**AGREEMENT BETWEEN THE SEASIDE BASIN WATERMASTER AND RBF CONSULTING FOR PROFESSIONAL SERVICES**

THIS AGREEMENT is entered into this 18 day of April 2007, by and between RBF Consulting, a California Corporation hereinafter called "Consultant," and the Seaside Basin Watermaster, hereinafter called "Watermaster" or "Seaside Basin Watermaster."

SECTION I
SCOPE OF SERVICES

Watermaster hereby engages Consultant for the conduct and preparation of certain analyses, studies, and planning procedures as set forth in **Exhibit A**, Scope of Services.

SECTION II
COMPENSATION

A. Fee Schedule

Fees payable to Consultant for services specified herein shall be in accordance with the fee schedule in **Exhibit B**.

B. Method of Payment

Payment of fees shall be based on work completed, as documented in monthly billings submitted by Consultant. Work reports shall be rendered in accordance with the schedule shown in **Exhibit C**, Work Schedule. Payments are due and payable within thirty (30) days after receipt of each invoice subject to a finding by Watermaster that work performed has been satisfactory and that payment is for the work specified in **Exhibit C**, Work Schedule. Where Watermaster finds the work to be unsatisfactory, Watermaster shall describe deficiencies in writing to Consultant within ten (10) days. Ten percent (10%) of the maximum payment shall be retained until submission of the final work product. The final invoice for work performed shall be submitted not later than sixty (60) days following completion of such work.

C. Maximum Payment

Payments to Consultant for services rendered and expenses incurred under this Agreement shall not exceed $390,071.

SECTION III
INSPECTION OF WORK

Authorized representatives of Watermaster shall have access to Consultant's offices or

other work location during normal business hours for the purpose of review and inspection of work activities undertaken pursuant to this Agreement.

## SECTION IV
## OWNERSHIP OF PROJECT REPORT AND EQUIPMENT PURCHASED

All original documents, explanations of methods, maps, tables, computer programs, reports and other documents prepared under this Agreement and equipment purchased specifically for the project shall become the exclusive property of Watermaster. Consultant may retain copies for his/her own use. Use of such documents by Watermaster for project(s) not the subject of this agreement shall be at Watermaster's sole risk without legal liability or exposure to Consultant.

## SECTION V
## TIME OF PERFORMANCE

Consultant shall begin work upon the effective date of this Agreement and shall complete all tasks described herein according to the schedule shown in **Exhibit C**, Work Schedule. Time is of the essence to this Agreement, and failure to comply with this provision shall be a material breach of this Agreement.

## SECTION VI
## DELAY BEYOND CONSULTANT'S CONTROL

Consultant shall be excused for delay caused by acts or events beyond Consultant's reasonable expectation or control. Consultant shall be entitled to extensions of time for such delay only on written application to Watermaster within ten days after commencement of the delay.

## SECTION VII
## RESPONSIBILITIES

A. Consultant represents that he/she has or will secure at his/her own expense all personnel, materials, and related services required to perform the services under this Agreement. Consultant shall act as an independent consultant and not as an agent or employee of Watermaster. Consultant shall have exclusive and complete control over his/her employees and subcontractors, and shall determine the method of performing the services hereunder.

B. Watermaster shall provide Consultant with all relevant data and studies in its possession without charge.

C. Consultant and Watermaster staff shall coordinate and arrange for all meetings required to be held with other agencies or persons hereunder, unless otherwise specified in **Exhibit A**, Scope of Services.

D. Consultant shall be responsible for the reproduction of work produced by Consultant hereunder.

E. The officers, agents, and employees of Watermaster shall cooperate with Consultant in the performance of services under this Agreement without charge to Consultant. Consultant agrees to use such services insofar as feasible in order to effectively discharge his/her obligations hereunder and further agrees to cooperate with Watermaster's officers, agents and employees.

F. The Consultant agrees to indemnify, defend and save harmless Watermaster, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all consultants, subcontractors, materialmen, laborers and any other person, firm or corporation who may be injured or damaged by the willful misconduct or negligent acts, errors, and/or omissions of the Consultant, Consultant's employees, or Consultant's subcontractors or subconsultants in the performance of this Agreement.

## SECTION VIII
## INSURANCE

A. The Consultant shall procure, purchase at his/her expense and maintain in full force and effect such insurance as will protect it from claims, damages, losses, liability, costs, and expenses as set forth herein which may arise out of or result from or in any way connected with the Consultant's activities, work, services, and/or operations performed by the Consultant under this Agreement, whether such activities or operations be by itself or by any subcontractor or by any sub-subcontractor or by anyone directly or indirectly employed by any of them, or by anyone else for whose acts the Consultant or any of them is or may be liable. The procurement and maintenance by the Consultant of policies required under this Contract shall not relieve, limit or satisfy Consultant's obligation to indemnify, defend and save harmless Watermaster, its officers, directors, agents and employees.

B. Consultant represents that he/she will, prior to commencement of work pursuant to this Agreement, name and endorse on to his/her Comprehensive General Liability insurance policy Watermaster as "an insured" with respect to liability arising out of the activities, services, operations or work negligently performed by Consultant for Watermaster (ISO form CG 20 09 11 85 or its equivalence). Consultant shall obtain and keep in full force and effect insurance policies and in appropriate limits as specified by the Insurance Requirements (**Exhibit D**) and shall require any subcontractor or sub-subcontractor to provide evidence of similar liability insurance coverages.

C. Consultant shall add to his/her Comprehensive General Liability insurance policy a severability or interest clause or such similar wording if his/her policy does not automatically

have this clause already written into it. Such language shall be similar to: "The insurance afforded applies separately to each insured against whom claim is made or suit is brought, including claims made or suits brought by any person included within the persons insured provision of this insurance against any other such person or organization."

D. All policies carried by Consultant shall contain a provision or be endorsed to state that coverage as respects to Watermaster shall not be suspended, voided, canceled or non-renewed except after the insurance company has given to Watermaster at least forty-five (45) days prior written notice to the address shown below prior to any such termination of coverage becomes effective.

E. Consultant shall, on all policies or coverages required to be carried by Consultant pursuant to this contract, give to Watermaster forty-five (45) days prior written notice by certified mail, return receipt requested, to the address shown below notification of any limitations, reductions or material change in coverage or in limits available.

F. Prior to the execution of the contract, Consultant shall file with Watermaster certificates of insurance of coverage actually in force that is required to be carried by Consultant pursuant to this Section VII and Insurance Requirements (**Exhibit D**). With respect to each renewal or replacement of any such insurance, the requirements of this paragraph must be complied with not less than thirty (30) days prior to the expiration or cancellation of the policy being renewed or replaced.

G. All insurance policies carried by or available to Consultant shall be primary and not excess nor contributing with any insurance issued to or available to Watermaster. Any insurance or self-insurance maintained or carried by Watermaster shall be excess of the Consultant's insurance and shall not participate in nor contribute with such insurance carried by or available to Consultant. Watermaster will not be responsible for any payment of premiums due as a result of compliance with the terms and conditions of the insurance requirements. The cost of such insurance shall be borne solely by the Consultant.

H. In the event Consultant elects to utilize existing policies to meet insurance requirements specified herein for comprehensive general liability and or professional errors and omissions coverages, Consultant shall provide an accurate history of claims filed against either of those policies during the past twenty-four (24) months along with amounts paid and reserves outstanding.

I. Watermaster shall be under no duty either to ascertain the existence of or to examine such insurance policies or to advise Consultant in the event such insurance coverage does not comply with the requirements hereof. However, Watermaster may, at any time, and from time to time, inspect and copy any and all insurance policies, endorsements, certificates and correspondence required to be carried by Consultant pursuant to this Agreement.

## SECTION IX

CHANGES AND CHANGED CONDITIONS

If, during the course of the work herein contemplated, the need to change the Scope of Services or the time schedule should arise, for whatever reasons, whichever party first identifies such need to change shall notify the other party in writing (e-mail communication is acceptable). The representatives of the parties shall meet within seven (7) working days of the date of such notice, to discuss the need for change so identified and to set the proposed action to be taken by the parties. A change in the Scope of Services may also result in a change in the compensation amount. Compensation changes shall be based upon the Consultant Fee Schedule (**Exhibit B**) attached hereto. Any changes agreed to shall be documented by duly executed amendments to this Agreement. Watermaster shall have the right to unilaterally remove any work items in the Scope of Services, after first complying with the notification and meeting requirements described above. Consultant. Consultant shall not have the right to remove or add work items, except by consent of Watermaster.

## SECTION X
## TERMINATION

Watermaster may terminate Consultant's services at any time by written notice to Consultant at least thirty (30) days prior to such termination. Upon receipt of written notice from Watermaster that this Agreement is terminated, Consultant shall submit an invoice for an amount which represents the value of services actually performed to the date of said notice for which he/she has not previously been compensated. Upon approval of this invoice by Watermaster, Consultant shall be paid from the sum found due after having applied the provisions of Section II, Paragraph D of this Agreement, "Late Performance Penalty," where applicable, and MPWMD shall have no further obligation to Consultant, monetarily or otherwise.

## SECTION XI
## SUB-CONTRACTING AND ASSIGNABILITY

Consultant shall not sub-contract any portion of the work required by this Agreement nor otherwise assign or transfer any interest in it without prior written approval of Watermaster. Watermaster consents to the sub-contracts that are specifically referenced in the exhibits to this Agreement.

## SECTION XII
## DISCRIMINATION AND FAIR EMPLOYMENT

Attention is directed to Section 1735 of the California Labor Code, which reads as follows:

"No discrimination shall be made in the employment of persons upon public works

because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, martial status, or sex of such persons, except as provided in Section 12940 of the government code and every Consultant for public works violating this section is subject to all penalties imposed by a violation of this chapter."

The Consultant shall not willfully discriminate against any employee or applicant for employment for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, martial status, or sex of such persons. The Consultant shall ensure that applicants and employees are treated without regard to their race, religious creed, color, national origin, physical disability, mental disability, medical condition, martial status or sex. Such action shall include, but not be limited to, the following: upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

## SECTION XIII
## INTEREST OF CONSULTANT

Consultant covenants that he/she presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. For breach or violation of this warranty, Watermaster shall have the right to annul this Agreement without liability.

## SECTION XIV
## CONTINGENT FEES

Consultant warrants that he/she has not employed or retained any company or person, other than a bona fide employee working solely for the Consultant to solicit or secure this Agreement, and that he/she has not paid or agreed to pay any company, or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gifts, or other consideration, contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, Watermaster shall have the right to annul this Agreement without liability, or at its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage, gift or contingent fee.

## SECTION XV
## DISPUTES

In the event of a dispute arising out of the performance of this Agreement either party shall, as soon as a conflict is identified, submit a written statement of the conflict to the other party. Within fifteen (15) working days of receipt of such a statement of conflict, the second

party will respond and a meeting will be arranged not more than fifteen (15) working days thereafter to arrive at a negotiated settlement or procedure for settlement. If, within forty (40) working days from the initial filing of a statement of conflict an agreement cannot be reached, it is agreed that the dispute may be resolved in a court of law competent to hear this matter. This Agreement shall be construed in accord with California law and it is agreed that venue shall be in the County of Monterey. The prevailing party shall be awarded costs of suit, and attorneys' fees.

## SECTION XVI
## NOTICES

All communications to either party by the other shall be deemed given when made in writing and delivered or mailed to such party at its respective address, as follows:

Watermaster: Seaside Basin Watermaster
2600 Garden Road, Suite 228
Monterey, CA 93940

Consultant: Michael Rudinica, Executive Vice President
RBF Consulting
14725 Alton Parkway
Irvine, CA 92618-2027

## SECTION XVII
## AMENDMENTS

This Agreement together with **Exhibits A, B, C, and D** sets forth the entire understanding of the parties with respect to the subject matter herein. There are no other agreements expressed or implied, oral or written, except as set forth herein. This Agreement may not be amended except upon written amendment, executed by both parties hereto.

SECTION XVIII
ATTACHMENTS

The following exhibits attached hereto and referred to in the preceding sections are, by reference, incorporated herein and made an integral part of this Agreement:

**Exhibit A.** Scope of Services
**Exhibit B.** Consultant Fee Schedule
**Exhibit C.** Work Schedule
**Exhibit D.** Insurance Requirements

IN WITNESS WHEREOF, the parties hereto have entered into this Agreement effective as of the day and year first above written.

**SEASIDE BASIN WATERMASTER**

Dated: April 23, 2007 By: _____
Dewey Evans
Watermaster Executive Officer

**RBF CONSULTING**

Dated: 5/4/07 By: _____
Michael Rudinica
Executive Vice President

FEDERAL TAX IDENTIFICATION NUMBER 95-2247293

# EXHIBIT A

**RBF Consulting**
**Seaside Groundwater Basin**
**Monitoring and Management Program**
**Phase I Work Plan**

The Seaside Basin Monitoring and Management Program (MMP) was developed by the Seaside Basin Watermaster Technical Advisory Committee (TAC) and adopted on May 17, 2006, and revised on September 5, 2006, to comply with the decision entered in the Seaside Groundwater Basin Adjudication (California American Water v. City of Seaside, Monterey County Superior Court, Case Number M66343) (hereinafter referred to as Decision). The MMP contains several primary tasks: 1) Basin Monitoring Well Construction Program; 2) Comprehensive Basin Production, Water Level and Water Quality Program; 3) Basin Management Program; and 4) Seawater Intrusion Program.

## Phase 1 - Management and Monitoring Program Implementation

The first phase of the MMP Implementation includes both the Coastal Sentinel Work Plan authorized by the Watermaster Board on January 31, 2007, as well as additional tasks in the MMP that have been identified as priorities and prerequisite activities to subsequent phases. A summary of these tasks is described below, and a detailed scope of work, budget and schedule is included as Appendix A.

### Monitor Well Construction

The Seawater Sentinel Work Plan has been reviewed in combination with the additional MMP Phase 1 tasks as well as with the Coastal Water Project (CWP) Aquifer Storage and Recovery (ASR) program to evaluate the coverage of existing and proposed monitoring well network.

### Comprehensive Basin Production, Water Level and Water Quality Monitoring Program

All tasks described under this portion of the MMP are recommended to be performed at this time, as the development of a consolidated database of both existing and new data related to water production, water levels and water quality will be critical to Basin management. This effort will also provide the data and analysis necessary to identify the need, if any, for additional monitoring wells as identified in the MMP.

During the development of this MMP Implementation Plan, the TAC acknowledged the concerns expressed by the Laguna Seca property-owners and the City of Del Rey Oaks. This work effort will include the investigation of existing production wells or new wells that can be added to the Watermaster's monitoring network at key locations to provide more effective monitoring in the Laguna Seca and Southern Coastal Sub areas of the basin. This work will include recommendations for improved ground water level and ground water quality monitoring, as a means to provide data to enhance the current understanding of hydrogeologic conditions in these areas, and to support planned future water resources evaluation and simulation modeling efforts.

## Basin Management

The Basin Management Program in the MMP calls for an action plan to optimize the Natural Safe Yield (also referred to as Maximum Perennial Yield) within the Coastal and Laguna Seca sub areas of the basin. Supplemental water supply projects are critical to achieving this goal. In Phase 1, other supplemental supply projects will be also analyzed and the review of the existing water production, level and quality data will be instrumental in identifying the action plan strategy for Basin Management that will be further developed in Phase 2.

Under Phase 1, the decision was made by the Watermaster Committee to proceed with documentation of the "Durbin" model, in conjunction with Martin Feeney and Derrik Williams of Hydrometrics, the groundwater modeler on the RBF team. This model will provide an agreed upon model analysis for the Watermaster. Additional modeling needs will be determined during Phase 2 of the MMP Implementation Plan if key questions for Basin Management are identified that could be furthered through additional modeling.

## Seawater Intrusion Contingency Program/ Establishing Baseline Seawater Intrusion

In addition to the monitoring planned for the proposed new sentinel wells, the Watermaster will continue to collect quarterly water quality data from the MPWMD existing coastal monitor wells under Phase 1 of the MMP. These data from the MPWMD coastal monitor wells will be instrumental in confirming baseline conditions and historical trends. Should seawater intrusion be detected at a coastal monitor or production well, steps will be implemented, following the protocols outlined in the MMP, to initiate the appropriate responsive actions

Based on the outcome of the Monitoring Well Construction Program and the Comprehensive Basin Production, Water Level and Water Quality Monitoring Program, the Seawater Intrusion Contingency Plan would be logically influenced by the Phase 1 data collection and analysis efforts. It is recommended that baseline water level contour mapping be prepared utilizing all available water level data, as well as developing baseline production data. Analyzing historical water quality data during Phase 1 serves two purposes: 1) it establishes baseline water quality; and 2) it identifies historical water quality trends.

## Phase 2 - Management and Monitoring Program Implementation

Based on the results of the Phase 1 Monitoring Well Construction Program and the Comprehensive Basin Production, Water Level and Water Quality Monitoring Program, specific tasks for Phase 2 will be determined in the fourth quarter of 2007.

**RBF Consulting**
**Seaside Groundwater Basin**
**Monitoring and Management Plan**
**Phase I Scope of Work**

The following scope of work has been developed to perform tasks necessary to carry out 1) Basin Monitoring Well Construction Program; 2) Comprehensive Basin Production, Water Level and Water Quality Program; 3) Basin Management Program; and 4) Seawater Intrusion Program.

## MANAGEMENT

### M.1
### Program Administration

~~*M. 1. a. Program Management Plan*~~
~~Preparation of a Project Management Plan to establish project goals and objectives, project description, scope of work, work breakdown structures, project organization, roles and responsibilities, contract and construction budgets, communications plan, quality plan, document control and data transfer plan, project controls, and billing procedures.~~

*M. 1. b. Project Budget and Controls*
Monthly invoicing, maintenance of internal budgets and schedules, management of subconsultants

~~*M. 1. c. Assist with Board and TAC Agendas*~~
~~The MPWMD team will closely coordinate with the RBF team, Watermaster staff and Technical Advisory Committee (TAC) representatives to ensure that needed Board and TAC agendas and report items are provided in a timely matter for meeting presentations.~~

*M. 1. d. Preparation and Attendance of Meetings*
The Project will require numerous meetings both internally and with outside governmental agencies and with the public. Appropriate members of the Team will attend the necessary meetings and prepare agendas and meeting minutes to facilitate the meetings. Planning and review meetings are assumed with the Watermaster 's technical staff and consultants for a budgeted period of 12 months. High-level meetings to present updates to the Watermaster Board are budgeted for 12 months. At key milestones, additional meetings will be held that are focused on technical issues and key findings.

*M. 1. e. Prepare Board/ TAC Status Updates and Reports*
Provide Watermaster with monthly status reports indicating project progress, costs incurred, contract and construction cost trends, and problem identification and resolution. Provide assistance to the TAC in preparing technical summary reports and technical memoranda for the Watermaster Board.

*M. 1. f.*
*Peer Review of Documents and Reports*

Assist TAC and Watermaster with peer reviews of documents and reports prepared by various Watermaster entities, as requested.

~~*M. 1. g. QA/QC*~~
~~The MPWMD team will provide quality control and assurance for all program administration materials generated under the program.~~
~~Deliverables: Project Management Plan; Monthly Status Reports; Technical Data as required for Meetings~~

**IMPLEMENTATION**
**I. 1. Monitor Well Construction**
*I. 1. a. Coordination with Monitor Well Implementation Program*
Maintain coordination and consultation with Martin Feeney on development of Monitoring Well Construction Program.

**I. 2 Comprehensive Basin Production, Water Level and Water Quality Monitoring Program**
**Consolidated Seaside Basin Groundwater Resources Database**
Groundwater resource monitoring within the Seaside Basin is currently being conducted by numerous entities. The programs consist of: Groundwater Production Monitoring; Groundwater Level Monitoring; Groundwater Quality Monitoring; Surface Water Monitoring; and Precipitation Monitoring.

For successful implementation of the Seaside Basin Monitoring Program, pertinent historical basic groundwater resource data obtained from the above-mentioned programs needs to be consolidated into a database to allow more efficient organization and data retrieval. The consolidated database will allow for simple identification of differences and discrepancies of datasets compiled by the numerous entities. Data gaps will become evident as well. In addition, the consolidated database needs to allow pertinent groundwater data to be efficiently organized, managed and housed in a single location to facilitate: Ongoing data collection; Data storage and retrieval; Distribution of basic data to Watermaster members and interested parties; and, Preparation of annual and periodic reports to the Watermaster.

Characteristics of both existing wells and wells proposed as part of the Seaside Basin Monitoring Program will be notated in the database, including type, location, construction details and other pertinent information. MPWMD already maintains a groundwater database that contains some of the features described above. Determine if the MPWMD database should be expanded or if a new database should be created. Assist the Watermaster in the review of the existing MPWMD groundwater database to help determine whether it is feasible and economical to incorporate both the historical data and the ongoing data to be collected as part of the Seaside Basin Monitoring Program.

Coordination with the Watermaster is required in order to verify the adequacy of the existing database and ensure data requirements are met. Completion of the enhancement or development of a consolidated database will allow the review of

the available groundwater resource data to determine discrepancies, differences, or data gaps.
Monitoring of Production Wells

As defined in Section D-5, Monitoring of Production Wells, of the RFP, the data to be collected by each owner and/or operator of inactive and active wells in the Basin shall be forwarded to the Watermaster for inclusion into the consolidated database.

*I. 2. a. Basin Management Database Development*

*I. 2. a. 1. Coordination with Watermaster to Review Database.*

~~*I. 2. a. 1. 1 Review of MPWMD Database to Catalog Historical Data*~~
~~Coordination with Watermaster to review adequacy of existing MPWMD database to consolidate, organize and manage historical groundwater resource data and existing well characteristics. Identify whether the existing database is sufficient to catalog the data to be reviewed as part of this Scope of Work. After review, additional Scope will be identified.~~

~~*I. 2. a. 1. 2 Review of MPWMD Database To Catalog Ongoing Data Collection*~~
~~Coordinate with Watermaster to review adequacy of MPWMD database to organize and manage ongoing groundwater data collection efforts and proposed well characteristics, as identified for Tasks 1 and 2. Identify whether the existing database if sufficient to catalog the ongoing data collection efforts and to archive proposed well characteristics. After review, additional Scope will be identified.~~

*I. 2. a. 2. Develop Scope of Work to Enhance or Develop New Groundwater Resource Database*
Upon the Watermaster 's review of the existing groundwater resource database, draft and submit a Scope to either enhance the existing database, or develop a new consolidated database.

*I. 2. a. 3. Create Basin Management Database*
Under general direction and guidance from the MPWMD team, the Watermaster database will be formatted and generated to complement the features of the MPWMD 's existing water resources database.

*I. 2. a. 4. Populate Database with Data From All Sources*
Under general direction and guidance from the MPWMD team, the Watermaster database will be populated with the existing data from all available sources, including the MPWMD 's existi ng database, and all applicable data from Watermaster pumper entities, as well as other data available from miscellaneous sources.

*I. 2. a. 5. Conduct Ongoing Data Entry/Database Maintenance*

Under general direction and guidance from the MPWMD team, all newly- acquired data will be added to the Watermaster database as it becomes available, and any appropriate database structure modifications will be made as needed.

*I. 2. b. Data Exchange and Collection*
Incorporate ongoing groundwater monitoring data into the consolidated groundwater resource database. This will include the following subtasks:

*I. 2. b. 1. Establish Agreements and Schedule*
The MPWMD and RBF teams will closely coordinate to establish agreements and schedules for ensuring that all materials for Watermaster database development and ongoing maintenance are provided in an organized and timely manner for use by the Watermaster.

*I. 2. b. 2. Establish Data Types, Formats*
The MPWMD and RBF teams will closely coordinate to establish mutually acceptable data types and formats, which will provide the optimal benefit to the
Watermaster for its recordkeeping and reporting purposes.

*I. 2. c. Develop Data Archiving Procedures*
Identify procedures for archiving collected field and electronic data.

*I. 2. d. Develop Data QA/QC Procedures*
Identify procedures for routine Quality Assurance/Quality Control of data collection program.

*I. 2. g. Enhanced Monitoring Well Network Evaluation*
Evaluate existing inactive production wells for possible inclusion with the existing and new monitoring well network. This will include the following subtasks:

*I. 2. g. 2 Key Laguna Seca Subbasin Locations*
Existing and potential new monitor well locations at identified key locations within and near the Laguna Seca Sub area of the basin will be evaluated through consultation with the MPWMD team, report and file research, contacts with existing Watermaster member entities, and field inspections.

*I. 2. g. 3 Key Southern Coastal Sub basin Locations*
Existing and potential new monitor well locations at identified key locations within and near the Southern Coastal Sub area of the basin will be evaluated through consultation with the MPWMD team, report and file research, contacts with existing Watermaster member entities, and field inspections.

*I. 2. g. 4 Summary Technical Memorandum with Recommendations*
Upon completion of the research and evaluation efforts, a summary technical
memorandum with recommendations will be prepared and distributed for review
and input by all Watermaster member entities.

*I. 2. h. Laguna Seca Water Quality Investigation*

As an additional component to the enhanced monitor well network evaluation, all available historical groundwater quality data sources in and near the Laguna Seca Sub area will be located in coordination with the MPWMD team, in order to evaluate and provide recommendations on enhancement of water quality monitoring that will facilitate future updated groundwater resources assessment of the Laguna Seca Sub area.

**I. 3**

**Basin Management**

*I. 3. a. Supplemental Water Supplies*

Brief review of supplemental water supplies will be conducted as warranted throughout the initial phase of the program. The effort devoted to this task is anticipated to increase once the consolidated database is developed and existing data is analyzed.

**I. 4 Seawater Intrusion Contingency Plan/Establish Seawater Intrusion Baseline**

Thorough, systematic, and appropriate analyses of groundwater data will allow us to identify, track, and mitigate seawater intrusion in the Basin. Seawater intrusion is a slow process, which can be impacted by ground water pumping that impacts ground water levels, and, in turn, affects ground water quality general mineral concentrations. Analyses that help identify seawater intrusion include: graphs of ground water levels, pumping and water quality trends; and maps representing these data using differentiated symbology. The final step is to evaluate the relationship that the pumping and water levels have on water quality.

••*Time series of chloride concentrations.* Chloride concentrations are the most dependable and recognizable indicator of seawater intrusion. Time series graphs from a single well can show steady increases in chloride concentrations that indicate seawater intrusion.

••*Time series of ionic ratios.* Typically, the molar ratio of sodium to chloride will often drop to near or below 0.85 in front of an advancing seawater wedge. Similarly, the molar ratio of calcium to sodium will rise in front of an advancing seawater wedge. These trends are due to the ionic exchange of sodium and calcium.

••*Trilinear plots.* Plotting major anions and cations on trilinear plots can show if water quality data from a single well is migrating towards seawater quality. Water quality plotted on does not migrate along a simple mixing line on trilinear plots if intrusion is due to an advancing seawater front. Data from Salinas Valley, however, suggests that water quality often does plot along a simple mixing line if intrusion is due to flow through abandoned or non-operating wells. This can help identifythe intrusion mechanism in various places.

••*Time series of Stiff diagrams.* Plotting major anions and cations on stiff diagrams allows qualitative indication of seawater intrusion. Stiff diagrams are identified by their general shapes, each water type having a unique shape. A change in the shape of stiff diagrams may indicate seawater intrusion.

••*Time series of Chloride concentration maps.* Maps of chloride concentrations show the movement of a seawater intrusion front into a basin. Individual maps must be produced for each aquifer. Of importance is that all maps be developed with a consistent approach, ensuring that changes in the maps represent changes in data, not changes in contouring algorithms. The data will be presented in a Geographic Information System (GIS).

For purposes of the Seawater Intrusion Contingency Program, until additional empirical data are developed and analyzed, the Seaside groundwater basin aquifers will be defined as seawater intruded when the chloride concentration in a coastal monitor well reaches approximately 100 mg/l and 250 mg/l for the Paso Robles and Santa Margarita aquifers, respectively. For a coastal production well, the standard will be 250 mg/l, given that some wells contain multiple aquifer formations that reflects a blend of these sources. These standards will be utilized until more comprehensive standards based on historical water quality data at individual monitor and production wells can be developed. The Watermaster will institute interim standards for notice of potential seawater intrusion so that appropriate preventive actions may be taken. Interim notice will be defined as 50 percent increase above ambient chloride concentrations for any specific monitoring well location.

In addition to establishing baseline chloride concentrations and monitoring chloride concentrations, other complimentary water quality parameters will be established and monitored to provide supplemental data for water quality trend analysis and characterization. Appropriate water quality parameters, data formats and data transfer procedures will need to be identified and coordinated.

~~*I. 4. a. Oversight of Seawater Intrusion Detection and Tracking*~~
~~MCWRA will provide general oversight over the Seawater Intrusion detection program.~~

*I. 4. b. Develop Seawater Intrusion Analysis Protocol*
The RBF team will coordinate with MCWRA to adapt the existing seawater intrusion analysis protocol utilized in the Salinas Valley Groundwater Basin for use in the Seaside Groundwater Basin.

*I. 4. c. Prepare Baseline Water Level Contour Mapping*
Under general direction and guidance from MCWRA, up-to-date baseline water level contour mapping will be prepared utilizing all available water level data from existing production and monitor wells, and proposed new dedicated coastal sentinel monitor wells.

*I. 4. d. Prepare Mapped Representation of Baseline Basin Pumping*

Under general direction and guidance from MCWRA, mapped representation of recent (i.e., baseline) groundwater production will be prepared utilizing symbology adapted from the Salinas Valley Groundwater Basin.

*I. 4. e. Graph and Map Historical Data/Establish Baseline Water Quality*
Analyzing historical water quality data serves two purposes: 1) It establishes baseline water quality; and 2) It identifies historical water quality trends. By relying on wells that are completed over short lengths, and in discrete aquifers to determine background water quality for various aquifers. Wells completed over many aquifers may show a hybrid water quality signature Use multiple approaches to identify water quality trends. Produce chloride time series graphs, ionic ratio time series graphs, stiff diagrams, trilinear plots (with standard seawater identified), and chloride contour maps for the time periods identified in Task 5.2. Arcview GIS 3.3 will be utilized to generate chloride contour maps per the procedures outlined in the RFP. A preliminary analysis of the graphs and maps will be conducted to establish baseline water quality and identify trends. In particular, compare water quality trends with water levels, pumping data, and recharge data to interpret both the aerial and vertical distribution of seawater intrusion. The graphs, maps, and analyses will be submitted for review by the entire Watermaster Board. Modifications to these graphs and maps will be incorporated based on input from Board members.

*I. 4. f. Analyze and Map Water Quality from Coastal Monitoring Wells*
Immediately after the coastal monitoring wells are installed and sampled, update data analyses with the data from these wells. New chloride concentration maps will be produced incorporating the data from the coastal wells. Because these new maps are the first maps with all data points included, they will serve as the baseline for future comparison. Water quality data from the new coastal wells precludes developing time series graphs during Phase 1, however the water quality data will be compared to water quality from similar, nearby wells to identify potential seawater intrusion until new data becomes available from the Phase 1 Coastal Sentinel Well Work Plan.

*I. 4. g. Annual Report - Seawater Intrusion Analysis*
At the end of each water year, all water quality data will be re-analyzed. Semi-annual chloride concentration maps will be produced for each aquifer in the basin. Time series graphs, trilinear graphs, and stiff diagram comparisons will be updated with new data. The annual EM logs will be analyzed to identify changes in seawater wedge locations. All analyses will be incorporated into an annual report that follows the format of the initial, historical data report. Potential seawater intrusion will be highlighted in the report, and if necessary, recommendations will be included. The annual report will be submitted for review to the Technical Advisory Committee (TAC) and then to the entire Watermaster Board. Modifications to the report will be incorporated based on input, first from the TAC, then from Board members.

After the first annual report, analysis and reporting can be transferred to Watermaster Board or be extended, depending on the needs of the Watermaster Board.

# EXHIBIT B

## Seaside Basin Monitoring and Management Program

# PHASE 1 BUDGET SUMMARY

| Item | RBF Consulting |
|---|---|
| **Labor Costs*** | |
| M.1 Program Administration | $80,900 |
| I.1 Monitor Well Construction | $14,471 |
| I.2 Production, Water Level and Quality Monitoring | $144,600 |
| I.3 Basin Management | $6,300 |
| I.4 Seawater Intrusion Contingency Plan | $88,800 |
| *Subtotal* | *$335,071* |
| **Direct Costs (Martin Feeney)** | |
| Reproduction, Mileage, Miscellaneous (RBF) | $15,000 |
| Durbin Model Documentation (RBF) | $40,000 |
| *Subtotal* | *$55,000* |
| **Total** | ***$390,071*** |

u:\joe\xcel\SBWatermaster\2007\RBF Ex. B summary
revised 4/10/2007

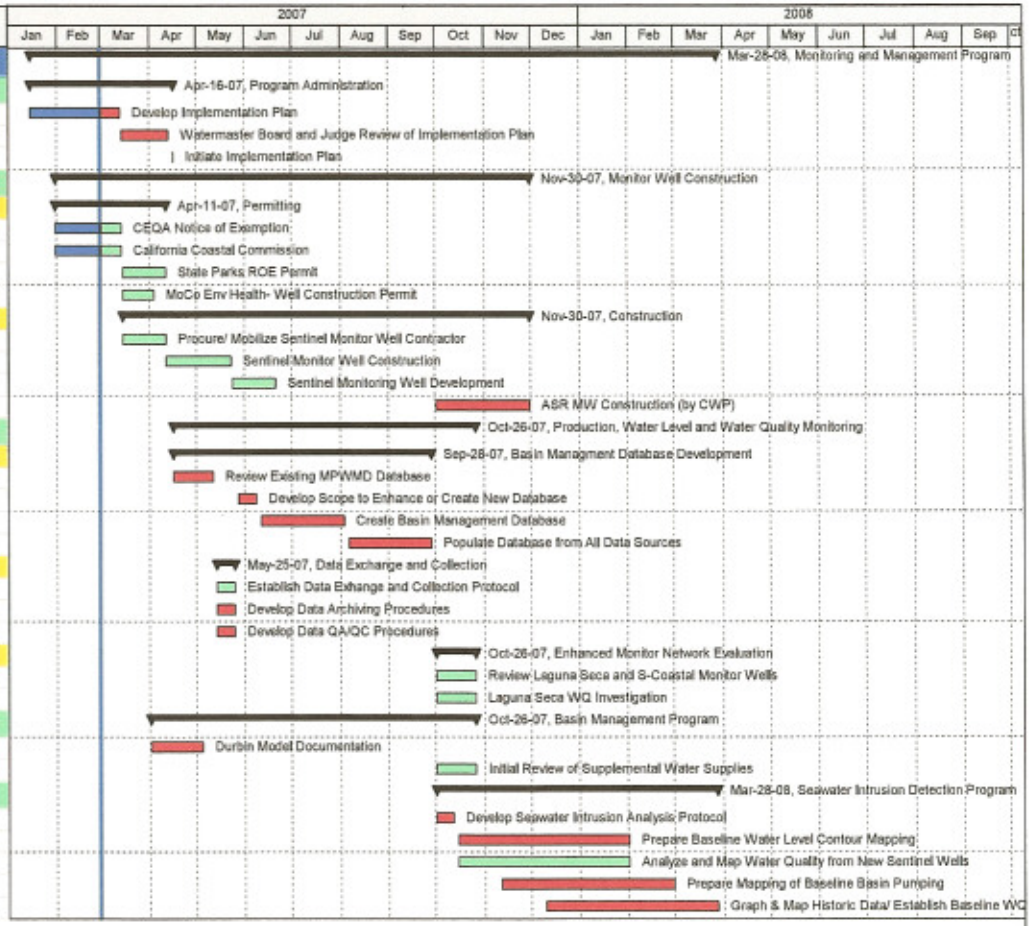
## Seaside Basin Monitoring and Management Program
## Proposed Scope and Labor Budget

| Task No. | | RBF | | | | ASR Systems/ Pueblo Water Resources | | | | | | | | | Hydrometrics | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Project Manager | Project Engineer | Designer | Subtotal per Task | Eng 7 | Eng 6 | HG 5 | HG 4 | HG 3 | CAD | Tech | Office Support | Subtotal per Task | HG | Staff | Subtotal per Task | RBF Team Subtotal |
| | | $220 | $160 | $120 | | $187 | $181 | $155 | $143 | $114 | $70 | $58 | $58 | | $141 | $110 | | |
| M. 1 | **Program Administration** | | | | | | | | | | | | | | | | | |
| M. 1. a. | Program Management Plan | | | | $ - | | | | | | | | | | | | | $ - |
| M. 1. b. | Project Budgets and Controls | 24 | 64 | | $ 15,500 | | | | | | | | | | | | | $ 15,500 |
| M. 1. c. | Assist with Board and TAC Agendas | | | | $ - | | | | | | | | | | | | | $ - |
| M. 1. d. | Preparation and Attendance of Meetings | 40 | 64 | 80 | $ 28,700 | | | | | | | | | | | | | $ 28,700 |
| M. 1. e. | Prepare Board/ TAC Status Updates and Reports | 40 | 64 | 80 | $ 28,700 | | | | | | | | | | | | | $ 28,700 |
| M. 1. f. | Peer Review of Documents and Reports | 16 | 28 | | $ 8,000 | | | | | | | | | | | | | $ 8,000 |
| M. 1. g. | QA/QC | | | | $ - | | | | | | | | | | | | | $ - |
| | *Subtotal Program Administration* | | | | *$ 80,900* | | | | | | | | | $ - | | | | *$ 80,900* |
| I. 1. | **Monitor Well Construction** | | | | | | | | | | | | | | | | | |
| I. 1. a. | Coordination with Monitor Well Implementation Program | 16 | 24 | | $ 7,360 | 16 | 16 | 8 | | | | | | $7,111 | | | | $ 14,471 |
| | *Subtotal Monitor Well Construction Program* | | | | *$ 7,360* | | | | | | | | | *$7,111* | | | | *$ 14,471* |
| I. 2. | **Production, Water Level and Quality Monitoring** | | | | | | | | | | | | | | | | | |
| I. 2. a. | Basin Management Database Development | | | | $ - | | | | | | | | | | | | | $ - |
| I. 2. a. 1. | Coordination with Watermaster to Review Database | 30 | 64 | 96 | $ 28,400 | | | | | | | | | | | | | $ 28,400 |
| I. 2. a. 1. 1 | Review of MPWMD Database to Catalog Historical Data | | | | $ - | | | | | | | | | | | | | $ - |
| I. 2. a. 1. 2 | Review of MPWMD Database to Catalog Ongoing Data Collection | | | | $ - | | | | | | | | | | | | | $ - |
| I. 2. a. 2. | Develop Scope to Enhance or Develop New Database | 8 | 20 | | $ 5,000 | | | | | | | | | | | | | $ 5,000 |
| | Database Server Purchase | | | | | | | | | | | | | | | | | $ - |
| | Database Archiving Software Purchase | | | | | | | | | | | | | | | | | $ - |
| I. 2. a. 3. | Create Basin Management Database | | 40 | 120 | $ 20,800 | | | | | | | | | | | | | $ 20,800 |
| I. 2. a. 4. | Populate Database with Data from all sources | | 40 | 120 | $ 20,800 | | | | | | | | | | | | | $ 20,800 |
| I. 2. a. 5. | Conduct ongoing data entry/ database maintenance | | 12 | 72 | $ 10,600 | | | | | | | | | | | | | $ 10,600 |
| I. 2. b. | Data Exchange and Collection | | | | $ - | | | | | | | | | | | | | $ - |
| I. 2. b. 1. | Establish Agreements and Schedule | 8 | 36 | | $ 7,500 | | | | | | | | | | | | | $ 7,500 |
| I. 2. b. 2. | Establish Data Types, Formats | 8 | 36 | | $ 7,500 | | | | | | | | | | | | | $ 7,500 |
| I. 2. c. | Develop Data Archiving Procedures | 8 | 48 | | $ 9,400 | | | | | | | | | | | | | $ 9,400 |
| I. 2. d. | Develop Data QA/QC Procedures | 8 | 64 | | $ 12,000 | | | | | | | | | | | | | $ 12,000 |
| I. 2. e. | Enhanced Monitor Network Evaluation | | | | $ - | | | | | | | | | | | | | $ - |
| I. 2. e. 1. | Key Laguna Seca Subbasin Locations | | | | $ - | 4 | 4 | 8 | 16 | | | | | $5,000 | | | | $ 5,000 |
| I. 2. e. 2. | Key S-Coastal Subbasin Locations | | | | $ - | 4 | 4 | 8 | 16 | | | | | $5,000 | | | | $ 5,000 |
| I. 2. e. 3. | Summary Technical Memorandum with Recommendations | | | | $ - | 4 | 4 | 12 | 16 | | | 4 | 10 | $6,400 | | | | $ 6,400 |
| I. 2. f. | Laguna Seca Water Quality Investigation | | | | $ - | 8 | 4 | 8 | 12 | | | 8 | 10 | $6,200 | | | | $ 6,200 |
| | *Subtotal Production, Water Level and Water Quality Monitor Program* | | | | *$ 122,000* | | | | | | | | | *$ 22,600* | | | | *$ 144,600* |
| I. 3 | **Basin Management** | | | | | | | | | | | | | | | | | |
| I. 3. a. | Supplemental Water Supplies | 4 | 16 | 24 | $ 6,300 | | | | | | | | | | | | | $ 6,300 |
| I. 3. b | Durbin Model Development | | | | | | | | | | | | | | | | | $ - |
| | *Subtotal Basin Management Program* | | | | *$ 6,300* | | | | | | | | | $ - | | | | *$ 6,300* |
| I. 4. | **Seawater Intrusion Contingency Plan** | | | | | | | | | | | | | | | | | |
| I. 4. a. | Oversight of Seawater Intrusion Detection and Tracking | | | | $ - | | | | | | | | | | | | | $ - |
| I. 4. b. | Develop Seawater Intrusion Analysis Protocol | | | | $ - | | | | | | | | | | 40 | 12 | $7,000 | $ 7,000 |
| I. 4. c. | Prepare Baseline Water Level Contour Mapping | 4 | 12 | 20 | $ 5,200 | | | | | | | | | | 24 | 48 | $8,700 | $ 13,900 |
| I. 4. d. | Prepare Mapped Representation of Baseline Basin Pumping | 4 | 12 | 20 | $ 5,200 | | | | | | | | | | 24 | 48 | $8,700 | $ 13,900 |
| I. 4. e. | Graph and Map Historical Data/Establish Baseline Water Quality | 4 | 12 | 40 | $ 7,600 | | | | | | | | | | 32 | 64 | $11,600 | $ 19,200 |
| I. 4. f. | Analyze and Map Water Quality from Coastal Monitoring Wells | 4 | 12 | 40 | $ 7,600 | | | | | | | | | | 16 | 32 | $5,800 | $13,400 |
| I. 4. g. | Annual Report- Seawater Intrusion Analysis | 4 | 20 | 24 | $ 7,000 | | | | | | | | | | 40 | 80 | $14,400 | $ 21,400 |
| | *Subtotal Seawater Intrusion Detection Program* | | | | $ 32,600 | | | | | | | | | | | | $56,200 | *$ 88,800* |
| | Reproduction, Mileage, Reimbursable | | | | | | | | | | | | | | | | | |
| | *Total* | | | | *$ 249,160* | | | | | | | | | *$29,711* | | | *$56,200* | *$ 335,071* |

Notes:
x- indicates work performed by
M- indicates Management
I- indicates Implementation

# EXHIBIT C

| Activity ID | Activity Name | OD | RD | Start | Finish |
|---|---|---|---|---|---|
| **Monitoring and Management Program** | | 393 | 282 | Jan-15-07 A | Mar-28-08 |
| **Program Administration** | | 32 | 32 | Jan-15-07 A | Apr-16-07 |
| WM000210 | Develop Implementation Plan | 1 | 9 | Jan-15-07 A | Mar-13-07 |
| WM000230 | Watermaster Board and Judge Review of Implementation Plan | 23 | 23 | Mar-14-07* | Apr-13-07 |
| WM000240 | Initiate Implementation Plan | 0 | 0 | Apr-16-07 | Apr-16-07 |
| **Monitor Well Construction** | | 218 | 197 | Jan-31-07 A | Nov-30-07 |
| Permitting | | 51 | 30 | Jan-31-07 A | Apr-11-07 |
| P1000040 | CEQA Notice of Exemption | 35 | 10 | Jan-31-07 A | Mar-14-07 |
| P1000050 | California Coastal Commission | 35 | 10 | Jan-31-07 A | Mar-14-07 |
| P1000030 | State Parks ROE Permit | 20 | 20 | Mar-15-07 | Apr-11-07 |
| P1000140 | MoCo Env Health- Well Construction Permit | 15 | 15 | Mar-15-07 | Apr-04-07 |
| Construction | | 187 | 187 | Mar-15-07 | Nov-30-07 |
| WM000250 | Procure/ Mobilize Sentinel Monitor Well Contractor | 20 | 20 | Mar-15-07 | Apr-11-07 |
| WM000220 | Sentinel Monitor Well Construction | 30 | 30 | Apr-12-07 | May-23-07 |
| WM000221 | Sentinel Monitoring Well Development | 20 | 20 | May-24-07 | Jun-20-07 |
| WM000222 | ASR MW Construction (by CWP) | 45 | 45 | Oct-01-07* | Nov-30-07 |
| **Production, Water Level and Water Quality Monitoring** | | 140 | 140 | Apr-16-07 | Oct-26-07 |
| Basin Managment Database Development | | 120 | 120 | Apr-16-07 | Sep-28-07 |
| WM000010 | Review Existing MPWMD Database | 20 | 20 | Apr-16-07 | May-11-07 |
| WM000030 | Develop Scope to Enhance or Create New Database | 10 | 10 | May-28-07 | Jun-08-07 |
| WM000040 | Create Basin Management Database | 40 | 40 | Jun-11-07 | Aug-03-07 |
| WM000050 | Populate Database from All Data Sources | 40 | 40 | Aug-06-07 | Sep-28-07 |
| Data Exchange and Collection | | 10 | 10 | May-14-07 | May-25-07 |
| WM000070 | Establish Data Exhange and Collection Protocol | 10 | 10 | May-14-07 | May-25-07 |
| WM000090 | Develop Data Archiving Procedures | 10 | 10 | May-14-07 | May-25-07 |
| WM000100 | Develop Data QA/QC Procedures | 10 | 10 | May-14-07 | May-25-07 |
| Enhanced Monitor Network Evaluation | | 20 | 20 | Oct-01-07 | Oct-26-07 |
| WM000130 | Review Laguna Seca and S-Coastal Monitor Wells | 20 | 20 | Oct-01-07 | Oct-26-07 |
| WM000140 | Laguna Seca WQ Investigation | 20 | 20 | Oct-01-07 | Oct-26-07 |
| **Basin Management Program** | | 150 | 150 | Apr-02-07 | Oct-26-07 |
| WM000340 | Durbin Model Documentation | 25 | 25 | Apr-02-07* | May-04-07 |
| WM000150 | Initial Review of Supplemental Water Supplies | 20 | 20 | Oct-01-07 | Oct-26-07 |
| **Seawater Intrusion Detection Program** | | 130 | 130 | Oct-01-07 | Mar-28-08 |
| WM000170 | Develop Seawater Intrusion Analysis Protocol | 10 | 10 | Oct-01-07 | Oct-12-07 |
| WM000160 | Prepare Baseline Water Level Contour Mapping | 80 | 80 | Oct-15-07 | Feb-01-08 |
| WM000260 | Analyze and Map Water Quality from New Sentinel Wells | 80 | 80 | Oct-15-07 | Feb-01-08 |
| WM000190 | Prepare Mapping of Baseline Basin Pumping | 80 | 80 | Nov-12-07 | Feb-29-08 |
| WM000200 | Graph & Map Historic Data/ Establish Baseline WQ | 80 | 80 | Dec-10-07 | Mar-28-08 |








**Seaside Basin Monitoring &**

**Management Program**

Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

# EXHIBIT D

## EXHIBIT D

## INSURANCE REQUIREMENTS

I. Consultant shall provide evidence of valid and collectible insurance carried for those exposures indicated by an "X".

A. _X_ Professional Liability Errors & Omissions
B. _X_ Workers Compensation and Employers Liability
C. _X_ Automobile Liability – "Any Auto – Symbol 1"
D. _X_ Comprehensive General Liability, including Bodily Injury, Property Damage and Personal Injury
E. _X_ Owners & Contractors Protective
F. ___ Protection &7 Indemnity (Marine/Aviation)

II. The minimum limit of protection provided by insurance policies for each of the coverages listed above shall be not less than $1,000,000. The procurement and maintenance by the Consultant of the policies required to be obtained and maintained by Consultant under this contract shall not relieve or satisfy Consultant's obligation to indemnify, defend and save harmless the Seaside Basin Watermaster.

III. Evidence of insurance carried shall be certificates of insurance for the current policies. The Seaside Basin Watermaster shall be listed as a certificate holder on the Consultant's Comprehensive General Liability insurance policy, and the policy must be endorsed to provide a forty-five (45) day prior written notice of cancellation.

IV. The Seaside Basin Watermaster requires that all Consultants carry a commercial liability policy written on a broad comprehensive general liability form.

A. Such protection is to include coverage for the following hazards, indicated by an "X":

1. _X_ Premises and Operations
2. _X_ Products and Completed Operations
3. ___ Explosion Collapse and Underground
4. _X_ Broad Form Blanket Contractual
5. _X_ Broad Form Property Damage
6. _X_ Personal Injury, A, B and C
7. _X_ Employees named as Persons Insured
8. _X_ Protective and/or Contingent Liability (O&CP)

B. The "Persons Insured" provision on each comprehensive general liability policy shall include as an insured the "Seaside Basin Watermaster, its officers, directors, agents and employees."

C. This policy shall contain a severability of interest clause or similar language to the following:

"The insurance afforded applies separately to each insured against whom claim is made or suit is brought including claims made or suits brought by any persons included within the persons insured provision of the insurance against any other such person or organization."

D. All policies shall contain a provision that the insurance company shall give the Watermaster at least forty-five (45) days prior written notice mailed to the address shown below prior to any cancellation, lapse or non-renewal. The 45-day written notice must be shown on all certificates of insurance.

E. Certificates of insurance for the current policies shall be delivered by the Consultant to the Watermaster Executive Officer as verification that terms A, B, C and D have been met.

V. All insurance correspondence, certificates, binders, etc., shall be mailed to:

Seaside Basin Watermaster
2600 Garden road, Suite 228
Monterey, CA 93940

VI. All policies carried by the Consultant shall be primary coverage to any and all other policies that may be in force. The Watermaster shall not be responsible for payment of premiums due as a result of compliance with the terms and conditions of the insurance requirements.

VII. All such policies of insurance shall be issued by domestic United States insurance companies with general policy holders' rating of not less than "B" and admitted to do business in the State of California. The policies of insurance so carried shall be carried and maintained throughout the term of this contract.