



September 13, 2012

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor  
Sacramento, CA 95814



**Subject: Comment Letter - General Waste Discharge Requirements for Aquifer Storage and Recovery Projects that Inject Drinking Water into Groundwater (General Order) and Associated Initial Study/Mitigated Negative Declaration**

Dear Board Members:

This letter is in response to the Notice of Public Hearing regarding the above-referenced draft General Order under consideration by the State Water Resources Control Board (SWRCB). Water supply augmentation of the limited local resources for water users in the Monterey Peninsula community is a critical concern of the Monterey Peninsula Water Management District (MPWMD) and the area's principal municipal water purveyor, California American Water (Cal-Am). Aquifer Storage and Recovery (ASR) of the area's water supplies has been the focus of extensive local investigation and has resulted in the development of a successful ASR project, which is a key component for the long-term solution to the area's water supply shortage. In this regard, on behalf of MPWMD and Cal-Am, we appreciate this opportunity to provide comments on the proposed requirements.

Our comments below are in reference to your web-posted document titled: *Draft, State Water Resources Control Board, Water Quality Order 2012-XXXX, General Waste Discharge Requirements for Aquifer Storage and Recovery Projects that Inject Drinking Water into Groundwater*, dated August 12, 2012.

**Page 1, Finding 3** This finding identifies 11 basins subject to critical conditions of overdraft as referenced from Department of Water Resources (DWR) Bulletin 118-80. Since the release of DWR Bulletin 118-80, the Seaside Groundwater Basin has been through a court adjudication, which determined the basin to be in overdraft (i.e., exceeding its Natural Safe Yield) and that absent a physical solution and coordinated groundwater management strategy, will ultimately result in seawater intrusion and other associated deleterious effects on the basin (Seaside Basin Adjudication Decision, CA Superior Court Case No. M66343, amended Decision filed February 9, 2007). Accordingly, the Seaside Groundwater Basin (and any other basins that have been determined to be in a state of overdraft since Bulletin 118-80 release) should be added to this list.

**Page 2, Finding 4** We concur with this finding regarding the recognition that “Conjunctive management of surface and groundwater supplies can be a useful tool to improve water supplies.” The MPWMD in conjunction with Cal-Am has been promoting the conjunctive use of local water supplies on the Monterey Peninsula for many years and this policy in part resulted in the initiation of the Seaside Basin ASR testing program in 1996. This ASR program, as developed, entails diversions of “excess” Carmel River winter flows, which are treated to potable (drinking water) standards and transmitted via the Cal-Am distribution system, for injection into and subsequent recovery from the hydrologically-separated Seaside Groundwater Basin, during dry, high-demand periods. This ASR operational concept has conjunctive-use benefits for both basins, by reducing Carmel River Basin extractions during dry periods and seasonally benefiting water levels and storage in the seawater-intrusion threatened Seaside Basin.

The last sentence of this finding could be edited for grammatical improvement as follows: “This General Order (Order) is intended to regulate only Aquifer Storage and Recovery (ASR) projects that ~~utilize~~ inject drinking water into groundwater.”

**Page 16, Section E. 3.** This section includes the statement: “Operation of an ASR project shall not cause groundwater to exceed any of the following:” This provision includes the requirement that operation of an ASR project shall not cause groundwater anywhere within the aquifer storage zone to exceed Primary or Secondary MCLs. We agree that this is a reasonable and prudent requirement for the various water-quality constituents of concern, with the exception of disinfection by-products (DBPs). Experience at numerous ASR sites has shown that there is commonly a *temporary* period of additional DBP formation (or “ingrowth”) during initial aquifer storage, followed by a period of DBP degradation. We have also experienced this occurrence at the Seaside Basin ASR site. DBP ingrowth occurs as residual disinfectant in the injectate continues to react with organic matter during aquifer storage. The duration of the ingrowth period is dependent upon a variety of site-specific factors, but is typically not greater than a few months. During this ingrowth period, DBPs may *temporarily* increase to levels approaching (or even exceeding) established MCLs; however, experience has shown that subsequent degradation of DBPs occurs during subsurface storage once the residual disinfectant has been consumed. As written, this provision does not allow for the temporary exceedence of DBP MCLs during the ingrowth period. In order to allow for foreseeable, but short-term, exceedence of DBP MCLs without triggering the various non-compliance provisions of the General Order, we suggest this provision be rewritten as follows: “Operation of an ASR project shall not cause groundwater to exceed any of the following: a. Primary or Secondary MCLs; except that operation of an ASR project shall not be prohibited due to *temporary* exceedence of DBP MCLs within the aquifer storage zone, so long as such exceedence does not impact the beneficial use of groundwater, in particular the primary beneficial use for municipal and domestic supply”.

### **General Comments of concern regarding the draft Order**

- As a General Order for Waste Discharge Requirements (WDRs), it establishes a framework which still categorizes ASR as a waste discharge. ASR does not involve the discharge of waste to the waters of the State, but rather involves the temporary underground storage of fully potable drinking water; a valuable asset that is fully intended to be recovered when the need arises. As such, it qualifies neither as a waste, nor as a discharge. The legal, political, and public perception of ASR water being

September 13, 2012

classified under a waste discharge framework is problematic for obvious reasons. Some recognition of this consideration should be included in the Order findings.

- Although the necessary presence of disinfectants and DBPs in injection source waters is recognized, the common phenomenon of a temporary period of DBP “ingrowth” followed by a period of DBP degradation during aquifer storage is not explicitly recognized or discussed. Without this recognition, the feasibility of both existing and future ASR projects could be compromised. Again, consideration of this should be included in the Order findings.

In summary, we support the SWRCB efforts to prepare standards that can facilitate successful oversight of ASR projects throughout California, while also preserving consideration of the site-specific conditions attendant to ASR projects on a case-by-case basis. We feel this draft Order lays the groundwork for this approach. We appreciate the opportunity to provide comments and look forward to your consideration during future revisions of the proposed Order.

Sincerely,



Joseph W. Oliver, PG, CHg  
Water Resources Manager

cc: Travis Peterson, Eric Sabolsice, California American Water

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