EXHIBIT 2-B

CALIFORNIA
AMERICAN WATER

PROPOSAL EVALUATION REPORT

Request for Proposals
for
Design and Construction of Desalination Infrastructure
for the
Monterey Peninsula Water Supply Project

November 16, 2013

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1.0 EXECUTIVE SUMMARY

This report relates to the evaluation of Proposals received in response to the Request for Proposals for Design and Construction of Desalination Infrastructure for the Monterey Peninsula Water Supply Project, dated June 17, 2013, as amended (the "RFP") issued by California-American Water Company ("CAW") and the designation of the "Preferred Proposer" with whom to enter into negotiations. Proposals in response to the RFP were received on October 16, 2013 from four Proposers: Black & Veatch Construction, Inc. ("Black & Veatch"); CDM Constructors, Inc. ("CDM Smith"); CH2M Hill Engineers, Inc. ("CH2M Hill"); and MWH Constructors, Inc. ("MWH").

An evaluation of the four Proposals has been conducted by the Evaluation Team in accordance with the evaluation criteria set forth in the RFP. The criteria included in the RFP include (1) technical evaluation criteria (40% weighting) including project delivery, technical reliability and viability, operability, technical qualifications, and other (which was determined to be Proposer interviews) and (2) business and financial criteria (60% weighting) including cost effectiveness, business terms and conditions, and financial strength.

While all four Proposers are highly qualified and submitted very comprehensive Proposals, the Proposal submitted by CDM Smith was determined to be the most advantageous Proposal submitted. This determination was based upon several factors as described in more detail in this Evaluation Report; however, the primary factors favoring CDM Smith are its significant cost effectiveness, exceptional acceptance of the terms and conditions included in the draft design-build agreement (the "Draft DB Agreement"), and a strong overall technical Proposal.

CDM Smith's Proposal is 11% more cost effective than the next most cost effective Proposal. This advantageous pricing Proposal is due to (1) the cost effective capital cost submitted by CDM Smith (for both the 6.4 mgd and 9.6 mgd plants) and (2) the anticipated electricity costs based upon its advantageous electricity utilization guarantee. CDM Smith's pricing Proposal was determined to be most advantageous under the base case analysis as well as under several sensitivity analyses.

CDM Smith's acceptance of the terms and conditions included in the Draft DB Agreement is highly advantageous. It took very few exceptions generally and did not take any exceptions to the most material risk provisions set forth in the Draft DB Agreement. This is a distinguishing feature of its Proposal as compared to other Proposers and especially considering the time and other sensitivities associated with this project.

CDM Smith submitted a strong technical Proposal. It has a qualified team and has proposed that experienced personnel will be assigned to the Project. It has valuable local experience including working with regulatory agencies as it designed and permitted the local Sand City desalination facility. Overall, its design effectively accomplishes the requirements of the RFP without adding unnecessary features that would drive up cost.

It is the Evaluation Team's recommendation, therefore, that CDM Smith be designated the Preferred Proposer for the commencement of negotiations.

The table below is a summary of the final scores for both the technical criteria and the business and financial criteria and the total score for each Proposer.

Proposer	Technical Criteria (40 pts)	Business and Financial Criteria (60 pts)	Total
Black & Veatch	**35.8**	**50.2**	**86.0**
CDM Smith	**36.1**	**59.8**	**95.9**
CH2M Hill	**40.0**	**48.0**	**88.0**
MWH	**35.1**	**51.4**	**86.5**

2.0 INTRODUCTION

2.1 PROCUREMENT BACKGROUND AND OBJECTIVES OF REPORT

CAW has undertaken a procurement through a Request for Qualifications/Request for Proposals process for a contract to design, permit, construct, startup, and test certain desalination infrastructure. This evaluation report has been prepared for the Selection Committee by the Evaluation Team (as defined in Section 2.2.1 below) and sets forth the analysis and scoring by the Evaluation Team of the Proposals submitted in response to the RFP, based upon the evaluation criteria and weighting set forth in the RFP, as well as a recommendation for selection of the most advantageous Proposal.

2.1.1 REQUEST FOR QUALIFICATIONS

CAW issued a Request for Qualifications from Prospective Design-Build Entities (the "RFQ") on April 1, 2013, in order to shortlist firms to receive the RFP. Key staff for members of the oversight committee formed by CAW, the Monterey Peninsula Regional Water Authority, the Monterey Peninsula Water Management District, and the County of Monterey (the "Governance Committee") reviewed and commented on the RFQ before its issuance. Nine statements of qualifications ("SOQs") were received from respondents on May 1, 2013. In accordance with the RFQ, CAW evaluated the nine SOQs and shortlisted the following five firms as eligible to submit proposals in response to the RFP:

- Black & Veatch
- CDM Smith
- CH2M Hill
- Kiewit Infrastructure West Co. ("Kiewit")
- MWH

2.1.2 Request for Proposals

On June 17, 2013, CAW undertook the second phase of the procurement process by issuing the RFP to the five shortlisted respondents. The RFP was reviewed and commented on

by the Governance Committee before its issuance. A mandatory pre-Proposal conference was held on July 9, 2013, with the five shortlisted respondents. Pre-Proposal interviews with each shortlisted respondent were conducted on July 9 – July 11, 2013 to discuss technical issues and on July 15 – July 17, 2013 to discuss contractual issues. CAW issued Addendum 1 on July 24, 2013. The shortlisted respondents submitted written comments and questions on the RFP including the Draft DB Agreement on July 31, 2013.

CAW issued Addendum 2 on August 23, 2013 which included revisions to the RFP including the Draft DB Agreement and written responses to certain questions that were submitted. CAW offered the shortlisted firms an opportunity to individually attend a one-hour conference call with CAW for clarification following Addendum 2, with CH2M Hill, Kiewit, and MWH accepting.

CAW issued Addendum 3 on September 13, 2013, and Addendum 4 on September 27, 2013. CAW offered the shortlisted firms an opportunity to individually have a thirty-minute conference call with CAW for clarification following Addendum 4, with CH2M Hill accepting. Proposals were submitted on October 16, 2013, by Black & Veatch; CDM Smith; CH2M Hill; and MWH (collectively, the "Proposers"). Kiewit did not submit a Proposal. Clarification questions were distributed to each Proposer on November 1, 2013, and CAW conducted interviews with the Proposers on November 5 - November 6, 2013 and received written responses to clarification questions on November 8, 2013.

2.2 SUMMARY OF EVALUATION PROCESS

2.2.1 Procurement Team

A "Selection Committee" was established to (i) review and evaluate the SOQs; (ii) shortlist firms to receive the RFP; (iii) review and evaluate the Proposals; (iv) conduct interviews with each Proposer; (v) review the evaluation information provided by the Evaluation Team (as defined below); and (vi) identify the most advantageous Proposal using the criteria and weighting detailed in the RFP. The Selection Committee consists of the following CAW employees:

- Richard Svindland, Vice President, Engineering
- Gary Paquette, Business Performance Director
- Eric Sabolsice, General Manager, Coastal Division
- Anthony Cerasuolo, Vice President, Legal—Operations

The "Evaluation Team" was established to assist the Selection Committee by reviewing and evaluating responses to the RFQ; advising the Selection Committee regarding the shortlisting process; reviewing and clarifying the Proposals; evaluating the Proposals; and providing a recommendation to the Selection Committee as to the most advantageous Proposal. The Evaluation Team consists of the following internal and external advisors:

- Ian Crooks, California American Water
- Lori Girard, California American Water

- Roger Hulbert, California American Water
- Holley Joy, California American Water
- David Sousa, California American Water
- Steve Creel, American Water - Engineering
- Jack Gallagher, American Water - Engineering
- Celine Trussell, Trussell Technologies
- Rhodes Trussell, Trussell Technologies
- Rick Sapir, Hawkins Delafield & Wood

2.2.2 Evaluation Process

The Evaluation Team has individually reviewed the Proposals; identified and discussed advantageous and non-advantageous elements of each Proposal; identified areas where clarification was needed; conducted in-person interviews with each Proposer; and reviewed, discussed, and evaluated the clarified Proposals, based upon the criteria and weighting included in the RFP.

2.2.3 Scoring Methodology

In undertaking the evaluation of the Proposals, the Evaluation Team has both (i) complied with the weighted scoring set forth in the RFP and (ii) applied a sound and consistent methodology for the scoring of Proposals. The same scoring rationale was used by the Evaluation Team for each evaluation category. Proposals were evaluated for each category in a manner such that the highest possible points were assigned to the best Proposal in that category. Proposals were scored in each category not just based upon their ranking, but instead based upon the relative value of each Proposal as compared to the other Proposals for each category (e.g., the difference between the best and second best may be minimal (10 v. 9.5) while the difference between the second best and the third best may be substantial (9.5 v. 6)). The Evaluation Team has applied this rationale to the scoring of the quantifiable evaluation categories (i.e., cost effectiveness of Proposals) as well as the other not-so-readily quantifiable evaluation categories. Applying the same scoring methodology for each evaluation category ensures that the relative value of a point in each category is the same and that each category actually receives the weighting intended.

3.0 SUMMARY OF DESIGN-BUILD TEAMS AND PROPOSED PROJECT

This section provides a summary of each Proposer's team (including identification of any changes from the SOQ) and a summary of each proposed project. The RFP required Proposals for 9.6 million gallons daily ("mgd") and for 6.4 mgd.

In preparing the RFP, CAW developed design and construction requirements, including conditions for the quality of raw water and finished water, for the Proposers to use in developing a base Proposal. The RFP required each Proposer to prepare its Proposal consistent with those requirements and four required alternatives (UV disinfection, post-stabilization, five-year membrane warranty, and two-year RO feed pump warranty), and the RFP invited voluntary alternatives that would reduce life cycle cost or improve operations.

Each Proposer submitted a base Proposal consistent with the design and construction requirements in the RFP, which are summarized below:

- Raw water piping (from the property line)
- Granular media filtration system (filters, backwashing supply, spent backwash water clarification and recycle facilities)
- Filtered water storage and pumping system
- Reverse osmosis system
- Product water stabilization system
- UV disinfection system
- Finished water storage and disinfection
- Finished water pumping system and piping (piping to the property line)
- Salinas Valley desalinated water return pumping system and piping (piping to the property line)
- Concentrate equalization, aeration and disposal system (piping to the property line)
- Chemical storage and feed facilities
- Electrical facilities including power supply
- Standby power facilities
- Process control and instrumentation system
- Buildings, inclusive of all mechanical, electrical, and special systems:
- Administration facilities
- Reverse osmosis building
- Chemical building
- UV building
- Granular media filtration building
- Electrical buildings (as needed)
- Project Site improvements

The facility to be constructed will be designed to reliably deliver either 7,168 acre-feet per year with a rated design capacity of 6.4 mgd or 10,752 acre-feet per year with a rated design capacity of 9.6 mgd of desalinated water for potable use. The selected final design capacity depends on the future decision of implementation of the groundwater replenishment ("GWR") project.

Water from the Pacific Ocean will be delivered to the Project Site by pipeline from slant beach wells from the nearby coast. Treatment consists of oxidation with sodium hypochlorite, granular media filtration, dechlorination, pH adjustment with sulfuric acid, cartridge filtration, a first pass of seawater reverse osmosis, a partial second pass of brackish water reverse osmosis, disinfection with ultraviolet light, post-stabilization treatment with carbon dioxide and hydrated lime, pH adjustment with sodium hydroxide, addition of an orthophosphate corrosion inhibitor and post-chlorination with sodium hypochlorite.

Each Proposer prepared and submitted an acceptable base design and acceptable required alternatives in compliance with the requirements of the RFP. Each team also proposed multiple voluntary alternatives. These voluntary alternatives ranged from simple alternatives such as

replacing the on-site chlorine generator with purchased sodium hypochlorite periodically transported to the site by truck to more complex alternatives, including some sets of alternatives bundled together. Many of the voluntary alternatives received were evaluated but not accepted by CAW because they are either not cost-effective or are not technically advantageous. Many of the voluntary alternative proposals submitted had been considered by CAW during the development of the design and construction requirements and had been determined to be non-advantageous. The voluntary alternative proposals received from each Proposer are listed in Appendix A hereto. There are a limited number of voluntary alternative Proposals that were submitted by all four Proposers in a substantially similar form that the Evaluation Team believes CAW should consider further or that are not material to the evaluation of the Proposals. There are also a number of less material voluntary alternatives that may still be considered by CAW. Because the Evaluation Team believes that further information and analysis is required prior to determining whether to accept any such voluntary alternative proposals and because the cost and technical advantages associated with these alternatives are similar for each Proposer, the voluntary alternative Proposals were deemed not to materially affect the cost effectiveness or technical comparison among the Proposals. Upon selection of the Preferred Proposer, it is expected that the voluntary alternatives will be addressed in the final Design-Build Agreement.

Proposers were required to propose on four required alternatives (UV disinfection, post stabilization, five-year membrane warranty, and two-year RO feed pump warranty). The required alternative proposals received from each Proposer are listed in Appendix B hereto. The Evaluation Team believes that further information and analysis is required prior to determining whether to accept any required alternatives, but the required alternatives were deemed not to materially affect the cost effectiveness or technical comparison among the Proposals. Upon selection of the Preferred Proposer, it is expected that the required alternatives will be addressed in the final Design-Build Agreement.

3.1 BLACK & VEATCH CONSTRUCTION, INC.

3.1.1 Design-Build Team

Black & Veatch Construction, Inc., a Delaware corporation and a wholly-owned subsidiary of Black & Veatch Holding Company, is the Design-Builder with which CAW would enter into the DB Agreement. The Guarantor is Black & Veatch Holding Company. Black & Veatch Construction, Inc. would also serve as the general contractor for the Project and would perform the majority of Design-Build Work required for the Project. Black & Veatch's Proposal identified the following significant subcontractors and their roles:

Significant Subcontractors:
Doosan Hydro Technology LLC (ROEM)
Schneider Electric (Electrical Equipment)
TESCO Controls, Inc. (Systems Integration)

3.1.2 Proposed Base Project

Black & Veatch proposed a base project that met the design and construction requirements. Black & Veatch's pretreatment consists of eight duty and two redundant pressure

media filters. Filtered water then flows to two filtered water tanks, and is pumped to the RO system. The RO system begins with cartridge filters in a four duty and one standby configuration. The flow is then split among the RO trains, each of which consists of first pass high pressure pumps, first pass seawater RO membranes and pressure vessels, energy recovery devices and associated booster pumps, second pass feed pumps, and second pass brackish water RO membranes and pressure vessels. Six 1.6 mgd trains are proposed, with one additional train as standby. RO membranes proposed are Hydranautics' SWC5-LD and ESPAB-MAX, along with ERI's PX-Q300 or Flowserve's DWEER energy recovery devices, and horizontal multi-stage high pressure pumps from Torishima or an equivalent manufacturer. Stabilization of the RO system product water is proposed with a continuous, flow-paced hydrated lime plus lime saturator system. Carbon dioxide and caustic are the proposed options for finished water alkalinity and pH adjustment. A UV system is proposed for final disinfection. Overall, the proposed treatment system would result in 4-log reduction of *Cryptosporidium*, 5-log reduction of *Giardia*, and 6-log reduction of virus.

3.2 CDM CONSTRUCTORS, INC.

3.2.1 Design-Build Team

CDM Constructors, Inc., a Delaware corporation and a wholly-owned subsidiary of CDM Smith, Inc., is the Design-Builder with which CAW would enter into the DB Agreement. The Guarantor is CDM Smith, Inc. CDM Smith, Inc. would also serve as the design firm, and CDM Constructors, Inc. would serve as general contractor for the Project. CDM Smith's Proposal identified the following significant subcontractors and other team members and their roles:

Significant Subcontractors:
H2O Innovation USA, Inc. (ROEM)
EHDD (Architectural)

Other Team Members:
Whitson and Associates, Inc. (Survey/Civil)
Pacific Crest Engineering, Inc. (Geotechnical)
RosTek Associates, Inc. (Seawater Desalination Technical Advisor)
Infilco Degremont, Inc. (Seawater Process Design Advisor)
JDH Corrosion Consultants, Inc. (Corrosion)
Joni L. Janecki & Associates, Inc. (Landscape Architecture)
Oona Johnson Landscape Architecture (Landscape Architecture)
Wilson, Ihrig & Associates, Inc. (Acoustic/Vibration)
Denise Duffy & Associates, Inc. (Environmental/Permitting)
EOA, Inc. (Environmental/Permitting)

3.2.2 Proposed Base Project

CDM Smith proposed a base project that met the design and construction requirements. CDM Smith proposed eight duty and two redundant pressure media filters for pretreatment. Filtered water then flows to two filtered water tanks, and is pumped to the RO system. The RO system begins with seven cartridge filters, and the combined cartridge filter effluent is sent to

seven first pass RO trains, which are to be operated as six duty and one standby units. Each first pass seawater RO train consists of a high pressure pump, an energy recovery device and associated booster pump, and first pass seawater RO membranes and pressure vessels. A portion of the combined first pass permeate is then sent to the second pass RO trains, each of which consists of a brackish water RO feed pump and second pass brackish water RO membranes and pressure vessels. Four second pass RO trains are proposed, to be operated as three duty and one standby units. RO membranes proposed are Hydranautics' SWC5-LD, SWC6-LD, and ESPA2-LD, along with ERI's PX-Q300 energy recovery devices, and horizontal multistage high pressure centrifugal pumps. RO system product water stabilization is proposed via a hydrated lime system with lime saturators. Carbon dioxide and caustic may be added for finished water alkalinity and pH adjustment. A UV disinfection system is proposed for final disinfection, upstream of the product water stabilization. Overall, the proposed treatment system would result in 6-log reduction of *Cryptosporidium*, 7-log reduction of *Giardia*, and 6-log reduction of virus.

3.3 CH2M HILL ENGINEERS, INC.

3.3.1 Design-Build Team

CH2M Hill Engineers, Inc., a Delaware corporation and a wholly-owned subsidiary of CH2M Hill Companies, Ltd., is the Design-Builder with which CAW would enter into the DB Agreement. The Guarantor is CH2M Hill Companies, Ltd. CH2M Hill Engineers, Inc. would serve as the design firm. CH2M Hill's Proposal identified the following significant subcontractors and their roles:

Significant Subcontractors:
Biwater AEWT, Inc. (ROEM)
Granite Construction, Inc. (General Contractor/Construction)
Blocka Construction, Inc. (Electrical Contractor)

3.3.2 Proposed Base Project

CH2M Hill proposed a base project that met the design and construction requirements. CH2M Hill pretreatment consists of eight duty and two redundant pressure media filters. Filtered water is sent to two filtered water tanks, and then pumped to the RO system. The RO system begins with four cartridge filters, with the combined cartridge filter effluent feeding the first pass RO trains. Six duty and one redundant first pass seawater RO trains are proposed, each consisting of a high pressure pump, two energy recovery devices and one associated recirculation pump, and seawater RO membranes and pressure vessels. Two second pass brackish water RO trains are proposed, each consisting of a feed pump and brackish water RO membranes and pressure vessels. RO membranes proposed are Hydranautics' SWC5-LD and ESPA2 MAX, along with Flowserve's DWEER 1200 energy recovery devices, and Torishima's horizontal ring section centrifugal high pressure pumps. Stabilization of the RO system product water is proposed with a batch-based lime slurry system with lime saturators. Carbon dioxide and caustic are proposed for finished water alkalinity and pH adjustment. A UV system is proposed for final disinfection. Overall, the proposed treatment system would result in 4-log reduction of *Cryptosporidium*, 5-log reduction of *Giardia*, and 6-log reduction of virus.

3.4 MWH CONSTRUCTORS, INC.

3.4.1 Design-Build Team

MWH Constructors, Inc., a Delaware corporation and an indirect subsidiary of MWH Global, Inc., is the Design-Builder with which CAW would enter into the DB Agreement. The Guarantor is MWH Americas, Inc. MWH Americas, Inc. would also serve as the design firm, and MWH Constructors, Inc. would serve as the general contractor for the Project. MWH's Proposal identified the following significant subcontractors and other team members and their roles:

Significant Subcontractors:
Aquatech/MWH Treatment (ROEM)
C. Overaa & Co. (Building)
Don Chapin Company (Civil)
WRNS Studio (Architect)

Other Team Members:
Denise Duffy & Associates, Inc. (Environmental/Permitting)
AGS, Inc. (Geotechnical)
Westland Management Solutions, Inc. (Project Controls)
Katz & Associates (Public Relations)
Lee, Inc. (Surveying)

3.4.2 Proposed Base Project

MWH proposed a base project that met the design and construction requirements. MWH proposed pretreatment consists of twelve duty and two redundant pressure media filters. Filtered water is sent to two filtered water tanks, and then pumped to the RO system. The RO system beings with seven cartridge filters, operated as six duty and one standby units. Combined cartridge filter effluent then flows to six duty and one standby first pass RO trains. Each first pass RO train consists of a high pressure pump, energy recovery device and associated pump, and seawater RO membranes and pressure vessels. Three second pass brackish RO trains are proposed, each consisting of a feed pump and brackish water RO membranes and pressure vessels. RO membranes proposed are Toray's TM820R-400 and TM720-440 membranes, positive displacement type energy recovery devices, and horizontal multi-stage centrifugal high pressure pumps. Stabilization of the RO system product water is via the RDP Tekkem lime slurry system without a lime saturator. Carbon dioxide and caustic are proposed for finished water alkalinity and pH adjustment. A UV system is proposed for final disinfection. Overall, the proposed treatment system would result in 4-log reduction of *Cryptosporidium*, 5-log reduction of *Giardia*, and 6-log reduction of virus.

4.0 PROPOSAL EVALUATION AND SCORING

4.1 CONFORMANCE REVIEW

Proposals were first evaluated for conformance with the specific requirements set forth in Section 4 of the RFP. Responsive Proposals were to:

- Be received at the correct address at or before the specified date and time;
- Include a base Proposal that complied with the design and construction requirements set forth in Appendix 2 of the Draft DB Agreement;
- Include completed Proposal Forms and necessary attachments;
- Provide the requisite Proposal Bond; and
- Provide a markup of the Draft DB Agreement.

All Proposers provided responsive Proposals.

4.2 EVALUATION CRITERIA

A description of the evaluation criteria is included below as well as a breakdown of the overall weighting for each criterion and subcriterion.

CATEGORY	PERCENT WEIGHTING
TECHNICAL CRITERIA	**40%**
PROJECT DELIVERY	10%
TECHNICAL RELIABILITY AND VIABILITY	17%
OPERABILITY	10%
TECHNICAL QUALIFICATIONS	2%
OTHER	1%
BUSINESS AND FINANCIAL CRITERIA	**60%**
COST EFFECTIVENESS OF PROPOSALS	50%
BUSINESS TERMS AND CONDITIONS	8%
PROPOSER/GUARANTOR FINANCIAL QUALIFICATIONS	2%

The RFP included an "Other" section under Business and Financial Criteria, but the Evaluation Team has determined that there are no other criteria to be evaluated as part of the Business and Financial Criteria.

4.2.1 TECHNICAL CRITERIA (40%)

The technical criteria evaluated by the Evaluation Team consisted of project delivery, technical reliability and viability, operability, technical qualifications, and the quality of Proposer interviews. For each of the criterion below, a description of the factors considered and a

description of the significant benefits and drawbacks of each Proposal within that category is provided, as well as a comparison of Proposals for such criterion.

4.2.1.1 Project Delivery (10%)

The table below is a summary of the scores for the project delivery criterion for each Proposer.

Proposer	Project Delivery (10 pts)
Black & Veatch	**8.5**
CDM Smith	**9.0**
CH2M Hill	**10.0**
MWH	**8.0**

4.2.1.1.1 Description

This criterion includes the Proposer's approach to developing, managing, and scheduling the construction, commissioning, start-up, and Acceptance Test activities; the potential need for and timing of supplemental environmental review; the ability of the proposed design to meet all regulatory requirements of all applicable Governmental Bodies; the proposed methods for coordination with applicable utilities; the Proposer's approach to project planning, purchasing, coordination of subcontractors, sequencing, and managing the construction activities to meet the schedule; the expertise and management capability to integrate the required expertise of the Proposer's team members for the overall benefit of the Project; the Proposer's understanding and inclusion in the schedule of the requirements necessary to test equipment, commission the Project and conduct the Acceptance Test; the Proposer's WMDVBE Utilization Plan and its Local Resources Utilization Plan; the Proposer's approach to avoiding adverse environmental impacts, protecting natural resources, and mitigating environmental impacts; current and projected workloads of the Proposer; the proposed Design-Build Quality Management Plan; and the Proposer's schedule and strategy for identifying and obtaining all required Governmental Approvals, preparing applications for such Governmental Approvals, and timely obtaining all Governmental Approvals. In consideration of the WMDVBE Utilization Plans and the Local Resource Utilization Plans, the Proposer's demonstrated abilities and experience in the following six areas was considered: (1) management commitment and engagement, (2) outreach and community partnership, (3) mentoring and development, (4) sourcing and procurement, (5) technical assistance and capacity building, and (6) reporting and metrics.

4.2.1.1.2 Black & Veatch

Black & Veatch provided good information on how it would be a considerate contractor, with examples of previous award-winning community outreach efforts. Black & Veatch's proposed schedule was closely aligned to CAW's revised schedule. The majority of Black & Veatch's project delivery information was considered good or adequate.

With respect to its WMDVBE Utilization Plan, management commitment appears to be in place by members of the team that presented; however, a designated "supplier diversity" contact accountable to ensure success of goals established was not introduced. Black & Veatch indicated its intention to use good faith efforts to meet the local work force of 50% of the labor force as measured by man hours but did not provide any specific plan.

4.2.1.1.3 CDM Smith

CDM Smith addressed the permitting challenges and referenced a philosophy of "meeting early and often" with permitting agencies and CAW. Because of prior project experience, CDM Smith recognized the importance of coordination among the desalination project components (slant wells, intake, pipeline, etc). CDM Smith's project team includes two permitting consultants with Denise Duffy & Associates assisting in securing local permits and San Francisco-based EOA will assist with the CDPH and NPDE permits.

CDM Smith identified an additional permit for the project. Included in its fixed design-build price are efforts to secure a RWQCB Waste Discharge Permit for storage of waste brine, prior to disposal. CDM Smith's commissioning plan was determined to be one of the best among the Proposers.

CDM Smith satisfactorily meets the core competencies needed to achieve the established WMDVBE goals for the Project. Clear recognition of CAW's history in meeting or surpassing established CPUC supplier diversity goals and the desire to ensure continued success were demonstrated. Management commitment and engagement was seen through its experiences in surpassing WMDVBE goals on previous projects. CDM Smith's team includes local team members serving in important roles as well as local union labor forces. CDM Smith indicates it will meet the local labor force goal of 50%.

4.2.1.1.4 CH2M Hill

CH2M Hill took a proactive approach to permit acquisition, meeting with several of the permitting agencies. CH2M Hill provided a very detailed laydown and staging area plan, with a site map identifying the various locations and uses for each area. CH2M Hill proposed early planning and schedule integration with the other components of the project (wells, pipeline, etc). The sequence of construction activities was detailed and easy to understand. The sequence was laid out in a chronological format, with an associated highlighted site plan. The work flow and sequence of construction activities were consequently clear and easy to understand. CH2M Hill proposed a communications plan for CAW and for the governmental agencies involved in permit acquisition.

CH2M Hill satisfactorily meets the core competencies needed to achieve the established WMDVBE goals for the Project. CH2M Hill has met or exceeded the core competencies above those recognized as measures for success in achieving WMDVBE goals. Management commitment and engagement was evident as the overall project manager was able to effectively articulate knowledge of the CPUC Supplier Diversity Program. CH2M Hill has established a strategic partnership with a CPUC-certified WMDVBE, Blocka Construction Inc. that will represent over half of the WMDVBE spending goal. Because of its relationship with Blocka,.

CH2M Hill presented the most complete local labor utilization approach and indicated it would meet the 50% goal.

4.2.1.1.5 MWH

MWH proposed to use Denise Duffy & Associates to coordinate efforts to secure local permit approvals. MWH provided general information on permitting, but not at the level of detail that was provided by the other Proposers. MWH had a generic commissioning section that did not provide the level of detail that the other Proposers did.

MWH did not fully present or demonstrate its ability to meet core competencies in meeting WMDVBE goals established for the Project. MWH did not provide a clear and formulated plan to actively seek, include, and potentially award subcontracts to WMDVBEs. MWH stated at its interview that its approach to achieving WMDVBE goals would only be finalized and customized upon receipt of contract award. MWH has included local sub contractor and has provided a local labor force approach but did not commit to achieving the 50% goal.

4.2.1.1.6 Comparison of Proposals Regarding Project Delivery

All teams provided Project Delivery criteria in accordance with the RFP. CH2M Hill scored the highest in this category with CDM Smith as a close second. The CH2M Hill and CDM Smith teams demonstrated in their Proposals that they understood the schedule, the permitting requirements, the project scope, the anticipated environmental mitigation risk areas, and CAW's project deadlines. CH2M Hill submitted a detailed startup and commissioning plan, which outlined its approach to test and commission the desalination plant. CH2M Hill's graphical commissioning flow chart, featuring highlighted areas of its site plan that corresponded to activities on a startup timeline, stood out amongst the Proposals. The remaining Proposals were satisfactory and met the requirements of the RFP but did not include the amount of information or level of detail that CH2M Hill or CDM Smith.

All of the Proposers have sufficient resources to successfully complete this project. CDM Smith intends to self-perform the electrical and instrumentation work, whereas CH2M Hill has teamed with a civil contractor Granite Construction and an electrical/HVAC MWDVBE subcontractor Blocka Construction. Black & Veatch intends to self perform mechanical equipment installation and mechanical piping installation and MWH intends to self-perform electrical and mechanical. All Proposers emphasized the importance of safety and demonstrated proposed project specific Safety Plans which would promote and ensure a safe work environment during the execution of the work.

All of the Proposers have developed aggressive but achievable schedules which leverage the advantages of the design-build process. CH2M Hill and MWH provided a detailed approach and work plan regarding the sequencing and staging of the work.

Both CH2M Hill and CDM Smith articulated the importance of engaging local resources for their teams. Both teams have begun outreach programs and clearly demonstrated a program to engage local resources in order to maximize local business and local qualified subcontractors.

CH2M Hill and CDM Smith received the highest scores for their WMDVBE Utilization Plans. CH2M Hill met the core competencies needed to achieve the established WMDVBE goals for the Project and potentially will significantly surpass the WMDVBE spending goal. CDM Smith received a slightly lower score than CH2M Hill for its WMDVBE Utilization Plan because has not made as much progress as CH2M Hill towards significantly surpassing the WMDVBE spending goal.

Black & Veatch and MWH received the lowest evaluations for their WMDVBE Utilization Plans. For both Black & Veatch and MWH, given the size and scope of the Project and the priority placed on WMDVBE utilization by CAW, a more definitive approach to goal attainment would have been desirable as part of their Proposals.

4.2.1.2 Technical Reliability and Viability (17%)

The table below is a summary of the scores for the technical reliability and viability criterion for each Proposer.

Proposer	Technical Reliability and Viability (17 pts)
Black & Veatch	**15.3**
CDM Smith	**15.3**
CH2M Hill	**17.0**
MWH	**14.5**

4.2.1.2.1 Description

This criterion includes the reliability and flexibility of the proposed facilities to treat variability in raw water; the ability of the proposed facilities to consistently deliver 9.6 mgd; the ability of the proposed processes including the reverse osmosis and post-stabilization processes to reliably meet the requirements of the Draft DB Agreement over the life of the project; sufficiency of scope of geotechnical investigation; structural and architectural design; flexibility of the proposed design to allow for scaling down to a rated capacity of 6.4 mgd; flexibility of the proposed design to allow for future modifications or additions to meet future regulatory requirements; architectural appearance, aesthetics, and environmental sustainability; the quality of the equipment and materials proposed to be used, including consideration of the corrosive local coastal marine atmosphere; and the clarity and completeness of the Proposal.

4.2.1.2.2 Black & Veatch

Pretreatment

Black & Veatch proposed pressure filters that are compliant with the RFP. Black & Veatch proposed a NSF 61 listed pressure vessel lining system. It also proposed air wash to supplement water backwash. The end of the filter vessels with valves, actuators, and instrumentation is enclosed within a building. Black & Veatch provided the ability to add coagulant to remove colloidal material that may be present.

Cartridge Filters

Black & Veatch proposed five cartridge filter vessels prior to the seven-train RO system. The design maximum loading rate with one filter out of service is 3.7 gpm/10-inch length. The cartridge filters will be housed on a pad outside of the RO building. The vessels will be constructed of the required grade stainless steel, and the filter material will be constructed of the required grade polypropylene.

High pressure pump/VFDs

Seven RO first pass high-pressure pumps—one dedicated pump for each first pass RO train—are proposed, including horizontal, multistage, ring section type, centrifugal pumps with variable frequency drive, and a design efficiency of 82.7%.

RO System

Black & Veatch provided a split partial two-pass RO system with Hydranautics' SWC5 LD membranes in the first pass and ESPA B Max membranes in the second pass along with ERI's PX-Q300 or Flowserve's DWEER energy recovery devices, and horizontal multi-stage high pressure pumps from Torishima or an equivalent manufacturer. Black & Veatch proposed six first pass RO trains, with one additional train as standby. Each first pass train has 76 pressure vessels and is proposed to operate at an 8 gfd applied flux. Black & Veatch proposed six second pass RO trains, with one additional train as standby. Each second pass train has 13 pressure vessels and is proposed to operate at a 16.2 gfd applied flux. The Clean-In-Place (CIP) system consists of two 8,000-gallon CIP tanks and two CIP pumps as well as a neutralization tank.

UV System

Black & Veatch selected LPHO UV reactors (one duty and one spare) that offer low energy consumption. The units have been validated according to USEPA guidelines by a third party. Uninterruptible Power Supply ("UPS") was provided as requested in the RFP.

CDPH Permitting/Disinfection

Disinfection requirements for Cryptosporidium/Giardia/Virus removal or inactivation are 2-log/2-log/2-log through the RO system, 2-log/2-log/0 with UV disinfection, and 0/1-log/4-log through final disinfection. The proposed treatment facility achieves the required pathogen

treatment. The proposed UV disinfection system includes two UV reactors containing low-pressure, high-output lamps. For finished water storage and disinfection, the proposal states that the tanks are designed is accordance with the capacity, baffling, and disinfection requirements specified in the RFP. The storage tanks will be above ground and constructed of steel.

Post-treatment

The post-treatment stabilization system that Black & Veatch has proposed is a high density lime system using hydrated lime. This system is produces a concentrated lime slurry similar to "liquid lime." The system includes one 14-foot diameter, 35-foot tall hydrated lime storage silo; one 500-gallon lime slurry batch tank; and two lime slurry metering pumps. No lime saturators are required for this system.

Black & Veatch also included design criteria for a continuous, flow-paced hydrated lime plus lime saturator system. This system includes one 14-foot diameter hydrated lime silo with a 25 ton storage capacity; two 24-foot diameter lime saturators; one 14,000-gal lime slurry bulk storage tank; and one 500-gal lime slurry batch tank.

The second option for post-treatment stabilization is the calcite contactor system. Black & Veatch's proposed calcite system uses 11 vertical calcite pressure filters, each with a surface area of 113 sf and a maximum loading rate of 3.0 gpm/sf. The empty bed contact time for this system was not provided. This alternative eliminates the hydrated lime silo system from the chemical storage facility.

For all of these systems, carbon dioxide and caustic can be added to adjust the finished water alkalinity and pH.

Large Process Tanks – Filtered (Seawater) Tanks and Finished Water (Clearwells)

Black & Veatch proposed welded steel construction for the two finished water storage (750,000 gallons each). The scope of the internal baffling system was not identified. Two AWWA D103 bolted steel tanks were proposed for the filtered water tanks per the RFP.

Water Quality

Black & Veatch demonstrated that its Proposal is capable of meeting or exceeding the water quality performance requirements.

Yard Piping

Yard piping selection of materials is compliant with the RFP, using HDPE or DIP for underground piping. Piping for raw water supply is appropriately sized with an ultimate velocity of 9 fps and is rated for 110 psi. Flexible piping connections at large storage tanks were not provided.

Process Piping and Valves

Black & Veatch identified super duplex stainless steel for high pressure piping per the RFP but did not identify the PREN associated values. Black & Veatch included Bray butterfly valves in its base proposal, although Bray valves were not in the preferred manufacturer list. A voluntary alternative at additional cost was identified to provide Dezurik butterfly valves.

Electrical System

Electrical service is to be procured from PG&E at 21 kV with a single line. The electrical design includes two 7.5 MVA transformers stepping down to 4160 volts to supply the high pressure pump VFDs and two 480 volt transformers. Power is routed around the site at 480 volts. Space is provided for future connection to the 4160 volt buss for future landfill power supply. All 480 volt VFDs will be mounted in the MCC. Only the medium voltage VFDs for the high pressure pumps will be mounted separately from the MCCs. Conduit selection for various conditions is compliant with the RFP. Underground ductbanks supplying process power are concrete encased. Power for exterior lighting around the site is direct bury without concrete encasement.

A 1000 KW standby diesel fueled genset, including self contained double wall fuel storage tank is provided to operate the loads identified in the RFP including flush pumps, lights, controls, security, and one finished water pump. The generator capacity is sufficient to meet the RFP requirements. Black & Veatch proposed all lighting to be highly energy efficient LED type.

Instrumentation and Control

A comprehensive instrumentation and control system is proposed by Black & Veatch. Each process is controlled independently by a dedicated programmable logic controllers ("PLC") system which communicates with the plant's DCS for overall process coordination. Each RO Train will have a remote I/O block which communicates with the RO PLC system using Ethernet protocol. Redundancy is provided for the CPU, CPU power supply, and communication. Remote I/O are standalone with Ethernet redundant communication. Ethernet TCP/IP communication is also provided for SCADA/ DCS communication. Black & Veatch proposed Allen Bradley PLCs that are consistent with the RFP.

Engineering Effort

Black & Veatch proposed 496 design drawings. Its design cost (excluding permitting, etc.) is $7,689 per drawing. Black & Veatch's engineering effort during construction is $1.2 million which intended to cover review of vendor submittals and resolution of technical issues that arise during the construction phase. The drawings submitted with its Proposal were clear and detailed. The technical information provided was clear, although there was some confusion in the text with the plant electrical service voltage. Black & Veatch proposed to expand upon the geotechnical work already performed at the site with seven additional soil borings. The borings would be located at critical locations for structures.

4.2.1.2.3 CDM Smith

Pretreatment

CDM Smith proposed 10 pressure filters for iron and manganese removal. Controls and valves are consistent with the RFP. The end of the filter vessels with valves, actuators, and instrumentation is enclosed within a building. Extensive piping and fittings were located below the floor slab, and some piping was located below the pressure vessels potentially increasing future maintenance efforts.

Cartridge Filters

CDM Smith included seven cartridge filter vessels prior to the seven train RO system in its Proposal. The design maximum loading rate with one filter out of service is 4 gpm/10-inch length. The cartridge filters will be housed on a pad outside the RO building. The vessels will be constructed of the required grade stainless steel, and the filter material will be constructed of the required grade polypropylene.

High Pressure Pump/VFDs

CDM Smith proposed seven RO first pass high-pressure pumps—one dedicated pump for each first pass RO train. Horizontal, multistage, ring section type centrifugal pumps with variable frequency drive and a minimum efficiency of 80% are proposed. As specified in the RFP, the pumps will be constructed of super duplex stainless steel.

RO System

CDM Smith provided a hybrid split partial two-pass RO system with Hydranautics' SWC5 LD and SWC6 LD membranes in the first pass and ESPA 2 LD membranes in the second pass. The RO system design uses Flowserve's horizontal, multistage, centrifugal pressure pumps and ERI's PX Q3000 energy recovery devices. CDM Smith proposed six first pass RO trains, with one additional train as standby. Each first pass train has 76 pressure vessels and is proposed to operate at a 7.9 gfd nominal flux. CDM Smith proposed three second pass RO trains, with one additional train as standby. Each second pass train has 26 pressure vessels and is proposed to not exceed a flux of 18 gfd. The CIP system consists of one 15,600-gallon CIP tank, two CIP pumps and one 15,600-gallon neutralization tank.

UV System

CDM Smith selected a medium pressure UV system. Detailed life cycle cost comparison was not submitted. The UV units were shown inside the RO building. UPS was provided for the UV system per the RFP.

CDPH Permitting/Disinfection

Disinfection requirements for Cryptosporidium/Giardia/Virus removal or inactivation are 2-log/2-log/2-log through the RO system, 2-log/2-log/0 with UV disinfection, and 0/1-log/4-log

through final disinfection. The Proposal includes an additional 2-log inactivation of Cryptosporidium and Giardia above what is required. For a small additional UV dose (5.8 mJ/cm^2 for 2-log inactivation versus 22 mJ/cm^2 for 4-log inactivation), the proposed disinfection scenario provides a large enough safety factor to accommodate the source water being classified as Bin 4—the worst case. CDM Smith proposed three UV reactors containing medium-pressure, high-output lamps.

The finished water storage tanks are designed in accordance with the capacity, baffling, and 1-log Giardia inactivation requirements specified in the RFP. The storage tanks will be above ground and constructed of steel.

Post-treatment

The post-treatment stabilization system that CDM Smith has proposed is the hydrated lime system. This design uses two 15.5-foot diameter, upflow, lime saturators. The lime water will be stored in two equalization tanks, each with a capacity of 17,200 gallons. Two duty centrifugal lime water feed pumps will be used to add saturated lime water to the desalinated water. For lime storage, one silo with a 47-ton capacity will be required, providing an estimated 31 days of lime storage.

The second option for post-treatment stabilization is the calcite contactor system. CDM Smith's proposed calcite system uses 18 (17 duty + 1 standby) contactors, each with a 12-foot diameter and bed depth of 11.5 feet. The empty bed contact time with one contactor out of service is 20.4 minutes. Additional clarification is needed from CDM Smith during design to address maldistribution among the 18 calcite contactors and seismic condition.

For all of these systems, carbon dioxide and caustic can be added after lime addition to adjust the finished water alkalinity and pH.

Large Process Tanks – Filtered (Seawater) Tanks and Finished Water (Clearwells)

CDM Smith proposed welded steel construction for the two finished water storage tanks (750,000 gallons each). The proposal drawings did not indicate all of the desired features such as drains. Two AWWA D103 bolted steel tanks were proposed for the filtered water tanks per the RFP.

Water Quality

CDM Smith demonstrated that its Proposal is capable of meeting the water quality performance requirements.

Yard Piping

Yard piping selection of materials is generally compliant with the RFP, using HDPE or DIP for underground piping. Pipe sizing and pressure rating need to be reviewed and confirmed. For example, the raw water piping has an 80 psi rating (DR 26). CDM Smith provided a pipe schedule in response to questions showing some pipe velocities at 9.7 fps at ultimate plant

capacity, slightly higher than the 9 fps guideline in the RFP. Flexible piping connections at large storage tanks that would counteract differential settlement and seismic activity were not called out.

Process Piping and Valves

For high pressure piping (downstream of the RO high pressure pumps), CDM Smith proposed schedule 40 super duplex stainless steel which is compliant with the RFP. Second pass pump discharge piping is schedule 10 316L SS. For CIP supply and return, Schedule 80 PVC (16 inch and 10 inch) is proposed.

Electrical System

Electrical service will be procured from PG&E at 21 kV with a single supply. The electrical design includes two 5 MVA transformers stepping down to 4160 volts to supply the high pressure pump VFDs and two 480 volt transformers. Power is routed underground around the site at 4160 volts. Space is provided for future connection to the 4160 volt buss for future landfill gas power supply.

Conduit selection generally concurs with the RFP criteria. A 750 KW standby genset is proposed. CDM Smith has confirmed it is sufficiently sized to start the required loads without exceeding a 20% voltage dip.

All VFDs will be 6 pulse type, and installed in MCC enclosures, except for the medium voltage units for the RO high pressure pumps. CDM Smith is partnering with Schneider and will provide Square D electrical gear. "Smart MCC's" are proposed which reduce construction time by using a PLC for control. The extent of elimination of local controls and integration of process safety interlocks needs to be identified.

Initial drawings submitted with the Proposal showed some electrical duct banks without concrete encasement, but subsequently CDM Smith has clarified that all duct banks with concrete encased.

Instrumentation and Control

A comprehensive instrumentation and control system is proposed. Each process is controlled independently by a dedicated PLC system which communicates with the Plant DCS for overall process coordination. CDM Smith proposed Allen Bradley PLCs that are consistent with the RFP.

Engineering Effort

CDM Smith proposed a total of 450 design drawings. Its design cost (excluding permitting, etc) is $13,340 per drawing which is the highest of the four teams. The identified cost of engineering during construction was $2,605,975 which is the second highest of the four Proposers but is reasonable for a project of this complexity. CDM Smith has a number of local subconsultants on its team, including an architect, two landscape architect firms, a corrosion

control firm, and an acoustic specialty firm. The local expertise will be helpful in permitting. Smith proposed ten additional soil borings to better understand geotechnical conditions at the site.

4.2.1.2.4 CH2M Hill

Cartridge Filters

CH2M Hill proposed four cartridge filter vessels prior to the seven train RO system. The cartridge filters will be designed to meet the design and construction requirements. The cartridge filters will be housed inside the RO building. The vessels will be constructed of the required grade stainless steel.

High Pressure Pump/VFDs

CH2M Hill's proposed seven RO first pass high-pressure pumps—one dedicated pump for each first pass RO train. Horizontal, centrifugal ring section pumps with an adjustable speed drive and a design efficiency greater than 82% are proposed. As specified in the RFP, the pump internals will be constructed of super duplex stainless steel.

RO System

CH2M Hill provided a floating split partial two-pass RO system with Hydranautics' SWC5 LD membranes in the first pass and ESPA B Max membranes in the second pass. The RO system design uses Torishima's Horizontal Ring Section Centrifugal high-pressure pumps and Flowserve's DWEER 1200 energy recovery devices. CH2M Hill's design offers bidirectional RO cleaning and a floating second pass with the ability to optimize energy use based on raw water and temperature conditions.

Unlike the other Proposals, CH2M Hill committed to using Torishima high pressure pumps, Hydranautics membranes, and DWEER energy recovery devices, having already negotiated agreements and warranties with each of the manufacturers.

CH2M Hill proposed six first-pass RO trains, with one additional train as standby. Each first pass train has 71 pressure vessels and is proposed to not exceed a flux of 8.7 gfd and float between 6.9 and 8.4 gfd. CH2M Hill proposed two duty second pass RO trains. Each second pass train has 39 pressure vessels and is proposed to not exceed a flux of 18 gfd and float between 5 and 16.5 gfd. The CIP system consists of one 10,000-gallon CIP tank, one CIP pump and one 32,000-gallon neutralization tank.

CDPH Permitting/Disinfection

Disinfection requirements for Cryptosporidium/Giardia/Virus removal or inactivation are 2-log/2-log/2-log through the RO system, 2-log/2-log/0 with UV disinfection, and 0/1-log/4-log through final disinfection. The proposed treatment system provides this required level of pathogen treatment.

The proposed UV system includes two UV reactors containing low-pressure, high-output lamps. The capacity of the UV system is larger than required, and is sized to treat 22.4 mgd with all reactors in service and 11.2 mgd with one reactor out of service.

The finished water storage tanks are designed in accordance with the capacity, baffling, and 1-log Giardia inactivation requirements specified in the RFP. The storage tanks will be above ground and constructed of steel.

Post-treatment

The post-treatment stabilization system that CH2M Hill has proposed includes a batch-type hydrated lime slurry system, using the RDP Tekkem system. The proposed system includes one hydrated lime silo with a 100-ton capacity, providing 30 days of chemical storage; two 9-foot diameter lime saturators (1 duty + 1 standby); and one lime aging tank.

The second option for post-treatment stabilization (required alternative) is the calcite contactor system. CH2M Hill proposed calcite system uses six 40-foot long horizontal contactors, each with a 12-foot diameter and bed depth of 8 feet. The minimum empty bed contact time with one contactor out of service is 20 minutes. The contactor is an up-flow pressurized vessel. This alternative eliminates the hydrated lime silo system from the chemical storage facility. CH2M Hill's calcite contactor alternative was designed with seismic conditions in mind.

For both of these systems, carbon dioxide and caustic can be added after lime addition to adjust the finished water alkalinity and pH.

Water Quality

CH2M Hill demonstrated that its Proposal is capable of meeting the water quality performance requirements.

Yard Piping

CH2M Hill's yard piping selection of materials is compliant with the RFP, using HDPE or DIP for underground piping. Piping for raw water supply, concentrate discharge, and finished water are all appropriately sized with a sufficient pressure rating. Piping will be installed with provisions for differential settlement at structures. Double flexible joints will typically be used outside of structures where restrained piping penetrates walls below grade, floor slabs, or foundations. Pipes connected to above grade reservoirs will have flexible connectors where joining the tank nozzles to address seismic performance requirements.

Process Piping and Valves

First pass RO isolation valves in 1200 psi service will be high performance butterfly valves with body disc, and shaft of materials meeting minimum PREN>38. Check valves will be double disc or double door swing check design with PREN > 38 for wetted materials. The RO

concentrate control valve will be a V-port ball with wetted materials meeting a minimum PREN>38. The RO permeate flow control valves will be 316 SSL V-port ball valves.

Second pass RO valves in 300 psi service will be high performance butterfly valves with body, disc and shaft constructed of 316 SSL. Check valves will be 300 psi 316 SSL double disc swing check design. The RO concentrate control valve will be a 316 SSL V-port ball valve design.

Electrical System

Electrical service is to be procured from PG&E at 21 kV. The electrical design distributes power at 21 kV with two transformers stepping down to 4160 volts to supply the high pressure RO pumps. The design includes six more transformers (three per end) to reliably supply 480 volts. SEL devices are shown on each power supply line that will allow power to be metered within the plant.

The design allows for a second PG&E feed, and for future connection to landfill power supply. A step-up transformer would be required for a 4,160 volt supply from the landfill. All VFDs 100 hp or larger will be 18 pulse type generating no electrical system harmonics, and will be mounted separately from motor control centers. Conduit selection for various conditions is compliant with the RFP.

A 600 KW standby diesel fueled genset, including self contained double wall fuel storage tank is provided to operate the loads identified in the RFP including flush pumps, lights, controls, security, and one finished water pump. A step-up transformer is provided to allow the genset to power the 21 kV bus.

Engineering Effort

CH2M Hill proposed 580 drawings. Its design cost (excluding permitting, etc) is $9,555 per drawing, and its engineering effort during construction is substantial ($3,581,088). CH2M Hill's Proposal included drawings and text that were clear and detailed.

4.2.1.2.5 MWH

Pretreatment

MWH proposed 14 pressure filters for iron and manganese removal. The filters are 8 feet diameter and 44 feet long. Controls and valves are consistent with the RFP. The end of the filters with valves, actuators, and instrumentation is enclosed within a building. A flat plate with nozzle underdrain is proposed instead of the concrete encased PVC header in the RFP. The flat plate is easier to construct but will be difficult to protect from corrosion in a seawater application.

Cartridge Filters

MWH's Proposal includes seven cartridge filter vessels prior to the seven train RO system. The design maximum loading rate with one filter out of service is 4 gpm/10-inch length. The cartridge filters will be housed on a pad outside the RO building. The vessels will be constructed of the required grade stainless steel, and the filter material will be constructed of the required grade polypropylene.

High Pressure Pump/VFDs

MWH proposed seven (six duty plus one standby) RO first pass high-pressure pumps—one dedicated pump for each first pass RO train. Horizontal, multistage, split case centrifugal pumps with variable frequency drive and a design efficiency of 81% are proposed. As specified in the RFP, the pumps will be constructed of super duplex stainless steel.

RO System

MWH provided a split partial RO system with Toray's TM 820 R-400-34 membranes in the first pass and TM 720-440 membranes in the second pass. The RO system design is based on horizontal multistage high pressure pumps and Flowserve's DWEER or ERI's PX energy recovery devices.

MWH proposed six first pass RO trains, with one additional train as standby. Each first pass train has 69 pressure vessels and is proposed to operate at an average flux of 8.6 gfd. MWH proposed three duty second pass RO trains. Each second pass train has 28 pressure vessels and is proposed to operate at an average flux of 14 gfd. The CIP system consists of one 12,000-gallon CIP tank, one CIP pump and one 17,000-gallon neutralization tank.

UV System

MWH performed a life cycle cost analysis and selected LPHO UV reactors (one duty and one spare) that offer low energy consumption. The units have been validated according to USEPA guidelines by a third party. A UPS was provided as requested in the RFP. MWH provided a thorough life cycle cost analysis.

CDPH Permitting/Disinfection

Disinfection requirements for the Base Case for Cryptosporidium/Giardia/Virus removal and/or inactivation are 2-log/2-log/2-log through the RO system, 2-log/2-log/0 with UV disinfection, and 0/1-log/4-log through final disinfection. The proposed treatment system provides this required level of pathogen treatment.

The proposal refers to CAW assessing the source water from the pilot slant well to determine if the source water is a groundwater "under the direct influence of surface water." The source water for this treatment facility is a surface water—the Pacific Ocean—and CAW has already embarked on permitting this source water as outlined in Appendix 2 of the RFP.

The proposed UV system includes two UV reactors containing low-pressure, high-output lamps. The finished water storage tanks are designed in accordance with the capacity, baffling, and 1-log Giardia inactivation requirements specified in the RFP. The storage tanks will be above ground and constructed of wire wrapped reinforced concrete.

Post-treatment

MWH proposed the RDP Tekkem lime slurry system for its base Proposal without a saturator. MWH believes that the RDP Tekkem will meet the plant performance requirement (specifically, the 0.5 NTU maximum turbidity in the product water) without a saturator. The proposed system includes one 14-foot diameter lime silo with a 90-ton capacity; two 200-gallon lime slurry prep tanks; and one 400-gal slurry aging tank. Carbon dioxide and caustic can be added after lime addition to adjust the finished water alkalinity and pH.

The second option for post treatment stabilization is the calcite contactor system. MWH did not provide design criteria for this system.

Large Process Tanks – Filtered (Seawater) Tanks and Finished Water (Clearwells)

MWH proposed concrete construction for the two finished water storage tanks (750,000 gallons each). MWH has proposed internal baffling to achieve a baffling factor of 0.5, and plans to use computer modeling to assure the design criteria are met. Two AWWA D103 bolted steel tanks were proposed for the filtered water tanks per the RFP.

Water Quality

MWH demonstrated that its Proposal is capable of meeting or exceeding the water quality performance requirements. MWH's Proposal provided many back up calculations and assumptions to demonstrate its ability to meet the RFP requirements and in particular the water quality and energy requirements.

Yard Piping

Yard piping selection of materials is compliant with the RFP, using HDPE or DIP for underground piping. MWH pipe sizing was somewhat more generous than the other team's proposals. For example, it proposed 48-inch HDPE raw water piping with a 125 psi pressure rating producing a 5.3 fps velocity at ultimate plant flow. MWH drawings showed flexible piping connections at large storage tanks that would counteract differential settlement and seismic activity.

Process Piping and Valves

For high pressure piping (downstream of the RO high pressure pumps) MWH is proposing duplex stainless steel. Duplex stainless steel is more prone to pitting than super duplex which was requested in the RFP.

Electrical System

Electrical service is to be procured from PG&E at 21 kV with a single service. The electrical design includes two 7.5 MVA transformers stepping down to 4160 volts to supply the high pressure pump VFDs and two 480 volt transformers. Power is routed underground around the site at 4160 volts. Space is provided for future connection to the 4160 volt buss for future solar power supply but not landfill gas power supply although a spare 4160 volt connection is shown.

A 1500 KW standby genset, which is more than sufficient capacity, is shown on the electrical single line diagram. VFDs sized 100 hp and larger will be 18 pulse to minimize generation of harmful harmonics in the power supply. Units 100 hp and larger will be free standing while smaller units will be installed in an MCC. Free standing mounting of VFDs is beneficial for troubleshooting and future replacement.

Instrumentation and Control

A comprehensive instrumentation and control system is proposed. Each process will be controlled independently by a dedicated PLC system which communicates with the Plant DCS for overall process coordination. MWH proposed Allen Bradley programmable logic controllers that are consistent with the RFP. Monitoring of water quality entering the finished water storage tanks is not provided, and thus "off-spec" water will be first identified at the entry to the distribution system which is a disadvantage to the MWH design.

Engineering Effort

MWH proposed a total of 369 design drawings, which was the lowest number of the four Proposals. Its design cost (excluding permitting, etc) is $4,973 per drawing. The identified cost of engineering during construction was $964,115. The process related drawings submitted with proposal were clear and detailed. Minimal information was provided for structures other than the administration building. MWH did not plan any additional geotechnical investigation beyond the work presented in the RFP.

4.2.1.2.6 Comparison of Proposals Regarding Technical Reliability and Viability

CH2M Hill was determined to have the best Proposal in terms of technical reliability and viability followed by a tie between CDM Smith and Black & Veatch for second, and finally MWH.

All four Proposals were responsive to the design and construction requirements such that each is similar regarding the treatment process, and the Proposals are anticipated to be similarly reliable during operation. However, the Proposals differed in their post-treatment systems, specifically their lime preparation and addition. The most significant differences identified between the Proposals are the plant layout, structures and architecture, and electrical system layout. The Proposers chose to apply different levels of design conservatism to each of the key plant design features which it had control over (i.e., pipe size, filter backwash water lagoon,

tanks, lime saturators sizing, electrical system robustness, etc.). In many cases these facilities were different for each Proposer.

CH2M Hill's Proposal was the most clear and complete with sufficient level of detail in their preliminary Basis of Design Report (BODR), and also in its drawings. Black and Veatch provided clear drawings and provided more detail in its BODR than listed in the RFP, but provided the least amount of backup information for operation and maintenance costs. CDM Smith's BODR mirrored the RFP with little additional information. CDM Smith's drawings sufficiently conveyed its design approach. CDM Smith provided the highest level detail to back up information for their operation and maintenance cost estimates. CDM Smith, MWH, and CH2M Hill provided excellent information with regards to reverse osmosis modeling. MWH and CH2M Hill provided excellent information with regards to energy calculations. MWH provided detailed process type drawings but had little definition of structures.

The RO system designs were similar among the Proposers (in terms of number of skids, percent second pass, and maximum membrane fluxes) with some differences in the second pass arrangements and the CIP, neutralization and flush tanks. CDM Smith and CH2M Hill proposed to meet the water quality performance requirements of the RFP for the RO system (boron and chloride concentrations during the acceptance test) which was set at a value of 70% of the notification level while Black & Veatch and MWH proposed to exceed these requirements. CDM Smith, CH2M Hill and Black & Veatch chose to use Hydranautics' membranes in their designs while MWH chose Toray's membranes. Both of these membrane manufacturers are widely used in seawater applications. CDM Smith had the best permitting approach and improved upon the design and construction requirements in this area. CH2M Hill and Black & Veatch followed the design and construction requirements for achieving the regulatory requirements. MWH also proposed to follow the design and construction requirements for permitting but they suggested an alternative permitting approach not recommended by CDPH.

The four Proposals were not significantly different in their demonstrated ability of the proposed processes to meet the contract standards over the project life apart from the ability to meet the specified product water turbidity. Designs of the lime saturator systems vary widely from including the larger diameter saturators (Black & Veatch's design) to not including saturators (MWH's design) while providing package systems. CDM's lime saturator while smaller than Black & Veatch was still adequate.

CH2M Hill and CDM Smith had the lowest proposed energy consumption in the RO system. The energy consumption for the distribution system pumping was very close between all four proposers. The largest differences between the proposers were in their building fixed loads and their pretreatment pumping. Proposers also varied in the amount of safety factor or contingencies applied to their energy guarantees.

CH2M Hill had the best architectural concept with CDM Smith a close second with a lean and good architectural package provided by the same architect that designed the Monterey Bay aquarium and has a proven track record for aesthetically pleasing metal building that can resist the marine environment. MWH's architectural concept was not as developed as other

proposals especially in their drawings. Black & Veatch had only a very basic architectural concept but had a voluntary alternative that would improve upon their concept.

MWH had the fewest number of drawings and lowest engineering cost during construction, along with second lowest effort for permitting. CDM Smith and CH2M Hill had the highest engineering costs, both for design and construction, but CH2M Hill planned to produce 130 more drawings, conceivably with more detail. MWH's engineering effort was notably less than the other three Proposers, which is the least advantageous for CAW.

CDM Smith has a number of subconsultants on its team, including an architect, two landscape architect firms, a corrosion control firm, and an acoustic specialty firm. CDM Smith had the leanest permitting effort which is balanced by their permitting team with local expertise The local expertise and experience with Sand City will be an advantage with local permitting.

MWH received a lower score because it did not plan additional soil borings or geotechnical investigation like the other three Proposers.

Each of the Proposers proposed similar pressure filter solutions that were compliant with the RFP. CH2M Hill provided an electrical building at the pressure filters and provided an internal fusion bonded epoxy lining instead of the requested rubber lining for corrosion control, which is disadvantageous to CAW. Black & Veatch offered upgrades to the pressure filters such as air wash in its base proposal. CDM Smith located piping and fittings below the floor slab in some cases, and some piping was located below the pressure vessels which may increase maintenance efforts. MWH's base proposal did not include walls on the requested enclosure of the end of the filter vessels and included a flat plate underdrain, which may be subject to increased corrosion compared to the PVC/concrete underdrain identified in the RFP.

MWH had the most generous sized piping, but the other Proposer's sizing was adequate for the facility. CH2M Hill and MWH received higher scores for including flexible piping connections at large storage tanks that would counteract differential settlement and seismic movement. MWH received a lower score for proposing duplex stainless steel instead of the more corrosion resistant super duplex stainless steel for first stage RO high pressure pump discharge piping that the other three Proposers proposed.

Electrical system design is similar among the Proposers, except CH2M Hill chose to distribute power inside the facility at 21 kV. As a result, CAW staff would be required to maintain the power distribution gear, which requires specialized training/expertise.

CDM Smith offered the lowest capacity main transformers (5 MVA). Both MWH and Black & Veatch proposed 7.5 MVA transformers, which could be more advantageous to CAW.

CH2M Hill and MWH planned to have 100 hp and larger VFDs in free standing enclosures where the other two teams would locate all of the VFDs, except for high pressure pumps, in MCC enclosures. Free standing enclosures have the advantage of easier maintenance and ability to change manufacturers in the future. CH2M Hill and MWH proposed premium 18 pulse VFD drives (480 volt) that do not generate harmonic power disturbances but are higher

capital costs. The other two teams (CDM and Black &Veatch) planned to reduce capital cost by using6 pulse VFD drives and filters to manage power quality impacts,

CDM Smith proposed Schneider "Smart" motor control centers. One advantage is lower capital cost and more rapid commissioning. CAW staff will require training on this newer technology. The digital communication between electrical components will complicate any other manufacturer's replacement equipment to be used in the future but is a manageable trade-off.

A comprehensive instrumentation and control system is proposed by each team. Each unit process is controlled independently by a dedicated PLC system which communicates with the Plant DCS for overall process coordination.

CDM Smith was the only Proposal with a medium pressure UV system which will have a higher life cycle cost but lower capital cost than the more efficient but higher capital cost low pressure high output system proposed by the other three Proposers. CDM Smith proposed UV system that are advantageous to CAW because it will allow for a more flexible disinfection strategy. CDM Smith also located the UV units inside the RO building rather than providing another structure, which is most advantageous to CAW to reduce capital costs and maintenance of another building.

CDM Smith, Black and Veatch, and CH2M Hill proposed steel construction for the two finished water storage tanks (750,000 gallons each). MWH received a higher score for proposing concrete tanks, which have lower maintenance costs (painting and steel repair) a higher capital cost, but have the potential to behave differently during an earthquake.

4.2.1.3 Operability (10%)

The table below is a summary of the scores for the operability criterion for each Proposer.

Proposer	Operability (10 pts)
Black & Veatch	**9.0**
CDM Smith	**9.0**
CH2M Hill	**10.0**
MWH	**9.8**

4.2.1.3.1 Description

This criterion includes the Proposer's design approach that will assist in the operation and maintenance of the facility, including each Proposer's approach to safety; each Proposer's plans for project site and plant security; identification of system critical and advisory alarms; capability for remote/automatic operations; design of the electrical power system; design of the instrumentation and control system; process controls to minimize lag time to improve control

loop performance; ergonomic design of equipment and building locations; location and design of operator sampling stations; design of on-site laboratory facilities; sufficient access to equipment; recognition of the space consumed by small piping or electrical conduits at equipment; suitable provisions for cranes and hoists; lighting for maintenance; access to electrical outlets; providing clear passageway to access piping; controlling condensation; locating piping to allow for maintenance; providing suitable lighting; and providing good drainage to keep floors dry.

4.2.1.3.2 Black & Veatch

Plant Layout

Black & Veatch grouped the administration facilities, RO facilities, UV equipment, electrical building, and chemical storage as a consolidated structure, located on the western side of the site. The filtered (seawater) storage tanks and pumps will be grouped with the finished water storage tanks and finished water pumps in the middle of the site. Pretreatment pressure filters, backwash waste lagoons, and concentrate equalization lagoon will be located on the eastern side of the site.

The plant will have two entrances, with the main entrance located at the top of the hill on Charles Benson Road which is a safety concern for traffic. Chemical trucks will be routed to the chemical unloading area at the back of the plant. A paved turn-around area will be provided rather than a looped drive.

Space for expansion of the RO building and pretreatment filters for additional capacity is clearly identified including significant area to the west remains undeveloped should seawater pre-treatment be required. A small area south of the pretreatment filters may be used for high rate seawater clarification.

The prominent feature upon entering the plant will be the administration building which is located in front of the much larger RO building. The finished water storage tanks located east of the main structures. The electrical substation, standby generator, and transformers will be located at the northwest corner of the site, out of view of the public.

Architecture/Structural/Finishes

The administration building is constructed of low maintenance architectural CMU while all other buildings are pre-engineered metal buildings with metal walls. Black & Veatch provided skylights to allow removal/replacement of the hypochlorite tanks, but did not make provisions for replacement of other chemical tanks. A detailed dimensioned plan of the administration building was provided that included all the requested features from the RFP. All structural steel, joists, roof decking, miscellaneous steel and grating is galvanized. The stairs in the chemical building are FRP. All above ground interior and exterior piping that is not insulated or stainless steel is included as painted.

Chemical Systems (excluding lime/calcite/carbon dioxide)

Bulk storage tanks for sodium hypochlorite (0.8%), sodium bisulfite, threshold inhibitor, caustic soda, corrosion inhibitor, and sulfuric acid are provided with tank volumes meeting the criteria in the RFP. Tanks will be constructed of XLHDPE, or steel for caustic soda, in accordance with the RFP. Secondary containment for tanks is provided in accordance with the RFP. Tanks are located within a secure building. Spare feed lines are provided to each feed point.

One of the three onsite hypochlorite generation system providers identified by Black & Veatch is not on the preferred list of manufacturers, and investigation would be required to determine if its equipment is equivalent or better than the desired equipment.

Safety

The proposal was compliant with the safety features requested in the RFP, including avoiding underground vaults for flow meters and chemical additions, providing safety showers/eyewashes and tempered water system at locations where chemicals are used. Where piping was provided in concrete trenches, the trench was suitably sized to allow for access (filter building and RO building). Suitable secondary containment was provided in bulk chemical storage with similar chemicals grouped together. Black & Veatch has committed to separate three phase power from low voltage power in control panels to improve arc flash safety. A safety cage will be provided in front of the RO vessels to protect workers.

Residuals

The design included two large (950,000 gallons each) lagoons for pressure filter backwash waste settling and solids storage. Supernatant is recovered by use of submersible pumps constructed of super duplex stainless steel. Black & Veatch offered a basis for solids generation by identifying average source water quality conditions. Black & Veatch did not address the requirement for aeration of the concentrate prior to disposal. A 3 mg concentrate equalization lagoon is included. Pumping from the lagoon is by submersible pumps constructed of super duplex stainless steel (three pumps at 4166 gpm each) (two shown on P&ID). The design includes a 32-inch HDPE discharge line.

4.2.1.3.3 CDM Smith

Plant Layout

CDM Smith's site plan shows the pretreatment filters, filtered water tanks, and spent filter backwash lagoons at the western side of the site. The concentrate equalization lagoon will be located at the eastern side of the property.

Visitors will see the stand-alone administration building upon entry to the plant. The RO building will be the largest structure on site and will be placed behind the administration building. Finished water storage tanks and pumps will be located to the west of the RO building.

The chemical building will be integrated into the RO building, with chemical unloading at the back of the site, out of sight to visitors.

The plant will have one entrance and one exit to Charles Benson Road. Chemical trucks are routed to the unloading area at the back of the plant. A looped drive allows for efficient routing of chemical deliveries.

Space will be available for expansion of the RO building and pretreatment filters. Significant area to the west remains undeveloped should seawater pre-treatment be required.

Architecture/Structural/Finishes

The administration building is a pre-engineered metal building (PEMB) with corrosion resistant metal side panels and roof. Likewise, the RO building and pressure filter enclosure are PEMB construction.

CDM Smith's contingency for replacement of chemical storage tanks is side wall (metal panel) removal.

A dimensioned floor plan of the administration building was not included in the proposal drawings, but scaling off the floor plan showed the proposed facilities were generally in line with the rooms/functions identified in the RFP. A laboratory storage room was not provided, and the area provided for maintenance was less than requested.

Structural steel will be epoxy coated. All above grade pipe and fittings except stainless steel pipe and interior FRP piping in trenches will be painted. Architectural metal pre-engineered building siding will be factory coated (zinc coating with polyvinyldiene fluoride PVDF Kynar finish coats).

Chemical Systems (excluding lime/calcite/carbon dioxide)

Bulk storage tanks for sodium hypochlorite (0.8%), sodium bisulfite, threshold inhibitor, caustic soda, corrosion inhibitor, and sulfuric acid are provided with tank volumes meeting the criteria in the RFP. Tanks will be constructed of XLHDPE, or steel for caustic soda, in accordance with the RFP. Secondary containment for tanks is provided in accordance with the RFP. Tanks are located within a secure building. CDM Smith will provide spare feed chemical lines, but it may be two feed lines within a single carrier pipe. Severn Trent Clortec is the basis of CDM Smith's onsite hypochlorite generation design.

Safety

CDM Smith's Proposal is compliant with the safety features requested in the RFP, including avoiding underground vaults for flow meters and chemical additions and providing safety showers/eyewashes and tempered water system at locations where chemicals are used.

CDM Smith has committed to separate three phase power from low voltage power in control panels to improve arc flash safety. In the interview, CDM Smith committed to

performing the electrical studies early in the design, prior to ordering electrical gear, to help minimize electrical arc flash hazards.

Residuals

The design included two lagoons for pressure filter backwash waste settling and solids storage. CDM Smith proposed an air compressor (one duty, one reserve) to add oxygen to the RO concentrate stream prior to discharge. Details on the installation, and subsequent O&M implications, are not evident. A 3 mg concentrate equalization lagoon is included per the RFP. The design includes a 36-inch HDPE discharge line.

4.2.1.3.4 CH2M Hill

Plant Layout

CH2M Hill's proposed facilities will be laid out in a horseshoe arrangement with the concentrate lagoon to the east. The pretreatment pressure filters, filter wastewater lagoons, and filtered water storage tanks will be located at the western end of the site. The buildings will be arranged in a campus fashion with the administration building separate with a dedicated entrance/exit to Charles Benson Road. The largest building will house the RO facilities. All chemicals will be stored in a stand alone building, and the UV system will be located in a separate structure. Chemical trucks will be provided with a paved loop around the site with a separate entrance and exit. Space for expansion of the RO building for additional capacity is clearly identified. Significant area will remain undeveloped should seawater pre-treatment be required.

The prominent features upon entering the plant will be the administration building located in front of the much larger RO building. Most of the outdoor process equipment will be located out of view, behind the RO building.

Architecture/Structural/Finishes

The administration building is constructed of low maintenance architectural CMU with multiple roof lines. The administration building is ADA compliant, and a tour path through the facility is also ADA compliant to accommodate facility tours.

The chemical building, the filter building, UV building, and the finished water pump electrical building are all constructed of low maintenance CMU. The RO building is a pre-engineered metal building faced with pre-cast concrete panels with a "wave" accent feature across the top. Roof framing of the chemical building allows removal of all bulk storage tanks.

A second control room is located within the RO building, close to the operating equipment. Restroom facilities are also provided in the RO building.

Chemical Systems (excluding lime/calcite/carbon dioxide)

Bulk storage tanks for sodium hypochlorite (0.8%), sodium bisulfite, threshold inhibitor, caustic soda, corrosion inhibitor, and sulfuric acid will be provided with tank volumes meeting the criteria in the RFP. Tanks will be constructed of XLHDPE in accordance with the RFP. Secondary containment for tanks will be provided in accordance with the RFP. Tanks will be located within a secure building. Spare feed lines will be provided to each feed point by putting two lines in a single HDPE carrier.

Safety Considerations

CH2M Hill's Proposal was compliant with the safety features requested in the RFP, including avoiding underground vaults for flow meters and chemical additions, providing safety showers/eyewashes and tempered water system at locations where chemicals are used, and providing sufficient access to piping located in concrete trenches in the RO building. The drawings show generous clearances around equipment such as pumps, chemical systems, and electrical gear. Suitable secondary containment will be provided in bulk chemical storage with similar chemicals grouped together. Three phase power will be separated from low voltage control panels to improve arc flash safety.

Residuals

The design included two lagoons for pressure filter backwash waste settling and solids storage. The design included cascade aeration for the RO concentrate stream that is responsive to the RFP's request for a non-mechanical means of meeting a 5 mg/L dissolved oxygen target. A concentrate equalization lagoon is included per the RFP. The design includes a 36-inch HDPE discharge line.

4.2.1.3.5 MWH

Plant Layout

The MWH site plan shows the pretreatment filters, filtered water tanks, and spent filter backwash lagoons at the western side of the site. The concentrate equalization lagoon will be located at the eastern side of the property.

Visitors will see the stand-alone administration building upon entry to the plant. The RO building will be the largest structure on site and will run beside the administration building. Finished water storage tanks and pumps will be located behind the RO building and will be out of sight to visitors. The chemical building also will be out of sight to visitors.

The plant will have a single entrance but two exits to Charles Benson Road. Chemical trucks will be routed to the unloading area at the back of the plant. A looped drive will allow for efficient routing of chemical deliveries.

Space will be available for expansion of the RO building and pretreatment filters. Significant area to the west will remain undeveloped should seawater pre-treatment be required.

Architecture/Structural/Finishes

The administration building will be constructed with low maintenance architectural CMU while all other buildings are pre-engineered metal buildings with metal walls. The proposal was not definitive on materials of construction for structures other than the administration building. MWH has identified that a building will not be provided to enclose the valve/actuator/instrumentation end of the pressure filters; a canopy will be provided instead of the enclosure identified in the RFP for the base design. Provisions to remove/replace chemical storage tanks is not evident. A floor plan of the administration building provided for a visitor area with restrooms and conference room but did not include several of the features requested in the RFP such as the storage room for the laboratory, and telecom room. No mechanical room was shown. The maintenance area will be in an inefficient location. Structural steel in corrosive areas is galvanized. FRP and CPVC piping is not painted. Architectural metal pre-engineered building siding and roofing will be prefinished, baked-on Kynar paint.

Chemical Systems (excluding lime/calcite/carbon dioxide)

Bulk storage tanks for sodium hypochlorite (0.8%), sodium bisulfite, threshold inhibitor, caustic soda, corrosion inhibitor, and sulfuric acid are provided with tank volumes meeting the criteria in the RFP. Tanks will be constructed of XLHDPE, or steel for caustic soda, in accordance with the RFP. Secondary containment for tanks will be provided in accordance with the RFP. Tanks will be located within a secure building. Spare feed lines will not be provided to each feed point, but MWH suggested multiple chemical feed lines could be installed in each HDPE containment carrier pipe. Siemens will be the basis of MWH's onsite hypochlorite generation design.

Safety

MWH's Proposal was mostly compliant with the safety features requested in the RFP, including avoiding underground vaults for flow meters and chemical additions, providing safety showers/eyewashes and tempered water system at locations where chemicals are used. However, an underground vault is shown for the RO concentrate pipeline flowmeter.

MWH has committed to separate three phase power which will be separated from low voltage power in control panels to improve arc flash safety.

Residuals

The design included two lagoons (165,000 gallons each) for pressure filter backwash waste settling and solids storage. Three recycle pumps will be provided. Details on the supernatant recycle pump station were not provided. MWH proposed an air compressor (one duty, one reserve) to add oxygen to the RO concentrate stream. Details on the installation are not evident.

A 3 mg concentrate equalization lagoon will be included per the RFP. Pumping from the lagoon will be by submersible pumps (two pumps at 4200 gpm each). The pump materials of construction are not identified. The design includes a 32-inch HDPE discharge line.

4.2.1.3.6 Comparison of Proposals Regarding Operability

The CH2M Hill facility layout was the most expansive and provided space for maintenance near each of the facilities while the CDM Smith and Black and Veatch layouts were the most compact but allow for options in future. CH2M Hill provided a second control room/station in the RO Building along with restroom facilities. The Black and Veatch layout did not provide a looped drive for chemical deliveries, but instead provided a turn-around. CDM Smith analyzed and proposed a layout that minimizes the steps and time operators need to visit all facilities in a timely manner. CDM Smith located all pumps in one area, bounded by the fixed structures. Finished water pump suction line (from finished water tanks) is shown underneath the outdoor electrical power center on the site piping plan inhibiting future maintenance.

MWH was generous in their pipe sizing which reduces velocity, associated headloss and minimizes damage from hydraulic transients. MWH also proposed the largest standby electrical generator. MWH proposed two 7.5 MVA plant service electrical transformers, larger than the 5 MVA units proposed by CDM Smith.

CH2M Hill and MWH include 18 pulse type VFDs, mounted individually, for a number of pumps which minimizes potential VFD related power quality disturbances from harmonics, and allows for ease of maintenance and future replacement, which increase their scores.

CDM Smith reduced capital costs by providing proven pre-engineered metal building with corrosion resistant metal side panels and roof for its administrative building, RO building, and pressure filter enclosure because CDM Smith's architectural subconsultant demonstrated a good track record in local area with similar structures in a coastal setting. Structural steel will be epoxy painted in CDM Smith's Proposal while galvanized structural members were proposed in other Proposals. CH2M Hill proposed durable materials of construction for structures.

CDM Smith did not provide a laboratory storage room, and the area provided for maintenance was less than requested; however these items can be addressed during final design due to the configuration of their building which is easily adaptable. Each team generally can provide spare chemical feed lines by putting two lines in each carrier pipe.

Each of the team's proposals were generally compliant with the safety features requested in the RFP, including avoiding underground vaults for flow meters and chemical additions, providing safety showers/eyewashes and tempered water system at locations where chemicals are used. Each of the teams agreed to separate three phase power from low voltage controls in control panels to minimize arc flash hazard to plant maintenance staff. CDM Smith committed to performing the electrical studies early in the design, prior to ordering electrical gear, to help minimize electrical arc flash hazards.

CDM Smith proposed concrete pipe trenches that allow limited access to pipe fittings and flange bolts, and pipe supports. This approach has the benefit of lower initial capital cost but may require more attention to planning repair or modification work in the future.

Each Proposer included two lagoons for pressure filter backwash waste settling and solids storage. Black & Veatch was conservative and provided much larger lagoons than the other Proposers, which negatively influenced its ranking.

Black & Veatch did not address the need for aeration of the RO concentrate prior to disposal. CH2M Hill proposed cascade type aerators that met the RFP's request for a reliable, low maintenance aeration process. Both CDM Smith and MWH proposed a compressor/blower to inject air into the concentrate transmission piping that have more O&M concerns than the CH2M Hill approach, but are proven techniques for increasing dissolved oxygen in a straight forward and simple manner.

4.2.1.4 Technical Qualifications (2%)

The table below is a summary of the scores for the technical qualifications criterion for each Proposer.

Proposer	Technical Qualifications (2 pts)
Black & Veatch	**2.0**
CDM Smith	**1.8**
CH2M Hill	**2.0**
MWH	**1.8**

4.2.1.4.1 Description

This criterion includes each Proposer's technical qualifications, including each Proposer's experience and qualifications in providing the proposed design-build work and the demonstrated experience and competency of the key personnel assigned to the Project. Proposers were also evaluated on changes in key personnel and the addition of new and major subcontractors such as the Reverse Osmosis Equipment Manufacturer ("ROEM").

4.2.1.4.2 Black & Veatch

Black & Veatch and its key personnel were determined to be highly experienced and competent. Black & Veatch teamed with Doosan Hydro Technology LLC as its ROEM. Doosan has extensive worldwide seawater desalination experience and is one of the largest ROEMs by contracted capacity. Black & Veatch and Doosan have successfully completed a seawater desalination project together, and this team benefits from established alliance with other key equipment suppliers such as the RO membrane suppliers, the energy recovery device suppliers, and the high pressure pump suppliers. Black & Veatch changed its key personnel for commissioning between the SOQ and the Proposal. This change in key personnel strengthens its team because the new commission staff adds commissioning experience and CAW has had positive previous work experience with the new personnel.

4.2.1.4.3 CDM Smith

CDM Smith and its key personnel were determined to be highly experienced and competent. CDM Smith teamed with H2O Innovation as its ROEM. H2O Innovation has extensive experience with large groundwater desalination and recycled water applications. H2O Innovation built the Sand City desalination plant that is operated by CAW. . H2O Innovation is a smaller market player by contracted capacity; however, they are qualified for this project..

4.2.1.4.4 CH2M Hill

CH2M Hill and its key personnel were determined to be highly experienced and competent. CH2M Hill teamed with Biwater as its ROEM. Biwater has extensive worldwide seawater desalination experience and is a large market player by contracted capacity. In addition to teaming with Biwater, CH2M Hill secured the high pressure pump supplier, the energy recovery device supplier, and the membrane supplier. CH2M Hill's team has already negotiated membrane, pump, and energy recovery device warranties for this Project.

4.2.1.4.5 MWH

MWH and its key personnel were determined to be highly experienced and competent. MWH teamed with Aquatech as its ROEM. Aquatech has worldwide seawater desalination experience and is a medium to large market player by contracted capacity.

4.2.1.4.6 Comparison of Proposals Regarding Technical Qualifications

Each Proposer and its key personnel were determined to be highly qualified and competent to design and build the desalination infrastructure. Because the Proposers are all so highly qualified, the ROEM selection has been determined to be significant in the evaluation of the technical qualifications.

While each Proposer's ROEM met the RFP's ROEM qualification criteria, some had significant large worldwide seawater desalination experience while others had previous local and California experience. The ROEMs proposed by CH2M Hill and Black & Veatch were deemed to be the most advantageous and equivalent because of their strong ROEM experience including seawater desalination expertise of their proposed staff and project references. CDM Smith's and MWH's ROEMs ranked slightly below CH2M Hill and Black & Veatch. CDM Smith's technical qualifications were strong in local seawater desalination but are at a smaller scale than Black & Veatch or CH2M Hill. MWH recently acquired expertise with Biwater Services and its ROEM alliance with Aquatech was equally valued.

4.2.1.5 Other (1%)

The table below is a summary of the scores for the other criterion for each Proposer.

Proposer	Other (1 pt)
Black & Veatch	**1.0**
CDM Smith	**1.0**
CH2M Hill	**1.0**
MWH	**1.0**

4.2.1.5.1 Description

This criterion includes the quality of the Proposers' interviews.

4.2.1.5.2 Comparison of Proposals Regarding Technical Qualifications

All Proposers were impressive and were deemed to have performed very well during the interview process. The Evaluation Team has determined that there was no material difference between the Proposers based upon the quality of the individual interviews.

4.2.1.6 Scoring of the Technical Criteria

The table below is a summary of the final scores for the technical criteria for each Proposer.

Proposer	Project Delivery (10 pts)	Technical Reliability and Viability (17 pts)	Operability (10 pts)	Technical Qualifications (2 pts)	Other (1 pt)	Total (40 pts)
Black & Veatch	**8.5**	**15.3**	**9.0**	**2.0**	**1.0**	**35.8**
CDM Smith	**9.0**	**15.3**	**9.0**	**1.8**	**1.0**	**36.1**
CH2M Hill	**10.0**	**17.0**	**10.0**	**2.0**	**1.0**	**40.0**
MWH	**8.0**	**14.5**	**9.8**	**1.8**	**1.0**	**35.1**

4.2.2 BUSINESS AND FINANCIAL CRITERIA (60%)

For each of the criterion below, a description of the factors considered and a description of the significant benefits and drawbacks of each Proposal within that category are provided, as well as a comparison of Proposals for such criterion.

4.2.2.1 Cost Effectiveness of Proposal (50%)

The table below is a summary of the scores for the cost effectiveness criterion for each Proposer.

Proposer	Cost Effectiveness of Proposal (50 pts)
Black & Veatch	**43.4**
CDM Smith	**50.0**
CH2M Hill	**38.9**
MWH	**45.2**

4.2.2.1.1 Description

In accordance with the RFP, the cost effectiveness of Proposals was evaluated equally for a 9.6 mgd plant and for a 6.4 mgd plant, and the life cycle costs were evaluated equally over a 20-year operating period and a 30-year operating period. To implement this analysis, the cost effectiveness of the Proposals was weighted by assigning 30% of this criterion to each of the fixed design-build price for the 9.6 mgd plant and for the 6.4 mgd plant. The remaining 40% of the criterion was equally divided between the net present value of the fixed design-build price and the guaranteed operating costs (i.e., electricity) for (1) the 9.6 mgd plant over a 20-year operating period, (2) the 9.6 mgd plant over a 30-year operating period, (3) the 6.4 mgd plant over a 20-year operating period, and (4) the 6.4 mgd plant over a 30-year operating period. The electricity costs were calculated over 20 and 30 year operating periods by using the guaranteed electrical utilization of the 9.6 and 6.4 mgd plants during Acceptance Testing at 33.6 ppt and 12 degrees Celsius that was submitted by the Proposers. A discount rate of 5%, an inflation rate of 3%, and power costs of $0.10 per kilowatt-hour were utilized in the net present value analysis.

As discussed in Section 3.0 each Proposer provided several alternatives for each plant which reduced (or, in some cases, increased) costs, but these alternatives were either not accepted by CAW or require further evaluation. Nevertheless, the evaluation of the four Proposers does not materially change based on these alternatives.

CAW also undertook sensitivity analyses by taking into account the non-guaranteed operating costs submitted by the Proposers, different discount and/or inflation rates, and different power costs.

4.2.2.1.2 Black & Veatch

Black & Veatch submitted a fixed design-build price of $99,042,543 for the 9.6 mgd plant and $88,888,553 for the 6.4 mgd plant. Black & Veatch guaranteed electrical utilization at Acceptance for 33.6 ppt and 12 degrees Celsius of 13.43 kWh/kgal for the 9.6 mgd plant and 13.58 kWh/kgal for the 6.4 mgd plant. The net present value of fixed design-build price and the power costs over the 20-year operating period for 6.4 mgd and for 9.6 mgd are $120,842,788 and

$137,426,812, respectively, and over a 30-year operating period for 6.4 mgd and for 9.6 mgd are $154,030,703 and $179,598,767, respectively.

4.2.2.1.3 CDM Smith

CDM Smith submitted a fixed design-build price of $85,198,810 for the 9.6 mgd plant and $77,955,798 for the 6.4 mgd plant. CDM Smith guaranteed electrical utilization at Acceptance for 33.6 ppt and 12 degrees Celsius of 11.956 kWh/kgal for the 9.6 mgd plant and 12.479 kWh/kgal for the 6.4 mgd plant. The net present value of fixed design-build price and the power costs over the 20-year operating period for 6.4 mgd and for 9.6 mgd are $107,724,273 and $134,524,843, respectively, and over a 30-year operating period for 6.4 mgd and for 9.6 mgd are $122,963,746 and $157,286,702, respectively.

4.2.2.1.4 CH2M Hill

CH2M Hill submitted a fixed design-build price of $109,997,476 for the 9.6 mgd plant and $102,248,667 for the 6.4 mgd plant. CH2M Hill guaranteed electrical utilization at Acceptance for 33.6 ppt and 12 degrees Celsius of 11.9 kWh/kgal for the 9.6 mgd plant and 12.1 kWh/kgal for the 6.4 mgd plant. The net present value of the fixed design-build price and the power costs over the 20-year operating period for 6.4 mgd and for 9.6 mgd are $124,842,160 and $156,682,773, respectively, and over a 30-year operating period for 6.4 mgd and for 9.6 mgd are $139,618,794 and $179,338,019, respectively.

4.2.2.1.5 MWH

MWH submitted a fixed design-build price of $91,884,427 for the 9.6 mgd plant and $81,895,770 for the 6.4 mgd plant. MWH guaranteed electrical utilization at Acceptance for 33.6 ppt and 12 degrees Celsius of 14.6 kWh/kgal for the 9.6 mgd plant and 15.2 kWh/kgal for the 6.4 mgd plant. The net present value of the fixed design-build price and the power costs over the 20-year operating period for 6.4 mgd and for 9.6 mgd are $123,926,120 and $142,859,751, respectively, and over a 30-year operating period for 6.4 mgd and for 9.6 mgd are $158,003,799 and $186,355,221, respectively.

4.2.2.1.6 Comparison of Proposals Regarding Cost Effectiveness

The below chart shows a comparison of the cost effectiveness of each Proposal for the fixed design-build price for the 9.6 mgd plant and for the 6.4 mgd plant and the net present values of the Proposals over 20-year and 30-year operating periods for the 9.6 mgd plant and for the 6.4 mgd plant periods by using the guaranteed electrical utilization of the 9.6 and 6.4 mgd plants during Acceptance Testing at 33.6 ppt and 12 degrees Celsius and the net present values of the fixed design-build price.

	Black & Veatch	**CDM Smith**	**CH2M Hill**	**MWH**
Fixed DB Price 9.6 mgd (30%)	$99,042,543	$85,198,810	$109,997,476	$91,884,427
Fixed DB Price 6.4 mgd (30%)	$88,888,553	$77,955,798	$102,248,667	$81,895,770
NPV (10%) 9.6 mgd / 20 years	$154,030,703	$134,524,843	$156,682,773	$158,003,799
NPV (10%) 9.6 mgd / 30 years	$179,598,767	$157,286,702	$179,338,019	$186,355,221
NPV (10%) 6.4 mgd / 20 years	$120,842,788	$107,724,273	$124,842,160	$123,926,120
NPV (10%) 6.4 mgd / 30 years	$137,426,812	$122,963,746	$139,618,794	$142,859,751

In addition to the analysis of the base case as set forth in Section 4.2.2.1.1, the Evaluation Team performed several sensitivity analyses to see if changes in base assumptions and including non-guaranteed operating cost values provided by the Proposers would affect the analysis regarding the most advantageous Proposer. Appendix C contains a depiction of ranking of the Proposers' cost effectiveness under the base case and through different sensitivity analyses. In no case did a sensitivity analysis change the determination of the most advantageous Proposal.

4.2.2.2 Business Terms and Conditions (8%)

The table below is a summary of the scores for the business terms and conditions criterion for each Proposer.

Proposer	**Business Terms and Conditions (8 pts)**
Black & Veatch	**4.8**
CDM Smith	**8.0**
CH2M Hill	**7.4**
MWH	**5.6**

4.2.2.2.1 Description

CAW issued the Draft DB Agreement to the Proposers with the RFP. The Draft DB Agreement set forth CAW's requested contractual positions with respect to the risks and responsibilities of the Design-Builder and CAW. The RFP requested that the Proposer either affirm its acceptance of the provisions of the Draft DB Agreement or provide a marked copy of the Draft DB Agreement indicating the provisions with which it takes exception along with proposed modifications. This criterion addresses the material advantages and disadvantages of each Proposer's markup to the draft DB Agreement including the extent to which the Proposer accepted the terms and conditions set forth in the draft DB Agreement included with the RFP or proposed terms and conditions that are less favorable to CAW than the terms and conditions set forth in the Draft DB Agreement.

It should be noted that the pricing of Proposals is based on the Draft DB Agreement as modified by each Proposer's markup. Therefore, it is reasonable to anticipate that if CAW were to require a Proposer to accept a material risk that it has taken exception to in its markup, that the Proposer could require an increase in its pricing to accept such risk.

4.2.2.2.2 Black & Veatch

Black & Veatch took exception to several provisions of the Draft DB Agreement including the following material exceptions:

- Black & Veatch modified the permitting responsibilities and risks for both the general permits and the New Domestic Water Supply Permit, such that it would only be responsible for obtaining construction permits which are required to be in its name. Black & Veatch would not be responsible for obtaining any other permits including environmental or operational permits, but it would provide assistance to CAW in obtaining those permits. Black & Veatch shifted the risk and responsibility of obtaining the New Domestic Water Supply Permit to CAW, and any delays in issuance would provide Black & Veatch with schedule and cost relief.

- Although the Draft DB Agreement generally excludes indemnification payments from the limitation of liability (except for fines and penalties), MWH modified the provision such that the only indemnification payments that would be excluded from the limitation of liability are those for torts resulting in third party claims for death, personal injury, or property damage.

- Black & Veatch modified the delay liquidated damages section such that payment of delay liquidated damages would be the exclusive remedy resulting from any delay in achieving the Scheduled Acceptance Date (i.e., no indemnification for fines and penalties due to its delay).

- Black & Veatch added language that provided that neither party would be liable to the other for fines, penalties, lost profits, revenues, or opportunity costs, costs of substitute raw or treated water, or increased operating costs.

- Black & Veatch deleted the provision that indemnity payments are not limited by the Draft DB Agreement's exclusion of special, consequential, or punitive damage payments.

- Black & Veatch modified the items that would constitute Design-Builder Events of Default. It deleted the provisions stating that failure to achieve Acceptance within 90 days of the Scheduled Acceptance Date is an Event of Default for which CAW would have the right to terminate the DB Agreement, providing that the only relief for CAW would be continued daily delay liquidated damages.

- Black & Veatch proposed that the maximum period for callback obligations would be two years, and those two years are the only period which CAW may bring claims for warranted work or for defects.

- Black & Veatch proposed to receive cost relief in addition to schedule relief if CAW chooses to suspend Design-Build Work prior to issuance of the Certificate of Public Convenience and Necessity.

- Black & Veatch proposed that the Performance Bond expire at Acceptance rather than at the end of the Warranty Period.

- Black & Veatch modified the definition of "Uncontrollable Circumstance" to delete the "materiality" standard.

- Black & Veatch modified the definition of "Change in Law" to include delays in issuance of Governmental Approvals, changes in the nature and severity of typical Governmental Body actions, and any increases in fines or penalties issued by Governmental Bodies as Changes in Law.

- Black & Veatch proposed being entitled to rely on the testing data produced by CAW and to receive Uncontrollable Circumstance relief for any variances in the testing data.

- Black & Veatch also took exception to the Insurance Requirements that are part of Appendix 11.

4.2.2.2.3 CDM Smith

CDM Smith took only limited exception to the provisions of the Draft DB Agreement and generally did not take exception to the most material provisions. CDM Smith did not take exception to its permitting responsibilities and risk allocation for the general permits or for the New Domestic Water Supply Permit. CDM Smith did not take exception to the limitation of liability section, to the requirement to indemnify CAW for fines due to its delays or to the definition of "Uncontrollable Circumstances." CDM Smith's exceptions include:

- CDM Smith modified the indemnification provision to require indemnification for the "unexcused non-performance" by the Design-Builder of its obligations under the DB Agreement instead of the "performance or non-performance."

- CDM Smith's warranty of materials and equipment excludes remedy for damage or defect caused by modifications not executed by the Design-Builder, improper or

insufficient maintenance (rather than grossly improper or grossly insufficient), improper operation (rather than grossly improper), or normal wear and tear under normal usage.

- CDM Smith proposed to replace the Performance Bond after one year following the Acceptance Date with adequate security for performance of its obligations during the Warranty Period.

- CDM Smith proposed to extend the Extension Period (the period between the Scheduled Acceptance Date and the date that CAW may terminate the Design-Build Agreement if the Design-Builder has not achieved Acceptance) from 90 days to 180 days.

4.2.2.2.4 CH2M Hill

CH2M Hill also took limited exceptions to the Draft DB Agreement. CH2M Hill did not take exception to its permitting responsibilities and risk allocation for the general permits or for the New Domestic Water Supply Permit nor did it take exception to the requirement to indemnify CAW for fines and penalties resulting from its delay. CH2M Hill's exceptions include:

- CH2M Hill reduced the limitation of liability from 125% to 100% of the Design-Build Price.

- CH2M Hill deleted the requirement to indemnify CAW for the "performance or non-performance of its obligations under the DB Agreement."

- CH2M Hill deleted the provision that it would be a Design-Builder Event of Default for failure to maintain the required Security Instruments.

- Upon a material decline in the credit standing of the Guarantor, CH2M Hill proposed a CAW right to terminate the Design-Build Agreement for convenience without cost to CAW rather than providing a replacement Guarantor or an enhanced letter of credit. CH2M Hill also proposed to use its revolving credit facility to determine a material decline instead of using its Dun and Bradstreet rating.

- CH2M Hill's warranty of materials and equipment excludes a warranty that the materials and equipment are free from defects and modifies the exception to the warranty to include improper or insufficient maintenance or operation (rather than grossly improper or grossly insufficient).

- CH2M Hill proposed to limit the Warranty Period to two years.

- CH2M Hill proposed utilizing a retainage bond instead of a 5% withholding of money.

- CH2M Hill took exception to the Insurance Requirements that are part of Appendix 11, proposing to use its standard $25,000,000 umbrella coverage instead of $50,000,000.

4.2.2.2.5 MWH

MWH took several exceptions to the Draft DB Agreement including the following material exceptions:

- MWH reduced the limitation of liability from 125% to 50% of the Design-Build Price and included a separate sub-cap of 20% of the Design-Build Price for fines and penalties paid as part of any indemnity obligation.
- MWH deleted the provision stating that delay liquidated damages are in addition to any indemnity payments required to be made to CAW.
- MWH deleted the requirements that MWH indemnify CAW for (1) the fault of MWH or any of its officers, directors, employees, representatives, agents or Subcontractors and (2) the "performance or non-performance" by MWH of its obligations under the Design-Build Agreement.
- MWH took exception to the general permitting responsibilities and risks. MWH proposed schedule relief for any delay in obtaining Governmental Approvals beyond what it could reasonably anticipate. In addition MWH would bear the risk of the imposition of any such additional terms and conditions imposed by a Governmental Body in connection with a Governmental Approval only if it could have reasonably anticipated the change and the change is not beyond its control. MWH also modified the permitting responsibilities and risks for obtaining the New Domestic Water Supply Permit. MWH deleted the provision that it would accept the risk of delay, non-issuance, withdrawal, expiration, revocation, or imposition of any term or condition in connection with obtaining the New Domestic Water Supply Permit. MWH proposed to assume the risks of obtaining the New Domestic Water Supply Permit that reflect Applicable Law in existence as of the Contract Date or that do not exceed the Contract Standards.
- MWH added a provision that it is entitled to rely upon the information and data provided by CAW or obtained from generally acceptable sources within the industry without MWH independently verifying the information. MWH also added that it would be entitled to rely on the geotechnical conditions in the Geotechnical Baseline Report provided by CAW rather than independently investigating the geotechnical conditions. In addition, MWH deleted the Design-Builder's assumption of the risk of the practicability and possibility of performance of the Design-Build Improvements.
- MWH modified the Design-Builder Events of Default such that all Events of Default require notice to be given before CAW may terminate the Design-Build Agreement.
- MWH deleted the limitations for payments of demobilization costs upon CAW termination for convenience ($200,000 before construction commences and $500,000 after construction commences). MWH also deleted a provision that it would waive its right to assert that CAW owes MWH a duty of good faith dealing in the exercise of the right to terminate for convenience.

- MWH modified the exception to the warranty of materials and equipment to include improper or insufficient maintenance or operation (rather than grossly improper or grossly insufficient) and deleted the inclusion of the warranty for damage or defect caused by any defects or errors in the Operation and Maintenance Manual that will be prepared by MWH. MWH also modified its callback obligations such that it would not be obligated to correct malfunctioning or non-conforming work if the malfunction or non-conformance is due to an Uncontrollable Circumstance.

- MWH modified the provisions of the Letter of Credit such that it would expire at Acceptance and drawings could only be made for Events of Default.

- If CAW chooses to suspend Design-Build Work prior to issuance of the Certificate of Public Convenience and Necessity, MWH proposed that it would have the right to terminate the Design-Build Agreement if the suspension lasts beyond 180 days.

- MWH proposed to modify the definition of "material" and "materiality" to mean beyond the reasonable expectations of the party that result in quantifiable impacts. MWH proposed to modify the definition of "discretion" to include that the parties must act reasonably in using their discretion.

- MWH also deleted the statements in the Special, Consequential, or Punitive Damages section that the section only applies to disputes between CAW and MWH and that the section is not intended to limit the scope of the indemnity provisions.

4.2.2.2.6 Comparison of Proposals Regarding Business Terms and Conditions

CDM Smith's markup of the Draft DB Agreement is the most advantageous to CAW. CDM Smith took the fewest exceptions and did not take exception to the most material provisions of the Draft DB Agreement.

CH2M Hill also took limited exceptions, but certain exceptions were more material than those taken by CDM Smith including its reduction of the limitation of liability from 125% to 100%.

MWH's markup was the third most advantageous, but it was significantly distinguished from CDM Smith and CH2M Hill. MWH's modifications to the limitation of liability, the indemnification requirements, the risk allocation for the New Domestic Water Supply Permit, to the definitions of "material" and "discretion," and its provision that it would be entitled to rely upon information and data from CAW without independently verifying the information were significant modifications to the Draft DB Agreement that caused it to score lower than CDM Smith and CH2M Hill.

Black & Veatch scored lowest in this criterion due to the extent and nature of its exceptions. Black & Veatch's unwillingness to accept the responsibility and risk in obtaining non-construction permits and the New Domestic Water Supply Permit, modifications to the limitation of liability, modifications to the delay liquidated damages, and unwillingness to be

liable for fines and penalties are significant modifications that negatively distinguishes Black & Veatch's markup.

4.2.2.3 Proposer/Guarantor Financial Qualifications (2%)

The table below is a summary of the scores for the Proposer/Guarantor financial qualifications criterion for each Proposer.

Proposer	Proposer/ Guarantor Financial Qualifications (2 pts)
Black & Veatch	**2.0**
CDM Smith	**1.8**
CH2M Hill	**1.4**
MWH	**1.2**

4.2.2.3.1 Description

This criterion includes the financial strength of each Proposer and Guarantor; the adequacy of the Proposer and the Guarantor's financial resources backing the performance of all of the Proposer's obligations under the DB Agreement; the financial capacity of the Proposer and the Guarantor to assure the full and timely performance of the DB Entity's obligations under the DB Agreement; the clarity of the roles, responsibilities and risk allocation among the Proposer's team and the Guarantor; Proposer's ability to provide a Performance Bond, Payment Bond, and $1,000,000 Letter of Credit, in accordance with the draft DB Agreement; support for liability assumption by the Proposer and the Guarantor up to the limits of liability set forth in the draft DB Agreement; the trailing financial performance of the Proposer and the Guarantor, with specific consideration of company size, tangible net worth, liquidity, leverage, profitability, and cash flow; and the presence or absence of material changes in the financial condition of the Proposer and Guarantor, which, in the opinion of CAW, could affect the Proposer's ability to meet the obligations of the DB Agreement over the Term.

4.2.2.3.2 Black & Veatch

Black & Veatch has a rating from Dun & Bradstreet of 5A2, classifying its appraisal as "good." Black & Veatch has strong working capital and cash flow standards. Black & Veatch has a credit line of $237.7 million.

4.2.2.3.3 CDM Smith

CDM Smith has a rating from Dun & Bradstreet of 5A2, classifying its appraisal as "good." CDM Smith has moderate working capital and cash flow standards, although still sufficient to undertake the Project. CDM Smith has a credit line of $100 million.

4.2.2.3.4 CH2M Hill

CH2M Hill has a rating from Dun & Bradstreet of 5A3, classifying its appraisal as "fair." CH2M Hill has strong working capital and cash flow standards. CH2M Hill has a credit line of $100 million.

4.2.2.3.5 MWH

MWH has a rating from Dun & Bradstreet of 4A3, classifying its appraisal as "limited." MWH has moderate working capital and cash flow standards. MWH has a credit line of $162.5 million.

4.2.2.3.6 Comparison of Proposals Regarding Proposer/Guarantor Financial Qualifications

All of the Proposers are financially capable of undertaking the Project. Among the financial factors taken into consideration, including asset bases, capital structure, and operating results, the Dun & Bradstreet rating was considered more influential and reflective of the financial strength of the Proposers. Black & Veatch and CDM Smith had the best Dun & Bradstreet rating, followed closely by CH2M Hill, and MWH had the lowest Dun & Bradstreet rating. Black & Veatch and CH2M Hill had the strongest capital and cash flow standards, followed by MWH and CDM Smith. Black & Veatch had the highest credit line, followed by MWH, with CDM Smith and CH2M Hill tied for third.

4.2.2.4 Scoring of the Business and Financial Criteria

The table below is a summary of the final scores for the business and financial criteria for each Proposer.

Proposer	Cost Effectiveness of Proposal (50 pts)	Business Terms and Conditions (8 pts)	Proposer/ Guarantor Financial Qualifications (2 pts)	Total (60 pts)
Black & Veatch	**43.4**	**4.8**	**2.0**	**50.2**
CDM Smith	**50.0**	**8.0**	**1.8**	**59.8**
CH2M Hill	**39.2**	**7.4**	**1.4**	**48.0**
MWH	**44.6**	**5.6**	**1.2**	**51.4**

5.0 OVERALL SCORES FOR PROPOSALS

The table below is a summary of the final scores for both the technical criteria and the business and financial criteria and the total score for each Proposer.

Proposer	Technical Criteria (40 pts)	Business and Financial Criteria (60 pts)	Total
Black & Veatch	**35.8**	**50.2**	**86.0**
CDM Smith	**36.1**	**59.8**	**95.9**
CH2M Hill	**40.0**	**48.0**	**88.0**
MWH	**35.1**	**51.4**	**86.5**

6.0 EVALUATION TEAM RECOMMENDATION

After careful evaluation of the Proposals based upon the evaluation criteria and weighting set forth in the RFP, the Evaluation Team has determined that CDM Smith has submitted the most advantageous Proposal to CAW. The Evaluation Team recommends that the Selection Committee select CDM Smith as the Preferred Proposer and enter into negotiations for a Design-Build Agreement with CDM Smith.

It is noted that the scores for CH2M Hill, MWH, and Black & Veatch are extremely close. As such, in the unlikely event CAW is unable to reach a final Design-Build Agreement with CDM Smith, the Evaluation Committee recommends that prior to determining which Proposer to select for negotiations CAW conduct additional discussions, clarifications, and/or evaluations that it deems appropriate including, for example, with regard to: (1) CH2M Hill's proposed Fixed Design-Build Price, which is significantly above CAW's estimate included in the RFP and (2) the material exceptions to the Draft DB Agreement taken by MWH and by Black and Veatch.

APPENDIX A
SUMMARY OF VOLUNTARY ALTERNATIVE PROPOSALS

Black & Veatch

#	Description	Fixed DB Price for 9.6 mgd Add/Deduct	CAW Decision	Basis of Decision
1	Remove filtered water tank and intermediate pumps	($1,411,00)	Not Accepted	1
2	Precast concrete exterior shell	$1,896,000	Not Accepted	3
3	Provide canopy over filter pipe gallery	($312,000)	Not Accepted	2
4	Provide solar panels	$286,000	Not Accepted	3
5	RO Optimization (3.2 mgd trains)	($920,000)	Discussion Required	
6	RO train instrumentation optimization	($174,000)	Discussion Required	
7	Doosan RO test skid upgrade for membrane CIP	$82,000	Discussion Required	
8	Dezurik valves	$496,000	Discussion Required	
9	Pritchard-Brown Generator Enclosure	$63,000	Discussion Required	
10	Cartridge Filters with lined carbon steel vessel	($103,000)	Discussion Required	

Bases for Decision Key:
1-Undesirable project process risk
2-Undesirable increased operations and maintenance expense
3-Undesirable increase in capital cost
4-Other

APPENDIX A
SUMMARY OF VOLUNTARY ALTERNATIVE PROPOSALS

CDM Smith

#	Description	Fixed DB Price for 9.6 mgd Add/Deduct	CAW Decision	Basis of Decision
1	RO System Optimization	($3,500,00)	Discussion Required	
2	Aeration for iron oxidation	($65,000)	Not Accepted	1
3	Iron in dissolved state (eliminate granular media filter)	($9,700,000)	Not Accepted	1
4	Cal-Flo lime slurry	($1,500,000)	Discussion Required	
5	Bulk storage/delivery of Sodium Hypochlorite	($800,000)	Not Accepted	2
6	Remove sulfuric acid system	($60,000)	Not Accepted	1
7	Canopy over pressure filters instead of walls	($880,000)	Not Accepted	2
8	Eliminate exterior walls in Chemical Building	($50,000)	Not Accepted	2
9	Smaller clearwells and add UV credits	($400,000)	Not Accepted	1
10	Lower material standards	($790,000)	Discussion Required	
11	Reduce vibration monitoring	($50,000)	Not Accepted	2
12	FRP Cartridge Filters	($90,000)	Discussion Required	

Bases for Decision Key:
1-Undesirable project process risk
2-Undesirable increased operations and maintenance expense
3-Undesirable increase in capital cost
4-Other

CH2M Hill

#	Description	Fixed DB Price for 9.6 mgd Add/Deduct	CAW Decision	
1	Multiport RO vessels	($417,000)	Discussion Required	
2	Spool pieces in lieu of valves	($475,000)	Not Accepted	1
3	Enhanced Landscaping	302,597	Not Accepted	3
4	Split pass CIP for first pass RO train	($95,000)	Not Accepted	1
5	Eliminate Filter Backwash pump station	($640,121)	Discussion Required	1
6	Overhead RO piping	($875,000)	Discussion Required	
7	Single Finished Water storage tank alternative	$458,920	Not Accepted	1
8	Canopies at Pretreatment and Chemical Facilities	($769,293)	Not Accepted	3
9	Backwash Equalization Tank and Solids Dewatering	$103,840	Not Accepted	4
10	Direct Bury Electrical Ductbanks	($257,715)	Not Accepted	4
11	Increase pretreatment media filtration rate	($1,032,000)	Not Accepted	1
12	Eliminate interior security fencing	($226,703)	Not Accepted	4
13	Lime slurry and CO2 alternative system	($362,300)	Discussion Required	
14	Buried chemical piping	($398,543)	Discussion Required	
15	Eliminate second spare pressure filter	($253,000)	Not Accepted	1
16	Chemical pump redundancy	($220,000)	Discussion Required	
17	Modify RO train size	TBD	Discussion Required	
18	Eliminate Redundant RO Train	($2,763,495)	Not Accepted	1
19	Smaller finished water tanks	($691,700)	Not Accepted	1
20	Power RO Feed Pumps from electricity produced on site via natural gas electrical generation	TBD	Not Accepted	4
21	Eliminate letter of credit	($225,000)	Not Accepted	4
22	RO replacement rate	N/A	Not Accepted	4

Bases for Decision Key:
1-Undesirable project process risk
2-Undesirable increased operations and maintenance expense
3-Undesirable increase in capital cost
4-Other

MWH

#	Description	Fixed DB Price for 9.6 mgd Add/Deduct	CAW Decision	
1	Replacement of the Pretreatment Filters with Hydrocyclone Sand Separators	($5,140,000)	Not Accepted	1
2	Elimination of the Filtered Water Storage Tanks and pumping stage	($1,670,000)	Not Accepted	1
3	Elimination of the RO Concentrate Equalization Basin	($579,000)	Not Accepted	1
4	Delivered Liquid Lime	($140,000)	Discussion Required	
5	Bulk delivery of sodium hypochlorite solution	($836,000)	Not Accepted	2
6	More efficient RO System	$100,000	Discussion Required	
7	Reduced size/scope of buildings and systems	($5,795,431)	Not Accepted	2
8	Add solar energy facility	$4,255,197	Not Accepted	3
9	Add Builder's Risk Insurance	Annual Rate: $0.243 per $100 of project value	Not Accepted	4
10	Enhanced Landscaping	$395,000	Not Accepted	3

Bases for Decision Key:
1-Undesirable project process risk
2-Undesirable increased operations and maintenance expense
3-Undesirable increase in capital cost
4-Other

APPENDIX B
SUMMARY OF REQUIRED ALTERNATIVE PROPOSALS

Black & Veatch

#	Description	Fixed DB Price for 9.6 mgd Add/Deduct
1	UV Disinfection	($307,020)
2a	Calcite Contactor	$2,110,131
2b	RDP Tekkem Batch Slurry	$1,461,293
3	5-Year Membrane Warranty	$0
4	2-Year RO Feed Pump Warranty	$93,425

CDM Smith

#	Description	Fixed DB Price for 9.6 mgd Add/Deduct
1	UV Disinfection	($312,500)
2a	Calcite Contactor	($12,590)
2b	RDP Tekkem Batch Slurry	$137,873
3	5-Year Membrane Warranty	$0
4	2-Year RO Feed Pump Warranty	$11,890

CH2M Hill

#	Description	Fixed DB Price for 9.6 mgd Add/Deduct
1	UV Disinfection	($981,335)
2a	Calcite Contactor	$2,156,656
2b	RDP Tekkem Batch Slurry	included in base
3	5-Year Membrane Warranty	$0
4	2-Year RO Feed Pump Warranty	$11,165

MWH

#	Description	Fixed DB Price for 9.6 mgd Add/Deduct
1	UV Disinfection	($312,500)
2a	Calcite Contactor	$6,073,579
2b	RDP Tekkem Batch Slurry	included in base
3	5-Year Membrane Warranty	$138,213
4	2-Year RO Feed Pump Warranty	$255,000

Proposer Standings Based on Non-Discounted Cost Effectiveness

	B&V	CDM	CH2M	MWH
9.6 mgd				
CapEx (non-discounted)	3	1	4	2
Power (non-discounted, 30-yr.)	3	2	1	4
O&M (excl. Power, non-discounted, 30-yr.)	1	2	4	3
TOTAL	2	1	4	3
6.4 mgd				
CapEx (non-discounted)	3	1	4	2
Power (non-discounted, 30-yr.)	3	2	1	4
O&M (excl. Power, non-discounted, 30-yr.)	1	2	4	3
TOTAL	2	1	4	3

Note: Sensitivity analyses include estimated operating costs as proposed by the Proposers and that such operating costs are not guaranteed.

Proposer Standings Based on NPV
5% Discount Rate, $0.10 kWh

		B&V	CDM	CH2M	MWH
	(5% DR, 3% IR)	NPV			
9.6 mgd - 20 Year					
Drawdown CapEx		3	1	4	2
Power		3	2	1	4
O&M (excl. Power)		1	3	4	2
	TOTAL	2	1	4	3
9.6 mgd - 30 Year					
Drawdown CapEx		3	1	4	2
Power		3	2	1	4
O&M (excl. Power)		1	2	4	3
	TOTAL	2	1	4	3
6.4 mgd - 20 Year					
Drawdown CapEx		3	1	4	2
Power		3	2	1	4
O&M (excl. Power)		1	3	4	2
	TOTAL	2	1	4	3
6.4 mgd - 30 Year					
Drawdown CapEx		3	1	4	2
Power		3	2	1	4
O&M (excl. Power)		1	2	4	3
	TOTAL	2	1	4	3
	NPV TOTAL	2	1	4	3

Note: Sensitivity analyses include estimated operating costs as proposed by the Proposers and that such operating costs are not guaranteed.

Proposer Standings Based on NPV
4% Discount Rate, $0.10 kWh

	B&V	CDM	CH2M	MWH
	NPV			
9.6 mgd - 20 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	3	4	2
TOTAL	2	1	4	3
9.6 mgd - 30 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	2	4	3
TOTAL	2	1	4	3
6.4 mgd - 20 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	3	4	2
TOTAL	2	1	4	3
6.4 mgd - 30 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	2	4	3
TOTAL	2	1	4	3
NPV TOTAL	2	1	4	3

Note: Sensitivity analyses include estimated operating costs as proposed by the Proposers and that such operating costs are not guaranteed.

Proposer Standings Based on NPV
6% Discount Rate, $0.10 kWh

	B&V	CDM	CH2M	MWH
	NPV			
9.6 mgd - 20 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	3	4	2
TOTAL	2	1	4	3
9.6 mgd - 30 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	2	4	3
TOTAL	2	1	4	3
6.4 mgd - 20 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	3	4	2
TOTAL	2	1	4	3
6.4 mgd - 30 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	2	4	3
TOTAL	2	1	4	3
NPV TOTAL	2	1	4	3

Note: Sensitivity analyses include estimated operating costs as proposed by the Proposers and that such operating costs are not guaranteed.

Proposer Standings Based on NPV
5% Discount Rate, $0.08 kWh

	B&V	CDM	CH2M	MWH
	NPV			
9.6 mgd - 20 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	3	4	2
TOTAL	2	1	4	3
9.6 mgd - 30 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	2	4	3
TOTAL	2	1	4	3
6.4 mgd - 20 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	3	4	2
TOTAL	2	1	4	3
6.4 mgd - 30 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	2	4	3
TOTAL	2	1	4	3
NPV TOTAL	2	1	4	3

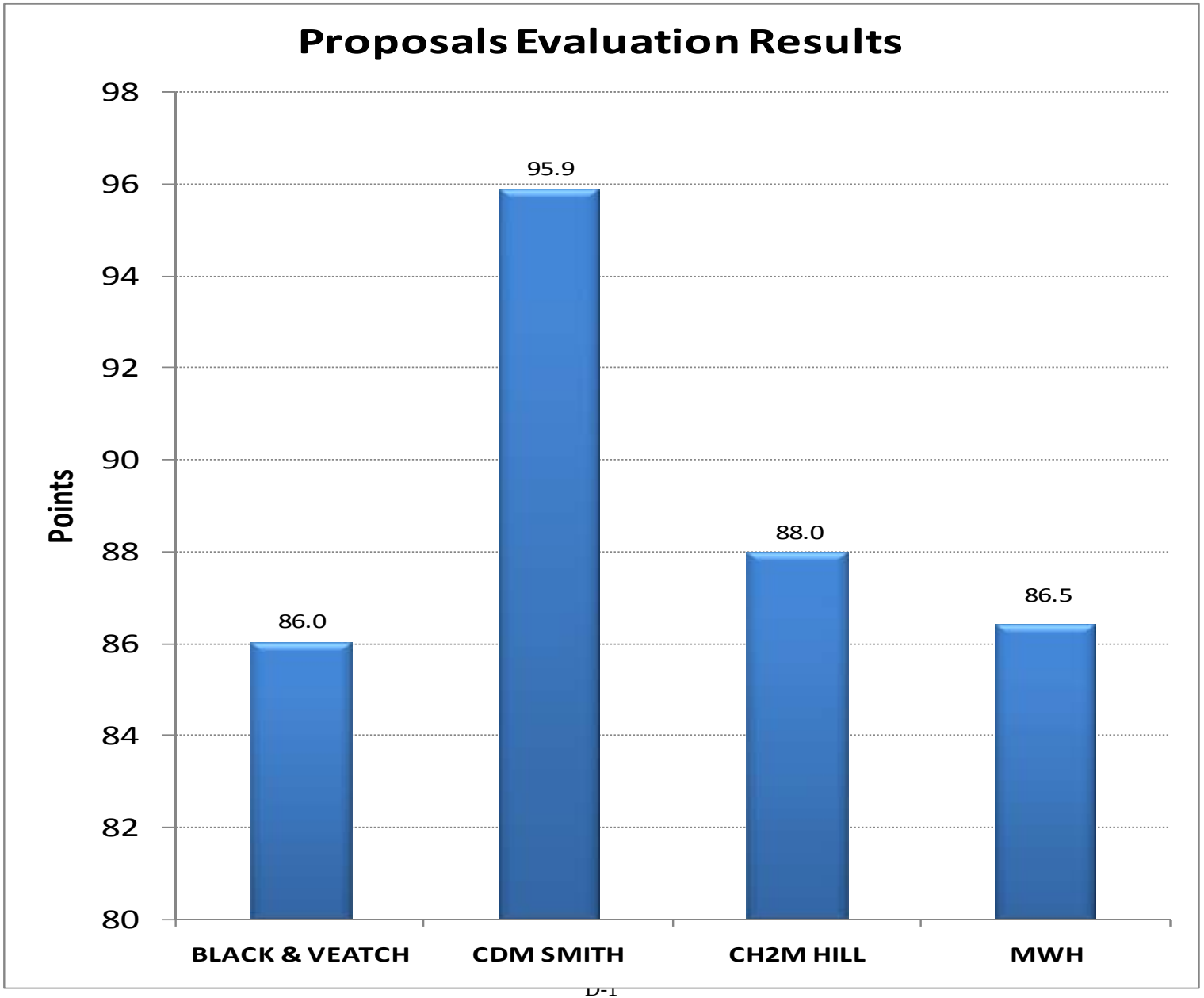
Note: Sensitivity analyses include estimated operating costs as proposed by the Proposers and that such operating costs are not guaranteed.

Proposer Standings Based on NPV
5% Discount Rate, $0.12 kWh

	B&V	CDM	CH2M	MWH
	NPV			
9.6 mgd - 20 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	3	4	2
TOTAL	2	1	4	3
9.6 mgd - 30 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	2	4	3
TOTAL	2	1	4	3
6.4 mgd - 20 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	3	4	2
TOTAL	2	1	4	3
6.4 mgd - 30 Year				
Drawdown CapEx	3	1	4	2
Power	3	2	1	4
O&M (excl. Power)	1	2	4	3
TOTAL	2	1	4	3
NPV TOTAL	2	1	4	3

Note: Sensitivity analyses include estimated operating costs as proposed by the Proposers and that such operating costs are not guaranteed.

APPENDIX D
PROPOSAL EVALUATION RESULTS



APPENDIX D
PROPOSAL EVALUATION RESULTS

	B&V	CDM	CH2M	MWH
Technical Criteria	35.8	36.1	40.0	35.1
Business Criteria	50.2	59.8	48.0	51.4
TOTAL	86.0	95.9	88.0	86.5