

**Third Annual Water Innovations Alliance Conf.
Boston, MA
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**SAN DIEGO COUNTY WATER
AUTHORITY'S CARLSBAD
SEAWATER DESALINATION
PUBLIC-PRIVATE PARTNERSHIP**

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OVERVIEW

Carlsbad Project Profile

New Long Beach Court Building Profile

Project Elements, Drivers and Participants

Development Challenges

Design-Build-Finance-Operate

HAWKINS PERSPECTIVE

**90 Attorney Municipal Contract and Finance
Boutique**

**Leading Special Counsel Law Firm Practicing
Nationally in Alternative Project Delivery**

Municipal Representation Exclusively

Perspective of 80 Water Projects in 20 States

**Special Counsel to San Diego County Water
Authority**

**CARLSBAD SEAWATER
DESALINATION PROJECT
(DESIGN-BUILD-FINANCE-
OWN-OPERATE)**

PROJECT PROFILE

Water Treatment Project

Reverse Osmosis Seawater Desalination

Technology Proven Internationally

50 MGD Plant and 11 Miles of Pipelines

Co-located with Encina Power Station

Privately Developed, Publicly Sponsored

Structured as a “Water Purchase Contract”

DRIVERS

**California Water Availability and Allocation
Uncertainties**

New Water Source

Enhance Regional Water Resource Security

Transfer Development and Performance Risks

Cost Sensitivity Remains

PARTICIPANTS

San Diego County Water Authority (Buyer)

Poseidon Water (Seller)

Blackstone (Equity)

EPC (Design-Build) Contractor (TBD)

IDE (Operator)

Barclays (Investment Banker)

City of Carlsbad (Host Community)

Cabrillo (Site Lessor)

NEGOTIATIONS

Detailed Term Sheet Approved

Negotiations Planned But Not Yet Begun

**Awaiting Clearance With Carlsbad and Negotiation
of Host Community Payment**

Draft WPA Prepared

Draft EPC and O&M Agreement Prepared

Equity Contribution Term Sheet Prepared

Water Authority Is Conducting Due Diligence

Final Pricing Discussions Commenced

SITE

**Cabrillo (NRG) Encina Power Station Site in
Carlsbad**

Power Plant Uses 600 MGD of Seawater for Cooling

Desalination Plant is Adjacent to Power Plant

Will Use 100 MGD of Raw Seawater

**“Once Through” Cooling Rules will Close Power
Plant in 2017**

**Desalination Plant will Continue to Use Intake
Structure**

CHALLENGES

12 Years in Development

Certified Environmental Impact Report

California Coastal Commission Permit Issued

State Lands Commission Approval Received

Pilot Testing Completed

Environmental Litigation Concluded

KEY COMMITMENTS

Poseidon Designs, Builds, Finances, Owns and Operates the Project (DBFOO)

30-year Water Authority “Take or Pay” Water Purchase Agreement

Water Authority Nominal Cost Purchase Option

56,000 Acre Feet Per Year

\$1600-\$1800+ Per Acre Foot

Product Water Quality Guaranteed (Based on Assumed Raw Water Conditions)

Electricity Usage Guaranteed

PROJECT FINANCING (1)

**“Project Finance” for Public Infrastructure
Financing Integrated With DBO Responsibilities
Contractor Forms Special Purpose Entity
Entity Issues Debt for Project Construction
Debt is “Non-Recourse” to Water Authority or to
Company
Entity Subcontracts Construction and Operation
Common Use Internationally
Greater Transactional Complexity**

PROJECT FINANCING (2)

**Company's Project Debt is Tax-Exempt, Low Cost
Private Activity Bond "Volume Cap" Obtained
Water Purchase Payments Are Secured by Water
Authority's System Revenue**

No SRF Funding

**\$250/Acre Foot Subsidy from Metropolitan Water
District Possible**

**Project Feasibility Report Accompanies Bond
Offering**

RISK TRANSFER

Water Authority Makes No Payments Towards Construction

Company Finances Construction Using Its Own Project Borrowings

Water Authority Makes Water Purchase Payments Upon Project Completion

Water Purchase Payments Are Contingent Upon Delivery of Water

CONSTRUCTION RISK TRANSFER

Design Liability

Completion Risk (Delay and Efficacy)

Construction Cost Overruns

Disputes Between Designer and Builder

Securing Patents and Licenses

Permitting Risks

OPERATION RISK TRANSFER

O&M Cost Overruns

Regulatory Compliance

Capital Maintenance

Technological Obsolescence

Excess Electricity Consumption

Labor Relations

RISKS RETAINED

Raw Water Quality

Changes In Law

Force Majeure

General Price Inflation

Electricity Price Inflation

PROTECTION OF THE PUBLIC INTEREST

Establishment of Plant Design Requirements

Pipeline Standards

Water Quality Guarantees

Water Delivery Guarantees

Acceptance Criteria

CDPH Domestic Water Supply Permit

SECURITY FOR PERFORMANCE

**Design-Build Contractor's Surety Bond Assures
Completion**

Letter of Credit

**Potential Loss of Water Sale Revenues Will
Incentivize:**

- **Equity to Make Necessary Repairs to Preserve Investment**
- **Bondholders Have Step "Cure Rights" to Assure Project Performs**

CREDIT AND ACCOUNTING ISSUES

Water Purchase Payments:

- **Are Not Water Authority Balance Sheet Debt**
- **Do Not Require Voter Approval**
- **Are Not Water Authority Debt to Rating Agencies**
- **May Not Count Against Water Authority
Borrowing Capacity**

SUSTAINABILITY (1)

“Energy Minimization and GHG Reduction Plan” – a Permit Condition

“On-Site” Measures:

- **Green Building Design**
- **Solar Power**
- **Energy Recovery for Plant**
- **Injecting Recovered CO₂ into Desalinated Water**

SUSTAINABILITY (2)

“Project-Related” Measures – Avoided Emissions From:

- **Reducing Energy Needs at Carlsbad WRF**
- **Displacing Pumped, Imported Water**
- **New Coastal Wetland Trapping CO₂**

**PRIVATE FINANCING
CONSIDERATIONS
GENERALLY**

“DBFO” IS A REALISTIC ALTERNATIVE

**With “Volume Cap” Availability, Private Capital Will
be Drawn to Public Water Projects**

Owners May Seriously Consider Private Financing

**DBFO May Prove Highest Ranked Alternative
Delivery Method in “Business Case” Analyses**

**Investment Banking Firms Will Seek to Interest
Municipal Utilities in Private Financing**

**Greater Attention to DBFO May Increase Owner
Interest in DB, DBO**

POTENTIAL BENEFITS FROM PRIVATE FINANCING (1)

**Private Project Financing Is More Flexible Than
Municipal Financing**

Bank Construction Loans/Capital Markets

**Longer Maturities Possible (e.g., 35 Years v. 20-25
Years)**

**Debt Service Payable Over the Life of the Asset
Financed**

POTENTIAL BENEFITS FROM PRIVATE FINANCING (2)

Permits a High Degree of Risk Transfer, Similar to DBO

Lender and Equity Investor Involvement Heightens “Due Diligence” on Project Feasibility

Lenders Provide Added Security to Owner For DBO Contractor Performance

If DBO Contractor Fails to Perform, the Loan Is At Risk

Lenders Will Make Additional Investments to Assure Continued Service by DBO Contractor

PRIVATE FINANCING NEED NOT INVOLVE PRIVATE OWNERSHIP

Private Ownership Normally Accompanies Private Financing

But Owners Are Reluctant to Convey Water Infrastructure Ownership

Debt Markets Don't Require Private Ownership to Provide Financing

Security of Service Contract is Sufficient

Private Equity Investment is Required by Lenders

Mortgage on Project Would Add Little to Security

PRIVATE OWNERSHIP CONSIDERATIONS

Pros:

- Discipline of Private Project Owners
- Transfers Risk of Performance/Project Efficacy
- Federal Tax Benefits Can Mean More Equity, Less Debt

Cons:

- Loss of Residual Value of the Asset
- Less Public Control
- Private Ownership of an Essential Public Asset Is Unusual

FINANCIAL INSTITUTIONS

**Commercial Bank Loans or Capital Markets
Transaction**

**Owner and Contractor Credit Standing Both
Involved**

Entity Leading the Financing:

DBO Firm (Arranges Financing), or

**Private Investment Firm (Subcontracts with DBO
Firm)**

MUNICIPAL UTILITY'S RETAINED RIGHTS UNDER DBFO

Ownership of System Revenues

Setting User Rates

Capital Planning

Ownership of Assets

DBFO SUCCESSES - WATER

San Juan Capistrano (CA)	DBFO
Cranston (RI)	DBFO
Holyoke (MA)	DBFO
Santa Paula (CA)	DBFO
Sacramento County RSD (CA)	DBFO

PRIVATE FINANCING CREATES “PRIVATE ACTIVITY BONDS”

**Private Financing, Ownership or Leasing Creates
Private Activity Bonds (“PABs”)**

PABs Are Not Tax-Exempt

Exception: “Exempt Facility” PABs

**Exempt Facility Bonds Include Water and
Wastewater Projects (also Housing)**

**Exempt Facility Bonds Are Subject to General State
“Volume Cap”**

GENERAL PAB “VOLUME CAP”

Limits on Aggregate PAB Issuance

State-by-State

Housing Use Has Predominated Historically

**Greater of \$75 Per Capital Per Year for All Sectors,
or \$225M**

Effective \$238B Annual National Limit

Uncertain Availability Has Discouraged Use

But, Currently, Cap Is Widely Available

SUMMARY

**Private Financing Can Drive, and Better Secure,
Project Development and Financing**

**Single Point of Accountability for Risks of Siting,
Development, Technology, Performance and
Cost**

Private Financing Can Be Tax Exempt

No Debt on Public Balance Sheet

**No Municipal Bonds Payable If Project Doesn't
Work Well**

Payment Only For Performance

“I have ever found in my progress through life, that, acting for the public, if we do always what is right, the approbation denied in the beginning will surely follow us in the end.”

Thomas Jefferson
Light and Liberty

THANK YOU

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