SUPPLEMENTAL BOARD AGENDA MEMORANDUM

SUBJECT: Expedited Purified Water Program—Project Delivery Method Evaluation

REASON FOR SUPPLEMENTAL MEMORANDUM:

To provide: (1) the Final Report on Preliminary Evaluation of Program Delivery Methods for the Expedited Purified Water Program (Final Report); (2) PowerPoint presentation for the Expedited Purified Water Program; and (3) SJW Corp. Public-Private Partnership Proposal.

RECOMMENDATION:

A. Receive and discuss the Final Report on Preliminary Evaluation of Program Delivery Methods for the Expedited Purified Water Program 1 (Program), and provide direction to staff as needed;

B. Authorize staff to prepare and issue a Request for Qualifications (RFQ) to identify firms that are qualified to participate in a potential Public-Private-Partnership (P3) opportunity to develop the Program; and

C. Authorize staff to proceed with planning/design of the Silicon Valley Advanced Water Purification Center (SVAWPC) expansion, a Program element, by either the Design-Bid-Build (DBB) or Design-Build (DB) project delivery method.

SUMMARY:

This supplemental agenda memo is to provide the Board with the Final Report (Attachment 1) and the PowerPoint presentation for the Program (Attachment 2) that were not available at the time of posting the regular agenda memo.

On July 21, 2015, the District received a public-private partnership proposal in the form of a Water Purchase Agreement from the SJW Corp. and it is included in Attachment 3 for the Board’s consideration.

FINANCIAL IMPACT CHANGE:

No changes.

CEQA:

No changes.

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1 The Expedited Recycled and Purified Water Program is hereafter re-titled to Expedited Purified Water Program for ease of reference.
SUBJECT: Expedited Purified Water Program—Project Delivery Method Evaluation

(07/28/2015)

ATTACHMENTS:

Attachment 1: Final Report on Preliminary Evaluation of Program Delivery Methods for the Expedited Purified Water Program
Attachment 2: PowerPoint Presentation on Expedited Purified Water Program
Attachment 3: SJW Corp. Public-Private Partnership Proposal
Preliminary Evaluation of Program Delivery Methods
For the
Expedited Purified Water Program

Prepared for

Santa Clara Valley Water District

By

CleanEnergyCapital

July 2015
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PART 1 – EXECUTIVE SUMMARY
SECTION 1A – PURPOSE OF REPORT

Clean Energy Capital Securities LLC ("Clean Energy Capital" or "CEC") has been engaged by the Santa Clara Valley Water District (the "District") to prepare this report ("Report") for the purpose of identifying and comparing potential delivery methods for the District’s Expedited Purified Water Program (the "Program"). Please see important statements and disclaimers regarding Clean Energy Capital’s analysis included at the end of this Report.

This Report considers four alternative delivery methods. All four methods entail some measure of private-sector involvement in the Program. The “Public Delivery Methods,” involve private entities primarily as advisors or contractors to the District, with the District capitalizing the Program through available cash and bonding capacity. The public/private partnership, or “P3 Delivery Methods,” in contrast, involve private entities as providers of capital to the Program.

These delivery method alternatives are listed in the following table and further defined and explained in Part 4 of this Report.

<table>
<thead>
<tr>
<th>Public Delivery Methods:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Design-Bid-Build (&quot;DBB&quot;)</td>
</tr>
<tr>
<td>(District’s standard method)</td>
</tr>
<tr>
<td>2. Design-Build (&quot;DB&quot;)</td>
</tr>
<tr>
<td>Public/Private Partnership (&quot;P3&quot;)</td>
</tr>
<tr>
<td>Delivery Methods:</td>
</tr>
<tr>
<td>3. Design-Build-Finance-Operate-Maintain</td>
</tr>
<tr>
<td>(&quot;DBFOM&quot;)</td>
</tr>
<tr>
<td>4. Water Purchase Agreement (&quot;WPA&quot;)</td>
</tr>
</tbody>
</table>

SECTION 1B – KEY CONSIDERATIONS

The primary focus of this Report is to provide examples of the P3 Delivery Methods in the water infrastructure sector and to assess whether the P3 Delivery Methods have the potential, versus the Public Delivery Method alternatives, to shorten the time to the in-service date for the Program, lower Program costs, and/or transfer risk away from the District.

Key Considerations:

1. Can a P3 Delivery Method shorten the time to in-service?
2. Can a P3 Delivery Method lower cost?
3. Can a P3 Delivery Method transfer risk away from the District?

SECTION 1C – SUMMARY FINDINGS

This Report finds that the P3 Delivery Methods have the potential to deliver time and cost savings to the District versus the Public Delivery Methods, and to mitigate certain District risks. The P3 Delivery Methods also present new risks and raise threshold issues that would have to be positively resolved to make the P3 Delivery Methods viable alternatives for the District.

A general comparison of delivery methods is presented in Part 5 of this Report. A general discussion of the potential application of the delivery methods to the Program is presented in Part 6 of this Report.

The following table summarizes certain pros and cons of the alternative delivery methods, with black text showing pros and red text
showing cons, in terms of each delivery method’s respective ability to meet the District’s above-listed priorities.

**Comparison of Delivery Methods**

<table>
<thead>
<tr>
<th></th>
<th>DBB (Base Case)</th>
<th>DB</th>
<th>DBFOM</th>
<th>WPA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timing</strong></td>
<td>• Least time required to initiate process</td>
<td>• Merging of design &amp; build activities may provide time savings versus DBB</td>
<td>• Outsourcing of design &amp; build activities, as well as pre-construction activities (i.e. permitting, siting, ROW), to a private-sector party may save significant time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sequential design-bid-build steps may make this slowest method to project completion</td>
<td>• Minor additional contracting complexity may partially offset potential time savings</td>
<td>• Significant time required to document and close a P3 may offset potential time savings</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Time savings opportunity constrained by procedural requirements of the permitting agencies</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>• Competitive bidding used to control costs</td>
<td>• Integration of design &amp; build likely to lower cost vs DBB</td>
<td>• Savings opportunities in pre-construction, design, build, and O&amp;M</td>
<td>• Savings opportunities in pre-construction, design, build, and O&amp;M</td>
</tr>
<tr>
<td></td>
<td>• Low financing cost</td>
<td>• Competitive bidding</td>
<td>• Higher cost-of-funds may offset cost savings</td>
<td>• Higher cost-of-funds may offset cost savings</td>
</tr>
<tr>
<td></td>
<td>• Low integration of design and build</td>
<td>• Low financing cost</td>
<td>• Potential reduction in grant availability</td>
<td>• Private ownership gives highest potential for reduction in grant availability</td>
</tr>
<tr>
<td></td>
<td>• Government performance of pre-construction activities and O&amp;M may not be least-cost solution</td>
<td>• Government performance of pre-construction activities and O&amp;M may not be least-cost solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk</strong></td>
<td>• Government maximizes control over process</td>
<td>• Government trades minor reduction in control for potential time &amp; cost savings</td>
<td>• Government trades major reduction in control for larger potential time &amp; cost savings</td>
<td>• Government trades major reduction in control for larger potential time &amp; cost savings</td>
</tr>
<tr>
<td></td>
<td>• Government at risk for design errors</td>
<td>• Government shifts design risks to private sector</td>
<td>• Cost overrun and timing delay risks shifted to private sector</td>
<td>• Cost overrun and timing delay risks shifted to private sector</td>
</tr>
<tr>
<td></td>
<td>• Government at risk of cost overruns and timing delays</td>
<td>• Risk transfer of cost overrun and timing delay less robust than in P3 delivery methods</td>
<td>• Reduced control over project</td>
<td>• Reduced of control over project</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Counterparty risks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Private ownership gives highest potential for legal and/or financial fatal flaws</td>
</tr>
</tbody>
</table>

Preliminary Evaluation of Program Delivery Methods

Prepared by Clean Energy Capital

Attachment 1

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July 2015
SECTION 1D – POTENTIAL NEXT-STEPS

Because of the relatively early stage of Program development and the absence of concrete Program-specific data regarding cost, timing and risk profile for alternative delivery methods, no delivery method has emerged from the limited scope of this Report as being demonstrably superior to the others. Given the lack of a conclusive rank ordering of alternative delivery methods as they might apply to the Program, this Report offers alternative decision making strategies that the District might employ to determine which method or methods best meet its objectives for the Program.

These alternative decision-making strategies are discussed in Part 7 of this Report, and summarized in the following table:

**Alternative Decision-Making Strategies:**

1. Make an immediate decision on P3 versus a Public Delivery Method
2. Commission a benchmarking study to support a future decision
3. Solicit P3 proposals to support a future decision
PART 2 – METHODOLOGY
SCOPE OF ENGAGEMENT

Clean Energy Capital was engaged by the District to identify and compare potential delivery methods for the District’s Program. Clean Energy Capital’s principal findings and conclusions were presented in a PowerPoint presentation to the District Board of Directors on June 22, 2015, and are further discussed in this Report.

SOURCES OF INFORMATION

Information regarding the Program has been taken from the “South Bay Water Recycling Strategic and Master Planning Report” dated December 2014, from District staff presentations to its Board of Directors in March and April of 2015, and from meetings and interviews with District staff conducted in May and June of 2015.
PART 3 – PROJECT OVERVIEW
THE DISTRICT

The Santa Clara Valley Water District (the "District") was created by an act of the California Legislature, and operates as a California Special District with jurisdiction throughout Santa Clara County. The mission of the District is to provide Silicon Valley with safe, clean water for a healthy life, environment and economy.

The District manages an integrated water resources system that includes the supply of clean and safe water, flood protection, stewardship of streams, and maintenance of the groundwater aquifer on behalf of Santa Clara County’s 1.8 million residents. The District effectively manages 10 dams and surface water reservoirs, three water treatment plants, an advanced recycled water purification center, a state-of-the-art water quality laboratory, nearly 400 acres of groundwater recharge ponds, and more than 275 miles of streams.

GROUNDWATER SUPPLY

Nearly half of the water used in Santa Clara County is pumped from groundwater, one of the county’s greatest natural resources. Groundwater is pumped by local water retailers, companies, and individual well owners to serve many beneficial uses, including municipal and domestic needs, agriculture, and industry. Since the 1930s, the district has worked to protect and augment groundwater supplies through the coordinated use of surface water and groundwater.

Although groundwater is replenished naturally by rainfall and other sources, the amount of groundwater pumped far exceeds natural recharge. To help offset groundwater pumping and prevent groundwater overdraft, salt water intrusion, and land subsidence, the district uses local and imported surface water to replenish groundwater through district recharge facilities, including recharge ponds and creeks. The district’s managed recharge of local and imported water accounts for the majority of groundwater used in the county.

IMPACT OF EXTENDED DROUGHT

The current drought, now extending into its fourth year, is causing significant declines in Santa Clara County’s groundwater levels which may lead to irreversible subsidence of the land. The threat of land subsidence, which can result in catastrophic impacts to the County’s infrastructure and economy, has prompted a review of the timing for developing recycled and purified water projects included in the District’s long-term water supply plans.

The following graph shows varying degrees of projected water conservation and groundwater storage levels assuming the continuance of the current drought at the level of severity experienced in 2015. The graph shows declining groundwater storage at 0% conservation, at the 13% conservation level achieved by District customers in 2014, and at a 20% conservation level. At the high end of the projected range, a rising level of groundwater storage could be achieved through a combination of 20% conservation plus 25,000 AF per year of additional imported water supply each year. On the right side of the graph, the potential annual contribution of 35,000 AF of indirect potable reuse is shown to scale.
THE PROGRAM

The Expedited Purified Water Program (the “Program”), when in service, could provide up to 45,000 acre-feet (“AF”) annually of purified water annually to recharge the Santa Clara Valley’s groundwater subbasins and aquifers. The Program is described in the “South Bay Water Recycling Strategic and Mater Planning Report” prepared for the District and the City of San Jose by RMC Water and Environment and CDM Smith (the Sunnyvale indirect potable reuse portion of the Program is not described in this report). The District has determined to expedite the development and construction of the Program.

This use of purified water for groundwater recharge is a form of “indirect potable reuse” (IPR). Future development may entail conversion of the Program to provide “direct potable reuse” (DPR), in which highly purified water could be blended with other untreated water for treatment at the District’s conventional water treatment plants prior to distribution to water retailers.

BENEFITS OF THE PROGRAM

A primary benefit of the Program is minimizing or preventing land subsidence by recharging the groundwater basin to replenish the groundwater that is withdrawn. Land subsidence is a settling of the Earth's surface due to the compaction of subsurface materials. Historically, Santa Clara County has experienced as much as 13 feet of subsidence caused by excessive pumping of groundwater. Subsidence is costly, as it can lead to flooding that damages properties and infrastructure, and saltwater intrusion that degrades groundwater quality.
Benefits of the Program:
- Prevention of Land Subsidence
- New drought-proof water supply
- Reduced reliance on imported water
- Improved groundwater quality

Expedited Purified Water Program (the “Program”)

PHYSICAL LAYOUT AND ESTIMATED COST

The following graphics, taken from District staff’s March 12, 2015 presentation to its Board, show the physical layout of the Program and the Program’s estimated capacity and cost.
SUPPLY WATER FOR THE PROGRAM

The Program will receive secondary treated wastewater from the City of San Jose. The City is currently expanding its wastewater treatment facility, which is located adjacent to the District’s existing Advanced Water Purification Center.

The District anticipates entering into contractual arrangements with the City, and/or modifying existing contractual arrangements with the City, to provide for the reliable ongoing supply of secondary treated wastewater for the Program.

PROGRAM FACILITIES

The Program’s physical infrastructure will comprise:

- Advanced water treatment facilities that will utilize microfiltration reverse osmosis and ultraviolet light to purify the secondary treated wastewater received from the City to potable standards. The advance water treatment facilities will include an expansion of the District’s existing advanced water treatment plant and a satellite facility supporting the Ford Recharge Ponds.

- Water conveyance pipelines that will transport purified water from the advanced treatment facilities to the Program’s recharge facilities.

- Groundwater recharge facilities that will comprise existing recharge ponds and newly constructed water reinjection facilities.

DISCHARGE WATER

The reverse osmosis technology employed by the advanced water treatment facilities will divide secondary treated wastewater into two streams: purified potable water (“Product Water”) and discharge water (“Discharge...
Water”). The Discharge Water will have an increased concentration of the dissolved solids that have been removed from the Product Water.

The disposal of Discharge Water raises important environmental considerations for the District and for State and Federal regulatory agencies. Arrangements for the disposal of Discharge Water are subject to permits that have not yet been applied for or received.

**GROUNDWATER PRODUCTION CHARGE**

As the wholesale water provider for Santa Clara County, the District serves four customer classes including groundwater users, treated water users, surface water users and recycled water users. Groundwater users pump water from the ground that is both naturally and artificially recharged into the groundwater basin. The groundwater production charge recoups the District’s costs to protect and augment this source of water. The District anticipates that the cost of the Program will be recovered through increases in the groundwater production charge, offset by any cost sharing and grants.

District staff has prepared a preliminary estimate of the impact of the Program on the applicable groundwater production charge, the District’s Zone W2 M&I Groundwater Production Charge. Without the Program, the charge is projected to increase an average of 9.5% per year between FY 2016-17 and FY 2020-21. With the Program implemented at an assumed $800 million capital cost with no offsetting funding (such as grants), the groundwater production charge projection is preliminarily projected to increase an average of 14.6% per year over the same time period. Consequently, the Program is expected to incrementally increase the groundwater production charge an average of 5.1% per year.

**HYDROLOGICAL CONSIDERATIONS**

The long-term value of the Program will be influenced by hydrological patterns that cannot be predicted with certainty. In dry years, the Program will play a critical role in maintaining the County’s groundwater basin. In wet years, there may be little need for supplemental groundwater recharge. In managing the wet-year operations of the Program, the District may consider the capital and operating costs of the Program versus the cost of alternative sources of water supply for groundwater recharge.

**CURRENT STATUS OF THE PROGRAM**

The District has taken steps to expedite the development of the Program. The District has authorized staff to engage consultants to provide preliminary engineering work, to conduct groundwater studies, to conduct Program operation studies, to pursue grants and other funding, to conduct public outreach, to provide financial advisory and legal service services. The District is also seeking a firm to provide project management services.

The following timeline summarizes the current timeline for the Program, assuming that a Design-Build (DB) project delivery method is utilized.
### Preliminary Timeline for the Program (Assuming DB)

#### Preliminary Timeline without CEQA Exemption and Permit Streamlining

<table>
<thead>
<tr>
<th>Year/Month</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purified Water Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Preliminary Engineering Work (RMC/CDWR)</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Operations Studies (Maine)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Groundwater Studies (Todd Engineers)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pursue Grants and Other Funding (Carollo/Gutierrez)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Outreach (Kelt &amp; Associates)</td>
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<tr>
<td>SC RW Master Plan Amendment (MIWH)</td>
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<td></td>
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<tr>
<td>Financial Services to Evaluate Public-Private Partnerships</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Project Management Services (ongoing)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Legal Services</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Brine Studies (if needed)</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Note:** Without CEQA Exemption, construction could begin and complete earlier.

#### SVAVPC Exp. - Design

- SVAVPC Expansion - Construction
- Ford IPR - Design & Construction
- Mid Basin IPR - Design & Construction
- Los Gatos IPR - Design & Construction
- Westside Injection Wells - Design & Construction
- Sunnyvale IPR - Design & Construction

**Outreach**

- Sunnyvale IPR Project Schedule may be extended to 2025.

- = Securing Contract. This includes Request For Qualifications (RFQ), negotiations, and contract execution.
- = Conducting Work. This includes work prepared by consultant(s).
- = Work underway.
PART 4 – DELIVERY METHOD ALTERNATIVES
SECTION 4A – SUMMARY OF DELIVERY METHOD ALTERNATIVES

All of the delivery methods considered involve a division of responsibilities between private-sector and public-sector entities. The defining feature of the P3 Delivery Methods is the provision of capital by the private-sector entity. Specifically, the private-sector entity:

- Raises investment capital for the project,
- Commits to repay project debt, and
- Expects to generate revenues over time through its relationship with the public-sector partner.

The following table summarizes the typical allocation of responsibilities for each of the delivery methods under consideration.

### Summary of Delivery Methods Alternatives

<table>
<thead>
<tr>
<th></th>
<th>DBB</th>
<th>DB</th>
<th>DBFOM</th>
<th>WPA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private Sector Role</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Build</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Finance</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Operate</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Maintain</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Own</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Public Sector Role**

<table>
<thead>
<tr>
<th></th>
<th>DBB</th>
<th>DB</th>
<th>DBFOM</th>
<th>WPA</th>
</tr>
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<tbody>
<tr>
<td>Design</td>
<td>✓</td>
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<td></td>
</tr>
<tr>
<td>Build</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Finance</td>
<td>✓</td>
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<tr>
<td>Operate</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Maintain</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Own      | ✓   | ✓  | ✓     | ✓   | May have purchase option

In the above table, the design function for DBB is identified as a public sector role, because the engineering firm providing design services in a DBB operates under the close direction and supervision of the public sector entity, who also typically assumes certain risks for design errors.
SECTION 4B – PUBLIC DELIVERY METHODS

The Public Delivery Methods considered in this report are Design-Bid-Build ("DBB") and Design-Build ("DB").

DESIGN-BID-BUILD (DBB)

In a traditional DBB, design and construction activities are separated. Design is typically the responsibility of an engineering firm and construction the responsibility of a separate, often low-bid contractor. Design is typically 100 percent complete prior to construction award. The owner retains some of the risk for the adequacy of the design.

DBB offers the public-sector sponsor of a project the following benefits:

- The delivery method is well understood and widely accepted
- The delivery method facilitates “lowest price” via competitive bidding
- There is little perception of conflicts of interest
- The public-sector sponsor retains a high degree of involvement and control during design

DBB may present certain disadvantages to the public-sector sponsor, including the following:

- The sequential scheduling of design and construction may lengthen the time required to complete the project
- There is little or no collaboration between design and construction
- The separation of design and construction may create an adversarial working relationship more subject to claims and change orders and cost overruns
- There are multiple points of responsibility

DESIGN-BUILD (DB)

In a typical DB, a single entity assumes responsibility for design and construction. A DB procurement typically involves a request-for-qualifications (RFQ) phase in which private entities are screened based on their experience and management approach, and a request-for-proposals (RFP) phase, where shortlisted entities are provided with a preliminary design and asked to advance the design and submit a lump-sum price to complete.

DB offers the public-sector sponsor of a project the following benefits:

- The delivery method provides a single point of accountability
- The overlapping of design and construction facilitates collaborative innovation between designer and constructor and may significantly shorten time required to complete the project
- The delivery method may provide improved risk management to the public-sector sponsor
- Selection is price-driven to control costs

DB may present certain disadvantages to the public-sector sponsor, including the following:

- The traditional owner-designer relationship is absent
- Design activity ceases during the DB procurement phase
- Bidders typically take a closed book approach
- Despite potential improvements versus DBB, the contract price may still increase due to change orders
• The procurement process may be lengthier than traditional DBB, offsetting potential time savings

COMPARISON OF PUBLIC DELIVERY METHOD ALTERNATIVES

The following table provides a summary comparison of DBB and DB.

Comparison of Public Delivery Method Alternatives

<table>
<thead>
<tr>
<th>Description</th>
<th>DBB</th>
<th>DB</th>
</tr>
</thead>
</table>
|             | • Design and construction are separately bid  
|             | • Sequential phases of design, bidding, build  
|             | • Award to lowest bidder | • Design and building functions are consolidated  
|             |     | • DB entity selected through RFQ/RFP process |
| Plan of Finance | • District pays capital costs  
|             | • District issues Bonds | • Same as DBB |
| Advantages | • Familiar and accepted  
|             | • Maximizes District control  
|             | • Cost competition | • Cost competition  
|             |     | • Saves time  
|             |     | • Increased focus on value engineering  
|             |     | • Transfers design risk |
| Challenges | • May be slowest alternative  
|             | • District at risk for design errors  
|             | • No contractor input into design | • Reduced control over design and construction quality  
|             |     | • Design changes are costly |

SECTION 4C – P3 DELIVERY METHODS

A public-private partnership (PPP or P3) is defined as a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. As discussed above, the key attributes of a P3 for purposes of this Report are:

• A private entity raises the investment capital
• The private entity (not the government) commits to repay debt

• The private entity expects to generate revenues over time from its relationship (or partnership) with the governmental entity

Broad enabling legislation for P3 Delivery Methods is provided by California Infrastructure Finance Act, which was adopted in 1996 by Assembly Bill 2660. The Act authorizes local governments to utilize private sector investment capital for “fee-producing infrastructure facilities.” The Act applies to a host of entities, including public districts, and
permits private ownership or lease rights for terms of up to 35 years.

The District’s enabling legislation is the Santa Clara Valley Water District Act (the “District Act”), which was initially passed in 1929 and amended in 2009. While the District Act provides authority to the District to contract with private entities to carry out the purposes of the District Act, the District Act does not expressly authorize the District to use P3 Delivery Methods.

P3 Delivery Methods are less common than other forms of public infrastructure financing. P3 Delivery Methods are most commonly used in transportation, health care, and government buildings, with more limited utilization in the water sector.

**DESIGN-BUILD-FINANCE-OPERATE-Maintain (DBFOM)**

In a DBFOM, the responsibilities for designing, building, financing and operating are bundled together and transferred to private sector partners. There is a great deal of variety in DBFOM arrangements in the United States, and especially the degree to which financial responsibilities are actually transferred to the private sector.

In a DBFOM, the private sector partner obtains financing for the project by leveraging revenue streams dedicated to the project. In the transportation sector, where DBFOM Delivery Methods are most common, direct user fees (tolls) are a typical revenue source. Availability payments have also been used for this purpose.

Future revenues are leveraged to support debt issuance to provide funds for development and construction costs. Future revenues may be supplemented by public sector grants in the form of money or contributions in kind, such as provision of rights-of-way. In certain cases, private partners may be required to make equity investments as well.

DBFOM procurement may be substantially similar to DB procurement, with a two-phase RFQ/RFP process, except that bidders are asked to propose an annual availability payment for meeting certain defined operational standards, rather than a lump-sum payment for completion of construction.

DBFOM is the most prominent form of P3 in the U.S. transportation sector. DBFOM has more limited exposure in the U.S. water sector.

**WATER PURCHASE AGREEMENT (WPA)**

In a WPA transaction, a private entity enters into a long-term agreement with a governmental entity in which it commits to sell, and the government entity commits to purchase, specified quantities of water meeting agreed-upon water quality parameters. The private entity is responsible for designing, building, financing, and operating the project, and also manages permitting and development activities.

The WPA Delivery Method is the water-sector version of the Power Purchase Agreement (PPA) delivery method common to electricity procurement. The Carlsbad Desalination Project is a notable example of WPA.

**COMPARISON OF P3 DELIVERY METHOD ALTERNATIVES**

The following table provides a summary comparison of the DBFOM and WPA Delivery Methods.
Comparison of P3 Delivery Method Alternatives

<table>
<thead>
<tr>
<th></th>
<th>DBFOM</th>
<th>WPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of Public</td>
<td>• Define the project</td>
<td>• Provider brings the project</td>
</tr>
<tr>
<td>Sector Sponsor</td>
<td>• Select the provider</td>
<td></td>
</tr>
<tr>
<td>Annual Payments</td>
<td>• Volumetric payment or availability payment</td>
<td>• Volumetric payment (can include fixed component)</td>
</tr>
<tr>
<td>Ownership</td>
<td>• Government Ownership</td>
<td>• Private Ownership</td>
</tr>
</tbody>
</table>

SECTION 4D – DBFOM EXAMPLES

The following DBFOM examples are based on publicly-available information and are provided solely for illustrative purposes. These examples are not provided as an endorsement of the DBFOM approach and are not characterized as either successes or failures. Rather, the examples illustrate a water & sewer DBFOM transaction that achieved financial closing (the City of Rialto Water Project) and a waste-to-energy (WTE) DBFOM project that did not achieve financial closing (the County of Hawaii WTE Project).

CITY OF RIALTO WATER & SEWER PROJECT

The City of Rialto entered into a 30-year public-private water and wastewater concession in 2012. Information regarding this transaction has been drawn primarily from conference presentations and the City’s board meeting agendas and presentations. Because the debt in the transaction was privately placed (rather than publicly offered), there is no official statement or comparable document providing a comprehensive description of the project.

The City of Rialto is located in San Bernardino County in Southern California and has a population of approximately 100,000. The City’s Rialto Utility Authority (“RUA”) provides water service to approximately half the City’s residents, and wastewater service to the entire City population plus outside customers.

In this DBFOM transaction, the City and RUA transferred responsibility for its municipal water and wastewater system to a special purpose private entity, Rialto Water Services, LLC (“RWS”), formed at the direction of Table Rock Capital LLC and owned by Table Rock and the Union Labor Life Insurance Company (“Ullico”). RWS engaged Veolia Water North America as its subcontractor to provide construction, operations and customer service. RWS raised approximately $170 million through issuance of equity and debt to finance the transaction. Under the RWS concession, the City retains full ownership of water and wastewater systems, retains all water rights and supply, and possesses the rate-setting authority associated with the facilities.

The following diagram provides an overview of the transaction:
From the City’s perspective, key drivers for the DBFOM Delivery Method included the increasingly urgent need to address aging infrastructure, deferral of system improvements, and budgetary pressure and staff constraints that prevented the City from providing an effective internal response. The City may have also regarded water and wastewater management as being outside the City’s core competency.

The City structured the DBFOM in order to meet key policy objectives. The City desired to outsource capital and operational requirements of the system, while retaining system ownership. The City additionally required an effective public outreach program to gain public acceptance for their approach.

Key terms of the resulting concession agreement include the following:

- RWS has right to operate, manage, maintain and collect revenues from the City’s water and sewer facilities for 30-year term
- RWS must upgrade the system over the first five years
- City keeps ownership of all assets
- RWS gets a monthly fee that includes a charge to support debt service and return on equity, O&M costs, and an escalating service fee
- City recovers costs through water and sewer rates

Representative capital projects for Rialto’s water and sewer system include the following:

- Treatment plant improvements
- Reservoir seismic retrofit
- City well improvements
- Service line replacements
- Sewer line replacements
- Manhole rehabilitation
- Meter replacements
- Fire Hydrant replacements

The procurement process undertaken by the City comprised the two-phase RFQ/RFP process typical for DBFOM transactions. In the RFP phase, submittals were based on the City’s conceptual capital improvement program. Proposals included pricing, a proposed financing...
plan, and a technical proposal. Negotiation documentation and closing of the transaction occurred over an approximately 3-year period, with financial closing achieved in late 2012.

In September 2014, the City reported the following progress update with respect to the capital projects:

- 10 projects were on schedule
- 10 projects were delayed
- 2 projects were on hold
- 1 project had been cancelled

**COUNTY OF HAWAII WTE PROJECT**

The Rialto Water DBFOM described above provides an example of a P3 project that achieved financial closing and is currently in the operational stage. The County of Hawaii’s waste-to-energy (“WTE”) DBFOM project provides an example of a P3 project that was cancelled during the planning stage, prior to commencement of construction.

**SECTION 4E – WPA EXAMPLES**

The following WPA examples are based on publicly-available information and are provided solely for illustrative purposes. These examples are not provided as an endorsement of the WPA approach and are not characterized as either successes or failures. Rather, the examples illustrate a water WPA transaction that achieved financial closing (the Carlsbad Desalination Project) and a WPA transaction that continues in the environmental permitting stage of development (the Huntington Beach Desalination Project) in order to provide tangible recent examples of the WPA approach.

**CARLSBAD DESALINATION PROJECT**

The San Diego County Water Authority (the “Water Authority”) entered into a 30-year water purchase agreement in 2012 supporting the construction, financing and operation of a 50 million gallon/day ocean water desalination facility and water conveyance pipeline (the “Carlsbad Desalination Project”) located in Carlsbad, California. The Carlsbad Desalination Project is described in detail in the Limited Offering Memorandum for the plant and pipeline bonds. The Limited Offering Memorandum is available through EMMA at [www.emma.msrb.org](http://www.emma.msrb.org).

The Water Authority is a public agency serving the San Diego region as a wholesale supplier of water. The Water Authority's mission is to provide a safe and reliable supply of water to its 24 member agencies. The Water Authority was formed in 1944 by the California State Legislature, and operates under the County Water Authority Act. To maximize the reliability
of the region’s water supply, the Water Authority is executing a long-term strategy to diversify the region's supply sources, make major investments in the region’s water delivery and storage system, and improve water-use efficiency.

In this WPA transaction, the Water Authority committed to purchase desalinated water from Poseidon Resources (Channelside) LP ("Poseidon"), a special-purpose company formed by Poseidon Water and owned by Poseidon Water and Stonepeak Infrastructure Partners. Poseidon engaged a joint venture formed by Kiewit Corporation and J.F. Shea, Co., Inc. to construct the project, and engaged IDE Technologies LTD as plant operator. The WPA also provided for the construction of a conveyance pipeline carrying desalinated water from the plant to the Water Authority’s aqueduct system.

The following diagram provides an overview of the transaction:

![Carlsbad Desalination Project WPA – Simplified Organizational Diagram](image)

From the Water Authority’s perspective, key drivers for the WPA Delivery Method included the need for water as part of the Water Authority’s supply diversification strategy; Poseidon’s progress in developing the Carlsbad Desalination Project as a source of locally-controlled, drought-proof supply; and the Water Authority’s desire to transfer risks of construction and operations to Poseidon.

The Water Authority structured the WPA in order to meet key policy objectives. The Water Authority desired that it would only pay for water that is actually produced, that the project would meet rigorous reliability standards, and that ownership of the project would ultimately transfer to the Water Authority.

Key terms of the resulting WPA include the following:

- Poseidon is responsible for design, construction, financing, operation and maintenance of the plant
- The Water Authority is obligated to purchase a minimum annual volume of water meeting its quality standards, to the extent such “product water” is available for purchase
- Water cost of $2,000 to $2,100 per AF in 2012 dollars, subject to escalation
over time at pre-defined escalations rates set forth in the WPA

- The Water Authority has options to purchase the project after 10 years of operations, and at the end of the 30-year term

The procurement process undertaken by the Water Authority reflected the unique circumstances of the Carlsbad Desalination Project as a privately-owned and privately-developed asset. The Water Authority determined that single-source procurement was appropriate, finding the relevant procurement authority in the County Water Authority Act. The Water Authority and Poseidon executed a termsheet to establish a framework for negotiating the WPA. Price discipline was provided by a requirement for cost transparency and by rigorous due diligence into Poseidon’s underlying cost structure for the project. Negotiation, documentation and closing of the transaction occurred over an approximately 2-year period, with financial closing achieved in late 2012.

Construction of the plant and pipeline are generally on schedule or ahead of schedule, with commercial operation expected in the fourth quarter of 2015.

**HUNTINGTON BEACH DESALINATION PROJECT**

The Carlsbad Desalination Project described above provides an example of a P3 project that achieved financial closing and is currently nearing commercial operations. The Huntington Beach Desalination Project provides an example of a P3 project that remains in the environmental permitting stage of project development.

The Orange County Water District (“OCWD”) has recently entered into a WPA termsheet with Poseidon Water for a desalination facility to be located in Huntington Beach (the “Huntington Beach Desalination Project”).

The California Coastal Commission has not yet approved the intake and outfall components of the Huntington Beach Desalination Project. Under the P3 delivery method being utilized, Poseidon bears responsibility for obtaining all permits needed for construction and operation, and assumes the developmental and financial risks associated therewith.
PART 5 – COMPARISON OF DELIVERY METHODS
This section of the Report provides a general discussion of whether the P3 Delivery Methods have the potential to save time, lower cost, and transfer risks, in comparison to the Public Delivery Methods. The discussion is general in the sense that, while potential opportunities for the P3 Delivery Methods to achieve these objectives are identified, this Report stops short of presenting definitive findings or results specific to the District’s Program.

As of the date of this Report, the timeframe, cost and risk structure of the Public Delivery Methods as applied to the District’s Program have been only generally defined at a high level. For example, the cost estimate for the Program, taken from the South Bay Water Recycling Strategic and Master Panning Report, has a stated margin of error of -20 to -50 percent on the low end and +30 to +100 percent on the high end. The timeline prepared by District staff, while carefully considered, makes broad assumptions about key timing drivers such as CEQA permitting and length of construction period.

The P3 Delivery Method alternatives are even less advanced with respect to specific application to the Program. Part 6 of this Report identifies certain key issues associated with the potential application of a P3 Delivery Method to the Program. Part 7 of this Report discussed potential decision-making alternatives in consideration of the current absence of Program-specific comparative data.

**CAN A P3 DELIVERY METHOD SHORTEN THE TIME TO IN-SERVICE?**

The opportunity for a P3 Delivery Method to shorten the time to in-service, relative to a Public Delivery Method, is based primarily on three elements: core competency advantage, organizational advantage, and commercial incentive structure.

The core competency advantage that a private-sector entity may bring is its specialization in the construction of water infrastructure projects, and the expertise resulting from a broader experience base than that of the public-sector sponsor.

The organizational advantage that a private-sector entity may bring is its ability to take decisions and act quickly, relative to the public-sector sponsor. In comparison to private-sector entities, public-sector entities may be constrained by procedures designed to broaden decision-making responsibility and promote more extensive deliberation.

The commercial incentive that a P3 Delivery Method may bring is the motivation of having the private entity’s capital at-risk, with return on investment tied to satisfaction of a contractually-specified progress milestones. The commercial incentive structure will be established by the contractual terms documenting the P3 Delivery Method. An effective P3 contract structure will provide powerful commercial incentives that harness private-sector core competency and organizational advantages to a shortened time to in-service.

The potential timing advantages of a P3 Delivery Method may be offset, in whole or in part, by the time required to put a P3 Delivery Method in place. The time required for counterparty selection, award, negotiation and documentation may significantly exceed that required to implement a Public Delivery Method.

The potential timing advantages of a P3 Delivery Methods may also be offset by timing drivers, such as environmental permitting, that are outside the control of the private-sector entity.
CAN A P3 DELIVERY METHOD LOWER COST?

The opportunity for a P3 Delivery Method to save money versus a Public Delivery Method is based primarily on the same three elements discussed above: core competency advantage, organizational advantage, and commercial incentive structure.

The principal case for the cost-competitiveness of a P3 Delivery Method versus a Public Delivery Method is based on the critical importance of the commercial incentive structure. In a Public Delivery Method, the private entity engaged to construct a facility may be commercially incentivized to drive up the contract price post-award, through change orders. In contrast, a P3 counterparty, compensated through an annual availability payment, may have the opposite incentive with respect to construction.

In considering the potential cost savings of a P3 Delivery Method, it may be appropriate to consider a tradeoff between potentially lower construction and operation & maintenance (O&M) costs, versus potentially higher cost-of-funds. Higher cost-of-funds typically characterize P3 Delivery Methods, because private entities lack certain funding advantages of governmental entities and because the private entity in a P3 Delivery Method may take on specific project risks that are reflected in their cost of capital.

P3 BREAKEVEN ANALYSIS

It is possible to perform a breakeven analysis to quantify the tradeoff between potentially lower capital and O&M costs versus potential higher financing costs of a P3 Delivery Method. The following example uses values approximating the District’s project cost estimates and capital cost modeling assumptions.

If one assumed an $800 million capital project, a 5.50% long-term borrowing rate, and a $23.3

million first-year O&M budget escalating thereafter at 2.5% annually, one could calculate a baseline annual cost for a Public Delivery Method.

To calculate an illustrative P3 breakeven, we assume that a P3 Delivery Method would have a financing cost that is 1.50% higher than the Public Delivery Method, reflecting a blended rate of return for a hypothetical debt and equity financing structure. To offset this higher cost of funds, the P3 Delivery Method would need to produce 10% cost savings in the capital and O&M to achieve the same annual cost.

RATESETTING CONSIDERATIONS

The above breakeven analysis illustrates an additional important cost consideration. A
Public Delivery Method would typically be recorded on the balance sheet of the project’s public sector sponsor. Debt service would typically be supported by a coverage margin specified in the sponsor’s master loan agreement, established as a matter of financial policy, or both. The sponsor’s revenue requirement may therefore be significantly in excess of the project’s annual costs.

The annual payment obligation in a P3 Delivery Method, in contrast, may typically be characterized as an operating expense of the sponsor. In this case, no coverage margin above 1.0 times coverage may be required. For this reason, a P3 Delivery Method project with annual costs equal to a Public Delivery Method project may result in a lower revenue requirement.

However project costs and obligations are recorded for financial reporting purposes, the sponsor of a large-capital project will need to evaluate rate impact as well as the project’s potential impact on current and future credit ratings.

**Can a P3 Delivery Method Transfer Risk Away from the District?**

A P3 Delivery Method can be used as a tool to transfer risk away from the governmental sponsor of a project. However, a P3 Delivery Method may give rise to new risks that are not present in a Public Delivery Method.

The actual risk transfer achieved through a P3 Delivery Method is highly dependent on the risks inherent in the specific project, and on the contractual arrangement established between the private and governmental entities. A brief discussion of risk management specific to the District’s Program is included in Part 6 of this Report.

**Comparison of Delivery Methods**

The following table provides a summary comparison of the delivery methods presented in this Report.
### Comparison of Delivery Methods

<table>
<thead>
<tr>
<th></th>
<th>DBB (Base Case)</th>
<th>DB</th>
<th>DBFOM</th>
<th>WPA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timing</strong></td>
<td>• Least time required to initiate process</td>
<td>• Merging of design &amp; build activities may provide time savings versus DBB</td>
<td>• Outsourcing of design &amp; build activities, as well as pre-construction activities (i.e. permitting, siting, ROW), to a private-sector party may save significant time</td>
<td>• Savings opportunities in pre-construction, design, build, and O&amp;M</td>
</tr>
<tr>
<td></td>
<td>• Sequential design-bid-build steps may make this slowest method to project completion</td>
<td>• Minor additional contracting complexity may partially offset potential time savings</td>
<td>• Significant time required to document and close a P3 may offset potential time savings</td>
<td>• Higher cost-of-funds may offset cost savings</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Time savings opportunity constrained by procedural requirements of the permitting agencies</td>
<td>• Private ownership gives highest potential for reduction in grant availability</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>• Competitive bidding used to control costs</td>
<td>• Integration of design &amp; build likely to lower cost vs DBB</td>
<td>• Savings opportunities in pre-construction, design, build, and O&amp;M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Low financing cost</td>
<td>• Competitive bidding</td>
<td>• Higher cost-of-funds may offset cost savings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Low integration of design and build</td>
<td>• Low financing cost</td>
<td>• Potential reduction in grant availability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Government performance of pre-construction activities and O&amp;M may not be least-cost solution</td>
<td>• Government performance of pre-construction activities and O&amp;M may not be least-cost solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk</strong></td>
<td>• Government maximizes control over process</td>
<td>• Government trades minor reduction in control for potential time &amp; cost savings</td>
<td>• Government trades major reduction in control for larger potential time &amp; cost savings</td>
<td>• Government trades major reduction in control for larger potential time &amp; cost savings</td>
</tr>
<tr>
<td></td>
<td>• Government at risk for design errors</td>
<td>• Government shifts design risks to private sector</td>
<td>• Cost overrun and timing delay risks shifted to private sector</td>
<td>• Cost overrun and timing delay risks shifted to private sector</td>
</tr>
<tr>
<td></td>
<td>• Government at risk of cost overruns and timing delays</td>
<td>• Risk transfer of cost overrun and timing delay less robust than in P3 delivery methods</td>
<td>• Reduced control over project</td>
<td>• Reduced of control over project</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Counterparty risks</td>
<td>• Counterparty risks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Potential for legal and/or financial fatal flaws</td>
<td>• Private ownership gives highest potential for legal and/or financial fatal flaws</td>
</tr>
</tbody>
</table>
PART 6 – APPLICABILITY TO THE PROJECT
SECTION 6A – POTENTIAL TIMING OF IMPLEMENTATION

In order to consider a potential P3 Delivery Method implementation for the Program, the District must consider how the specific timing of the P3 contracting phase will relate to the overall Program development timeframe.

As shown in the case studies provided in Part 4 of this report, the contracting phase of a P3 Delivery Method is time consuming and could require 24 months or even longer. The contracting timeframe will depend on multiple factors, including the state of preparedness of the District in defining the Program scope and the physical and operational objectives for the Program.

However, the District is not standing still while it considers alternative delivery methods. Rather, the District is advancing the Program on multiple fronts, as described in Part 3 of this Report.

SECTION 6B – POTENTIAL FOR SEGMENTATION OF THE PROJECT

The determination of delivery method may not be an “all-or-none” decision but rather a determination of which delivery method best fits the needs of each segment of the Program. The District may choose a Public Delivery Mode for one segment of the Program and a Private Delivery Mode for another.

To help frame this consideration, the following table divides the Program into three functional segments: advanced water treatment, conveyance, and recharge. The approximate capital budget for each is shown.

<table>
<thead>
<tr>
<th>Segment</th>
<th>$millions</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>$312</td>
<td>39%</td>
</tr>
<tr>
<td>Conveyance</td>
<td>318</td>
<td>40%</td>
</tr>
<tr>
<td>Recharge</td>
<td>170</td>
<td>21%</td>
</tr>
<tr>
<td>Total</td>
<td>$800</td>
<td>100%</td>
</tr>
</tbody>
</table>

ADVANCED TREATMENT PLANT

The benefits of a P3 Delivery Method may be greatest for the advanced treatment plant expansion and/or the Ford Recharge Pond satellite treatment facility, given the facilities’ technical and operational complexity. For example, minimizing energy consumption through total lifecycle planning may be of significant economic benefit.

However, the advanced treatment plant expansion is an expansion of an existing District facility that was constructed using a Public Delivery Method and that is currently operated by the District. The District may have established a core competency in constructing and operating advanced treatment that would reduce the relative advantage of a private party. The challenge of integrating a publicly-owned existing facility with a P3 expansion may reduce the P3 benefits that would otherwise be available.
WATER CONVEYANCE PIPELINES

The conveyance pipeline system will carry purified water from the advanced treatment plants to the respective points of recharge. Construction of the conveyance pipelines will involve a combination of activities including acquisition of rights of way and public outreach in addition to the core civil engineering. The primary benefits of a P3 Delivery Method in the conveyance pipeline system may derive from scheduling optimization and coordination of these pre-construction and construction activities.

The opportunity for time savings in the construction of the conveyance pipelines may be constrained by the inability to use them until the other Program components – the advanced treatment plant expansion and the recharge facilities – are also completed. Completing the conveyance pipeline system ahead of the advanced treatment plant expansion may bring little or no benefit to the District. The contractual arrangements implementing a P3 Delivery Method would need to specify the timing requirements for each Program component and the consequences in the event that a delay in one component results in a delay in placing other components into service.

RECHARGE FACILITIES

The Program’s recharge facilities will include existing recharge ponds and new injection facilities. The potential timing and cost benefits of a P3 Delivery Method in the recharge facilities component of the Program may be similar to those available for the treatment facility or the conveyance pipeline, with potential timing benefits constrained by the interdependency of the various Program components.

SECTION 6D – THRESHOLD LEGAL AND FINANCIAL CONSIDERATIONS

The use of a P3 Delivery Method by the District would give rise to certain threshold legal and financial considerations, including those summarized in this Section.

LEGAL CONSIDERATIONS

Threshold legal considerations include:

- The consistency of a P3 Delivery Method with District’s public contracting authority
- The relative merit of DBFOM versus a WPA Delivery Method from a legal and contractual perspective
- Other miscellaneous legal considerations

FINANCIAL CONSIDERATIONS

Threshold financial considerations include:

- The availability of grant support for the Program under a P3 Delivery Method, and the impact of Grant availability on overall Program cost
- The availability of tax exempt financing under a P3 Delivery Method, and the cost-of-funds differential versus governmental bonds
- Other impacts of the private activity associated with a P3 Delivery Method, including the impact, if any, on the City of San Jose in their capacity as provider of wastewater
- The impact of a P3 Delivery Method on the District’s credit rating and long-term cost of funds
RELATIONAL CONSIDERATIONS

Additionally, the District would need to assess the acceptability of a P3 Delivery Method to the District’s internal and external constituencies and stakeholders as being in the best interests of the District.

SECTION 6E – GENERAL RISKS OF THE PROJECT

In considering the ability of a P3 Delivery Method to manage District risks, it is useful to identify key general risks of the Program that the District must address irrespective of the delivery method that is selected. This Section identifies some key general project risks, and briefly discusses whether these risks are likely to be substantially mitigated through a P3 Delivery Method.

RISK OF PROGRAM DELAY

The risk of delay in completing construction and placing the Program into service is considered to be transferrable to a private entity under a P3 Delivery Method. A P3 Delivery Method, in which the private entity’s capital is at risk pending project completion, could provide stronger incentives for on-time completion and penalties for delay than a Public Delivery Method.

However, a P3 Delivery Method would not eliminate certain key drivers of the development and construction timeline, such as environmental permitting, that are outside the control of the private entity. A private entity may be highly time-efficient in the permitting process, and may develop innovative strategies that reduce or eliminate specific regulatory concerns, but would still be subject to the general procedural timeframe established by the regulatory authority.

RISK OF COST OVERRUNS

The risk of cost overruns, both during construction and during operations, is considered to be transferrable to a private entity under a P3 Delivery Method. A P3 Delivery Method could better optimize the total lifecycle cost of the Program and could provide stronger cost-control incentives than a Public Delivery Method.

The ability of the District to participate in cost savings achieved under a P3 Delivery Method, rather than having cost savings accrue to the benefit of the private partner, will depend on both the contract terms established for the P3 Delivery Method, and the District’s success in effectively managing the overall relationship.

ANNUAL WATER VOLUME RISK

The Program will provide a new, drought-proof source of water to recharge and maintain the Santa Clara Valley aquifer. The Program’s value will be greatest in dry years. In wet years, in contrast, the District may have little need for the supplemental water the Program will be capable of providing. In wet years, the District may curtail Program operations in order to reduce the variable costs of operations, such as the cost of electricity to treat, pump, and reinject water. However, the Program will have substantial fixed costs, associated primarily with servicing the capital investment. The annual water volume risk refers to the risk that, in wet years, the benefit associated with the Program may fall short of the Program’s fixed costs.

A second source of annual water volume risk may be the availability of secondary treated wastewater from the City of San Jose on a year-to-year basis.

In a Public Delivery Method, the District would accept and manage annual water volume risk. The District would face significant challenges to
the extent it attempts to transfer annual water volume risk to a private entity through a P3 Delivery Method. Lenders to and investors in a P3 entity would not typically assume these risks, which they would find difficult to evaluate or control. The risk premium required to attract investment capital to a P3 project including the risk of low water volume would be likely to substantially increase capital costs.

INTEGRATION RISK

Integration risk refers to the various risk associated with integrating the Program into the District’s broader operations. Given the District’s responsibility for managing an integrated water resources system on behalf of Santa Clara County’s residents, the integration risk of the Program is regarded as not easily transferrable to a private entity.

PUBLIC ACCEPTANCE OF IPR

An additional general risk of the Program is the risk of public acceptance of indirect potable reuse. Given the District’s mandate and responsibilities, the District bears the primary burden of public acceptance risk. Public acceptance risk is not easily transferrable to a private entity.

SECTION 6F – SPECIFIC RISKS OF A P3 DELIVERY METHOD

In addition to the general Program risks discussed in the previous Section, the implementation of a P3 Delivery Method would give rise to a set of specific risks associated with transacting with a private entity for an essential service. The following table summarizes certain key risks and typical mitigants in a P3 context.
### P3 Delivery Method – Illustrative Risks and Mitigants

<table>
<thead>
<tr>
<th>Risk</th>
<th>Potential Mitigant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure of the private partner to complete the Program on time or</td>
<td>The P3 contractual structure would provide significant penalties in these eventualities. Because the private partner has provided its own capital into the project and/or raised capital from third parties, the penalty structure for delays and cost overruns can be strong.</td>
</tr>
<tr>
<td>budget</td>
<td></td>
</tr>
<tr>
<td>General failure of the private partner, such as bankruptcy</td>
<td>The P3 contractual structure would provide a series of remedies for the District, such as the right to replace the private partner and/or the right to “step into the private partner’s shoes.” Contractual provisions, combined with the replaceability of the private partner, reserve funds and other customary securities provisions, would be employed to mitigate this risk.</td>
</tr>
<tr>
<td>Higher cost structure of the private partner relative to the District</td>
<td>Cost savings in the Program would depend on negotiated prices established with the private partner.</td>
</tr>
<tr>
<td>Legal or financial fatal flaws</td>
<td>As discussed in Part 7 of this Report, the District may conduct a fatal flaw analysis as part of its continued review of the P3 Delivery Methods.</td>
</tr>
<tr>
<td>Reduction in control over Program design, construction, and/or</td>
<td>In a P3 Delivery Method, responsibilities for design, construction and operations are intentionally transferred to a private entity, in order to achieve time and cost savings and to transfer risk. In a P3 Delivery Method, the District’s primary focus is establishing its objectives for the project, such as annual processing volume, operational efficiency, water quality, Program availability, and in-service date. The District’s management challenge for the Program becomes one of monitoring the private partner’s success in delivering against these objectives.</td>
</tr>
<tr>
<td>operations</td>
<td></td>
</tr>
<tr>
<td>Future flexibility for potential conversion to DPR</td>
<td>The District would provide for future flexibility through contractual provisions giving it the right to initiate capital modifications and generally direct the private partner in Program operations. The provisions for future flexibility would likely be designed to mimic the future flexibility provided by a Public Delivery Method.</td>
</tr>
<tr>
<td>Public acceptance of a P3 Delivery Method</td>
<td>The District would need to justify its decision to use a P3 Delivery Method, presumably through the Board’s deliberative process and potentially through support garnered by public outreach.</td>
</tr>
</tbody>
</table>
PART 7 – POTENTIAL NEXT- STEPS
SECTION 7A – SUMMARY OF FINDINGS

As discussed in Part 6 of this report, the P3 Delivery Methods have the potential to deliver time and cost savings to the District versus the Public Delivery Methods, and to mitigate certain District risks. The P3 Delivery Methods also present new risks and raise threshold issues that would have to be positively resolved to make the P3 Delivery Methods viable alternatives for the District.

Because of the relatively early stage of Program development and the absence of concrete Program-specific data regarding cost, timing and risk profile for alternative delivery methods, no delivery method has emerged from the limited scope of this Report as being demonstrably superior to the others. Given the lack of a conclusive rank ordering of alternative delivery methods as they might apply to the Program, this Report offers alternative decision making strategies that the District might employ to determine which method or methods best meets its objectives for the Program.

SECTION 7B – PROJECT DEVELOPMENT PRIORITIES

To set the stage for consideration of potential decision-making strategies, this section identifies certain key priorities of the District for the ongoing development of the Program that apply to all delivery method alternatives. These development priorities reflect Clean Energy Capital’s independent judgment of how to best meet the District’s defined objectives for the Program. These priorities are use as inputs for the discussion of alternative decision-making strategies provided below.

Program Development Priorities:

1. Continue progress with current development activities
2. Conduct any further consideration of P3 alternatives on “dual-track”
3. Utilize competitive procurement unless legal authority and clear benefit for single-sourcing is identified

CONTINUE CURRENT DEVELOPMENT ACTIVITIES

As discussed in Section 3F of this Report, the District has taken a set of actions to support the expedited development of the Program. The District is pursuing preliminary engineering work, operations studies, groundwater studies, Program operation studies, grant and funding research, public outreach, and financial analysis. The key deliverables resulting from the above-described development activities are expected in approximately August 2016. The District has also issued an RFP for a program manager to help organize and integrate ongoing development activities.

These development activities are considered as critical-path to expedited development of the Program regardless of delivery method. While the activities are primarily orientated towards advancing a Public Delivery Method, they also support the District’s ability to proceed with a P3 Delivery Method.

In considering potential next-steps, we have assumed that the District will continue to aggressively pursue its current development activities.

DUAL-TRACK CONSIDERATION OF P3

In order to maintain continued fast-track development of the Program, any further consideration of potential P3 Delivery Methods should be undertaken on a dual track with
these ongoing development activities. Part of the evaluation of P3 Delivery Methods should include consideration of how a P3 Delivery Mode would marry up with the District’s current development trajectory.

The August 2016 expected completion date for the current set of development activities described in Part 3 of this Report may be an important decision-making milestone for determination of best-fit delivery method.

**ASSUMPTION OF COMPETITIVE PROCUREMENT**

Clean Energy Capital generally regards competitive procurement as an appropriate procurement technique to control costs and support counterparty selection in any of the potential delivery methods. Competitive procurement is the norm for the District and for public agencies and is statutorily mandated for certain procurements. Single sourcing, as opposed to competitive procurement, is appropriate in limited circumstances, such as instances in which time is of the essence, or where a single provider possesses unique capabilities or resources.

A single source procurement does not appear to offer advantages to the District at this time for the following reasons:

First, single-source procurement at this time does not appear to have significant time-savings potential. From a timing perspective, the current development activities being undertaken by the District are regarded as critical path both in defining the Program and in defining the District’s specific groundwater management objectives. Completion of the groundwater recharge studies as well as the project operation studies would appear to be prerequisites to negotiation of a P3 contract, to the extent the District chooses a P3 Delivery Method. In other words, award of a P3 contract earlier than Spring/Summer 2016 is not seen as materially shortening the timeframe to commercial operation of the Program.

Second, there do not appear to be unique capabilities or resources under the control of a single provider, as was the case in the Carlsbad Desalination Project (discussed in Section 4F), where Poseidon controlled the desalination facility site and possessed the necessary environmental permits. In the case of the District’s Program, there appear to be multiple private entities that possess the skill set, expertise, and capital resources required to offer a P3 Delivery Method.

Third, District staff may not be able to demonstrate to the Board or the public that a single source procurement is the best procurement option available.

In considering potential next-steps, we have assumed that the District will pursue some form of competitive procurement, unless circumstances or opportunities that arise warrant single-source procurement.

**SECTION 7C – FATAL FLAW ANALYSIS**

Section 6D of this Report identifies certain threshold legal and financial considerations relevant to the implementation of a P3 Delivery Method by the District. Section 6E identifies certain risk factors associated with P3 Delivery Methods, and identifies potential mitigants.

If the District chooses to further consider potential P3 Delivery Method alternatives, Clean Energy Capital believes that further evaluation of these threshold considerations and key risk factors is an appropriate next-step. A common framework for such evaluation is a “fatal flaw analysis” that would assess key issues at a high level in order to determine
whether the issue is likely to be resolvable in a manner acceptable to the District. The fatal flaw analysis may result in a determination that the P3 Delivery Methods are not viable alternatives for the District. Alternatively, the fatal flaw analysis may establish an acceptable framework for further consideration.

A fatal flaw analysis would involve research, legal evaluation, and meetings with key Program stakeholders, such as the City of San Jose in their capacity as provider of secondary treated water. Clean Energy Capital believe that an initial fatal flaw analysis could be conducted over an approximately 60-day timeframe, with the possibility that certain issues and considerations may require additional and subsequent analysis.

Completion of the fatal flaw analysis could be used by the District as a decision point with regards to continued consideration of the P3 alternatives. If the fatal flaw analysis identifies major and unresolvable impediments to the DBFOM, WPA, and related P3 approaches, the District could then rule out further evaluation of P3 Delivery Methods and continue with a Public Delivery Method. Alternatively, if the fatal flaw analysis identifies viable P3 alternatives, the District could elect to further evaluate these opportunities, perhaps using one of the approaches described below.

SECTION 7D – ALTERNATIVE DECISION-MAKING STRATEGIES

This section identifies alternative decision-making strategies that the District could utilize to determine the appropriate delivery method or methods for the Program. These alternatives all recognize that, while general potential benefits have been identified in the P3 Delivery Methods, Program-specific data has not yet been developed that supports definitive rank-ordering of the P3 Delivery Methods versus Public Delivery Methods.

Three major alternatives are considered. In the first alternative, the District accepts the absence of Program-specific data and makes a decision despite significant uncertainty. In the second and third alternatives, the District would defer decision-making to allow Program-specific data to be developed through a benchmarking study or by soliciting P3 proposals.

These alternatives, and their majors pros and cons, are discussed below and summarized in a table at the end of this section.

**Alternative Decision-Making Strategies:**

1. Make an immediate decision on P3 versus a Public Delivery Method
2. Commission a benchmarking study to support a future decision
3. Solicit P3 proposals to support a future decision

**IMMEDIATE DECISION ON P3**

One alternative is for the District to make an immediate decision regarding the potential use of a P3 Delivery Method. The Public Delivery Methods do not raise the threshold considerations and risk factors associated with the P3 Delivery Methods. District staff has determined the Public Delivery Methods to be viable and consistent with District authorities and policy. The District could choose to proceed with a Public Delivery Method at this point in time, and rule out further consideration of P3 alternatives.

The threshold issues and key risk factors associated with P3 Delivery Methods have not been addressed and resolved at this point. To
the extent that the District chooses at this point in time to proceed with a P3 Delivery Method, such choice would be subject to acceptable resolution of threshold issues and risk considerations.

A key advantage to this alternative is the immediacy of decision-making. The District would eliminate or greatly reduce the burden of evaluating alternatives on dual tracks, freeing staff to focus entirely on the chosen delivery method. The expenditure of cost and time on further development of P3 Delivery Methods would be eliminated.

However, the potential timing advantage of an immediate decision regarding P3 is offset by the critical path timeline established by the District’s current development activities. There may be limited opportunity for the District to meaningfully accelerate the Program’s in-service date by committing to a delivery method prior to completion of the current development activities in August 2016 or thereafter. The available time between now and completion of current development activities seems adequate to further evaluate P3 alternatives.

The major disadvantage of making an immediate decision regarding P3 is that the Program-specific data regarding the relative merits of alternative delivery methods has not yet been produced. Neither the Public Delivery Methods nor the P3 Delivery Methods have been adequately advanced to support rank ordering.

**BENCHMARKING STUDY**

One technique to provide Program-specific data is benchmarking study that would evaluate the relative timing, cost and risk profile of alternative delivery methods. An example of a benchmarking study is the 2010 study “Analysis of Delivery Options for the Presidio Parkway Project” commissioned by the California Department of Transportation and the San Francisco County Transportation Authority. The Presidio Parkway study supported a public-private partnership for Phase II of construction, which commenced in mid-2011 with expected completion in 2016.

In a benchmarking study, the District would commission a detailed analysis of the application of potential delivery methods to the Program. The timeframe for completion would typically range from 6 to 12 months. The analysis would:

- identify relevant precedent transactions for each component of the project and conduct market soundings to define a robust set of input assumptions
- Create a baseline design and construction cost for the public delivery mode (the base case or public sector comparator)
- Apply a series of cost adjustments to the baseline cost for scope changes, conduct a gap analysis of missing cost line items, and account for cost efficiencies available under private-sector alternatives
- Conduct a project-specific analysis of construction and operation risks to estimate risk-adjusted nominal cash flows, including estimates of transactions costs
- Assess project-specific risk adjustments with national and international benchmarks
- Develop specific plans of finance for each delivery method, conduct sensitivity and scenario analysis
- Generate outputs in terms of year-of-expenditure cash flows
- Use discounted cashflow analysis (NPV analysis) to compare delivery methods on a like basis.
The principal advantage of a benchmarking study is that it would generate a Program-specific quantitative comparison of the alternative delivery methods, including risk analysis. This comparison could significantly inform and support the District’s decision of delivery method for the Program.

A disadvantage of a benchmarking study is that it relies upon assumptions, estimates and projections that, while reasonable, may not be indicative of actual or future values or events and are therefore subject to substantial uncertainty. While the approach offers substantially more data to inform the District’s decision-making than is currently available, it does not entirely resolve uncertainty regarding actual outcomes.

A second disadvantage of a benchmarking study is that the work effort is a significant analytical undertaking that could potentially detract from the District’s current development activities due to overlapping issues, resource demands, and considerations, especially around initial design development and program management. It may be challenging to undertake a benchmarking study as a dual-path activity with current development efforts.

**SOLICIT P3 PROPOSALS**

An alternative means to generate Program-specific information regarding the benefits of a P3 Delivery Method would be to solicit P3 proposals from potential P3 candidates. The solicitation process could include informational meetings, a request-for-qualifications (RFQ) procurement process, and, to the extent appropriate, a request-for-proposal (RFP) procurement process. District staff would establish specific procedures, and would retain the right to discontinue the process at its discretion.

One advantage of soliciting P3 proposals is that the District will receive Program-specific information directly from potential P3 counterparties interested in providing services. Depending on the specific procedures established by the District, P3 candidates would have the opportunity to present specific proposals to the District and to quantify time savings, cost savings, and risk transfer.

A second advantage of soliciting P3 proposals is that the process and activities are seen as highly complementary with a dual-track approach. The initial P3 solicitation process, at least through the RFQ stage, could proceed on a similar timeframe to current development activities, so that the District would be ready for final decision-making regarding procurement approach by August 2016, approximately on the same timeframe for production of the initial studies and project deliverables.

A third advantage of soliciting P3 proposals is that the data received by the District with regards to relative benefits of P3 Delivery Methods may be highly actionable, especially to the extent that the information is conveyed in the form of a firm proposal of services, or could be readily translated into a firm proposal through an RFP process. The information received from potential counterparties may be of higher quality than the analytical assumptions informing a benchmarking study.

A disadvantage of soliciting P3 proposals as a means to determine the potential benefits of a P3 Delivery Method is that the P3 candidates will be biased towards their own economic interests. They would not be providing information to the District in an advisory capacity but rather in a marketing or business development capacity. The District can control this bias to large extent by involving multiple potential counterparties in the solicitation process, so that competitive pressure can provide counterbalance.
A second disadvantage of soliciting P3 proposals as a means to determine the potential benefits of a P3 Delivery Method is that P3 candidates have differing business models, areas of core expertise, and commercial objectives, are therefore likely to present significantly varying perspectives regarding District’s time-savings and cost-savings opportunities. The District may be challenged to extract like terms for comparative purposes. Mitigating this disadvantage is the RFQ / RFP process. The District could use the RFQ process to refine its common assumptions and shared objectives, then harmonize P3 candidates on like terms during the RFP process.

The following table summarizes the key pros and cons of the alternative decision-making strategies discussed above.

<table>
<thead>
<tr>
<th>Potential Next-Step</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
</table>
| 1. Immediate decision: P3 versus Public Delivery Method | • Fastest decision  
• Lowest expenditure of resources on evaluation and analysis | • P3 alternatives are not adequately vetted to be viable alternatives  
• District lacks data regarding the application of delivery method alternatives to the Program |
| 2. Benchmarking study | • Benchmarking study will provide data specific to the Program  
• Can proceed on dual track with ongoing development activities | • Expenditure of time and resources on analysis  
• Analytic results are based on a set of assumptions (inputs) that may have limited validity |
| 3. Solicit P3 proposals | • Dialogue with P3 candidates will provide data specific to the Program  
• Can proceed on dual track with ongoing development activities  
• RFQ process advances P3 track, should District elect a P3 delivery method  
• Data coming from RFQ/RFP process may be more “concrete” than a benchmarking study | • Expenditure of time and resources on market outreach  
• P3 candidates will be biased towards their own economic interests, rather than the District’s interests  
• Data provided by P3 candidates may be difficult to harmonize and compare (apples versus oranges), especially in early stages of P3 solicitation |
Clean Energy Capital Securities LLC ("Clean Energy Capital" or "CEC") has been engaged by the Santa Clara Valley Water District (the "District") to prepare this report ("Report") for the purpose of identifying and comparing potential delivery methods for the District’s Expedited Purified Water Program (the "Program").

In preparing this Report, we have relied upon certain information provided to us by the District. While we believe that this information is accurate, and further believe that our report is accurate as of the date hereof, we do not guarantee its accuracy or completeness. Opinions and estimates offered in this presentation constitute our judgment and are subject to change without notice, as are statements about market trends, which are based on current market conditions.

The Report presents certain future-looking statements about the Program. These future-looking statements have been prepared based on information currently available and involve significant subjective judgments and analysis. These statements may be identified by the use of words like "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "will," "should," "seek," and similar expressions. Actual and future results and trends could differ materially from those described by such statements due to various factors that are beyond our ability to predict.

Clean Energy Capital does not provide any tax advice. Any tax statement herein regarding any US federal income tax is not intended or written to be used, and cannot be used, by any taxpayer for the purpose of avoiding any penalties. Any such statement herein was written to support the analysis to which the statement relates.
ABOUT CLEAN ENERGY CAPITAL

Clean Energy Capital provides investment banking and financial advisory services to participants in the energy and infrastructure sectors. Our core focus is project financing of energy and infrastructure assets, and support of companies engaged in project finance. For more information about our company, please visit our website.

www.cleanenergycap.com

One Market Street, Suite 3600
San Francisco, CA 94105

1200 Smith Street, Suite 1600
Houston, TX 77002
Expedited Purified Water Program

Project Delivery Method Evaluation

July 28, 2015

Santa Clara Valley Water District
Organization of Presentation

- Staff Recommendation
- Program Background
- Final Report on Program Delivery Methods
- Public Project Delivery Options
- Summary
- Next Steps
Recommendation

A. Receive and discuss the Final Report and provide direction

B. Authorize Request for Qualifications (RFQ) for Public-Private-Partnership (P3); and

C. Authorize planning/design of the Silicon Valley Advanced Water Purification Center (SVAWPC) expansion, a Program element, by either the Design-Bid-Build (DBB) or Design-Build (DB) project delivery method.
Program Background
Key Drivers of the Expedited Program

- California in fourth year of drought
- Urgent need to develop drought-proof, reliable, and locally controlled water supply
- Risk of subsidence and significant impact on infrastructure and economy of the county
- Environmental benefits of purified water use
Projected Continued Drought

20% Conservation (with 25,000 AF additional imported water)

Water Shortage Contingency Plan Stage
NORMAL Above 300,000 AF

ALERT 250,000 – 300,000 AF

SEVERE 200,000 – 250,000 AF

CRITICAL 150,000 – 200,000 AF

EMERGENCY Below 150,000 AF


Increased Subsidence Risk

0% 13%

Scenarios of Different Water Use Reductions

IPR could raise groundwater storage by 35,000 AF each year

35,000 AF
Program Background

- March 12, 2015: Board receives information on the opportunity for an Expedited Purified Water Program
- April 28, 2015: Board authorizes single source contracts and contract amendments to expedite Program
- June 22, 2015: Program updates and presentation on the Project Delivery Method Evaluation
The Program

Deliver up to 45,000 acre-feet purified water for potable reuse by 2020

Proposed IPR/DPR Purified Water Expansion Projects

- Palo Alto WPCP
- Sunnyvale WPCP
- Expanded SVAWPC
- Mid-Basin Injection Wells IPR 7.6 miles
- DPR to Central Pipeline
- Sunnyvale IPR
- Apple Campus 2
- Westside Injection Wells IPR
- Los Gatos Recharge Ponds IPR Length 11.3 miles
- Ford Recharge Pond IPR
- Coyote Pond

Legend:
- IPR/DPR Purified Water Pipelines
- Advanced Recharge Pipelines
- Expanded Recharge Pipelines
- Water Reuse Pipelines
- Water Wells
- Water Treatment Plants
- Water Treatment Facilities
- Water Filtration Control System
## Proposed IPR Projects - Estimated Costs

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Ford Recharge Ponds IPR</td>
<td>4,200</td>
<td>$60-$140</td>
<td>$70</td>
<td>$4.0</td>
</tr>
<tr>
<td>Mid-Basin Injection Wells IPR</td>
<td>5,600</td>
<td>$120-$280</td>
<td>$140</td>
<td>$3.5</td>
</tr>
<tr>
<td>Los Gatos Recharge Ponds IPR</td>
<td>20,200</td>
<td>$210-$520</td>
<td>$260</td>
<td>$10.0</td>
</tr>
<tr>
<td>Westside Injection Wells IPR</td>
<td>5,000</td>
<td>$100-$240</td>
<td>$120</td>
<td>$4.0</td>
</tr>
<tr>
<td>Sunnyvale IPR</td>
<td>10,000</td>
<td>$170-$420</td>
<td>$210</td>
<td>$2.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45,000</strong></td>
<td><strong>$640-$1600</strong></td>
<td><strong>$800</strong></td>
<td><strong>$23.5</strong></td>
</tr>
</tbody>
</table>

*Source: South Bay Recycling Water Recyclingaster Plan. Association for the Advancement of Cost Engineering (AACE) expected cost accuracy for project initiation (Class 5) ranges fro -20 to -50 percent on the low end and +30 to +100 in the high end.
June 22, 2015 Board Work Study Session - Clean Energy Capital presented the following project delivery methods:

**Public Delivery Methods:**
- Design-Bid-Build (DBB) (District’s standard method)
- Design-Build (DB)

**Public/Private Partnership (P3) Delivery Methods:**
- Design-Build-Finance-Operate-Maintain (DBFOM)
- Water Purchase Agreement (WPA)
Final Report on Program Delivery Methods
Final Report on Program Delivery Methods

- Final report from Clean Energy Capital/David Moore
- Examines key considerations for each project delivery method: **timing** to completion; **risk** management; delivered **cost**; legal and governance; and funding constraints
- Provides a comparison of the project delivery methods
- Provides three options for the P3 project delivery methods
## Comparison of Program Delivery Methods

<table>
<thead>
<tr>
<th></th>
<th>DBB (Base Case)</th>
<th>DB</th>
<th>DBFOM</th>
<th>WPA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timing</strong></td>
<td>• Least time required to initiate process</td>
<td>• Merging of design &amp; build activities may provide time savings versus DBB</td>
<td>• Outsourcing of design &amp; build activities, as well as pre-construction activities (i.e. permitting, siting, ROW), to a private-sector party may save significant time</td>
<td>• Significant time required to document and close a P3 may offset potential time savings</td>
</tr>
<tr>
<td></td>
<td>• Sequential design-bid-build steps may make this slowest method to project completion</td>
<td>• Minor additional contracting complexity may partially offset potential time savings</td>
<td>• Time savings opportunity constrained by procedural requirements of the permitting agencies</td>
<td></td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>• Competitive bidding used to control costs</td>
<td>• Integration of design &amp; build likely to lower cost vs DBB</td>
<td>• Savings opportunities in pre-construction, design, build, and O&amp;M</td>
<td>• Savings opportunities in pre-construction, design, build, and O&amp;M</td>
</tr>
<tr>
<td></td>
<td>• Low financing cost</td>
<td>• Competitive bidding</td>
<td>• Higher cost-of-funds may offset cost savings</td>
<td>• Higher cost-of-funds may offset cost savings</td>
</tr>
<tr>
<td></td>
<td>• Low integration of design and build</td>
<td>• Low financing cost</td>
<td>• Potential reduction in grant availability</td>
<td>• Private ownership gives highest potential for reduction in grant availability</td>
</tr>
<tr>
<td></td>
<td>• Government performance of pre-construction activities and O&amp;M may not be least-cost solution</td>
<td>• Government performance of pre-construction activities and O&amp;M may not be least-cost solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk</strong></td>
<td>• Government maximizes control over process</td>
<td>• Government trades minor reduction in control for potential time &amp; cost savings</td>
<td>• Government trades major reduction in control for larger potential time &amp; cost savings</td>
<td>• Government trades major reduction in control for larger potential time &amp; cost savings</td>
</tr>
<tr>
<td></td>
<td>• Government at risk for design errors</td>
<td>• Government shifts design risks to private sector</td>
<td>• Cost overrun and timing delay risks shifted to private sector</td>
<td>• Cost overrun and timing delay risks shifted to private sector</td>
</tr>
<tr>
<td></td>
<td>• Government at risk of cost overruns and timing delays</td>
<td>• Risk transfer of cost overrun and timing delay less robust than in P3 delivery methods</td>
<td>• Loss of control over project</td>
<td>• Loss of control over project</td>
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<td></td>
<td></td>
<td></td>
<td>• Counterparty risks</td>
<td>• Counterparty risks</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Potential for legal and/or financial fatal flaws</td>
<td>• Private ownership gives highest potential for legal and/or financial fatal flaws</td>
</tr>
</tbody>
</table>

Notes: (1) black font = potential advantages; red font = potential disadvantages
(2) table Included on page 30 of Final Report
## P3 Decision Options

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
</table>
| **1. Choose P3 or Public delivery method now** | • Fastest decision  
• Lowest cost for evaluation and analysis  
• P3 alternatives not adequately vetted to be viable alternatives  
• District lacks data regarding the applicability of P3 for Project |
| **2. Benchmarking study (6-12 mos.)** | • Provide data specific to the Program  
• Can proceed on dual track with ongoing development activities  
• Costs for analysis/time  
• Analytic results based on assumptions may have limited validity |
| **3. Solicit P3 proposals** | • Can proceed on dual track with ongoing development activities  
• Provide data specific to the Program  
• RFQ process advances P3 track  
• Costs/time spent on market outreach  
• P3 candidates biased towards own economic interests  
• Data from RFQ/RFP process may be more “concrete” than a benchmarking study  
• Data provided by P3 candidates may be difficult to harmonize and compare |
Dual Track Strategy

• Technical studies: preliminary engineering, groundwater, operations, and brine disposal solution (completion target August 2016)

• Results from the studies are required to ensure meaningful negotiation with P3 partners to optimize schedule, risk sharing, and cost of delivering the Program

• P3 RFQ in fall 2015 and RFP in mid-2016 aligns with completion of the technical studies

• Dual track strategy allows District to continue both P3 and public delivery methods without delaying the overall Program development
Grant availability
Availability of tax-exempt financing
Compliance with private activity regulations for both the District and the City of San Jose as the provider for the secondary treated water supply
Legal issues associated with public contracting, P3 and other legal considerations
Stakeholder interests
Public Project Delivery Methods
DBB standard District approach

Senate Bill 785 (Sept. 2014) authorized DB for recycled water facilities

Staff evaluating Progressive Design-Build (PDB)
Standard Project Delivery Method (Design-Bid-Build)

Design-Bid-Build (DBB)

Owner

Designer  Contractor

Basic Project Delivery
Progressive Design-Build

Design-Bid-Build (DBB)

Owner

Designer

Contractor

Basic Project Delivery

Progressive Design-Build (PDB)

Owner

Design-Builder

Collaborative Project Delivery

Contractual relationship

Attachment 2
Page 22 of 28
Pros:

- Contractor input during Design
- Fewer contracts to procure/administer
- Extensive collaboration between District/DB Team
- Lower risk of change orders/disputes/claims
- Lower overall project cost/shorter project schedule
Progressive Design-Build (PDB)

- **Cons:**
  - Less control over Construction Management/Inspection
  - Unfamiliar process for District staff
Summary
Summary

- Urgency in expediting the Program due to ongoing drought, risk of subsidence and impacts to the infrastructure and economy of the county.
- Staff recommendation of dual tracking the P3 and public delivery methods would allow the Program to proceed while managing the risk and cost to the District.
Next Steps
Next Steps

- Board approval of Dual Track strategy would authorize staff to:
  - Continue P3 track; research P3 financial and legal issues; develop RFQ; provide Board with update on Sept 22, 2015
  - Continue with planning/design of the SVAWPC expansion by either DBB or DB
VIA ELECTRONIC MAIL

July 21, 2015

Board of Directors
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

RE: Public-Private Partnership Proposal

Dear Chair Kremen and Directors,

Over the past few months, San Jose Water Company ("SJWC") has worked alongside staff at the Santa Clara Valley Water District ("District") and the City of San Jose to better understand the water supply situation and evaluate options for new water supplies.

Developing new water supplies is critical for our region and our state. The recently completed South Bay Water Recycling Master Plan provides a comprehensive blueprint for recycled water projects that can deliver much needed supplies for Santa Clara County. There is much support from customers, regulators, and other stakeholders to fast-track delivery of these water supply solutions.

To that end, SJW Corp., the parent company of SJWC, proposes to enter into a Water Purchase Agreement (WPA) with the District to fast-track the delivery of recycled water projects. SJW Corp. believes that leveraging the resources and expertise of both the public and private sectors through innovative public-private partnerships, is the most expeditious and cost-effective delivery method for projects that ensure water supply reliability. San Diego and San Antonio are the two most notable examples of where water public-private partnerships are employed. WPAs were executed by the San Diego County Water Authority and the San Antonio Water System with their private partners to ensure future water supply reliability.

Public-private partnerships have long been employed in California to deliver infrastructure projects. This delivery approach could significantly compress the project schedule, minimize rate impacts to customers, and transfer the project risk to the private partner. Drawing on this successful model, SJW Corp. proposes to enter into a WPA with the District to design, build, and finance the expansion of the Advanced Water Treatment facility and the pipeline to the Los Gatos Recharge Ponds as identified in the South Bay Water Recycling Master Plan. Operations and maintenance of the facilities can be provided by the District.
Chair Gary Kremen and Directors
July 21, 2015
Page 2

Enclosed for your review is additional information regarding the proposal including a draft framework that provides the basis for a potential Water Purchase Agreement. We believe any proposal that can expedite the delivery of new water supplies, reduce risk for the District, and minimize rate impacts will benefit our mutual customers and our region. SJW Corp. is committed to working with the District and others to fast-track the delivery of new water supplies.

We welcome the opportunity to present our proposal at your July 28, 2015, Board meeting.

Thank you for your consideration.

Sincerely,

[Signature]

W. Richard Roth
Chairman, President and CEO

Enclosures

cc: Beau Goldie, Santa Clara Valley Water District
    Jim Fiedler, Santa Clara Valley Water District
    Garth Hall, Santa Clara Valley Water District
Term Sheet

Proposed Water Purchase Agreement

Silicon Valley Purified Water Project

Santa Clara Valley Water District

and

SJW Corp.

July __, 2015
## TERMINOLOGY

<table>
<thead>
<tr>
<th>Subject</th>
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<tr>
<td>1. Parties to the Water Purchase Agreement</td>
<td>Santa Clara Valley Water District (the “Water District”). A special purpose entity to be formed prior to execution of the Water Purchase Agreement for purposes of the Project (the “Project Company”). Together, the “Parties”.</td>
</tr>
<tr>
<td>2. Other Parties involved in the Project</td>
<td>SJW Corp (“SJW”). The entity responsible under subcontract with the Project Company for operating and maintaining the Project (the “Operator”). The City of San Jose (“CSJ”).</td>
</tr>
<tr>
<td>3. Project</td>
<td>The Project shall consist of a plant (“Plant”) owned by the Project Company located adjacent to the Water District’s Silicon Valley Advanced Water Purification Center (or on another site agreed to by the parties) to further treat wastewater effluent (“Source Water”) produced by the San Jose-Santa Clara Regional Wastewater Facility (“Regional Wastewater Facility”), by using three purification processes: microfiltration, reverse osmosis and ultraviolet light with H₂O₂. Upon completion, the Plant will produce 20,000 - 32,000 acre-feet of high quality water (“Product Water”) that meets California primary drinking water standards. The Project shall also include an associated pipeline and booster pumps (“Transmission Pipeline”) capable of delivering Product Water to the Water District’s groundwater recharge system. The Project will utilize the existing conveyance pipeline to deliver source water from the Regional Wastewater Facility to the Plant for treatment. The Project will require CEQA review and appropriate permits.</td>
</tr>
<tr>
<td>4. Water Purchase Agreement</td>
<td>An agreement (“Water Purchase Agreement”) between the Project Company and the Water District under which the Water District will purchase Product Water under terms set forth in the Water Purchase Agreement following completion of construction of the Project.</td>
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<tr>
<td>5. Water Purchase Agreement Date</td>
<td>The date on which the Water Purchase Agreement is executed and delivered by the Parties.</td>
</tr>
<tr>
<td>6. Design-BUILDER; DB Contract</td>
<td>The Project Company will enter into a contract with the design-build contractor (the “Design-BUILDER”) selected by the Project Company on a competitive basis from a pre-qualified list approved by the Water District to design and construct the Project (the “DB Contract”).</td>
</tr>
<tr>
<td>7. Operating Agreement</td>
<td>The proposed Agreement between the Project Company and the Operator for the operation and maintenance of the Project (“Operating Agreement”).</td>
</tr>
<tr>
<td>8. Operating Period</td>
<td>The period between the Commercial Operation Date and the end of the Water Purchase Agreement term.</td>
</tr>
<tr>
<td>9. CSJ Effluent Agreement</td>
<td>The CSJ Effluent Agreement between CSJ and the Project Company (the “CSJ Effluent Agreement”). CSJ will also provide any ground lease and right-of-way required for the Project.</td>
</tr>
<tr>
<td>10. CEQA Document</td>
<td>The certified CEQA document for the Project.</td>
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# NEGOTIATION AND APPROVAL PROCESS

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<th>Subject</th>
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<tr>
<td>1. Purpose</td>
<td>The purpose of this Term Sheet is to set forth the basis for negotiations toward a possible Water Purchase Agreement between the Parties. It is a summary only and is not comprehensive or definitive. The Parties understand that substantive terms and detailed provisions not noted or fully developed in this Term Sheet are expected to be included in any final Water Purchase Agreement. This Term Sheet is not a contract. The proposed terms and conditions set forth herein do not bind either Party in any manner and do not commit any Party to a particular course of action.</td>
</tr>
<tr>
<td>2. Definitive Equity Commitment</td>
<td>The Parties understand that upon receiving SJW Board approval of the proposed commitment, SJW intends to provide a definitive equity commitment based on its own resources contemporaneously with the execution of the Water Purchase Agreement. The equity amount will be sufficient to obtain Project debt financing for Project construction. The date upon which the definitive equity commitment is made shall hereinafter be referred to as the “Definitive Equity Commitment Date”.</td>
</tr>
</tbody>
</table>
| 3. Commencement and Termination of Negotiations | A. Commencement  
The Parties intend to enter into negotiations toward a definitive Water Purchase Agreement following (1) authorization by the Water District Board of the commencement of negotiations, and (2) the execution of the CSJ Effluent Agreement, or a term sheet, with CSJ to provide sufficient effluent, at the designated quality, to produce the agreed-upon quantity of Product Water.  

B. Termination  
The Parties acknowledge that either party may suspend, terminate or renew negotiations at any time and for any reason without consequence. |
<p>| 4. Water District Due Diligence | During negotiations of the Water Purchase Agreement, the Water District intends to conduct a complete due diligence examination of the Project. The Project Company intends to cooperate with the examination, and provide all documents and information requested by the Water District in connection therewith. Due diligence will address, among other things, (1) the Project Company’s ownership structure, management and financial condition; (2) any existing agreements, commitments, |</p>
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<td>understandings, rights and claims of any other party pertaining to the Project; (3) Project design specifications, (4) the proposed DB Contract; (5) the proposed Operating Agreement; (6) legal entitlements; (7) litigation; (8) development equity, construction equity and debt arrangements, participation and terms; (9) financial projections for the Project; (10) any and all land leases and rights of way for the Project; and (11) any required pre-treatment pilot testing protocols, results and issues.</td>
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</table>

5. Project Responsibility

The Water District will be responsible for completing the CEQA process required for the execution of the Water Purchase Agreement, and the Project Company will be responsible for permitting work. The Water District’s planning and design work product will be made available to the Project Company for its use in developing the Project.

The Project Company will undertake appropriate environmental mitigation measures, enter into a project labor agreement providing for the payment prevailing wages, and endeavor to establish a local contractor outreach program.

The Project Company will develop and implement the Project following the contract execution. The Project Company will be solely responsible for the efficacy of the Project and shall perform the financing, design, construction and acceptance testing in a manner that demonstrates that the Product Water meets the standards of the Water Purchase Agreement.
## TERMS AND CONDITIONS OF THE PROPOSED WATER PURCHASE AGREEMENT

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<tr>
<td>1. Term</td>
<td>The term of the Water Purchase Agreement will begin on the Water Purchase Agreement Date and, unless extended by the Parties, will terminate 35 years from the Commercial Operation Date. The Water Purchase Agreement may be extended under certain conditions.</td>
</tr>
</tbody>
</table>
| 2. Roles of the Parties    | **A. The Project Company**  
                               - The Project Company will permit, design, finance, construct, commission, start-up, and acceptance test the Project, all in conformity with applicable law, prudent industry practices and the requirements of the Water Purchase Agreement. Upon the completion of construction and passage of acceptance tests, Commercial Operation of the Project shall commence. The date on which Commercial Operation begins shall be hereinafter referred to as the “Commercial Operation Date”.  
                               - **B. The Water District**  
                               - The Water District will not bear any liability or responsibility for design and construction; the Water District shall, however, cooperate, as reasonably required, with the Project Company during the permitting, design and construction period. The Water District will provide the necessary leases, rights of way and any information, reviews and approvals by the Water District necessary to connect the Project to the Water District’s groundwater recharge system.  
                               - Beginning on the Commercial Operation Date, the Water District will purchase Product Water as provided for under the Water Purchase Agreement.  
                               - The Water District shall have the option to contract to operate and maintain the Project as provided in item (8) below.  
                               - **C. The Operator**  
                               - The Operator will operate and maintain the Project in accordance with prudent industry practices and applicable laws and regulations sufficient to meet the performance standards and regulatory requirements of the Water Purchase Agreement. |
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| 3. Financing Period | A. Initial Financial Close Date  
Provided that CEQA approval is received and the Water Purchase Agreement is successfully negotiated and executed, the Water Purchase Agreement shall require that the Project Company achieve financial close (with all permanent financing in place for the Project) within 120 days following completion of the conditions precedent identified in the Water Purchase Agreement (the “Initial Financial Close Date”).  

B. Failure to Achieve Financial Close by Initial Financial Close Date  
If the Project Company fails to achieve financial close for the Project by the Initial Financial Close Date, the Water District shall have the right to terminate the Water Purchase Agreement. The Project Company may, however, extend its window to achieve financial close until 180 days after the Initial Financial Close Date (the “Extended Financial Close Date”) by posting, on or before the Initial Financial Close Date, a Letter of Credit (“LOC”) in a negotiated stated amount.  

C. Achievement of Financial Close  
If the Project Company succeeds in achieving financial close on or before the Initial Financial Close Date or alternatively, if the Project Company does not achieve financial close on or before the Initial Financial Close Date, but posts the LOC on or before the Initial Financial Close Date and achieves financial close on or before the Extended Financial Close Date, the Project Company will proceed with construction of the Project and, if applicable, the Water District will return the LOC.  

D. Failure to Achieve Financial Close by Extended Financial Close Date  
If the Project Company fails to achieve financial close by the Extended Financial Close Date, the Water District may draw on the LOC in its full stated amount and retain the LOC proceeds for its own account. Upon the Project Company’s failure to achieve financial close by the Extended Financial Close Date, the Water District shall have the option to terminate the Water Purchase Agreement. |
| 4. Financing Plan    | A. Project Company Responsibilities  
The Project Company will be solely responsible for the financing of the Project. The Project Company will keep the Water District regularly informed of its progress in executing the plan |
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| of financing. The Water District shall assist with the necessary disclosure required for the Preliminary Offering Statement ("POS"). | **B. Amount of Financing**  
The Project Company may not issue additional Project debt without the approval of the Water District, unless the additional Project debt is (1) debt for Project completion, (2) refinancing debt, (3) debt necessary to pay capital costs resulting from uninsured force majeure events and Changes in Law, and (4) debt for other negotiated and agreed-upon purposes. |
| 5. Design and Construction of the Project | **A. Construction Period Design Reviews**  
During the Construction Period, the Water District will have the right, but not the obligation, to periodically review the design of the Plant and the Transmission Pipeline for compliance with the DB Contract and design specifications set forth in the Water Purchase Agreement. The Water District will not have approval authority over the design of the Plant and the Transmission Pipeline, except as such may relate to compliance with the requirements of the Water Purchase Agreement. The Project Company will agree to consider and respond in good faith to any comments or concerns expressed by the Water District.  

**B. Construction Period Reporting and Review for the Project**  
The Project Company will attend monthly progress meetings with the Water District and will provide the Water District access to information regarding the Project. The Project Company will consider and respond to any comments or concerns expressed by the Water District. The Water District will have the right to observe and inspect construction of the Project at any reasonable time during the Construction Period.  

**C. Start-Up and Acceptance Testing of the Plant**  
The Water Purchase Agreement will set forth acceptance test standards and procedures designed to assure the Water District that the Plant will be capable of meeting the requirements of the Water Purchase Agreement. The Water District will have the right to review and comment on the acceptance test protocol to be developed in accordance with the requirements of the Water Purchase Agreement, and to observe Plant start-up and acceptance testing. |
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<tr>
<td><strong>D. Construction and Start-Up of the Transmission Pipeline</strong></td>
<td>The Water Purchase Agreement will set forth acceptance test standards specifically for the Transmission Pipeline, and provide the Water District with the right to review and comment on the acceptance test protocol for the Transmission Pipeline. The Water District will have inspection oversight rights for the Transmission Pipeline throughout the construction and testing phases. Upon completion of start-up and acceptance testing of the Transmission Pipeline, the Water District will conduct a final inspection of the Transmission Pipeline for consistency with the requirements of the Water Purchase Agreement and provide a written recommendation to the Project Company to proceed with the filing of the notice of completion.</td>
</tr>
<tr>
<td><strong>E. Modifications Due to Changes in Law During the Construction Period</strong></td>
<td>In the event that capital improvements or modifications are required due to a Change in Law occurring during the Construction Period, the Project Company will inform the Water District of such need and of the schedule for and estimated cost of addressing such need. The Project Company will mitigate the effects of the Change in Law, and minimize the delay in design or construction and the cost of such capital improvements or modifications. The Water District will be responsible for such costs provided that such Change in Law is not imposed as the result of the acts or omissions of the Project Company. The Project Company will inform the Water District as to the occurrence of any Changes in Law during the Construction Period and their impacts.</td>
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<tr>
<td><strong>6. Delay in Achieving Commercial Operation by the Scheduled Commercial Operation Date</strong></td>
<td><strong>A. Scheduled Commercial Operation Date</strong>&lt;br&gt;The Scheduled Commercial Operation Date will be the date that is a stated number of months following the actual date of financial close (as such date may be extended due to Uncontrollable Circumstances). The Scheduled Commercial Operation Date is expected to be 24 months following financial close, or such other date as may be definitively determined based on due diligence.</td>
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<tr>
<td><strong>7. Transmission Pipeline</strong></td>
<td><strong>A. Transmission Pipeline Description</strong>&lt;br&gt;The Transmission Pipeline will be described and defined in the Water Purchase Agreement.</td>
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<td><strong>B. Transmission Pipeline Adequacy</strong></td>
<td>The Transmission Pipeline will be adequate to transport and deliver Product Water at all times to the Water District’s Delivery Point(s) in the quantities required by the Water Purchase Agreement.</td>
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</tbody>
</table>
| **8. Operations and Maintenance of the Project** | **A. Operations and Maintenance**<br>On and after the Commercial Operation Date, the Project Company will have responsibility to operate and maintain the Project in accordance with the terms of the Water Purchase Agreement, prudent industry practices and applicable laws and regulations sufficient to meet the Water Purchase Agreement’s performance and regulatory requirements.  

**B. Project Operator**<br>The Project Company will subcontract for the operation and maintenance of the Project with the Operator. The Operator is expected to be a newly formed operating subsidiary of SJW. The Operator shall operate and maintain the Project in accordance with the terms of the Water Purchase Agreement, prudent industry practices and applicable laws and regulations sufficient to meet the Water Purchase Agreement’s performance and regulatory requirements until the term of the Water Purchase Agreement expires.  

**C. Transition Operations**<br>The terms of the DB Contract are expected to provide for the operation and maintenance of the Project by the Design-Build for a one-year period (the “Transition Period”) following the Acceptance Date.  

**D. Water District Operations**<br>The Water Purchase Agreement may provide for the right of the Water District to elect to assume responsibility by contract with the Project Company for the operation and maintenance of the Project (the “Water District Operating Contract”) at any time following the Transition Period. Upon making such an election, the Water District shall remain responsible for operations and maintenance of the Project for the balance of the Water Purchase Agreement term. Appropriate provisions will be included in the Water Purchase Agreement to take account of the fact that the Water District may be operating the Project from which it is purchasing Product Water. |
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<tr>
<td><strong>E. Operations and Maintenance Manual</strong></td>
<td>Two months prior to the Commercial Operation Date, the Project Company will provide the Water District with a draft copy of the Project’s operation and maintenance manual for review and comment.</td>
</tr>
<tr>
<td><strong>F. Life-Cycle Maintenance</strong></td>
<td>The Water Purchase Agreement will contain all necessary assurances that the Project will be properly maintained, repaired and replaced over the term of the Water Purchase Agreement. These will include a requirement to have an asset management system and use it to perform ordinary and capital maintenance; a requirement to perform periodic maintenance inspections; the establishment of the required condition of the Project at the end of the term; and the completion of a maintenance deficiency assessment near the end of the term, coupled with the posting of security for the performance of the work and price offsets for failure to rectify any such deficiency.</td>
</tr>
<tr>
<td><strong>G. Restoration of the Project</strong></td>
<td>In the event of damage to the Project, the Project Company will be obligated to repair or replace damaged components to enable the restoration of full operations and the full performance of its obligations under the Water Purchase Agreement.</td>
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<td>In the event the Project Company is not able to fully restore the Project, the Water District shall have the sole option to purchase the Project for an amount equal to the Project Company’s outstanding indebtedness, unamortized equity and associated returns, and net of insurance proceeds. The conditions under which the Water District shall have the option to purchase the Project shall be negotiated.</td>
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<td>The Project Company shall keep accurate records of all financing documents to enable the Parties to set the Project Purchase Price.</td>
</tr>
<tr>
<td><strong>H. Right to Monitor</strong></td>
<td>The Water District will have the right to monitor the operation and maintenance of the Project in order to confirm compliance with the requirements of the Water Purchase Agreement. The Water District will have the right to conduct periodic</td>
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<td>inspections of the Project, and will notify the Project Company of any operations and maintenance deficiencies found. The Water District will have the right at its expense to engage consultants and advisors for inspections of the Project, to review the Project Company’s performance, and to provide performance reports and recommendations.</td>
<td></td>
</tr>
<tr>
<td>9. Capital Modifications, Merchant Capacity and Excess Production</td>
<td>During the term of the Water Purchase Agreement, the Project Company will not substantially change or modify the Project, or expand the capacity of the Project (including developing any merchant capacity for the production of water for sale to third parties), without the approval of the Water District, which may be withheld in its sole discretion.  At any time after the Commercial Operation Date, the Water District may propose modifications to the Project to extend the useful life of one or more components of the Project. The Project Company shall use commercially reasonable efforts to implement such modifications, subject to such modifications not adversely affecting (1) the Project Company’s ability to perform its obligations under the Water Purchase Agreement; (2) the Project Company’s ability to raise sufficient financing for such modifications and obtain any necessary consents or approvals for such modification; and (3) the Water Purchase Price being equitably adjusted to compensate the Project Company for its cost of implementing such modification. The Project Company shall not produce excess Product Water without prior approval from the Water District to take and purchase the excess Product Water at a marginal or variable rate, exclusive of fixed capital and operations costs.</td>
</tr>
<tr>
<td>10. Water District-Directed Capacity Expansions</td>
<td>The Water District shall have the right to direct the expansion of the Project and purchase additional Product Water, subject to mutual agreement between the Project Company and the Water District as to the terms and conditions of the expansion.</td>
</tr>
</tbody>
</table>
| 11. Water Quantity                                                     | A. Water Quantity Commitments  
The Project Company will agree to produce and deliver, and the Water District will agree to take (on a “take-or-pay” basis), 20,000-32,000 acre-feet per year of Product Water. For the actual quantity of Product Water taken, the Water District will pay a Water Purchase Price as set forth in Item 16. |
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<td>B. Payment for Product Water Not Taken</td>
<td>In the event that the Water District does not take the agreed-upon amount of Product Water, the Water District will nonetheless pay the Project Company a Water Purchase Price on the dates set forth in the Delivery Schedule.</td>
</tr>
<tr>
<td>C. Delivery Schedule</td>
<td>The schedule for periodic deliveries of Product Water (daily, monthly, quarterly) (the “Delivery Schedule”) will be mutually agreed to by the Parties on an annual basis. The annual delivery plan will be incorporated into the Water District’s Annual Operation Plan.</td>
</tr>
<tr>
<td>D. Operating Committee</td>
<td>The Project Company and the Water District will establish an Operating Committee to address daily flow changes and operations. CSJ may also attend Operating Committee meetings when the Operating Committee discusses matters that affect CSJ.</td>
</tr>
<tr>
<td>E. Delivery Point(s)</td>
<td>The Project Company will deliver Product Water to the Delivery Point(s), which will be established by the Parties in the Water Purchase Agreement.</td>
</tr>
<tr>
<td>F. Water Ownership</td>
<td>The Water District will own all Product Water received and accepted at the Delivery Point(s).</td>
</tr>
<tr>
<td>G. Risk of Source Water Shortfalls</td>
<td>The risk of shortfalls in the availability of source water from CSJ will be borne by the Water District.</td>
</tr>
<tr>
<td>H. Water District Groundwater Recharge System Emergencies</td>
<td>In the event of emergencies in the Water District Groundwater Recharge System, the Water District may curtail Project operations and Product Water deliveries for the duration of the emergency. No cost relief shall be provided to the Water District on account of a Water District Groundwater Recharge System emergency.</td>
</tr>
<tr>
<td>I. Respective Cost Obligations of the Parties</td>
<td>The Project Company will be responsible for all costs incurred in producing the Product Water and delivering it to the Delivery</td>
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<td>Point(s), and the Water District will be responsible for all costs incurred in receiving the Product Water from the Delivery Point(s) and distributing it.</td>
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</tbody>
</table>
| 12. Water Quality       | **A. Product Water Quality Requirements Generally**  
The water quality requirements for the Product Water shall be negotiated and set forth in the Water Purchase Agreement based on permit standards. The Project Company will be responsible for the quality of the Product Water delivered to the Delivery Point(s). |
| 13. Delivery Failures   | **A. Product Water Quantity Failures**  
If the Project Company fails to deliver the agreed-upon quantity of Product Water at any time following the third month after the Commercial Operation Date, deductions shall be assessed.  

**B. Product Water Quality Failures**  
If the Project Company fails to deliver the agreed-upon quality of Product Water at any time following the third month after the Commercial Operation Date, deductions shall be assessed. |
| 14. Raw Water Risks     | The Water Purchase Agreement will set forth the assumed raw water quality parameters upon which the Operator’s performance guarantees are based. If (1) actual raw water quality parameters are outside those assumed, or (2) specific negotiated events occur affecting raw water quality (such as pollution events), the Project Company will be entitled to price and water quantity production relief. |
| 15. CSJ                 | The Water District shall bear all risks relating to CSJ’s Regional Wastewater Facility, including source water quality volumes. |
| 16. Water Purchase Price| **A. Fixed Element**  
The Water District, as part of the Water Purchase Price, will pay certain fixed costs related to the debt service and equity, as well as a fixed portion of annually budgeted operations and maintenance costs, rehabilitation and capital additions.  

**B. Variable Element**  
The variable component of the Water Purchase Price shall consist of certain variable elements of the annually budgeted operations and maintenance costs, divided by the number of acre-feet of Product Water set forth in the Water Purchase Agreement.
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<tr>
<td>Agreement</td>
<td>Any extraordinary items (such as costs associated with a Change in Law) shall be separately compensated.</td>
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<tr>
<td>C. Negotiating Considerations</td>
<td>The negotiation of the Water Purchase Price will be determined in accordance with the following considerations:</td>
</tr>
<tr>
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<td>1. Capital and operating costs of the Project.</td>
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<td>2. The Project Company will provide full transparency to the Water District with respect to capital costs, operating costs, and financial returns to SJW and lenders to the Project.</td>
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<tr>
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<td>3. Pricing sufficient to support the financing, construction and operation of a high-quality purification facility that operates in a highly reliable manner.</td>
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<td>4. Pricing at the lowest and least volatile price that is consistent with the other principles.</td>
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<td>5. Methods to determine how actual debt service costs, and future refinancing savings will be reflected in the Water Purchase Price.</td>
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<td>6. The Water Purchase Price will not be finalized until the underlying capital and operational costs of the Project have been established through binding agreements, and these agreements and the financing costs and draft financing documents have been received, reviewed and accepted as reasonable by the Water District.</td>
</tr>
<tr>
<td>D. Site Conditions Risk</td>
<td>The Water District shall bear all price, performance and schedule risk associated with any differing site conditions and regulated site conditions (such as hazardous substances and cultural resources).</td>
</tr>
<tr>
<td>E. Grants and Subsidies Benefit Water District</td>
<td>Any subsidy, grant or contribution received directly or indirectly by the Water District or the Project Company from any other local, regional, state or federal governmental agency (net of application related costs) will be applied to replace the cost of the Project. The Parties will also consider alternative</td>
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<td>approaches regarding federal, state, regional and local financial</td>
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<td>support to help reduce the cost of the Product Water.</td>
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</tr>
<tr>
<td>F. Notification of Annual Price Adjustments</td>
<td>For budgetary purposes, the Project Company will annually notify the Water District of the Water Purchase Price for the upcoming year by the date specified in the Water Purchase Agreement.</td>
</tr>
<tr>
<td>G. Annual “True-Up” Process</td>
<td>There will be an annual “true-up” process, based upon the (1) Water Purchase Price paid by the Water District, and (2) other costs or liabilities that may have been incurred by either Party for which responsibility is addressed in the Water Purchase Agreement, through which the amounts that were paid by the Water District and the amounts that were due from the Water District will be confirmed or reconciled. If it is determined that the Water District paid less than the amounts actually due, the Water District will pay any such additional costs to the Project Company within 60 days of such determination. If it is determined that the Water District paid more than was actually due, the Project Company will credit such overpayment against the next immediate billing to the Water District.</td>
</tr>
<tr>
<td>Subject</td>
<td>Proposed Term/Condition</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>17. No Payment Obligation Before Commercial Operation Date; Exception</td>
<td>It is anticipated that interest will be capitalized during the Construction Period, and that full debt service will begin after the Commercial Operation Date. Details of the financing schedule shall be negotiated and set forth in the Water Purchase Agreement. The Water District will have no payment obligation before the Commercial Operation Date.</td>
</tr>
</tbody>
</table>
| 18. Public Information and Outreach                                     | **A. Public Outreach Regarding the Project**  
After the Water Purchase Agreement Date, the Water District (without limiting the Project Company’s reporting obligations) will have the right to review and approve public communications regarding the Project to be issued by the Project Company.  

**B. Project Tours**  
The Project Company will make the Project available for and help conduct Water District tours after the Commercial Operation Date, subject to reasonable notice by the Water District and safety considerations.  

**C. Project Site Access**  
Water District staff, consultants and contractors will be provided access to the Project Site and all facilities owned or leased by the Project Company during the Construction Period and after the Commercial Operation Date, subject to reasonable notice by the Water District. |
| 19. Insurance                                                           | **A. Insurance Obligations**  
The Parties shall obtain and maintain, in amounts to be agreed upon, insurance as follows: commercial general liability insurance; builder’s risk and property and casualty insurance; motor vehicle insurance; workers compensation; business interruption insurance; and, as appropriate, pollution liability insurance. |
| 20. Uncontrollable Circumstances                                        | **A. Defined**  
Uncontrollable Circumstances shall be defined to include Changes in Law, force majeure events and other events beyond the Project Company’s reasonable control that materially and adversely affect the Project Company. Inclusions and exclusions will be negotiated and set forth in the Water Purchase Agreement.  

**B. Project Company Performance Relief**  

<p>|</p>
<table>
<thead>
<tr>
<th>Subject</th>
<th>Proposed Term/Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C. Mitigation and Restoration</strong></td>
<td>To the extent the Project Company is adversely affected by Uncontrollable Circumstances, the Project Company shall be entitled to price, performance and schedule relief.</td>
</tr>
<tr>
<td><strong>C. Mitigation and Restoration</strong></td>
<td>In the event of an Uncontrollable Circumstance, the Project Company will use commercially reasonable efforts to respond to the event and to mitigate its effects and, as soon as is practicable, to restore conditions to the level at which it can fully perform its obligations under the Water Purchase Agreement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21. Changes in Law</th>
<th>A. Defined</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Change in Law is the enactment of a new law, or an amendment to an existing law, after the Water Purchase Agreement Date that materially delays completion of the Project or materially increases the cost of producing the Product Water. “Law” includes any federal, state or local laws, statutes, codes and regulations; and all governmental approvals, such as licenses, permits, consents and entitlements.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21. Changes in Law</th>
<th>B. General Exclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in Law do not include: (1) any law enacted or adopted on or before the Water Purchase Agreement Date, even if such law takes effect after the Water Purchase Agreement Date; and (2) any change in law that does not require greater stringency than the Water Purchase Agreement itself requires.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21. Changes in Law</th>
<th>C. Compliance With Environmental Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Project Company will comply with all environmental mitigation measures required by or in connection with the CEQA Document and governmental approvals for the Project.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21. Changes in Law</th>
<th>D. Governmental Approval Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Project Company will be responsible for obtaining and maintaining all governmental approvals required for the Project during the Construction Period and the Operating Period (including the California Division of Drinking Water’s drinking water permit).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21. Changes in Law</th>
<th>E. Responses to Changes in Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Project Company will use all commercially reasonably efforts to implement responses to Changes in Law at the lowest</td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>Proposed Term/Condition</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>cost practicable.</td>
</tr>
<tr>
<td>F. Project Company Actions</td>
<td>No relief of any kind will be permitted for Changes in Law which are imposed as the result of the acts or omissions of the Project Company.</td>
</tr>
<tr>
<td>22. Events of Default and Termination</td>
<td>A. Events of Default The Water Purchase Agreement will include negotiated events of default.</td>
</tr>
<tr>
<td></td>
<td>B. Remedies Upon the occurrence of an event of default, the non-defaulting party may pursue any remedies available at law or in equity.</td>
</tr>
<tr>
<td>23. Recordkeeping, Reporting</td>
<td>A. Project Company Maintenance and Retention of Records The Project Company will maintain records pertaining to its performance under the Water Purchase Agreement. The Water District will have the right to inspect such records during regular business hours for the duration of the Water Purchase Agreement term. The Water District shall also have audit rights for up to five years after each Water Purchase Agreement year or as provided under applicable law, whichever is longer.</td>
</tr>
<tr>
<td></td>
<td>B. Operator Reporting Requirements During the Operating Period, the Project Company will provide monthly and annual reports to the Water District regarding Project performance, including: quantities of Product Water; Product Water quality (subject to additional water quality reporting requirements); maintenance and capital repairs and replacements performed; any material operating problems encountered and corrective measures taken; and regulatory and Water Purchase Agreement compliance.</td>
</tr>
<tr>
<td></td>
<td>C. Inspection of Measurement Devices The Water District will have the right to inspect measurement devices periodically during regular business hours to verify that calibration is accurate.</td>
</tr>
<tr>
<td>24. Project Purchase Options</td>
<td>A. Project Purchase Option During the Term The Water District will have the right to purchase the Project at any time following the ten-year anniversary of the Commercial Operation Date. The Project Purchase Price will be an amount equal to the sum of outstanding debt, debt breakage fees (if...</td>
</tr>
<tr>
<td>Subject</td>
<td>Proposed Term/Condition</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>any), the Project Company's equity return for the balance of the term, actual contractor breakage costs (if any), and actual demobilization costs; or another amount to be negotiated and set forth in the Water Purchase Agreement.</td>
<td></td>
</tr>
<tr>
<td>B. The Water District Purchase Option Upon Project Company Default</td>
<td>Upon a default of the Project Co, the Water District may terminate the Water Purchase Agreement and purchase the Project. All financing arrangements, lease arrangements, and other agreements and arrangements related to the Project shall allow for the Water District to exercise this option upon Project Company default.</td>
</tr>
<tr>
<td>C. End of Term Project Purchase Option</td>
<td>The Water District will have the right to purchase the Project at the end of the Water Purchase Agreement term in an amount set forth in the Water Purchase Agreement. The CSJ ground lease will be written or modified, as required, to allow for this purchase option.</td>
</tr>
<tr>
<td>25. Security for Performance by Project Contractors</td>
<td>A. Construction Bond The Project Company will obtain and maintain, or cause the Design-Builder to obtain and maintain, performance and payment bonds in an amount sufficient to obtain non-recourse financing (or as otherwise agreed to by the parties) for the construction of the Project.</td>
</tr>
<tr>
<td></td>
<td>B. Operations and Maintenance Bond The Operator will obtain and maintain an operations and maintenance performance bond in an amount agreed to by the Parties for the operation and maintenance of the Project as necessary to obtain project financing.</td>
</tr>
<tr>
<td>26. General Indemnity</td>
<td>The Project Company will indemnify the Water District for claims arising from the Project Company’s misrepresentation, gross negligence, default or material breach of the Water Purchase Agreement.</td>
</tr>
<tr>
<td>27. Representations and Warranties</td>
<td>The Water Purchase Agreement will include customary representations and warranties regarding: legal standing in California; legal authority to enter into the Water Purchase Agreement; absence of material adverse litigation or legal</td>
</tr>
<tr>
<td>Subject</td>
<td>Proposed Term/Condition</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>conditions; no conflict with other agreements or commitments; and proper approvals of the Water Purchase Agreement.</td>
<td></td>
</tr>
<tr>
<td>28. Liability Limitations</td>
<td>Special, consequential and punitive damages will be mutually waived.</td>
</tr>
<tr>
<td>29. Dispute Resolution</td>
<td>The Parties will agree to attempt to resolve disputes, first, through negotiation and non-binding mediation and, if negotiations and mediation are unsuccessful, then to pursue other remedies available in law or in equity.</td>
</tr>
<tr>
<td>30. Assignment by the Project Company</td>
<td>The Project Company will not assign the Water Purchase Agreement without the prior written approval of the Water District, which approval may be given or withheld in its sole discretion. Notwithstanding the foregoing, the Project Company will have the right to collaterally assign the Water Purchase Agreement to its lenders, and the Water District shall consent, when reasonable, to such assignment.</td>
</tr>
<tr>
<td>31. The Project Company’s Contractors</td>
<td>The Water Purchase Agreement will specify minimum financial, technical and experience qualifications, standards and requirements for any contractors of the Project Company, and for any party it may engage to replace or substitute for such contractors. The Project Company will provide adequate information to the Water District regarding the qualifications of any proposed initial contractor or substitute contractor. Notwithstanding the above, the Project Company may not replace or substitute the Design-Build or the Operator without the Water District’s approval, which will not be unreasonably withheld.</td>
</tr>
</tbody>
</table>
Silicon Valley Purified Water Project

Overview of Key Terms for Water Purchase Agreement
Agenda

- Project Overview
- Key Water Purchase Agreement (WPA) Terms
- Parties and Responsibilities
- Risk Assignment
- Water Purchase Payment and Pricing
- Water District Rights in Design, Construction, and Operations
- Consequences of Non-Performance
- Events of Default and Termination
Project Overview
Summary

• New drought-tolerant water supplies needed as a result of historic drought, court ruling on the Endangered Species Act for the Bay Delta, and climate change
• Santa Clara County stakeholders (residents, business, government and labor) are deeply concerned about having an adequate water supply to meet current and future demand
• SJW Corp. (SJW) believes a partnership between the City of San Jose (CSJ), Santa Clara Valley Water District (SCVWD) and SJW with an alternative delivery process can provide the urgently needed water to recharge the groundwater basin
  • Provides water that adds approximately 20 to 32 thousand acre feet to groundwater storage or enough water for up to 90,000 homes per year
Benefits of Water Purchase Agreement vs. Developing Project

• Fastest delivery method

• Lowest impact on customer rates

• Lowest risk for Santa Clara Valley Water District’s customers (guaranteed price and delivery time)
### Draft time schedule

<table>
<thead>
<tr>
<th>Months (6) - 0</th>
<th>Months 0-24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start</strong></td>
<td></td>
</tr>
<tr>
<td>Negotiate WPA</td>
<td>CEQA and Permits Complete / Sign WPA</td>
</tr>
<tr>
<td>Negotiate DB contract</td>
<td>Complete Construction of Plant and Pipelines</td>
</tr>
<tr>
<td>Draft Preliminary Offering Statement</td>
<td></td>
</tr>
<tr>
<td>Secure Permits</td>
<td></td>
</tr>
</tbody>
</table>
SCVWD Cost vs. Price to Retailers Comparison

Comparison below highlights the average annual payments vs. the cost to SCVWD customers including debt service coverage targets of 2.0x

Assumption: CAPEX starts at 2017. 2% annual inflation. Costs are based on SCVWD’s estimates. Interest rate is as of 6/22/15.
Each year of delay adds over $50 per Acre Foot or approximately 4%

<table>
<thead>
<tr>
<th>Water Cost ($/AF)</th>
<th>SCVWD cost (2-year construction)</th>
<th>SCVWD cost (3-year construction)</th>
<th>SCVWD cost (4-year construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1,360</td>
<td>$1,417</td>
<td>$1,468</td>
</tr>
<tr>
<td>4% Increase</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8% Increase</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assumption: CAPEX starts at 2017. 2% annual inflation. Costs are based on SCVWD’s estimates. Interest rate is as of 6/22/15.
Combining the impacts of delay and debt service coverage increases District rates substantially.

Assumption: CAPEX starts at 2017. 2% annual inflation. Costs are based on SCVWD’s estimates. Interest rate is as of 6/22/15.
Protecting the public interest

- Alternative delivery produces the lowest cost to customers and fastest delivery of water at a critical time
- The largest cost is construction and it can be bid out in a competitive, open book format
  - Labor is protected through a PLA commitment and local contractor outreach
- Debt financing will be based on the market, regardless of the delivery method
  - Interest rates are likely to increase in the future, earlier issuance may lower the cost significantly
- Operations can be performed by the SCVWD
- The cost of equity is the only non-competitive component and there are solutions that can be completely transparent
## Project Components

<table>
<thead>
<tr>
<th></th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>20,000 AFY</td>
<td>32,000 AFY</td>
<td>Plan for DPR (TBD AFY)</td>
</tr>
<tr>
<td>Pipeline and pumping</td>
<td>15 mile 42-inch</td>
<td>15 mile 42-inch – consider larger pipelines for additional injection sites</td>
<td>Larger pipeline to accommodate more water, design plant for expansion</td>
</tr>
<tr>
<td>RO Concentrate</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Project Alignment

- The following pages reflect the alignment in the South Bay Water Recycling Master Plan
- Carollo Engineers identified key surface features along the proposed pipeline route
- Additional well field locations may provide opportunity to reduce distance from plant and provide easier construction
- RO Concentrate reject solution will determine the speed of project completion
ALIGNMENT DETAIL 5

FIGURE A5

SAN JOSE WATER COMPANY
LOS GATOS POTABLE REUSE PROJECT

Attachment 3
Page 40 of 80
Key WPA Terms
Key WPA Objectives

• Term Sheet details key terms to be negotiated
• Transfer portion of risks to the private sector for the design and construction of the Plant and the Conveyance Pipeline
• Assignment of appropriate risk to the private developer at the least cost to the Water District customers
Contract Term

- “Take or Pay” contract with fixed and variable payments
- 35 years from the date of commercial operation
- Subject to early buy-out provisions
- Water unit price reflects underlying costs of the project
Parties and Responsibilities
Parties

- Santa Clara Valley Water District (the “Water District”)
- Project company (the “Project Company”): formed by SJW Corp.
- DB contractor: selected by the Project Company with District input, TBD
- Operating service provider (the “Operator”): TBD
Project Structure

• Developer/Owner of the Facility
  • The Project Company
  • The Project Company to finance through a combination of debt and equity
    • Debt to be provided through tax-exempt Private Activity Bonds (PAB’s) or taxable debt
    • Equity to be provided by SJW Corp.
    • Subject to debt rating confirmation

• Construction/Operation of the Facility
  • DB Contractor
  • The Operator (Project Company or District)
Water District Responsibilities

• Conduct a complete due diligence examination of the Project Co and the Project
• Cooperate with the Project Co for the implementation of the Project
• “Take or Pay” for product water
• Receive product water with appropriate facilities constructed
• Potentially operations of the facility
SJW Corp.

- SJW Corp. is the holding company of San Jose Water Company
- SJW Corp. is traded at New York Stock Exchange with ticker symbol SJW
- SJW Corp. is able to tap into capital markets to raise capital
- SJW Corp. can be engaged in non-regulated business and SJW Corp. will form a subsidiary (the Project Co) to implement the Project
The Project Company Responsibilities

- Assist with the CEQA process
- Lead permit process with District assistance
- Secure financing for the Project
- Design and build the plant beyond District’s initial design
- Design and build the product water pipeline
- Passage of acceptance tests
- Potentially provide operations
- Implement appropriate environmental mitigation measures
- Enter into a project labor agreement providing for the payment of prevailing wages, and endeavor to establish a local contractor outreach program
Potential Structure

- **Water Supply Agreements**
  - RWF: Provide Effluent
  - SCVWD: Purchase Water

- **The Project Co**
  - **Debt Issuing Entity**
  - **Equity Provider**: SJW Corp.

- **The Operator**

- **Trustee**

- **Underwriter**

- **Capital Providers**

- **Effluent Purchase**

- **Debt Service**

- **Bonds**

- **Purchase Price**

- **Silicon Valley Purified Water**
Risk Assignment
Lower Price vs. Reduced Risk for Water District

- Goal of WPA is a reduction in risk relative to self build while minimizing cost and impact on rates and charges.
Risks Transferred by Water District

Primary risk transfers include:

- Construction cost overruns (DB Contractor and equity incentives)
- Project completion timeline
- Regulatory and law compliance (partially)

Additional risk transfers may include:

- Capital maintenance, repair, and replacement
- Labor supply and relations
Risks Retained by Water District

- Changes in Law that affect all water treatment plant operators or wastewater dischargers
- Issues related to CSJ effluent
- Force Majeure
- Bond financing interest rates
- General price inflation
Water Purchase Payment and Product Water Price

- Payment will start after commercial operation of the facility
- Monthly water purchase payment by Water District equals fixed and variable elements
- Fixed payments are the sum of:
  - Debt service charge
  - Equity charge
  - Fixed portion of annually budgeted operations and maintenance costs
- Variable payments are the sum of:
  - Variable portion of annually budgeted operations and maintenance costs
  - Adjustments to unit price for uncontrollable circumstances and changes in laws
- All grants and subsides received will be for the full benefit of the Water District to lower Product Water cost
Cost Composition

![Cost Composition Chart]

Legend:
- O&M expense recovery
- Capital recovery
- Debt interest recovery
- Return on equity
Water District Rights in Design, Construction, and Operation
Rights of Water District During Construction of the Plant

- Plant design and construction
  - Water District design review and comment rights
  - Identified preferred vendors for key equipment procurement
    - RO membranes, media filters, UV light, product water pumps, product water flow meter, etc.
  - Water District attendance at construction progress meetings and review of progress reports
- Access to plant site and contractors
- Ensuring what is built is what has been agreed to in the fixed payment
Rights of Water District to Monitor

- Following the Commissioning Period, the Water District will have the right to monitor the operation and maintenance of the Facility in order to confirm compliance with the requirements of the WPA
- Water District will have the right to conduct periodic inspections of the Plant
- Water District will have the right to engage consultants and advisors for inspections and to review the Operator’s performance and provide performance reports and recommendations to the Operator
Rights of Water District during Operation

- Facility operation, management & maintenance
- Facility to be operated in accordance with industry standards
- Reporting and record keeping requirements
- Water District rights to arrange for tours
- Step-in rights if unable to remediate poor performance and non-compliance with water permits
Water District Retained Rights

- Ownership of Existing Rights of Way
- Percolation ponds and new injection wells
- Setting user rates
- Grants and subsidies
Events of Default and Termination
Events of Default

- Upon the occurrence of an event of default, the non-defaulting party may pursue any remedies available at law or in equity.
- The Water District will have the right to step in and cure defaults that are not cured by the Project Company.
Water District Purchase Options

Purchase options at the Water District’s sole discretion:

• **Early Buy-Out**
  • The Water District will have the right to purchase the Facility at any time following the tenth anniversary of the Commercial Operation Date

• **End of Term Buy-Out**
  • The Water District will have the right to purchase the Facility at the end of the term of the WPA

• **Option to purchase in the event of default**
  • In the event of default, the Water District may terminate the WPA and purchase the Facility for a negotiated price
Timing of Acquisition

The WPA has a 35-year term

<table>
<thead>
<tr>
<th>Construction Period</th>
<th>Initial Operating Period (10 years)</th>
<th>Purchase Period (25 years)</th>
</tr>
</thead>
</table>

The Water District has option to purchase the facility at any time following the tenth year of commercial operation.

The Water District has end-of-term purchase option.
Appendix
Cost Estimate and Financing Considerations
Overview of Project Financing Structure Options

• Bonds and equity will be issued to fund the project
• Construction draw down schedules will drive the timing and the amounts of the proposed bond issues
• Debt structuring will be implemented to allow for debt service to step-up into proposed rates and charges
  • Payments begin upon project’s completion, interest is capitalized through construction period
  • Deferring principal payments and capitalizing interest allows for better matching of cashflow
Additional Financing Considerations

• Other factors will determine the bottom line cost of borrowing, including:
  • Tax-status of the proposed financing
  • Credit ratings / water supply agreements

• Tax-status is established in accordance with IRS Codes
• Credit ratings are provided by rating agencies and are an indication of the relative risk profile of a series of bonds and proposed repayment
Tax-Status Considerations

• Water used directly by taxable retailers will require taxable financing
  o DPR will likely constitute direct use and IPR only may not
  o Cost to build infrastructure twice is significant, therefore building a project
to include DPR upfront provides greatest flexibility
• Various tax statuses are as follows:
  o Tax-exempt, Non-AMT: Tax-free, not subject to alternative minimum tax
  o Tax-exempt, AMT: subject to the alternative minimum tax
  o Taxable: subject to federal taxes
• The tax-status will influence the reference index off of which a proposed
series of bonds will price
  o Tax-exempt: Municipal Market Data ("MMD") Index
  o Taxable: U.S. Treasury Yield Curve
Credit Rating Considerations

• Credit ratings are a measurement of the risk profile of a municipal entity and it’s proposed debt issue
  • Factors that influence ratings include: cash position, debt service coverage, legal covenants, management and economics of the service area (among other considerations)
• A majority of water utilities bear ratings in the “AA” or “A” category
• Rating agencies will require certain terms from the Water District, the Project Co, the Operator, and the Equity Provider to achieve highest rating potential
Existing Examples of Water Purchase Contracts

Water Supply Project Examples
Water Infrastructure Projects: Case Studies

• There have been notable successes for large-scale water supply projects recently that follow this exact type of arrangement

• Following are two case studies that demonstrate the efficiencies of these programs in risk sharing and creating regional self-sufficiency
  • San Diego County Water Authority
  • San Antonio Water System
San Diego County Water Authority ("SDCWA")

- SDCWA and Project Company (Poseidon Resources) are collaborating to construct and operate a Desalination Facility in Carlsbad
  - Desalination plant will have 56,000 acre feet of annual water production capacity
  - Project has been evaluated and certified in SDCWA’s Water Facilities Master Plan and Urban Water Management Plans
  - Project is fully permitted (City of Carlsbad, Regional Water Quality Control Board, State Lands Commission, Coastal Commission)
  - Greenhouse gas impacts will be offset by Reduction plan from Poseidon
  - Project components consist of:
    - 50 MGD desalination plant
    - 10 miles of 54-inch diameter conveyance pipeline
    - Connection to SDCWA’s aqueduct Pipeline 3
    - Relining of 5.5 mile reach of Pipeline 3
    - Improvements to SDCWA water treatment plant to accommodate desalinated water flows

Source: “Overview of Key Terms for a Water Purchase Agreement with Poseidon Resources”; Special Board Meeting, August 9, 2012
## Various Parties and Assigned Roles

<table>
<thead>
<tr>
<th>Party</th>
<th>Role</th>
</tr>
</thead>
</table>
| San Diego County Water Authority | ➢ Water Purchase Agreement (Take or Pay)  
                               | ➢ Construct certain segments and own entire conveyance pipeline       |
| Poseidon Resources           | ➢ Developer / owner of plant                                         |
|                              | ➢ Construct conveyance pipeline                                     |
| Kiewit J.F. Shea Co., Inc.    | ➢ Joint Venture as EPC Contractor                                    |
|                              | ➢ Construct and operate the plant                                    |
| IDE Technologies Ltd.         | ➢ Process Engineering / Equipment                                   |
|                              | ➢ Plant operations and management                                   |

Source: “Overview of Key Terms for a Water Purchase Agreement with Poseidon Resources”; Special Board Meeting, August 9, 2012
Overview of Contract: Risks Transferred / Rights Retained of SDCWA

• Contract term
  • 30 years from the date of commercial operation
  • Subject to early buy-out provisions

<table>
<thead>
<tr>
<th>Risks Transferred</th>
<th>Rights Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction and operating cost overruns</td>
<td>Ownership of existing rights of way</td>
</tr>
<tr>
<td>Timely project completion</td>
<td>Pipelines and water treatment plant</td>
</tr>
<tr>
<td>Regulatory and law compliance</td>
<td>Setting user rates</td>
</tr>
<tr>
<td>Regulated or differing site conditions</td>
<td>Ownership of system revenues</td>
</tr>
<tr>
<td>Capital maintenance, repair, and replacement</td>
<td>Grants and subsidies</td>
</tr>
<tr>
<td>Labor supply and relations</td>
<td></td>
</tr>
<tr>
<td>Electricity consumption</td>
<td></td>
</tr>
</tbody>
</table>

Source: “Overview of Key Terms for a Water Purchase Agreement with Poseidon Resources”; Special Board Meeting, August 9, 2012
Carlsbad Desalination Facility Project Update

- Construction is now 70% complete
- Anticipation for pipeline completion is Spring 2015
- It is anticipated that the plant will be operational and delivering water as early as Fall 2015
- The project is expected to contribute meaningfully to SDCWA’s water portfolio and help reduce reliance on imported water supplies

Source: “Overview of Key Terms for a Water Purchase Agreement with Poseidon Resources”; Special Board Meeting, August 9, 2012
San Antonio Water System ("SAWS")

- Environmental concerns over the Edwards Aquifer has compelled SAWS to explore options to diversify away from its primary water supply
- Beginning in 2002, SAWS began adding several smaller water sources to enhance its portfolio
- The System has recently taken a big step by entering into a contract to purchase up to 50KAF of water from the Vista Ridge Consortium
  - This amount represents 20% of SAWS annual demand
- Vista Ridge is a partnership between two commercial companies, Abengoa and Blue Water Systems
  - Abengoa is responsible for construction
  - Blue Water Systems has assembled 3,400 leases for water rights

Source: Fitch Ratings: Texas Water and Sewer 2015 Update; February 9, 2015
San Antonio Water System ("SAWS")

- Project will pump water from the Carrizo and Simsboro aquifers and then transport along a 142-mile pipeline to SAWS intake facility in Bexar.
- Project is being financed off of SAWS balance sheet:
  - Costs will be paid as O&M for first 30 years
  - SAWS is only required to pay for water made available through a water purchase agreement
- Project is expected to be online in 2020
- Upon completion of the contract term, pipeline and assets will be transferred to SAWS and cost of water will decline materially
- Overall, the cost of the water is expected to remain fixed and the supply diversity is a notable achievement for SAWS

Source: Fitch Ratings: Texas Water and Sewer 2015 Update; February 9, 2015
## Overview of Contract: Risks Transferred / Rights Retained of SAWS

- **Contract term**
  - 30 years from the date of commercial operation
  - Title transferred to SAWS at the end of contract term

### San Antonio Water System

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Source: Fitch Ratings: Texas Water and Sewer 2015 Update; February 9, 2015