- Supporting regulatory efforts for potable reuse
- Advancing long-term water use efficiency practices

Claude “Bud” Lewis Carlsbad Desalination Plant
Water Supply Objectives

- Financial analysis of California WaterFix project
- Long-term analysis of Exchange and Transfer Agreements
- Updated Water Shortage and Drought Response Plan
- Secure region’s share of ~$38 million in IRWM grant funding
- Develop a Basin Plan amendment supporting potable reuse
Water Supply
Key Performance Indicators

Exceed the Claude “Bud” Lewis Carlsbad Desalination Plant Water Purchase Agreement minimum demand commitment of 48,000 acre-feet annually.
Expend $1.1 million in Proposition 84 grant awards to pilot Sustainable Landscapes upgrade rebates through December 2019.
Ensure full amount of scheduled QSA water is delivered to the San Diego Region each fiscal year.
Water Facilities Key Issues

- Controlling facility capital and operating costs
- Balancing facility growth with demands
- Managing facility operations, maintenance, and security
- Implementing cost effective sustainability practices

Magnetic Flux Leakage Pipeline Inspection
Water Facilities Objectives

- Complete additional 8 miles of priority pipeline relining
- Complete Miramar Pump Station Rehabilitation project
- Develop a minimum of 3 acres of wetland mitigation at San Luis Rey Kendall site
- Obtain Board approval of Climate Action Plan
- Acquire distribution tariff to allow delivery of wholesale energy
Water Facilities
Key Performance Indicators

Maintain 90 percent of all Capital Improvement Program projects within four months of their baseline schedule.

Target: 90% of CIP projects

- FY16: 84%
- FY17: 100%
- FY18: 100%
- FY19: 100%
- FY20: 100%
- FY21: 100%

Actual: 84%

Target: 90%
Increase environmental awareness amongst targeted employees by developing and implementing an environmental awareness program with at least 90 percent participation.
Increase green power resources and energy diversification to 14 percent of total power consumption for Fiscal Year 2019.
Business Services Key Issues

- Continuing effective communications with external stakeholders
- Implementing long-term financial plans
- Adopting pioneering technology
- Protecting against cybersecurity threats
- Attracting, retaining, and developing a high performing workforce
Business Services Objectives

- Increase awareness and understanding of Water Authority interests
- Comprehensive dashboard reporting
- Upgraded water billing software
- Cost of Service Study
- Cybersecurity review
- Mentoring program
- Wellness initiatives

2016 Citizen’s Water Academy
Conduct communications and outreach activities that result in at least 70 percent of the public viewing municipal water service as a “good” or “excellent” value through the public opinion poll.

Perceived Value of Water Service

Target: 70% of public polled by June 2019

<table>
<thead>
<tr>
<th>Percentage</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>66%</td>
<td>66%</td>
<td>67%</td>
<td>68%</td>
<td>71%</td>
</tr>
</tbody>
</table>

- Target: 67%
- Actual: 67%
Meet and maintain Board policy on reserves for all funds. (45 days annual operating expenses, Rate Stabilization Fund 2.5 years target and 3.5 years maximum.)
Business Services
Key Performance Indicators

Maintain 99.9 percent or above uptime of critical information services (Internet, sdcwa.org, PeopleSoft, Maximo, and OnBase) for the fiscal year, excluding planned downtime.

Critical Information Services Availability

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY16</td>
<td>99%</td>
<td>99.9%</td>
</tr>
<tr>
<td>FY17</td>
<td>99.0%</td>
<td>99.9%</td>
</tr>
<tr>
<td>FY18</td>
<td>99.5%</td>
<td>99.9%</td>
</tr>
<tr>
<td>FY19</td>
<td>99.0%</td>
<td>99.9%</td>
</tr>
<tr>
<td>FY20</td>
<td>99.5%</td>
<td>99.9%</td>
</tr>
<tr>
<td>FY21</td>
<td>99.0%</td>
<td>99.9%</td>
</tr>
</tbody>
</table>
Reduce the number of workplace injury/illness incidents by achieving 100 percent hazard identification and remediation each calendar year. (Employee Health and Safety severity rate reported on OSHA 300 = 2000/# hours worked.)
2017-2021 Business Plan

- Performance Monitoring
  - Annual Reports to the Board
- First annual performance report July 2017
Controller’s Report
June 2016

Administrative & Finance Committee
October 27, 2016

Presented by Chris Woidzik, Controller
Report Format

Main Staff Report: Budget Variance Analysis and Discussion

Financial Report Attachments
1: Water Sales Volumes (Acre-Feet)
2: Water Sales Revenues (Dollars)
3: Water Purchases & Treatment Costs (Dollars)
4: Budget Status Report
* Budgeted amounts are based on the adopted two year budget.
* Budgeted amounts are based on the adopted two year budget.
WATER PURCHASES AND TREATMENT COSTS
Budget Versus Actual (in Millions $)
for the 12 Months Ended June 30, 2016

* Budgeted amounts are based on the adopted two year budget.
**Attachment 4**

**Part 1: Net Water Sales Revenue**

<table>
<thead>
<tr>
<th></th>
<th>FY16 Adopted Budget</th>
<th>FY16 Actuals</th>
<th>Variance to Adopted Budget Positive (Negative)</th>
<th>% of FY16 Adopted 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>$ 565,766,000</td>
<td>$ 524,934,000</td>
<td>$ (40,831,000)</td>
<td>93%</td>
</tr>
<tr>
<td>Water purchases &amp; treatment</td>
<td>(433,785,000)</td>
<td>(387,123,000)</td>
<td>46,662,000</td>
<td>89%</td>
</tr>
<tr>
<td><strong>Total Net Water Sales Revenue</strong></td>
<td>$ 131,981,000</td>
<td>$ 137,811,000</td>
<td>$ 5,831,000</td>
<td>104%</td>
</tr>
</tbody>
</table>
## Attachment 4

### Part 2: Revenue and Other Income

<table>
<thead>
<tr>
<th></th>
<th>FY16 Adopted Budget</th>
<th>FY16 Actuals</th>
<th>Variance with Adopted Budget Positive (Negative)</th>
<th>% of FY16 Adopted Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure Access Charges</td>
<td>$30,434,000</td>
<td>$30,434,000</td>
<td>$</td>
<td>-</td>
</tr>
<tr>
<td>Property Tax &amp; In-Lieu Charges</td>
<td>11,700,000</td>
<td>12,067,000</td>
<td>367,000</td>
<td>103%</td>
</tr>
<tr>
<td>Investment Income</td>
<td>3,938,000</td>
<td>5,986,000</td>
<td>2,048,000</td>
<td>152%</td>
</tr>
<tr>
<td>Hydroelectric Revenue</td>
<td>3,500,000</td>
<td>2,919,000</td>
<td>(581,000)</td>
<td>83%</td>
</tr>
<tr>
<td>Grant Reimbursements</td>
<td>13,508,000</td>
<td>11,722,000</td>
<td>(1,786,000)</td>
<td>87%</td>
</tr>
<tr>
<td>Build America Bonds Subsidy</td>
<td>10,489,000</td>
<td>10,544,000</td>
<td>55,000</td>
<td>101%</td>
</tr>
<tr>
<td>Other Income</td>
<td>174,000</td>
<td>3,961,000</td>
<td>3,787,000</td>
<td>2276%</td>
</tr>
<tr>
<td><strong>Total Revenue &amp; Other Income</strong></td>
<td><strong>$104,048,000</strong></td>
<td><strong>$105,352,000</strong></td>
<td><strong>$1,304,000</strong></td>
<td><strong>101%</strong></td>
</tr>
</tbody>
</table>
## Part 3: Expenses

<table>
<thead>
<tr>
<th></th>
<th>FY16 Adopted Budget</th>
<th>FY16 Actual</th>
<th>Variance with Adopted Budget</th>
<th>% of FY16 Adopted Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stored Water Purchases</td>
<td>$ 11,286,000</td>
<td>$ 70,944,000</td>
<td>$ (59,658,000)</td>
<td>629%</td>
</tr>
<tr>
<td>Debt Service</td>
<td>132,470,000</td>
<td>126,942,000</td>
<td>5,528,000</td>
<td>96%</td>
</tr>
<tr>
<td>QSA Mitigation</td>
<td>11,016,000</td>
<td>11,016,000</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>Hodges Pumped Storage</td>
<td>2,058,000</td>
<td>1,946,000</td>
<td>112,000</td>
<td>95%</td>
</tr>
<tr>
<td>Equipment Replacement</td>
<td>2,852,000</td>
<td>2,415,000</td>
<td>437,000</td>
<td>85%</td>
</tr>
<tr>
<td>Grant Expenses</td>
<td>14,208,000</td>
<td>8,679,000</td>
<td>5,529,000</td>
<td>61%</td>
</tr>
<tr>
<td>Other Expenses</td>
<td>500,000</td>
<td>29,000</td>
<td>471,000</td>
<td>6%</td>
</tr>
<tr>
<td>Operating Departments</td>
<td>47,330,000</td>
<td>43,691,000</td>
<td>3,639,000</td>
<td>92%</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>$ 221,720,000</strong></td>
<td><strong>$ 265,662,000</strong></td>
<td><strong>$ (43,942,000)</strong></td>
<td><strong>120%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FY16 Adopted Budget</th>
<th>FY16 Actual</th>
<th>Variance with Adopted Budget</th>
<th>% of FY16 Adopted Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CIP Expenditures</strong></td>
<td><strong>$ 72,641,000</strong></td>
<td><strong>$ 54,354,000</strong></td>
<td><strong>$ 18,287,000</strong></td>
<td><strong>75%</strong></td>
</tr>
</tbody>
</table>
## Operating Departments

<table>
<thead>
<tr>
<th>Department</th>
<th>FY16 Adopted Budget</th>
<th>FY 16 Actual</th>
<th>Variance with Adopted Budget</th>
<th>% of FY16 Adopted Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Services</td>
<td>$7,177,000</td>
<td>$6,676,000</td>
<td>$501,000</td>
<td>93%</td>
</tr>
<tr>
<td>Colorado River Program</td>
<td>1,585,000</td>
<td>1,463,000</td>
<td>122,000</td>
<td>92%</td>
</tr>
<tr>
<td>Engineering</td>
<td>3,521,000</td>
<td>3,253,000</td>
<td>268,000</td>
<td>92%</td>
</tr>
<tr>
<td>Finance</td>
<td>2,325,000</td>
<td>2,289,000</td>
<td>36,000</td>
<td>98%</td>
</tr>
<tr>
<td>General Counsel</td>
<td>3,733,000</td>
<td>3,343,000</td>
<td>390,000</td>
<td>90%</td>
</tr>
<tr>
<td>General Manager/Board of Directors</td>
<td>2,895,000</td>
<td>2,572,000</td>
<td>323,000</td>
<td>89%</td>
</tr>
<tr>
<td>MWD Program</td>
<td>2,034,000</td>
<td>1,716,000</td>
<td>318,000</td>
<td>84%</td>
</tr>
<tr>
<td>Operations &amp; Maintenance</td>
<td>15,710,000</td>
<td>15,205,000</td>
<td>505,000</td>
<td>97%</td>
</tr>
<tr>
<td>Public Outreach &amp; Conservation</td>
<td>4,349,000</td>
<td>3,549,000</td>
<td>800,000</td>
<td>82%</td>
</tr>
<tr>
<td>Water Resources</td>
<td>4,001,000</td>
<td>3,625,000</td>
<td>376,000</td>
<td>91%</td>
</tr>
<tr>
<td><strong>Total Operating Departments</strong></td>
<td><strong>$47,330,000</strong></td>
<td><strong>$43,691,000</strong></td>
<td><strong>$3,639,000</strong></td>
<td><strong>92%</strong></td>
</tr>
</tbody>
</table>
September 8 Engineering and Operations Committee Workshop Input

- Have enough analysis/data
- Need to meet with interested parties
- Need revised work plan
- Work within remaining budget
Proposed Work Plan - Navigant

Task 1 - Preliminary Business Models

Task 2 - Economic Analysis

Task 3 - Marketability

Task 4 - Risk Assessment

Task 5 – Final Report and Recommended Business Model(s)

Prelim Models

Market

Transmission

Financial Modeling and Stress Tests

Cost/ Schedule

Outreach Plan

Documents

Meetings

Identify

Evaluate

Quantify

Staff assemble final exec summary using Navigant’s analyses to reserve approx. $300K

Complete
Proposed Work Plan through FY 2017

- **Oct**: ESC Discuss proposed new work plan
- **Nov**: E&O Workshop Consultant presents Part 3 info.
- **Dec**: Issue RFI Early January
- **Jan**: E&O ESC progress update
- **Feb**: E&O ESC progress update
- **Mar**: E&O ESC progress update
- **Apr**: E&O ESC progress update
- **May**: E&O Workshop Update on outreach results
- **Jun**: E&O ESC progress update

**Phase 3 Study GO or STOP**

- Seek interested parties
- Meet with interested parties
- ESC Update on outreach results
Nob Hill Improvements
Project Update

Engineering & Operations Committee Meeting
October 27, 2016
- Access Road
- Pipeline
  - Tunnel
- Connections
Nob Hill Cross-Section View

- Elevation 735 feet
- New Tunnel Pipe
- Row
- Pipeline 4
- Pipeline 4A
- Pipeline 3
- 130 feet
- 735 feet

San Diego County Water Authority
Clear and Grub
Economical Design
Tunnel Monitoring
Tunneling Operations
Tunnel Slab Placement
Transporting Pipe
Pipe Installation
Pipe Welding

10/06/2016
Tunnel Pipe Complete

Existing Pipeline 3

New Tunnel Pipe
Change Order Status

Original Contract Amount: $9,987,970
Current Change Orders: ($ 82,551)
Current Contract Amount: $9,905,419
Update on California WaterFix

Imported Water Committee
October 27, 2016

Presented by: Amy Chen, Director of MWD Program
Outline

- Water Authority’s positions on Bay–Delta
- Multi-disciplinary team review of BDCP
- BCDP/California WaterFix
- Water Authority’s reduced reliance on Delta supply
- Recent activities related to California WaterFix
Bay–Delta’s Relevance to Water Authority

State Water Project (Bay-Delta)

Colorado River

Local Supplies and Conservation

Sacramento–San Joaquin Bay–Delta

LAKE SHASTA

LAKE OROVILLE
Water Authority supports a sustainable Bay–Delta solution

- 2009 Delta Reform Act
- 2012 Delta Policy principles
- Multi-disciplinary team review of BDCP
- Board took no position on BDCP: lack of key information
Reductions in MWD Purchases – Sole Source of Bay Delta Water

- 1990: 672,800 AF
- 2016: 187,000 AF
  - 72% less than 1990
- 2035: 88,000 AF
  - 87% less than 1990
Activities Impacting California WaterFix

- Change of permitting schemes from ESA Section 10 to Section 7
  - Reduced supply certainty
- Invalidation of Delta Stewardship Council’s Delta Plan
  - Lacked “quantified or otherwise measurable targets”
- State Water Resources Control Board
  - Water rights proceeding: Changes in Points of Diversion – may impact export yields
Activities Impacting California WaterFix (cont.)

- Economic analysis:
  - Sept 2016 – AP News on draft economic analysis prepared for CNRA
  - Emails from PRA discussing additional tasks

- Water Code 85089 requires water contractors to pay new conveyance facilities
Activities Impacting California WaterFix (cont.)

- Audits on planning costs occurring at both federal and state sides
- MWD’s willingness to front costs without securing other beneficiaries’ financial commitment
  - Delta Wetlands purchase
- Fitch downgraded Westlands’ Oct 26 bond sale
  - “Public reports now estimate the district’s share of future costs of the California Fix at $2.5 billion... Significant further leverage by the district in support of the California Fix could apply downward pressure to the ratings.”
Water Authority Delegates Advocacy at MWD

- Made clear Water Authority has no interest in speculative water ventures
  - 2015 IRP: WaterFix “could also create opportunities for new markets and partnerships”

- WaterFix cost allocation
  - Cost allocation status
  - Efforts to discuss how WaterFix would be allocated among member agencies

Angry words over unanswered questions on California tunnels

Oct. 12, 2016  |  Updated 5:00 a.m.
California WaterFix
Economic Analysis

Dr. David Sunding
UC Berkeley and The Brattle Group
October 27, 2016
Water Fix Economic Analysis

• Goal of the study: Quantify the benefits and costs of the project to the south of Delta contractors
  – CVP
  – SWP
  – Excluded: Exchange contractors, Friant, wildlife refuges
WaterFix Water Supply

• Proper frame of reference for an economic analysis is water supply with and without the project
  – Comparing some state of the world to the status quo
  – What does it cost vs. what do you get
• WaterFix is a long-term project, so the baseline is dynamic and not static
• We settled on the “eroding baseline” to isolate the effects of the tunnels
  – Apply same operating criteria for the tunnel and no-tunnel states of the world
Water Supply

• At present: 4.7 maf
  – EIR/EIS No Action Alternative
• Post-WaterFix: 4.9 maf
  – Combined CVP and SWP at Early Long Term
• No-tunnel eroding baseline: 3.9 maf
  – Incorporates effects of future regulations
  – Isolates impacts of new conveyance
• Implies incremental yields of ~1.0 maf
  – Most of this is supply preserved and not new supply created
Water Supply

• Effects of climate change are significant over the longer term

• Assuming 140cm of sea level rise, SWP yields are
  – With tunnels: 2.5 maf
  – Without tunnels: 1.3 maf
  – Implies that climate change could reduce SWP yields by nearly half
  – Tunnels basically eliminate this risk
  – Not monetized in my economic analysis
WaterFix Cost

• Present value cost is $13.9 billion including construction, mitigation, land, O&M
• $10.0 billion assigned to south of Delta contractors
• $3.9 billion assigned to the exchange contractors, Friant and the refuges – outside the scope of the analysis
• Implies that WaterFix has an annualized incremental cost of ~$400/af
  – Untreated, incremental annual cost at the Delta
  – How is this derived?
Incremental Cost

• Present value cost to SOD contractors is $10.0 billion.
• Assume project produces ~1 maf of improvement in water supply
• Implies a present value cost of $11,000 per acre-foot
• Assume a 3 percent real rate of interest
• What is the annual payment that will produce a present value of $11,000 at a 3 percent real rate? Answer: $400
• Levelizing costs makes them easy to compare
Cost

• To compare the cost of WaterFix to the cost of replacing lost SWP supplies with alternatives, need to add the cost of conveyance and treatment to the WaterFix incremental costs
  – Comparing apples-to-apples costs on a delivered, treated basis
• Thus, WaterFix incremental costs vary by agency
• Assumptions about yields are also critical
Incremental Cost vs. Yield

Water Fix Incremental Cost

Incremental Cost ($/AF)

Incremental Yield (MAF)
Urban Benefits

• Calculated the value of avoided shortages resulting from WaterFix for 36 urban water agencies receiving SWP supplies
• Analysis based on CalSim II modeling runs and the SDBSIM shortage value model
• Value of shortages avoided by implementing WaterFix is >$1,400/af
• Compared to incremental cost of WaterFix
• Also compared to the cost of water supply alternatives – generally less expensive
Agricultural Benefits

• Farmers respond to shortage by pumping more groundwater and by fallowing

• Agricultural benefits analysis conducted using SWAP – a calibrated programming model

• SGMA is incorporated into the agricultural analysis
  – Assumed sustainable yields for major groundwater basins in the San Joaquin Valley

• Fallowing becomes more important going forward
Agricultural Benefits

• Land price is a good indicator of farm water value
  – Assuming land price of $18,000/acre
    – Implies annual net income of $900/acre using a 5 percent capitalization rate

• Assuming water use of 2.5 af/acre implies annual value of $360/af
  – Measured at the place of use
  – Less at the Delta (~$300/af)
  – Less than the incremental cost of WaterFix
Comparing Costs and Benefits

• Aggregate analysis
  – Summing all incremental benefits and costs across south of Delta contractors
  – Benefits: $16.1 billion vs. Costs: $10.0 billion
  – Passes a benefit-cost test
Comparing Costs and Benefits

• Disaggregated costs and benefits
  – Assuming a proportional cost allocation:
    – ($0.6) billion for SWP ag
    – ($1.0) billion for CVP ag
    – +$7.6 billion for SWP urban

• Once the cost allocation and financing plan is complete, can recalculate benefits and costs for various groups
End of 2016 Regular Legislative Session

Legislation, Conservation, and Outreach Committee
October 27, 2016
End of 2016 Legislative Session

- Governor completed action on legislation September 30
- Of the 1,059 measures the Governor considered during 2016, 900 bills became law and the Governor vetoed 159 bills

**Governor Brown Veto Rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>Veto Rate</th>
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<tbody>
<tr>
<td>2011</td>
<td>14.4%</td>
</tr>
<tr>
<td>2012</td>
<td>12.1%</td>
</tr>
<tr>
<td>2013</td>
<td>10.7%</td>
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<tr>
<td>2014</td>
<td>13.3%</td>
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<tr>
<td>2015</td>
<td>14.1%</td>
</tr>
<tr>
<td>2016</td>
<td>15.1%</td>
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</table>
Number of Position Bills Over Past 10 Years

# of Position Bills


San Diego County Water Authority
## End of 2016 Legislative Session

<table>
<thead>
<tr>
<th>Water Authority Board Position</th>
<th>Number of Bills</th>
<th>Amends Taken?</th>
<th>Chaptered</th>
<th>Vetoed</th>
<th>Failed Passage</th>
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<td>Sponsor</td>
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<tr>
<td>Support</td>
<td>10</td>
<td>3</td>
<td></td>
<td>7</td>
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<tr>
<td>Support and Seek Amendments</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Support if Amended</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
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<tr>
<td>Oppose</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Oppose Unless Amended</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>30</strong></td>
<td><strong>7</strong></td>
<td><strong>13</strong></td>
<td><strong>1</strong></td>
<td><strong>16</strong></td>
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</table>
AB 33 – Assemblymember Bill Quirk

Signed into law on September 26 (Chapter 680, Statutes of 2016)

Requires the California Public Utilities Commission (CPUC) to evaluate and analyze the potential for all types of long-duration bulk energy storage resources to help integrate renewable generation into the electrical grid.
Water Authority Sponsored Bills

- AB 2515 – Assemblymember Shirley Weber

- Requires the Department of Water Resources to:
  - Update the Model Water Efficient Landscape Ordinance (MWELO) every three years
  - Synchronize MWELO updates with the triennial CALGreen Building Standards Code revision cycle

- Signed into law on September 24 (Chapter 576, Statutes of 2016)
Policy Guidelines on Managing the Water Authority’s Carryover Storage Supplies

Water Planning Committee
October 27, 2016

Presentation by:
Dana Friehauf, Water Resources Manager
David Shank, Finance Planning Manager
<table>
<thead>
<tr>
<th></th>
<th>San Vicente Reservoir</th>
<th>Central Valley Out-of-Region Groundwater</th>
<th>Central Valley Out-of-Region Groundwater</th>
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<tbody>
<tr>
<td></td>
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<td>Semitropic-Rosamond</td>
<td>Semitropic</td>
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<tr>
<td>Stored Water Recovery</td>
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<td></td>
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<tr>
<td>Current Volume (AF)</td>
<td>100,000</td>
<td>15,000</td>
<td>25,000</td>
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<tr>
<td>Losses (evaporation and</td>
<td>Approx. 6% per year</td>
<td>One time 10% delivery amount</td>
<td>One time 10% delivery amount</td>
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<td>seepage)</td>
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<td></td>
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<tr>
<td>Annual Put Capacity (AFY)</td>
<td>100,000 (potential)</td>
<td>5,000</td>
<td>1,666</td>
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<tr>
<td>Annual Take Capacity (AFY)</td>
<td>100,000</td>
<td>5,000</td>
<td>5,000</td>
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</tbody>
</table>

- Losses: Approx. 6% per year, one time 10% delivery amount, one time 10% delivery amount
- Annual Put Capacity: 100,000 (potential), 5,000, 1,666, 2,715
- Annual Take Capacity: 100,000, 5,000, 5,000, 4,200
Purpose of Carryover Storage Policy Guidelines

Provide guidance on how carryover supplies should be managed during supply shortage events and normal (non-shortage) periods to help minimize or avoid potential cutbacks to member agencies during droughts.
Factors Considered in Preparation of Proposed Guidelines

• Water Authority Board actions, such as:
  • May 2006 *Water Shortage Drought Response Plan* and subsequent revisions to the Plan’s allocation methodology
  • June 2015 action to extend TSAWR to December 2020
  • June 2016 *Urban Water Management Plan*
Factors Considered in Preparation of Proposed Guidelines (cont.)

- Information from document research, such as:
  - DWR 2013 California Water Plan Update
  - MWD’s Water Surplus and Drought Management Plan
  - Governor’s May 2016 Executive Order pertaining to strengthening Water Shortage Contingency Plans
Factors Considered in Preparation of Proposed Guidelines (cont.)

- Numerous factors that influence managing carryover storage supplies, which should be evaluated on case-by-case basis, such as:
  - Current water demand trends
  - Availability of Water Authority supplies (QSA, CDP, MWD)
  - Availability of member agency supplies (surface, groundwater, recycled, potable reuse)
  - Existing and projected hydrologic conditions
  - Storage supply available for withdrawal
  - State drought response regulations and activities
Member Agency Review

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
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<tbody>
<tr>
<td>September 13, 2016</td>
<td>Member Agency Managers</td>
</tr>
<tr>
<td>October 4, 2016</td>
<td>Member Agency Finance Officers</td>
</tr>
</tbody>
</table>

- Presented both proposed carryover storage guidelines and proposals for revising Stored Water Fund Policy
  - No concerns raised at the meetings
  - Member Agency Managers supported Board consideration of the guidelines and Fund Policy
Proposed Carryover Storage Policy Guidelines

Supply Withdrawal During Shortage Events

1. Trigger to Utilize Carryover Storage Supplies

Evaluate utilization of carryover supplies when any of the Water Authority supplies are short (QSA, CDP, MWD)

2. Evaluation Period

Plan for carryover supplies to be utilized over five consecutive dry-years.
3. Carryover Supply Usage over the Five-Year Period

- Amount of carryover supplies used annually will be handled on a case-by-case basis
- General guideline of withdrawing surface storage supplies evenly over the five-year period
Proposed Carryover Storage Policy Guidelines

Supply Withdrawal During Shortage Events

4. Regional Supply
Carryover storage deliveries are a regional supply to be combined with Water Authority’s other supplies for delivery to the member agencies.

5. Transitional Special Agricultural (TSAWR) Water Rate Program
Carryover storage supplies will not be available to TSAWR customers per Board approved TSAWR program.
Proposed Carryover Storage Policy Guidelines

Evaluation of Storage Levels during Normal Periods

6. Schedule for Evaluation
Storage levels will be reviewed:
• Following a shortage event, and
• At least annually by May during normal periods.

7. Target Level During Normal Periods
Maintain a target of approximately 70,000AF and maximum of 100,000AF in San Vicente during normal periods.
• Recent “stress test” showed a withdrawal of approx. 70,000AF from carryover storage
Managing Current Carryover Storage Levels

• Consistent with proposed guidelines, evaluate storage reserve levels in Spring 2017
  • More certainty regarding hydrologic conditions and potential state regulations

• Until evaluation in Spring 2017
  • Do not draw down carryover supplies
  • No storage puts to offset evaporation and seepage losses
Stored Water Fund – Year-End

- Inventory – San Vicente Reservoir
  - Carryover storage
    - 100,000 AF in storage
  - Carryover inventory value - $81.1 million

- Cash
  - Projected available cash – Approximately $7 M
    - Proposed transfer to Operating Fund
  - Fill occurred faster than anticipated due to water availability
    - Cost of fill was lower than projected
Stored Water Fund Policy Outline

- **Policy Goal**
  - Ensure sufficient working capital to execute the Carryover Storage Policy Guidelines

- **Metrics define fund management**
  - **Storage levels**
    - Target – 70,000 AF
    - Maximum – 100,000 AF
  - **Maximum Fund Balance**
    - Maintain funding to fill available carryover storage to maximum storage level

- **Ongoing fund operation**
  - Annual budgeted deposits for seepage, evaporation and supply cost escalation
  - Revenue from carryover sales used to replenish fund
    - Deposit based upon cost of inventory
Proposed Stored Water Fund Transfer to Operating Fund

- Anticipate recommended transfer of approximately $7 million to Operating Fund
  - Pay down debt or fund CIP
    - Staff will develop alternatives and recommendation
    - Potential for future rate relief
  - Transfer will not impact coverage
Next Steps – Stored Water Fund Policy

- If Board approves carryover storage guidelines, staff will return in December to the A&F Committee with recommended changes to the Stored Water Fund Policy
  - Establish fund policy to ensure financial resources necessary to execute the carryover storage guidelines
Carryover Storage Policy Guidelines
Staff Recommendation

Approve policy guidelines for managing the Water Authority’s carryover storage supplies
SWRCB Report on the Feasibility of Adopting Regulations for Direct Potable Reuse

Water Planning Committee
October 27, 2016
Next Increment of Supply: Potable Reuse

- City of San Diego Pure Water
- Padre Dam Regional Advanced Purification Program
- North County Agencies
Current Perspectives on Potable Reuse

Public Health Protection

Multi-Barrier Water Purification Steps

Recycled Water → Membrane Filtration + Reverse Osmosis + UV / Advanced Oxidation + Detention Time in Reservoir + Treatment at Drinking Water Plant → Drinking Water Supply
Legislative Mandate

- SB 918 and SB 322 required State Water Board (Previously Department of Public Health) to
  - By December 31, 2016
    - Adopt Surface Water Augmentation Regulations
    - Finalize a report to the legislature on the Feasibility of Adopting Regulations for Direct Potable Reuse
  - Form an Expert Panel
    - Prepare expert panel report on feasibility of adopting regulations for direct potable reuse
    - Review Surface Water Augmentation Regulations
  - Form an Advisory Group
    - Advise Expert Panel
Direct Potable Reuse: Placement of recycled water directly into a public water system or into a raw water supply immediately upstream of a surface water treatment plant

Surface Water Augmentation: Placement of recycled water into a reservoir
Current Status

- September 8, 2016: Report on the Feasibility of Adopting Regulations for Direct Potable Reuse released for public comment

- Report Comments Submitted October 25, 2016
  - Water Authority and PRCC agency joint letter
  - Joint letter from water interest groups

- Surface Water Augmentation regulations have not been released for public comment
Key findings

- **Expert Panel:** It is feasible to adopt regulations.
  - Multi-barrier treatment needed
  - Ongoing research recommended

- **State Water Board:**
  - Complete research concurrently with development of direct potable reuse regulations
  - Created new definition of DPR

- **Advisory Group:**
  - Advance treatment operator certification
  - Agency capacity to do potable reuse
  - Transparent water quality information
Agency Interests

• Ability to advance local potable reuse projects
• Ensure that potable reuse projects are public health protective
• Further public acceptance of potable reuse projects
## Water Authority and Member Agency
### Primary Comments

<table>
<thead>
<tr>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The State Board should provide a clear schedule and plan for developing DPR criteria</td>
</tr>
<tr>
<td>The definition of DPR in the report should not include Surface Water Augmentation projects</td>
</tr>
<tr>
<td>Projects should be reviewed and approved on a case by case basis until regulations are adopted</td>
</tr>
<tr>
<td>Comment</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Support for overall multi-barrier and risk assessment approach</td>
</tr>
<tr>
<td>Support for advanced water treatment certification open to water and wastewater operators</td>
</tr>
<tr>
<td>State Board should work with water and wastewater agencies on developing source control programs and monitoring for pathogens in wastewater</td>
</tr>
</tbody>
</table>
Update on Implementation of May 2016 Executive Order B-37-16

Water Planning Committee
October 27, 2016

Presentation by:
Dana Friehauf, Water Resources Manager
Governor’s May 2016 Executive Order
Overview of Directives

- Eliminate water waste
- Strengthen local drought resilience
- Use water more wisely
- Improve agricultural water use efficiency and drought planning
- Reporting, compliance & enforcement
## Current State Agencies’ Schedule
Framework on Use Water More Wisely and Strengthen Local Drought Resilience

<table>
<thead>
<tr>
<th>Activity</th>
<th>TENTATIVE Date</th>
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<tbody>
<tr>
<td>SWRCB Meeting – Informational Report</td>
<td>Oct 5</td>
</tr>
<tr>
<td>Urban Advisory Group Meeting #3</td>
<td>Oct 20</td>
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<tr>
<td>Public Draft Release</td>
<td>Nov 14</td>
</tr>
<tr>
<td>UAG &amp; AAG Meeting/Public Workshop</td>
<td>Nov 18</td>
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<tr>
<td>Public Comments Due</td>
<td>Nov 23</td>
</tr>
<tr>
<td>Final Report and Public Workshop</td>
<td>Jan 10, 2017</td>
</tr>
</tbody>
</table>
Strengthen Local Drought Resilience

Outline of Current State Agencies’ Proposal

• Primary objectives
  1. Assure urban water suppliers have adequately planned for droughts lasting at least five years
  2. Provide state agencies data to allow focused attention where needed and forestall overarching mandates that conflict with local plans

• Recommendations
  1. Include additional elements in Shortage Contingency Plan (currently concluded in Urban Water Management Plan)
  2. Urban water suppliers submit Annual Assessment to state agencies
Use Water More Wisely: New Water Use Targets

Outline of Current State Agencies’ Proposal

- Single agency-wide gpcd target for 2025 based on efficiency standards for
  - Indoor residential
  - Outdoor irrigation
  - Water lost through leaks

- Propose performance measures for indoor CI

- Supplier would decide on actions necessary to comply with target
Oct 18, 2016 Water Agency Coalition Letter
Comments on Current State Response

• 60+ agencies signed letter

• Overarching positions on water use targets
  • Adequate process to develop standards
  • Alternative target-setting approach
  • Incentives to support continued supply investment
  • Support 2025 target compliance schedule
  • State expand outreach and assistance to help achieve behavioral changes by water users

• Detailed comments included as attachments
  • (i.e., support using irrigable acreage in establishing outdoor budget)