Proposed CY 2013 Rates and Charges

Administrative and Finance Committee
June 28, 2012
Agenda

- Overview of May’s Information
- Diversification of Water Supplies
- Enhanced Reliability of System
- Rate and Charge Drivers
- Recommendation
- Financial Performance Metrics
- Summary
Increasing San Diego County's Water Supply Reliability through Supply Diversification

1991

26 TAF (5%)

552 TAF (95%)

Total = 578 TAF

2011

67 TAF (11%)

23 TAF (4%)

20 TAF (3%)

80 TAF (14%)

67 TAF (11%)

262 TAF (44%)

Total = 594 TAF

2020

103 TAF (13%)

231 TAF (30%)

44 TAF (6%)

80 TAF (10%)

190 TAF (24%)

48 TAF (6%)

56 TAF (7%)

-27 TAF (4%)

Local Surface Water

Groundwater

Seawater Desalination

Recycled Water

Conservation

Imperial Irrigation District Transfer

All American & Coachella Canal Lining

Metropolitan Water District

Total = 779 TAF
Supply Portfolio Diversification (FY 2020)

- Conservation – 13%
- Local Supplies – 10%
  - Groundwater – 4%
  - Recycling – 6%
- Desalination – 7%
  - Carlsbad Desalination Project
  - Camp Pendleton Seawater Desalination Project Feasibility Study
- IID Transfer – 24%
- Canal lining – 10%

Supply diversification enhances supply reliability
What if Water Authority had QSA Transfers in 1991?
(Stage 5 of MWD’s Incremental Interruption and Conservation Plan)

- Water Authority FY90 Base Period Demand (666 TAF)
- State Water Bank Cutback 31%
- Estimated MWD Allocation 270 TAF
- QSA Supplies 280 TAF

Without SDCWA Transfers
- MWD Allocation 475 TAF

With SDCWA Transfers
- 14% Cutback

Water Authority purchased 20,100 AF of transfers from State Water Bank for delivery July–Dec 1991
Assumes 280 TAF QSA supplies were utilized in FY90 and therefore adjusted base period demand used to calculate allocation was modified.
What if Water Authority had QSA Transfers in 1991?
(Stage 6 of MWD’s Incremental Interruption and Conservation Plan)

- Water Authority FY90 Base Period Demand (666TAF)
- 50% Cutback
- State Water Bank
  - Estimated MWD Allocation 333TAF
  - 193TAF
  - QSA Supplies 280 TAF

Without SDCWA Transfers

With SDCWA Transfers


Assumes 280 TAF QSA supplies were utilized in FY90 and therefore base period demand used to calculate allocation was adjusted.
CIP Spending 1991–2014
Investments in Regional Water Reliability

- Emergency Storage Project
  - Sustain the region for approximately 6-months
- New and Expanded Storage Facilities & Interconnect pipelines
  - Augment supplies and mitigate shortages
- Water treatment
  - Cost effective regional water treatment facilities
- Aqueduct Protection Program
  - Optimize pipeline service life and reduce probability of catastrophic failures
Paying for Major Infrastructure Investments: Annual Debt Service Payments through 2050

*Includes debt service payments on existing senior and subordinate issuances
Rate Mitigation Efforts

- Reduction in Water Authority FY 2012 & 2013 budget by 16% from previous budget
- MWD related activities
  - Lawsuit – challenging 2011 and 2012 rates
  - Budget advocate – succeeded in reducing MWD’s CY 2013 average rate increase from 7.5% to 5%
    - Savings of $5 million
- Debt management
  - Refunding & other activities – Significant savings realized – approx. $3 million a year
  - Cost of funds – below Business Plan target
- Managing debt service coverage levels
  - Rate relief provided by lowering debt service coverage level for FY 2013 to 1.35x (will achieve 1.5X target by FY 2014)
Key Rate Drivers

- Water sales volumes
- Increasing cost of water from suppliers
- Planned debt service payment increases and related coverage requirements
Water Sales Forecast

<table>
<thead>
<tr>
<th>Water Sales (AF)</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High-rate Scenario</strong></td>
<td>397,672</td>
<td>417,707</td>
<td>442,439</td>
<td>469,842</td>
<td>488,242</td>
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<tr>
<td><strong>Low-rate Scenario</strong></td>
<td>431,559</td>
<td>479,675</td>
<td>502,859</td>
<td>529,190</td>
<td>542,808</td>
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<tr>
<td><strong>2012 Assumptions</strong></td>
<td>416,934</td>
<td>445,288</td>
<td>465,624</td>
<td>484,404</td>
<td>505,768</td>
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</table>

**Calendar Year**

<table>
<thead>
<tr>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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</thead>
<tbody>
<tr>
<td>2012 Assumptions</td>
<td>416,934</td>
<td>445,288</td>
<td>465,624</td>
<td>484,404</td>
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<tr>
<td>2011 Assumptions</td>
<td>422,857</td>
<td>452,631</td>
<td>475,223</td>
<td>496,890</td>
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</table>

**Difference**

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>(5,923)</strong></td>
<td><strong>(7,343)</strong></td>
<td><strong>(9,599)</strong></td>
<td><strong>(12,486)</strong></td>
<td><strong>(4,583)</strong></td>
</tr>
</tbody>
</table>
Adopted MWD CY 2013 Rates

<table>
<thead>
<tr>
<th>MWD Water Rates</th>
<th>Current CY 2012</th>
<th>MWD Staff Recommendation CY 2013</th>
<th>% Change</th>
<th>Option #2 CY 2013</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Supply</td>
<td>$164</td>
<td>$149</td>
<td>-9.1%</td>
<td>$140</td>
<td>-14.6%</td>
</tr>
<tr>
<td>System Access</td>
<td>$217</td>
<td>$228</td>
<td>5.1%</td>
<td>$223</td>
<td>2.8%</td>
</tr>
<tr>
<td>Water Stewardship</td>
<td>$43</td>
<td>$41</td>
<td>-4.7%</td>
<td>$41</td>
<td>-4.7%</td>
</tr>
<tr>
<td>System Power</td>
<td>$136</td>
<td>$190</td>
<td>39.7%</td>
<td>$189</td>
<td>39.0%</td>
</tr>
<tr>
<td>Treatment</td>
<td>$234</td>
<td>$260</td>
<td>11.1%</td>
<td>$254</td>
<td>8.5%</td>
</tr>
<tr>
<td>Tier 1 Untreated</td>
<td>$560</td>
<td>$608</td>
<td>8.6%</td>
<td>$593</td>
<td>5.9%</td>
</tr>
<tr>
<td>Tier 1 Treated</td>
<td>$794</td>
<td>$868</td>
<td>9.3%</td>
<td>$847</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

- Average overall increase including RTS & CRC is 5.0%
- Results in an estimated 8.5% increase in MWD Costs

RTS – Readiness-to-Serve
CRC – Capacity Charge
Adopted MWD CY 2014 Rates

<table>
<thead>
<tr>
<th>MWD Water Rates</th>
<th>CY 2013</th>
<th>CY 2014</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Supply</td>
<td>$140</td>
<td>$148</td>
<td>5.7%</td>
</tr>
<tr>
<td>System Access</td>
<td>$223</td>
<td>$243</td>
<td>9.0%</td>
</tr>
<tr>
<td>Water Stewardship</td>
<td>$41</td>
<td>$41</td>
<td>0%</td>
</tr>
<tr>
<td>System Power</td>
<td>$189</td>
<td>$161</td>
<td>-14.8%</td>
</tr>
<tr>
<td>Treatment</td>
<td>$254</td>
<td>$297</td>
<td>16.9%</td>
</tr>
<tr>
<td>Tier 1 Untreated</td>
<td>$593</td>
<td>$593</td>
<td>0%</td>
</tr>
<tr>
<td>Tier 1 Treated</td>
<td>$847</td>
<td>$890</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

Transportation decrease of 1.8%

- Average overall increase including RTS & CRC is 5.0%
- Results in an estimated 2.0% decrease in MWD Costs
Adopted MWD CY 2014 Rates

Transportation Increase of 12.4%

<table>
<thead>
<tr>
<th>MWD Water Rates</th>
<th>2-Year % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Supply</td>
<td>-9.8%</td>
</tr>
<tr>
<td>System Access</td>
<td>12.0%</td>
</tr>
<tr>
<td>Water Stewardship</td>
<td>-4.7%</td>
</tr>
<tr>
<td>System Power</td>
<td>18.4%</td>
</tr>
<tr>
<td>Treatment</td>
<td>26.9%</td>
</tr>
<tr>
<td>Tier 1 Untreated</td>
<td>5.9%</td>
</tr>
<tr>
<td>Tier 1 Treated</td>
<td>12.1%</td>
</tr>
</tbody>
</table>

RTS – Readiness-to-Serve
CRC – Capacity Charge
# MWD Supply vs. Wheeling Increases Since 2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Tier 1 Supply</th>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$170</td>
<td>$314</td>
</tr>
<tr>
<td>2011</td>
<td>$155</td>
<td>$372</td>
</tr>
<tr>
<td>2012</td>
<td>$164</td>
<td>$396</td>
</tr>
<tr>
<td>2013</td>
<td>$140</td>
<td>$453</td>
</tr>
<tr>
<td>2014</td>
<td>$148</td>
<td>$445</td>
</tr>
<tr>
<td>‘10–’14</td>
<td>−$22</td>
<td>+$131/AF</td>
</tr>
</tbody>
</table>
MWD is Largest Share of Water Cost

Projected CY 2013 M&I Cost of Water Purchases/QSA Exchange

- QSA Transportation Costs with MWD: 29%
- Canal Water Purchases*: <1%
- IID Water Purchases*: 19%
- Total Cost = $285M

CY 2013 Water Sales
- MWD Supply Costs: 52%
- Excludes the debt service for capital projects and recovery of settlement expenditures.

MWD represents 81% of the Water Authority’s cost of water purchased and/or transported

* Excludes the debt service for capital projects and recovery of settlement expenditures.
Quantification Settlement Agreement

- Colorado River QSA Supplies
  - Imperial Irrigation District transfer
    - 200,000 AF/year for 45 to 75 years
  - Canal-lining projects
    - 80,000 AF/year for 110 years
- Key to supply diversification strategy
  - Provide 180,000 acre-feet in 2013
- By 2021, 34% of region’s supply

IID and Canal Lining Deliveries 2003-2021

- IID Water Transfer
- Canal Lining

Lining the Coachella Canal
# QSA Transfer Schedule

<table>
<thead>
<tr>
<th>IID Water Transfer</th>
<th>Canal Lining</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CY</strong></td>
<td><strong>AF</strong></td>
</tr>
<tr>
<td>2012</td>
<td>90,000</td>
</tr>
<tr>
<td>2013</td>
<td>100,000</td>
</tr>
<tr>
<td>2014</td>
<td>100,000</td>
</tr>
<tr>
<td>2015</td>
<td>100,000</td>
</tr>
<tr>
<td>2016</td>
<td>100,000</td>
</tr>
<tr>
<td>2017</td>
<td>100,000</td>
</tr>
<tr>
<td>2018</td>
<td>130,000</td>
</tr>
<tr>
<td>2019</td>
<td>160,000</td>
</tr>
<tr>
<td>2020</td>
<td>190,000</td>
</tr>
<tr>
<td>2021</td>
<td>200,000</td>
</tr>
<tr>
<td>2022-34</td>
<td>200,000</td>
</tr>
<tr>
<td>2035-47</td>
<td>200,000</td>
</tr>
</tbody>
</table>

*GDPIPD 10-Year (2001-11) Compound Annual Growth Rate is 2.3%*  
**Based on increases to 10-year historical cost index**
Water Supply Cost Comparison
QSA Supplies vs. MWD Supplies

- Water Authority QSA Supplies
- MWD Tier 1 Untreated Supply Rate + RTS
- MWD Tier 2 Untreated Supply Rate + RTS

- $2,000
- $2,500
- $3,000
- $3,500
- $4,000

- 0%
- 10%
- 20%

- 2003 2008 2013 2018 2023 2028 2033 2038 2043
Proposed CY 2013 “All-in” M&I Water Rate Breakdown

### Rates and Charges ($/AF)

<table>
<thead>
<tr>
<th>Rates and Charges</th>
<th>Adopted CY 2012 Rates</th>
<th>Proposed CY 2013 Rates</th>
<th>Proposed CY 2013 Increase</th>
<th>Increase in Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melded Supply Rate</td>
<td>$638</td>
<td>$714</td>
<td>$76</td>
<td>11.9%</td>
</tr>
<tr>
<td>Melded Treatment Rate</td>
<td>234</td>
<td>256</td>
<td>22</td>
<td>9.4%</td>
</tr>
<tr>
<td>Transportation</td>
<td>85</td>
<td>93</td>
<td>8</td>
<td>9.4%</td>
</tr>
<tr>
<td>Storage *</td>
<td>133</td>
<td>139</td>
<td>6</td>
<td>4.5%</td>
</tr>
<tr>
<td>Customer Service *</td>
<td>58</td>
<td>57</td>
<td>-1</td>
<td>-1.7%</td>
</tr>
<tr>
<td><strong>Total Cost of Treated Water</strong></td>
<td><strong>$1,148</strong></td>
<td><strong>$1,259</strong></td>
<td><strong>$111</strong></td>
<td><strong>9.7%</strong></td>
</tr>
<tr>
<td><strong>Total Cost of Untreated Water</strong></td>
<td><strong>$915</strong></td>
<td><strong>$1,003</strong></td>
<td><strong>$88</strong></td>
<td><strong>9.6%</strong></td>
</tr>
</tbody>
</table>

* Fixed charges converted to $/AF using sales forecast and may not foot due to rounding.
Breakdown of the CY 2013 Treated Water Rate and Charge Increases

“All-in” Increase Distribution
$111/AF

- Customer Service* (-$1) -1%
- Storage* ($6) 5%
- Transportation ($8) 7%
- Melded Supply Rate ($76) 69%
- Melded Treatment Rate ($22) 20%

Melded Supply Rate Increase
$76/AF

- MWD Increase 57% ($43)
- Water Authority 43% ($33)

*Converted to $/AF based on sales forecast
Key Rate & Charge Drivers: “All-In” Rate Increases

Untreated Water
$88/AF Increase

- MWD Costs: 48%
- Increase in IID Supplies: 12%
- Increase in IID Water Rate: 14%
- Primarily Debt Service and Other Factors: 11%

Treated Water Rate
$111/AF Increase

- MWD Costs: 48%
- Increase in IID Supplies: 10%
- Increase in IID Water Rate: 11%
- Primarily Debt Service and Other Factors: 26%
2011 Rate Forecasts
“All-in” Untreated Water Rate

Current Rate $915

Proposed Rate $1,003
9.6% Increase

MWD Staff Recommendation $1,014
11.0% Increase

2012 2013 2014 2015

High-rate Scenario $955 $1,033 $1,121 $1,208

Low-rate Scenario $888 $939 $986 $1,033

Calendar Year
2011 Rate Forecasts “All-in” Treated Water Rate

Proposed Rate $1,259 9.7% Increase

Current Rate $1,148

MWD Staff Recommendation $1,274 10.8% Increase

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>High-rate Scenario</th>
<th>Low-rate Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$1,213</td>
<td>$1,115</td>
</tr>
<tr>
<td>2013</td>
<td>$1,305</td>
<td>$1,176</td>
</tr>
<tr>
<td>2014</td>
<td>$1,418</td>
<td>$1,231</td>
</tr>
<tr>
<td>2015</td>
<td>$1,559</td>
<td>$1,280</td>
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</table>
## Proposed Rates & Charges

<table>
<thead>
<tr>
<th>Water Authority Rates and Charges</th>
<th>CY 2011 Previous</th>
<th>CY 2012 Current</th>
<th>CY 2013 Proposed</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melded M&amp;I Supply Rate ($/AF)</td>
<td>$597</td>
<td>$638</td>
<td>$714</td>
<td>11.9%</td>
</tr>
<tr>
<td>Melded M&amp;I Treatment Rate ($/AF)</td>
<td>$215</td>
<td>$234</td>
<td>$256</td>
<td>9.4%</td>
</tr>
<tr>
<td>Transportation Rate ($/AF)</td>
<td>$75</td>
<td>$85</td>
<td>$93</td>
<td>9.4%</td>
</tr>
<tr>
<td><strong>Fixed Charges</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Charge (million)</td>
<td>$44.3</td>
<td>$54.2</td>
<td>$60.2</td>
<td>11.1%</td>
</tr>
<tr>
<td>Customer Service Charge (million)</td>
<td>$23.2</td>
<td>$26.4</td>
<td>$26.4</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Other Rates and Charges</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Untreated Special Agricultural Water Rate($/AF)</td>
<td>$527</td>
<td>$560</td>
<td>$593</td>
<td>5.9%</td>
</tr>
<tr>
<td>Treated Special Agricultural Water Rate ($/AF)</td>
<td>$742</td>
<td>$794</td>
<td>$849</td>
<td>6.9%</td>
</tr>
<tr>
<td>IAC</td>
<td>$2.49/ME</td>
<td>$2.60/ME</td>
<td>$2.65/ME</td>
<td>1.9%</td>
</tr>
<tr>
<td>Standby Availability Charge per parcel or acre, whichever is greater</td>
<td>$10</td>
<td>$10</td>
<td>$10</td>
<td>0%</td>
</tr>
</tbody>
</table>

1 Fiscal Year Charge.

2 ME means meter equivalent as defined in the resolution establishing the Infrastructure Access charge.
### Debt Service Schedule*

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2011 Projected Debt Service</th>
<th>2012 Projected Debt Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$114</td>
<td>$114</td>
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<tr>
<td>2013</td>
<td>$138</td>
<td>$135</td>
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<tr>
<td>2014</td>
<td>$144</td>
<td>$141</td>
</tr>
<tr>
<td>2015</td>
<td>$148</td>
<td>$145</td>
</tr>
<tr>
<td>2016</td>
<td>$153</td>
<td>$151</td>
</tr>
</tbody>
</table>

*Impact would $31.5M with debt service coverage target (1.5x)*

*Excludes CP program fees and trustee services*
Financial Performance Metrics – Debt Service Coverage Ratios

- Coverage requirement for Senior Lien Debt (FY 2013 – $129M)
  - Revenue required for coverage level
    - 1.35x – $45M
    - 1.50x – $65M
Utilities generally outperform policy targets although this trend has changed recently.

Water Authority coverage target below peer policies (LADWP – 2.0x, EBMUD – 1.6x, and MWD 2.0x).

Water Authority coverage target based on rating agency medians, peers’ targets, and realistic assumptions.

<table>
<thead>
<tr>
<th></th>
<th>Irvine Ranch Water District</th>
<th>Metropolitan Water District of Southern California</th>
<th>East Bay Municipal Utility District</th>
<th>San Diego County Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ratings (S&amp;P/M/F)</strong></td>
<td>AAA/Aa1/AAA</td>
<td>AAA/Aa1/AA+</td>
<td>AAA/Aa1/AA+</td>
<td>AA+/Aa2/AA+</td>
</tr>
<tr>
<td><strong>Senior-Lien Debt Service Coverage</strong></td>
<td>1.9x (2010)</td>
<td>1.48x (2011)</td>
<td>1.52x (2011)</td>
<td>1.35x (2013 Projected)</td>
</tr>
<tr>
<td><strong>Internal Coverage Target</strong></td>
<td>N/A</td>
<td>2.0x</td>
<td>1.6x</td>
<td>1.5x</td>
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# Regional Agency Financial Performance Metrics

<table>
<thead>
<tr>
<th>Agency</th>
<th>Senior Lien Coverage Ratio</th>
<th>FY 2010</th>
<th>Current Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitch AA Median</td>
<td></td>
<td>2.50x</td>
<td>2.30x</td>
</tr>
<tr>
<td>Water Authority</td>
<td></td>
<td>1.50x</td>
<td>1.47x**</td>
</tr>
<tr>
<td>City of San Diego</td>
<td></td>
<td>4.23x</td>
<td>2.32x**</td>
</tr>
<tr>
<td>MWD</td>
<td></td>
<td>1.61x</td>
<td>1.58x**</td>
</tr>
<tr>
<td>Otay</td>
<td></td>
<td>1.90x</td>
<td>1.39x*</td>
</tr>
<tr>
<td>Padre Dam</td>
<td></td>
<td>1.47x</td>
<td>1.16x*</td>
</tr>
<tr>
<td>Helix</td>
<td></td>
<td>3.60x</td>
<td>8.40x*</td>
</tr>
</tbody>
</table>

* FY 2011 data taken from Comprehensive Annual Financial Reports with the exception of Padre Dam which was taken from continuing disclosure.

** FY 2012 estimates based upon data provided in bond official statements or other sources.
Financial Performance Metrics

Current Board Policy - RSF Fund Balance Requirements

- Target level not achieved during projection period
Financial Performance Metrics

Funds balances are projected to be fairly stable.
# Impact of CY 2013 Rate Increase on Composite Monthly Residential Bill

- **5 Retail Agency Average Composite Cost (CY 2012)**
  - Fixed Charge: $19.83 monthly
  - Commodity Charge: $51.40
  - Composite Monthly Residential Bill: $71.23

<table>
<thead>
<tr>
<th>Wholesale Charges</th>
<th>Proposed Rates Monthly Retail Cost</th>
<th>Percent Retail Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>$3.03</td>
<td>4.2%</td>
</tr>
<tr>
<td>Treated</td>
<td>$3.82</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

Actual rate impact will vary by member agency

**Notes:**
1. Analysis based on retail rates for the City of Carlsbad, Helix Water District, the City of San Diego, Sweetwater Authority, and Otay Water District.
2. Tier 1 and Tier 2 pricing blocks vary by member agency.
3. Historic total water demand used to calculate member agency specific weighting factors.
4. Individual member agency commodity charge calculated using its average single family residential water use (hcf).
5. Composite commodity charge is the sum of the individual member agency’s commodity charge times its weighting factor.
Wholesale Monthly Cost of Water to Households

Cost of water purchases is 63% of the wholesale cost of water.

The remaining 37% or $19.22/month is for the Water Authority to:
- Deliver water and maintain the system
- Rapidly diversify the region’s water supplies
- Provide in-region emergency water storage
- Develop in-region water storage capacity

* Based upon 0.5 AF of consumption a year
Summary

Key rate and charge drivers

- 8.5% increase in MWD costs
- $21 million (18%) increase in senior lien debt service
- Increasing IID deliveries and scheduled IID cost increase
- Persistent low water sales environment

MWD rate and charge volatility mitigation

- Succeeded in limiting MWD’s average rate increase to 5%
- Coverage level reduced to 1.35x in FY 2013; target of 1.5X will be achieved in FY2014

Increase in overall water rates & charges of:

- 9.7% treated & 9.6% untreated

Overall rate and charge increase will vary by member agency depending upon the fixed charge allocations
Today’s Action

- Adopt the Water Authority’s rates and charges for calendar year 2013 and continue the annual Standby Availability Charge for fiscal year 2012–2013 as currently imposed (Action).
Fiscal Years 2012 and 2013
Mid-Term Budget Update
Administrative and Finance Committee
June 28, 2012
Two-Year Budget Addresses “New Normal”

- Reduced water sales volumes and revenue forecasted
- Deferral of 14 CIP projects ($150 million)
- Reorganization & consolidation for enhanced efficiency
- Managed personnel costs - significant staffing reductions
  - CIP
    - Reduction in positions to reflect the reduced CIP
  - Operating departments
    - 2nd year MOUs & Employee Packages
      - Increased PERS employee cost sharing
      - No net cost to the Authority
- Programmatic changes
- Seeking service efficiencies with Member Agencies
- Off-year projects
Managing Personnel Costs

- Significant staffing reductions
  - 31.33 positions (FTEs) eliminated in the Budget
- Two-year no net cost MOUs
- Increased PERS employee cost sharing to 4.5%

- 16% Reduction in FTEs (2008 – 2014)
Current Staffing Reductions

- Fiscal Year 2013: additional 5.41 FTEs
  - Engineer (P.E.)
  - Small Contractor Program Representative
  - Management Analyst
  - Education Programs Specialist
  - Senior Management Analyst
  - Senior Human Resources Specialist
Key Budget Highlights

- FYs 12&13 Budget - On Target
  - Recommendations reallocate resources; no overall increase to budget requested

FY12 Water Sales Volumes
Budgeted vs. Actual

- Budgeted (July - March 2012): 322,188 AF
- Actual (July - March 2012): 322,519 AF
## Sources of Funds—Summary

<table>
<thead>
<tr>
<th>Sources of Funds (in millions $)</th>
<th>Amended FY12&amp;13</th>
<th>Actuals To Date</th>
<th>Projection FY12&amp;13</th>
<th>Variance $</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Sales</td>
<td>$943.8</td>
<td>$352.8</td>
<td>$922.6</td>
<td>($21.2)</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Infrastructure Access Charges</td>
<td>57.0</td>
<td>23.0</td>
<td>56.4</td>
<td>(0.6)</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Property Taxes and In-Lieu Charges</td>
<td>21.1</td>
<td>8.8</td>
<td>20.5</td>
<td>(0.5)</td>
<td>-2.5%</td>
</tr>
<tr>
<td>Investment Income</td>
<td>13.0</td>
<td>4.2</td>
<td>13.0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Hydroelectric Revenue</td>
<td>1.8</td>
<td>0.7</td>
<td>1.8</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other Income</td>
<td>43.6</td>
<td>12.8</td>
<td>36.6</td>
<td>(7.0)</td>
<td>-16.1%</td>
</tr>
<tr>
<td><strong>Capital Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity Charges</td>
<td>21.4</td>
<td>11.1</td>
<td>22.3</td>
<td>0.9</td>
<td>4.2%</td>
</tr>
<tr>
<td>Water Standby Availability Charges</td>
<td>22.2</td>
<td>7.2</td>
<td>22.5</td>
<td>0.3</td>
<td>1.4%</td>
</tr>
<tr>
<td>Contributions in Aid of CIP</td>
<td>8.2</td>
<td>3.7</td>
<td>7.7</td>
<td>(0.5)</td>
<td>-5.9%</td>
</tr>
<tr>
<td><strong>Subtotal Revenue</strong></td>
<td><strong>$1,132.1</strong></td>
<td><strong>$424.3</strong></td>
<td><strong>$1,103.5</strong></td>
<td><strong>($28.6)</strong></td>
<td><strong>-2.5%</strong></td>
</tr>
<tr>
<td>Net Fund Withdraws</td>
<td>288.5</td>
<td>35.2</td>
<td>245.6</td>
<td>(43.0)</td>
<td>-14.9%</td>
</tr>
<tr>
<td><strong>Total Sources of Funds</strong></td>
<td><strong>$1,420.6</strong></td>
<td><strong>$459.5</strong></td>
<td><strong>$1,349.1</strong></td>
<td><strong>($71.6)</strong></td>
<td><strong>-5.0%</strong></td>
</tr>
</tbody>
</table>

Totals may not foot due to rounding.
# Uses of Funds—Summary

<table>
<thead>
<tr>
<th>Uses of Funds (in millions $)</th>
<th>Amended FY12&amp;13</th>
<th>Actuals To Date</th>
<th>Projected FY12&amp;13</th>
<th>Variance $</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Purchases &amp; Treatment</td>
<td>$666.9</td>
<td>$242.7</td>
<td>$655.1</td>
<td>($11.8)</td>
<td>-1.8%</td>
</tr>
<tr>
<td>Stored Water Purchases</td>
<td>21.1</td>
<td>0</td>
<td>14.4</td>
<td>(6.8)</td>
<td>-32.1%</td>
</tr>
<tr>
<td>Capital Improvements Program (CIP)</td>
<td>324.3</td>
<td>90.6</td>
<td>289.7</td>
<td>(34.6)</td>
<td>-10.7%</td>
</tr>
<tr>
<td>Debt Service</td>
<td>280.4</td>
<td>91.3</td>
<td>275.8</td>
<td>(4.6)</td>
<td>-1.6%</td>
</tr>
<tr>
<td>QSA Mitigation</td>
<td>12.5</td>
<td>3.1</td>
<td>12.5</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Operating Departments</td>
<td>87.7</td>
<td>29.7</td>
<td>84.8</td>
<td>(2.9)</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Hodges Pumped Storage</td>
<td>6.1</td>
<td>0.0</td>
<td>2.3</td>
<td>(3.8)</td>
<td>-62.0%</td>
</tr>
<tr>
<td>Equipment Replacement</td>
<td>1.2</td>
<td>0.2</td>
<td>1.1</td>
<td>(0.1)</td>
<td>-11.0%</td>
</tr>
<tr>
<td>Other Expenditures</td>
<td>20.4</td>
<td>2.0</td>
<td>13.4</td>
<td>(7.0)</td>
<td>-34.3%</td>
</tr>
<tr>
<td><strong>Total Uses of Funds</strong></td>
<td><strong>$1,420.6</strong></td>
<td><strong>$459.5</strong></td>
<td><strong>$1,349.1</strong></td>
<td><strong>($71.6)</strong></td>
<td><strong>-5.0%</strong></td>
</tr>
</tbody>
</table>

Totals may not foot due to rounding
## Uses of Funds—Operating Departments

<table>
<thead>
<tr>
<th>Expense Category (in thousands $)</th>
<th>Amended Budget</th>
<th>Actuals To Date</th>
<th>Total Projection</th>
<th>Variance $</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Labor &amp; Benefits</td>
<td>$80,826</td>
<td>$31,373</td>
<td>$79,665</td>
<td>($1,160)</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Direct Charges to CIP/Grants</td>
<td>(17,536)</td>
<td>(7,757)</td>
<td>(17,415)</td>
<td>121</td>
<td>-0.7%</td>
</tr>
<tr>
<td><strong>Operating Labor &amp; Benefits</strong></td>
<td><strong>$63,289</strong></td>
<td><strong>$23,616</strong></td>
<td><strong>$62,251</strong></td>
<td><strong>($1,039)</strong></td>
<td><strong>-1.6%</strong></td>
</tr>
<tr>
<td>Services</td>
<td>22,046</td>
<td>5,820</td>
<td>21,047</td>
<td>(999)</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Supplies</td>
<td>2,464</td>
<td>707</td>
<td>2,314</td>
<td>(150)</td>
<td>-6.1%</td>
</tr>
<tr>
<td>Utilities</td>
<td>2,168</td>
<td>561</td>
<td>1,986</td>
<td>(182)</td>
<td>-8.4%</td>
</tr>
<tr>
<td>Insurance</td>
<td>2,666</td>
<td>941</td>
<td>2,015</td>
<td>(651)</td>
<td>-24.4%</td>
</tr>
<tr>
<td>Leases/Rent</td>
<td>911</td>
<td>300</td>
<td>881</td>
<td>(30)</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Other</td>
<td>2,717</td>
<td>907</td>
<td>2,640</td>
<td>(77)</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Fixed Assets</td>
<td>104</td>
<td>55</td>
<td>91</td>
<td>(13)</td>
<td>-12.8%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$96,365</strong></td>
<td><strong>$32,907</strong></td>
<td><strong>$93,225</strong></td>
<td><strong>($3,140)</strong></td>
<td><strong>-3.3%</strong></td>
</tr>
<tr>
<td>Capitalized Overhead Allocation</td>
<td>(8,649)</td>
<td>(3,253)</td>
<td>(8,436)</td>
<td>214</td>
<td>-2.5%</td>
</tr>
<tr>
<td><strong>TOTAL OPERATING</strong></td>
<td><strong>$87,715</strong></td>
<td><strong>$29,654</strong></td>
<td><strong>$84,789</strong></td>
<td><strong>($2,927)</strong></td>
<td><strong>-3.3%</strong></td>
</tr>
</tbody>
</table>

Totals may not foot due to rounding.
BUDGET ADJUSTMENTS
Recommended Action

Capital Improvement Program (CIP)

1. Transfer $1.2 million from the Colorado River Canal Linings Project to the Post Construction Mitigation Monitoring project.

2. Reallocate savings ($0.3 million) from San Vicente Dam Raise and Carryover Storage project to Miramar Pump Station Valve and Meter Vaults Projects

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Budget Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado River Canal Linings</td>
<td>($1,155,000)</td>
</tr>
<tr>
<td>Post Construction Mitigation Monitoring</td>
<td>1,155,000</td>
</tr>
<tr>
<td>ESP - San Vicente Dam Raise and Carryover Storage</td>
<td>(300,000)</td>
</tr>
<tr>
<td>Miramar Pump Station Valve and Meter Vaults</td>
<td>300,000</td>
</tr>
</tbody>
</table>

Net Impact to Budget $0
Recommended Action

Operating Department Budget

3. Authorize an increase (0.09 FTE) in the budgeted full-time equivalents for Fiscal Year 2013 (from 253.92 to 254.01).

<table>
<thead>
<tr>
<th>Department/Program</th>
<th>FY13FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado River Program</td>
<td>0.67</td>
</tr>
<tr>
<td>Engineering</td>
<td>(0.33)</td>
</tr>
<tr>
<td>Finance</td>
<td>(0.25)</td>
</tr>
<tr>
<td><strong>Overall Net Impact</strong></td>
<td><strong>0.09</strong></td>
</tr>
</tbody>
</table>
Pipeline 3 Relining Financing & Delivery Method
For Carlsbad Desalination Project Due Diligence

Engineering & Operations Committee
June 28, 2012
Pipeline 3 Project Delivery Methods

- Project Overview
- Discussion of Financing Options
- Discussion of Project Delivery Methods
  - Advantages and disadvantages
  - Schedule and cost
- Next Steps
- Staff Recommendation
Pipeline 3 Relining - Project Assumptions

- Project Contract Duration: 27 Months
- Estimated Construction Cost: Approx. $41 Million
- Delay Costs: $150k to $175k per day
Pipeline 3 Project Financing Options

- Non-recourse – Poseidon funding

- Full Recourse – Water Authority funding
  - $25 - $28 million savings
Pipeline 3 Project Delivery Methods

- Design-Build
- Poseidon Design-Build
- Design-Bid-Build
Design - Build

Advantages

• Fast Track Schedule (18 Months)
• Design and Builder Teamed
• Open Procurement

Disadvantages

• Design Intent
• Oversight Cost
• Risk of Delay
Poseidon Design - Build

**Advantages**
- Fast Track Schedule
- Design and Builder Teamed
- Experienced EPC Contractor & Designer
- Poseidon responsible for majority of components
- Reduced Delay Risk

**Disadvantages**
- Design Intent
- Oversight Costs
- Construction Duration
- Not Open Procurement
Design-Bid-Build

Advantages
- Significant Experience
- Design Intent
- Least Costly
- Past On-Time Performance
- Open Procurement

Disadvantages
- Risk of Delay
Next Steps

- Refine and apportion the costs for the relining of Pipeline 3 between the total Carlsbad Project cost and what is attributable to extending the useful life of the facility, consistent with the Asset Management Program. These costs will then be integrated into the Water Authority’s rates and charges.

- Implement Procurement Method pending board approval of the Carlsbad Project.
Desal Improvements
Twin Oaks Valley WTP

• Existing CH2M Hill Contract
  • Design and Construct Improvements
    • Contract written to accommodate improvements
    • WTP designed to accept desalinated water
    • CH2M Hill has unique specialized experience

• Provides cost transparency and effectiveness
• Water Authority to finance improvements
• This work is subject to Board approval of the WPA
Staff Recommendation

- Direct staff to include the Pipeline 3 relining costs in the overall cost to the Carlsbad Desalination project that will be financed as part of the Water Authority’s Capital Improvements Program versus funding the project through Poseidon.

- Direct staff to use the project delivery method of Design-Bid-Build for the relining of Pipeline 3 from Vallecitos 9 Flow Control Facility to the Twin Oaks Valley Water Treatment Plant.

- This work is subject to Board approval of the WPA.
San Vicente Dam Raise Construction Update

Engineering & Operations Committee Meeting

June 28, 2012
Agenda

- Contractor’s Recovery Plan
  - Roller Compacted Concrete Placement
  - Outlet Tower

- Claims Status
RCC Placement
April 26, 2012

ULTIMATE DAM HEIGHT – FALL 2012
Last Feet to Cover Existing Dam
May 11, 2012

Existing Dam
Dam Raise Starts!
May 14, 2012
RCC Placement

June 28, 2012

ULTIMATE DAM HEIGHT – FALL 2012
Contractor Claims

- Marina Quarry Differing Site Condition
- Downstream Form System
- RCC Placement Claims
- Foundation Grouting
Infrastructure Challenge

- The Replacement Era
- Assets reaching end of useful life
- $1 trillion nationwide over next 25 years

- Infrastructure asset management program for individual utilities
  - Timing
  - Materials and installation
  - Life expectancy
  - Replacement costs
  - Probability distribution for wear out

AWWA, Buried No Longer, 2012
Assessment, Monitoring & Repair

- Condition Assessment
- Acoustic Fiber Optic
- Google Earth
- Relining Program
Asset Classification

- **Pipelines**
  - PCCP, Steel, BWCP, etc.
  - Includes BO, AV, MH, PW, CP, AFO

- **Facilities**
  - Flow Control, Hydrogeneration, etc.
  - Structural, Electrical, Electronic, Mechanical

- **Equipment**
  - Fleet
  - Computers
  - SCADA
  - Security
Philosophy
- Systematic & Logical Process
- Consistent Across Classes
- Repeatable

Condition Matrix

- Probability of Failure
- Consequence of Failure

Higher
- Highest Priority

Lower
Probability of Failure

- Equipment Condition
- Site Characteristics
- Age
- Replacement Year
- Factor of Safety
Consequence of Failure

- Field Assessment
- Equipment Redundancy
- Water Delivered
- Pipe Diameter
- Auto Control vs. Manual Operation
Assessment Status

- Pipelines – Complete (baseline assessments)

- Facility Evaluations
  - Complete – 97 FCF’s by June 2011
  - On Schedule – 35 major facilities (pump station, hydro–generation) by July 2012

- Aqueduct Structures
  - Complete – 400 structures by August 2011
  - On Schedule – Remaining 1,000 by December 2013
Probability of Failure

Consequence of Failure

High Priority (14%, 5.4 miles)  Medium Priority (11%, 4.4 miles)  Low Priority (75%, 29.7 miles)

Increasing

Pipelines (PCCP)
Facilities (FCF’s & T.O.)

Weighting = 50% piping, 25% building, 15% meter, 10% valve

Consequence of Failure Rating

Probability of Failure Rating

Increasing

High Priority (4%, 7 FCF/TOs)  Medium Priority (71%, 145 FCF/TOs)  Low Priority (25%, 51 FCFs/TOs)
Facility Piping

- Pipe - High Priority (8%, 16 Total)
- Pipe - Medium Priority (81%, 166 Total)
- Pipe - Low Priority (11%, 23 Total)
**Structures**

- **Probability of Failure Rating**
  - High Priority (3%, 7 Total)
  - Medium Priority (76%, 155 Total)
  - Low Priority (21%, 43 Total)

- **Consequence of Failure Rating**

---

- Structure – High Priority (3%, 7 Total)
- Structure – Medium Priority (76%, 155 Total)
- Structure – Low Priority (21%, 43 Total)
Valves

- Valve - High Priority (1%, 2 Total)
- Valve - Medium Priority (37%, 72 Total)
- Valve - Low Priority (62%, 122 Total)
## Scope of Problem

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Low/Med R &amp; R Priority</th>
<th>High R &amp; R Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipelines (PCCP)</td>
<td>86 %</td>
<td>14 %</td>
</tr>
<tr>
<td>Pipeline Structures</td>
<td>93 %</td>
<td>7 %</td>
</tr>
<tr>
<td>FCF/T.O.</td>
<td>96 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Structure Piping</td>
<td>92 %</td>
<td>8 %</td>
</tr>
<tr>
<td>Structures</td>
<td>97 %</td>
<td>3 %</td>
</tr>
<tr>
<td>Venturi Meters</td>
<td>96 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Valves</td>
<td>99 %</td>
<td>1 %</td>
</tr>
</tbody>
</table>
Equipment Class – Fleet

17.6% Fleet Reduction over 6 years
Equipment Class – Fleet

- Evaluation Criteria
  - Mileage (odometer)
  - Vehicle Age
  - Operating Cost
  - Future Repairs
  - Suitability w/in Department
  - Suitability w/in Water Authority

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mileage</td>
<td>44,000</td>
<td>86,000</td>
</tr>
<tr>
<td>Age</td>
<td>6.1 Years</td>
<td>8.4 Years</td>
</tr>
<tr>
<td>Cost</td>
<td>$ 0.07 *</td>
<td>$ 0.21</td>
</tr>
</tbody>
</table>

* ½ Ton Class, Maintenance Cost only
Asset Management Future

- Continue Condition Assessments
- Update Risk Matrix (2 Years)
- Develop & Prioritize Repair Projects
AB 1095 (B. Berryhill) Delta Reform Act of 2009 - Oppose

- Carves out exemptions from Delta Plan regulations for in-Delta activities
- Urban areas and upgrades of in-Delta water facilities
- Recommend Oppose
Administrative Services for Turf Replacement Rebate Program

Legislative, Conservation and Outreach Committee
June 28, 2012
Background

- **Goals:**
  - Improve outdoor water efficiency
  - Help region meet long-term water management objectives

- **Support water use efficiency policy principles**
  - Encourage market transformation
  - Leverage external funding
## Funding

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWR’s IRWM Proposition 50 grant</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>U.S. Bureau of Reclamation grant</td>
<td>$92,633</td>
</tr>
<tr>
<td>Public Outreach and Conservation operating budget</td>
<td>$60,000</td>
</tr>
<tr>
<td><strong>Total budget</strong></td>
<td><strong>$1,152,633</strong></td>
</tr>
</tbody>
</table>
Eligibility

- Residential sites
  - Front yards
  - Side yards, if visible from public street

- Commercial, industrial, institutional sites

  * Water Authority Board and staff ineligible
Rebate Program

- Rebate for replacing existing turf with:
  - Water-efficient plants
  - Low-volume, low-pressure irrigation system

- Rebate amount = $1.50 per sq. ft.
  - Resid. maximum = up to $3,000 (2,000 sq. ft.)
  - CII maximum = up to $9,000 (6,000 sq. ft.)
Contractor

- Administer regional program
  - Improve efficiency

Responsibilities:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Process rebates</td>
<td>Provide customer service</td>
</tr>
<tr>
<td>Track program and budget</td>
<td>Market program</td>
</tr>
<tr>
<td>Ensure quality control</td>
<td>Manage database</td>
</tr>
<tr>
<td>Provide reports</td>
<td></td>
</tr>
</tbody>
</table>
Authorize the General Manager to execute a two-year professional services contract with WaterWise Consulting, Inc. to administer the Water Authority’s regional Turf Replacement Rebate Program, in an amount not to exceed $1,152,633.
Incorporation of costs into the Water Authority’s rates and charges

Water Planning Committee – June 28, 2012
Identifying the Costs and Benefits of the Project

**Costs** – Agreement represents a significant long-term financial commitment by Water Authority and its member agencies

- 30-year term and >$100 M annually (variable and fixed costs)
  - Higher water supply costs
  - Conveyance/Transportation costs
- Water Authority required to “take and pay if delivered”

**Benefits** - All member agencies/region benefit from access to a more reliable supply

- Improves regional water supply reliability (Emergency and Overall)
  - Base load users receiving regular deliveries
  - Intermittent users receiving standby benefit
- Cost profile expected to be relatively flat
  - Not subject to Bay-Delta unknown costs
Connecting the Cost/Benefits to Rates and Charges

- **Recovering costs of Carlsbad Desalination**
  - Ensure long-term fiscal sustainability for Water Authority
  - Ratepayer equity for member agencies – Meet basic rate setting principles
  - Avoid free ridership problem
    - Once the service is available no customer can be excluded
    - LADWP example of payments not commensurate with benefits
      - Uses and pays for system only when it’s own supply unreliable and MWD water has its intrinsic highest value
      - Paying based on use does not correlate to capacity to use
  - Because there are a diverse set of benefits
    - No one rate/charge will be optimal
    - Allocation of benefits to beneficiaries is the key issue
Connecting the Cost/Benefits to Rates and Charges

- Identify full range of beneficiaries, allocate benefits, and provide cost recovery mechanisms
- Options to collect revenue from beneficiaries
  - Optimal mix of:
    - Volumetric charges
    - Fixed charges
    - Growth Charges
    - Other?
What Are the Basic Rate Setting Principles?

- **Satisfy revenue requirements**
  - Generate sufficient revenues to pay costs
  - Meet bond covenants and Board policies for debt service coverage and reserves

- **Cost allocation**
  - Costs are carefully allocated to rate categories

- **Ratepayer equity**
  - Ratepayers pay for the services they receive
  - No free ridership
Water Authority Rate and Charge Objectives

- **Cost efficiency**
  - Relates to maintaining the lowest possible cost to ratepayers

- **Predictable rates**
  - Providing stable rates and charges for customers to effectively plan with

- **Intergenerational equity**
  - Helps ensure ratepayers that benefit from an asset pay for it
## Revenue Requirement and Cost Allocation

<table>
<thead>
<tr>
<th>Service Function</th>
<th>Revenue Requirement</th>
<th>Cost Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>Water purchase price, transportation charges, debt service capital facilities</td>
<td>Costs water purchases (MWD, IID, canal lining, <em>(Desalination)</em>)</td>
</tr>
<tr>
<td>Treatment</td>
<td>MWD treatment surcharge, operational costs, debt service</td>
<td>MWD, Twin Oaks WTP and other in-region treatment facility costs</td>
</tr>
<tr>
<td>Customer Service</td>
<td>Operating budget, debt service</td>
<td>Costs to support the functioning of the Water Authority and regional planning</td>
</tr>
<tr>
<td>Transportation</td>
<td>Maintenance costs, debt service on capital</td>
<td>Costs associated with the backbone conveyance of water</td>
</tr>
<tr>
<td>Storage</td>
<td>Primarily debt service on capital facilities, minor operating costs</td>
<td>ESP, CSP and associated conveyance</td>
</tr>
</tbody>
</table>
## Other Water Authority Rates and Charges

<table>
<thead>
<tr>
<th>Charge</th>
<th>Method of Collection</th>
<th>Use of Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Commodity Charges</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Tax</td>
<td>Share of County property tax assessment</td>
<td>Unrestricted</td>
</tr>
<tr>
<td>Stand-By Charges</td>
<td>$10 per acre or parcel</td>
<td>Capital facilities</td>
</tr>
<tr>
<td>Capacity Charges</td>
<td>New meter charges</td>
<td>Capital facilities</td>
</tr>
<tr>
<td></td>
<td>(System - $4,326/ME)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Treatment - $166/ME)</td>
<td></td>
</tr>
<tr>
<td>IAC Charge</td>
<td>Fee per meter equivalent</td>
<td>Unrestricted</td>
</tr>
</tbody>
</table>
3-Steps of Cost of Service Applied to Carlsbad Desalination

Determine revenue requirements

Allocated to service function

Allocated to customer, based on benefits received

Cost of:
• Poseidon water price
• P3 rehab
• Twin Oaks improvements
• Twin Oaks inefficiency

1. Supply
2. Treatment
3. Storage
4. Transportation
5. Other? (i.e. reliability)

• Water taken (per AF)
• Ability to take water (number of meters)
Key Considerations

In applying the principles of *Cost of Service* and *Beneficiaries Pay* to Carlsbad Desalination

- Multiple service categories benefit from the production of desalinated water
- Revenue requirements for each category should be collected through the current mix of fixed and commodity charges
  - Best reflects beneficiaries and avoids free ridership
- Reliability is a key driver of desalination and a primary benefit
  - Consider a potential service category for reliability
Desal Broken into Rate Categories

- Conveyance, Pipeline and Twin Oaks improvements
  - Transportation Rate
  - IAC will apply
- Desalination Plant – Assets within the fence line
  - Melded Supply Rate
  - IAC
  - Other potential rate categories
    - Storage
    - Regional Reliability

Focus of the Discussion
Potential Rate and Charge Options

Scenario #1 - Existing Rates and Charges

- Integrate desalination into existing rates and charges
- Rate categories impacted under this approach
  - IAC: per ME/Month
  - Treatment: $/AF
  - Storage: $/AF
  - Transportation: $/AF
  - Melded Supply: $/AF

- Discussion Points
  - Easy to implement
  - Storage allocated currently on 3-year rolling average of sales
  - Lower percentage of project costs recovered on fixed charges
  - Less effective at addressing free ridership
Scenario #2 - Modified Rates and Charges

- Create a new rate category – Reliability Charge
  - Meter based charge – Recovers costs allocated to the enhanced reliability of supply
- Rate categories impacted under this approach
  - IAC: $ per ME/Month
  - Treatment: $/AF
  - Transportation: $/AF
  - Melded Supply: $/AF
  - Regional Reliability Charge: $ per ME/Month

- Discussion Points
  - Regional reliability benefit decoupled from water sales
  - Higher percentage of project costs recovered on fixed charges
  - Costs and beneficiaries better aligned
How to Calculate a Reliability Charge

- **Several possible methods**
  - Link to MWD imported water reliability
    - Percent of time possibility of supply shortage
  - Link to Urban Water Management Plan Reliability Scenarios
    - Percent shortage under Preferential Rights allocation
  - Establish a price differential of Desalinated Water and:
    - MWD water
    - Melded cost of IID transfer water and MWD water
  - **Other Methods?**
    - To be discussed
Continued Development of Rate and Charge Alternatives

- Staff will continue to work with Board’s Desalination Advisory Committee
  - Refine methodologies for reliability charge
  - Refine rate structure alternatives
  - Apply Carlsbad Project costs to alternative rate and charge structures

- Return to the Board at July Meeting
  - Receive additional input
  - Narrow alternatives
Proposed Board Review Process

- **July 12th Special Meeting**
  - Financial Results of allocating Carlsbad Desalination costs to Rate and Charge structure alternatives
  - Overview of Key Provisions in a Draft Contract with Member Agencies to purchase Carlsbad Desalinated water from the Water Authority as a local supply
  - Overview of Contractual Risk Assignment between the Water Authority and developer

- **July 26th Board Meeting**
  - Continued discussion on rate and charge structures
  - Approve release of draft Contract Terms for Member Agency purchases as local supply
Proposed Board Review Process (cont.)

- **August 9th Special Meeting**
  - In-depth Agreement Workshop #1
  - Set Community Workshop dates

- **August 23rd Board Meeting**
  - Sensitivity analysis of Member Agency local supply development plans versus UWMP assumptions
    - Treated water demand impacts
    - Potential rate impacts
  - Long Term Supply Reliability Analysis of Desalination
  - Other Board requested sensitivity and “what if” analyses
  - Adopt method to incorporate Carlsbad Desalination into rate and charge structure if project proceeds
Proposed Board Review Process (cont.)

• **September-October Board/ Special Meetings**
  - Continue in-depth discussions of Agreement
  - Evening community meeting in North County

• **Other Meetings**
  - August: member agencies discuss local supply purchases
  - Sept/Oct: Attend member agency board meetings as requested
  - Provide stakeholder briefings as needed