San Diego County Water Authority
2013 Regional Water Facilities Optimization & Master Plan Update
Climate Action Plan

Water Planning Committee
October 24, 2013

Presented by: Kelley Gage, Senior Water Resources Specialist
Overview of Climate Action Plan (CAP) process

Linkage of CAP and Energy Management Policy

Current issues in assessment of greenhouse gases
  ◦ Timeline horizons and current litigation
  ◦ How Water Authority’s CAP addresses issues

Key elements of the Water Authority CAP
  ◦ 2009 baseline emissions and reductions implemented since 2009
  ◦ Future emissions, targets, and emission reduction strategies

Elements of 2013 Supplemental Program EIR

Remaining steps in environmental process
Final steps to report back

- Estimate 2020 and 2035 emissions levels
- Finalize reduction quantifications
- Establish implementation and monitoring needed
- Finalize draft CAP for public release
Climate Action Plan: 2009 Baseline Emissions

Scope 1
• Administrative Buildings (KM and ESC)
• Water Facilities (WTP, FCF, PS, etc.)
• Vehicle Fleet (on and off road vehicles)

Scope 2
• Electricity purchases (factors in renewables)

Scope 3
• Wastewater
• Solid waste disposal
Total Emissions: 9,325 MT CO$_2$e in 2009

Baseline Year 2009
Emissions by Sector

- Electricity: 82%
- Vehicle Fleet: 7%
- Employee Commute: 7%
- Off-Road Equipment: 2%
- Stationary Source: 1%
- Natural Gas: 0.5%
- Solid Waste: 0.3%
- Water Refrigerants Wastewater: <.1%
Climate Action Plan: Target Setting

2020 Target

- AB 32 Scoping Plan provides *guidance* for 2020 target to local governments
  - Allows flexibility and discretion of Lead Agency
  - Government Operations CAP vs. Community-wide CAP
    - *(Single purpose agency)*
    - *(Multi-purpose agency)*
Climate Action Plan: Target Setting

2035 Target

- AB 32:
  - Maintains the 1990 emissions limit beyond 2020
  - ARB is to recommend how to continue reductions beyond 2020

- EO S–3–05 states 80% reduction from 1990 by 2050
  - Implies greater reductions needed than “maintaining” 1990 limit; straight line target would be ~50% below 1990 levels by 2035
  - No specific compliance plans or strategies identified by the State at this time
Climate Action Plan: 2020 and 2035 Targets

<table>
<thead>
<tr>
<th></th>
<th>2009 (MT CO²e)</th>
<th>2020¹ (MT CO²e)</th>
<th>2035² (MT CO²e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-Aligned Targets</td>
<td>9,325</td>
<td>7,927</td>
<td>4,756</td>
</tr>
</tbody>
</table>

1. 2020 target set at 15% below baseline
2. Water Authority is not mandated to achieve 2050 goals in EO S–3–05; 2035 target based on straight-line between 2020 and 2050.
Climate Action Plan: Future Emissions

2020 and 2035 Projections

- Future emissions determine the level of reductions needed
  - Facilities developed since 2009 (2010–2012)
  - Facilities anticipated by 2020 and 2035 (Current CIP + Master Plan Projects)

<table>
<thead>
<tr>
<th>Project</th>
<th>“Current” (MT CO$_2$e)</th>
<th>2020 (MT CO$_2$e)</th>
<th>2035 (MT CO$_2$e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Hodges Pumped Storage</td>
<td>(8,803)</td>
<td>(14,346)</td>
<td>(14,346)</td>
</tr>
<tr>
<td>San Vicente Pump Station</td>
<td>2,316</td>
<td>1,731</td>
<td>1,731</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>(6,487)</strong></td>
<td><strong>(12,615)</strong></td>
<td><strong>(12,615)</strong></td>
</tr>
</tbody>
</table>

- 2020 & 2035 emissions numbers account for SDG&E 33% Renewable Portfolio Standard met by 2020
## Climate Action Plan: Emission Estimates for Future CIP and Master Plan Projects

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>2009 (MT CO$_2$e)</th>
<th>2020 (MT CO$_2$e)</th>
<th>2035 (MT CO$_2$e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources online 2013–2020</td>
<td>NA</td>
<td>129</td>
<td>81</td>
</tr>
<tr>
<td>Sources online 2021–2035</td>
<td>NA</td>
<td>NA</td>
<td>85</td>
</tr>
<tr>
<td>Total</td>
<td>NA</td>
<td>129</td>
<td>166</td>
</tr>
</tbody>
</table>
## Climate Action Plan: Business-As-Usual Emissions for 2020 and 2035

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>“Current” (MT CO₂e)</th>
<th>2020 (MT CO₂e)</th>
<th>2035 (MT CO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources in operation by 2009</td>
<td>9,325</td>
<td>7,467</td>
<td>8,474</td>
</tr>
<tr>
<td>Sources built 2010–2012</td>
<td>NA</td>
<td>(12,615)</td>
<td>(12,615)</td>
</tr>
<tr>
<td>Sources anticipated 2013–2020</td>
<td>NA</td>
<td>129</td>
<td>81</td>
</tr>
<tr>
<td>Sources anticipated 2021–2035</td>
<td>NA</td>
<td>NA</td>
<td>85</td>
</tr>
<tr>
<td>Total</td>
<td>9,325</td>
<td>(5,019)</td>
<td>(3,975)</td>
</tr>
</tbody>
</table>

- 2020 & 2035 numbers include reductions due to state, federal and local measures already implemented.
## Climate Action Plan: 2020 and 2035 Targets Compared to BAU

<table>
<thead>
<tr>
<th></th>
<th>2009 (MT CO\textsubscript{2}e)</th>
<th>2020 (MT CO\textsubscript{2}e)</th>
<th>2035 (MT CO\textsubscript{2}e)</th>
</tr>
</thead>
<tbody>
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<td><strong>State-Aligned Targets</strong></td>
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<td>7,927</td>
<td>4,756</td>
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<tr>
<td><strong>BAU Emissions</strong></td>
<td>9,325</td>
<td>(5,019)</td>
<td>(3,975)</td>
</tr>
</tbody>
</table>
Climate Action Plan: Potential Future Emissions Reductions

- Master Plan projects designed to be energy-efficient
- Additional reduction opportunities include:
  - Energy Conservation Opportunities from the Water Authority’s 2012 Energy Audit
    - Lighting and pump upgrades, facility and support operational adjustments analyzed
    - Rate optimization, new pumps, demand management not analyzed
  - Alternative electricity and transportation fuel sources
  - Hydroelectric: In-line and pumped storage
Climate Action Plan: Summary

- Water Authority will achieve state-aligned 2020 target in a cost-effective manner
- 2035 target and beyond is uncertain; will be revisited in future CAP updates by 2020
- Tracking mechanism in place to monitor progress towards goals
Environmental Coverage

Supplemental Program EIR

Master Plan

Climate Action Plan
# 2013 Master Plan Remaining Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2013</td>
<td><strong>Public Release</strong> of the Draft Program EIR, CAP and Draft Master Plan for the minimum 45-day public review and comment period.</td>
</tr>
<tr>
<td>January 9, 2014</td>
<td><strong>Public Hearing</strong> on Draft Program EIR, CAP and Draft Master Plan.</td>
</tr>
<tr>
<td>January 2014</td>
<td><strong>Public Comment Period Closes</strong></td>
</tr>
<tr>
<td>February -March 2014</td>
<td><strong>Regular Board Meeting</strong> - Certification of Final PEIR and approval of Final Master Plan and CAP.</td>
</tr>
</tbody>
</table>
Water Supply Conditions

Lesley Dobalian
Water Resources Specialist

Water Planning Committee
October 25, 2013
State Water Project Supply Conditions

- Water year 2013 ended September 30, 2013
  - Dry hydrologic conditions statewide
  - Statewide snowpack: 48% normal on April 1 (typical date for maximum accumulation)
  - Second dry consecutive dry year
- CY 2013 Table A allocation: 35%
  - Low allocation primarily due to dry conditions
  - Regulatory restrictions to protect Delta smelt contributed to low allocation
Water Year Statewide Runoff Comparison to Average

- 2006: 173%
- 2007: 53%
- 2008: 60%
- 2009: 65%
- 2010: 91%
- 2011: 146%
- 2012: 62%
- 2013: 59%
Combined Storage in Oroville and San Luis Reservoirs

<table>
<thead>
<tr>
<th>Date</th>
<th>Capacity</th>
<th>San Luis</th>
<th>Oroville</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 30, 2011</td>
<td>3.04 MAF</td>
<td>1.52 MAF</td>
<td>1.98 MAF</td>
</tr>
<tr>
<td></td>
<td>4.56 MAF</td>
<td>141%</td>
<td>81%</td>
</tr>
<tr>
<td>Sept. 30, 2012</td>
<td>2.62 MAF</td>
<td>0.64 MAF</td>
<td>1.98 MAF</td>
</tr>
<tr>
<td></td>
<td>2.13 MAF</td>
<td>66%</td>
<td>81%</td>
</tr>
<tr>
<td>Sept. 30, 2013</td>
<td>1.63 MAF</td>
<td>0.50 MAF</td>
<td>1.13 MAF</td>
</tr>
<tr>
<td></td>
<td>2.13 MAF</td>
<td>66%</td>
<td>81%</td>
</tr>
</tbody>
</table>
Colorado River Supply Conditions
Water Year 2013

- Water year 2013 ended September 30, 2013
  - Dry hydrologic conditions basin-wide
  - Second dry consecutive dry year

- Combined storage September 30 in Mead and Powell on
  - 2011: 30.6 MAF, 61% Capacity
  - 2012: 27.1 MAF, 53% Capacity
  - 2013: 23.3 MAF, 46% Capacity

- Based on August 1, 2013 hydrology, close to a 50% chance of shortage declaration in 2016
  - Would affect Nevada and Arizona before California
  - MWD’s ability to take storage reserves from Lake Mead would be restricted
Water Year Unregulated Inflow to Lake Powell

September 2013 inflow was 210% of normal, following heavy storms.
Local Service Area Conditions

- Water year 2013 was the second dry year locally
- Local reservoir storage on September 30, 2013 was approximately 230,950 AF, or 82% of average

<table>
<thead>
<tr>
<th>Water Year 2013 Precipitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station</td>
</tr>
<tr>
<td>Lindbergh Field</td>
</tr>
<tr>
<td>Ramona Airport</td>
</tr>
</tbody>
</table>
FY 2013 potable use is 5% greater than FY 2012, but remains 24% less than FY 2007
Conclusion

• Water year 2013 is second consecutive dry year in California and on Colorado River Basin

• Water year 2014 began October 1, 2013, and the weather outlook is uncertain

• MWD prepared to meet 2014 demands without allocations due to storage reserves and continued low demands

• San Diego region has increased supply reliability to manage potential shortages through investments in supply programs
  • Water Authority’s Quantification Settlement Agreement transfer supplies

• Continue to encourage water use efficiency and closely monitor conditions into 2014
Overview of the Policy

- Provides written guidelines for debt management that focus on:
  - Approved types of debt
  - Limitations on debt issuance
  - Issuance process & roles and responsibilities
  - Refunding guidelines
  - Post issuance activities
- Requires periodic updates
  - Last updated in 2005
- Important debt management document
  - GFOA best management practice

GFOA = Government Finance Officers Association
Core Elements Unchanged

- Long established debt issuance process unchanged
  - Same level of board involvement and staff communications
- Maintains risk profile
  - No derivatives or Capital Appreciation Bonds
  - New debt instruments very similar to exiting debt types
Recommended Changes

- General update
  - Update for recent Board action (i.e. use of Revenue Bonds)
  - Terms of art – new names/references
  - Streamlined procurement text and updated formatting

- Addition of debt instruments
  - Leverage the Water Authority’s high credit rating
  - Alternative forms of Commercial Paper
  - New variable rate debt instruments

- Updated refunding guidelines
  - Improve policy’s guidance on refunding long-term debt
Historical Interest Rates

- Variable rate debt and commercial paper continue to provide issuers with advantageous interest rates

Short-Term vs. Long Term Tax-Exempt Interest Rates
October 1990 - October 2013

1.000% 2.000% 3.000% 4.000% 5.000% 6.000% 7.000% 8.000% 9.000% 10.000%

0.000%

175 basis points added to SIFMA to represent additional variable rate costs (e.g. remarketing fees, credit enhancement fees, etc.)
Alternative Debt Products Overview

- The Water Authority’s revised debt policy has been updated to include several new products, which are variations on products currently used by the Water Authority.
- These new products allow the Authority to take advantage of the Water Authority’s high credit ratings by eliminating the use of traditional bank credit enhancement.

<table>
<thead>
<tr>
<th>Existing Product</th>
<th>Amount Outstanding ($mm)</th>
<th>Alternative Debt Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-Term Debt</td>
<td>$1,865.71</td>
<td>N/A</td>
</tr>
<tr>
<td>Medium Term Notes</td>
<td>$86.63</td>
<td>Floating Rate Indexed Bonds</td>
</tr>
<tr>
<td>Commercial Paper</td>
<td>$360.00</td>
<td>Extendable Commercial Paper</td>
</tr>
<tr>
<td></td>
<td>(currently outstanding, maximum authorization of $460.00 million)</td>
<td></td>
</tr>
</tbody>
</table>
Floating Rate Indexed Bonds

Bonds bear interest on a generic index (typically SIFMA) plus a spread that is reset weekly. Spread to SIFMA is reset or bonds are refunded.

- Initial Placement
- 6 Months Prior to Roll
  Optional call period, if desired
- 1 Month Prior to Roll
  Forward pricing, if desired
- Roll/Reset Date
- Maturity Date

- Floating Rate Indexed bonds can have a long final maturity and a shorter roll or reset date
- Roll or reset structured either as a firm obligation to repay or with the option to spread repayment over a multi-year period
- Can be sold through a public offering or through a direct purchase by a bank
- California issuers with outstanding Floating Rate Indexed bonds include East Bay Municipal Utility District, Metropolitan Water District of Southern California, Irvine Ranch Water District, Eastern Municipal Water District, State of California, and Bay Area Toll Authority
## Indexed Bonds – Benefits and Considerations

### Benefits

- Cost-effective variable rate debt
- Diversifies portfolio
  - New debt instrument
  - No third-party exposure
  - Diversifies maturity
  - Diversifies investor base while still maintaining floating rate benefits
- No funding risk for initial term of bond
- Maintains variable rate exposure without weekly or annual remarketing risks

### Risks and Considerations

- Generally entails a “new issue” process with a new Official Statement when remarked
- Investor base may be thin if bonds issued on a subordinate lien
- Funding risk at mandatory tender date
- Less flexibility to call or repay during floating period
- May be inconsistent with the Board’s and/or Authority’s risk tolerance
Mechanics of ECP

- On Original Maturity Date, issuer can choose to pay off the ECP or it can be issued to a new investor (similar to traditional CP roll)

- Maturity date automatically extended if ECP is not remarketed

- Existing investor holds the ECP at a predetermined reset-rate until the extended maturity date or until the issuer refinances the ECP

- Event of default if an issuer is unable to refinance the ECP at the extended maturity date

- Issuers with outstanding ECP programs include East Bay Municipal Utility District, Contra Costa Water District, City of Milwaukee, Mississippi State University, State of Wisconsin, Shelby County (TN), New York Municipal Water Authority, and New York State Power Authority
ECP – Benefits and Considerations

**Benefits**

- Most cost-effective commercial paper product taking into account elimination of liquidity costs
- Diversifies debt instruments
- Does not require liquidity from banks
- Leverages Authority’s strong rating and historical market access
- Minimal administrative burden
- Can be maintained on the Authority’s subordinate lien (no pressure on coverage requirements)
- Flexible

**Risks and Considerations**

- Thinner investor base than traditional commercial paper
- Extension risk (though an extension has never occurred in the municipal market)
- Potentially outside the Board’s and/or Authority’s risk tolerance
- Could over-leverage cash position if market seizes up
- Issuer must be flexible (governance-wise)
Revised Refunding Policy

- The Water Authority’s revised debt policy contains new refunding guidelines.
- The new refunding guidelines are intended to simplify the refunding criteria while providing reasonable net present value savings targets relative to the potential (but uncertain) savings associated with outstanding bonds with different time periods to the first call date and different time periods from the first call date to final maturity.
- The table below summarizes the key differences from the prior policy:

<table>
<thead>
<tr>
<th>Item</th>
<th>Prior Policy</th>
<th>Revised Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base PV Savings Target</td>
<td>3%</td>
<td>No fixed base savings target, targets vary based on (a) time to call and (b) time from call to maturity</td>
</tr>
<tr>
<td>Adjustment for Current Level of Interest Rates Relative to Historical Rates</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Adjustment for Time to Call Date</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Adjustment for Time from Call Date to Final Maturity</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Revised Refunding Savings Targets

- Savings targets are expressed as a percent of the refunded bond par amount and are calculated net of all costs, fees and expenses on a maturity-by-maturity basis.

- The longer the overall maturity of the refunded bond, the higher the savings target, consistent with the higher potential (but uncertain) savings associated with longer-maturity bonds.
  - Savings targets have been analyzed using theoretical municipal call option valuations and analyses of historical interest rates since 1990.
  - Savings targets are not adjusted for the current level of interest rates relative to historical rates because such relationships have little predictive value over the time frames generally relevant to refunding decisions (e.g., 1 – 3 years).
  - Director of Finance retains discretion in implementing refundings that are above or below the target based on factors such as negative arbitrage in the escrow, the coupons on the refunded bonds, general interest rate outlook, etc.

<table>
<thead>
<tr>
<th>Years From Call to Maturity</th>
<th>Years to Call</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 - 1</td>
</tr>
<tr>
<td>0 - 2</td>
<td>1%</td>
</tr>
<tr>
<td>3 - 7</td>
<td>3%</td>
</tr>
<tr>
<td>8 - 15</td>
<td>4%</td>
</tr>
<tr>
<td>16 +</td>
<td>4%</td>
</tr>
</tbody>
</table>
Examples of Refunding Savings Targets

- The table below provides two examples of how savings targets would be determined using the revised savings target matrix:

<table>
<thead>
<tr>
<th>Expected Refunding Date</th>
<th>Refunding Candidate First Call Date</th>
<th>Refunding Candidate Final Maturity Date</th>
<th>Minimum Threshold Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-1-2013</td>
<td>12-1-2016 (3 years to call date)</td>
<td>12-1-2027 (11 years call to maturity)</td>
<td>4%</td>
</tr>
<tr>
<td>12-1-2013</td>
<td>12-1-2015 (2 years to call date)</td>
<td>12-1-2022 (7 years call to maturity)</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years From Call to Maturity</th>
<th>Years to Call</th>
<th>0 - 1</th>
<th>2 - 7</th>
<th>8 - 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 2</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>3 - 7</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>8 - 15</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>16 +</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>
Looking Forward to CY 2014

- Update of the short-term debt management strategy
  - Address expiring liquidity facilities
  - Identify cost savings opportunities
  - Diversify the short-term debt portfolio
Today’s Action

- Adopt the updated Statement of Debt Management Policy
Cost of Service Studies & Fiscal Sustainability Update

February 28, 2013
Administrative & Finance Committee
Cost of Service (COS) Studies

Phase 1 (2014 Rates & Charges) January – May 2013
- Consultant analysis/evaluation to assure adherence to cost of service principles, California law and Board policy of the methodology and calculations used to allocate costs to existing service categories and assignment to rates and charges

Schedule:
- **February 19th** Member Agency Managers and Finance Officers
  - Phase 1 – Discussion of methodology and process for Phase I Study
- **March 19th**: Member Agency Managers and Finance Officers review and comment on technical data and calculations of capacity charges prepared by consultant
- **March A&F Committee**
  - Presentation by consultant regarding Study Methodology and calculation of existing capacity charges
- **April 16th** – Member Agency General Managers and Finance Officers
  - Consultant Presentation on initial findings
- **April A&F Committee**
  - Presentation by consultant on initial findings and review and comment by Committee
- **May A&F Committee**
  - Review and comment on report from COS consultant
  - Set June Public Hearing for adoption of 2014 Rates & Charges
- **June A&F Committee**
  - Accept study and adopt rates
Fiscal Sustainability (May–Dec 2013)

**May - July**
- Initial meetings of Task Force
  - Identify Scope
  - Development of Policy Principles
  - Provide guidance to Member Agencies desal workgroup

**August**
- Report to A&F Committee on proposed Policy Principles and Guidance to Member Agency Desal Workgroup

**September - December**
- Determination of key factors in Fiscal Sustainability
- Evaluate potential modifications to rate and charge structure to enhance fiscal sustainability
- Develop proposals to revise or create Board policies to ensure long-term fiscal sustainability
- Periodic reports to A&F Committee
Cost of Service Studies (Continued)

Phase 2 (Allocation of Carlsbad Desalination Costs to Rates & Charges)

- With policy guidance from the Fiscal Sustainability Task Force and the Board, a member agency workgroup will develop recommendations for Board consideration regarding allocation of desalination costs into rates and charges.
- Recommendations will meet cost of service principles, comply with California law and identify the need, if any, for changes in adopted Board policy.

Schedule:

- **September 2013** - Member agency workgroup formed with designated representatives from each member agency
  - Commitment to participate throughout the process
  - First meeting held
- **October A&F Committee** – Update Member Agencies on Workgroup activities, scope and schedule of meetings
- **October – December** - Member agency workgroup develops and evaluates alternatives
- **December A&F Committee** - Workgroup report on status of alternative development
Phase 2 (Allocation of Carlsbad Desalination Costs to Rates & Charges)

- **January - March 2014** - Workgroup collectively selects preferred alternative
- **March & April 2014 A&F Committee** - Consider recommended alternative(s) to be provided to COS consultant for evaluation
- **May & June 2014 A&F Committee** - Review Phase 2 COS study and adopt 2015 rates and charges with allocation of Carlsbad Desalination costs where appropriate.
- **June 2014 Board Meeting** - Adopt 2015 rates and charges
Timeline

- **Cost of Service Study – Phase I**
  - December 2012
  - June 2013

- **Fiscal Sustainability Task Force**
  - May 2013
  - December 2013

- **COS Study – Phase II Desal**
  - September 2013
  - June 2014
San Vicente Pumped Storage Project

Engineering & Operations Committee Meeting
October 24, 2013

Frank Belock/Kelly Rodgers
Agenda

- Background
- Pumped Storage Operation
- Project Description
- Professional Services Contracts
- Memorandum of Understanding with City of San Diego
- Next Steps
Pumped Storage Operation
Pumped Storage Operation
March Peak Day 2020

2020 Installed Capacity

<table>
<thead>
<tr>
<th>MONTH</th>
<th>SOLAR DG (MW)</th>
<th>SOLAR Central (MW)</th>
<th>WIND (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar</td>
<td>600</td>
<td>1250</td>
<td>725</td>
</tr>
</tbody>
</table>
August Peak Day 2020

2020 Installed Capacity

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<th>MONTH</th>
<th>SOLAR DG (MW)</th>
<th>SOLAR Central (MW)</th>
<th>WIND (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug</td>
<td>600</td>
<td>1250</td>
<td>725</td>
</tr>
</tbody>
</table>
Daily Wind Power Generation
Hourly Data – September 2010

Peak day of the month: September 27, 2010; Four days with loads over 3,700 MW shown as dashed lines.
March Peak Day 2020

2020 Installed Capacity

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Reasons for Pumped Storage

- Need a flexible energy source
- Pumped storage is “on call” energy
- Increased use of wind and solar has created more of a need for “on call” energy
- Is becoming seen as a ‘renewable’ energy source
- San Onofre Nuclear Generating Station Units 2 and 3 Retirement
Long-term Future Steps

- Negotiate power purchase agreement with energy purchaser
- Develop process for selecting a private partner
- Determine best way to minimize risk while realizing a financial benefit
  - (Water Authority will not own, construct, or fund the facility)
- Select a private partner
Project Description
Lower Reservoir
Professional Services Contract
Economic and Financial Study

- Black & Veatch Corporation
- $149,920

Scope of Work:
- Perform Power Design Configuration and Costing
- Identify Potential Power Purchase Customers
- Overview of Funding Opportunities and Project Delivery
- Conduct Supplementary Evaluation and Risk Assessment
- Complete Economic and Financial Analysis
Professional Services Contract
Technical Advisory Contract

- Navigant Consulting, Inc.
- $59,667

Scope of Work
- Provide Economic and Financial Study Independent Review
- Prepare San Vicente Interconnect Request for Submission to the California Independent System Operator (CAISO)
- Engage in Preliminary Discussions with Potential Power Purchasers and Regulatory Agencies
Memorandum of Understanding with City of San Diego

- Discusses City Participation in Initial Study
- Outlines Terms
  - Cost Sharing
  - Interagency Coordination
  - Final Study Approval
- Requires Principles of Understanding for Future Studies
Next Steps

- Black and Veatch will perform analysis and prepare drafts of study
- Board Hydro Power Task Force will provide guidance to staff and consultants, review drafts and discuss implementation alternatives
- City of San Diego review analysis and comment on drafts of study
- Recommendation to Board in February or March 2014 meetings
Recommendations

- Authorize the General Manager to award a professional services contract to Black & Veatch Corporation, for $149,920, to perform an Economic and Financial Study for the San Vicente Pumped Storage project.

- Authorize the General Manager to award a professional services contract to Navigant Consulting, Inc., for $59,667, to provide independent reviews and technical advice for the San Vicente Pumped Storage project.

- Authorize the General Manager to enter into Memorandum of Understanding with the City of San Diego for the implementation of the San Vicente Pumped Storage Economic and Financial Study.
Construction Contract for the San Vicente Marina Facilities

Engineering & Operations Committee Meeting
October 24, 2013

Kelly Rodgers
Project Description
Project Description
Revised Cost Estimate Range: $20.7M to $22.9M

<table>
<thead>
<tr>
<th>NO.</th>
<th>GENERAL CONTRACTOR</th>
<th>BID AMOUNT</th>
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<tr>
<td>1</td>
<td>Pulice Construction, Inc.</td>
<td>$22,882,639.00</td>
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<td>2</td>
<td>Quest Civil Constructors</td>
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<td>3</td>
<td>Triton Structural Concrete</td>
<td>$28,210.779.97</td>
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<tr>
<td>4</td>
<td>USS Cal Builders</td>
<td>$28,842,667.65</td>
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</table>
Bid Protest

- Quest asserted Pulice Construction, Inc. did not have a valid California contractor’s license

- California Contractor’s State Licensing Board verified Pulice’s license is active and valid

- Pulice Construction, Inc. determined to be Responsive and Responsible Bidder
Recommendation

- Reject Quest Civil Constructors, Inc. bid protest

- Authorize the General Manager to award a construction contract to Pulice Construction, Inc. in the amount of $22,882,639 for the San Vicente Marina Facilities, Specification 594
School Education Program Update

Legislation, Conservation and Outreach Committee
Oct. 24, 2013
Donna Nenow, Education Supervisor/Susan Bohlander, Education Program Specialist
Purpose

- Awareness of Water Authority Education Programs
- Understanding of Education Program Goals
- Opportunity to Experience Programs Firsthand
Goals of Education Program

- Meet California State Content Standards
  - All 42 County school districts use our materials
- Support Business Plan Conservation Goals
  - Promote water efficiency
  - Establish conservation as civic duty
  - Reach 100,000 students/3,000 teachers by June 2014
- To date: 58,857 students and 2,168 teachers reached
Contracted Programs

School Assembly Programs
- Waterology
- H2O, Where Did You Go?

Teacher Training Programs
- Water Quality Testing
- Water-Wise Gardening Workshops
Partnership Programs

- Splash Science Mobile Lab
- Reuben H. Fleet Science Center exhibit
- Conservation and Water History Videos
Conservation Gardens
What’s Next?

- Assembly Program Demonstration

- Splash Lab Tours
Annual update for 2014

Legislative Policy Guidelines are used to direct staff and legislative advocates on issues of importance to the Water Authority, its member agencies, and the San Diego region

- Provide a framework to evaluate the potential impact of state and federal legislation

Water Authority staff has identified proposed modifications to the Legislative Policy Guidelines
Proposed Changes to Guidelines

- Inclusion of a page identifying bill positions available for consideration by the Water Authority Board in providing direction to staff and legislative advocates

- Under Imported Water Supply, support efforts to require MWD to allow member agencies to opt-out of services and to ensure financial obligations are consistent with that action

- Under Imported Water Supply, oppose the transfer of operational control of the State Water Project or facilities to state or federal contractors or other special interest group
Proposed Changes to Guidelines

- Under Water Use Efficiency, support incentive, funding, and other assistance to facilitate water use efficiency partnerships with the energy efficiency sector

- Under Fiscal Policy and Water Rates:
  - Oppose measures that impose a water user fee that is inconsistent with the “beneficiary pays” concept
  - Oppose a limitation on, or elimination of, the tax-exempt status on municipal financings
Proposed Changes to Guidelines

- Under Land Use and Water Management Planning:
  - Support consideration of local variables and priorities in water supply planning and selection of water resources for implementation
  - Oppose requirements for use of specific evaluation criteria in water supply planning and selection of potential water supply projects that fail to take into account local and regional policies and priorities
  - Oppose imposition of mandates requiring specific water resources be developed that fail to take into account local factors
Proposed Changes to Guidelines

- Under Integrated Regional Water Management Planning, support efforts to improve and streamline the state’s IRWM reimbursement process

- Under Water Bonds, clarify support for water bond legislation or an initiative that provides the state’s share of funding for projects that advance achievement of the co-equal goals
Next Steps on Legislative Policy Guidelines

- Staff presented a status report on the development of the Guidelines to member agency General Managers on October 15
- Staff is requesting suggestions for revisions from Board members and member agencies
- Please return to Glenn Farrel or Alexi Schnell by November 4
- Staff will present the final proposed Legislative Policy Guidelines for the Board’s consideration at its November 21 meeting
Work on reshaping the water bond is continuing through the Interim Recess
- Water bond informational hearing held in the Senate on September 24

Potential actions facing the Legislature in early 2014:
- $11.14B water bond will appear on November 2014 ballot unless removed by 2/3 vote in each house
- Two water bond bills – AB 1331 (Rendon) and SB 42 (Wolk) – appear to be primary vehicles for modifying the water bond – would require 2/3 vote in each house
- Some would prefer no water bond on the November 2014 ballot – preferring to move the water bond to a future ballot
Water Authority staff is in the process of evaluating and analyzing legislative proposals for the Board’s consideration of possible sponsorship of legislation in 2014.

Staff will present legislative proposals to the Board on November 21.

Concepts currently being evaluated:
- Streamlining the Integrated Regional Water Management (IRWM) Program process
- Next steps for potable reuse following enactment of SB 322 (Hueso)
## End of 2013 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>Two-Year Bill</th>
</tr>
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<tbody>
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<td>Sponsor</td>
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<td></td>
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<td>Support if Amended</td>
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<tr>
<td>Oppose</td>
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<tr>
<td>Oppose Unless Amended</td>
<td>5</td>
<td></td>
<td>1*</td>
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<td>4**</td>
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<td><strong>1</strong></td>
<td><strong>6</strong></td>
<td></td>
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</table>

* Bill was amended to subject matter no longer relevant to the Water Authority

** One of these bills was amended to subject matter no longer relevant
Chaptered Legislation Supported by the Water Authority

- **AB 71** (V. Manuel Pérez) – Salton Sea Restoration
- **AB 115** (Perea) – Safe Drinking Water State Revolving Fund
- **AB 763** (Buchanan) – Aquatic Invasive Plants: Control and Eradication
- **AB 803** (Gomez) – Recycled Water
Key Measures Pending Action in Second Year of Legislative Session

- Two-year bills with a SUPPORT position:
  - **AB 762** (Patterson) – Renewable Energy Resources: Hydroelectric Generation
  - **AB 1349** (Gatto) – CalConserve Water User Efficiency

- Two-year bills with an OPPOSE position:
  - **AB 823** (Eggman) – Environment: California Farmland Protection Act
  - **AB 953** (Ammiano) – California Environmental Quality Act
  - **SB 617** (Evans) – Environmental Quality: Public Notice
Bay–Delta Conservation Plan (BDCP): Environmental Review Process

Presented by:
Larry Purcell, Water Resources Manager

Imported Water Committee
October 24, 2013
Agenda – Part 1

- Overview of Environmental Review
  - Federal and state
    - Endangered Species Acts
    - Environmental Documents
    - Approval process
  - Determining Baseline (*Where do we start from?*)
    - EIR/EIS Baselines
    - BDCP Economic Benefits Analysis
- Next Steps
Endangered Species Acts

- Prohibit the “take” of listed species
  - “...to harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct”
- “Take” can be authorized via permit
  - “...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in destruction or adverse modification of habitat of such species”
- BDCP will require state and federal permits
Pumping Flexibility Reduced
Window restricted even during wet years

[Diagram showing regulatory pumping restrictions for different fish species across the months of the year.]
# ESA Permit Options

<table>
<thead>
<tr>
<th>Permit</th>
<th>Listed Species</th>
<th>Listed &amp; Non–Listed Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal ESA</td>
<td>Section 7</td>
<td>Section 10 (HCP)</td>
</tr>
<tr>
<td>State ESA</td>
<td>Section 2081</td>
<td>Section 2835 (NCCP)</td>
</tr>
</tbody>
</table>

- **NCCP/HCP Benefits**
  - Cover large geographic areas
  - Provide long–term assurances
    - financial, water, land, other natural resources
  - Cover non–listed species
    - automatically updated upon listing
  - Streamline future actions
BDCP – A Review

- A HCP/NCCP conservation plan to comply with state and federal ESA
- Two co-equal goals
  - Protect, restore, and enhance the Delta ecosystem
  - Provide more reliable water quality and supply
- 22 conservation measures
- Results in 50-year permit to operate
## BDCP Conservation Measures

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>2. Yolo Bypass enhancement</td>
<td>13. Invasive plant controls</td>
</tr>
<tr>
<td>3. Natural habitat protection</td>
<td>14. Channel dissolved oxygen</td>
</tr>
<tr>
<td>4. Tidal habitat restoration</td>
<td>15. Reduce predatory fish</td>
</tr>
<tr>
<td>5. Seasonal floodplain restoration</td>
<td>16. Nonphysical fish barriers</td>
</tr>
<tr>
<td>6. Channel margin enhancement</td>
<td>17. Illegal harvest reduction</td>
</tr>
<tr>
<td>7. Riparian restoration</td>
<td>18. Fish hatcheries</td>
</tr>
<tr>
<td>8. Grassland restoration</td>
<td>19. Storm water treatment</td>
</tr>
<tr>
<td>11. Natural habitat enhancement</td>
<td>22. Avoidance measures</td>
</tr>
</tbody>
</table>
Habitat Restoration & Species Recovery

- HCP/NCCP Standards
  - More than just fully mitigating impacts to avoid further decline
  - Must contribute to recovery
    “...when the decline of a species is stopped or reversed, or threats to its survival neutralized so that its long-term survival in the wild can be ensured, and it can be removed from the list of threatened and endangered species.”

- BDCP covers 57 species and their habitats
Environmental Review
Environmental Review Process

- EIR/EIS is a joint CEQA (state) and NEPA (federal) document
  - Common practice to issue a combined EIR/EIS
  - Regulations require very similar analyses
  - For high level review no material differences
- Review the environmental effects of proposed project and a reasonable range of alternatives
- Lead agency for EIR is DWR
- Co-lead agencies for EIS are USBR, NMFS, and USFWS
CEQA and NEPA as Parallel Processes

CEQA:
- Notice of Preparation
- Scoping
- Draft EIR
- State Clearinghouse
- Public and Agency Review
- Preparation of Response to Comments
- Review of Response by Commenting Agencies
- Final EIR
- Agency Decision/ Findings, Statement of Overriding Consideration, Mitigation Monitoring

NEPA:
- Notice of Intent
- Scoping
- Draft EIS
- EPA Filing: Federal Register
- Public and Agency Review
- Final EIS
- EPA Filing: Federal Register
- Agency Decision/ Record of Decision

Exempt
Negative Declaration
Review for Exemptions
Initial Study
EIR
Review for Exclusions
Environmental Assessment
EIS
Excluded
Finding of No Significant Impact
BDCP EIR/EIS

- Both a Program and Project level document
  - Program-level Analysis
    - CM 2–22
    - Requires additional environmental review before implementation
    - May require other permits or approvals before implementation
  - Project-level Analysis
    - CM 1 – Water Facilities And Operations (*North Delta Diversion*)
    - No further environmental review
    - May require other permits or approvals before implementation
Baselines
Baselines

- BDCP documents use multiple baselines
- EIR/EIS
  - Used to determine environmental impacts/benefits and mitigation of various alternatives
- Economic Benefits Analysis
  - Used to determine incremental water supply improvement and economic benefit of proposed actions compared to existing conveyance
- Baseline conditions allow estimates of water supply yield from continued reliance on south delta pumping only (no BDCP)
EIR/EIS Baselines

- A reference from which to compare the possible environmental effects of an action
- Defined in law
  - CEQA: “…normally the physical environmental conditions as they exist at the time Notice of Preparation is published”
  - NEPA: “…the environment of the areas to be affected or created by the proposed action”
- Should not provide an artificial analysis of impacts that can mislead users
How an EIR/EIS Baseline Works

- Current Time
- Future
- Environmental Impact
- Environmental Impact
- Level of Impact
- Affected Environment
- Proposed Action
- Future Baseline
- Existing Baseline
EIR/EIS Baselines and BDCP

- **CEQA: Existing Conditions**
  - continued operation of SWP and CVP including some of 2008 and 2009 BiOp south Delta pumping restrictions, and projects in effect in 2009

- **NEPA: Future Conditions**
  - continued operation of SWP and CVP per 2008 and 2009 BiOps, other programs and projects likely to occur in the absence of BDCP (including full implementation of fall salinity standard, climate change and sea level rise through 2060)
Pumping Flexibility Reduced
Window restricted even during wet years

<table>
<thead>
<tr>
<th>Regulatory Pumping Restrictions</th>
</tr>
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<tr>
<td>JAN</td>
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<td>-----</td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

**Salmon**

**Delta Smelt**

**Longfin Smelt**

Spring salinity

Fall salinity

No Restrictions
Does EIR/EIS Baseline Matter?

- Traditional construction
  - baseline determines level of impacts and required mitigation to maintain status quo
- BDCP is a conservation plan
  - science-based biological goals and objectives must be achieved regardless of baseline in order to contribute to recovery
Does EIR/EIS Baseline Matter? (cont.)

- New Conveyance (CM1)
- Construction
  - Water contractors pay for CM1
  - Includes mitigation for construction impacts
  - Baseline important to allocating mitigation cost
  - Construction mitigation small component of BDCP measures
- Operation
  - Baseline not really relevant
  - “Decision tree” and adaptive management govern exports
## Habitat Conservation Measures tied to species recovery

<table>
<thead>
<tr>
<th></th>
<th>Year 1–5</th>
<th>Year 6–10</th>
<th>Year 11–40</th>
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<td><strong>PROTECTION</strong></td>
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<tr>
<td>Acquisition</td>
<td>10,010</td>
<td>11,385</td>
<td>41,560</td>
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<tr>
<td><strong>RESTORATION</strong></td>
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<tr>
<td>Tidal Wetland</td>
<td>8,150</td>
<td>8,150</td>
<td>48,700</td>
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<tr>
<td>Floodplain</td>
<td>0</td>
<td>0</td>
<td>10,000</td>
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<tr>
<td>Channel Margin (miles)</td>
<td>0</td>
<td>5</td>
<td>15</td>
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<tr>
<td>Riparian Wetland</td>
<td>400</td>
<td>400</td>
<td>4,200</td>
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<tr>
<td>Grassland</td>
<td>570</td>
<td>570</td>
<td>860</td>
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<tr>
<td>Vernal Pool/Alkali Wetland</td>
<td>49</td>
<td>49</td>
<td>41</td>
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<tr>
<td>Non–tidal marsh</td>
<td>360</td>
<td>360</td>
<td>800</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>19,539</td>
<td>20,914</td>
<td>106,161</td>
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</table>

Grand Total: 146,614 acres
What About the Economic Benefits Baseline?

- Cost/benefit compared to existing conveyance
- Not tied to CEQA/NEPA baseline
  - Not determining environmental effects
- Used higher Delta outflows than in EIR/EIS
  - Assumed fisheries continue to decline
  - Assumed fishery agencies will further restrict exports to protect species via more regulations
  - Assumed climate change, sea level rise and all other likely future conditions
- It is the “worst case” in BDCP documents
  - More conservative prediction of future conditions
Correlation between Delta Outflow Criteria and resulting Supply Export Yield

High-Outlet Criteria = Decrease in Export Yield
Correlation between Delta Outflow Criteria and resulting Supply Export Yield

Low-Outflow Criteria = Increase in Export Yield
Incremental Supply Yield Benefit of BDCP

Average Annual Exports (MAF)

Proposed Action High-Outflow Scenario
9,000 cfs

Proposed Action Low-Outflow Scenario
9,000 cfs

Existing Conveyance High-Outflow Scenario

Existing Conveyance Low-Outflow Scenario

North Delta
South Delta

Incremental benefit

Future Condition

Source: BDCP Chapter 9, Table 9–3
## Baseline Comparison

<table>
<thead>
<tr>
<th>Document</th>
<th>High Outflow</th>
<th>Environmental Conditions</th>
<th>Fall Salinity Standard</th>
<th>Yield (MAFY)</th>
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<tbody>
<tr>
<td>EIR/EIS</td>
<td>No</td>
<td>EIR: Existing EIS: Future</td>
<td>EIR: No EIS: Yes</td>
<td>4.7–5.6</td>
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<tr>
<td>Economic Benefits</td>
<td>Yes</td>
<td>Future+</td>
<td>Yes</td>
<td>4.7–5.6</td>
</tr>
</tbody>
</table>

- “BDCP” yields are based on “decision tree”
  - Will change depending on BDCP success
  - “Assurances” reduce future regulatory actions
- “No BDCP” yields subject to future unknown regulatory and/or court actions
Observations on BDCP Process

- Environmental Review & Permitting
  - NCCP/HCP is proper permitting approach and results in greatest certainty for ESA compliance
    - Permits can be issued administratively by agencies
    - Additional non-ESA permits will be required
  - EIR/EIS will complete CEQA/NEPA for new conveyance (CM1)
    - Lead agencies can certify and complete process
    - Other elements (CM2–22) will require additional project level review
Observations on BDCP Process (cont.)

- EIR/EIS use different baselines
  - Reflects differences between state and federal law
    - NEPA baseline assumes additional future conditions
  - Environmental baselines do not drive selection of alternative or cost of BDCP
    - All BDCP measures, including CM1, contribute to species recovery and must be implemented

- Economic Benefits Analysis baseline
  - Uses even greater future conditions provided by fisheries agencies
    - Conservative approach for evaluating economic benefits and potential future yield of existing conveyance system

Imported Water Committee
October 24, 2013
Glenn Farrel, Government Relations Manager
Part 2 Agenda

- BDCP Implementation Process
  - Timeline for BDCP implementation actions
  - Additional actions needed for BDCP implementation
  - Possible external processes that could affect BDCP implementation timeline

- State’s evaluation of portfolio alternative and Water Authority response

- Next steps and schedule review
BDCP Implementation Timeline and Process

- No current, official, updated timeline and schedule on ultimate BDCP implementation
- Expectations regarding schedule and process are based on common environmental review and permitting milestones for large public works projects
- Key environmental review, permitting, engineering design, and construction milestones remain before project operational
Approximation of BDCP Process Schedule

- **2013**
  - EIR/EIS
  - BDCP
  - HCP/NCCP
  - Permits
  - Engineering
  - Procurement
  - Construction
  - Restoration

- **2014**
  - Public Draft
  - Comment Period Ends
  - Public Draft
  - Comment Response Period Ends

- **2015**
  - EIR Certified & Record of Decision on EIS
  - Approval
  - Implementation
  - Final Design
  - Procure Equipment

- **2016**
  - Land Acquisition & Construction
  - Operational

- **2025**
  - Habitat Restoration Implementation
Additional Regulatory Permits That May Be Required

- Project-level review under CEQA/NEPA
- Water rights permits
- Encroachment permits from Central Valley Flood Protection Board and reclamation districts
- Streambed and lakebed alteration permits
- Clean Air Act permits
- Clean Water Act 401 and 404 permits
- Rivers and Harbors Act permits
- Coastal Zone Management Act permits
- National Historic Preservation Act permits
- Water quality permits
Additional Actions Necessary for BDCP Implementation

- Approval from SWRCB on new point of diversion
- Approval of amended SWP contracts or other finance mechanism
- Approval of BDCP as part of DSC’s Delta Plan

Progress toward BDCP implementation
Possible External Factors That Could Affect BDCP Implementation

- Development of comprehensive finance plan including cost allocation
  - In response to questions about the status of cost allocation during the September 12 Water Authority panel presentation, Dr. Jerry Meral indicated:

  “...it’s going to be, I would predict well into next year, I’m sorry to say that but I think it will be well into next year before you’ll get a formal presentation from the various stakeholders in this saying here’s one [financing] proposal that we think you should analyze and consider. I just don’t think we’re going to have it much before then.”
Possible External Factors that Could Affect BDCP Implementation

- $3.7 billion in state funding
  - Passage of water bonds for state share of ecosystem restoration funding

- $3.9 billion in federal funding
  - No federal commitment obtained

- Litigation
  - Challenges to state and federal environmental documents
  - Challenges to state and federal ESA permits

- Action by the state Legislature

- Action by the electorate
State’s Evaluation of Portfolio Alternative

- In January 2013, the Water Authority and six urban water agencies asked state and federal officials to evaluate the NRDC’s portfolio alternative.

- On September 11, 2013, California Natural Resources Secretary John Laird sent a letter to Water Authority Chair and General Manager:
  - “...the [portfolio] package is not practical as an alternative to the BDCP proposed project.”

- On September 16, 2013, a corrected version of the portfolio alternative evaluation was posted on the BDCP website:
  - Cost differentials for 3,000 cfs conveyance project changed.
Water Authority’s Response to Portfolio Alternative Evaluation

- October 4, 2013: General Manager sent response letter
  - Request for the Water Authority to be allowed an opportunity for direct participation in any and all cost allocation negotiations
    - Water Authority has major financial stake in decisions
  - Seeking clarification of information and analysis to allow clear comparison of the portfolio alternative with the BDCP preferred alternative and other options
Next Steps

- Water Authority staff continues a multidisciplinary evaluation and analysis of four Delta fix options

- November 14, 2013 special Board workshop
  - Presentation by Natural Resources Secretary John Laird
  - Preliminary overview of BDCP physical features and facilities
  - Supply and demand evaluation and analysis
<table>
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<tr>
<th>Meeting</th>
<th>Imported Water Committee/Board Activity</th>
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<tbody>
<tr>
<td>7/25/2013</td>
<td>Provide input on scope of proposed Water Authority analysis of BDCP alternatives; provide input on policy questions to be addressed</td>
<td>✓</td>
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<tr>
<td>8/8/2013 Special Meeting</td>
<td>Overview of Bay–Delta and proposals for Delta fix, including description of alternatives</td>
<td>✓</td>
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<tr>
<td>8/22/2013</td>
<td>Review of technical analysis – demand assumptions; alternative project yield assumptions; projected costs</td>
<td>✓</td>
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<tr>
<td>9/12/2013 Special Meeting</td>
<td>BDCP economic study on cost–benefit of BDCP preferred alternative</td>
<td>✓</td>
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<tr>
<td>9/26/2013</td>
<td>Review of technical analysis (cont.), including yield review</td>
<td>✓</td>
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<tr>
<td>10/24/2013</td>
<td>Information: Review of technical analysis (cont.), including baselines; BDCP timeline and processes impacting implementation</td>
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<tr>
<td>11/14/2013 Special Meeting</td>
<td>Introductory identification of BDCP physical features and facilities; demand and gap analysis</td>
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<tr>
<td>1/9/2014 Special Meeting</td>
<td>Cost allocation negotiations status; preliminary economic and risk assessment to Water Authority; BDCP governance</td>
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<tr>
<td>1/23/2014</td>
<td>Engineering assessment of BDCP cost estimates; highlights of substantive changes to EIR/EIS; preliminary issue identification</td>
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<tr>
<td>2/13/2014 Special Meeting</td>
<td>Policy issue identification and discussion</td>
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<tr>
<td>2/27/2014</td>
<td>Identification of issues to be addressed in the EIR/EIS comment letter – present draft comment letter</td>
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<tr>
<td>3/13/2014 Special Meeting</td>
<td>Continuing review of draft EIR/EIS comment letter</td>
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</tr>
<tr>
<td>3/27/2014</td>
<td>Action: Consider action on final EIR/EIS comment letter; timeline for future board meetings to discuss policy issues</td>
<td></td>
</tr>
</tbody>
</table>