

EXHIBIT 22-A

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

MEMORANDUM

DATE: June 14, 2007

TO: David A. Berger, General Manager *DMB*

FROM: Andrew M. Bell, District Engineer *AMB*
Henrietta Stern, Project Manager *HS*

SUBJECT: Estimated Costs to Re-Initiate and Complete Draft EIR and Final EIR for MPWMD Seawater Desalination Project at Sand City (8,400 Acre-Feet per Year Capacity)

Summary

In response to a request by Director Markey at the May 21, 2007 Board meeting, District staff has reviewed the status of estimated costs to complete the Environmental Impact Report (EIR) for an 8,400 acre-feet per year (afy) seawater desalination project located in Sand City. The environmental document was submitted to the Board of Directors in December 2003 as a "Board Review Draft" Draft EIR (BRDEIR). At that time the Board directed that further studies of the project extend into 2004, in order to capture some of the engineering and geotechnical work then in progress. These additional technical consultant studies concluded, among other things, that "offshore" (perpendicular to the shoreline) horizontal directionally-drilled (HDD) wells would not likely be feasible for the locations beneath the sea floor considered for seawater intake, and that "along-shore" (parallel to the shoreline) HDD wells would provide a more appropriate intake method. The Board received these studies in April and June of 2004, but took no action to authorize further consultant work consisting of (1) pilot testing of along-shore HDD seawater intake technology to determine its feasibility; and (2) additional evaluation of brine discharge methods. CEQA requires that adequate technical analysis be included in an EIR for the project alternative selected to be determined as "practicable and feasible." Thus, staff believes that further technical analysis of the project, as described above, would be required to complete the EIR.

With respect to the estimated costs to complete the EIR, staff has updated cost estimates previously provided by the EIR consultants for its completion, which are summarized below. However, since our consultants did not develop an estimate for the additional technical analysis of the along-shore HDD technology, it is not possible for staff to provide an estimate for the total additional cost to complete the EIR. Staff has attached, and summarizes below, a recent cost estimate that California American Water engineering consultants developed for a similar type of technical analysis that the California Public Utilities Commission staff requested for its investigation of alternatives to the proposed Coastal Water Project. District staff has included this information for illustrative purposes only, as the smaller scale and different location of the District's desalination project would result in a different cost for its required technical analysis.

David A. Berger

June 14, 2007

Page 2

Updates to Consultant Cost Estimates

Recently District staff contacted the environmental and technical consultants that conducted the original work and asked that they provide updated information regarding the cost of studies needed to complete a Final EIR on the project. Jones & Stokes Associates (JSA), the environmental review consulting firm, prepared the June 6, 2007 memorandum attached as **Exhibit 1**. Camp Dresser & McKee Inc. (CDM), the engineering and geotechnical consulting firm, provided updated consultant labor rates so that District staff could update previous cost estimates. District staff asked JSA to provide costs on two options, as described in **Exhibit 1**. These two options may be summarized as follows:

Option 1 Description

The EIR for this alternative would focus on beach radial wells and offshore HDD well technology as the seawater intake method. The cumulative impact analysis would be redone, and other impact analyses would receive minor adjustments to account for updated setting information. CDM and District staff would provide updated information as needed (e.g., project description, hydrology, impacts to Carmel River and Seaside Groundwater Basin, etc.).

Option 1 Costs

JSA estimates its costs would be \$115,000 (see **Exhibit 1**). District staff updated CDM's estimated costs to be between \$25,000 and \$35,000. Consultant costs for Option 1, not including seawater intake and brine discharge feasibility testing, are estimated to range from \$135,000 and \$145,000.

Option 2 Description

This alternative would focus on beach radial wells and along-shore HDD facilities for seawater intake. Discussion of offshore HDD seawater intake and its effects would be removed from the BRDEIR and replaced with a detailed review of onshore HDD facilities. Construction effects associated with the along-shore HDD system would be analyzed in detail. Water quality, hydrology, and marine biology effects would be redone. As for Option 1, for Option 2 the cumulative impact analysis would be redone, and other impact analyses would be adjusted to account for updated setting information. CDM and District staff would provide updated information as needed (e.g., project description, hydrology, impacts to Carmel River and Seaside Groundwater Basin, etc.).

Option 2 Costs

JSA estimates its costs would be \$135,000 (see **Exhibit 1**). District staff updated CDM's estimated costs to be between \$45,000 and \$60,000. Consultant costs for Option 2, not including seawater intake and brine discharge feasibility testing, are estimated to range from \$180,000 to \$195,000.

Recommended Additional Tasks

District staff believes it would be necessary to perform two additional tasks in order to be assured of

David A. Berger

June 14, 2007

Page 3

the feasibility of an 8,400 afy seawater desalination project in Sand City. These two tasks are: (1) conduct pilot testing of seawater intake technology to determine its feasibility; and (2) conduct additional evaluation of brine discharge methods. Costs for these tasks have not been estimated by District staff or by the project consultants. However, some relevant information has been prepared by California American Water (CAW) and its consultants in documents related to the Coastal Water Project. The California Public Utilities Commission's Energy Division staff is preparing the Draft EIR for the Coastal Water Project. In response to a request by the Energy Division staff, CAW provided a description of required tasks and associated costs required to prepare a project description for subsurface seawater intake facilities and to conduct a test of subsurface intake well or wells. This method has been discussed by CAW and others as the method of providing feed water for "a North Marina desal plant location." A desalination plant potentially located near the Monterey Regional Water Pollution Control Agency's (MRWPCA) treatment plant is being considered as an alternative to the Moss Landing Power Plant location, where the power plant's cooling water system is proposed as a source of feed water. Attached as **Exhibit 2** is CAW's proposed scope of work for these two features (Data Request 2.4 and 2.5), and to evaluate the use of MRWPCA's outfall for brine discharge (Data Request 2.6). **Exhibit 3** is a list of the tasks and their estimated costs.

CAW's estimated cost for conceptual design of subsurface intake facilities (Task 2.4.2) is \$36,000. The estimated cost for test well design and installation (Task 2.5.2) is \$726,000. This is one element of the work anticipated to be required to develop and conduct a subsurface intake test well and pilot program for the Coastal Water Project (Task 2.5 - \$1,994,000).

As is stated above, costs for planning and testing subsurface intake facilities for an 8,400 AFY desal project in Sand City have not been estimated by District staff or consultants. It is certain, however, that to obtain information staff believes would be necessary to determine the feasibility of seawater intake facilities, significant additional expenditures would be required.

ATTACHMENTS

- Exhibit 1** June 6, 2007, Memorandum from Mike Rushton, Jones & Stokes Associates, to Henrietta Stern, MPWMD – Cost for Re-Initiating and Completing Water Supply Project Draft and Final EIR
- Exhibit 2** California American Water - Response to Public Utilities Commission Data Request 2 – Proposed Scope of Work for Data Requests 2.4, 2.5 and 2.6 (January 9, 2007)
- Exhibit 3** California American Water - Response to Public Utilities Commission Data Request 2 – RBF Scope of Work and Budget, Data Request 2.4, 2.5, and 2.6



Jones & Stokes

Memorandum

Date: June 6, 2007 (amended 6/12/07 by H. Stern)

To: Henrietta Stern

cc: Gregg Roy

From: Mike Rushton

Subject: **Jones & Stokes Cost for Re-Initiating and Completing Water Supply Project Draft and Final EIR – MPWMD Desalination Project at Sand City**

Henrietta:

Gregg Roy and I have reviewed our earlier (2004) cost estimates for completing the Water Supply Project Draft and Final EIR, and have developed some rough numbers for you. Because we do not know all of the details of how the project might change and how the local environment may have changed, we have developed some general assumptions to go along with our cost estimates.

This memo contains two separate estimates. The first is for a project that would remain at the production goal of approximately 8,400 acre-feet annually (AFA), with no change in proposed desalination facilities. The second is the same as the first, except that the seawater collection facilities would change from offshore HDD technology to collection pipes placed in the beach parallel to the coastline. The beach radial wells would remain an option for the collection system.

Option 1: 8,400 AFA Scenario (no changes)

Basic Assumptions

1. No new engineering work is included in the cost estimate.
2. All project description information would come from MPWMD or its consultants.
3. The work would include a revised Draft EIR and a Final EIR.
4. Costs developed in 2004 were escalated by 3.5% for three years and extra costs were added for start-up and updating setting information.

Project Variables

June 6, 2007
Page 2

1. There would be no change in facilities layouts or locations from the December 2003 Board Review Draft EIR.
2. The same range of alternatives would be reviewed.
3. All production water would be coming from Monterey Bay.
4. Water would be produced from offshore HDD wells or beach radial wells.
5. If ASR is evaluated, it would be only the existing Phase 1 ASR project.

Impact Assumptions

1. The Monterey Bay and Carmel River water quality, water supply and hydrology impact sections will not be redone.
2. Other impact analyses would receive minor adjustments to account for updated setting information.
3. The cumulative impact analysis would be redone.
4. The growth analysis would assume effects have already been analyzed in local General Plans.
5. If minor adjustments are needed, MPWMD staff would redo the Carmel River water impacts and MPWMD or its consultants would provide the groundwater hydrology analysis.

Cost: \$110,000

Option 2: 8,400 AFA Scenario with Beach Collector System

Basic Assumptions

1. Same as for the 8,400 AFA scenario.

Project Variables

1. Project Variables 2-5 above would be the same.

June 6, 2007
Page 3

2. A revised collector system would be described, with collection occurring through pipes buried along the beach, parallel to the coastline.

Impact Assumptions

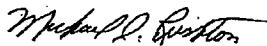
1. Impact Assumptions 3-4 above would be the same.
2. Construction effects associated with the beach collection system would be analyzed in detail; the effects associated with the offshore HDD system would be removed.
3. The water quality, hydrology and marine biology effects of the collection system would be completely redone; we assume the groundwater hydrology effects would be completed by MPWMD staff or its engineering consultants.
4. If minor adjustments are needed, MPWMD staff would redo the Carmel River water impacts.

Cost: \$135,000

Schedule

For Scenarios 1 and 2 above, we estimate that the entire CEQA process could be completed in 6-8 months.

Give us a call if you have questions about our assumptions, schedule or costs. We would also be happy to make a trip to your office to discuss this work further. As we noted earlier, there are many variables to this cost estimate that probably haven't been revealed at this point, but we should be in the right ballpark. We would be glad to make further adjustments in our estimates if you wish to alter our assumptions or develop additional scenarios.



Mike Rushton, Principal

U:\Henri\wplaugwater07\USA_DesalCostmemo_rev_060607.doc

downloaded by H. Stern from JSA e-mail 6/6/07; amended by H. Stern 6/12/07 per DAB review

DRAFT
Coastal Water Project

Coastal Water Project EIR
Data Request 2
January 9, 2007

Proposed Scope of Work for Data Requests 2.4, 2.5 and 2.6

On November 27, 2006, the California Public Utilities Commission (CPUC) formally submitted to California American Water Company (CAW) Data Request 2 (DR 2); a request for additional information on a series of topics in order to enable the Coastal Water Project (CWP) EIR team to formulate an EIR that is based on the most current project description and that explores newer technologies and approaches to project features. In addition, the EIR team requested additional information regarding the North Marina Site Alternative (PEA Alternative 4) that will enable them to advance the project description of this alternative.

While we have listed certain contractors for drilling the test wells and furnishing the pilot plant services in the proposed scope of work and fee estimate for responding to the data request, the procurement process for these contractors will be determined by CAW. In response to DR 2, RBF Consulting (RBF) is submitting to CAW this proposed scope and fee to execute some of the work outlined in DR 2.

DATA REQUEST 2.4

DR 2.4 states:

Please provide a CEQA-ready project description (including maps, diagrams, and text) of the subsurface intake techniques currently being considered to provide feed water for a North Marina desal plant location. The project description should include, but is not limited to, numbers, locations, types, and capacities of any proposed subsurface intake facilities; proposed operational scenarios; and relevant geotechnical/hydrogeological information that support the feasibility of the technique(s). Document why other alternatives/ techniques are infeasible at these same locations and/ or why other alternatives, techniques were rejected.

Although the North Marina Site Alternative was discussed in the PEA (as Alternative 4) and in a supplemental TM (included in the PEA Appendix), additional effort will be required in order to provide the CPUC with a detailed response to DR 2.4. Based on data ultimately derived from DR 2.5 below, RBF will update the PEA-Alternative 4 project description using the North Marina Site Alternative TM as a basis. The following tasks will be completed in order to provide the CPUC a response to DR 2.4

CPUC Data Request 2.4		Lead/Sub	Task Descriptions
• 2.4.1	• <i>Data Gathering and Review</i>	RBF	• Review of Hydrogeologic and Modeling Data Obtained from DR 2.5
• 2.4.2	• <i>Conceptual Design of Subsurface Intake Facilities to</i>	RBF	• Hydraulic Design including: number, capacities and locations of wells and appurtenant structures,

::ODMA\PCDOCS\SLW_DOCS_SF6555133\1

01/16/2007

	<i>the North Marina Desal Plant</i>		alignments, pipeline and pump sizing, valve locations, materials and pressure classes <ul style="list-style-type: none"> • Operations scenarios • Prepare revised conceptual site layouts and exhibits for inclusion in updated project description • Revise Cost Estimate to Reflect Updated Design Features of Proposed Subsurface Intake Concept
• 2.4.3	• <i>Prepare CEQA-Ready Project Description</i>	RBF	<ul style="list-style-type: none"> • Revise the North Marina Site Alternative TM to reflect updated subsurface intake conceptual design • Include updated cost estimates • Include maps and diagrams • Include review of source water intake technology alternatives and discuss why they were rejected from further analysis
• 2.4.4	• <i>Prepare Response Package to CPUC</i>	RBF	<ul style="list-style-type: none"> • Include all analysis performed for DR 2.4 and 2.5

DATA REQUEST 2.5

DR 2.5 states:

Please provide a scope of work and schedule to support the development of subsurface intake test well(s). Upon our agreement regarding these items, please implement this scope of work, which should include, but is not limited to:

- *locating, designing, and installing exploratory borings intended to develop a comprehensive understanding of subsurface hydrogeology (i.e. saturated thickness, confining zones, seawater/saltwater interface) between the surf zone and areas east of the dunes;*
- *converting select exploratory borings to test wells capable of facilitating water quality testing and aquifer testing;*
- *the implementation of a subsurface intake water quality monitoring and treatment requirements testing program (pilot testing), that could be operated simultaneously with the Moss Landing Pilot Plant;*
- *a bluff erosion analysis, which could include literature review and field surveys to determine bluff erosion rates in the vicinity of North Marina,*
- *an inventory of existing coastal wells in the North Marina vicinity (south and north of the Salinas River), which includes documentation of well depth, intake screen intervals, well efficiency and production data;*
- *groundwater modeling for the revised approach to North Marina subsurface intake wells in the 180' and/or 400' aquifers. Modeling should compare the baseline with potential changes in the seawater-intruded area, including but not limited to changes in groundwater elevations and the estimated water level drawdown at all neighboring wells resulting from the operation of subsurface intake wells;*
- *discussions with MCWRA and MCWD regarding the use of the 180' and/or 400' aquifers as a source of feedwater, and how the CWP may be coordinated with the MCWD's desal planning efforts; and*

::ODMA\PCDOCS\SLW_DOCS_SF\6555133\1

01/16/2007

- discussions with coastal landowners regarding the CWP's development of wells on their properties.
- extending your current and ongoing wildlife surveys to cover the potential subsurface intake locations in the North Marina area.

RBF proposes to contract with the following subconsultants in order to complete the work:

- GEOSCIENCE for subsurface investigative work, including modeling the 180' and 400' aquifers, drilling exploratory borings, and development of test slant wells in the North Marina area. GEOSCIENCE, in coordination with Boart Longyear, successfully drilled and tested a slant well at Dana Point, CA to investigate the feasibility of this technology for desalination plant source water intake.
- Reiss Environmental for piloting of seawater derived from the test well, and
- Denise Duffy & Associates to complete the biological resources investigation within the vicinity of the proposed well sites.

CAW indicated in the December 15, 2006 Data Request 2 Response Package that a scope, schedule, and budget for DR 2.5 would be provided to the CPUC by January 15, 2007. The subconsultants provided a scope for their respective activities. The following outlines the scope of work for DR 2.5:

	CPUC Data Request 2.5	Lead/Sub	Task Descriptions
• 2.5.1	<ul style="list-style-type: none"> • Locating, designing, and installing exploratory borings intended to develop a comprehensive understanding of subsurface hydrogeology (i.e. saturated thickness, confining zones, seawater/saltwater interface) between the surf zone and areas east of the dunes 	RBF/ Geoscience	<ul style="list-style-type: none"> • Discussions with MCWD and landowners for drilling of exploratory boreholes/ test wells on their property (west end of Reservation Road in the City of Marina) and initial discussions regarding operation of a pilot plant • Obtain and review coastal well data in vicinity of North Marina • Technical Specifications and Contractor Coordination for Exploratory Borehole Investigation (includes drilling permitting assistance from Geoscience) • Drill three 400-foot long (8-inch diameter) exploratory Boreholes using sonic drill method and convert to monitoring wells (Boart Longyear). Each boring will consist of two 2-inch PVC monitoring wells; one screened in the 180 aquifer and the other screened in the 400 aquifer. Two wells will be located on MCWD site (site of test slant well) and the other one located inland approx. 1-2 miles • Drilling Inspection and Construction Management for exploratory Boreholes / monitoring wells (Geoscience). • Exploratory Drilling Summary Report

			and Follow-up Meeting/ Approvals w/ CAW
<ul style="list-style-type: none"> • 2.5.2 	<ul style="list-style-type: none"> • <i>Converting select exploratory borings to test wells capable of facilitating water quality testing and aquifer testing</i> 	RBF/ Geoscience/ Boart Longyear	<ul style="list-style-type: none"> • Technical Specifications and Contractor Coordination for Slant Well Construction (includes drilling permitting assistance from Geoscience) • Drilling Inspection and Construction Management for Test Slant Well (Geoscience) • Drill approx. 375-foot Test Slant Well using sonic drill method (Boart Longyear) at an approx. 36 degree slant from the horizontal at MCWD site. Test Slant well would be constructed with a 12-inch pump house chamber and 6-10 inch well screen diameter • Conduct 1-day step drawdown test and 5-day constant rate pump test on slant well with 2-day recovery. • Test Slant Well Completion Report
<ul style="list-style-type: none"> • 2.5.3 	<ul style="list-style-type: none"> • <i>The implementation of a subsurface intake water quality monitoring and treatment requirements testing program (pilot testing), that could be operated simultaneously with the Moss Landing Pilot Plant</i> 	RBF/ Reiss	<ul style="list-style-type: none"> • Discussions with MCWD and landowners for placement and operation of PPF on their property. Discussion of piping from test well to PPF that may cross property lines. • Preliminary Design of PPF Infrastructure and Auxiliary Equipment and submittal of design report • Detailed Design including preparation of plans and specifications for piping connections to the Test Slant Well and intermittent pumping, if required; equalization tank(s); concrete pads for the trailers; brine/ waste discharge system(s); and other utility connections • Coordination with PPF Infrastructure Contractor and Field Installation Support • Development of Test and Monitoring Plan • 8-month Lease of Trailer-Enclosed Single Pass Membrane Pilot Facility (two 4-inch diameter, 4-element pressure vessels and membranes, micron filter and cartridges, CIP system and cartridges) includes Startup and Training provided by Reiss • 6 months of operations and data

::ODMA\PCDOCS\SLW_DOCS_SF\6555133\1

01/16/2007

			<ul style="list-style-type: none"> collection PPF Study Supervision and Monthly Reporting Final Pilot Study Report Demobilization Planning Assistance
<ul style="list-style-type: none"> 2.5.4 	<ul style="list-style-type: none"> A bluff erosion analysis, which could include literature review and field surveys to determine bluff erosion rates in the vicinity of North Marina 	RBF	<ul style="list-style-type: none"> Provide Existing Report
<ul style="list-style-type: none"> 2.5.5 	<ul style="list-style-type: none"> An inventory of existing coastal wells in the North Marina vicinity (south and north of the Salinas River), which includes documentation of well depth, intake screen intervals, well efficiency and production data 	RBF	<ul style="list-style-type: none"> Inventory all existing wells within one mile of proposed subsurface intake sites
<ul style="list-style-type: none"> 2.5.6 	<ul style="list-style-type: none"> Groundwater modeling for the revised approach to North Marina subsurface intake wells in the 180' and/or 400' aquifers. Modeling should compare the baseline with potential changes in the seawater-intruded area, including but not limited to changes in groundwater elevations and the estimated water level drawdown at all neighboring wells resulting from the operation of subsurface intake wells 	RBF/ Geoscience	<ul style="list-style-type: none"> Construct Three-Dimensional Groundwater Flow and Variable Density Solute Transport Model <ul style="list-style-type: none"> Utilize USGS SEAWAT-2000 Model inputs include geohydrologic data from borehole investigation, upstream water level, water quality and aquifer parameter data Model input files to include ground surface elevations, initial water elevations, tidal elevation data, and initial salinity concentrations Calibrate Model to Steady and Transient Conditions from Slant Well Pumping Test Results Determine optimum well spacing and yield (assumes 5 well configurations modeled) Initial and Final Modeling Reports
<ul style="list-style-type: none"> 2.5.7 	<ul style="list-style-type: none"> Discussions with MCWRA and MCWD regarding the use of the 180' and/or 400' aquifers as a source of feedwater, and how the CWP may be coordinated with the MCWD's desal planning efforts 	RBF	<ul style="list-style-type: none"> MCWD Desalination Coordination Meetings MCWRA Meetings re: use of 180' or 400' aquifers for feedwater
<ul style="list-style-type: none"> 2.5.8 	<ul style="list-style-type: none"> Discussions with coastal landowners regarding the CWP's development of wells on their properties 	RBF	<ul style="list-style-type: none"> Meetings w/ Coastal Landowner's regarding potential development of full-scale wells for feedwater for a North Marina Desal Plant

::ODMA\PCDOCS\SLW_DOCS_SF6555133\1

01/16/2007

<ul style="list-style-type: none"> • 2.5.9 	<ul style="list-style-type: none"> • <i>Extending your current and ongoing wildlife surveys to cover the potential subsurface intake locations in the North Marina area</i> 	RBF/ DDA	<ul style="list-style-type: none"> • Meetings • Habitat Assessment Report • Protocol Level Surveys • Floristic Survey • Wetland Delineation
<ul style="list-style-type: none"> • 2.5.10 	<ul style="list-style-type: none"> • <i>Permitting Assistance</i> 	RBF	<ul style="list-style-type: none"> • County Environmental Health, City of Marina, NPDES, Coastal Commission, etc.

DATA REQUEST 2.6

DR 2.6 states:

Please provide a further evaluation of the joint use of MRWPCA's outfall for brine discharge, including possible operational scenarios and an approach for modeling the impacts of the plume. Include the source of data to be used in modeling the plume, the type of model to be used, and how the modeling effort will be coordinated with the EIR team. Describe your approach and schedule for discussions with MRWPCA on the institutional issues that will need to be addressed to make this a feasible alternative.

In order to provide a complete response to the CPUC, RBF proposes to work with FlowScience, Inc. to evaluate combined discharges (desalination plant brine and wastewater plant effluent) to the MRWPCA outfall. This proposal assumes that the desalination plant would be located in the North Marina vicinity and would utilize subsurface intakes for source water.

The following outlines our proposed scope of work for DR 2.6:

CPUC Data Request 2.6	Lead/Sub	Task Descriptions
<ul style="list-style-type: none"> • <i>Please provide a further evaluation of the joint use of MRWPCA's outfall for brine discharge, including possible operational scenarios and an approach for modeling the impacts of the plume. Include the source of data to be used in modeling the plume, the type of model to be used, and how the modeling effort will be coordinated with the EIR team. Describe your approach and schedule for discussions with MRWPCA on the institutional issues that will need to be addressed to make this a feasible alternative.</i> 	RBF/ Flowscience	<ul style="list-style-type: none"> • Discussions with MRWPCA regarding joint-use of the outfall • Gather and Review Data <ul style="list-style-type: none"> ○ Wastewater and desal plant operations data ○ Reports and studies of existing flows and mixing ○ Tidal and wave data • Evaluation of dilution characteristics of the MRWPCA outfall <ul style="list-style-type: none"> ○ Visual Plumes Software ○ Estimate available dilution capacity (worst-case discharge situation) ○ Initial Dilution Analysis (worst-case discharge situation) ○ Short-circuiting analysis (worst-case discharge situation) ○ Recommend discharge strategies or outfall modifications and mitigation • Flowscience prepares Initial and Final Technical Memoranda • RBF prepares Final Report discussing feasibility of

::ODMA\PCDOCS\SLW_DOCS_SF\65551331

01/16/2007

		utilizing MWRPCA for brine discharge • RBF prepares DR 2.6 Response Package for submittal to CPUC
--	--	--

**RBF Scope of Work and Budget
Data Request 2.4, 2.5, and 2.6**

Task	Task Description	RBF Labor	Subs	Wells	Equipment	Misc. (ODCs)	Total
DR 2.4	Update North Marina Site Alternative (PEA-Alternative 4) Project						
2.4.1	Data Gathering and Review	\$2,000					\$2,000
2.4.2	Conceptual Design of Subsurface Intake Facilities to the North Marina Desal Plant	\$36,000					\$36,000
2.4.3	Prepare CEQA-Ready Project Description	\$10,000				\$1,000	\$11,000
2.4.4	Prepare response package to CPUC for DR 2.4 and 2.5	\$2,000				\$1,000	\$3,000
	Subtotal	\$50,000	\$0	\$0	\$0	\$2,000	\$52,000
DR 2.5	Development of Subsurface Intake Test Well and Pilot Program						
2.5.1	Locating, Designing, and Installing Exploratory Borings	\$10,000	\$45,000	\$150,000	\$60,000		\$265,000
2.5.2	Test Well Design and Installation	\$40,000	\$166,000	\$400,000	\$100,000	\$20,000	\$726,000
2.5.3	Subsurface Intake Pilot Program	\$75,000	\$270,000		\$150,000	\$50,000	\$545,000
2.5.4	Bluff Erosion Analysis (no budget allocated)						\$0
2.5.5	Inventory of Existing Wells	\$15,000				\$1,000	\$16,000
2.5.6	Groundwater Modeling of 180' and 400' Aquifers	\$30,000	\$192,000			\$8,000	\$230,000
2.5.7	Meetings with MCVRA and MCWD re: 180' and 400' aquifers	\$15,000				\$1,000	\$16,000
2.5.8	Meetings with coastal landowners re: potential full-scale well development	\$20,000				\$1,000	\$21,000
2.5.9	Wildlife Surveys	\$2,000	\$68,000				\$70,000
2.5.10	Permitting	\$100,000				\$5,000	\$105,000
	Subtotal	\$307,000	\$741,000	\$550,000	\$310,000	\$86,000	\$1,994,000
DR 2.6	Development of MRWPCA WWTP Outfall for Brine Discharge						
2.6.1	Discussions with MRWPCA regarding joint-use of the outfall	\$20,000					\$20,000
2.6.2	Brine Modeling	\$5,000	\$26,000				\$31,000
2.6.3	RBF prepares DR 2.6 Response Package for submittal to CPUC	\$2,000					\$2,000
	Subtotal	\$27,000	\$26,000	\$0	\$0	\$0	\$53,000
	Total	\$384,000	\$767,000	\$550,000	\$310,000	\$86,000	\$2,099,000