Bay Delta Overview
Imported Water Committee
March 28, 2013
Sacramento–San Joaquin Bay Delta: Source for Two Major Export Systems

- Federal Central Valley Project
  - Built by federal government beginning in 1937
  - Flood control, navigation, water supply for agriculture and urban purposes, hydroelectric power
  - Key facilities: Shasta Dam, Friant Dam, Delta–Mendota Canal, Contra Costa Canal, Delta Cross Channel
  - Westlands Water District is the largest contractor
State Water Project

- Feather River Project enacted in 1951
- Ratified by voters in November 1960
  - Burns–Porter Act; $1.5 billion bond
- Key facilities: Oroville Dam, California Aqueduct, power generation facilities, pumping plants
- Began delivering water in 1967
- Serves North and South Bay Area, San Joaquin Valley, Southern California
  - Metropolitan Water District of Southern California
    - Is the largest contractor (50%)
    - San Diego County Water Authority
      - 24 local San Diego County water agencies and cities
Sources of San Diego County’s Water Supply (2008-12 five-year average)

State Water Project (Bay-Delta) 22%

Colorado River 62%

Local Supplies and Conservation 16%

San Diego County imports ~70% of its water supply
Endangered Species, Regulations and Courts Restrict Bay Delta Supplies

- Listings of salmon, smelt, and other species under ESA have led to restrictions on water exports.
- Loss of 586,000 acre-feet of SWP and CVP supply in an average water year.
Support for Fixing the Bay–Delta

- Water Authority and San Diego business community support a Bay–Delta fix
  - Water Authority and San Diego business leaders worked together to pass 2009 legislation that established coequal goals:
    - Water Supply Reliability
    - Ecosystem Restoration
      - 2014 water bond would provide public share of cost of ecosystem restoration

- Water Authority has not endorsed a specific conveyance project
  - Information still needed to do cost–benefit analysis
  - Unanswered question: what do we get for the investment?
Bay–Delta Conservation Plan

- Bay Delta Conservation Program (BDCP) is a joint effort of state, federal government, water contractors, and environmental stakeholders
  - $240 million cost to develop plan
- BDCP is planning process:
  - Habitat Conservation Plan and Natural Communities Conservation Plan under the federal and state Endangered Species Acts
- BDCP is permitting process:
  - Obtain Endangered Species Act and other permits to build a new conveyance project and recover listed species
- Goals:
  - Provide State Water Project and Central Valley Project water contractors with improved water supply reliability
  - Restore Bay–Delta ecosystem
Early 2012: California Natural Resources Agency proposes a double-bore tunnel with a capacity of 15,000 cubic feet per second, and with five intakes of 3,000 cfs capacity each

- Federal fisheries agencies issued “red flag” memos saying the proposal could not be permitted under ESA
- The fisheries agencies proposed a 9,000 cfs tunnel and a “decision tree” to determine ultimate yield of project after it has been built, depending on progress toward biological goals
July 25 State/Federal Announcement

- Governor Brown and Interior Secretary Salazar announced preferred water conveyance project
  - $14+ billion conveyance project; $3.6 billion ecosystem
  - Twin tunnels, 9,000 cubic feet per second (cfs)
    - 35 miles long; 35 feet in diameter
  - Other facilities
  - Full capacity only available in very wet years
- SWP and CVP contractors have committed to pay $240 million to complete BDCP planning process
- Contractors have said they will pay $14+ billion for tunnel project
- Return on $14+ billion investment: unknown
  - “Decision Tree” concept will determine if project will produce more or less water than no project
MWD is about 25% of Bay Delta Costs

- 50% Central Valley Project Contractors
- 50% State Water Project Contractors
- 28 Other State Water Project Contractors
Water Authority Pays About 25% of MWD’s Spending

Water Authority Member Agencies, by Size of Financial Payments
Water Authority Concerns over Financing the BDCP

- Metropolitan Water District depends on water sales revenues to pay >80% of its bills
  - Yet, MWD’s member agencies have no obligation to buy *any* water from MWD
  - MWD sales down 30% since 2007
  - MWD doubled water rates 2006–2014
  - MWD’s member agencies plan to buy even less water in the future from MWD
Southern California’s Local Water Supply Development Plans (2012 - 2035)

Up to 1.2 Million Acre-Feet
Does not include 650,000 AF of planned and state-mandated conservation.

Estimated On Line Date
- Green: 2012 - 2015
- Blue: 2016 - 2020
- Orange: 2021+
- Black: Projects completed in two phases

County Boundaries
MWD Member Agency Boundaries

San Diego County Water Authority
sdcwa.org  4677 Overland Ave. • San Diego, California • 92123-1233
Of up to 1.2 MAF of local supply plans, MWD’s 2010 RUWMP only recognizes 103,000 AF.

Example: Carlsbad Desalination Project not accounted for by MWD.
Portfolio Alternative

- Natural Resources Defense Council contacted a variety of water agencies to seek support for an alternative solution for the Bay Delta
  - A conceptual alternative to the current proposed project for the Bay–Delta Conservation Plan called the “Portfolio Approach”
  - Portfolio Approach is designed to produce comparable or better reliability at a lower cost
- Water Authority was a signatory, along with a group of water agencies, on Jan. 16, 2013 letter asking that the NRDC alternative be evaluated in the BDCP
Presentations on Bay Delta Alternatives

1. Paul Helliker, Deputy Director, Department of Water Resources
2. Barry Nelson, Senior Policy Analyst, Natural Resources Defense Council
3. Mike Wade, Executive Director, California Farm Water Coalition
4. Walt Wadlow, General Manager, Alameda County Water District
Examples of Master Plans

• California Water Plan
• Delta Plan
• Integrated Regional Water Management Plans

BDCP is a Permit Application Process

• Delta Conveyance Solution for Water Supply Reliability for SWP/CVP
• Mitigation and Habitat Improvements
• Incidental Take Coverage under Federal and State ESAs
Bay Delta Conservation Plan

New North Delta Conveyance + Over 100,000 Acres of Restored and Protected Habitat + Monitoring and Adaptive Management + 50 Year Ecosystem-Based Plan

Water Supply Reliability

Ecosystem Restoration

ESA-HCP + NCCPA-NCCP
200 Biological Goals and Objectives for 56 species
11 of which are aquatic species

22 Conservation Measures

11 HABITAT RESTORATION

1 WATER FACILITIES & OPERATIONS

10 OTHER STRESSORS
NRDC/SDCWA Proposal Expands Permit Requirements

Existing Proposal

• Conveyance/Operations
• Habitat

NRDC/SDCWA Alternative Proposal

• Conveyance/Operations
• Habitat
• Delta Levee improvements
• South of Delta Storage
• Local Water Supply Development

Alternatives analysis must identify specific project impacts
Expanding permit requirements could affect water supply reliability
Public Water Agency Partners in BDCP Process

Central Valley Project Contractors
State Water Contractors

- MWD is approximately 25% of combined project deliveries
- Agriculture is more than 60%
Established 2006

Scoping meetings to seek study proposals in 2008/09
  - Tunnel options suggested
  - No proposals from SDCWA

First Administrative Draft 2012

Second Administrative Draft now being released

Administrative draft EIR/EIS under review by federal lead agencies

15 alternatives being evaluated
  - 3,000 cfs option IS included
Sizing Conveyance – Background

- Existing aqueduct capacity - 15,000 cfs
- Initial BDCP Steering Committee capacity – 15,000 cfs
- 1982 Peripheral Canal - 22,000 cfs
- BDCP “Framework Proposal – 9,000 cfs; three intakes
- Final size yet to be determined
Sizing Conveyance – Rationale

- Must meet needs for 100-200 years
- Address climate change and sea level rise
- Provide protection from seismic events
- Improve water quality
- Provide reliability – two tunnel design
- “Big gulp, Little sip”
Response to NRDC/SDCWA Proposal

Evaluation

- 3,000 cfs tunnel option is covered in the BDCP EIR/S
- Economic calculations of the cost/benefit of the portfolio proposal will be addressed in Chapter 9 of the BDCP and accompanying documents
- Other water use efficiency and supply alternatives (recycling, desalination) are being facilitated in IRWM and regulatory programs

Problems

- Does not meet long-term needs – reliability for all Delta diversions
- Does not meet co-equal goals
- Does not address reverse flows and south Delta restrictions
- Reduces habitat restoration by 60%
- Funding for local water supply projects is not identified
BDCP Timetable

Second Administrative Draft

• Chapters 1-4 – Released March 14
• Chapters 5-7 – Released March 27
• Chapters 8-12 – Release week of April 22

Public Draft of EIR/S

• Release will be July, 2013
A Portfolio-Based BDCP Conceptual Alternative

San Diego County Water Authority
March 28, 2013

Barry Nelson, Natural Resources Defense Council
A Portfolio-Based BDCP Conceptual Alternative

- Delta challenges
- Current BDCP choices and issues
- A portfolio-based alternative
- Next steps
Current challenges in the Delta

- Crashing ecosystem
- Vulnerable levee system
- Water quality concerns

Institutions struggling to solve problems
Current choices in BDCP

- Status Quo
- Large facility
- Aggressive pumping
- Habitat restoration

or
Questions about current direction

**Water Reliability**
- How would it reduce physical vulnerability?
- Would it provide improved reliability in droughts?

**Ecosystem and Science**
- Would it improve, or worsen, ecosystem health and water quality?
- Is it legally permitable?

**Economics**
- Is it financially feasible?
Selection criteria for Delta solution

- Financial Viability
- Water Supply Reliability
- Ecosystem Restoration
- Water Quality
- Science-based, Permittable

Better performance at lower cost
Best solution will require thinking outside the current BDCP “Box”
Alternative portfolio-based approach

Large facility

- Aggressive pumping
- Habitat restoration

VS

In Delta

- Smaller facility
- Protective pumping rules
- Levee improvement
- Smaller habitat restoration

South of Delta

- Local water supplies
- South of Delta storage
- Water agency integration

Habitat restoration
Alternative portfolio-based approach

Summary of costs

Current BDCP Approach

- Investments in the Delta
- Large Facility
- Aggressive Pumping Rules
- Habitat Restoration

Investments South of the Delta

Total Cost: Approximately $18 Billion

Conceptual Alternative Portfolio Approach

- Levee Improvement
- Smaller Facility
- Protective Pumping Rules
- Habitat Restoration

- Local Supply Development / Water Agency Integration

South of Delaware Storage

Total Cost: Approximately $14-16 Billion
Potential benefits of portfolio approach

Financial viability
- Lower capital cost for export water users
- Reduced energy use
- Faster delivery of benefits

Reliability
- Greater water supply reliability
  - Less vulnerable to levee failures, earthquakes and sea level rise
  - Less affected by extended droughts
- More water for export water agencies?

Ecosystem restoration
- Contributes to Bay-Delta ecosystem and salmon restoration

Science-based, Permittable
- Based on science, more likely to successfully obtain permits

Water quality
- Promising, but additional modeling required

Other
- Reduced reliance on Bay-Delta water supplies – Per SB 7X7
- More local control
- Creation of local jobs in export areas that are paying for project
- Reduced greenhouse gas emissions
Potential benefits of portfolio approach

The bottom line

- More water
- Improved reliability
  - Dry years
  - Droughts
  - Levee failures
- More local jobs
- More local control
- Better environmental results
- Lower cost
- Broad support for further analysis
  - Southern California
  - Bay Area
  - Delta
Water supply reliability

- A large facility still relies on south of Delta pumping

**Normal Year**
- South Delta: 50%
- North Delta: 50%

**Dry Year**
- South Delta: 75%
- North Delta: 25%
Water supply reliability

- Even with a large facility, a Delta levee failure leads to a large water supply loss
Even with a large facility, a Delta levee failure leads to a large water supply loss.
Water supply reliability

• Even with a large facility, a Delta levee failure leads to a large water supply loss
Water supply reliability
Portfolio-based approach

- Smaller facility
- Levee investments
- Conservation and water recycling
- South of Delta storage
Conceptual alternative – Not a proposed project

- Based on currently available information and science
- Limited modeling
- Better cost estimates needed
- Refinements required for final plan

- Request that BDCP analyze, not adopt, the portfolio-based alternative
Support for further analysis

- **8 urban water providers and Municipalities**
  - 1/16/13 Alameda County Water District
  - 1/16/13 City of San Diego
  - 1/16/13 Contra Costa Water District
  - 1/16/13 East Bay Municipal Utility District
  - 1/16/13 Otay Water District
  - 1/16/13 San Diego County Water Authority
  - 1/16/13 San Francisco Public Utilities Commission
  - 2/26/13 City of Sacramento

- **5 environmental groups**
  - 1/16/13 Defenders of Wildlife
  - 1/16/13 Natural Resources Defense Council
  - 1/16/13 Planning and Conservation League
  - 1/16/13 The Bay Institute
  - 2/24/13 Charles Gardiner, Executive Director of the Delta Vision Foundation

- **3 business groups**
  - 1/16/13 Contra Costa Council
  - 1/16/13 Environmental Entrepreneurs
  - 1/22/13 San Diego Regional Economic Development Corporation
Support for further analysis

- Elected officials
  - 1/15/13 San Diego Mayor Bob Filner
  - 1/16/13 Congressman George Miller
  - 1/18/13 Congressman John Garamendi
  - 1/18/13 Congresswoman Doris Matsui
  - 1/18/13 Congressman Jerry McNerney
  - 1/18/13 Congressman Mike Thompson
  - 2/13/13 Congressman Ami Bera
  - 2/21/13 Congressman Jared Huffman
  - 2/21/13 Congresswoman Jackie Speier
  - 2/22/13 Assemblywoman Susan Bonilla
  - 1/17/13 Contra Costa County Supervisor Mary Piepho
  - 1/17/13 Contra Costa County Supervisor Karen Mitchoff
  - 2/12/13 Contra Costa County Board of Supervisors
  - 2/4/13 Sacramento County Supervisor Don Nottoli
  - 2/4/13 San Joaquin County Supervisor Larry Ruhstaller
  - 2/4/13 Yolo County Supervisor Mike McGowan
  - 2/4/13 Solano County Supervisor Skim Thomson

- Delta Protection Commission

- Newspaper Editorials
  - 1/20/13 San Diego Union Tribune
  - 1/23/13 Merced Sun Star
  - 1/24/13 Sacramento Bee
  - 2/7/13 Chico News and Review
Next steps

• Discuss with BDCP agencies
• Discuss alternative among stakeholders
• Further analysis by BDCP agencies?
CFWC Background

- Statewide organization formed in 1989 to provide fact-based information on farm water issues to the public
- 501 c 3 public benefit organization
- Members range from Redding to the Imperial Valley and include irrigation and water districts, individual farmers and farm-related businesses
Agriculture Needs Water to Thrive

- Farmers can’t control markets. They have to focus on input costs, including **reliable** water costs.

- USDA’s 2005 nutrition guidelines say we would need an additional 12.6 million acres of fruits and vegetables to meet the recommended dietary needs of the public.

- It makes no sense to consider a plan that would take more land out of production.

*It would take the fruit and vegetable acreage of two to three more Californias to meet USDA food guidelines.*
Delta Inflows and Water Project Exports
December 1, 2012 – January 31, 2013

Source: California Department of Water Resources

December 17: First of seven determinations from U.S. Fish and Wildlife Service to reduce reverse flows near pumping plants.
NRDC “Portfolio” Approach

- 485,000 af spread across 1 million acres, 150,000 af less than what we have today

- Ag’s water supply would shrink from today’s average of 35 percent allocation down to 25 percent. And that reduction would cost $4.5 billion. Who wants to pay for that?

- No ability to pay for a project that will put farmers out of business

- Puts entire single tunnel, “portfolio” approach in jeopardy

- Without CVP ag support, SWP costs are $1.4 billion higher than BDCP
San Luis Reservoir

- Won’t fill this year due to NRDC litigation on system operation (biological opinions)
- “Portfolio” approach adds uncertainty

How often will San Luis fill?

![Bar chart showing frequency of San Luis filling](chart.png)
Conclusion

- Can’t solve statewide water supply reliability by excluding a significant stakeholder
- Is there sufficient support to pay for “portfolio” plan without CVP agriculture’s buy-in?
- Failure to act leaves water users with the status quo
Alameda County Water District

A local agency’s perspective on the need for a business case for the BDCP

March 28, 2013
Mission Statement

- It is the mission on the Alameda County Water District to provide a reliable supply of high quality water at a reasonable price to our customers.
Overview

- Founded in 1914
- Provides retail water service
- Population Served
  - Over 330,000
  - Nearly 83,000 accounts
Service Area

- Fremont, Newark, and Union City – 104.8 square miles
Customer Profile

- Business: 14.1% (≈ 6,000 AF)
- Industrial: 8.8% (≈ 4,000 AF)
- Residential: 70.4% (≈ 31,000 AF)
- Miscellaneous: 6.7% (≈ 3,000 AF)

AF (acre-foot) ≈ 326,000 gallons
ACWD’s Commitment to Fiscal Responsibility

- **Operating & Capital Budget**
  - $104.1 million* (FY 2012-13)
  - *Cash balance - reserves used toward capital improvements

- **Water Sales**
  - $64 million (FY 2011-12)

- **AAA Bond Rating**
Water Supply Sources

- 40% State Water Project
- 40% San Francisco PUC
- 20% Alameda Creek Watershed Runoff
## Integrated Resource Planning: Investments to Reduce Reliance on Imported Water

<table>
<thead>
<tr>
<th>Item</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Conservation</td>
<td>All cost-effective BMPs are being implemented (plus more..)</td>
</tr>
<tr>
<td>Off-site Water Storage</td>
<td>150,000 AF of off-site groundwater banking secured at Semitropic (1996, 2001)</td>
</tr>
<tr>
<td>Enhanced Local Conjunctive Use</td>
<td>Local groundwater recharge ponds rehabilitated (1996); Fish passage projects in progress</td>
</tr>
<tr>
<td>Brackish GW Desalination</td>
<td>Phase 1 (5 MGD) facility completed in 2003; Phase 2 (combined 12.5 MGD) operational in 2010</td>
</tr>
<tr>
<td>Recycled/ Non-Potable Water</td>
<td>Feasibility studies completed; “purple pipe” installation in progress; cost-effectiveness a consideration for future implementation</td>
</tr>
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</table>
Cost of Water Supplies

Variable, Fixed, Maintenance and Capital Costs

<table>
<thead>
<tr>
<th>Source Description</th>
<th>Current Sources</th>
<th>Future Sources</th>
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</thead>
<tbody>
<tr>
<td>Conservation</td>
<td>$478</td>
<td></td>
</tr>
<tr>
<td>Desal (GW + SFPUC)</td>
<td>$858</td>
<td>$870</td>
</tr>
<tr>
<td>SW Treatment (SWP)</td>
<td>$910</td>
<td></td>
</tr>
<tr>
<td>SFPUC (Hetch Hetchy)</td>
<td>$1,400</td>
<td></td>
</tr>
<tr>
<td>Recycled Water (Est. Cost)</td>
<td>$6,530</td>
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</tbody>
</table>
Potential local benefits of the BDCP

- **Water Supply Improvements**
  - Improved yield & reliability of SWP
  - Reduced risk
    - Environmental regulations
    - Seismic protection
    - Climate change/sea-level rise
  - Potential integration with existing and/or future regional water management opportunities

- **Water Quality Improvements**
  - Chlorides/TDS
  - Bromide
  - TOC
  - Other
Developing the business case...

Business case is based on the benefit-cost ratio:

\[
\frac{BDCP \text{ Benefits (\$)}}{BDCP \text{ Costs (\$)}}
\]

(Local benefits should exceed the costs for a cost-effective program!)

- For local decision makers, the BDCP benefits and costs need to be quantified from a local agency perspective. This includes:
  1) Local supply reliability improvements
  2) Local water quality improvements
  3) Costs allocated to the local agency

- BDCP benefits and costs should be developed for a range of BDCP alternatives, including the “no-project” alternative
Considerations when evaluating the business case...

- Which BDCP alternative is the most cost-effective (from a local agency perspective)?
- Local agencies have other water management alternatives available to them...how will the BDCP alternatives compare?
- How will the BDCP benefits integrate with water management investments already made by local agencies (e.g. advanced treatment, local/regional storage, etc.)?
- What are the key assumptions used in quantifying the BDCP benefits and costs, and what is the level of uncertainty with each assumption?
- What is the time frame for achieving the BDCP benefits, and how does this time-frame correspond with local agency needs?
- Is the BDCP a “permanent” solution? Will climate change or other factors require additional investments down the road?
Summary…

- Similar to other water management opportunities available to local agencies, the BDCP should:
  - Consider a range of alternatives
  - **Quantify** costs and benefits for each alternative
  - Identify risks and uncertainties
  - Evaluate the potential integration with regional management opportunities

- Local agencies can use this information to make an informed, business case evaluation based on their service area needs.

- Ratepayers can then be assured that their water service provider is making a fiscally sound investment.
Contact Information

- Walt Wadlow, General Manager
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  Phone: (510) 668-4200

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www.acwd.org
San Diego County Water Authority
Cost of Service Study – Phase I
Capacity Charge Review & Analysis

March 28, 2013
Agenda

- FY 2014 Cost of Service Rates
- Capacity Charges
  - Components
  - Calculations
- Next Steps & Questions
2014 Cost of Service Rates Phase 1
Cost of Service Objective

- Review Water Authority’s projected calendar year 2014 revenue requirements, cost of service process and the appropriateness of rates and charges for consistency with legal requirements and Board policy
Key Governing Board Policies

- Ordinance No. Ordinance 2002-03
  - Transitioned the rate structure from a historical unit price ("postage stamp") water rate to assigning the revenue requirements to functional categories
  - Categories include Customer Service, Storage, Transportation and Supply

- Resolution No. 98-26
  - Established the Infrastructure Access Charge to pay at least 25 percent of the estimated annual fixed costs of the Authority.

Complete list of Ordinances relating to rates can be found at http://www.sdcwa.org/member-agency-dates-and-general-information
Cost of Service Review Process

- Independently review existing rate methodologies for equity and consistency with American Water Works Association guidelines
- Meet with Water Authority staff to review operating expenditure allocation to rate and charge categories
- Analyze and review cost of service impact related to water system and water supply reliability improvements since 2000
- Allocate cost to functional categories (supply, treatment, transportation, storage and customer service)
- Develop 2014 rates
- Meet with Member Agencies
- Present to Board
2014 Rate Update Process

Revenue Requirement Analysis
- Operations & Maintenance Needs
- Capital Funding
- Debt Obligations & Coverage
- Policy Requirements
- Offsetting Revenues

Functional Allocation/Rate Category
- Melded Supply
- Melded Treatment
- Transportation
- Storage
- Customer Service

Member Agency Allocation
- Water Demand
- Rolling Water Demands
- Meter Equivalents

Rates and Charges
- Melded Supply
- Melded Treatment
- Transportation
- IAC
- Storage
- Customer Service
- MWD Pass Through
Capacity Charges

Review & Analysis
Capacity Charge Prerequisites

- §45 - 5.9 of the County Water Authority Act permits the Water Authority to fix and impose capacity charges
- Subject to California Government Code §66000 and §54999
- One-time payment to purchase system capacity for new or upsized meters
- Requires a reasonable nexus between the fee and the cost to provide/construct capacity
- May include components for water resources, production, storage, distribution, and financial reserves
Capacity Charge Principles: Best Practices

- Achieve compliance with CGC §66013 and §54999
- Balance equity between existing and future customers
- Retain consistency over time, as appropriate
- Maintain administrative feasibility
- Adhere to existing board policy
Key Governing Board Policies

- Ordinance No. 90-2
  - Establishes Capacity Charge

- Ordinance No. 99-2
  - Capacity charge methodology updated based on independent engineers report - “Revised Capacity Charge Methodology and Analysis”

- Ordinance No. 2005-03
  - Hybrid methodology adopted based on Fixed Revenue Study recommendation
    - Member Agency Technical Advisory Committee recommended methodology
    - Establishes separate System and Treatment Capacity Charges
    - Allows for automatic annual ENR adjustments

Complete list of Ordinances relating to Capacity Charge can be found at http://www.sdcwa.org/member-agency-dates-and-general-information
## Capacity Charge Methodologies

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Formula</th>
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</thead>
<tbody>
<tr>
<td><strong>System Buy-In</strong></td>
<td>Based on premise that new users are buying into an existing system with available capacity.</td>
<td>(Current Replacement Value) (Existing Meter Equivalents)</td>
</tr>
<tr>
<td></td>
<td>Recovers value of existing facilities only.</td>
<td>(PV Future Capacity CIP) (Future Meter Equivalents)</td>
</tr>
<tr>
<td></td>
<td>Applicable when existing system has adequate surplus capacity and does not require major capacity improvements</td>
<td>(Current Replace Value + PV Future CIP) (Total Meter Equivalents)</td>
</tr>
<tr>
<td><strong>Incremental Cost</strong></td>
<td>Fee is based on the cost to construct additional capacity to meet new demands.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recovers cost of capacity related capital improvements.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applicable where there is limited capacity in the existing facilities to serve future customers.</td>
<td></td>
</tr>
<tr>
<td><strong>Hybrid Approach</strong></td>
<td>Recovers the value of available capacity in existing system and proportionate share of planned capital improvements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applicable when utility has some existing system capacity and plans to undertake major system improvements</td>
<td></td>
</tr>
</tbody>
</table>
Member Agency Capacity Fee Methodology

- City of Carlsbad:
  - Incremental Cost Approach
- City of Oceanside:
  - Buy-In Approach
- City of San Diego:
  - Hybrid (“Combined”) Approach
- Otay Water District:
  - Hybrid (“Combined”) Approach
- Olivenhain Municipal Water District:
  - Hybrid (“Combined”) Approach
- Padre Dam Municipal Water District:
  - Hybrid (“Combined”) Approach
Capacity Charge Components
Water Authority Capacity Charge Structure

Water Authority imposes a hybrid capacity charge to recover proportionate share of capacity for existing system and planned future improvements.

\[
\text{Capacity Charge} = \frac{\text{Adjusted RCNLD}^* \text{ of Existing System} + \text{PV of Future CIP}}{\text{Existing + Future Customers}}
\]

* Replacement Cost New Less Depreciation
Capacity Charge Cost Basis

- Adjusted Replacement Cost New less Depreciation of Existing System
  - Escalated Asset Replacement Values
  - Plus: Applicable Reserves & Other Assets
  - Less: Depreciation
  - Less: Debt Principal

- Present Value (PV) of Future CIP
  - Value of CIP in today’s dollars
  - Includes Total Capital Improvements

- Total Meter Equivalent Projections
  - Projected Population Growth
Total Value of Capacity (System)

- Adjusted Replacement Cost New less Depreciation of Existing System
  - Escalated Asset Replacement Values – $3.80 billion
  - Plus: Applicable Reserves & Other Assets – $0.73 billion
    - Participation and Capacity Rights, Equipment & Computer System
    - Reserves includes Debt Service Fund, PAYGO Fund, Operating Fund, Rate Stabilization Fund, Stored Water Fund
  - Less: Accumulated Depreciation – $1.59 billion
  - Less: Debt Principal & Commercial Paper – $1.9 billion

- Present Value of Future CIP
  - Future Costs - $1.78 billion
    - Future and Replacement CIP, 2014 - 2030
Total Meter Equivalent Projection

- **177,000** Forecasted New Meter Equivalents
  - Utilizes two factors –
    - **Persons per new meter**: Total new meter and population growth
      - 10yr average (2003-2012)
    - **Connection factor**: Weighted average of meter equivalency
      - 10yr average (2003-2012)
  - SANDAG 2035 population projections

- **912,000** Existing Meter Equivalents
  - IAC totals as provided by member agencies as of January 2012
Capacity Charge Calculations
CY 2013 Water Authority Capacity Charges: Hybrid (Combined) Approach

Water Authority currently imposes two capacity charges:

1. System Capacity Charge:
   - Designed to recover non-treatment related system capacity costs
   - Existing charge of $4,326

2. Treatment Capacity Charge:
   - Designed to recover treatment capacity costs for Twin Oaks Valley WTP and capacity rights in Levy WTP
   - Existing charge of $166
## Estimated CY 2014 System Capacity Fee

### Summary Detail

<table>
<thead>
<tr>
<th>System Capacity Charge (Preliminary Guidance)</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Value of Capital Assets*</td>
<td>$4,490,000</td>
</tr>
<tr>
<td>Total Liability and Asset-Related Adjustments*</td>
<td>(1,170,000)</td>
</tr>
<tr>
<td>PV Future Capital*</td>
<td>1,780,000</td>
</tr>
<tr>
<td><strong>Total Value of Existing and Future Assets</strong>*</td>
<td>$5,100,000</td>
</tr>
<tr>
<td><strong>Total Number of Meter Equivalents</strong></td>
<td>1,089,000</td>
</tr>
<tr>
<td><strong>Calculated System Capacity Charge</strong></td>
<td>$4,681</td>
</tr>
<tr>
<td><strong>Existing Charge</strong></td>
<td>$4,326</td>
</tr>
</tbody>
</table>

*Asset Values in Thousands.
## Estimated CY 2014 Treatment Capacity Fee

### Summary Detail

<table>
<thead>
<tr>
<th>Treatment Capacity Charge (Preliminary Guidance)</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Value of Capital Assets*</td>
<td>$259,000</td>
</tr>
<tr>
<td>Total Liability and Asset-Related Adjustments*</td>
<td>(137,000)</td>
</tr>
<tr>
<td>PV Future CIP*</td>
<td>$1,000</td>
</tr>
<tr>
<td><strong>Total Value of Existing and Future Assets</strong>*</td>
<td><strong>$122,000</strong></td>
</tr>
<tr>
<td><strong>Total Number of Treated Meter Equivalents</strong></td>
<td><strong>1,026,000</strong></td>
</tr>
<tr>
<td>Calculated Treatment Capacity Charge</td>
<td>$119</td>
</tr>
<tr>
<td>Existing Charge</td>
<td>$166</td>
</tr>
</tbody>
</table>

*Asset Values in Thousands*
Questions & Next Steps
Next Steps

- April – May 2013 – Capacity Charge Stakeholder Outreach
  - Meet with Building Industry Association and Other Stakeholders
- Hold 3rd meeting with Member Agencies – April 16, 2013
  - Preliminary Guidance on CY 2014 Rates and Charges
- Board Presentation – April 25, 2013
  - Preliminary Guidance on CY 2014 Rates and Charges
Next Steps (continued)

- Board Presentation – May 30, 2013
  - Release Phase I Cost of Service Report
  - Set Public Hearing for CY 2014 Rates and Charges including System and Treatment Capacity Charges

- Board Presentation – June 27, 2013
  - Acceptance of Cost of Service Study – Phase I
  - Adopt CY 2014 Rates and Charges
  - Adopt CY 2014 System and Treatment Capacity Charges
Power Supply

- **AB 762 (Patterson) Hydroelectric Generation**
  - Amends CA Renewables Portfolio Program to include eligible hydroelectric generation facilities of any size
  - May provide greater opportunity for renewable energy opportunities in the future
  - **Recommendation: Support**

- **AB 1258 (Skinner) Electricity: Hydroelectric Facilities**
  - Requires PUC to determine potential use of hydroelectric facilities and specified pumped storage facilities (Helms, Balsam, Oroville and San Luis)
  - Could lead to future support of a potential San Vicente pumped storage project
  - **Recommendation: Support**
Water Facilities

- **AB 763** (Buchanan) Aquatic Invasive Plants: Control and Eradication
  - Designates the Dept of Boating and Waterways as lead agency in administering invasive aquatic plant control and eradication programs
  - **Recommendation: Support**

- **SB 425** (DeSaulnier) Public Works Peer Review Act of 2013
  - Requires a Peer Review Group for any public works project valued at greater than $1 billion
  - Should be amended to mirror industry standards; must not usurp authority of project’s administering agency
  - **Recommendation: Support, if amended**
Water Use Efficiency & Recycling

- **AB 1349** (Gatto) CalConserve Water Use Efficiency
  - Establishes a sustainable funding source for loans for water use efficiency projects
  - Managed by Department of Water Resources
  - **Recommendation: Support**

- **AB 803** (Hueso) Recycled Water
  - Creates the Water Recycling Act of 2013
  - Follow-up to efforts in 2012 with AB 2398
  - Provides solutions to impediments to recycled water development
  - **Recommendation: Support**
Drinking Water Oversight

- **AB 115 (Perea) Safe Drinking Water State Revolving Fund**
  - Would make it easier for applicants, including water suppliers, to apply for Safe Drinking Water Revolving Fund (SDWRF) funds for projects that would assist disadvantaged communities
  - **Recommendation:** Support

- **AB 145 (Perea) SWRCB: Drinking Water**
  - Moves CA Dept of Public Health to the SWRCB
  - Could significantly affect how water agencies are regulated under the Safe Drinking Water Act
  - Amendment sought would allow CDPH to move to another entity (e.g. EPA) where it would retain public health focus
  - **Recommendation:** Oppose, unless amended