



**MONTEREY PENINSULA
WATER MANAGEMENT DISTRICT**

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SUPPLEMENT TO 5/19/08 MPWMD BOARD PACKET

Attached are copies of letters received between March 11, 2008 and May 12, 2008. These letters are also listed in the May 19, 2008 Board packet under item 18, Letters Received.

Author	Addressee	Date	Topic
P.C. Garnero	MPWMD	3/19/08	California-American Water and the Greater Hidden Hills Community <i>5/12/08 Response from Darby Fuerst is also attached.</i>
Roger W. Briggs	Joseph Oliver	4/14/08	MPWMD and California American Water – Aquifer Storage Recovery Project, Seaside, Monterey County Water Code Section 13267 Order
Paul B. Bruno	MPWMD Board	4/21/08	Community Advisory Committee Final Report

RECEIVED

March 19, 2008

MAR 21 2008

Re: California-American Water and the greater Hidden Hills community

MPWMD

To the Monterey Peninsula Water Management,

As the peninsula's water crisis continues, I and my neighbors in the greater Hidden Hills community have great concerns about the security of the terms of the purchase agreement that Cal Am agreed to when purchasing our Carmel Valley Mutual Water Company.

The purchase agreement clearly stipulated conditions which ensured a protected status for all Hidden Hills residents from rationing along the lines of residents on the Peninsula as well as relieving them from fees or any possible dams, desalination plants or other similar actions.

Aside from common sense self-imposed rationing and rate hikes due to inflation and normal distribution costs, our usage and costs have been manageable and within reason and we are adamantly determined to see that the original terms of our purchase agreement remain in place.

We would not take kindly to local lobby groups, big business and political interests attempting to pressure the Public Utility Commission to ignore the legal conditions set forth in the purchase agreement and cause our residents to be bundled together with the greater Monterey Peninsula. We do not doubt that costs will go up, but the costs should be reasonable and appropriate to us and we must require disclosure from Cal-Am that any forthcoming increases are relevant to us, not for a future desalination plant for Pebble Beach.

The residents of the Hidden Hills would like to remind you that we should not be liable for future rationing and rate increases due to the requirements outside of the Hidden Hills service area.

Sincerely,



P.C. Garnero
25529 Paseo De Cumbre
Monterey, Ca. 93940
AP #416-132-042

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews with key personnel. Secondary data was obtained from existing reports and databases.

The third section details the statistical analysis performed on the collected data. Various tests were conducted to determine the significance of the findings. The results indicate a strong correlation between the variables being studied, suggesting that the observed trends are not merely coincidental.

Finally, the document concludes with a series of recommendations based on the research findings. These suggestions are aimed at improving the efficiency of the current processes and addressing the identified areas of concern. It is hoped that these measures will lead to a more streamlined and effective operation.



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May 13, 2008

P.C. Garnero
25529 Paseo De Cumbre
Monterey, CA 93940

Subject: Inquiry re California-American Water and the Greater Hidden Hills Community


Dear Mr. or Ms. Garnero:

This will serve to acknowledge receipt of your letter of March 19, 2008, regarding your concern about future water rates in California American Water's Hidden Hills water distribution system.

I appreciate your bringing this matter to the District's attention. I have referred your letter to Stephanie Pintar, Water Demand Manager, for analysis and comment. You can expect a written response in approximately two weeks, or an estimate of when a response will be provided if additional time is needed for the response.

Again, thank you for writing to me on this subject.

Sincerely,


Darby Fuerst
General Manager

pc: MPWMD Board of Directors
Stephanie Pintar, MPWMD Water Demand Manager
David Laredo, MPWMD General Counsel

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California Regional Water Quality Control Board

Central Coast Region



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Linda S. Adams
Secretary for
Environmental
Protection

Internet Address: <http://www.waterboards.ca.gov/centralcoast>
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger
Governor

April 14, 2008

Joseph Oliver
Monterey Peninsula Water Management District
5 Harris Court, Bldg. G
P.O. Box 85
Monterey, CA 93942-0085

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APR 18 2008

MPWMD

Leslie Jordan
California American Water
P.O. Box 951
Monterey, CA 93942

Dear Mr. Oliver and Ms. Jordan:

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT & CALIFORNIA AMERICAN WATER – AQUIFER STORAGE RECOVERY PROJECT, SEASIDE, MONTEREY COUNTY; WATER CODE SECTION 13267 ORDER

Staff of the Regional Water Quality Control Board, Central Coast Region (Water Board) reviewed your January 24, 2008 letter regarding Phase I Aquifer Storage and Recovery Project in the Seaside Basin, and attached documents¹. Staff also reviewed additional technical documents provided by Stephen Tanner of Pueblo Water Resources in a March 17, 2008 electronic correspondence to Matthew Keeling and Dean Thomas of our office.

Your January 24, 2008 letter reiterates your earlier request that this office provide a written response that clearly describes our position on the Phase 1 Aquifer Storage and Recovery (ASR) Project. This letter responds to your request.

My staff and I are in full support of the Phase I ASR project given its potential benefits in restoring the Carmel River and Lagoon habitats due to decreased diversions during the dry season, offsetting overdraft conditions within and decreasing the resultant seawater intrusion into the Seaside Groundwater Basin (SGB), and augmenting a sustainable water supply for the Monterey Peninsula area. In addition, staff's review of the water quality and hydrogeologic data you provided indicates that the proposed project does not pose a significant threat to water quality within the SGB given (1) the source [injected] water from the Carmel River watershed is generally of better quality than that of the target aquifer (Santa Margarita aquifer), (2) chlorine residual and disinfection

¹ Groundwater Sampling and Analysis Plan for Water Year 2008 (Enclosure 1) and water chemistry analytical results of samples collected from ASR injection source water in the Carmel Valley (Enclosure 2 – on CD).

California Environmental Protection Agency



byproducts have been shown through repeated testing, as supported by literature, to attenuate to below detection levels within the SGB prior to extraction, and (3) the current overdraft conditions within the SGB will likely result in the nearly complete capture of the injected [stored] water via either the ASR wells or existing Cal-Am water supply wells in the area.

However, we are concerned about the long-term stability of the Santa Margarita aquifer as a result of the injection of a more oxidized source water. Ongoing ASR testing data for the project indicate significant reduction of total dissolved solids (TDS) concentrations and the reduction of iron, manganese, and hydrogen sulfide concentrations within the injection zone to below drinking water standards. These observed water quality improvements are directly related to the injection and storage of more oxidized water from the Carmel River watershed into the reduced aquifer. However, the related chemical reactions, primarily the reduction of hydrogen sulfide, produce acids that if not sufficiently buffered will result in a decrease in pH within the aquifer. The introduction of a more oxidized source water into a reduced aquifer or resultant pH shifts may result in mineral dissolution or leaching that could release metals such as arsenic, nickel and uranium into the groundwater depending on the mineralogy of the aquifer material². Considering the source rock of the Santa Margarita Formation (e.g. silicic volcanic and granitic rocks where uranium enrichment typically occurs), uranium geochemistry, and the anaerobic post-depositional environment, we are concerned that uranium may be present and could be mobilized by the injection of oxygenated water into the Santa Margarita aquifer.

In addition, studies have shown that reducing conditions are required for the attenuation of disinfection byproducts³. Therefore, we are also concerned that the elimination of sulfate and/or iron reducing bacteria over time due to increasing oxidized conditions or subtle shifts in pH may inhibit the observed - and likely biotic - attenuation of disinfection byproducts within the aquifer. Ongoing monitoring for disinfection byproducts and other parameters as proposed in the January 2008 draft Groundwater Sampling and Analysis Plan attached to your January 24, 2008 letter sufficiently addresses this concern given the proposed sampling will document the ongoing attenuation of disinfection byproducts and changes in aquifer conditions over time.

Staff reviewed the geochemical modeling assessment⁴ provided by Stephen Tanner on March 17, 2008. The resultant geochemical stability analysis discussion suggests that the injection and storage of water derived from the Carmel River watershed into the Santa Margarita aquifer should not lead to any interactions that would result in blinding

² Jonathan D. Arthur, Adel A. Dabous, and James B. Cowart, 2002, Mobilization of arsenic and other trace elements during aquifer storage and recovery, southwest Florida: USGS Artificial Recharge Workshop Proceedings, p. 47-50. (<http://water.usgs.gov/ogw/pubs/ofr0289/index.htm>)

³ Nicholson, Dillion, Pavelic, Fate of Disinfection by-products during aquifer storage and recovery: American Water Works Association Research Foundation, Research Paper No. 2618.

⁴ Padre Associates, Inc., June 29, 2001, Memorandum re: Plan B ASR Geochemical Modeling Assessment

of the injection well screens or reductions in aquifer storage capacity as a result of precipitate formation and alludes to uncertainties regarding biomass production around the ASR wells. Consequently, the analysis is more focused on the physical viability of the ASR project with regard to geochemical equilibrium and does not mention the potential leaching of metals as the aquifer becomes more oxidized over time. Staff were unable to evaluate potential leaching problems based on our brief review of the 217 pages of [Phreeqc2.3] modeling data output attached to the geochemical modeling assessment memorandum. Staff also reviewed the mineralogy analytical results⁵ provided by you on March 31, 2008. The objective of the mineralogy data, consistent with the report it was contained in, also appear to evaluate the bulk mineralogy and porosity of the aquifer as it pertains to maintaining the transmissivity of the aquifer and the production of a turbid-free groundwater. The provided mineralogy data (XRD analysis) did not identify trace minerals such as pyrite or metal oxides, which may contain trace metals. This does not preclude their presence, but suggests that if the minerals are present, they may be at very low proportions (<3%) or are very small in size given it is not clear how samples were split, what method was used to identify peaks, and what detection levels were used. Staff's review of these documents and discussion with you and Stephen Tanner indicate that the analysis of drill core material from the target aquifer has not been conducted to evaluate for metals that may leach into the groundwater or for use in three-component (injected water, receiving water, and aquifer material) geochemical modeling conducted to date. Subsequently, the provided geochemical stability modeling was apparently based on available groundwater data and the assumed equilibrium (saturation) condition with aquifer material and did not use whole rock chemistry from the target aquifer.

Stephen Tanner indicated in his March 17, 2008 electronic correspondence that additional geochemical modeling is going to be conducted for a one to two week injection test proposed this spring/summer for both of the Phase I ASR Santa Margarita wells using potable water from the Marina Coast Water District distribution system. He also indicated the results of the existing geochemical modeling for the Carmel River source water injection are going to be updated based on the last three years of ASR water quality data.

To address our concern I request the proposed geochemical stability modeling analysis and update specifically address and discuss the long term buffering capacity of the Santa Margarita aquifer with regard to potential pH and ORP (oxidation and reduction potential) shifts that may result in the leaching or dissolution of metals into the groundwater based on aquifer specific mineralogy and bulk chemistry data. Please provide a revised mineralogy analysis identifying trace minerals within the aquifer and bulk analysis (detection levels < 0.5 ppm) of aquifer material and a supporting technical evaluation to this office to determine what elements are present in the Santa Margarita Formation that may leach into the groundwater. At a minimum, the bulk analysis should test for uranium, nickel, arsenic, sulfur and any other elements that are potentially

⁵ Pueblo Water Resources, February 29, 2008, Summary of Operations Report; Well Construction and Testing, Santa Margarita Test Injection Well No. 2, Appendix A.

present based on the requested trace mineral analysis. If a trace mineral analysis is not feasible, the bulk analysis should be conducted for a full suite of metals. For uranium sampling, core samples from depths that show relatively high counts on the gamma borehole geophysical logs should be targeted as practicable. These data should also be used in the pending geochemical stability modeling as applicable. I request that leaching studies also be conducted as practicable.

In addition, please implement the proposed groundwater sampling and analysis plan for the Phase 1 Aquifer Storage and Recovery (ASR) Project during water year 2008.

I do not see the above noted issues as fatal flaws in the SGB ASR project or even necessarily very significant potential problems, but want to make sure the project is sufficiently protective of water quality and is sustainable as documented by the requested technical information and ongoing monitoring. Based on the results of the proposed geochemical modeling and the requested aquifer material trace mineral and chemistry data, I will likely require modifications to the proposed sampling and analysis plan for additional constituents or parameters. In addition, we will likely require ongoing implementation of the annual ASR sampling and analysis plan and regular submittal of monitoring reports to this office for the life of the project.

The Water Board will formally require monitoring and reporting via a project-specific resolution or general ASR waiver resolution (for a waiver of waste discharge requirements) adopted by the Water Board at a public hearing. I anticipate that this will be the regulatory tool that will be used consistently within this Region to permit ASR projects. Until such time as a project-specific resolution or general ASR waiver resolution is adopted, implementation of the Monterey Peninsula Water Management District (MPWMD) Phase 1 ASR Project and California American Water (CAW) [proposed] ASR Coastal Water Project are still subject to my July 11, 2007 and June 1, 2007 authorization letters, respectively, per the Water Board's General Waiver for Specific Types of Discharges (Resolution R3-2002-0115).

Your January 24, 2008 letter recommends that the Water Board consider adopting policies or guidelines, potentially via a Water Board resolution, that contain the following suggested findings:

1. That the SGB ASR program, as described, does not constitute a waste discharge,
2. That the ASR is recognized as a beneficial use of water for the SGB,
3. That the temporary storage of potable drinking water within the ASR wells does not constitute a degradation of water quality in the SGB,
4. That ASR in the SGB can assist in resolving long-standing water supply shortage problems that currently threaten the environmental health and viability in both the Carmel River System and SGB, and

5. That ASR in the SGB is consistent with State Policy that promotes conjunctive use of water resources.

I concur with proposed finding numbers two, four and five without comment. Pursuant to our meeting discussion with you and other MPWMD and CAW representatives at the Water Board's office on November 27, 2008, proposed finding number one is not consistent with the legal definition of waste or waste discharge as it applies to the SGB ASR project regardless of whether the injected, stored and recovered water meets California Department of Public Health drinking water standards. This is because the injected water contains or has the potential to contain free chlorine, organic compounds such as disinfection byproducts, and other chemicals⁶ and, as discussed above, has the potential to cause metals to leach into the groundwater. This is also the legal rationale supporting the Water Board's oversight of ASR projects via a resolution waiving waste discharge requirements. A waiver of waste discharge requirements must be consistent with the Water Board's Water Quality Control Plan (Basin Plan). Lastly, your proposed finding number three will likely be replaced with something to the effect of the following statement:

Operation of the Seaside Groundwater Basin Aquifer Storage and Recovery project consistent with this Resolution is unlikely to degrade groundwater and is consistent with State Water Resources Control Board Resolution 68-16 ("Policy for Maintenance of the High Quality of Waters of the State"). State Water Board Resolution No. 68-16 requires the Regional Board to maintain the high quality of waters of the state unless the Regional Board determines that some degradation of waters is consistent with maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than set forth in the Basin Plans. The Regional Boards must assure that waste discharge requirements will result in best practicable treatment or control of the discharge necessary to prevent pollution or nuisance and to assure maintenance of the highest water quality. In short, the degradation may not result in the exceedance of applicable water quality objectives, may not cause nuisance, and may not unreasonably affect existing and designated beneficial uses. Operation of the Seaside Groundwater Basin Aquifer Storage and Recovery project is consistent with Resolution 68-16 because it.....[discussion as to why it is protective].

To facilitate the Water Board's processing of a resolution waiving waste discharge requirements, provide a completed copy of an Application/Report of Waste Discharge, General Information Form for Waste Discharge Requirements or NPDES Permit (Form 200). Form 200 can be downloaded from the following web address:

<http://www.waterboards.ca.gov/centralcoast/Applications/Form200/Form200.pdf>

⁶ July 12, 2002 sampling data for Cal-Am's Robles well no. 3 detected 0.18 µg/L pentachlorophenol and 4 µg/L dichloropropane. Data provided as Enclosure 2 (Cal-Am 2002-2007 Water Quality Data, Sources to ASR data CD) to the Monterey Peninsula Water Management District and California American Water, January 24, 2008 letter regarding: Phase 1 Aquifer Storage and Recovery Project in the Seaside Basin.

I do not foresee applying any additional conditions or constraints on your project beyond modifications to the proposed sampling and analysis plan to monitor for potential leaching. Note, however, that adoption of a resolution waiving waste discharge requirements is a public process and may result in additional conditions from the Regional Board based on available evidence. However, available information indicates the Phase I ASR project will benefit the Carmel River watershed, Seaside Groundwater Basin and Monterey Peninsula communities.

You are required to provide the completed Form 200 and a technical report, including the geochemical modeling results, whole rock chemistry data with supporting technical discussion, and the 2008 water year sampling and analysis plan results to this office by **February 1, 2009.**

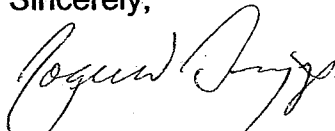
The Water Board's requirement that you submit technical reports is made pursuant to Section 13267 of the California Water Code. Failure to provide the complete technical reports by the date specified above may subject you to administrative civil liability and is considered a misdemeanor. Pursuant to Section 13268 of the Water Code, a violation of Water Code Section 13267 requirement may subject you to administrative civil liability of up to \$1,000 per day for each day in which the violation occurs.

The Water Board needs the required information in order to evaluate the long-term stability of the Santa Margarita aquifer as a result of the SGB Phase I ASR project and to develop appropriate monitoring requirements. You are required to submit this information because of the potential for the ASR project to change the geochemistry of the Santa Margarita aquifer in a manner that may result in the leaching of metals from minerals within the aquifer formation.

The requirement that you submit a report of waste discharge is also pursuant to Section 13260 of the California Water Code. Failure to provide the complete Form (i.e., report of waste discharge) by the date specified above may subject you to administrative civil liability and is considered a misdemeanor. Section 13261 of the Water Code states that a violation of a request made pursuant to Water Code Section 13260 may subject the Discharger to administrative civil liability of up to \$1,000 per day.

If you have questions regarding this matter, please contact **Matthew Keeling at (805) 549-3685, or mkeeling@waterboards.ca.gov,** or Burton Chadwick at (805) 542-4786.

Sincerely,



Roger W. Briggs
Executive Officer

e-file: S:\WDR\Waived Discharges\Monterey Co\MPWMD ASR\ASR response 032608.doc
paper file: Discharger files, Seaside Groundwater Basin ASR Project.
task code: 126-01

cc:

Jan Sweigert
Department of Health Services
Drinking Water Field Operations Branch
1 Lower Ragsdale, Building 1, Suite 120
Monterey, CA 93940

Kathleen Thomasberg
Monterey County Water Resources Agency
P.O. Box 930
Salinas, CA 93902

Faint, illegible text covering the majority of the page, possibly bleed-through from the reverse side or a very low-quality scan of a document.

Paul B. Bruno, CPA
114 Via Del Milagro, Monterey, CA, 93940

Received at 4/21/08
13
Board Meeting

April 21, 2008

Board of Directors
Monterey Peninsula Water Management District
5 Harris Court, Building G
Monterey, CA 93940

Re: CAC Final Report

Dear Sirs,

First, let me say that it was an honor to once again serve on the District's Community Advisory Committee. I truly appreciate the opportunity to participate in the public process.

In reading the Executive Summary, I find that clarification is necessary. The first paragraph states the following (*emphasis added*):

"The Community Advisory Committee (CAC) agreed that the draft Cease and Desist Order (CDO) should be modified. We believe revisions in the percentage reductions from the Carmel River should be requested. These reductions should allow for an implementation timeline to complete water supply solutions. *Any fines resulting from failure to comply with the CDO should not be passed on to the ratepayers.*"

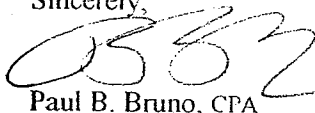
I am concerned that the statement implies there was agreement. There was not. Specifically, I take issue with the last line. I do not agree that the fines should not be passed along to the ratepayers.

As written, the CAC is recommending that 100% of the fines be borne by Cal American Water (CAW). This would only be appropriate if CAW had 100% control over what it takes to meet the requirements of the CDO. They don't! Transferring absolute liability to one party without transferring absolute control would not be fair.

One of the primary components of the Draft CDO is a staged reduction in water consumption. It will take concerted efforts by the ratepayers to ensure compliance with this requirement. A potent tool to facilitate this result is the risk of personal financial consequence, i.e. fines. Fines should only be used as a last resort - I hope that it never comes to that.

In the end, we must recognize that we are all in this together. CAW, the MPWMD, the CPUC, the community, etc., all play an important role in meeting the requirements of the CDO. We cannot ignore this reality - passing the buck just won't work. It is time to stop the blame game and focus on working together to find a solution.

Sincerely,



Paul B. Bruno, CPA

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The analysis focuses on identifying trends and patterns over time, which is crucial for making informed decisions.

The third part of the report details the results of the data analysis. It shows a clear upward trend in sales over the period studied, which is attributed to several key factors. These include improved marketing strategies and a focus on customer service.

Finally, the document concludes with a series of recommendations for future actions. It suggests continuing to invest in marketing and customer service while also exploring new market opportunities. The goal is to maintain the current growth trajectory and achieve long-term success.