$4B of Capital Improvement Projects: Evaluating/Implementing Alternative Project Delivery Methods

November 8, 2018, 3-4 p.m. ET

(All phone lines are muted.)
Welcome

Erica Brown
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Association of Metropolitan Water Agencies
Reminders

• Today’s presentation is being recorded.
• Slides and recording will be available at https://www.amwa.net/P3Series
• We’ll take questions in the Q&A dialog box after today’s presentation
How to Ask a Question

Type and send your question.
AMWA’s P3 Initiative
https://www.amwa.net/exploring-avenues-p3s

Three components:

1. White paper
2. Webinar series
3. Resources page
Poll Question #1
Speakers

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Deputy Operating Officer
Santa Clara Valley Water District

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Principal
Liquisti LLC

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Treasury and Debt Officer
Santa Clara Valley Water District
$4B OF CAPITAL IMPROVEMENT PROJECTS: EVALUATING/IMPLEMENTING ALTERNATIVE PROJECT DELIVERY METHODS

Katherine Oven, SCVWD
Phillippe Daniel, Liquisti LLC
Charlene Sun, SCVWD
Presentation Outline

1. Background
2. Drivers
3. The Program
4. Delivery Methods Considered
5. Analysis
6. Decision
7. Current Status
BACKGROUND
District Mission

Providing Silicon Valley safe, clean water for a healthy life, environment and economy

CLEAN, RELIABLE WATER
FLOOD PROTECTION
HEALTHY CREEKS & ECOSYSTEMS
From Valley of Heart’s Delight to Silicon Valley
Background

Santa Clara Valley Water District Serves:

2 million people
15 cities
4,700 well owners
13 water retailers
Diversified Portfolio for a Reliable Supply

- Local surface & groundwater
- Imported water
- Conservation
- Recycled Water
Water Supply from Imported Sources and Local Reservoirs Intricately Connected in County

- 10 reservoirs
- 3 pump stations
- 142 miles of pipelines
- 3 water treatment plants
- 1 advanced purification plant
- 393 acres of recharge ponds
- 275 miles of jurisdictional streams
Capital Improvement Program (FY19-FY33)

- Water Supply: $2.4B
- Flood Protection: $1.3B
- Other: $0.3B
DRIVERS
Drought Conditions 2013-2016
Drive Urgency for Additional Action

- Drought realities
- Economic impacts
- Land subsidence risk

Subsidence (Feet):
- > 7.9
- > 6.6
- > 4.9
- > 2.0
- > 0.3
- < 0.3
2015: Water Supply Reliability Driving Need for Speed

- Strong political desire to act quickly.
- Local/regional/state support
- Board open to private sector innovation.
- Belief that alternative delivery method could accelerate program implementation.
Moving Forward: Two Major Issues

1. Purified Water Program Not Fully Defined
   - Municipalities own/operate wastewater treatment facilities
   - Inter-governmental agreements necessary
   - Regulatory uncertainty

2. Delivery Method Will Be Non-Traditional
   - Progressive design-build
   - Design-build-finance-operate-maintain
THE PROGRAM
Expedited Purified Water Program

• Turning **up to** 45,000 acre-feet a year of what normally goes to San Francisco Bay into drinking water

• Delivering ~ $1B of advanced treatment technology and pipelines
District Assembled Team to Address All Critical Issues

- Executive Leadership
- Program Management
- Preliminary Engineering
- System Operations
- Procurement Expertise
- Financial Analysis
- Legal Support
Indirect Potable Reuse Elements

- Treated Wastewater Supply (from Others)
- Purification Center
- Purified Water Pump Station and Pipeline
- Groundwater Recharge Ponds
DELIVERY METHODS CONSIDERED
P3 Project Spectrum

Greater Public Agency Control

Conventional Design-Bid-Build
PM/CM At-Risk
Design-Build (DB)
Design-Build-Operate (DBO) or Design-Build-Operate-Maintain (DBOM)
Design-Build-Finance-Operate-Maintain (DBFOM)
Private Ownership

Greater Private Entity Control

Greater Public Agency Risk

Greater Private Entity Risk
Progressive Design-Build (PDB)

**Advantages**

- Compressed
- Cost analysis of options available as project progresses; opportunities for value-engineering
- Transfer of cost and schedule risk to contractor
- Maximizes owner flexibility, involvement and system control

**Disadvantages**

- Cost for construction not known at the time of initial contract signing
- Cost is determined through combination of negotiated and competitive processes
- Asset life-cycle maintenance not addressed

**Risk Considerations**

- **Design Risk (low)** – Single design-builder maintains responsibility for designs throughout, with input from owner at various design levels.
- **Schedule delay risk (low)** – Risk of schedule delays shared between owner and Design-Builder through incentive structure
- **Procurement risk (low)** – Mitigated due to single procurement and increased competition driven by low preparation costs.
- **Budgetary risk (low)** – Cost certainty through Guaranteed Maximum Price and off-ramp.
- **Interface risk (low)** – Risk of integrating design and construction transferred to design builder.
- **Integration risk (low)** – Risk of integrating works within District system low, as District retains operation and control of entire system.
1. **Long-term contract** between a public agency and a “private partner” for the design, construction, financing, operation and/or maintenance of an infrastructure facility.

2. Terms and conditions of agreement can vary greatly and will define scope of responsibilities, as well as level of risk transfer to private partner.

3. Addresses life-cycle needs of the asset.

4. Significant (not total) cost, schedule and performance risk transfer to private partner. District does retain significant risk, as well as contingent liabilities.
ANALYSIS
An Unfolding Story

2015 Dual Track Starts

Decision to Identify Single Track

RFQ Release

Analysis of Tracks

P3 Decision

"Progressive" Decision
An Unfolding Story

Dual Track Starts

Decision to Identify Single Track

P3 Decision

RFQ Release Jan 2016*

Analysis of Tracks

"Progressive" Decision

* 2 teams short-listed for P3
An Unfolding Story

Dual Track Starts

June 2016 Decision to Identify Single Track

RFQ Release

Analysis of Tracks

P3 Decision

"Progressive" Decision
Selecting a Contracting Method

• No absolute truths when it comes to selecting a contracting method

• Usually not an “either/or” decision. Focus is on tailoring a structure that best meets objectives and optimizes value-for-money for the owner

• Best practice evaluation methodologies involve both qualitative and quantitative comparison of options; however, determining the optimal contracting structure is not a perfect science, nor without its pitfalls

• Challenges involved in high-level assessments
# Risk Transfer Considerations

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<thead>
<tr>
<th>Key Risk</th>
<th>PDB</th>
<th>DBFOM</th>
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<tbody>
<tr>
<td></td>
<td>Progressive Design-Build</td>
<td>Design-Build-Finance-Operate-Maintain (30 years)</td>
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<tr>
<td>Finance</td>
<td>District</td>
<td>Private (or shared)</td>
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<tr>
<td>Design Risk</td>
<td>Private/Shared</td>
<td>Private/Shared</td>
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<tr>
<td>Schedule Risk</td>
<td>Private/Shared</td>
<td>Private/Shared</td>
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<td>Cost Overruns</td>
<td>Private (with some exceptions)</td>
<td>Private (with some exceptions)</td>
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<tr>
<td>Operating Risk</td>
<td>District</td>
<td>Private/Shared</td>
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<td>Ongoing Maintenance</td>
<td>District</td>
<td>Private</td>
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<td>Rehabilitation</td>
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<td>Technology</td>
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<td>Asset life-cycle</td>
<td>District</td>
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<td>Handback</td>
<td>District</td>
<td>Private</td>
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1. Key risks (cost overruns, schedule) can/will be transferred to private partner under both PDB and DBFOM.

2. Is combining project elements into a single contract better than separating them?

3. Operations and Maintenance:
   a. District has O&M expertise. Does a private operator bring specialized skills not readily available in the District?
   b. Is there potential for efficiencies (either through public or private operation)?
   c. Can District efficiently address life-cycle maintenance?

4. Balance Sheet and Credit Impact of District obligations

5. What does a DBFOM partner bring to the table (permits, water rights, rights of way) that the District needs?
1. Simplified contract negotiations.

2. District remains a “doer” rather than becoming a “regulator.”

3. Given real-time and seasonal operational uncertainties, there is value in retaining control of system integration.

4. District leverages and deepens core competencies.

5. Full flexibility in managing county’s water supply.
• What is the experience of other CA water agencies with alternative project delivery methods?
• Provide context on issues/strengths/constraints that led to delivery method choices.
• Allow for Board deliberation on choice of delivery method for Purified Water Program.
• Representing a range of California procurement experiences, the following agencies presented their experiences to the Board:
  – City of San Jose (DBB, DB)
  – Orange County Water District (DBB)
  – City of Rialto (DBFOM)
  – City of Stockton (DB)

• Board discussion generated additional questions.
March 2017 Board Meeting:  
Main Points for Follow-up

1. **Financial**: Does the District have sufficient capacity to publicly fund all the major capital programs under consideration? Would the District’s bond rating be at risk?

2. **Cost**: How do we meaningfully compare the two delivery method alternatives?

3. **Workload**: What staffing levels are required under PDB vs. P3?
Poll Question #2
DECISION
An Unfolding Story

- Dual Track Starts
- Decision to Identify Single Track
- Oct 2017 P3 Decision
- RFQ Release
- Analysis of Tracks
- "Progressive" P3 Decision
San Diego County Water Authority presented their capital program including the Carlsbad Desalination (WPA/DBFOM)

Staff presented a response to March 2017 Board questions.

Board motion to adopt a P3 program delivery approach was approved by 6-1 vote.

Key drivers in Board’s decision:
  – Concerns over rate impacts of financing 5-year Capital Improvement Program
  – Benefits of risk transfer, especially costs
  – Staff workload
  – Positive report of San Diego County Water Authority
• Allowed District’s Recycled Water Committee to receive input from interested P3 entities.

• Comments included:
  – Allow for innovation – don’t be too prescriptive.
  – Develop schedule to allow for an interactive process.
  – Selection criteria should be objective.
  – Have a defined scope of work.
  – Provide a stipend.
  – Involve P3 partner early.
  – Utilize a “progressive” P3 delivery.
Which form of P3 is most appropriate for this Program?

Considered several variations

Opted not to go with a traditional DBFOM but rather a "progressive" P3 based on qualifications and innovation approach.

A “Project Development Period” will occur after selection, leading to preparation of a Water Services Agreement.

The process will have “off-ramps” that the District can exercise, as-needed.
An Unfolding Story

- Dual Track Starts
- RFQ Release
- Decision to Identify Single Track
- Analysis of Tracks
- P3 Decision

"Progressive" P3 Decision
Feb 2018
An Unfolding Story

Dual Track Starts

Decision to Identify Single Track

P3 Decision

"Progressive" P3 Decision

Feb 2018 2nd RFQ Issued

May 2018 5 teams short-listed

RFQ

Analysis of Tracks

5 teams short-listed
CURRENT STATUS
Program Elements Evolving

• Re-evaluating initial assumptions treated wastewater:
  – availability
  – allocation amongst uses
  – agreement duration

• Integrated planning effort addressing these and other issues complete in 2019.
Procurement Structure Refinements

• Progressive P3 (vs DBFOM) introduces cost uncertainty:
  – Firm pricing not basis of selection
  – TOTEX (CAPEX+OPEX) not competitively developed.
  – Risk premium negotiated

• Procurement structure under development to maintain District leverage.

• Term sheet development under successive iterations.
Financial Considerations

• Private financing – Is premium worth the life-cycle risk transfer?
• Compliance with tax law – Qualified management contract
• Financial impacts – Rate & charges, balance sheet, debt coverage ratio, and credit ratings
• Alternative financing structures – P3, WIFIA, grants, etc.
Anticipated Schedule

• Integrated countywide planning effort completion in mid-2019
• RFP issuance targeted for 2019.
• P3 entity selection in Spring 2020.
• A Water Services Agreement anticipated by 2022.
Poll Question #3
Questions
How to Ask a Question

Type and send your question.
Webinar recordings at

https://www.amwa.net/P3Series
Thank you.

Contact AMWA with questions:

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