

MEETING NOTICE AND AGENDA

TECHNICAL ADVISORY COMMITTEE OF THE SEASIDE BASIN WATER MASTER

DATE: Wednesday, February 10, 2010

TIME: 1:30 p.m.

**LOCATION: City of Seaside City Hall – Portable Buildings Conference Room
440 Harcourt Avenue
Seaside, CA 93955**

If you wish to participate in the meeting from a remote location, please call in on the Watermaster Conference Line by dialing (877)810-9415. Use the Access Code of 4560043.

OFFICERS

Chairperson: Diana Ingersoll, City of Seaside

1st Vice-Chairperson: Eric Sabolsice, California American Water Company

2nd Vice-Chairperson: Rob Johnson, MCWRA

MEMBERS

California American Water Company

City of Del Rey Oaks

City of Monterey

City of Sand City

City of Seaside

Coastal Subarea Landowners

Laguna Seca Property Owners

Monterey County Water Resources Agency

Monterey Peninsula Water Management District

Public Member (John Fischer)

Agenda Item

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5. Consider Request to Classify Security National Guarantee Well as Inactive (Bob Jaques)

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6. Schedule (Bob Jaques)

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7. Set next meeting date:

The next regular meeting will be held on Wednesday, March 10, 2010 at 1:30 p.m. at the City of Seaside City Hall – Portable Buildings Conference Room

In compliance with the Americans with Disabilities Act, the City of Seaside does not discriminate against persons with disabilities. Both Seaside City Hall and the Portable Office Buildings Conference Room are accessible facilities. If you wish to attend this meeting and you will require assistance in order to participate, please contact the Office of the City Clerk (831) 899-6707 at least three days in advance of the event to make necessary arrangements. If you need assistance in speaking on a specific item noted on the agenda, please inform staff as to which item you would like to comment on and arrangements will be made for you to participate. Portable microphones and assisted listening devices are available upon request.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	February 10, 2010
AGENDA ITEM:	1.A
AGENDA TITLE:	Approve Minutes from January 13, 2010
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY: Draft Minutes from this meeting were emailed to all TAC members. Proposed changes have been included in the attached version.	
ATTACHMENTS:	Minutes from this meeting
RECOMMENDED ACTION:	Approve the minutes

D-R-A-F-T
MINUTES

**Seaside Groundwater Basin Watermaster
Technical Advisory Committee Meeting
January 13, 2010**

Attendees: TAC Members

City of Seaside – Rick Riedl
California American Water – Eric Sabolsice
City of Monterey – Norman Green
Laguna Seca Property Owners – No Representative
MPWMD – Joe Oliver
Public Member – John Fischer
MCWRA – Rob Johnson
City of Del Rey Oaks – No Representative
City of Sand City – No Representative
Coastal Subarea Landowners – No Representative

Watermaster

Technical Program Manager - Robert Jaques
Chief Executive Officer – Dewey Evans

Consultants

HydroMetrics LLC – Georgina King (by telephone)
Martin Feeney Hydrogeologist - Martin Feeney (by telephone)

Others:

MPWMD – Jonathan Lear
MCWD – Brian True
California American Water – Craig Anthony

The meeting was called to order at 1:43 p.m. (Start of meeting delayed because telephone conferencing equipment needed to be reprogrammed).

1. Administrative Matters:

A. Approve Minutes from November 19, 2009 Meeting

Mr. Fischer requested an edit to Section 1, third from the last paragraph, on page 5 of today's meeting agenda packet, asking that the language in the first sentence be revised to read as follows: "Mr. Fischer asked Mr. Bunosky how CAW felt with regard to this situation?"

There was a brief discussion by Mr. Fischer regarding the issue of how an abstention vote was to be counted. Mr. Sabolsice asked Mr. Fischer if the language in the minutes was accurate, and Mr. Fischer said he was satisfied with the language as contained in the draft minutes.

Mr. Riedl asked if he had agreed to prepare agenda material on the topic having to do with having an in-lieu type of storage agreement, as noted on page 7 of the draft minutes. Following discussion he said he accepted the language on this item in the draft minutes as presented.

With Mr. Fischer's requested edit included, on a motion by Mr. Riedl, second by Mr. Oliver, the minutes were approved unanimously.

2. BLM Monitoring Well Construction Report

Mr. Jaques summarized the agenda packet materials on this item, and Mr. Feeney augmented that summarization.

Mr. Feeney explained that the initial water quality sampling data included in his BLM Well Report showed different water quality characteristics than other samples from the same aquifer. He acknowledged that the data might be correct, but recommended that resampling be done until repeating water quality data is obtained to ensure the data is representative of current water quality in that location. Mr. Feeney and Mr. Oliver recommended resampling the new BLM monitoring well one or two times later this calendar year in order to obtain stabilized water quality data. Mr. Oliver went on to recommend that repeat sampling be done in April and again in July.

Mr. Feeney noted that the purpose of installing the new well was mainly to obtain water level information, not water quality information. Since there are no pumping stresses in this area of the basin, and it is far inland from where seawater intrusion might occur, Mr. Oliver and Mr. Feeney recommended that once stabilized water quality data is obtained no additional sampling needed to be done any more frequently than about once every five years. The purpose of periodically sampling this well would be to confirm that no significant water quality changes were occurring,

Mr. Feeney said that due to its greater depth, the new well may be much more expensive to sample than other wells. Mr. Oliver said that he and Mr. Lear were looking into methods of minimizing the costs of performing water quality sampling on this new well.

Mr. Oliver said that in this Fiscal Year's sampling budget, an amount was included to perform quarterly sampling on this well. However, because of the greater-than-anticipated depth of the well, he felt the sampling cost estimates were probably too low. However, he felt that there might be sufficient money in the approved budget to perform the two resampling events discussed above and still remain within budget.

It was agreed that the new BLM well will be designated Seaside Basin Watermaster-Monitoring Well No. 5.

Mr. Fischer asked what would happen if the water quality resampling results did not show consistent/repeatable data. Mr. Oliver and Mr. Feeney said it was highly unlikely that this would occur. However, if this did occur, it was agreed that the issue would be brought back to the TAC for further discussion and a decision made at that time as to what to do.

Mr. Riedl asked when the next water level data measurements would be made. Mr. Feeney responded that continuous monitoring dataloggers had been installed in the well, so data is already being recorded continuously on an hourly basis.

Mr. Oliver said that last year in order to save time and money the first and second quarter water level and water quality data had been combined and used to produce a single report. He recommended following the same procedure this year. Following brief discussion there was TAC concurrence with having MPWMD again this year combine the first and second quarter water level and water quality sampling results into a single report.

Mr. Jaques was authorized by the TAC to amend the existing MPWMD Request for Service (RFS) for monitoring services to change from quarterly water quality sampling of the new BLM Site Well to two water quality sampling events during the current Fiscal Year, on the condition that this can be done within the currently approved budget amount for this work. Only if the cost will exceed the current budgeted amount would the matter would be brought back for further discussion by the TAC.

Mr. Anthony asked about seeing the revised Conclusions and Recommendations sections of Mr. Feeney's BLM Well Report before it goes to the Board and ultimately to the Court. Mr. Jaques proposed emailing the revised body of the Report to the TAC for their review, after Mr. Feeney has made the requested edits. If the edited version of the Report was deemed acceptable to the TAC members, it would be considered to be approved and would not come back to the TAC for further discussion. However, if the edited version resulted in any TAC member asking for further discussion, the Report would be brought back to the TAC for further discussion.

Mr. Jaques asked how many members of TAC wished to receive a hard copy of the final Report, and following this it was concluded that Mr. Feeney would provide Mr. Jaques 5 hard copies so a copy could be provided to each TAC member who expressed an interest in receiving one. A PDF copy of the final Report will also be provided to all TAC members.

Mr. Oliver questioned the U.S. G. S. elevation data mentioned in Mr. Feeney's Report on page 23 of today's agenda packet. Mr. Feeney concurred that there was an error which he will correct in the final version of the Report.

Mr. Riedl asked that the term "dewatering", which appears on page 23 of the agenda packet, be replaced with wording indicating that this refers to a decline in water level.

3. Preliminary Discussion of Possible Modeling Scenarios to be Performed in 2010

Mr. Jaques summarized the background information on this agenda item and provided a brief introduction to it. Ms. King then took over in leading the discussion.

Management Objectives: Ms. King summarized the materials on this topic on pages 47 and 48 of the agenda packet, including such objectives as raising coastal well water levels, creating a pumping trough along the coast, and storing of groundwater. She noted that other objectives could also be established. She said that HydroMetrics feels having management objectives will provide a target against which to evaluate the results from the modeling scenarios.

Mr. Jaques summarized his thoughts and concerns on this as presented on page 48 of the agenda packet.

Mr. Sabolsice said that he felt having management objectives would be helpful in seeing how scenarios tie-in to meeting those objectives.

Ms. King said if reaching protective water levels were the only objective, then it would be very easy to proceed. However she noted that there might be other objectives as well.

Mr. Riedl said he concurred with Ms. King's thoughts, but supported Mr. Jaques' recommendations in order to be more cost-efficient in performing this work and not get into policy issues.

Mr. Sabolsice said he would like to see whether the scenarios that are modeled meet the Watermaster's management objectives. Ms. King said she concurred, but that it could take several months to develop and get Board approval of management objectives.

Mr. Fischer said he was not sure whether the effort and cost to develop management objectives would be beneficial, noting that he felt he needed more information to come to a conclusion on that subject.

Mr. Lear said that drawing on his prior experience in the Watsonville area, he felt it would be helpful to have a clear agreement on what the management objectives are that the Watermaster would like to achieve.

Mr. Oliver said it may be simple to select some management objectives, such as preventing seawater intrusion and providing protective water levels.

Mr. Jaques said he felt achieving protective water levels and preventing seawater intrusion would be the objectives of greatest importance to the Board, and that these could potentially be used as the "management objectives" to guide the selection and evaluation of modeling scenarios.

Mr. Riedl commented that he felt some of the assumptions in the 2009 scenario modeling work were overly conservative.

Mr. Jaques proposed that the TAC consider adopting the following two management objectives: (1) Reaching protective water levels at each of the coastal well sites used when the preliminary protective water levels were determined by HydroMetrics in the work they performed in 2009, and (2) Protecting the entire Seaside Groundwater Basin against seawater intrusion. Ms. King suggested adding a third objective of showing that an increase in groundwater level was being achieved.

Mr. True proposed a fourth objective pertaining to determining whether if water is put into the basin in sufficient quantities to raise groundwater levels above protective water levels, could this "excess" water be used as stored water. Mr. Anthony pointed out that only the Standard Producers identified in the Court Decision for the Seaside basin have storage rights, and that therefore he did not feel this would be an appropriate management objective.

There was consensus to have Mr. Jaques further define the three proposed management objectives and put them on the next TAC meeting agenda for further discussion and potential finalization of the management objectives.

Modeling Scenarios: Ms. King and Mr. Jaques summarized each of the three potential scenarios described on pages 49 to 51 of the agenda packet.

Scenario 1: With regard to further refining the usable storage capacity of the basin, there was consensus that this did not need to be done at this time.

Mr. Riedl noted that for aquifer storage and recovery projects, time might be an issue of concern with regard to how long water could be left stored in the basin before being recovered.

Scenario 2: With regard to impacts on the Laguna Seca subarea, Mr. Riedl asked if the previously performed modeling work by HydroMetrics had used actual historical pumping data or whether it had used the pumping amounts allocated by the Court Decision, taking into account the Court-imposed 10 percent triennial pumping reductions as applicable. The answer to this question was not available during the TAC discussion, so Ms. King said she would look into this and report on her findings at the next TAC meeting. [Shortly after the meeting, Ms. King reported that in the previous modeling work, pumping amounts allocated by the Court Decision had been used for both the Standard Producers, including the 10% reductions, and for the Alternative Producers.]

Mr. Riedl said he had previously proposed a scenario to see the effects on the basin if the Seaside Municipal Wells did not reduce their pumping levels by the Court-required 10 percent triennial amounts. Ms. King and Mr. Oliver said their recollections were that the prior discussion on this scenario was with regard to a scenario in which no pumpers (not just Seaside Municipal) reduced their pumping. They went on to say that the TAC previously felt that this was not a worthwhile scenario to pursue, because it would be in direct conflict with the requirements of the Court Decision.

There was some discussion as to whether the Watermaster should pay to have the proposed Laguna Seca impacts scenario performed, or whether the Laguna Seca well owners should pay the Watermaster to have HydroMetrics perform modeling of this scenario.

Scenario 3: With regard to selection of a "likely scenario," Mr. Jaques recommended using the Phase 1 Regional Water Supply Project, as defined in the now-certified Coastal Water Project Final EIR, as the likely scenario. Following discussion there was consensus to select this as one of the recommended scenarios.

Mr. Riedl proposed a fourth scenario to re-run the Baseline scenario using actual historical pumping data rather than the Court-allocated pumping amounts. There was some confusion over exactly what the parameters of this scenario would be. After much discussion it was agreed that Mr. Riedl would provide a description of his proposed scenario to Mr. Jaques, so it could be included in the agenda packet material for further discussion by the TAC at its next meeting.

4. Preliminary Discussion of Possible Refinements to Protective Water Levels to be Performed in 2010

Ms. King Mr. Jaques summarized the agenda packet materials on this item. Following discussion on the subject there was consensus to do one initial model run based on achieving 90 percent protective water levels in order to see the results, and to at that point decide whether or not to model even lower percentages.

5. Draft Watermaster Declaration of Total Usable Storage Capacity of the Basin

Mr. Jaques summarized the agenda packet materials on this item.

Following discussion of this topic, on a motion by Mr. Johnson, second by Mr. Riedl, the proposed Declaration of Total Usable Storage Capacity of the Basin was unanimously approved as presented.

6. Draft Storage and Recovery Agreement Template

Mr. Jaques summarized the agenda packet materials on this item.

There was discussion with regard to requiring the applicant to provide a copy of their permits to introduce water into the Seaside Basin from the State of California Department of Public Health, the Regional Water Quality Control Board, and potentially other applicable regulatory agencies.

Mr. Sabolsice felt there were some Secondary Drinking Water Standards that might warrant being "relaxed" when issuing storage agreements, if the basin water quality at the proposed injection location was already exceeding those standards. There was further discussion about making other revisions to the Water Quality section, and also adding a "Notifications" section.

Mr. Jaques will incorporate these revisions and email the revised documents to the TAC for their approval. Once consensus is reached on the revisions, the Draft Storage and Recovery Agreement template and the Agreement application form will be forwarded by Mr. Jaques to the Chief Executive Officer for further processing. Mr. Jaques' recommendation will be that these drafts be promulgated to all of the affected Standard Producers to solicit their comments, including those from their respective legal counsels, so that further revisions if necessary can be made before the documents are presented to the full Board for consideration and approval.

7. Schedule

There were no questions or discussion regarding the Schedule, other than Mr. Jaques noting that discussion of revisions to the Database had been rescheduled from January to February 2010 due to the size of the TAC's January meeting agenda.

Other business

Mr. Jaques briefly summarized the recently-received Judge's comments on the 2009 Annual Report.

8. Set next meeting date

The next regular meeting was set for Wednesday, February 10, 2010 at 1:30 p.m. at the City of Seaside City Hall – Portable Buildings Conference Room

The meeting adjourned at 5:06 p.m.

TECHNICAL ADVISORY COMMITTEE

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	February 10, 2010
AGENDA ITEM:	2
AGENDA TITLE:	Continued Discussion of Management Objectives and Possible Modeling Scenarios to be Performed in 2010
PREPARED BY:	Robert Jaques, Technical Program Manager
<p>SUMMARY: At the January 13, 2010 TAC meeting we began discussion of possible scenarios to be Modeled by HydroMetrics in 2010. During those discussions a preliminary set of “Management Objectives” was developed, along with several preliminary scenarios.</p> <p>Attached is a description of these Management Objectives and Scenarios, based on my understanding of the discussion at the January 13th meeting, and my understanding of the objectives and desires of the TAC members who participated.</p> <p>This agenda item is intended to continue discussion on these topics, with the objective of finalizing the Management Objectives to be used, and the Scenarios we would like analyzed during FY 2010.</p> <p>Once this has been achieved, the TAC’s recommendations can be presented to the Board for approval, and a Request for Service to perform the modeling can be prepared for HydroMetrics.</p>	
ATTACHMENTS:	Discussion paper for use by the TAC in refining the Management Objectives and the Modeling Scenarios to be run in 2010
RECOMMENDED ACTION:	Finalize the Management Objectives to be used, and the Scenarios we would like analyzed during FY 2010.

DISCUSSION PAPER FOR USE BY THE TAC
IN REFINING THE MANAGEMENT OBJECTIVES TO BE USED AND THE
MODELING SCENARIOS TO BE RUN IN 2010

Management Objectives

Management objectives are intended to guide in the selection of Scenarios to be modeled. After establishing these Management Objectives, the results of the modeling work will be measured against them in order to determine to what degree each of the Management Objectives can be achieved under each Scenario.

At the January 13, 2010 TAC meeting the following preliminary Management Objectives were developed:

- (1) Reaching protective water levels at the locations of coastal wells CDM MW-4 (WM Well No. 238), MSC (Deep and Shallow - WM Well Nos. 102 & 101), PCA-W (Deep and Shallow – WM Well Nos. 104 & 103), and SBWM-MW3 (WM Well No. 247). These are the wells used when the preliminary protective water levels were determined by HydroMetrics in the work they performed in 2009.
- (2) Protecting the entire Seaside Groundwater Basin against seawater intrusion.
- (3) Raising groundwater levels in the Basin.

I recommend that we adopt these as the Management Objectives. Each modeled scenario would be measured against these objectives to see to what degree the scenario accomplishes each objective.

Scenarios to be Modeled in 2010

At the January 13, 2010 TAC meeting the following preliminary set of Scenarios was developed:

Scenario 1. Model the effects of additional pumping in the Laguna Seca subarea. The purpose of this scenario is to begin addressing questions about the ability of wells in the Laguna Seca subarea to pump additional groundwater. The scenario will be based on the baseline scenario created in 2009. Three new simulations will be run, with pumping from all wells in the Laguna Seca subarea increased by 10%, 20%, and 25% for all years. Each simulation will be analyzed for the following:

- A. Impact on coastal groundwater levels,
- B. Impact on amount of groundwater flowing into the Southern Coastal subarea,
- C. Impact on amount of groundwater flowing into the Northern Inland subarea, and
- D. Changes to Laguna Seca subarea groundwater levels.

Before making a final decision on whether we need to run all three of the proposed percentage increases, we will determine whether that will deplete the budgeted amount so much that other desired scenarios cannot be analyzed. If that turns out to be the case, we will run only one or at most two of these percentages. This decision will be presented to the TAC for approval before the RFS to HydroMetrics to perform this work is finalized.

There was also discussion as to whether the Watermaster should pay to have this scenario performed, or whether the Laguna Seca well owners should pay the Watermaster to have HydroMetrics perform modeling of this scenario. This is a policy matter and will be referred to the Board for determination.

Scenario 2. Model the effects of implementing the “Monterey Regional Water Supply Project – Phase 1” as that project is defined in the Final EIR for the Coastal Water Project. The following parameters describe Phase 1 of this project, and were taken directly from the Final EIR:

- Conservation Programs potentially saving up to 1,000 AFY. Note, however, that this amount is not counted on in terms of reducing demands on the CAW Monterey Peninsula distribution system.
- Sand City Desalination Project providing on average 300 AFY. This amount is counted as reducing demand on the CAW Monterey Peninsula distribution system.
- Regional Urban Water Augmentation Project (RUWAP) which on average would deliver 1,000 AFY of recycled water for landscaping and golf course irrigation on lands some of which overlie the Seaside Basin. However, with the exception of the water currently being pumped from the Seaside Basin by the Seaside Golf Course wells (Bayonet and Blackhorse Golf Courses), which has an allocation of 540 AFY under the Seaside Basin Court Adjudication Decision, the RUWAP would not decrease pumping demands on the Seaside Basin, because the water supplying the demands of the remaining landscape and golf course uses is pumped by MCWD from the Salinas River Basin.
- Regional Desalination System, the principle components of which are:
 - 6 Vertical Seawater Wells located inland of the sand dunes and west of Highway 1 in an area south of the Salinas River and north of Reservation Road.
 - 10 MGD Regional Desalination Facility located just south of the MRWPCA Regional Wastewater Treatment Plant, with brine disposal to MRWPCA’s outfall. This desalination plant on average would produce 10,500 AFY of potable water and would deliver 8,800 AFY of this water to the CAW Monterey Peninsula distribution system for urban users. The other 1,700 AFY of potable water from the desalination plant would be delivered to MCWD, in order for MCWD to be able to reduce its pumping of water from the Salinas River Groundwater Basin by this amount to offset the amount of Salinas Basin groundwater that would be extracted by the Vertical Seawater Wells that supply the desalination plant.
- Approximately 56,000 LF of 36” diameter pipelines (referred to as the Product Water Pipeline and the Transmission Main South) from the Desalination Facility to a point of connection in Seaside to the existing CAW distribution system and to the Terminal Reservoirs, and through another pipeline, the Monterey Pipeline, to a point of connection to the existing CAW distribution system in Pacific Grove.
- 2 - 3 MG Terminal Reservoirs located east of General Jim Moore Boulevard in Seaside on the former Fort Ord. These reservoirs can receive water during dry weather periods from the Desalination Facility and/or the ASR Wells, and via a pipeline from the Carmel River during wet weather diversion periods.
- 2 Existing ASR Wells and 2 New ASR Wells, all located near General Jim Moore Boulevard in Seaside. On average 1,300 AFY of Carmel River water would be stored in the Seaside Basin and then pumped out of the Basin and into the CAW distribution system to potable urban users. This amount is counted as reducing demand on the CAW Monterey Peninsula distribution system.
- Interconnecting piping between certain of the components listed above, and other facilities, to comprise an operational system.
- Startup of the Phase 1 is projected to occur on November 30, 2012.

Phase 2 of the Regional Water Supply Project is not included in Scenario 2, because the components of Phase 2 are not as fully developed as those for Phase 1 and thus were not fully addressed in the CWP FEIR. In addition, the time schedule for implementation of the Phase 2 components is less certain than

the schedule for implementation of the Phase 1 components. Phase 2 would consist of some or all of the following components:

- Pacific Grove Stormwater Diversion Project (up to 200 AFY)
- Expanded Salinas River Diversion Facility (SRDF) delivering river water to a 14 MGD Surface Water Treatment Plant to be located adjacent to the Phase 1 Desalination Facility. This Surface Water Treatment Plant would initially deliver on average up to 2,980 AFY of potable water to urban customers. These facilities could be further expanded at a subsequent date to increase the delivery of water to urban customers to 5,800 AFY.
- Expanded Regional Desalination Facility to 13 MGD capacity and 2 additional intake wells to increase the desalination capacity by 4,400 AFY.
- Groundwater Replenishment Project using highly treated recycled water from MRWPCA for injection of up to 6,720 AFY into the Seaside Basin.
- Auxiliary components that would potentially be needed to support the other Phase 2 components could include:
 - Further expansion of the SRDF
 - Expansion of the Castroville Seawater Intrusion Project (CSIP)
 - Additional ASR wells and pumping capacity
 - Additional Terminal Reservoirs

Scenario 3. At the January 13 TAC meeting a possible scenario to produce information to help optimize the management of the water currently stored in the Santa Margarita aquifer was proposed, based on comments from a Board member, Mr. Anthony. Since that meeting I have discussed this with Mr. Anthony, who clarified that his comment had to do with future Board discussions on this matter, not with regard to performing a modeling scenario of it. Hence, this scenario has been dropped.

Scenario 4. At the January 13 TAC meeting Mr. Riedl proposed a fourth scenario to re-run the Baseline scenario using actual historical pumping data rather than the Court-allocated pumping amounts. There was some confusion over exactly what the parameters of this scenario would be. After much discussion it was agreed that Mr. Riedl would provide a description of his proposed scenario to Mr. Jaques, so it could be included in the agenda packet material for further discussion by the TAC at its next meeting. To date I have been unable to obtain a detailed description of this scenario from Mr. Riedl. Hence, the topic can be orally discussed further at today's meeting, or this scenario can be deferred and developed later in 2010 as a possible subsequent scenario to be modeled, with TAC and Board approval, at that time.

I recommend that for the initial modeling work in 2010, we have HydroMetrics model Scenarios 1 and 2. If funding remains after running and analyzing those two scenarios, additional scenarios such as that described under Scenario 4 could be defined, and/or additional scenarios could be defined, and these new scenarios analyzed to gain further knowledge for making management decisions.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	February 10, 2010
AGENDA ITEM:	3
AGENDA TITLE:	Continued Discussion of Possible Refinements to Protective Water Levels to be Performed in 2010
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

After the January 13 TAC meeting I requested a Scope of Work and Cost proposal from HydroMetrics to perform the Protective Water Levels analysis that we came to consensus on at that meeting. The cost proposed by HydroMetrics to perform the one analysis of providing protection to only 90% of the aquifer depth was estimated at slightly over \$25,000. A copy of their Scope of Work and Cost proposal is attached. The total amount budgeted for Protective Water Level work in 2010 is \$25,000, so if we were to accept this proposal that would more than exhaust the budget.

For this reason I have decided to bring the issue back to the TAC for further discussion and direction before proceeding any further. Two thoughts come to mind:

- Could we have HydroMetrics perform only Tasks 1 and 2 of their proposal, and allow approximately \$1,000 for them to document the results, rather than spending over \$12,000 preparing a formal Draft and Final Report on this work? HydroMetrics is agreeable to taking this approach, if we so desire.
- If this work is likely to only result in a very small reduction in the ground water level needed to provide 90% protection vs. 100% protection, say on the order of only 1 to 3 feet lower water levels, is it really worthwhile to spend the money to have this work done, i.e. will this work significantly alter the Watermaster's Basin management strategies?

Mr. Williams will discuss the likely change in Protective Water Levels from 100% to 90% protection during today's meeting, and will answer questions from TAC members on Protective Water Levels issues.

For reference the Discussion paper on Protective Water Levels from the January 13, 2010 TAC meeting is attached.

The objective of today's discussion is to reach consensus on what work to have HydroMetrics perform on Protective Water Levels, so that an RFS can be prepared and presented to the Board for their approval.

ATTACHMENTS:	1. Scope of Work and Cost proposal from HydroMetrics 2. Discussion paper for use by the TAC in refining the Protective Water Levels in 2010 (taken from the January 13, 2010 TAC meeting agenda packet)
RECOMMENDED ACTION:	Discuss and provide further direction on what work should be done to refine the Protective Water Levels

Mr. Robert S. Jaques
Seaside Groundwater Basin Watermaster
83 Via Encanto
Monterey, CA 93940

January 25, 2010

Subject: Scope and Cost to Revise Seaside Basin Protective Elevation Models
and Carry Out 90% and 100% Depth Protection Runs

Bob:

HydroMetrics Water Resources Inc. is pleased to provide you with this scope and cost to provide continued professional consulting services for refining the protective groundwater elevations for the Seaside Groundwater Basin.

The work would involve the following tasks:

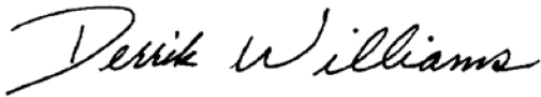
1. Revise the protective groundwater elevation analyses using aquifer parameters derived from the calibrated groundwater model, and a reasonable range of aquifer parameters around the calibrated values. This will provide more confident estimates of the 100% protective groundwater elevations that protect the full depth of the aquifers. Results from this task will include revised recommendations of the 100% depth protective groundwater elevation, as well as the range of uncertainty at each well.
2. Estimate the impact of protecting only 90% of the aquifer depth. We will estimate how far inland from each monitoring well the toe of the seawater intrusion may reach if we protect only 90% of the aquifer depth.

3. Prepare a Project Report describing the modeling work and summarizing the results of Tasks 1 and 2. A map showing the inland extent of seawater intrusion due to only protecting 90% of the aquifer will also be included in the report.

A table summarizing the estimated project cost is provided in Table 1.

If you have any questions, please contact me or Georgina King.

Sincerely,

A handwritten signature in cursive script that reads "Derrik Williams".

Derrik Williams
HydroMetrics LLC

Table 1: Estimated Cost to Revise Seaside Basin Protective Elevation Models and Carry Out 90% and 100% Depth Protection Runs

Tasks	HydroMetrics WRI Labor				Labor Total		Other Direct Costs	TOTALS
	Derrick Williams	Cameron Tana	Georgina King	Admin				
	Program Manager	Lead Modeler	Senior Hydrogeologist	Office Support	Hours	(\$)		
Rates	\$180	\$160	\$160	\$85				
Task 1. Revise Protective Elevation Models with Final Calibrated Model Aquifer Parameters. Rerun 100% Protection Models and Analyze.	8	34	0	0	42	\$ 6,880	\$ -	\$ 6,880
Task 2. Run 90% Protection, Analyze Results and Prepare Map Showing Inland Extent of Seawater Intrusion at 90% Protection	8	12	16	0	36	\$ 5,920	\$ -	\$ 5,920
Task 3. Reporting								
Prepare Draft Report	4	24	28	2	58	\$ 9,210	\$ 100	\$ 9,310
Prepare Final Report	4	4	8	4	20	\$ 2,980	\$ 350	\$ 3,330
TOTALS	24	74	52	6	156	\$ 24,990	\$ 450	\$ 25,440

Notes

The cost of the Final Report assumes there are minor edits to make to the Draft Report from comments received.

DISCUSSION PAPER FOR USE BY THE TAC

IN REFINING

THE PROTECTIVE WATER LEVELS IN 2010

Introduction

Results from the protective groundwater elevation analyses were presented during the October 28, 2009 special TAC meeting, and again at the November 4, 2009 Board of Directors Meeting. Two issues were identified at each of these meetings:

1. Because of the necessary timing, the protective groundwater elevation analyses relied on previous estimates of aquifer properties. Now that the regional groundwater model has been calibrated, better estimates of the aquifer properties are available.
2. It may not be necessary to protect 100% of the aquifer depth. Protecting 90% of the aquifer depth may adequately protect municipal and private wells.

There was no action taken on these two concerns at the time, but there was general agreement that these concerns should be addressed in 2010.

Refining Protective Water Levels

The objectives of performing this work would be to find the most cost-effective approach to provide the desired degree of protection to the wells within the Basin. HydroMetrics envisions the work as generally consisting of the following tasks:

1. Revise the protective groundwater elevation analyses using aquifer parameters derived from the calibrated groundwater model, and a reasonable range of aquifer parameters around the calibrated values. This will provide more confident estimates of the protective groundwater elevations. A report would be produced showing the revised estimates and range of uncertainty.
2. Estimate the impact of protecting only 90% of the aquifer depth. An estimate would be made of how far inland from each monitoring well the toe of the seawater intrusion may reach if only 90% of the aquifer depth is protected. If the toe of the seawater intrusion does not approach any currently active production wells, it may be preferable to use the 90% protective elevation as the target management objective.

TAC members may wish to raise other questions to be answered by performing work on the PWLs, or to propose revisions to these tasks. Also, if it is found that the 90% protective elevations still provide substantial protection to the existing production wells, it may be worthwhile examining an even lower percentage level of protection.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	February 10, 2010
AGENDA ITEM:	4
AGENDA TITLE:	Discussion of Potential Improvements to the Database
PREPARED BY:	Robert Jaques, Technical Program Manager
<p>SUMMARY: When the TAC prepared the M&MP Scope of Work and Budget for 2010, a task was included and \$25,000 was budgeted for making improvements to the Database in order to improve its user-friendliness and functionality. The intent was that once some operational experience with the database has been gained, a proposal to make these improvements could be solicited from Zone 24X7 to make these improvements. If a proposal was solicited, and once agreement on the cost and scope of this work had been reached, it was contemplated that another RFS would be issued to MPWMD to have this work performed.</p> <p>From prior correspondence with RBF Consulting, the original developers of the Watermaster's Database, I have excerpted a compilation of potential improvements that the TAC had previously considered, and have added to this compilation some other possible improvements.</p> <p>At today's meeting TAC members are asked to suggest any other improvements they feel would be beneficial to make to the Database. Prior to the meeting, TAC members who use the Database are asked to examine it to see if they are encountering any operational problems that should also be addressed.</p>	
ATTACHMENTS:	Compilation of possible improvements to be made to the Watermaster's Database
RECOMMENDED ACTION:	Reach agreement on improvements to be made to the Database, so these can be used to prepare an RFS to have these improvements made

COMPILATION OF POSSIBLE IMPROVEMENTS TO BE MADE TO THE WATERMASTER'S DATABASE

ITEM NO.	LOCATION WITHIN THE DATABASE	DESCRIPTION
1	New Report	We might like to have a Report that lists what reporting data, e.g. Water Level (Depth), Water Quality, and Production data each well owner is required to submit to the Watermaster, and to have that Report include a column showing whether or not the required data has been submitted (entered into the Database). This would help us track reporting compliance, so the Report could be titled a "Compliance Report."
2	Well List Screen	We might like to be able to list just the "active" Producer Wells. Currently, this screen lists <u>all</u> of the Watermaster Production wells including those that are "inactive." To do this would probably require creating a data field in the Well Details screen with a checkbox or choice to be able to indicate whether or not a Watermaster Producer Well is active or inactive. At present in the Contacts screen, you must select whether or not a particular Contact is a Watermaster Producer Well. Once you do that, all wells associated with that Contact are listed as active wells. However, some of the Producers have both active and inactive wells, and we might like to be able to make this distinction, so only the "active" Production wells would be included in the Production Report.
3	New Report	We might like to have a "Well Information Report" which would display selected fields from the Contact Details screen and would include the Watermaster Well ID No. and the Well Name. If we decide we'd like to create this new report, we would need to decide exactly which fields from the Contact Details screen we'd like this report to include.
4	Production Report	The format of the current Production Report is different from the one that has historically been used by the Watermaster for reporting to the Board, and also in the Annual Report we file with Court. We may be able to use the Excel version of the current Production Report, and create a linked spreadsheet to our current Production Report format which would facilitate our generating the necessary Board and Annual Report tables. However, if the time and expense to modify the Database's current Production Report format to match what we use for these purposes is reasonable, we may wish to pursue making these modifications to this Report, or to create a new report that exactly matches the format of the Watermaster's current Production Report.
5		Some of the Water Quality analytical results that are coming in include two extra parameters that would be useful to add to the data entry page of the database. These are: <ol style="list-style-type: none"> 1. Bicarbonate 2. Carbonate The Water Quality data entry screen could be expanded to include these parameters.

ITEM NO.	LOCATION WITHIN THE DATABASE	DESCRIPTION
6	Contacts Screen	It might be helpful to add a column next to “Company Name” titled “Common Name” to enter the Producers’ names as they are more commonly known.
7	All Reports	It might be helpful to add a column listing the Well Numbers associated with each company, and optimally have the Well Number link to the Well Database from within Contacts.
8	New Report	It might be helpful to have a Contacts Report listing all of the contact information for each well.
9	New Capability	It might be desirable to try to reactivate the interactive mapping capability that was started, but not completed, in the preliminary version of the Database. The intent was to be able to click on a specific well on a map of the Basin, and have data about that well appear in a box on the mapping screen. This may be more expensive that we’d like to pay to have this, but perhaps at least looking into what could be done for a reasonable cost would be worthwhile.

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	February 10, 2010
AGENDA ITEM:	5
AGENDA TITLE:	Consider Request to Classify SNG Well as Inactive
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	<p>Ed Ghandour, the owner of the Security National Guarantee Well (Watermaster Well No. 171, Well Name “PCA Production Well”) near the beach in Sand City has requested that his well be reclassified from active to inactive status, so he will not be required to provide production and water quality data. If this request is granted, his only reporting requirement would be to report water level data on a monthly basis.</p> <p>The definition the Watermaster uses to determine whether a well is active or inactive is as follows:</p> <p><i>An <u>active</u> production well is defined as any well that has extracted water within the last year for a beneficial use, such as landscape irrigation, commercial uses, or drinking water. An <u>inactive</u> production well is defined as any well that could extract water for a beneficial use, but which has not extracted water within the last year and currently either has an inoperable pump, or no pump at all, and is therefore not currently capable of extracting water for a beneficial use.</i></p> <p>Production reporting records show that no water has been produced from this well for well over a year. The well is currently not capable of production due to several factors, including: (a) no active power supply to the wellhead from PG&E supply, (b) no operable flow meter, and (c) disconnected discharge pipe.</p> <p>Since this well meets the requirements to be classified as inactive, I recommend that the TAC recommend to the Board to reclassify this well as inactive.</p>
ATTACHMENTS:	None
RECOMMENDED ACTION:	Approve the request from SNG to reclassify its production well as “inactive”

**SEASIDE BASIN WATER MASTER
TECHNICAL ADVISORY COMMITTEE**

***** AGENDA TRANSMITTAL FORM *****

MEETING DATE:	February 10, 2010
AGENDA ITEM:	6
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager
SUMMARY:	<p>As a regular part of each monthly TAC meeting, I will provide the TAC with an updated Consultants Work Schedule of the activities being performed by the Watermaster's consultants and the public entity, MPWMD, which is performing certain portions of the work, and of the Critical Program Milestones Schedule.</p> <p>Attached is the Updated Consultants Work Schedule.</p>
ATTACHMENTS:	Updated Schedule of Work Activities
RECOMMENDED ACTION:	Provide Input to Technical Program Manager Regarding Any Corrections or Additions to This Schedule

Seaside Basin Watermaster Monitoring and Management Program 2010 Work Schedule

ID	Task Name	2010																	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju
1	CRITICAL PROJECT MILESTONES ASSOCIATED WITH TAC, BOARD, AND/OR CONSULTANT WORK																		
2	2011 Administration, Operations and Replenishment Budgets																		
3	Prepare M&MP Draft Budgets (Same as Task 35)																		
4	TAC Approves M&MP Budgets (Same as Task 36)																		
5	Board Approves M&MP Budgets (Same as Task 37)																		
6	Watermaster Prepares Quarterly Water Production, Water Level, and Water Quality Reports																		
26	Replenishment Assessment Unit Costs for Water Year 2011																		
27	Develop Replenishment Assessment Unit Cost for 2011 Water Year																		
28	TAC Approves 2011 Water Year Replenishment Assessment Unit Cost																		
29	Board Adopts and Declares 2011 Water Year Replenishment Assessment Unit Cost																		
30	Replenishment Assessments for Water Year 2010																		
31	Watermaster Prepares Replenishment Assessments for Water Year 2010																		
32	Watermaster Board Approves Replenishment Assessments for Water Year 2010																		
33	Watermaster Levies Replenishment Assessment for 2010																		
34	Monitoring & Management Program (M&MP) Budgets for 2011 and 2012																		

Seaside Basin Watermaster Monitoring and Management Program 2010 Work Schedule

ID	Task Name	2010																				
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju			
35	Prepare Draft 2011 and 2012 M&MP O&M and Capital Budgets																					
36	TAC approves Draft 2011 and 2012 M&MP O&M and Capital Budgets																					
37	Board approves 2011 and 2012 M&MP O&M and Capital Budgets																					
38	2009 Annual Report																					
39	Prepare Preliminary Draft 2010 Annual Report																					
40	TAC Provides Input on Draft 2010 Annual Report																					
41	Prepare Revised Draft 2010 Annual Report (Incorporating TAC Input)																					
42	Board Provides Input on Revised Draft 2010 Annual Report																					
43	Prepare Final 2010 Annual Report (Incorporating Board Input)																					
44	Watermaster Submits Final 2010 Annual Report to Judge																					
45	MANAGEMENT																					
46	M.1 PROGRAM ADMINISTRATION (All Work Performed by Watermaster Staff)																					
47	Prepare Initial Consultant Contracts for 2011																					
48	TAC Approval of Initial Consultant Contracts for 2011																					
49	Board Approval of Initial Consultant Contracts for 2011																					

Seaside Basin Watermaster Monitoring and Management Program 2010 Work Schedule

ID	Task Name	2010																	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju
50	IMPLEMENTATION																		
51	I.2.a DATABASE MANAGEMENT																		
52	I.2.a.1 Conduct Ongoing Data Entry/Database Maintenance																		
53	Perform Data Entry (Production, Level, and Quality)																		
54	TAC Discusses Possible Enhancement to Database																		
55	Compile Enhancements to be Made to the Database Based on User Input																		
56	TAC Approves Enhancements to be Made to the Database																		
57	Prepare RFS to Have Enhancements Made to the Database																		
58	Board Approves RFS for Enhancements to be Made to the Database																		
59	Make Enhancements to the Database																		
60	I.2.b DATA COLLECTION PROGRAM																		
61	I.2.b.2 Collect Monthly Water Levels (MPWMD)																		
62	I.2.b.3 Collect Quarterly Water Quality Samples (MPWMD)																		
63	I.2.b.4 Update Program Schedule and Standard Operating Procedures																		
64	MPWMD Prepares Memo with Recommendations																		

Seaside Basin Watermaster Monitoring and Management Program 2010 Work Schedule

ID	Task Name	2010																
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
67	TAC Approves Recommendations			◆ 3/10						◆ 9/8								
70	I.2.b.6 Reports (from MPWMD)	SEE ID 6 ABOVE																
71	I.3.a ENHANCED SEASIDE BASIN GROUNDWATER MODEL																	
72	I.3.a.2 Develop Protective Water Levels																	
73	HydroMetrics Meets with TAC to for Preliminary Discussion of Development of Protective Water Levels	◆																
74	HydroMetrics Meets with TAC to for Further Discussion of Development of Protective Water Levels		◆ 2/10															
75	Prepare Contract with HydroMetrics to Refine Protective Water Levels Developed in 2009		■															
76	Board Approves Contract with HydroMetrics to Refine Protective Water Levels			◆ 3/3														
77	HydroMetrics Refines Protective Water Levels			■	■	■												
78	HydroMetrics Makes Summary Report to TAC on Refinement of Protective Water Levels									◆ 5/12								
79	HydroMetrics Makes Summary Report to Board on Protective Water Levels									◆ 6/2								
80	I.3.a.3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions																	
81	HydroMetrics Meets with TAC for Preliminary Discussion on Additional Scenarios to be Evaluated	◆ 1/13																
82	HydroMetrics Meets with TAC to Complete Selection of Management Objectives and Additional Scenarios to be Evaluated		◆ 2/10															

Seaside Basin Watermaster Monitoring and Management Program 2010 Work Schedule

ID	Task Name	2010												Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec												
83	Prepare Contract with HydroMetrics to Evaluate Additional Replenishment Scenarios																								
84	TAC Approves Contract with HydroMetrics to Evaluate Additional Replenishment Scenarios																								
85	Board Approves Contract with HydroMetrics to Evaluate Additional Replenishment Scenarios																								
86	HydroMetrics Evaluates Additional Replenishment Scenarios																								
87	HydroMetrics Makes Summary Report to TAC Regarding Evaluation of Additional Replenishment Scenarios																								
88	HydroMetrics Makes Summary Report to Board Regarding Evaluation of Replenishment Scenarios and Answers to Basin Management Questions																								
89	I.3.b Complete Preparation of Basin Management and Action Plan (BMAP)	WORK COMPLETED - NO FURTHER WORK PLANNED IN 2010																							
90	I.3.c Refine and/or Update the BMAP																								
91	TAC Discusses Issues to be Addressed in Updating the BMAP																								
92	Prepare Contract with HydroMetrics for Updating the BMAP																								
93	TAC Approves Contract with HydroMetrics for Updating the BMAP																								
94	Board Approves Contract with HydroMetrics for Updating the BMAP																								
95	HydroMetrics Updates the BMAP																								
96	HydroMetrics Makes Presentation on Draft Updated BMAP to TAC																								

Seaside Basin Watermaster Monitoring and Management Program 2010 Work Schedule

ID	Task Name	2010																	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju
112	I.4.e Refine and/or Update the SIRP																		

NOT NECESSARY