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DEC - 1 2006

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CALIFORNIA AMERICAN WATER

13
14 SUPERIOR COURT OF THE STATE OF CALIFORNIA
15 FOR THE COUNTY OF MONTEREY

16 CALIFORNIA AMERICAN WATER,

Case No. M66343

17 Plaintiff,

18 vs.

19 CITY OF SEASIDE; CITY OF MONTEREY;
CITY OF SAND CITY; CITY OF DEL REY
20 OAKS; COUNTY OF MONTEREY;
SECURITY NATIONAL GUARANTY INC.;
21 GRANITE ROCK COMPANY; D.B.O.
DEVELOPMENT NO. 27; MURIEL E.
22 CALABRESE 1987 TRUST; ALDERWOODS
GROUP (CALIFORNIA), INC.; PASADERA
23 COUNTRY CLUB, LLC; LAGUNA SECA
RESORT, INC.; BISHOP McINTOSH &
24 McINTOSH, a general partnership; THE YORK
SCHOOL, INC.; and DOES 1 through 1,000,
25 Inclusive,

**WATERMASTER'S POST-JUDGMENT
PETITION TO: (A) REQUEST APPROVAL
OF THE REVISED BASIN MONITORING
AND MANAGEMENT PLAN; (B)
REQUEST SPECIFIC CLARIFICATIONS
AND AMENDMENTS TO THE COURT'S
FINAL DECISION; AND (C) UPDATE THE
COURT ON VARIOUS WATERMASTER
TASKS AND ACTIVITIES**

**[Assigned for all Purposes to the
Honorable Roger D. Randall (Ret.)]**

Date: January 12, 2007
Time: 1:30 p.m.
Dept.: 13

26 Defendants.

1 MONTEREY PENINSULA WATER
2 MANAGEMENT DISTRICT,

3 Intervenor

4 MONTEREY COUNTY WATER
5 RESOURCES AGENCY,

6 Intervenor

7 AND RELATED CROSS-ACTIONS

8
9 **I. INTRODUCTION**

10 This post-judgment petition was prepared jointly by California American Water and the City
11 of Seaside, and is submitted on behalf of the Seaside Basin Watermaster (“Watermaster”) to update
12 the Court on various Watermaster tasks and activities, and to request specific clarifications and
13 amendments to the Court’s Final Decision, issued on March 27, 2006 (“Decision”). The matters
14 addressed in this petition, include the following:

- 15 1. Request to approve the Basin Monitoring and Management Program, “the”
16 Decision to address issues raised in the Court’s order of June 20, 2006.
- 17 2. Request to amend the Decision to change the timing of Basin activities. The
18 proposed changes include:
 - 19 a. substitution of the terms “Water Year” and “Fiscal Year” for
20 “Administrative Year,” as appropriate throughout the Decision;”
 - 21 b. changing the deadline for the completion of Watermaster’s Annual
22 Report from February 15th to November 15th to follow the close of
23 the Water Year; and
 - 24 c. clarification that the Replenishment Assessment shall be assessed
25 within 60 days of the end of the Water Year, and due no later than
26 January 15th of the following year.

- 1 3. Information update to the Court regarding Watermaster tasks and activities,
2 including:
- 3 a. the completion of the Rules and Regulations, subject to clarification of
4 the formula to be used to determine the Over-Production
5 Replenishment Assessment (see concurrently filed pleading);
6 b. the 2007 Administrative Budget and Assessment;
7 c. the 2007 Basin Monitoring and Management Budget and Assessment;
8 d. the initial Over-Production Replenishment Assessment per acre-foot
9 and the basis for the amount; and
10 e. the status of various Watermaster tasks and the Watermaster schedule.

11 **II. REQUEST FOR APPROVAL OF THE REVISED BASIN MONITORING AND**
12 **MANAGEMENT PROGRAM**

13 The Seaside Basin Monitoring and Management Program (“Program”) was revised to
14 respond to the Court’s June 20, 2006 Minute Order. A copy of the revised Program is attached as
15 Exhibit “A”.

16 The Program was amended to address the concerns of the Laguna Seca Alternative Producers
17 by including the highlighted text at Section II(D)(4)(a) at page 9, and in Section III(A)(3)(b) at
18 pages 18-19. These changes provide for:

- 19 1. Investigation of potential monitor well sites within the Laguna Seca and
20 Southern Coastal Sub-areas to gain additional hydrogeologic understanding in
21 these areas and to facilitate groundwater flow modeling;
22 2. Investigation of whether water quality constituents in groundwater originating
23 from the Laguna Seca Sub-area should be analyzed to improve the basic
24 hydrogeologic understanding and to compliment groundwater flow modeling;
25 and
26 3. Groundwater flow modeling to determine whether relocation of production
27 from existing wells can be achieved to optimize the Natural Safe Yield within
28 the Coastal and Laguna Seca Subareas.

29 To address the Court’s instructions that an expedited process be created to determine the
30 occurrence of seawater using currently available tools, the Program was amended to establish an
31 interim data analysis component to compile and evaluate water quality data available from existing

1 sampling programs for coastal wells. (See highlighted text at Section IV(B)(4) at pages 23-24.)
2 Moreover, a timeline was added to Section IV(B)(4) to show the schedule for accomplishing the
3 various tasks relating to water quality data analysis.

4 Watermaster respectfully requests that the Court approve the revised Program.

5 **III. REQUEST TO AMEND DECISION REGARDING TIMING OF SEASIDE BASIN**
6 **ACTIVITIES**

7 **A. Substitution of the Terms “Water Year” and “Fiscal Year” for “Administrative**
8 **Year”**

9 The Watermaster proposes to remove the term “Administrative Year” from the Decision and
10 replace it with the terms “Water Year” and “Fiscal Year.” The purpose of this proposed change is to
11 better coordinate the system of accounting/calendaring for certain Seaside Basin activities with the
12 accounting/calendaring systems of California American and the public agency parties. The
13 following is an explanation of the benefits of this proposed change, followed by a description of
14 specific proposed revisions necessary to effectuate the change.

15 The Decision contains the term “Administrative Year,” which is defined as a January through
16 December calendar year. The Administrative Year defines the annual period for key activities of the
17 parties and Watermaster, including: (1) tracking each party’s water allocation; (2) payment of the
18 three forms of assessments - Administrative, Monitoring and Management Plan and Replenishment;
19 (3) preparation of the annual report; and (4) preparation of the annual budget. After several months
20 of implementing the Decision, it is now clear that tracking all matters January through December
21 “Administrative Year” will present significant challenges to Watermaster, California American and
22 the other parties. Party representatives have discussed these issues, and consensus exists that to
23 better address these challenges, planning and budget efficiencies could be achieved by replacing the
24 concept of an “Administrative Year” with a “Water Year” and “Fiscal Year.”

25 Currently, California American and the Monterey Peninsula Water Management District
26 (MPWMD) both operate by accounting for water production on a “Water Year” that begins on
27 October 1st and ends on September 30th of the next year. Use of an October through September
28 water year is a common practice among water service providers, and generally reflects the seasonal

1 hydrologic cycle. The water year is used to track compliance with California American's limitation
2 on diversions from the Carmel River imposed by the State Water Resources Control Board in Water
3 Rights Order 95-10. Using the same water year for Seaside Basin activities would allow the
4 Watermaster to achieve administrative efficiencies by allowing it to rely on existing production
5 records. Converting to a Water Year would also relieve the parties, and California American in
6 particular, of the burden of maintaining two sets of water productions records. Moreover, the
7 Replenishment Assessment would more appropriately be based on overproduction during a Water
8 Year. Furthermore, the change to a Water Year would allow California American and the MPWMD
9 to coordinate a system-wide (Carmel River and Seaside Basin) water production accounting system.

10 The Watermaster proposes, therefore, that the Decision be amended to replace the term
11 "Administrative Year" with the terms "Fiscal Year" and "Water Year." The January 1st to
12 December 31st "Fiscal Year" would apply to: (1) the administrative assessment; (2) the Monitoring
13 and Management Plan assessment; and (3) the timing of the annual administrative budget. The
14 October 1st through September 30th "Water Year" would apply to: (1) collecting the replenishment
15 assessment; (2) tracking use of the water allocations; and (3) the due date for the annual report. The
16 following amendments would effectuate these changes:

17 a. Delete the definition for Administrative Year, which is found on page 11, lines 4 and
18 5 of the Decision.

19 b. Define "Water Year" as the twelve (12) month period from October 1st through
20 September 30th.

21 c. Define "Fiscal Year" as the twelve (12) month period from January 1st through
22 December 30th.

23 d. Replace the term "Administrative Year" with "Water Year" at the following
24 locations:

25 Decision, p. 11, lines 12 and 23;

26 Decision, p. 14, line 27;

27 Decision, p. 17, lines 13-14, 16 and 24;

28 Decision, p. 18, line 3;

1 Decision, p. 20, line 9 (replacing “year” with “Water Year”);

2 Decision, p. 22, lines 9, 13, 21, 22 and 23;

3 Decision, p. 28, line 21;

4 Decision, p. 32, lines 15, 20 and 24;

5 Decision, p. 33, lines 3, 7, 11, 12-13 and 23 (on line 23, replace “Administrative Year”
6 with “year”);

7 Decision, p. 35, line 24; and

8 Decision, p. 42, lines 11, 20.

9 e. Replace the term “Administrative Year” with “Fiscal Year” at the following
10 locations:

11 Decision, p. 33, line 28;

12 Decision, p. 34, lines 3, 13-14, 16 and 27;

13 Decision, p. 36, lines 10, 12, 15 and 28; and

14 Decision, p. 37, lines 3 and 4.

15 f. To reflect the change from a calendar year to the October through September Water
16 Year, change the reference to “January” at page 33, line 11 of the Decision to “October.”

17 g. To reflect the change from a calendar year to the October through September Water
18 Year, change the date for filing the annual report to November 15th. (Decision, p. 35, line 23.)

19 **B. Amend the Decision to Require Payment of the Administrative Assessment and**
20 **Monitoring and Management Assessment on or Before January 15th of the Fiscal**
21 **Year for which the Assessments are Levied.**

22 The Decision currently provides that all assessments must be paid within 40 days of the
23 mailing of the tentative budget. (Decision, p. 34, lines 26-28.) The tentative budget must be mailed
24 no later than 60 days prior to the beginning of the next Administrative Year, which is currently
25 defined to begin on January 1. (Decision, p. 36, lines 13-15.) Thus, under the current budgeting
26 system, assessments are due no later than December 10th of the year prior to the year for which they
27 are levied.
28

1 The Watermaster respectfully requests that the Decision be amended to allow payment of the
2 Administrative Assessment and Monitoring and Management Assessment on or before January 15th
3 of the same Fiscal Year for which the assessments are levied. Changing the due date for the
4 Administrative Assessment and the annual Monitoring and Management Assessment will allow
5 California American and the other parties subject to these assessments to record these expenditures
6 in the same calendar year in which they are spent. This is a practice consistent with generally
7 accepted principles of accounting and is consistent with the business practice of California
8 American. To make this change, the relevant part of the first sentence of the final paragraph on page
9 34 should be amended to read, "payment of the Administrative Assessment and the Monitoring and
10 Management Assessment, subject to any adjustment by the Court as provided in Section III.N., shall
11 be made on or before January 15th of the Fiscal Year for which the assessments have been levied."

12 **C. Clarification that the Replenishment Assessment Shall be Assessed Within 60 Days**
13 **of the End of the Water Year, and Due no Later Than January 15th of the Following**
14 **Year**

15 The Decision does not state when the Replenishment Assessment will be assessed or
16 payment will be due. (See Decision, p. 33.) Because the Replenishment Assessment is assessed
17 upon Over-Production during the immediately preceding year, it logically follows that the
18 Replenishment Assessment should be assessed shortly after the close of the Water Year. However,
19 some amount of time is required to complete the calculation of production quantities (individual and
20 collective) during the preceding Water Year. Watermaster proposes allowing sixty days from the
21 close of the Water Year for the purposes of calculating and approving the Replenishment
22 Assessment, with payment due not later than January 15th of the following year. Under this
23 schedule, the Replenishment Assessment notices would go out to each affected Producer no later
24 than December 1st, and then the Producers would have until January 15th to remit payment.
25 Accordingly, Watermaster respectfully requests that first full paragraph at page 33 of the Decision,
26 commencing at line 9, be amended as follows:

27 "Replenishment Assessments based on Over-Production and on
28 Operating Yield Over-Production shall be assessed within 60 days
of the end of each Water Year on a per acre-foot basis on each
acre-foot, or portion of an acre-foot, of Over-Production, and

1 payment shall be due no later than January 15th of the following
2 year.

3 **IV. INFORMATION UPDATE TO THE COURT REGARDING WATERMASTER**
4 **TASKS AND ACTIVITIES**

5 **A. Completion of Rules and Regulations**

6 With the exception of a single outstanding issue (the formula for calculating the Over-
7 Production Replenishment Assessment (see concurrently filed joint-petition by California American
8 Water and City of Seaside), the Watermaster Rules and Regulations (“R&Rs”) have been completed
9 and approved by Watermaster. A copy of the approved R&Rs are attached as Exhibit “B.” The
10 R&Rs are designed to set forth additional procedures for implementing the Decision. The R&Rs
11 correspond with the proposed amendments to the Decision relating to the timing of Basin Activities.
12 (See Section III, above). If the Court denies Watermaster’s request for these timing amendments,
13 the R&Rs will be promptly amended consistent with the existing provisions of the Decision.

14 **B. 2007 Administrative Budget and Assessment**

15 The Watermaster approved the 2007 Administrative Budget on October 27, 2006 in the
16 amount of \$96,000, plus a reserve account of \$25,000. The budget includes funding for the
17 Administrative Director’s salary, nominal legal and administrative support services, and office and
18 operating expenses. Watermaster approved the levying of an Administrative Assessment in the
19 amount of \$64,000 to accompany the Administrative Budget. A copy of the Administrative Budget
20 is attached hereto as Exhibit “C”.

21 **C. 2007 Basin Monitoring and Management Budget and Assessment**

22 The Watermaster approved the 2007 Basin Monitoring and Management Program Budget on
23 October 27, 2006, consisting of two components: the operating component and the capital
24 improvement component. The operating component is currently budgeted at \$90,280. This
25 component will fund the administrative and operating components of the Basin Monitoring and
26 Management Program. There are several task and expenses that are not currently budgeted because
27 those expenses are unknown. Watermaster acknowledged these uncertainties in the budget and
28 agreed to review and refine the budget on a quarterly basis throughout 2007 when additional

1 information becomes available. Watermaster has assessed sufficient revenue to cover all likely
2 expenses.

3 There is an existing \$200,000 balance in the operating component of the Monitoring and
4 Management Program Budget remaining from the 2006 assessment. The Watermaster approved a
5 2007 assessment of an additional \$200,000 so that the total available revenue for 2007 will be
6 \$400,000. The surplus of \$309,720, available after deducting the known expenses, will be used to
7 fund the additional expenses that are still uncertain.

8 The capital improvement component of the Monitoring and Management Program Budget is
9 budgeted to be \$948,000. This component will fund the construction of five additional monitoring
10 wells, and the installation of data loggers in twenty-two coastal wells and two inland wells.
11 Watermaster approved an assessment of \$1,000,000 to cover these capital expenses with \$250,000,
12 due on or before January 15, 2007, and the remainder due at least 30 days prior to execution of
13 contracts for the drilling and construction of the monitoring wells. The Watermaster's Executive
14 Director will assess the remainder in sufficient time for payments to be made as proposed in the
15 schedule established in the Monitoring and Management Program. A copy of the Monitoring and
16 Management Program Budget is attached hereto as Exhibit "D".

17 **D. Initial Budgeted Over-Production Replenishment Assessment per Acre-Foot**

18 Watermaster approved an Over-Production Replenishment Assessment of \$1,132 per acre-
19 foot, which was a figure recommended by the Watermaster Technical Committee. The amount of
20 the Over-Production Replenishment Assessment was determined in a two-step process. First, the
21 Technical Committee researched and compiled a list of water sources that could realistically provide
22 replenishment water within the three-year period when the initial Operating Yield and assumed
23 Natural Safe Yield are in effect.¹ The Technical Committee relied on its members, many of whom
24 are directly involved in water supply planning for the region, to identify and describe the sources of
25 supply available for purchase by Watermaster within the three-year period. The list, a copy of which

26 ¹ The use of a three-year planning period was chosen because it coincides with the period established
27 within the Decision for maintaining the initial Operating Yield and, therefore, allowed the Technical
28 Committee to accurately estimate the needed quantity of replenishment water, and because three
years seemed an appropriate time frame beyond which the costs and availability of water supplies
becomes increasingly speculative.

1 is attached as Exhibit "E", includes estimated costs for each source of water and describes the
2 assumptions underlying the costs, quantities and availability of each water source.

3 The Technical Committee identified projects that can cumulatively yield 1,692 acre-feet per
4 year of water available for Replenishment, and which are projected to be completed within the next
5 three years. This quantity of yield is less than the 2,600 acre-foot Over-Production that could occur
6 annually if the parties pump the full 5,600 acre-foot initial Operating Yield. Although the projected
7 yield from these initial projects is significantly less than the maximum possible Over-Production,
8 Watermaster will be collecting the Replenishment Assessments for each acre-foot of Over-
9 Production. If Over-Production exceeds the quantity of available replenishment sources,
10 Watermaster will retain the Replenishment Assessments until such time as sources are available for
11 purchase and use, consistent with the provision in the Decision that acknowledges the accumulation
12 of Replenishment funds for multiple years if necessary.

13 Using the estimated available supplies and associated costs, the Technical Committee then
14 created a weighted cost of \$1,132 for each acre-foot of replenishment water. This process involved
15 first determining the percentage of the 1,692 acre-feet associated with each project. Then, the
16 percentage was applied to the estimated cost per acre foot of that project. As shown on Exhibit "E",
17 the Replenishment Assessment is the sum of the percentage-adjusted costs for an acre-foot of water
18 from each identified project.

19 The Watermaster Technical Committee will refine the methodology used to calculate the
20 Over-Production Replenishment Assessment in 2007 by updating the projected water supply
21 projects available to provide Replenishment water and the associated costs.

22 E. Watermaster Tasks and Schedule

23 The Watermaster and its Technical Committee are diligently moving forward to implement
24 the administrative and technical components of the physical solution set forth within the Decision.
25 As shown in Exhibits "F" (Watermaster Task Schedule) and Exhibit "G" (Basin Monitoring and
26 Management Program Implementation Schedule), many of the near-term tasks have been
27 completed and appropriate deadlines have been set for future tasks to ensure that the Decision is
28 properly implemented and that the Basin is perpetually protected.

1 **V. CONCLUSION**

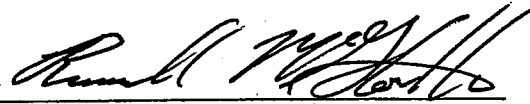
2 The Watermaster respectfully requests that the Court (a) approve the Basin
3 Monitoring and Management Program, and (b) amend the Decision to change the timing of Basin
4 activities as set forth above. Watermaster further requests that the Court provide Watermaster with
5 any feedback or instructions in relation to the Watermaster activities that are discussed herein. A
6 hearing has been set for January 12, 2007 for the Court to receive oral argument and to answer any
7 additional questions the Court may have in relation to the contents of this Petition or any other
8 matter concerning Watermaster activities or the management of the Seaside Basin.

9
10 Respectfully submitted,

11 **HATCH & PARENT, A Law Corporation**

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13 DATED: November 28, 2006

14 By

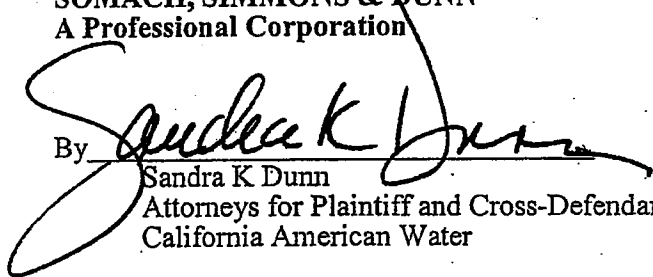


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18 **SOMACH, SIMMONS & DUNN**
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20 DATED: November 28, 2006

21 By



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3 COUNTY OF)
4 SANTA BARBARA) ss

5 I am employed by Hatch & Parent, A Law Corporation in the County of Santa Barbara,
6 State of California. I am over the age of 18 and not a party to the within action; my business
7 address is: 21 East Carrillo Street, Santa Barbara, California 93101. On November 29, 2006, I
8 served the within documents:

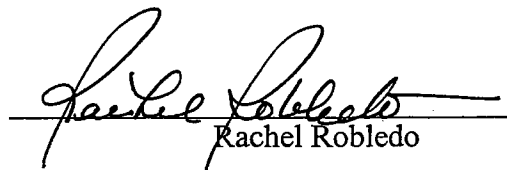
9 **WATERMASTER'S POST-JUDGMENT PETITION TO: (A) REQUEST APPROVAL OF
10 THE REVISED BASIN MONITORING AND MANAGEMENT PLAN; (B) REQUEST
11 SPECIFIC CLARIFICATIONS AND AMENDMENTS TO THE COURT'S FINAL
12 DECISION; AND (C) UPDATE THE COURT ON VARIOUS WATERMASTER TASKS
13 AND ACTIVITIES**

- 14 By placing the document(s) listed above in a sealed envelope with postage thereon
15 fully prepaid, in the United States mail at Santa Barbara, addressed as set forth
16 below.
- 17 By placing the document(s) listed above in a sealed envelope with postage thereon
18 fully prepaid, (with billing directed to sender) picked up by or delivered to an
19 overnight delivery service in Santa Barbara, California, addressed as set forth below.
- 20 By sending a true copy of the above document to the parties as set forth on the
21 service list at the fax numbers indicated. The facsimile machine used complied with
22 CRC Rule 2003(3), and the transmission was reported as complete and without error.
23 Pursuant to CRC Rule 2005(i), a transmission confirmation report was properly
24 issued by the transmitting facsimile machine, stating the time and date of such
25 transmission.

26 **SEE ATTACHED SERVICE LIST**

27 I am readily familiar with the firm's practice of collection and processing correspondence
28 for mailing. Under that practice it would be deposited with the U.S. Postal Service on that same
day with postage thereon fully prepaid in the ordinary course of business. I am aware that on
motion of the party served, service is presumed invalid if postal cancellation date or postage meter
date is more than on day after the date of deposit for mailing in affidavit.

I declare under penalty of perjury under the laws of the State of California that the above is
true and correct. Executed on November 29, 2006, at Santa Barbara, California.


Rachel Robledo

SERVICE LIST

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INDEX OF EXHIBITS

CALIFORNIA AMERICAN WATER

v.

CITY OF SEASIDE, et al.

Monterey County Superior Court Case No. M66343

WATERMASTER'S POST-JUDGMENT PETITION TO: (A) REQUEST APPROVAL OF THE REVISED BASIN MONITORING AND MANAGEMENT PLAN; (B) REQUEST SPECIFIC CLARIFICATIONS AND AMENDMENTS TO THE COURT'S FINAL DECISION; AND (C) UPDATE THE COURT ON VARIOUS WATERMASTER TASKS AND ACTIVITIES

INDEX OF EXHIBITS

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B	No Date	Approved Watermaster Rules and Regulations	46 - 58
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Exhibit A

SEASIDE BASIN MONITORING AND MANAGEMENT PROGRAM

Approved by the Seaside Groundwater Basin Watermaster Board

May 17, 2006

Revised September 5, 2006

SEASIDE BASIN MONITORING AND MANAGEMENT PROGRAM

Seaside Groundwater Basin Watermaster Board

- Chairman: Mayor Ralph Rubio, City of Seaside
 - Vice Chairman: Bob Costa, Laguna Seca Subarea Landowner
 - Secretary: Director Michelle Knight, Monterey Peninsula Water Management District
 - Treasurer: Mayor Dan Albert, City of Monterey
 - Mayor David Pendergrass, City of Sand City
 - Steve Leonard, California-American Water Company
 - Mayor Joseph Russell, City of Del Rey Oaks
 - Jerry Smith, District 4 Supervisor, Monterey County/Monterey County Water Resources Agency
 - Paul Bruno, Coastal Subarea Landowner
- Seaside Basin Watermaster Chief Executive Officer: Dewey Evans

Seaside Groundwater Basin Watermaster Board Technical Committee

- Chairperson: Diana Ingersoll, Deputy City Manager – Resource Management Services, City of Seaside
 - Curtis Weeks, General Manager, Monterey County Water Resources Agency
- Joe Oliver, Water Resources Manager, Monterey Peninsula Water Management District
 - Charles Kemp, Operations Manager, California-American Water Company
- David Berger, General Manager, Monterey Peninsula Water Management District
 - John Fischer, Member of the Public
- Steve Leonard, Vice President and Manager, California-American Water Company
 - Steve Matarazzo, Community Development Director, City of Sand City
 - Tom Reeves, City Engineer, City of Monterey

Seaside Basin Monitoring and Management Program

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Seaside Basin Monitoring and Management Program

I.

Introduction

This Seaside Basin Monitoring and Management Program ("Program") is adopted by the Seaside Basin Watermaster to comply with the Judgment entered in the Seaside Groundwater Basin Adjudication (California American Water v. City of Seaside, Monterey County Superior Court, Case Number M66343) and to ensure that the Seaside Groundwater Basin ("Basin") is protected and managed as a perpetual source of water for beneficial uses.

The Judgment required the preparation of a comprehensive monitoring and management plan for the Seaside Basin (Monitoring and Management Plan") consistent with the criteria set forth in Exhibit A (Appendix 1) of the Judgment. The Technical Committee appointed by the Seaside Basin Watermaster Board has chosen to name this document the "Program" versus the "Plan" referred to in the Judgment. This was necessary to clarify that the tasks and schedule set forth in this document is the program that will create the Seaside Basin Monitoring and Management Plan.

The Program sets forth actions that will be taken to: (a) monitor current overdraft conditions and the present threat of potential seawater intrusion into the Coastal Subarea of the Basin; (b) develop and import supplemental water supplies for the purpose of eliminating Basin overdraft and the associated threat of seawater intrusion, and (c) establish procedures that will be implemented to address seawater intrusion should seawater intrude into the onshore portions of the Basin. All costs of undertaking the actions set forth within this Program shall be paid from the Monitoring and Management Program component of the Watermaster Budget, set forth in Section III.L.3.J.iv of the Judgment. The Court's Decree calls for the Seaside Basin Watermaster to develop a Basin Management Program within one year of the Court's judgment. The following is a description of the scope of work for the management program, the monitoring program and schedule that will be undertaken by the Watermaster over the next 12 to 18 months to complete the Basin Management Program.

II. Basin Monitoring Program

A. Basin Overview

The Seaside Groundwater Basin has been characterized as underlying an approximately 19 to 24 square mile area at the northwestern corner of the Salinas Valley, adjacent to Monterey Bay. The general location of the basin and its four subareas are shown in **Figure 1**, which is from a study updating the condition of the basin completed by the Monterey Peninsula Water Management District (MPWMD) in 2005 (Yates and others, 2005. *Seaside Groundwater Basin: Update on Water Resource Conditions*. Prepared for MPWMD, April 14, 2005). The basin underlies a hilly coastal plain that slopes northward toward the Salinas Valley and westward toward Monterey Bay. The basin area includes Sand City, a portion of Monterey, and much of the cities of Seaside and Del Rey Oaks, as well as a portion of unincorporated Monterey County. In addition, the basin underlies most of the land occupied by the former Fort Ord military base. The basin consists of a sedimentary sequence of water-bearing materials that overly the relatively impermeable shales of the Monterey Formation. The two principal geologic units in terms of water supply potential are known as the "Paso Robles aquifer", consisting of interbedded sand, gravel and clay deposits of continental origin, and the underlying "Santa Margarita aquifer", consisting of a loose to weakly-cemented marine sandstone.

B. Basin Monitoring Background

Current water resource monitoring in the Seaside Groundwater Basin can be categorized into the following five principal types: groundwater production monitoring, groundwater level monitoring, groundwater quality monitoring, surface water monitoring, and precipitation monitoring. The history of development and current status of each category is briefly reviewed in this section.

1. Groundwater Production Monitoring

The early history of groundwater development in the Seaside Basin was not well documented. Prior to about 1950, the majority of groundwater extractions in the coastal area were assumed to be associated with small farming operations. The earliest recorded production dates to the mid-1950's, when municipal wells were installed in the coastal area of the basin by several small water systems that were acquired in the mid-1960's and subsequently consolidated into the main California American Water (Cal-Am) system that serves the Monterey Peninsula area. Other early metered production records were kept for wells in the coastal area supplying Fort Ord and the City of Seaside. A coordinated program of collecting and reporting groundwater production in the basin was established by the MPWMD in 1980. This program requires annual reporting of water production (surface water and groundwater) from all sources within the MPWMD's boundary, which encompasses most of the Seaside Basin area. Currently, there is no surface water production from the Seaside Basin, and the only known groundwater

production occurring within the basin outside of the MPWMD boundary is limited to production from Monterey County Parks Department wells at the eastern end of the Laguna Seca subarea of the Seaside Basin. In addition to the annual reporting requirement, MPWMD regulations require more comprehensive management for the Cal-Am water distribution system, as this system derives its supply from more than one hydrological management unit (i.e., the Carmel River Basin and Seaside Basin). This is accomplished under MPWMD regulations through the Quarterly Water Supply Budget Strategy program, in which projected production quantities for each of Cal-Am's production sources are developed on a quarterly basis, and actual production is tracked daily.

2. Groundwater Level Monitoring

The earliest groundwater level data collected in the Seaside Basin were from the municipal wells in the coastal area, beginning in the mid-1950's. The coverage was sparse, however, and limited to a small area of the basin. Water level data collection in the coastal area became more consistent when Cal-Am began operations in the mid-1960's, but the lack of long-term, spatially-distributed groundwater level data compromised the ability to rigorously assess the condition of the basin in studies conducted during the 1970's and 1980's. The Monterey County Water Resources Agency (MCWRA) periodically monitored several wells in the basin until that monitoring was curtailed due to budget constraints in the early 1990's. Basic groundwater data collection improved beginning at that same time as the MPWMD undertook a program of installing dedicated monitor wells in each aquifer at key locations in and near the coastal area of the basin. A network of dedicated monitor wells was preferable in that the water level data are more indicative of conditions outside of the direct influence of production wells. The dedicated monitor well network has been expanded since then, and is now comprised of 24 wells at 14 locations in and near the coastal and northern portions of the basin, and an additional 16 wells at 12 locations in and near the Laguna Seca subarea. The locations of monitor and production wells in and near the basin are shown on **Figure 2**. Presently, the MPWMD collects water level data monthly from 19 of the 24 monitor wells in and near the coastal subareas. Seven of these monitor wells are also equipped with automatic dataloggers (i.e., recording pressure transducer units) set to record hourly water levels to complement monitoring as part of the MPWMD Aquifer Storage and Recovery (ASR) program in the basin. The MPWMD collects water level data semi-annually (in Spring and Fall to correspond with anticipated seasonal high and low water levels) from 16 monitor wells in and near the Laguna Seca subarea. In addition to water levels collected by the MPWMD, Cal-Am currently collects and reports to MPWMD monthly water levels from 14 active and inactive production wells in the coastal subareas, and 7 wells in the Laguna Seca subarea.

3. Groundwater Quality Monitoring

Historically, groundwater quality data were sparse and were not readily available to adequately support characterization of groundwater quality in the basin in the early resource studies conducted in the 1970's and 1980's. In the early 1990's, the MPWMD

began a program to collect groundwater quality data from coastal monitor wells in the basin. This program has been expanded since then and now includes twelve (12) monitor wells at six (6) locations (**Figure 3**). Groundwater quality samples are currently collected annually and analyzed for a suite of inorganic parameters (i.e., general minerals) to assess long-term trends or changes that could indicate seawater intrusion. Based on the assessment of data from the MPWMD coastal monitor wells, there has been no indication of seawater intrusion into either of the basin's principal aquifers – the Paso Robles Formation or Santa Margarita Sandstone. In addition to the groundwater quality data collected by the MPWMD from its coastal wells, both the City of Seaside and Cal-Am collect complete general mineral groundwater quality data at least annually from their municipal production wells that serve water for potable use, as per requirements from the California Department of Health Services.

4. Surface Water Monitoring

Because dune sands cover much of the land area over the basin, precipitation falling on the basin does not produce appreciable surface runoff but directly infiltrates through the sandy soils. The exception is Arroyo Del Rey, which drains a portion of the Laguna Seca subarea. The U.S. Geological Survey measured discharge from this channel at Del Rey Oaks from 1966 to 1978, when this recording station was discontinued. The MPWMD re-established this as a recording station in 2002, and continuous streamflow records are currently maintained for this site.

5. Precipitation Monitoring

There are no long-term records of precipitation from monitoring stations within the Seaside Basin. Accordingly, basin precipitation estimates in previous water resources investigations have been based on records from nearby recording stations. The recent hydrogeologic assessment of the basin conducted for Cal-Am relied primarily on long-term records available from the National Oceanographic and Atmospheric Administration (NOAA) Station #045795 in Monterey (CH2M HILL, 2004, *Hydrogeologic Assessment of the Seaside Groundwater Basin*. Prepared for Somach, Simmons & Dunn and California American Water, January 2004. See page 2-2).

C. Basin Monitor Well Construction Program

1. Purpose

Notwithstanding the current groundwater monitoring efforts as described above, the Court recognizes that the present monitor well network is lacking adequate coverage in and near the Northern Coastal subarea of the basin, considered to be most vulnerable to seawater intrusion. Additionally, there are few existing monitor well control points to adequately define conditions along the northern basin boundary in the Northern Inland subarea. This section describes the Watermaster's planned exploratory drilling and monitor well construction activities that are designed to enhance the efficiency and utility

of the existing basin monitoring network. This program is based on the description provided in Exhibit A of the *Decision*, attached as Appendix 1 of this program. Any proposed departures from that description and the basis for them are also described herein. In sum, the program provides that up to six (6) additional "sentinel" monitoring wells may be constructed with the funds made available. The priority in which the monitoring well installations are constructed will be determined in accordance with the criteria herein described.

To ensure that the coastal area is adequately monitored to detect potential seawater intrusion, exploratory drilling, geophysical surveying and monitor well construction will be undertaken. Based on current knowledge of the availability of existing subsurface control points in and near the coastal area of the basin, monitor wells shall be initially constructed at a minimum of four (4) additional coastal "sentinel" monitor well sites ("*Sentinel*" monitor well sites refers to the network of monitor well sites closest to the coastline in and near the Seaside Basin, which can serve as a first line of defense in detecting potential seawater intrusion) at approximately 3,000 feet spacing, in the area along the coast northeast of existing monitor well "WMD-PCA-W". It is anticipated that the four coastal sites will be selected from the six potential target areas sites that are shown on **Figure 4**. Four sites are in a line near the coastline and two sites are slightly farther from the coastline and in between the most coastal sites, to provide secondary coverage if seawater intrusion should occur in narrow lobes or fingers. The actual locations for the new coastal "sentinel" well sites must be carefully selected based on nearness to the coastline, coastal erosion potential, site logistics, and long-term access constraints.

In addition, two (2) inland sites near the northern basin boundary shall be selected for exploratory drilling and monitor well construction. The recommended target areas for these sites are also shown on **Figure 4**. Information developed from these inland sites will support an improved understanding of the occurrence and nature of the aquifer systems and groundwater levels in the vicinity of the northern basin boundary where there are no existing monitor or production wells, and will support long-term monitoring in the basin.

As a planning goal, it is anticipated that these new monitor well installations can be completed within approximately 18 months of the Court's approval of this document, as shown in **Figure 5**. A breakdown of the proposed schedule by task is also included in Section V. Based on previous experiences by the MPWMD in installing similar coastal and inland monitor wells in the basin, land availability, authorization and access are key issues that must be overcome to successfully site and construct the monitor wells. The optimal locations for the new coastal monitor wells are along the coastal bluffs of the former Fort Ord military base, on land that is currently under the jurisdiction of the U.S. Army, but ultimately planned for transfer to the California Department of Parks and Recreation (CDPR). Accordingly, approval of such activity in this area of former Fort Ord will require the acquisition of a long-term easement, and will likely include authorizations from the Army Base Realignment And Closure (BRAC) office, the Fort Ord Reuse Authority (FORA), the County of Monterey, and the CDPR. As an alternate

option, if land use approvals prove too difficult or lengthy for the coastal bluff locations, consideration will be given to siting the new coastal monitor wells along the inactive railroad alignment through the former Fort Ord coastal area. The Transportation Agency of Monterey County (TAMC) has recently acquired this property from the Union Pacific Railroad. Sites along the railroad alignment are less ideal in that they are approximately 500 to 1,500 feet farther from the coastline than the coastal bluff sites, but the approval process for use of these sites is anticipated to be less time consuming, and the MPWMD has already initiated discussions with TAMC on this issue. In any event, additional documentation from the Court endorsing its order to install the additional coastal monitor wells may be beneficial for the Watermaster to receive timely authorization for these monitor well installations.

As explained above, given the complexity of land use constraints and jurisdictional authority in the local setting, it is not likely that the exploratory drilling program can be conducted in the precise fashion described in Exhibit A of the *Decision*. Additionally, it is not envisioned that the exploratory drilling and geophysical surveys will be conducted as separate advance activities to facilitate subsequent siting of the new monitor well locations. Rather, monitor well clusters shall be installed at each of the carefully selected sites described above, with monitor well design and number of wells at each site guided by the lithologic and geophysical data to be collected in the manner described below. This is based on the MPWMD's past experience with exploratory drilling in the basin, wherein the actual occurrence of, and lithologic conditions within, each aquifer were variable from site to site, making it difficult to presume the monitor well designs and number of wells to be completed in advance. It is also noted that timely completion of the exploratory drilling and monitor well installation program described herein will require specialized drilling contractor services that may not be available locally, and could be limited by contractor availability.

2. Exploratory Borehole Drilling Program

A pilot borehole shall be constructed at each site, with the total depth targeted for the top of the Monterey Formation, which represents the effective base of the freshwater bearing formations at nearby locations in the basin. Total drilling depth at each site is anticipated to be 1,500 to 2,500 feet. Borehole lithologic samples (i.e., grab samples) shall be collected at ten-foot intervals (with the exception of any depths in the borehole at which continuous core samples can be collected). All collected lithologic samples shall be prepared and placed into labeled cases for storage and future inspection.

3. Geophysical Surveys

Upon completion of pilot drilling to the total depth, a complete suite of open borehole geophysical logs shall be run, including resistivity, spontaneous potential, caliper, temperature, gamma ray, and electromagnetic conductivity (EM) logs. These geophysical logs will provide a basis for describing the distribution of aquifers, occurrence of fine-grained interbeds and confining units between aquifers, water quality

variations with depth, and the nature of groundwater flow and potential seawater intrusion, as was completed for a recent similar deep coastal monitor well construction project to the north of the Seaside Basin in the City of Marina (Hanson and others, 2002. *Geohydrology of a Deep-Aquifer System Monitoring-Well Site at Marina, Monterey County, California*. U.S. Geological Survey Water-Resources Investigations Report 02-4003. Prepared in cooperation with the Monterey County Water Resources Agency (see page 12 for geophysical data description). In addition to the borehole geophysical logs, additional geophysical logging shall be conducted on the deepest cased well at each site and shall include gamma ray and EM logs. This additional logging will allow for comparisons with future annual geophysical logging surveys at each site as part of the ongoing monitoring program for early detection of salinity changes (i.e., potential seawater intrusion) into discrete zones within the aquifer system, that may otherwise go undetected by standard water quality sample collection.

5. New Monitoring Wells

Monitor well design shall be by multiple-well clusters at each site, either in the same or separate boreholes, unless an alternate well construction technique is authorized. Where present at each site, separate well casing strings shall be constructed with screened intervals within each recognized aquifer of the basin (e.g., Aromas Sand, Paso Robles, Santa Margarita) to provide a detailed vertical characterization of water levels and quality through the aquifer system. If observed conditions warrant, more than one well casing may be installed in each aquifer to more discretely characterize variable conditions in specific zones within the aquifer; however, this cannot be determined in advance of the exploratory drilling, as described above. For estimating purposes, it is assumed that four (4) wells will be installed at each well site cluster. The screened interval of each casing string shall be separated from other well completions by isolation seals if multiple wells are constructed in the same borehole. Each monitor well casing shall be a minimum two-inch inside diameter, and the deepest casing string at each well cluster shall be a minimum three-inch inside diameter to accommodate cased well geophysical logging tools.

D. Comprehensive Basin Production, Water Level and Water Quality Program

1. Purpose

The comprehensive monitoring program described herein is intended to guide ongoing data collection efforts in the basin to efficiently and economically provide the pertinent groundwater resource data that will establish a defensible basis for future decision-making by the Watermaster. Monitoring data collection tasks are described according to well location in or near the Seaside Basin. Coastal "sentinel" monitor wells refers to the closest monitor well sites to the coastline. Inland monitor wells refers to the monitor well locations in and near the Northern Inland and Laguna Seca subareas, and those monitor wells in the Southern and Northern Coastal subareas that are not included in the coastal sentinel monitor well network. "Production wells" refers to such wells in all four subareas of the basin.

2. Creation of Consolidated Basic Groundwater Resource Database

Currently, groundwater resource monitoring within the Seaside Basin is being conducted by several entities as described above in Section B. Basin Monitoring Background. A consolidated database will allow pertinent groundwater data to be more efficiently organized, managed and housed in a single location to facilitate: (a) ongoing data collection efforts, (b) data storage and retrieval, (c) distribution of basic data to Watermaster members and other interested parties, and (d) preparation of annual and periodic reports to the Watermaster. A database shall be created to contain all pertinent historical basic groundwater resource data (i.e., well production, level, quality) with proper annotations as to data sources, as well as all ongoing groundwater resource data collected on behalf of the Watermaster. The database will also include pertinent information on well type, location and construction details. In addition to the data organizational benefit, the consolidated database is intended to resolve any differences or discrepancies in existing datasets that have been compiled by separate entities. The MPWMD currently maintains a groundwater database that includes some of the features described herein. The Watermaster will need to determine if the MPWMD's database should be expanded or a new database should be created for this purpose. A breakdown of the proposed schedule by task is shown on Figure 5, and also is included in Section V.

3. Monitoring of Coastal "Sentinel" Monitor Wells

a) Water Level Monitoring

All coastal sentinel monitor wells (existing and proposed) shall be monitored on at least a monthly interval to record manual water level measurements. In addition, all coastal sentinel monitor wells shall be equipped with automatic dataloggers to continuously record groundwater levels in each aquifer measured. The dataloggers will be set to record no less frequently than a daily interval and will be downloaded at least quarterly. The dataloggers will be calibrated/confirmed initially and on at least a quarterly basis with the manual water level measurements. All collected data will be entered into the consolidated groundwater resource database on a quarterly basis.

b) Water Quality Monitoring

All coastal sentinel monitor wells (existing and proposed) shall be sampled on a quarterly interval by extraction of water samples (using standard sampling protocols) for chemical analysis by a state-approved laboratory. Parameters to be analyzed will at a minimum include the full general inorganic mineral suite. All collected water quality data will be entered into the consolidated groundwater resource database on a quarterly basis. Proposed new monitor wells may be sampled on a more frequent basis during the first year after construction to establish water quality variability at these locations. In addition, all coastal sentinel monitor wells (existing and proposed) shall be equipped with automatic dataloggers to continuously record groundwater quality (electrical conductivity and/or chloride) in each aquifer measured. The dataloggers will be set to record no less frequently than a daily interval and will be downloaded at least quarterly. The dataloggers will be calibrated/confirmed initially

and at least quarterly with the chemical analysis data collected at each monitor well. On an annual basis, geophysical logs will be run at the deepest well at each of the new coastal sentinel monitor well sites. Also, an existing inactive Cal-Am production well in the Northern Coastal subarea, known as the "Del Monte Test" well, will be evaluated for possible inclusion with the coastal sentinel monitor well network.

4. Monitoring of Inland Monitor Wells

a) Water Level Monitoring

All inland monitor wells (existing and proposed) shall be monitored for water levels on at least a quarterly interval (This is an increased frequency from the semi-annual to annual water level monitoring recommended in the report: Yates and others, 2002, *Laguna Seca Subarea, Phase III Hydrogeologic Update*, prepared for MPWMD, November 2002 (see page 65)). In addition, at least two monitor well sites in the Laguna Seca subarea shall be equipped with automatic dataloggers to continuously record groundwater levels in each aquifer measured (This follows from a recommendation to instrument monitor wells to better understand water level variations in the report: Yates and others, 2002, *Laguna Seca Subarea, Phase III Hydrogeologic Update*, prepared for MPWMD, November 2002. See page 65). The dataloggers will be set to record no less frequently than a daily interval and will be downloaded at least quarterly. The dataloggers will be calibrated/confirmed initially and on at least a quarterly basis with the manual water level measurements. All collected data will be entered into the consolidated groundwater resource database on a quarterly basis.

It is noted that there are few existing monitor or production wells in parts of the Laguna Seca and Southern Coastal Subareas (refer to Figure 2), from which ongoing water level data collection would be of use in obtaining pertinent groundwater resource data. With few exceptions, data from existing wells could not be utilized to improve the basic hydrogeologic understanding and ultimate groundwater simulation modeling of the aquifer flow system from the Laguna Seca Subarea to the coast. Accordingly, in addition to the water level monitoring described above, it will be necessary for the Program to include, as an additional task, the investigation of potential existing or new monitor well sites that can be added at key locations in the Laguna Seca and Southern Coastal Subareas. As a part of this task, recommendations as to how to accomplish this objective will be developed. These new wells will facilitate improvement to the monitor well network. In addition, the Program will include as a further task, investigation of whether water quality constituents in groundwater originating from the Laguna Seca Subarea should be analyzed to improve the basic hydrogeologic understanding in order to compliment groundwater simulation modeling of the aquifer flow system from the Laguna Seca Subarea to the coast.

b) Water Quality Monitoring

Regularly scheduled water quality monitoring is not anticipated for the inland monitor wells, with the following exceptions: (a) the full general inorganic mineral suite of parameters shall be analyzed initially and quarterly for the first year, for any newly-constructed inland monitor wells to characterize background water quality at new locations, and (b) any water quality monitoring as part of special studies that may be directed by the Watermaster.

5. Monitoring of Production Wells

a) Water Level Monitoring

All active and inactive production wells in the basin owned and/or operated by a Watermaster member shall have static (i.e., non-pumping) water levels collected and recorded a minimum of once per month. It shall be the responsibility of each owner/operator of a Watermaster member production well to report monthly water level measurements to the Watermaster on an annual basis for inclusion of these data in the consolidated groundwater resource database.

b) Water Quality Monitoring

All active production wells in the coastal subareas of the basin owned and/or operated by a Watermaster member shall have a water quality sample from each well collected and analyzed by a state-approved laboratory for the full general inorganic mineral suite a minimum of once per year. It shall be the responsibility of each owner/operator of a Watermaster member production well to report water quality analytical results to the Watermaster on an annual basis for inclusion of these data in the consolidated groundwater resource database.

6. Reporting of Monitoring Data

It is anticipated that initially the Watermaster shall receive and distribute to members and interested parties a summary report of water resources data collected on behalf of the Watermaster on a quarterly basis. The quarterly reports shall include the reporting of water level and water quality data collected from the existing and proposed monitor wells as described herein. In addition, the monitor well data shall be summarized along with other information required in the Watermaster annual reports to be prepared and filed with the Court. Groundwater monitoring data will be prepared to conform to State Standards where appropriate or required.

E. Estimated Monitoring Program Costs

At this time only a preliminary "order of magnitude" estimate ("*Order of magnitude*" cost estimates refers to approximate costs with an estimated accuracy of +/- 40%.) of costs is

available for the basin monitoring functions described in this Program. It is anticipated that refined costs will be available once proposals for exploration, monitoring and data management have been received, reviewed and authorized by the Watermaster. One-time costs for exploratory drilling, geophysical surveying and monitor well construction are estimated at \$1,080,000. One-time costs for development of the basic groundwater database, and purchase and installation of water level/water quality dataloggers are estimated at \$62,000. First year annual costs for groundwater database maintenance, and coastal and inland well monitoring are estimated at \$61,680. A more detailed breakdown of estimated monitoring program costs is included in **Figure 6. "Order of Magnitude" Cost Estimate Summary for Basin Monitoring Program Portion.**



Figure 1. Location of the Seaside Groundwater Basin

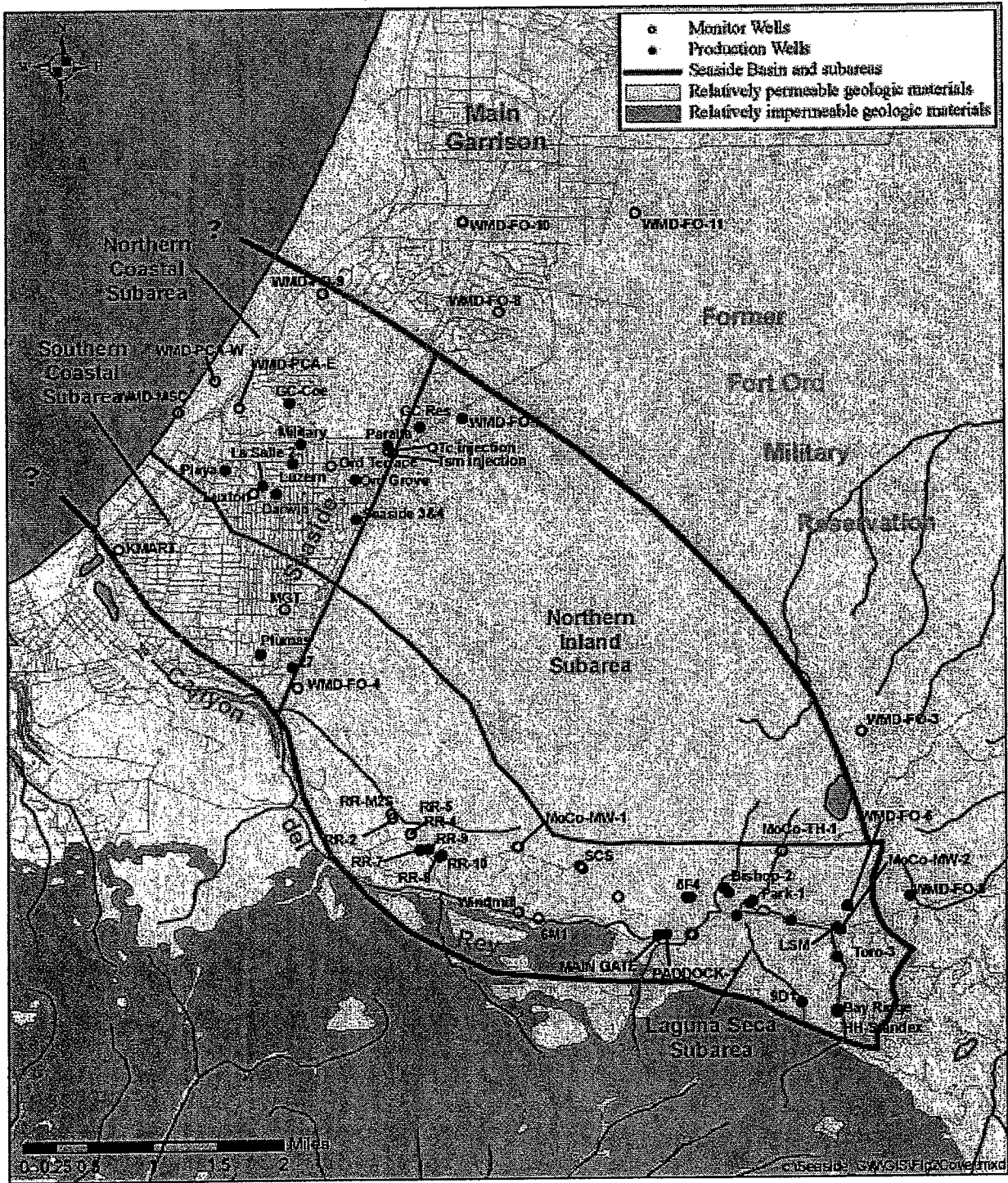


Figure 2. Location of Production and Monitor Wells in and Near the Seaside Basin

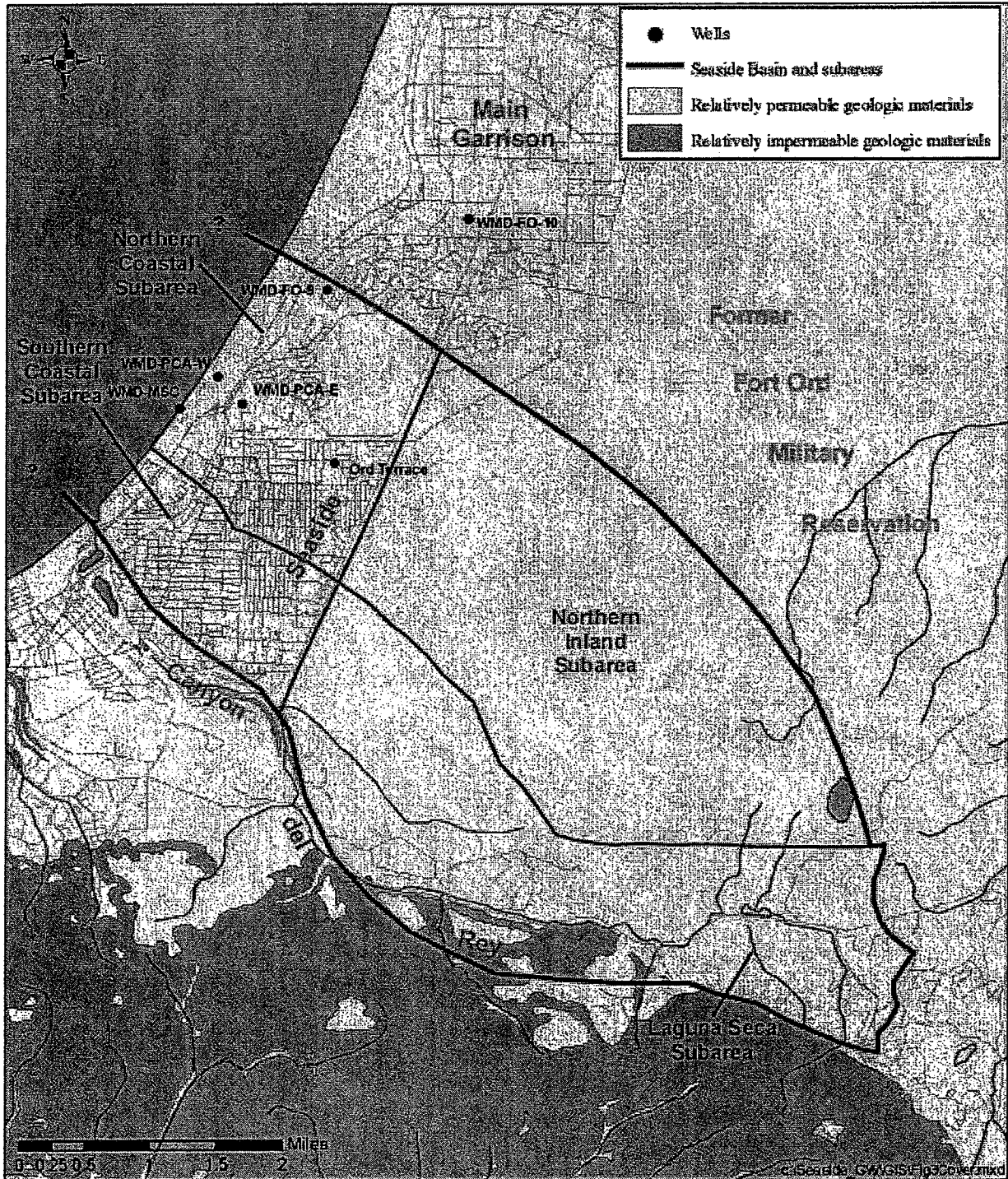


Figure 3. Location of Existing Coastal Groundwater Quality Monitor Wells in an Near the Seaside Basin



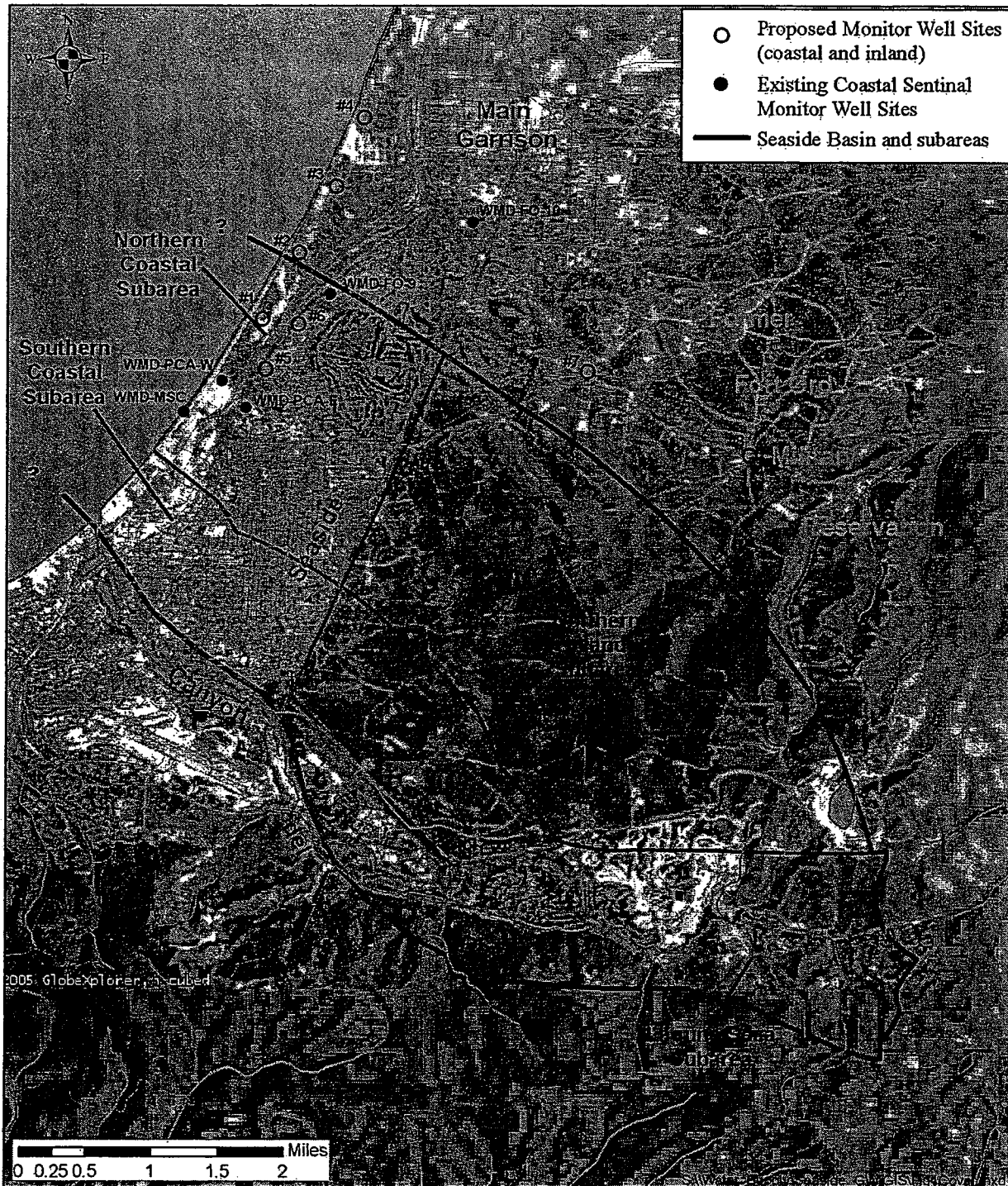


Figure 4. Location of Existing Coastal Sentinel Monitor Well Sites and Proposed Monitor Well Sites (Coastal and Inland) In and Near the Seaside Basin

Figure 5. Schedule by Task for Select Basin Monitoring Program Elements

No.	Task	Duration (Days)	Start	Finish
Basin Monitor Well Construction Program				
1	Develop scope of services and RFP for consultant program oversight	60	7/1/2006	8/31/2006
2	Review proposals, secure oversight consultant contract	30	9/1/2006	9/30/2006
3	Oversight consultant completes site acquisition approvals	180	10/1/2006	3/31/2007
4	Develop scope of services and request bids for drilling/monitor wells	90	1/1/2007	3/31/2007
5	Review bids, secure contract(s)	30	4/1/2007	4/30/2007
6	Drill, equip and collect initial monitoring data	150	5/1/2007	9/30/2007
7	Prepare and submit completion report to Watermaster	60	9/1/2007	10/31/2007
Creation of Consolidated Basic Groundwater Resource Database				
1	Develop database RFP	30	7/1/2006	7/31/2006
2	Review proposals, select consultant	30	8/1/2006	8/31/2006
3	Develop and approve database format	30	9/1/2006	9/30/2006
4	Populate database (historical data from all sources)	60	10/1/2006	11/30/2006
5	Populate database (current monitoring data)	30	12/1/2006	12/31/2006
6	Prepare database documentation report	30	1/1/2007	1/31/2007

Prepared for Seaside Basin Watermaster, May 2006

**Figure 6. Seaside Basin Monitoring and Management Program "Order of Magnitude"
Cost Estimate Summary for Basin Monitoring Program Portion**

Task	Cost / Unit	# of Units	Cost / Site	# of Sites	One-Time Cost	Annual Cost
Exploratory drilling / geophysical surveying / monitor well construction						
Assume average TD = 1,800 feet; \$100/ft lump sum	\$100	1800	\$180,000	6	\$1,080,000	
Basic groundwater resource database						
Develop / populate: 200 hours	\$70	200			\$14,000	
Annual maintenance: 40 hours/quarter x 4/yr	\$70	160				\$11,200
Monitoring of coastal "sentinel" monitor wells						
Purchase/install WL/WQ dataloggers (6 existing wells; 16 new wells)	\$2,000	22			\$44,000	
Manual WL monitoring: 8 hrs/mo x 12 mo/yr	\$70	96				\$6,720
WQ sample collection: 3 hrs/pers/site x 2 pers x 4/yr	\$70	24	\$1,680	8		\$13,440
WQ sample lab analyses: \$200/sample gen. Minerals x 4/yr x 22 wells	\$200	4		22		\$17,600
Annual maintenance, WL/WQ dataloggers: 16 hrs/quarter x 4/yr	\$70	64				\$4,480
Annual geophysical surveys	\$1,500			4		\$6,000
Monitoring of inland monitor wells						
Manual WL monitoring: 8 hrs/quarter x 4/yr	\$70	32				\$2,240
Purchase/install WL/WQ dataloggers (2 existing wells)	\$2,000	2			\$4,000	
TOTAL ONE-TIME COST					\$1,142,000	
TOTAL ANNUAL COST (first year)						\$61,680

NOTES:

1. Cost estimates are at the preliminary "order of magnitude" level, with estimated accuracy of +/- 40%.
2. Cost estimates are subject to change as plans and scope are refined by Watermaster

III.

Basin Management Program

A. Development of a Seaside Basin Management Plan

1. Program Objectives

The objectives of the Basin Management Program, as stated in the Court's *Decision*, are to optimize groundwater pumping, control seawater intrusion, and return the Basin to equilibrium through implementation of conservation methods, through the importation of supplemental water for direct use and Basin replenishment. The Program will serve as the technical roadmap for future basin management decisions to achieve the management objectives in a cost-effective manner while balancing potential socio-economic impacts to users of Seaside Basin groundwater. The Program will be developed in a way that provides flexibility in the future to respond to changing conditions in the basin and new information that becomes available as the basin monitoring program is implemented.

2. Program Development

The Watermaster will oversee the development of the plan, utilizing member agency staff expertise and/or consultants where appropriate to conduct detailed technical analyses and investigations. The Watermaster should seek available grants and loans for plan development through the California Department of Water Resources or from other resources available to assist in alternative regional solutions that support the plan.

3. Key Program Elements

The Seaside Basin Management program will consist of the following key elements:

- a. Development and implementation of a program for collecting and analyzing data related to groundwater production, water levels, water use, land use, rainfall, and other pertinent information useful in managing the basin. The Plan will outline the criteria and protocol to be used in triggering basin management actions. The MPWMD currently has an extensive data collection and management system that includes much of the data that will be required as part of the Seaside Basin Management Program. The MPWMD program will be evaluated during Plan development for use as a base upon which necessary data collection and storage enhancements can be made.
- b. Development of an enhanced Seaside Basin groundwater model to be used in developing improved estimates of natural and secondary basin recharge, Total Useable Storage Space for the Seaside Basin, Operating Safe Yield, Natural Safe Yield, and basin management strategies. In addition, the modeling effort will asses

whether relocation of production from existing wells can be achieved to optimize the Natural Safe Yield within the Coastal and Laguna Seca subareas of the Basin. Technical consultants will be utilized for the task of developing a model and modifying existing groundwater models wherever possible. Existing models that will be evaluated for modification include but are not limited to: Laguna Seca Phase III Report (Yates et. al 2002), Sand City Desalination studies (Feeney & Williams, 2004), and Seaside Basin adjudication trial model (Durbin, 2005). No model development cost estimates have been provided in this document. A formal technical review of the models will be conducted in order to develop a scope of work and budget for the project.

c. Development of recommendations regarding implementation of strategies to import supplemental water supplies into the basin, including:

- Substitution of alternative supplies for Basin groundwater (including in-lieu recharge).
- Direct aquifer replenishment of pumping in exceedence of basin Natural Safe Yield.

Potential water sources for the above strategies include reclaimed water for irrigation of large turf areas and/or direct recharge, surplus Carmel River Water for aquifer replenishment during the winter months, and local desalination projects such as that proposed by Sand City and regional desalination project, such as that proposed by California American Water. Supplemental supplies will be evaluated with regard to cost and environmental constraints to implementation. Plan recommendations will include concrete steps for project implementation over specific time periods, including near-term and long-term actions.

d. Development of strategies for redistribution of pumping to avoid various adverse impacts within the basin.

IV.

Seawater Intrusion Contingency Program

A. Objective

If seawater intrusion is detected in a coastal production or monitoring well, it is imperative that pumping stresses be reduced so that the seawater is not pulled further inland or otherwise spread into a larger area of the Basin where it may contaminate additional wells. Accordingly, the objective of the Seawater Intrusion Contingency Program is to set forth the actions that will be undertaken if seawater intrusion is detected in a coastal well to prevent the seawater from contaminating larger portions of the Basin. The purpose of this section is describe how the presence and extent of seawater intrusion will be determined by the analysis of the existing and the future enhanced coastal seawater intrusion water quality monitoring program. The seawater intrusion contingency planning process to address the detection and presence of seawater intrusion will then be discussed.

B. Seawater Intrusion Analysis

In order to detect and determine the extent of seawater intrusion, the mechanism of seawater intrusion must first be defined and then described. The analysis of the water quality monitoring data and mapping of the extent of seawater intrusion will follow.

1. Seawater Intrusion – Description of Problem and Process

Intensification of water use on ground water resources can cause the depletion of groundwater storage and lower groundwater levels in a basin. Declining groundwater levels to an elevation below mean sea level may eventually cause inflow of seawater into aquifers along coastal areas. As seawater moves inland, ground water chloride values increase over time.

2. Seawater Intrusion - Definition

For the purposes of defining when actions described in Section C of the program will be taken, the seaside groundwater basin aquifers will be defined as seawater intruded when the chloride concentrations in a coastal monitor well reach approximately 100 mg/l and 250 mg/l for the Paso Robles and Santa Margarita formations respectively. For a coastal production well, the standard will be when chloride concentrations reach 250 mg/l, given that some production wells have multiple aquifer completions with water quality that reflects a blend from these sources. These standards will be used until more comprehensive standards based on historical water quality data at individual monitor and production wells can be developed. Each monitoring well and production well in the groundwater network will be evaluated on site-specific criteria. In addition, the Watermaster will institute interim standards for notice of potential seawater intrusion so that appropriate preventative actions may be taken. Interim notice for seawater intrusion will be defined as a 50 percent increase above ambient chloride concentrations for any

specific monitoring well location. Generally accepted laboratory protocols and hydrogeologic methods will be employed for the determinations of seawater intrusion.

3. Description of Water Quality Related to Seawater Intrusion

The California Safe Drinking Water Secondary Standard for chloride ranges from the recommended maximum for drinking water of 250 mg/L chloride and an upper limit of 500mg/L chloride. By the time chlorides reach the latter concentration, many times the wells are abandoned or destroyed due to unacceptable aesthetic qualities such as taste due to mineralization. The standards mentioned above dictate that, for drinking water purposes, chloride concentrations will be the primary water quality indicator for the determination of seawater intrusion. Other complementary inorganic parameter concentrations will also provide supplemental data for water quality trend analysis and aquifer water quality characterization (calcium, magnesium, sodium, potassium, sulfate, and nitrate) called "fingerprinting". The analysis of these combined parameters will determine aquifer impacts by seawater intrusion.

Background chloride values may vary by aquifer depending on aquifer characteristics. For this reason, chloride values generated from the water quality monitoring program will be referenced to the 100mg/L and 250 mg/L chloride concentrations to determine aquifer impacts by seawater intrusion. In the coastal Salinas Valley, the agricultural community recognizes chloride values under 100mg/L as excellent to good irrigation quality. After determining if seawater intrusion is present, the observance of increasing chloride trends from the baseline up to 250mg/L chloride will be analyzed to determine the advancement of seawater intrusion. It must be noted that seawater intrusion is a gradual process due to the chemical interactions between the geologic formations in the aquifers and seawater. It is critical that the Watermaster Board is kept informed whenever chloride levels reach levels in excess of the interim standard so that appropriate action can be taken.

4. Data Analysis Tools and Data Analysis

The water quality data analysis exercise requires certain tools. These tools include different types of computer software to digitally identify the location of wells, to quality check data, and to generate graphs, diagrams, and chloride contour lines. Before a thorough analysis of the water quality data can begin, the following software will be required:

- Geographic Positioning System (GPS) equipment to provide latitude/longitude location for study wells
- Excel to graph chloride trends for each well
- Water quality graphing software to represent water quality data in "stiff" and "trilinear" diagrams
- ArcView GIS 3.3 to generate chloride contour lines

Once the software is obtained and personnel are trained, immediate evaluation of the existing monitoring data can begin. Compilation of the data in a central database will be required along with data checking for correctness and GPS digital locations for all wells

must be obtained. If the existing study wells have historical data, the first step is to graph the chloride values for each well to determine any increasing trends over time. The next step is to determine the “fingerprint” or the water quality characteristics for each well with the use of stiff diagrams. Stiff diagrams show the complete inorganic suite of water quality data concentrations represented on a graph. This provides instant recognition the “fingerprint” of water being pumped from each of the aquifers. Like aquifer wells will have similar water quality fingerprints. The next water quality graphing step, prior to contouring the well chloride data, is to create a trilinear diagram for multiple wells. The inorganic water quality concentrations for each well will be represented on one graph in comparison to the same constituent concentrations of seawater. This graph enables the analyst to determine inorganic parameter concentration trends toward varying degrees of seawater intrusion. Using generally accepted standards, it must be confirmed whether elevated chloride concentrations are an anomaly or are due to seawater intrusion. The last step in the water quality data analysis is to contour the chloride data for each of the coastal monitoring wells on a map to compare and contrast chloride values. To contour, the following protocol will be followed utilizing ArcView GIS 3.3:

- Create a .dbf file that includes facility codes, chloride values and sampling dates information
- Import .dbf file into Arc-View
- In Arc-View, open a new view
- In the menu bar, under View choose the add Theme button and add the shape file with wells to be contoured
- In the View window, “open the tables of active themes”, which will bring up the attributes table
- Open both the .dbf file and the study wells shape file, join the tables
- Choose create contours under Surface in the view window
 - Create contours, select Output Grid Extent option
 - Choose spline method to interpolate surface type field
 - Choose chloride for “Z” value field
 - Choose appropriate weight and number of points (hint: start with default values to see what the default contour looks like)
- Classify quantiles using Legend Editor menu
 - Choose chloride value for value field. Classify according to chloride concentration e.g. 100 mg/L, 250 mg/L, or 500 mg/L
 - Assign line type according to chloride concentrations

After the draft chloride contour map is generated, multiple technical review sessions must take place by all entities, MPWMD, Cal Am, and MCWRA, to evaluate the data representation. This will enable the entities to determine if the data are correctly being represented on the map, and if so, lead to the implementation of an action program. Well production amounts, seasonal precipitation, and water conservation efforts in each of the geographic areas will be useful in interpreting the chloride contour map. Once this first step is completed to determine the baseline chloride contours, a more thorough evaluation will be accomplished once the data is generated from the new coastal dedicated monitoring wells.

Take note that there are other, less routinely used, data analysis tools available to further delineate seawater intrusion and its advancement. Some tools, among others, include water quality stable isotope analysis and periodic well borehole geophysics.

The data analysis of seawater intrusion will be performed on an annual basis beginning January 2007 after the period of monitoring during heavy pumping is completed from May through November 2006.

It is recognized that acquisition and development of the tools necessary for the seawater intrusion monitoring analysis described above will take time to fully implement by the Watermaster. As an interim measure until this portion of the Program is completed and ready to be fully utilized, pertinent water quality data compilation and analysis will be prepared and presented to the Watermaster using existing methods that do not rely upon completion of all the steps as in the above-described protocol. This interim measure will be accomplished and reported to the Watermaster beginning with the first Board meeting immediately after the data from the MPWMD's budgeted October 2006 coastal monitor well groundwater quality sampling results are available, so that potential seawater intrusion can be detected and addressed at the earliest possible date.

Water Quality Data Analysis Tools and Data Analysis Timeline

<u>Task</u>	<u>Estimated Start Date</u>	<u>Estimated Completion Date</u>
1. Interim Data Analysis (Water Quality Data Compilation and Analysis)	August 2006	December 2006
2. Obtain software and train personnel	August 2006	December 2006
3. Compile and Check Existing Data Sources	September 2006	December 2006
4. Development of Sea Water Intrusion Assessment Tools Purchase of GIS tool will provide the following:	November 2006	January 2007
<ul style="list-style-type: none"> • Graph chloride values for each well • Determine "fingerprint" or water quality characteristics for each well with the use of stiff diagrams • Create a trilinear diagram for multiple wells 		
Purchase of Fox database tool will provide the following:		
<ul style="list-style-type: none"> • Confirm whether elevated chloride concentrations are an anomaly or are 		

due to seawater intrusion

Purchase of Arcview tool will provide the following:

- Map chloride data contours for each of the coastal monitoring wells to compare and contrast chloride values

5. Evaluate data representation and establish baseline chloride levels

November 2006- February 2007

6. Evaluate baseline chloride contours

December 2006 - March 2007

C. Actions to be Taken Subsequent to Detection of Seawater Within in a Coastal Well

The following actions are to be taken in accordance with Exhibit A of the *Decision (Case No. M66343)*

1. If seawater intrusion is detected in a coastal production or monitoring well ("Contaminated Well"), the Contaminated Well will discontinue pumping and all other wells that produce groundwater from the intruded aquifer that are within one-half mile of the affected monitoring well ("Threatened Wells") will immediately reduce their monthly production to the equivalent of one-half of their average monthly production¹ within the previous five years upon notification from Watermaster of the detection of seawater intrusion within the Contaminated Well.
2. Watermaster shall increase monitoring of groundwater levels within the one-half mile radius of the Contaminated Well to determine if the requisite pumping reductions sufficiently affect groundwater gradients to prevent the further spread of seawater intrusion toward the Threatened Wells. This increased monitoring effort will include installing at least one new monitoring well as a sentinel well between the Contaminated Well and the nearest down-gradient active Threatened Well.
3. After six months of reduced pumping of the Threatened Wells, the threat of further seawater intrusion will be re-evaluated. If the requisite pumping reductions have failed to sufficiently affect groundwater gradients to prevent the further spread of seawater intrusion toward the Threatened Wells, those wells will further reduce their monthly production to the equivalent of one-third of their average monthly production within the previous five years upon notification by Watermaster that such further reductions are required.
4. After another six months of monitoring, the direction of groundwater gradients will again be evaluated. If there continues to be a groundwater gradient that would pull the detected seawater towards the Threatened Wells, then the Threatened Wells shall discontinue pumping, unless in Watermaster's determination, doing so would create a public health and/or safety risk.

5. If, after the initial discovery of the initial seawater intrusion, seawater is encountered in an additional monitoring or production well, pumping reductions will be required for nearby threatened production wells (i.e., production wells within one half mile of the recently contaminated well) in the same manner as set forth above for first Contaminated Well.

If the implementation of the procedures set forth above cause a production well to reduce its pumping or to cease pumping altogether, all reasonable efforts shall be undertaken by the Watermaster and all other Parties that Produce Groundwater from the Basin to insure that the lost production capacity and associated water supply for that well owner/operator will be replaced by redistributing pumping, or provision of replacement water from other sources.

D. Efforts to Redistribute or Replace Water Lost Because of Seawater Intrusion Contingency Plan

The Monterey Peninsula has faced the constant specter of water shortage for decades. The Monterey Peninsula Water Management District has developed an *Expanded Conservation and Standby Rationing Plan* (included in the program as Appendix 2) that responds to a number of water supply shortage scenarios. Saltwater intrusion and subsequent management of an event will require planning and coordination of all Seaside Basin users

In the event that supplies cannot immediately be replaced with supplies from other Seaside Basin wells or from outside sources, the Monterey Peninsula Water Management District would, in conjunction with California American Water, implement the appropriate actions called for in the *Expanded Conservation and Standby Rationing Plan* (MPWMD Regulation XV, Rules 160 – 175) for the Cal Am service area. The plan will be amended by January 2007 as needed to use detected seawater intrusion episodes as a trigger for the implementation of the plan to also include the Seaside Water Main System.

A contingency planning program will enable quick action to take place to address any seawater intrusion scenario that may arise from the annual analysis of the seawater intrusion water quality.

Exhibit B

RULES AND REGULATIONS
OF THE
SEASIDE GROUNDWATER BASIN WATERMASTER

1.0 Introduction

The Watermaster for the Seaside Basin was created on March 27, 2006 by entry of Judgment in *California American Water v. City of Seaside, et al.* (Case No. M66343, California Superior Court, Monterey County). A copy of the Judgment is appended to these Rules and Regulations. The purpose of the Watermaster is to assist the Court in the administration and enforcement of the provisions of the Judgment. All actions of the Watermaster shall be governed by the terms of the Judgment and these Rules and Regulations. In the event of any conflict between the terms of the Judgment and these Rules and Regulations, the Judgment, together with any further or supplemental orders or directions from the Court, shall control the actions of the Watermaster.

2.0 Definitions

Words and phrases which are defined in the Judgment shall have the same meaning when used in these Rules and Regulations. Other terms used in these Rules and Regulations shall have the meaning ascribed to them herein.

2.1 Parties

“**Parties**” shall mean and refer, individually and collectively, to California American Water Company (“**CalAm**”), the Public Agency Parties and the Landowner Group Parties. “**Public Agency Party**” shall mean and refer individually to the cities of Seaside, Sand City, Del Rey Oaks and Monterey, the County of Monterey, the Monterey County Water Resources Agency and the Monterey Peninsula Water Management District. “**Landowner Party**” shall mean and refer to a Producer in the Coastal Subarea and the Laguna Seca Subarea which is not a Public Agency Party or CalAm.

3.0 Watermaster Board

3.1 Representatives and Voting

The Watermaster may only act by and through the Watermaster Board. The Watermaster Board shall consist of nine (9) members (“**Members**”). Members shall be appointed by each of the following Parties or group of Parties in accordance with the procedures set forth in section 4 of these Rules and Regulations. A vote by a Member shall cast the following number of voting positions on the question presented to the Watermaster Board.

<u>Party/Group</u>	<u>Votes</u>
California American Water	3 votes
City of Seaside	2 votes
Monterey County Water Resources Agency	2 votes
Monterey Peninsula Water Management District	2 votes
City of Sand City	1 vote
City of Monterey	1 vote
City of Del Rey Oaks	1 vote
Landowner Parties Group (Coastal Subarea)	1/2 vote
Landowner Parties Group (Laguna Seca Subarea)	1/2 vote

3.1.1 Quorum

A minimum of six (6) Members shall be required to constitute a quorum of the Watermaster Board. No fewer than seven (7) affirmative votes shall be required for any action by the Watermaster. Any Member may request a roll call vote on any question or motion considered by the Watermaster Board, and the ayes and noes thereon shall be recorded in the minutes of the meeting.

3.2 Organization of the Watermaster Board

At the first meeting of the Watermaster Board each year, the Watermaster Board shall elect a Chairperson, and a Vice Chairperson from its Membership. The Watermaster Board shall also select a Secretary, Treasurer and such assistant secretaries and assistant treasurer as may be appropriate. The Secretary, Treasurer, or any assistant or administrator appointed by the Watermaster Board need not be a Member.

3.3 Advisory Committees

The Watermaster Board may establish such committees and subcommittees as it deems necessary to advise Watermaster Board on specific issues. Persons appointed to such committees or subcommittees need not be a Member. No more than five (5) Members or their Alternates shall sit on any individual committee or subcommittee. Each committee member shall be entitled to one (1) vote only.

3.3.1 Standing Committees

The Watermaster Board has established the following standing committees.

A. Technical Advisory Committee

The purpose of the Technical Advisory Committee is to advise the Watermaster Board regarding implementation of the physical solution, and to perform

such specific tasks as the Watermaster assigns to the Technical Advisory Committee from time to time.

B. Budget and Finance Committee

The purpose of the Budget and Finance Committee is to advise the Watermaster Board regarding the funding of implementation of the physical solution, including operations of the Watermaster.

3.4 Regular Meetings

Regular meetings of the Watermaster Board shall be held on the first Wednesday of each month. The meetings will be held at Soper Field Community Center, in Seaside, California or another location set forth in the monthly meeting agenda and will begin at 1:30 p.m., unless a different time is set forth in the agenda.

3.5 Special Meetings

3.5.1 Special Meetings Called by Watermaster Board

A special meeting of the Watermaster Board may be called by the Watermaster Board at any regular or special meeting of the Watermaster Board.

3.5.2 Special Meetings Called by Chair or Members

A special meeting of the Watermaster Board may be called at any time by the Chairperson or Vice Chairperson or by any three (3) Members, by written notice delivered personally or mailed to all Parties and Interested Persons, at least twenty-four (24) hours on a business day before the time of each such meeting in the case of personal delivery, and five (5) days' notice prior to such meeting in the case of mail if the special meeting is being called under urgent circumstances. If a special meeting is called by the Chairperson, Vice Chairperson or by any three (3) Members, and no urgent circumstance exists, then at least ten (10) days' notice must be provided to all Parties. The notice shall specify the time and place of the special meeting and the business to be transacted or discussed. No other business shall be considered at these meetings by the Watermaster Board. The written notice may be dispensed with as to any Member who at or prior to the time the special meeting convenes, files with the Secretary of the Watermaster Board a written waiver of notice. The written notice may also be dispensed with as to any Member who is actually present at the meeting at the time it convenes. The notice shall be posted at least seventy-two (72) hours prior to the special meeting in the posting locations referred to in section 3.6 of these Rules and Regulations.

3.6 Meeting Agendas

At least 72 hours before a regular meeting of the Watermaster Board, or at least 24 hours before a special meeting of the Watermaster Board, the Secretary of the

Watermaster, or its designee, shall post an agenda containing a brief general description of each item of business to be transacted or discussed at the meeting, including items to be discussed in closed session, and deliver a copy of the agenda to the Members and to Persons who have made a written request to be added to the Watermaster's list of interested Persons. A brief general description of an item generally need not exceed 20 words. The agenda shall specify the time and location of the regular or special meeting and shall be posted at the places which have been designated by the Public Agency Parties for the posting of official agendas in their respective jurisdictions. If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and the federal rules and regulations adopted in implementation thereof. The agenda shall include information regarding how, to whom, and when a request for disability related modification or accommodation, including auxiliary aids or services may be made by a person with a disability who requires a modification or accommodation in order to participate in the public meeting.

3.7 Meeting Procedures

3.7.1 Conduct for Meetings

Meetings of the Watermaster Board shall be called to order by the Chairperson or, in his or her absence, the Vice Chairperson. Watermaster Board meetings shall be conducted in conformity with the procedures established for meetings of public agencies pursuant to the California Open Meeting Law (the "**Brown Act**"), California Government Code section 54950 et seq., as it may be amended from time to time.

3.7.2 Minutes

The Secretary shall keep accurate minutes of all meetings of the Watermaster Board which reflect all actions taken by the Watermaster. Copies thereof shall be furnished to all Members and Interested Persons. Copies of minutes shall constitute notice of any Watermaster Board action therein reported.

3.7.3 Closed Session

The Watermaster Board may convene closed session meetings in accordance with Brown Act procedures.

4.0 Members

4.1 Appointment of Members

The Public Agency Parties, groups of Landowner Parties identified in section 3.1 and CalAm have each appointed an initial Member to sit on the Watermaster Board for a two (2) year term ending at the first regular meeting of the Watermaster in January of

2008. The Public Agency Parties, groups of Landowner Parties and CalAm shall each appoint or reappoint one Member in November of every second year, beginning in November of 2007, to sit on the Watermaster Board for a two (2) year term. Except for the initial Members, each Member shall assume office at the first regular meeting of the Watermaster Board held in January of every second year, beginning in January of 2008. The Secretary shall give notice of this requirement to each of the Parties during the October preceding each such January.

4.2 Alternate Members

In addition to appointing a Member, CalAm and the Public Agency Parties may also appoint an alternate Member in the same manner and for the same terms as provided for Members in these Rules and Regulations. Each Member representing a group of Landowner Parties may act as an alternate for the Member representing the other group of Landowner Parties. A duly appointed Alternate Member may exercise all of the rights of a Member at a meeting of the Watermaster Board where the Member for whom the Alternate Member sits, is absent.

4.3 Appointments

Appointments of Members and Alternate Members, if any, shall be made in a writing signed on behalf of the Party or group of Parties identified in section 3.1 which is delivered to the Secretary no later than the close of public comment for the agenda item regarding announcement of appointment of new Members at the November meeting. The Watermaster Board shall give notice to the Court of any person appointed as a Member or Alternate Member.

4.4 Vacancies

Should a Member or Alternate Member resign or otherwise be unable to complete his or her term on the Watermaster Board, the Party or group of Parties which appointed such Member shall appoint a new Member to complete the unexpired term, and deliver notice of that appointment to the Secretary.

4.5 Special Rules for Appointment of Members by Landowner Groups

Appointment of Members by the Landowner Parties shall take place at each November meeting of the Watermaster Board (except for the appointment of initial Members) where the appointment of new Members is to be announced. Each Landowner Party will vote for their preferred Member in writing, signed by an agent of the Landowner Party and delivered to the Watermaster Board no later than the close of public comment for the agenda item regarding election of the Landowner Group Members. Voting rights may only be transferred upon permanent sale of 51% or more of the Landowner's respective Production Allocation. Landowner Parties may only vote for the representative for their respective subarea (i.e., Coastal Subarea Landowner Group Parties vote for the Coastal Subarea Member; and Laguna Seca Landowner Group Parties

vote for the Laguna Seca Subarea Member). Should a Member appointed by a Landowner Group be unable to complete his or her term on the Watermaster Board, the Landowner Group which appointed such Member shall give notice to the Secretary who shall schedule an election at the next meeting of the Watermaster Board for the replacement of that Member to be held in the same manner as regular appointments of Landowner Group Members. Landowner Group Members are elected by cumulative voting, with each member of the Landowner Group entitled to one vote for each acre-foot of Production Allocation established in the Judgment.

4.6 Compensation

No Member shall be compensated by the Watermaster for their service on the Watermaster Board.

5.0 Administration

5.1 Watermaster Office

The Watermaster office shall be located at 2600 Garden Road, Suite 228, Monterey, California 93940. The Watermaster Board may change the location of the Watermaster office from time to time to a place located in Monterey County.

5.2 Records

The minutes of Watermaster Board meetings shall be open to inspection and maintained at the Watermaster office. Copies of minutes and other Watermaster records may be obtained for inspection in accordance with the procedures set forth in the California Public Records Act. Copies of records may be obtained upon payment of the actual cost of duplication established by the Watermaster.

5.3 Notice Lists

The Watermaster shall maintain at all times a current list of the Parties to whom notices are to be sent and their addresses for purposes of service. The Watermaster shall also maintain a list of interested Persons ("**Interested Persons**") that shall include all Persons who have made a written request to the Watermaster to be included on the list of Interested Persons. All notices, determinations, requests, demands, objections, reports and other papers and processes required to be delivered to Interested Persons under the Judgment, these Rules and Regulations or by Order of the Watermaster, shall be delivered to all Parties and Interested Persons.

6.0 Budget

The Watermaster Board will annually adopt a budget for each Fiscal Year stating the anticipated annual expenses required for implementation of the Judgment, including reasonable reserve funds. Each annual budget will contain three (3) separate

components: (1) an Administrative Budget; (2) a Monitoring and Planning Budget; and, (3) a Replenishment Budget. Seven (7) affirmative votes shall be required for the adoption of any budget or budget assessment by the Watermaster Board. No Member representing a Landowner Party may participate in any vote concerning the approval of the Administrative Budget or Mitigation and Monitoring Plan Budget or the amount of any assessment levied by the Watermaster Board to fund those budgets.

6.1 Adoption of Budget and Budget Assessments

No later than October of 2006, and no later than May of each year thereafter, the Watermaster Board shall adopt a tentative budget, including assessments, for the ensuing Fiscal Year. The tentative budget will be mailed by the Secretary to each Party no earlier than November 1 and no later than November 15 before the beginning of the next Fiscal Year.

6.1.2 Objections

Objections to the tentative budget by any Producer must be submitted in writing to the Watermaster Board within fifteen (15) days after the date of mailing of the tentative budget. If no timely objections are received, the tentative budget shall become the final budget. If objections are received, the Watermaster Board shall consider the objections within ten (10) days thereafter and shall prepare a final budget. The final budget will be thereafter mailed to each Producer together with a statement of the amount assessed to each Producer.

6.1.3 Appeal to Court

Any Producer may apply to the Court within fifteen (15) days after the mailing of the final budget for revision based on specific objections. Payments of assessments otherwise required shall be made despite the filing of a request for revision with the Court. Upon any revision by the Court, the Watermaster shall either remit to the Producers their pro rata portions of any reduction in the budget, or credit their accounts with respect to any assessment for the next ensuing Administrative Year as the Court shall direct.

6.2 Payment of Assessments

All amounts assessed by the Watermaster Board in the final budget shall be paid to the Watermaster by the Party assessed no later than January 15th of the Fiscal Year to which the assessment relates. If such payment by any Producer is not timely made, the Watermaster shall add a penalty of five percent (5%) thereof to the amount assessed against such Producer.

6.2.1 Contributions to Budget

The Watermaster Board may accept contributions of money, goods or services in furtherance of its purposes.

6.3 Administrative Budget

The Watermaster Board shall adopt an Administrative Budget for each Fiscal Year in an amount sufficient to fund the costs associated with the administration of the Watermaster. The Administrative Budget for the first Fiscal Year shall not exceed ONE HUNDRED THOUSAND DOLLARS (\$100,000). The first ONE HUNDRED THOUSAND DOLLARS (\$100,000) of the Administrative Budget shall be assessed against California American Water Company, City of Seaside and City of Sand City in the following percentage shares:

California American Water	83%
City of Seaside	14.4%
City of Sand City	2.6%

6.4 Monitoring and Management Program Budget

The Watermaster Board shall develop a budget called the “**Planning and Monitoring Budget**”, in an amount sufficient to fund the cost of the Monitoring and Management Plan referred to in section 7. The Planning and Monitoring Budget for the first Fiscal Year shall not exceed TWO HUNDRED THOUSAND DOLLARS (\$200,000). The Watermaster Board shall also levy a one time assessment called the “**Capital Improvement and Groundwater Model Assessment**” in an amount sufficient to fund the cost of the capital improvements and groundwater model described in the Monitoring and Management Program, including but not limited to (1) installation of water quality and water level monitoring wells; (2) implementation of piezometric and water quality monitoring program; (3) installation of sentinel wells to detect seawater intrusion into on-shore portions of the Basin; (4) development of a groundwater model, including if necessary, exploratory borehole drilling, geophysical surveys and improved estimates of natural and secondary recharge in the Basin. The total amount of the Capital Improvement and Groundwater Model Assessment shall not exceed ONE MILLION DOLLARS (\$1,000,000). The total amount of both the Planning and Monitoring Budget and the Capital Improvement and Groundwater Model Assessment shall be assessed against the Standard Producers in the Coastal Subarea in the following shares:

California American Water	91%
City of Seaside	7%
Granite Rock	1%
D.B.O. Development No. 27	1%

At such time as a Party within the Coastal Subarea chooses to change its Alternative Production to a Standard Production Allocation, that Party will be assessed a proportionate share of the Monitoring and Management Plan Budget.

6.5 Replenishment Budget

As a part of its annual budget process, the Watermaster Board shall declare the per-acre-foot cost of the Replenishment Assessments in October of each Water Year. The per-acre foot cost of Replenishment Assessments for Production in excess of Natural Safe Yield shall be based on the anticipated cost of Artificial Replenishment, including the cost to construct, operate, and maintain facilities necessary for replenishment of the Basin. Replenishment Assessments may only be used for Artificial Replenishment.

6.5.1 Assessment on Production Over Natural Safe Yield

[Reserved for Clarification re Method of Calculating the Over-Production Replenishment Assessment]

6.5.2 Assessment on Production Over Operating Yield

The Watermaster Board shall levy an additional Replenishment Assessment on any Alternative Producer for each acre-foot of water produced over their respective Alternative Allocation, and on any Standard Producer for each acre-foot produced over their respective percentage share of the Operating Safe Yield. Should the Watermaster be unable to procure replenishment water to offset Production over the Operating Safe Yield in the previous Water Year, the Watermaster will prohibit any Production over the Operating Safe Yield in the current year or until such time as replenishment water is provided.

6.5.3 Payment of Replenishment Assessment

At the end of each Water Year, the Watermaster will promptly notify each Producer by mail of any Replenishment Assessment owed. Payment must be made by January 15th of the following year. If such payment by any Producer is not timely made, the Watermaster shall add a penalty of five percent (5%) thereof to the amount assessed against such Producer.

6.5.4 California American Credit Toward Replenishment Assessment

California American's expenditures for water supply augmentation may also provide replenishment water for the Seaside Basin. Accordingly, on an annual basis, California American will provide the Watermaster Board with an accounting of all expenditures it has made for water supply augmentation that it contends has or will result in replenishment of the Basin. The Watermaster Board shall review these expenditures and if it concurs, reduce California American's Replenishment Assessment obligation, for that year, by an amount equal to the amount claimed by California American. To the extent that the Watermaster Board rejects any of the claimed amounts, it shall provide California American with an explanation for the rejection and allow California American an opportunity to meet and confer on the disputed amount. In the event that the

Watermaster Board and California American cannot agree, the matter may be referred to the Court through a request filed by California American.

7.0 Monitoring and Management Program

Within sixty (60) days of entry of Judgment, the Watermaster Board shall approve the Seaside Groundwater Basin Monitoring and Management Program. The Monitoring and Management Program shall conform to the criteria set forth in Exhibit A to the Judgment, and shall include but not be limited to a seawater intrusion contingency plan, criteria for the annual collection and analysis of groundwater production and quality data, land use data, and the development of criteria for modification of the Operating Safe Yield. The Monitoring and Management Program shall also include criteria to determine the Total Useable Storage Space in the Basin. The Watermaster Board may amend the Monitoring and Management Program from time to time.

8.0 Operating Yield and Material Injury

Pursuant to the Judgment, the Watermaster must continually monitor for Material Injury to the Seaside Basin. If the Watermaster Board determines that groundwater extractions at the Operating Yield are resulting in Material Injury, the Watermaster Board will immediately present the Court with a report detailing the circumstances constituting such Material Injury and, if Watermaster deems appropriate, a recommendation for a reduction in the Operating Yield to respond to the perceived material Injury. In the event that the Court concurs in the Watermaster's conclusion of Material Injury, the Watermaster Board shall determine a lower Operating Yield in accordance with the Principles and Procedures attached as Exhibit A to the Judgment, and through the application of criteria that it shall develop for this purpose.

9.0 Procedures For Assignment and Transfer of Production Allocations

Parties proposing to assign or transfer any portion of their Production Allocation must submit a written notice to the Watermaster forty-five (45) days prior to the effective date of the proposed assignment or transfer. The notice shall include all details of the assignment/transfer (other than details related to consideration for such assignment or transfer), including thorough descriptions of: (1) the Production Allocation being assigned/transferred; (2) the assignor/assignee or transferor/transferee; (3) the duration of assignment/transfer; and (4) the quantity of Production Allocation being assigned/transferred. The Secretary shall transmit a copy of the notice to each of the Members. Within twenty-one (21) days of the mailing of the notice from the Secretary, any Member may file an objection to the proposed assignment/transfer with the Secretary. If no objection is received within that time, the proposed assignment/transfer shall become effective in accordance with its terms. If an objection is received within that time, the Secretary shall cause the matter to be placed on the agenda for the next available meeting of the Watermaster Board. At the meeting, the Member who filed the objection will carry the burden of proving to the Watermaster Board that the production contemplated by the assignment/transfer will significantly increase the risk of Material

Injury to the Basin above the risk posed by production absent the assignment/transfer. At the conclusion of the hearing, the Watermaster Board shall make its determination regarding any increased risk of Material Injury. If the Watermaster Board determines that the proposed assignment/transfer will not significantly increase risk of Material Injury, the proposed the assignment/transfer shall thereupon become effective. If the Watermaster Board determines, based on its detailed written findings, that the proposed assignment/transfer will result in significant increase of risk of Material Injury, the Watermaster may impose such conditions on the proposed assignment/transfer as it deems necessary to reduce such risk.

10.0 Storage

Prior to the beginning of the next Administrative Year, the Watermaster Board shall declare the next year's Total Useable Storage Space for the Seaside Basin. The Watermaster Board may periodically amend the quantity of Total Useable Storage Space throughout the year based upon criteria set forth in the Seaside Groundwater Basin Monitoring and Management Plan. Parties seeking to store water in the Seaside Basin shall follow the procedures set forth in the Judgment.

11.0 Reporting by Parties

Pursuant to the terms of the Judgment, all Parties are required to install, at their own cost, devices to measure the quantity of water they extract from the Seaside Basin. All Parties shall report their extraction quantities to Watermaster for the preceding calendar quarter, in writing, on January 15, April 15 and July 15 and October 15 of each Water Year.

12.0 Notice

All notices, determinations, requests, and reports required to be delivered to interested persons shall be delivered to all Parties and all persons on Watermaster's list of Interested Persons. Delivery or service of any notice of document required to be served upon or delivered shall be deemed made by deposit in the mail, first class postage prepaid, addressed as shown on the Watermaster's list of Parties or Interested Persons, or by alternative means of delivery (such as email or facsimile) agreed to in advance by a Party or Interested Party. Any Party or Interested Person desiring to be relieved of receiving deliveries from Watermaster may file, in writing, a waiver.

13.0 Watermaster Annual Report

The Watermaster will prepare and file with the Court, and mail to each of the Parties on or before November 15th of each Water Year, an annual report for the preceding Administrative Year. The Watermaster's annual report shall address the following matters, in addition to other matters deemed appropriate by the Watermaster or requested by the Court: (1) groundwater extractions; (2) groundwater storage; (3) amount of artificial replenishment, if any, performed by the Watermaster; (4) leases or sales of

Production Allocations; (5) use of imported, reclaimed, or desalinated water as a source of water for storage or as a water supply for lands overlying the Seaside Basin; (6) violations of the Judgment or the Rules and Regulations of the Watermaster, and any corrective action taken; (7) Watermaster administration costs; (8) the fixed per acre fee for replenishment assessments, and the amount of replenishment assessments levied and paid; (9) all components of the Watermaster budget; and, (10) recommendations.

14.0 Compliance With Judgment and Rules and Regulations

The Watermaster Board will promptly review the written request for compliance with all terms of the Judgment and these Rules and Regulations, and the Watermaster Board will promptly place the matter on a regular meeting agenda for consideration and action by the Watermaster Board.

15.0 Computation of Time

The time in which any act provided by the Judgment or these Rules and Regulations shall be computed by excluding the first day and including the last, unless the last is a holiday. Holidays are every Sunday and any other days that are specified or provided as holidays in Government Code sec. 6700.

16.0 Review of Watermaster Decisions

Any action, decision, rule or procedure of the Watermaster shall be subject to review by the Court on motion filed by any Party in accordance with the following procedure.

16.1 Effective Date of Watermaster Action

Any order, decision or action of the Watermaster on a noticed specific agenda item shall be deemed to have occurred on the date of the order, decision or action.

16.2 Notice of Motion

Any Party, by a regularly noticed motion, may petition the Court for review of the Watermaster's action or decision. The motion shall be deemed filed when a copy, conformed as filed with the Court, has been delivered to the Watermaster with the service fee established by the Watermaster. The fee shall be sufficient to cover the cost of photocopying and mailing the motion to each Party. The Watermaster shall prepare copies and mail a copy to each Party on the Watermaster's list of Parties.

16.3 Time for Motion

A motion to review any Watermaster action or decision shall be filed within thirty (30) days after such Watermaster action or decision, except that motions to review Budget Assessments and Replenishment Assessments shall be filed within fifteen (15) days of mailing a notice of assessment.

Exhibit C

SEASIDE GROUNDWATER BASIN WATERMASTER

PROPOSED ADMINISTRATIVE BUDGET Administrative Year 2007 (January 1 through December 31, 2007)

CEO-Compensation	\$60,000
Professional Services:	
Legal—(6 mo. @ \$1,000 and 6 mo. @ \$500)	10,000
Administrative Support—(Minutes, agendas, filing, etc.)	<u>8,000</u>
Total Personnel Budget	\$78,000
Office Consumables and Other Expenses (Supplies, postage, printing, insurance, etc.)	6,000
Office Rental	3,500
Computer Maintenance and Supplies	3,000
Meetings, Travel, Publications and Memberships	2,000
Mileage Reimbursement	1,500
Utilities (Power, Gas, Water, Waste, Telephone, Internet, etc.)	1,000
Office Equipment Maintenance	<u>1,000</u>
 Total Budget	 <u>\$96,000</u>

Notes:

1. Budget and Finance Committee recommends that a separate reserve account of \$25,000 be established that will only be used with the approval of the Watermaster Board of Directors.
2. With an estimated carryover of unspent adopted budgeted funds from Administrative (Calendar) year 2006 of approximately \$35,000 and a recommended increase of \$2,800 in the separate reserve from \$22,200 to \$25,000, an assessment of \$64,000 is needed for Administrative (Calendar) Year 2007.
3. Pursuant to the motion approved by the Watermaster Board at its November 1, 2006, meeting, payment of the Administrative Assessment is due no later than January 15, 2007.

Exhibit D

SEASIDE GROUNDWATER BASIN WATERMASTER

PROPOSED

MONITORING AND MANAGEMENT PLAN BUDGET OPERATING

PLANNING AND MONITORING

Administrative Year 2007

(January 1 through December 31, 2007)

Original Judgment Assessment (collected in March, 2006)	\$200,000
Watermaster Board Assessment for 2007	<u>200,000</u>
Total Available	<u>\$400,000</u>
Consulting costs:	
Martin Feeney Contract (see note 2.)	\$14,600
Basic groundwater resource database	
Annual maintenance: 40 hours/quarter	11,200
Develop/populate: 200 hours	14,000
Monitoring of coastal "sentinel" monitor wells	48,240
Monitoring of inland monitor wells	<u>2,240</u>
Total current estimated costs (see note 5)	<u>\$90,280</u>
Projected to Reserve	<u>\$309,720</u>

Notes:

1. Cost estimates are at the preliminary "order of magnitude" level, with estimated accuracy of +/-40% (an industry standard)

2. Mr. Feeney is tasked with bringing the parties' hydrologic experts together to discuss, and if necessary, improve upon the Basin groundwater flow modeling that was previously performed, and to issue a recommendation to Watermaster concerning additional modeling work. As indicated in the Budget, Mr. Feeney's expenses are anticipated to be approximately \$14,600. Mr. Feeney will collaborate with Gus Yates, Joe Scalmanini, Terry Foreman, and Tim Durbin in assessing the model and future modeling work. An additional expense of roughly \$14,000 is necessary to reimburse these four experts for their participation and contributions to this collaborative process. This expense will be presented for approval by the Watermaster at a special meeting, set for November 15, 2006.
3. Watermaster staff has received three responses to its Requests for Proposals (RFP) to manage and administering the monitoring component of the Basin Monitoring and Management Program, including the drilling and construction of the additional monitoring wells. A recommendation will be made to the Watermaster Board, and the Board is scheduled to select a consultant to perform this work at a special meeting, set for November 15, 2006. The costs for this work will be included in a revised budget once the consultant is selected.
4. As indicated in the Budget, Watermaster presently possesses \$200,000 in this Budget, which was assessed in 2006. The Watermaster Board approved a 2007 assessment of an additional \$200,000 for this budget for Administrative (Calendar) Year 2007, and instructed that this assessment be collected on or before January 15, 2007. The collective surplus of \$309,720, which is in addition to the known expenses that are itemized in the Budget, will be used to fund the still-uncertain expenses noted above, including those arising from the groundwater flow modeling work, and the administrative and preparatory cost of the monitoring work.
5. In approving this Budget, Watermaster acknowledged the uncertainty of several anticipated expenses. Accordingly, Watermaster agreed to a quarterly review of the Budget to revise the Budget as more accurate costs are determined.

SEASIDE GROUNDWATER BASIN WATERMASTER

**PROPOSED
MONITORING AND MANAGEMENT PLAN BUDGET**

**CAPITAL IMPROVEMENT
Administrative Year 2007
(January 1 through December 31, 2007)**

Judgment Assessment	<u>\$1,000,000</u>
Monitor Well Construction—(4 to 6) well sites per adopted Seaside Groundwater Basin Monitoring and Management Plan @ approximately \$180,000 per well site (based on 5 well sites)	\$900,000
Coastal Well sites Dataloggers (22)—(6 existing wells & 16 new wells)	44,000
Inland Well sites Dataloggers (2 existing well sites)	<u>4,000</u>
Total estimated expense	<u>\$948,000</u>
Projected Reserve	<u>\$52,000</u>

Notes:

1. Cost estimates are preliminary “order of magnitude” level, with estimated accuracy of +/-40% (an industry standard)
2. The number of well sites and cost estimates are subject to change as plans and scope are refined by Watermaster. The budgeted \$900,000 figure is based on the approximate cost of constructing 5 well sites at the estimated cost of \$180,000 per well site. In approving this Budget, Watermaster acknowledged the uncertainty of the estimates relating the capital elements of this Budget. Accordingly, Watermaster agreed to a quarterly review of the Budget to revise the Budget as more accurate costs are determined.
3. The Watermaster Board has approved an assessment of \$1,000,000 during the Administrative (Calendar) year 2006 to fund the capital projects set forth within this Budget. Watermaster adopted a phased collection of the \$1,000,000 assessment. One quarter of the full \$1,000,000 or \$250,000, will be due on or before January 15, 2007. The remaining \$750,000 will be assessed and be due approximately 30 days before the execution of contracts for the drilling and construction of the monitoring wells. This proposed schedule will be reviewed regularly by the Watermaster Board, and changed, as appropriate, to ensure that funds are received by Watermaster with sufficient time to pay all anticipated expenses set forth in this Budget.

Exhibit E

Table 1
Anticipated Costs of Artificial Replacement of Seaside Basin

Updated: 10/19/06

Project Name	Anticipated Cost (\$ADY)	Effective Yield (AFY)	Weighted Avg Replenishment Share	Comments
CWP Desalination Plant (i) (ii) (iii) (iv) (v) (vi)	\$2,075	920	0.00%	Plant not scheduled to go on line in the next three years.
CWP ASR (vii) (viii) (ix) (x) (xi)	\$1,245	0	0.00%	
MPWMD Sand City Desalination Project (xii) (xiii) (xiv)	\$2,939	0	0.00%	MPWMD board placed project on hold in 2004, in favor of studying regional alternatives.
In-Lieu recharge to Laguna Seca Sub-area	\$765	722	10.17%	Based on winter-time demand for Ryan Ranch, Hidden Hills, and Bishop.
MPWMD Phase 1 ASR Project in Conjunction with CAW	\$765	920	6.63%	
SACPCA (xv) (xvi) (xvii) (xviii) (xix) (xx)	\$1,200	0	0.00%	Direct injection from wastewater sources. Based on assumption xxi. Project not scheduled to go on line in the next three years.
MRWPCA (xxi) (xxii) (xxiii) (xxiv)	\$1,100	300	17.73%	
RDVAP (xxv) (xxvi) (xxvii) (xxviii) (xxix) (xxx)	\$1,352	0	0.00%	Based on assumption xxii
PSM/Poseidon Desalination Project (xxxi) (xxxii) (xxxiii) (xxxiv) (xxxv)	\$2,500	390	17.73%	
Total Replenishment	1892	1892	100.00%	\$1,132

This weighted calculation is based on next three years operating conditions.

- Assumptions
- (i) California American Water's Coastal Water Project- Desalination Component
 - (ii) Source: Capital and O&M Cost Estimates prepared by RBF Consulting, revised June 2006
 - (iii) 10 mgd desalination plant, 10,430 AFY production
 - (iv) Calculated using 10,430 AFY production
 - (v) ASR cost component identified as "stand alone project" for Comparative Purpose
 - (vi) 2005 capital cost amortized over 30 years at 7%
 - (vii) California American Water's Coastal Water Project- ASR Component, revised June 2006
 - (viii) Source: Capital and O&M Cost Estimates prepared by RBF Consulting, revised June 2006
 - (ix) CWP ASR would integrate and upgrade existing Santa Margarita Test Injection Well, construct two (2) additional wells, Segurunda and ASR pipelines, ASR Pump Station, and upgrade Segurunda Pump Station
 - (x) Calculated using 1,300 AFY production
 - (xi) 2005 Capital cost amortized over 30 years at 7%
 - (xii) Monterey Peninsula Water Management District's Sand City Desalination Project: 7.5 mgd desalination plant, 8,409 AFY production
 - (xiii) Source: Exhibit 12-A MPWMD Comparative Matrix, September 18, 2006
 - (xiv) Cost estimates range from \$2,737 - \$2,939/ AFY, which does not include CAW system integration costs
 - (xv) MPWMD Phase 1 Aquifer Storage and Recovery (Seaside Basin) Project and CAW Seaside Adjudication Compliance Project
 - (xvi) Source: Exhibit 12-8 MPWMD Comparative Matrix, September 18, 2006 and CAW Project Need Identification for Seaside Adjudication Compliance Project, October 2006
 - (xvii) Carmel River Diversions and Injection to ASR is 2,420 AFY, maximum extraction is 1,500 AFY and annual average is 920 AFY
 - (xviii) Does not include improvements to Russel Wells, Carmel Valley Filler Plant, or Segurunda Pump Station Upgrade, which are all included in the SACPC. These facility upgrades are required in order to meet Carmel River diversion goals.
 - (xix) Segurunda PS Upgrade included with CWP ASR Cost
 - (xx) MPWMD Phase 1 ASR estimated at \$810/AF for 820 AFY. Per CAW/PUL, ASR Pipeline cost is \$1,055 million (July 2006). Phase 1 Temporary ASR Pipeline estimated at \$.750/million. Both pipelines amortized over 20 years at 5% yields about \$155/AF.
 - (xxi) Groundwater Replenishment Project, Monterey Regional Pollution Control Agency
 - (xxii) 2,400 AFY yield
 - (xxiii) Preliminary estimate provided by MRWPCA
 - (xxiv) Regional Urban Water Augmentation Project, Marina Coast Water District and MRWPCA, 300 AFY (of 1,500 AFY total) of reclaimed water earmarked to Monterey Peninsula in Phase 1
 - (xxv) Cost does not include connection fees
 - (xxvi) Monterey Bay Regional Seawater Desalination Project, Palomar/Sunny Mesa and Pasetion Resources
 - (xxvii) Source: Exhibit 12-A MPWMD Comparative Matrix, September 18, 2006
 - (xxviii) 20 mgd desalination plant, 20,930 AFY demand identified
 - (xxix) Does not include costs for CAW system integration

SEASIDE WATERMASTER TASKS AND SCHEDULE

The Seaside Basin Judgment sets forth several deadlines for completing various tasks. Several of these tasks have been completed. A list of the near-term tasks required by the Judgment and their status/deadline is set forth in Table 1 below.

In addition to the near-term tasks required by the Judgment, the Judgment sets forth recurrent and long-term occurrences, as shown in Table 2. Further, the Watermaster Technical Committee has drafted a comprehensive Basin Management and Monitoring Plan, accompanied by a Program Implementation Schedule. A summary of the most significant tasks from the Technical Committee is set forth in Table 3.

**Table 1
Near-Term Tasks Required by the Judgment**

Task	Due Date (Status)	Responsible Entity
First Watermaster meeting	April 11, 2006 (Complete)	Watermaster Administration
Initial Assessments	April 26, 2006 (Complete)	Watermaster Budget and Finance Committee
Preparation of Monitoring and Management Plan	May 26, 2006 (Plan complete and resubmitted for Court approval)	Watermaster Technical Committee
Watermaster adoption of Initial Rules and Regulations	June 27, 2006 (Rules and Regulations adopted with placeholder for Over-Production Replenishment Assessment Formula)	Watermaster Admin and Technical Committee
Develop improved estimates of recharge; develop program for collecting data; develop groundwater model; develop action plans	March 27, 2007 (In progress, Technical Committee has Scheduled for Implementation)	Technical Committee and consultants

**Table 2
Recurrent and Long-Term Tasks**

Task	Date/Due Date	Responsible Entity
Adopt Administrative Budget	Before November 2nd (Complete for 2006)	Budget and Finance Committee/Admin.
Adopt BMMP Budget	Before November 2nd (Complete for 2006)	Technical Committee/Admin.
Adopt Over-Production Replenishment Assessment	Before November 2nd (Complete for 2006)	Technical Committee/Admin.
Mail Tentative Budget	November 2nd (Complete for 2006)	Watermaster Administration
Period for objections to Budget	15 days after mailing of Budget	Individual Producer option
Mail final Budget (if objections are received)	Within 10 days after end of objection Period (Complete for 2006)	Watermaster Administration
Petition Court re Budget	Within 15 days of mailing of final Budget	Individual Producer option
Payment of Budget Assessments (Administrative, BMMP)	December 31st or 40 days after mailing of Tentative Budget, whichever is later (Request to amend to January 15th)	Individual Producer
New Board assumes office	Every 2nd January (Next in 2008)	Watermaster Administration
Elect Watermaster Officers	January Watermaster meeting (Next in 2008)	Watermaster Board
Watermaster Annual Report	February 15th (Request to amend to November 15th)	Watermaster Administration
Conditional Operating Yield Reduction of 10%	January 1, 2009	Watermaster/Court Enforced
Conditional Operating Yield Reduction of Additional 10%	January 1, 2012	Watermaster/Court Enforced

Conditional Operating Yield Reduction of Additional 10%	January 1, 2015	Watermaster/Court Enforced
Conditional Operating Yield Reduction of Additional 10%	January 1, 2018	Watermaster/Court Enforced
Conditional Operating Yield Reduction of Additional 10%	January 1, 2021	Watermaster/Court Enforced
Conditional Operating Yield Reduction of Additional 10%	January 1, 2024	Watermaster/Court Enforced

Table 3
Significant Tasks from Basin Monitoring and Management Plan
Implementation Schedule

Task	Due Date	Responsible Entity
Secure consultant for new monitoring wells	September 30, 2006	Watermaster/Technical Committee
Secure consultant for Basin model	October 30, 2006	Watermaster/Technical Committee
Secure consultant for Basin management program	November 30, 2006	Watermaster/Technical Committee
Produce final Groundwater Resources Database	January 31, 2007	Technical Committee/ Consultant
Complete new basin model	March 31, 2007	Technical Committee/ Consultant
Evaluate baseline chloride contours	March 31, 2007	Technical Committee/ Consultant
Produce final Seaside Basin Management Plan	October 30, 2007	Watermaster /Technical Committee/ Consultant
New monitoring wells operational	September 30, 2007	Technical Committee/ Consultant

V. Basin Monitoring and Management Program Implementation

No.	Task	Duration (Days)	Start	Finish	2007												2008
					January	February	March	April	May	June	July	August	September	October	November	December	January
Groundwater Modeling for Seaside Basin Through Consultant																	
1	Review (E) groundwater model, select best model for enhancement	61	7/1/2006	8/31/2006													
2	Develop scope of services & budget for model enhancement project	29	8/1/2006	8/30/2006													
3	Advertise, request consultant, execute contract	59	9/1/2006	10/30/2006													
4	Complete model development & calibration, run scenario evaluations, develop improved estimates of basin recharge and safe-yield	180	10/1/2006	3/30/2007													
5	Provide training in use of model to Watermaster Technical Committee	29	4/1/2007	4/30/2007													
Seaside Basin Management Program:																	
1	Develop scope of services & budget for consultant	69	7/1/2006	8/30/2006													
2	Advertise, select consultant, execute contract	90	9/1/2006	11/30/2006													
3	Develop Basin Monitoring Plan, Seaside Basin Watermaster Database & data collection & analysis protocol	180	12/1/2006	5/30/2007													
4	Evaluate options for impoundment of supplemental water supplies into the Seaside Basin, develop action plan	89	12/1/2006	2/28/2007													
5	Using groundwater model from task above, analyze & develop strategies for improved basin management	122	4/30/2007	8/30/2007													
6	Develop action plan to avoid adverse impacts on the basin	152	2/28/2007	7/30/2007													
7	Final Seaside Basin Management Plan Report for Watermaster review	121	6/1/2007	9/30/2007													
8	Produce Final Seaside Basin Management Plan	29	10/1/2007	10/30/2007													
Basin Monitor Well Construction Program:																	
1	Develop scope of services and RFP for consultant program oversight	60	7/1/2006	8/30/2006													
2	Review proposal, secure oversight consultant contract	75	9/1/2006	11/5/2006													
3	Overnight consultant completes site acquisition approvals	90	3/1/2007	5/30/2007													
4	Develop scope of services and request bids for drilling/monitor wells	30	5/1/2007	6/30/2007													
5	Review bids, secure contract(s)	150	6/30/2007	11/27/2007													
6	Drill, equip and collect initial monitoring data	60	11/28/2007	1/27/2008													
7	Prepare and submit completion report to Watermaster																
Creation of Consolidated Basic Groundwater Resource Database:																	
1	Develop database RFP	30	9/30/2006	10/30/2006													
2	Review proposal, select consultant	30	12/1/2006	1/31/2007													
3	Develop and approve database format	30	2/1/2007	3/1/2007													
4	Populate database (Historical data from all sources)	60	3/1/2007	4/30/2007													
5	Populate database (Current monitoring data)	30	5/1/2007	5/31/2007													
6	Prepare database documentation report	30	4/1/2007	5/1/2007													
Water Quality Data Analysis Tools:																	
1	Initiate data analysis	90	8/1/2006	10/31/2006													
2	Obtain software and train personnel	150	8/1/2006	12/31/2006													
3	Compile and check data	120	9/1/2006	12/31/2006													
4	Evaluate existing monitoring data	90	11/1/2006	1/31/2007													
5	Evaluate data representation and establish baseline chloride levels	120	11/1/2006	2/28/2007													
6	Evaluate baseline chloride contours	120	12/1/2006	3/31/2007													

NOTE: This schedule is subject to change

V. Basin Monitoring and Management Program Implementation Schedule

No.	Task	Duration (Days)	2006											
			Start	Finish	July	August	September	October	November	December				
Groundwater Modeling for Seaside Basin Through Consultant														
1	Review (E) groundwater model, select best model for enhancement project	61	7/1/2006	8/31/2006										
2	Develop scope of services & budget for model enhancement project	29	8/1/2006	8/30/2006										
3	Advocate, select consultant, execute contract	59	9/1/2006	10/30/2006										
4	Complete model development & calibration, run scenario evaluations, develop improved estimates of basin recharge and self-yield	180	10/1/2006	3/30/2007										
5	Provide training in use of model to Watermaster Technical Committee	29	4/1/2007	4/30/2007										
Seaside Basin Management Program:														
1	Develop scope of services & budget for consultant	60	7/1/2006	8/30/2006										
2	Advocate, select consultant, execute contract	90	9/1/2006	11/30/2006										
3	Develop Basin Monitoring Plan, Seaside Basin Watermaster Database & data collection & analysis protocol	180	12/1/2006	5/30/2007										
4	Evaluate options for implementation of supplemental water supplies into the Seaside Basin, develop action plan	89	12/1/2006	2/28/2007										
5	Using groundwater model from task above, analyze & develop strategies for improved basin management	122	4/30/2007	8/30/2007										
6	Develop action plan to avoid adverse impacts on the basin	152	2/28/2007	7/30/2007										
7	Final Seaside Basin Management Plan Report for Watermaster review	121	6/1/2007	9/30/2007										
8	Produce Final Seaside Basin Management Plan	29	10/1/2007	10/30/2007										
Basin Monitor' Wall Construction Program:														
1	Develop scope of services and RFP for consultant program oversight	60	7/1/2006	8/30/2006										
2	Review proposal, secure oversight consultant contract	75	9/1/2006	11/15/2006										
3	Overnight consultant, complete site acquisition approvals	180	1/1/2007	5/15/2007										
4	Develop scope of services and request bids for drilling/monitoring wells	90	3/1/2007	5/30/2007										
5	Review bids, secure contract(s)	30	5/31/2007	6/30/2007										
6	Drill, equip and collect initial monitoring data	150	6/30/2007	11/27/2007										
7	Prepare and submit completion report to Watermaster	60	11/28/2007	1/27/2008										
Creation of Consolidated Basic Groundwater Reservoir Database:														
1	Develop database RFP	30	9/30/2006	10/30/2006										
2	Review proposal, select consultant	30	12/1/2006	12/31/2006										
3	Develop and approve database format	30	2/1/2007	3/1/2007										
4	Populate database (historical data from all sources)	60	3/1/2007	4/30/2007										
5	Populate database (current monitoring data)	30	3/1/2007	3/31/2007										
6	Prepare database documentation report	30	4/1/2007	5/1/2007										
Water Quality Data Analysis Tools														
1	Interim data analysis	90	8/1/2006	10/31/2006										
2	Obtain software and train personnel	150	8/1/2006	12/31/2006										
3	Complete and check data	120	9/1/2006	12/31/2006										
4	Evaluate existing monitoring data	90	11/1/2006	12/31/2007										
5	Evaluate data representation and establish baseline chloride levels	120	11/1/2006	2/28/2007										
6	Evaluate baseline chloride contours	120	12/1/2006	3/31/2007										

NOTE: This schedule is subject to change