Imported Water Committee
MWD Biennial Budget

April 28, 2011
March Report to IWC

Process:
- Transitioned into biennial “rolling” budget
  - Board adopts first year budget and “provisionally” adopts second year budget
  - 2011/12 budget excepted (adopted August 2010)
- Rates and charges adopted annually
  - CY 2012 rates excepted

Issues identified:
- Sales assumptions
- Magnitude of budget cuts
- Subsidy
- Deferral of OPEB and PAYGo
New financial information in April

- Water sales continued to drop
  - Budget = 1.93 maf
  - Jan. proj. = 1.75 maf
  - Feb. proj. = 1.7 maf
  - Mar. proj. = 1.68 maf

- April projection for FY 2011: 1.64 maf
  - 291 taf below budget
  - Revenue shortfall of $194M
  - Water rate stabilization fund take of 126M
    - ~ doubled projected in budget
    - Falls below minimum target at end of FY 2011
MWD Reserve Fund Balance

($ in millions)

- Total Reserves
- Min Reserve
- Max Reserve

Fiscal Year
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011 est.

San Diego Litigation Trust
Delegates’ Request

- Defer budget action in April
- Schedule new budget workshop to address issues raised
- Board to reopen 2011/12 budget and consider revised 2011/12 budget and provisional 2012/13 budget
Water Authority Delegates Concerns

- New financial information
  - Lower projected water sales in 2010/11 resulting in significant withdrawals from reserves

- Projected water sales
  - Based on 1.8 maf for FY 2012 and FY 2013, what if sales remain low?

- Insufficient cost reductions to match lower sales base
  - Identified nearly 20% CIP potential cut over next two years
  - Questioned other discretionary expenditures
Continued deferral of OPEB and PAYGo
- Unfunded OPEB liability $404M (1/1/2009), projected to grow to $555.5M in 2015 if no prepayments
- PAYGo used to mitigate revenue gaps 5 of past six years
  - Recommended budget continued practice for next two years
    - 7 out of 9 years CIP would be heavily funded by bond proceeds

Storage budget
- Budget contained inadequate budget for storage
Provisionally approved 2012/13 budget for a total of $1.49 billion cash outlays

- O&M, CR & SWP costs, demand management programs, debt service, supply programs, PAYGo funding for R&R

Provisionally approved use of up to $10M and $125M in operating revenues to fund OPEB, and R&R projects, respectively, if sales exceed 1.8 maf

Directed staff to update 2012/13 budget to reflect changed conditions for board action in April 2012
Receipts
Rate Increases of 7.5% in 2012 and 5% in 2013

Million Dollars

- 2009 Actual
- 2010 Actual
- 2011 Proj.
- 2012 Appr. Budget
- 2012 Proj.
- 2013 Prop. Budget

- 2.16 MAF
- 1.94 MAF
- 1.7 MAF
- 2.0 MAF
- 1.8 MAF
- 1.8 MAF

- Power Sales & Miscellaneous
- Interest Income
- Readiness-to-Serve & Capacity Charge
- Taxes & Annexation Fee
- Water Sales

Fiscal Year Ending
Expenditures Reflecting 1.8 MAF Sales Forecast

- Dept. O&M
- Debt Service
- Supply Programs
- State Water Project
- CRA Power
- Demand Mgt.
- PAYGO

Million Dollars

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>1,254</td>
<td>1,330</td>
<td>1,413</td>
<td>1,608</td>
<td>1,444</td>
<td>1,489</td>
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San Diego County Water Authority
2012/13 Proposed Expenditures

- Discretionary
  - O&M
  - PAYGO Funding
  - Conservation Credits

- Non-discretionary
  - State Water Contract
  - CRA Power
  - Debt Service & Debt Reserve
  - Water Supply Programs
  - LRP Incentive Contracts

$1,489 M

$1,040 M

$449 M
2012/13 Proposed Budget
(1.8 maf sales for 2012 and 2013; 2 maf for 2014–16)

<table>
<thead>
<tr>
<th>Year</th>
<th>PAYGO, $M Actual</th>
<th>PAYGO, $M Budgeted planned</th>
<th>Rev. Bond Cvg</th>
<th>Fixed Chg Cvg</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>88</td>
<td>95</td>
<td>1.8</td>
<td>1.3</td>
</tr>
<tr>
<td>2007</td>
<td>95</td>
<td>95</td>
<td>2.2</td>
<td>1.7</td>
</tr>
<tr>
<td>2008</td>
<td>43</td>
<td>85</td>
<td>1.8</td>
<td>1.3</td>
</tr>
<tr>
<td>2009</td>
<td>30</td>
<td>95</td>
<td>1.8</td>
<td>1.3</td>
</tr>
<tr>
<td>2010</td>
<td>37</td>
<td>37</td>
<td>1.6</td>
<td>1.1</td>
</tr>
<tr>
<td>2011</td>
<td>45</td>
<td>95</td>
<td>1.4</td>
<td>0.9</td>
</tr>
<tr>
<td>2012</td>
<td>45</td>
<td>125</td>
<td>1.7</td>
<td>1.2</td>
</tr>
<tr>
<td>2013</td>
<td>60</td>
<td>125</td>
<td>1.9</td>
<td>1.3</td>
</tr>
<tr>
<td>2014</td>
<td>125</td>
<td>125</td>
<td>2.2</td>
<td>1.5</td>
</tr>
<tr>
<td>2015</td>
<td>125</td>
<td>125</td>
<td>2.0</td>
<td>1.4</td>
</tr>
<tr>
<td>2016</td>
<td>125</td>
<td>125</td>
<td>2.1</td>
<td>1.3</td>
</tr>
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</table>

Avg Rate Increase
2%  3%  6%  14%  20%  7.5%  7.5%  5%  5%  5%  6%

PAYGO, $M

Fiscal Year Ending

Reserves
Maximum Reserve
Minimum Reserve

Million Dollars
MWD Reserve Fund Balance

($) in millions

- Total Reserves
- Min Reserve
- Max Reserve

Fiscal Year
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011 est.

San Diego Litigation Trust
Reserves & Coverage
(1.8 maf sales for 2012 and 2013; 2 maf for 2014–16)

Avg Rate Increase

<table>
<thead>
<tr>
<th>Fiscal Year Ending</th>
<th>2%</th>
<th>3%</th>
<th>6%</th>
<th>14%</th>
<th>20%</th>
<th>7.5%</th>
<th>7.5%</th>
<th>5%</th>
<th>5%</th>
<th>5%</th>
<th>5%</th>
<th>6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAYGO, $M Actual</td>
<td>88</td>
<td>95</td>
<td>43</td>
<td>30</td>
<td>37</td>
<td>45</td>
<td>45</td>
<td>60</td>
<td>125</td>
<td>125</td>
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<td>95</td>
<td>95</td>
<td>85</td>
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</tr>
<tr>
<td>Rev. Bond Cvg</td>
<td>1.8</td>
<td>2.2</td>
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<td>1.8</td>
<td>1.6</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Fixed Chg Cvg</td>
<td>1.3</td>
<td>1.7</td>
<td>1.3</td>
<td>1.3</td>
<td>1.1</td>
<td>0.9</td>
<td></td>
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</table>
What’s Next?

- Water Authority has the greatest stake in MWD’s success
- Continue to advocate prudent expenditures as projects come on board for approval
- Continue to outreach and educate
MWD’s Water Supply Allocation Plan for 2011/2012

Imported Water Committee
April 28, 2011
Discussion

- MWD Water Supply Update
- Water Supply Allocation Plan for 2011/12
- MWD’s Storage Update
- Replenishment Discussion
Improved Supplies Condition

- On March 30 – Governor Brown declared the drought was officially over
  - Precipitation is 116% of average
  - Run-off is 165% of average
  - Lake Oroville is at 93% of its capacity
- SWP Table A allocation at 80%
  - Additional surplus water being made available
- Improved Colorado River watershed conditions
  - USBR declared equalization release of Powell to Mead
  - Lake Mead level projected to increase by 27’
  - Chances of shortage diminished
State Water Project – 2011 supplies (as of April 2011)

<table>
<thead>
<tr>
<th>State Water Project supplies</th>
<th>Acre-Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table A (80 percent allocation and SWP surplus water)</td>
<td>1,874,000</td>
</tr>
<tr>
<td>Other SWP Programs and Transfers</td>
<td>176,000</td>
</tr>
<tr>
<td><strong>Subtotal available SWP supplies</strong></td>
<td><strong>2,050,000</strong></td>
</tr>
<tr>
<td>Demands and Obligations</td>
<td>(74,000)</td>
</tr>
<tr>
<td><strong>Total SWP System Available Supplies</strong></td>
<td><strong>1,976,000</strong></td>
</tr>
</tbody>
</table>
Colorado River Aqueduct – 2011 supplies  (as of April 2011)

<table>
<thead>
<tr>
<th>Colorado River Aqueduct supplies</th>
<th>Acre-Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Apportionment</td>
<td>550,000</td>
</tr>
<tr>
<td>Other CR Programs and Transfers</td>
<td>231,000</td>
</tr>
<tr>
<td>Water Exchanged with SDCWA (IID Transfer &amp; Canal Lining projects)</td>
<td>161,000</td>
</tr>
<tr>
<td><strong>Subtotal available CRA supplies</strong></td>
<td><strong>942,000</strong></td>
</tr>
<tr>
<td>Demands and Obligations</td>
<td>(193,000)</td>
</tr>
<tr>
<td><strong>Total CRA System Available Supplies</strong></td>
<td><strong>749,000</strong></td>
</tr>
</tbody>
</table>
MWD 2011 Supply/Demand*Outlook

2010 Demands

Demands Assumption
(w/o allocation)

2011 CY

1,976 TAF

SWP

749 TAF

CRA*

*Includes Water Authority’s 161,000 af of QSA supplies
Water Supply Allocation

- 2008 - Water Supply Allocation Plan adopted
  - Need based approach; MWD water allocated based on a number of adjustments to ensure no significant difference in impact on retail customers
- 2009 – Board declared a regional Water Supply Condition 3
  - Water Supply Allocation – Regional Shortage Level 2
    - July 1, 2009 – June 30, 2010
- 2010 – Board approved remaining at Level 2
  - July 1, 2010 – June 30, 2011
Water Supply Allocation lifted

- Board terminated Water Supply Allocation – Regional Shortage Level 2 – April 2011
  - Reaffirm Baseline Water Use Efficiency
  - Lifted the Interim Agricultural Water Program Reduction
- Water Planning Committee will be discussing Water Authority actions as a result of MWD lifting its WSAP
MWD Storage

- Since MWD lost access to surplus Colorado River water, its strategy to meet demands relies heavily on storage
- 5.2 maf of dry-year storage portfolio developed
  - Assumed surplus supplies for storage 7 out of 10 years
  - Assumed storage needed 3 out of 10 years
- 2007 court decision severely limited available surplus supplies
  - Now, surplus available 3 out of 10 years
Regulatory Water Impacts*
2008-2010 Biological Opinion Impacts

- Smelt BiOp = 20-33% cut annually
- Salmon BiOp = additional 10% cut

- 2008 impact = 670,000 acre-feet
- 2009 impact = 619,000 acre-feet
- 2010 impacts = 1,043,000 acre-feet

* SWP and CVP combined
MWD Dry-Year Storage Levels

Beginning of Year Balances (Excludes Emergency Storage)

MWD Dry-Year Storage Capacity

Pumping Restrictions

Million Acre-Feet

<table>
<thead>
<tr>
<th>Year</th>
<th>Balances</th>
<th>Replenishment deliveries</th>
<th>IAWP curtailment</th>
<th>WSAP Level 2</th>
<th>WSAP lifted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2.2</td>
<td>ceased May 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>1.8</td>
<td>IAWP curtailment begins Jan. 2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>1.1</td>
<td></td>
<td>SWAP Table A Allocation</td>
<td></td>
<td></td>
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<tr>
<td>2010</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2011</td>
<td>1.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td>455 TAF</td>
<td>1.01 MAF</td>
</tr>
</tbody>
</table>

San Diego County Water Authority
MWD’s Storage Portfolio

Remaining Storage Space

455 TAF - 1.01 MAF of Additional 2011 Put

1.7 MAF – Start of 2011

MWD Dry-Year Storage Capacity
Storage/Replenishment Discussion

- 455 taf – 1.01 maf of water beyond demand could be available for storage
- MWD’s 2011 put capacity = 1.05 maf
- MWD needs to store as much water as it possibly could
  - This is one of the “3” years
- Water Management Program permits purchase of water for replenishment purposes
Storage/Replenishment Discussion (cont.)

- Issue of replenishment discussion is about price
- Sale of discounted water displaces full service sales and exacerbate MWD’s financial crisis
- Sale of discounted water sends wrong message in context of Delta Fix
Next Steps

- Water Supply Allocation Review
  - Proposed changes to MWD board in June

- Long-term Review of the Replenishment Service Program for 2012
  - Concerns about effectiveness

- Local Resources Development Strategy Task Force
  - Periodic Review
San Diego County Water Authority
2011 Public Opinion Poll

• Prepared by
  Rea & Parker Research
• April 2011
• Principal Researchers:
  • Richard A. Parker, Ph.D.
  • Louis M. Rea, Ph.D.

2011 Public Opinion Poll

- n = 821
- Adult residents (1+ years) of San Diego County Water Authority service area
  - Margin of error +/- 3.4% @ 95% confidence
  - Weighted for
    - 403 City of San Diego resident oversampling
    - 68 cell phone only users
Most Important Issues Facing San Diego County Residents

In 2000-2004, the most important issues were growth, traffic, and housing affordability.

Primary Survey Objectives

Identify and Analyze
- Level of public concern about cost of water and rising rates
- Tolerance for additional rate increases to support reliability projects
- Drivers for recent reductions in water use
- Likelihood for regional water use to "rebound"
- Progress toward Strategic Plan objectives
Diversification Programs

- Considerable agreement with strategy to improve reliability through diversification

- Recycled water as a supplement to drinking water continues to gain favor

- Water conservation has more support than both desalination and water recycling—continuing a pattern that was first evidenced in 2009

Opinion about Diversification Plan
(scale: 1= Agree Strongly, 5= Disagree Strongly—mean = 1.69)
Opinion About Using Advanced Treated Recycled Water as an Addition to Drinking Water Supply
(scale 1 = Strongly Favor..5 = Strongly Oppose–mean = 2.04)

Most Critical Thing that Can be Done to Ensure Safe and Reliable Water Supply for San Diego County
(among those who did not reply "unsure")
Value and Cost of Water

- Water seen as best or second best utility value; more than ½ find water to be “too expensive”
- Substantial concern water rates will continue to rise
- Relatively even split between those who recognize necessity of rate increases and those that think that rate increases should be stopped
  - Consistent with slightly under 50% who are willing to pay more for increased diversification
- High level of support for maintaining reduced water prices for agriculture

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**Best Value Among Utilities**

<table>
<thead>
<tr>
<th>Utility</th>
<th>All Respondents</th>
<th>Water Bill Payers</th>
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</thead>
<tbody>
<tr>
<td>Gas &amp; Electric</td>
<td>26%</td>
<td>21%</td>
</tr>
<tr>
<td>Water</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Internet Access</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Telephone (land line)</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Trash Collection</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>Mobile Phone</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Cable-Satellite TV</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Sewer</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Opinion about Cost of Water

- Too Expensive: 55%
- Fair/Reasonable: 40%
- Inexpensive: 5%

Concern About Continued Increases in Water Rates
(scale 1 = not at all concerned.. 5 = very concerned--mean = 3.76)

- Very concerned: 48%
- Somewhat concerned: 13%
- Neither concerned nor unconcerned: 20%
- Somewhat unconcerned: 6%
- Not at all concerned: 13%
Increase Water Rates to Pay for Projects to Improve Reliability? (among those who pay their own bills)

- Increases in Water Rates are Necessary to Maintain Reliability: 40%
- Increases in Water Rates are not Necessary and Should be Stopped: 49%
- Not Sure: 11%

Willingness to Pay More per Month for Diversification Plan (mean = $35, median = $10)

- Yes—More than $50 per month, 6%
- Yes—$11-$20 per month, 9%
- Yes—$6-$10 per month, 13%
- Yes—under $5 per month, 8%
- Other, 57%
- Not Willing to Pay More, 48%
- Not Sure, 9%
Maintain Reduced Water Rates for Farmers and Agriculture

Conservation

- Nearly 1/3 have reduced their water usage during the past year
  - Almost 90% consider these reductions to be permanent
  - Primary reasons for conservation are “right thing to do” and cost and budget considerations.
- Among all respondents, more than 80% would continue to comply with water use restrictions even if no longer mandatory
- Other than personal reasons such as larger home or family, only significant reason for increased use is warmer, drier weather this year
Primary Motivation for Water Use Reduction
(among 31 percent of households that have reduced water use in past year)

- Cooler, wetter weather, 1%
- Smaller household size, 1%
- Messages in media, 5%
- Mandatory restrictions, 6%
- Calls to conserve by water agencies, 8%
- Rising water rates, 13%
- Conserving water is the "right thing to do", 34%
- We are watching our budget, 32%

87% believe that their reductions are permanent

Continue to Observe Restrictions Even if Lifted?
(all respondents)

- Yes, 83%
- Not Sure, 7%
- No, 10%
### Conditions Under Which Respondents Would Increase Water Use

- Family grows larger: 60%
- Weather becomes warmer and drier than past year: 52%
- Move to larger home: 50%
- Economy rebounds: 24%
- Watering restrictions no longer in effect: 22%
- Water agencies stop asking for conservation: 20%
- Better job/promotion: 15%

### Demographic Characteristics (2011, weighted) vs. Previous Years

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>2011 (weighted)</th>
<th>2009</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>42%</td>
<td>47%</td>
<td>46%</td>
<td>50%</td>
</tr>
<tr>
<td>Female</td>
<td>58%</td>
<td>53%</td>
<td>54%</td>
<td>50%</td>
</tr>
<tr>
<td>Median Age (Years)</td>
<td>49</td>
<td>53</td>
<td>49</td>
<td>48</td>
</tr>
<tr>
<td>Median Number of Years Lived in Community</td>
<td>21</td>
<td>29</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>Highest Grade/Level of School Completed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School or Less</td>
<td>29%</td>
<td>29%</td>
<td>21%</td>
<td>14%</td>
</tr>
<tr>
<td>Some College</td>
<td>28%</td>
<td>27%</td>
<td>27%</td>
<td>35%</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>26%</td>
<td>31%</td>
<td>35%</td>
<td>25%</td>
</tr>
<tr>
<td>Some Graduate School</td>
<td>17%</td>
<td>13%</td>
<td>17%</td>
<td>26%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>White</td>
<td>53%</td>
<td>74%</td>
<td>67%</td>
<td>76%</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>36%</td>
<td>13%</td>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>7%</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>African-American/Black</td>
<td>6%</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Native American/Mixed</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$57,400</td>
<td>$63,100</td>
<td>$61,100</td>
<td>$63,600</td>
</tr>
<tr>
<td>Home Ownership Percentage</td>
<td>64%</td>
<td>70%</td>
<td>64%</td>
<td>71%</td>
</tr>
<tr>
<td>Type of Housing</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Single Family Detached</td>
<td>64%</td>
<td>71%</td>
<td></td>
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</tr>
<tr>
<td>Condominium</td>
<td>13%</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apartment</td>
<td>18%</td>
<td>15%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Home</td>
<td>4%</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Number of Persons per Household</td>
<td>3.13</td>
<td>2.76</td>
<td>2.99</td>
<td>2.84</td>
</tr>
<tr>
<td>Pay Own Water Bill</td>
<td>76%</td>
<td>70%</td>
<td>64%</td>
<td>69%</td>
</tr>
<tr>
<td>Preferred Language—Spanish</td>
<td>17%</td>
<td>4%</td>
<td>11%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Questions?
Most Important Component of Diversification Plan

- Recycled Water, 25%
- Seawater Desalination, 28%
- Local Reservoirs, 13%
- Conservation, 9%
- Groundwater Storage, 6%
- Colorado River Transfers, 10%
- Other, 9%
- Not Sure, 1%
- No Component is Important, 8%

Water Use Increasing or Decreasing Past Year

- Increasing, 19%
- Decreasing, 31%
- Staying the Same, 48%
- Not Sure, 2%
Appropriateness of Tiered Water Rates to Encourage Using Water Wisely

- Yes, 70%
- No, 23%
- Not Sure, 7%

Influence of Requests for Voluntary Conservation from Water Agencies
(Scale: 1 = Great Deal of Influence..5 = No Influence at All--mean = 2.54)

- Great Deal of Influence, 37%
- Good Amount of Influence, 16%
- Some Influence, 20%
- Not Much Influence, 10%
- No Influence at All, 17%
Reasons for Continuing to Conserve after Restrictions Lifted
(among 83 percent who indicated that they would continue to observe restrictions)

- Conservation is proper ethic, 47%
- Learned to live with less water, 22%
- Must provide for future needs, 13%
- Cost, 11%
- Protect environment, 6%
- Other, 1%

Support for Making Water Use Restrictions Permanent

- Yes, 48%
- No, 41%
- Not Sure, 11%
Possible to Further Treat Recycled Water Used for Irrigation to Make It Pure and Safe for Drinking

- Yes: 66% in 2011, 53% in 2009
- No: 21% in 2011, 23% in 2009
- Not Sure: 13% in 2011, 11% in 2009
Water Supply Conditions

Water Planning Committee
April 28, 2011
California Governor Proclaims Drought Over

- Governor proclaims an end to statewide drought on March 30, 2011
  - Based on improved hydrologic conditions
  - Governor urged continued conservation efforts
  - Drought first declared by way of an emergency proclamation in June 2008

- SWP Table A allocation increased to 80% on April 20, 2011
  - Initial Table A allocation was 25%

<table>
<thead>
<tr>
<th>CY</th>
<th>Table A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>80%</td>
</tr>
<tr>
<td>2010</td>
<td>50%</td>
</tr>
<tr>
<td>2009</td>
<td>40%</td>
</tr>
<tr>
<td>2008</td>
<td>35%</td>
</tr>
<tr>
<td>2007</td>
<td>60%</td>
</tr>
<tr>
<td>2006</td>
<td>100%</td>
</tr>
</tbody>
</table>
Statewide Snow Water Equivalents

April 26, 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>% Average</th>
<th>% April 1&lt;sup&gt;st&lt;/sup&gt; Average*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Sierra</td>
<td>205</td>
<td>161</td>
</tr>
<tr>
<td>Central Sierra</td>
<td>176</td>
<td>152</td>
</tr>
<tr>
<td>Southern Sierra</td>
<td>165</td>
<td>140</td>
</tr>
<tr>
<td>Statewide</td>
<td>180</td>
<td>151</td>
</tr>
</tbody>
</table>

*April 1 is the typical date of the maximum snowpack accumulation
Reservoir Conditions - Lake Oroville

Lake Oroville Levels: Various Past Water Years and Current Water Year, Ending At Midnight April 26, 2011

Total Reservoir Capacity: 3,537,600 AF

Lake Oroville Reservoir Level (AF)


Current Level: 3,279,252.5 AF
93% (Total Capacity) | 112% (Historical Avg.)

Lake Oroville Conditions
(as of Midnight - April 28, 2011)
Flood Control Releases from Oroville
March 30, 2011

Photographs: CA Dept. Water Resources
Average Water Year Statewide Runoff

*Forecast as of April 1, 2011*
Colorado River Basin Conditions  April 25, 2011

- Water year 2011 precipitation is 122% of normal
- Snowpack is 130% of normal
- Projected water year 2011 runoff into Lake Powell is 111% of normal
- Storage – Percent Full
  - Lake Powell: 53%
  - Lake Mead: 43%
- Equalization releases are occurring from Lake Powell to Lake Mead to raise its storage level
Local Supply Conditions

**Precipitation**

7/01/10 – 4/26/11

Lindbergh Field
- 12.2 Inches
- 117% Normal

Ramona Airport
- 23.7 Inches
- 150% Normal

**Total Local Reservoir Storage**

*Includes 38 TAF of Water Authority carryover storage*
Lake Oroville

February 2009

March 2011
Fiscal Year 2011
Water Supply Allocations
Monitoring

Water Planning Committee
April 28, 2011
Cumulative FY 2011 M&I Member Agency Deliveries - 30% Under Allocation Target

Note: M&I deliveries estimated for those agencies not yet reporting March 2011 agricultural credited use.
Cumulative FY 2011 TSAWR Member Agency Deliveries - 41% Under Allocation Target

Note: Rincon del Diablo MWD and Vista I.D. SAWR deliveries for March are estimated.
Cumulative CY 2010 IAWP Member Agency Deliveries - 53% Under Allocation Target

Cumulative CY 2010 IAWP Member Agency Deliveries - 53% Under Allocation Target

Deliveries: 35,604

Target: 50,000

- 53%
Cumulative CY 2011 IAWP Member Agency Deliveries - 79% Under Allocation Target

Note: Poway, Rincon del Diablo, San Diego and Vista I.D. IAWP deliveries for March are estimated.
Management Actions in Response to End of Drought and Termination of Supply Cutbacks from Metropolitan

Water Planning Committee
April 28, 2011
Current Regional Condition
San Diego Region

- Water Authority’s Water Shortage and Drought Response Plan (WSDRP)
  - Allocating supplies under Mandatory Cutback Stage

- Drought Response Ordinance
  - Drought Response Level 2, Drought Alert

Drought Watch
- (10% voluntary conservation)

Drought Alert
- (Up to 20% mandatory conservation)

Drought Critical
- (Up to 40% mandatory conservation)

Drought Emergency
- (More than 40% mandatory conservation)
“The primary purpose of the WSDRP is to provide the Water Authority and its member agencies with a series of potential actions to take when faced with a shortage of imported water supplies from Metropolitan due to drought conditions.”

(WSDRP, Page 1-1)
# Water Shortage Drought Response Plan

## Drought Response Matrix and Stage Activation during 2007-2010 Shortage Period

<table>
<thead>
<tr>
<th>Stage</th>
<th>Applicable Conditions</th>
<th>Stage Activation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary Supply Management</td>
<td>Metropolitan has been experiencing shortages and is withdrawing water from storage due to drought conditions to meet demands</td>
<td>May 2007</td>
</tr>
<tr>
<td>Water Authority Supply Enhancement</td>
<td>Potential regional supply enhancement actions are necessary to minimize shortages</td>
<td>Dec 2007</td>
</tr>
<tr>
<td>Mandatory Cutbacks</td>
<td>Water Authority is allocating supplies to its member agencies</td>
<td>April 2009</td>
</tr>
</tbody>
</table>
Management Action – WSDRP

- **Staff recommendation:** *Discontinue M&I allocations to member agencies and deactivate the Water Authority’s WSDRP*

- **Basis for recommendation**
  - MWD terminated M&I allocations, effective April 13, 2011
  - WSDRP purpose to manage supply cutbacks due to drought or similar shortage event
  - Above average precipitation and snowpack statewide and Colorado River basin
    - MWD expects to store 800,000 AF this year
Transitional Special Agricultural Water Rate Required Minimum 13% Cutback

- March 2010 Board action to continue TSAWR included minimum 13% cutback
  - Regardless of MWD M&I cutback level
  - In place until program termination (Dec 31, 2012)
  - Required at least a 5% differential between Water Authority M&I cutback and TSAWR cutback

- Necessary to achieve guaranteed yield from the program during this shortage period

- Revised SAWR program begins Jan 1, 2013
  - Includes only exemption from storage charge with greater reduction in ESP and no CSP deliveries
Management Action - SAWR

- Staff recommendation: *Suspend SAWR cutbacks through program termination unless, prior to program termination, the Board activates the WSDRP*

- Basis for recommendation
  - Significant unforeseen improvements in supply
    - Typical La Niña conditions did not materialize
    - Above average precipitation and snowpack statewide and Colorado River basin
  - MWD lifted IAWP cutbacks for calendar year 2011
  - Program deliveries continuously well below allocation targets
“It establishes four levels of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and deceasing available supplies.”

(Model Ordinance, page 2)
Drought Response Ordinance contains four levels: Drought Watch, Drought Alert, Drought Critical, and Drought Emergency.

<table>
<thead>
<tr>
<th>Drought Response Levels</th>
<th>Customer Conservation Target</th>
<th>Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Drought Watch</td>
<td>Voluntary up to 10%</td>
<td>Due to drought or other supply reductions, there is a reasonable probability of supply shortages and demand reduction of up to 10% is required in order to have sufficient supplies</td>
</tr>
<tr>
<td>2 Drought Alert</td>
<td>Mandatory up to 20%</td>
<td>Due to cutbacks caused by drought or other supply reduction, a demand reduction of up to 20% is required in order to have sufficient supplies</td>
</tr>
</tbody>
</table>
Management Action - Drought Response Ordinance

- Staff recommendation: *Declare an end to Drought Response Levels contained in the Water Authority’s Drought Response Ordinance*

- Basis for recommendation
  - Governor rescinded statewide drought proclamation
  - Purpose of Ordinance as short-term tool to reduce demands during drought shortage periods
  - Trigger language included in Ordinance
  - No supply shortages anticipated for at least two years
Importance of Continued Conservation

- Help manage on-going imported water supply challenges
  - i.e., State Water Project pumping restrictions

- Increasing water demands due to forecasted growth
  - Conservation assist region in extending existing supplies further

- Long-term conservation ethic critical to achieving 20x2020 reduction target
Management Action - Conservation

Staff Recommendation: *Reinforce the importance of residents and businesses to continue efficient water use practices in the face of ongoing imported water supply challenges and the long-term achievement of the mandated 20 percent reduction in water use by 2020*
Proposed Staff Follow-up Activities

- Staff conduct an evaluation of specific elements of WSDRP, allocation methodology and Ordinance
  - Consider lessons learned from implementation
- Coordinate evaluation with member agencies
- Potential revisions presented to Board for consideration
Staff Recommendation

In response to MWD’s action to terminate cutbacks, as of April 13, 2011, significant unforeseen improvements in supply conditions, and Governor’s action to rescind the drought proclamation, staff is recommending that effective April 29, 2011, the Water Authority:

1. Discontinue M&I water supply allocations to member agencies and deactivate the Water Authority’s WSDRP;

2. Suspend Special Agricultural Water Rate cutbacks through program termination (December 31, 2012) unless, prior to program termination, the Board activates the WSDRP;
Staff Recommendation (Cont.)

3. Declare an end to Drought Response Levels contained in the Water Authority’s Drought Response Conservation Program Ordinance; and

4. Reinforce the importance of residents and businesses to continue efficient water use practices in the face of ongoing imported water supply challenges and the long-term achievement of the mandated 20 percent reduction in water use by 2020.