



3701 Marconi Avenue, Suite 100  
Sacramento, CA 95821



2005 Hilltop Circle  
Roseville, CA 95747

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Via E-mail

[commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

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

Re: Comment Letter – General Waste Discharge Requirements for ASR Projects

Dear Ms. Townsend:

The City of Roseville and Sacramento Suburban Water District (SSWD) would like to thank the State Water Resources Control Board for circulating draft waste discharge requirements (Draft Permit) for aquifer storage and recovery (ASR) projects. The Draft Permit, if adopted, would be a significant advance in the effort to flexibly manage California's water resources to meet the demands of our ever-growing population, while ensuring that our use of water is sensitive to the needs of the environmental resources that also depend on that water. In particular, enhancing local agencies' ability to store water locally through ASR injections and pumping will enable those agencies to divert water at times of less environmental sensitivity, store it for future use and manage their dry-season diversions to be as sensitive as possible to instream environmental needs. Such operations will add much needed flexibility throughout California and, in particular, both in areas that are tributary to the Delta and in those that depend on water exported from the Delta. The Draft Permit, if adopted, therefore would implement the state policy that the Legislature enacted in 2009 in Water Code section 85021 by assisting communities that depend on water diverted from the Delta to reduce their reliance on those diversions and communities in the Delta watershed to improve their regional self-reliance.

We especially would like to thank the Central Valley Regional Water Quality Control Board's Executive Officer Pamela Creedon and Assistant Executive Officer Rick Moss for their leadership on this issue. As explained below, Roseville and SSWD believe that some edits to the Draft Permit and associated draft documents would improve them, providing additional clarification, amplifying rationale and providing additional support for the Initial Study and Draft Mitigated Negative Declaration. We believe that the State Board and the Central Valley Regional Board have brought California to the threshold of significant progress in managing the state's water resources.

*1. Comments on the Draft Permit and Its Attachments*

Our comments on these documents are as follows:

- P. 1, ¶ 2: The paragraph at the end of section 2 (beginning "Also, there is growing concern") does not accurately reflect why ASR projects are important. They are important because they not only increase total storage, but also make it more flexible and more responsive to local needs. Furthermore, ASR projects will contribute to the state's groundwater storage goals. Accordingly, the paragraph beginning "Also, there is growing concern" after paragraph 2.e should be deleted and replaced with the following paragraph:

ASR projects will improve statewide water management by increasing local storage that will be responsive to the needs of local communities and environmental resources. Statewide implementation of ASR projects will help California fulfill its vast conjunctive use potential. This is particularly true in the Central Valley, which possesses not only the state's largest sources of surface water, but also by far the state's largest aquifer.

- P. 4, ¶ 14: While the Draft Permit is correctly termed "waste discharge requirements" as required by the Porter-Cologne Water Quality Control Act, the Draft Permit should recognize throughout its text that the water the permitted ASR projects would inject into groundwater storage is water that has been treated for public consumption under drinking-water permits issued by the California Department of Public Health (CDPH). Accordingly, the third sentence in the first full paragraph on page 4 should be edited to read as follows:

The discharges will all involve similar ~~types of waste~~ water quality in that the primary ~~waste~~ constituents of concern will be disinfection byproducts generated by drinking-water treatment required by domestic water supply permits issued by the California Department of Public Health.

- P. 4, ¶ 16: Environmental issues are not the sole driver for the increase in ASR projects. Accordingly, the second sentence in paragraph 16 should be edited to read as follows:

Because ASR projects take advantage of existing infrastructure, available groundwater storage space and available wet-season water and therefore can significantly increase storage at relatively low cost and with little environmental impact ~~Due to environmental restrictions related to construction of large dams and surface water impoundments to stored water,~~ the number of ASR projects in California has increased and may increase further in the future.

- P. 9, ¶ 37: To ensure that the Draft Permit clearly identifies what information a Notice of Intent must contain, the third sentence in paragraph 37 should be edited to read as follows:

Coverage under this Order will not be granted unless the NOI demonstrates that the project will comply with the ~~injected~~ ~~Water and receiving water~~ Groundwater ~~limitations~~ of this Order.

- P. 9, ¶ 39.b In relation to ASR projects, the term "source water" is ambiguous because it could refer to either the surface source from which the injectate is initially diverted or the injectate itself. The Draft Permit must be clear that its discussion of the quality of "source water" means the injectate because the drinking-water treatment that will occur before any water is injected will resolve a variety of water quality issues that might arise if raw surface water were to be treated as "source water." Accordingly, paragraph 39.b should be edited to read as follows:

Adequate characterization of ~~source~~ injectate water quality. If ~~source~~ injectate water quality is variable through the year, operate the ASR project to optimize use of better quality water during injection cycles.

- P. 13, ¶ 52.a The Draft Permit will apply only to water that has been treated as required by a drinking-water permit issued by CDPH. It is therefore important that the Draft Permit not refer to the injectate as "water that meets drinking water standards" because it is possible for water to meet such standards without being treated under a CDPH permit. Accordingly, paragraph 52.a should be edited to read as follows:

Limits applicability to ASR projects that inject water ~~that meets drinking water standards~~ treated pursuant to a CDPH-issued domestic water supply permit.

- P. 13, paragraph The paragraph that begins "IT IS HEREBY ORDERED" uses the ordering capitalized term "Permittee," but that term is not defined in the Draft Permit or its attachments. That term should be defined for clarity.

- P. 15, ¶ C.5 This paragraph should reference the conditions for the termination of permit coverage specified in paragraph A.3 of Attachment B:

The Executive Officer or the Regional Water Board may terminate Notice of Applicability for any ASR project at any time for cause, pursuant to Attachment B.

- P. 16,  
¶ D.2.b      The Draft Permit does not specify any deadline for a Regional Board's Executive Officer to issue a Notice of Applicability after he or she determines that a particular ASR project will comply with the general permit. The permit should specify a 30-day deadline:

For a pilot test technical addendum, or an ASR project without a pilot test, if the Executive Officer determines the NOI is complete and the project is consistent with the requirements of the Order, the Executive Officer, as soon as practicable and within 30 days, will issue an NOA that will, at a minimum, contain the following:

- P. 16, ¶ E.1      In the context of an ASR project, the term "wellhead" is ambiguous because it could refer to either an injection well or a well that extracts the water that the project stored via injection. Accordingly, paragraph E.1 should be edited so that it does not use the term "wellhead," as follows:

Water to be injected shall comply with primary and secondary MCLs at each ~~wellhead~~ point of injection.

- P. 16,  
¶ E.3.a      A permittee's injections should be required to comply with the maximum contaminant limits (MCLs) in effect at the time of injection. A permittee should not face enforcement action if water that it has injected under a prior MCL is still in groundwater storage when a new MCL takes effect. Accordingly, paragraph E.3.a should be edited to clarify that it is a permittee's injections that will need to comply with a MCL as soon as it takes effect:

Primary or Secondary MCLs. A Permittee's injections shall comply with any new MCL on the date that the new MCL applies to the drinking water system.

- P. 17,  
¶ F.1.b      Some entities that may pursue ASR projects already have installed wells that are capable of both injection and extraction, but that have never been used for injection. Those entities therefore would not be able to provide a Regional Board with an EPA Class V injection well permit "within 30 days after completion of any injection well." The term "Discharger" also should be changed to "Permittee" to be consistent with the rest of the

Draft Permit. This paragraph therefore should be edited as follows:

With the NOI, upon the Regional Board's request or wWithin 30 days after completion of any injection well, the ~~Discharger~~Permittee shall submit a copy of the Class V injection well permit by rule notification and registration documentation that has been submitted to the United States Environmental Protection Agency.

Att. A, p. 2 The definition of "Groundwater Basin" is vague and not broad enough. That definition should be deleted and replaced with the definition from the Department of Water Resources' on-line glossary ([http://www.water.ca.gov/groundwater/groundwater\\_glossary.cfm](http://www.water.ca.gov/groundwater/groundwater_glossary.cfm)), which is as follows:

An alluvial aquifer or a stacked series of alluvial aquifers with reasonably well-defined boundaries in a lateral direction and having a definable bottom.

Att. A, p. 2 It is possible for water to be "consistent" with CDPH drinking-water standards without actually being treated pursuant to a CDPH permit, so "consistent with" is not appropriate to use in defining "Injected Water." That definition should be edited as follows:

Injected water is potable water treated ~~consistent with~~ pursuant to the requirements of a CDPH domestic water supply permit injected into an aquifer through an injection well. Once placed in the aquifer, injected water is groundwater.

Att. A, p. 3 The definition of "Overdraft" does not account for the possible existence of a temporary surplus. Whether a temporary surplus exists is key in determining whether an overdraft exists under governing California law. (See *City of Los Angeles v. City of San Fernando* (1975) 14 Cal. 3d 199, 280.) The definition of the term "Overdraft" therefore should be edited as follows:

A condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years that approximate average conditions, plus any temporary surplus. Overdraft may cause land subsidence and damage to the environment and increase the energy cost of pumping groundwater.

Att. C, pp. 1-2, ¶¶ C, 8 The proponent of an ASR project should be able to rely on, in the technical report that accompanies its notice of intent, information derived from monitoring wells and other sources of information about the groundwater in the area of the project. Limiting the sources of information on which such a technical report can rely to other "nearby" ASR projects – which may not exist – or pilot tests could substantially reduce a general permit's utility in many regions of California. In addition, Attachment C's terminology should be consistent with the Draft Permit. Accordingly, paragraph C and the third paragraph of item 8 should be edited as follows:

¶ C: An ASR project if adequate information on the project is known from either a nearby ASR project, technical analysis based on groundwater sampling and other relevant data from the proposed project area or operation of the ASR project itself.

*Item 8, 3<sup>rd</sup> ¶:* If a pilot test will not be performed, adequate information should be available to determine if ~~Receiving Injected Water~~ and Groundwater Limitations would be violated. The determination shall be supported by data collected at the ASR project (either from the ASR well, technical analysis based on groundwater sampling and other relevant data from the proposed project area or a nearby ASR well constructed and operated similarly).

Att. C, p. 3, item 8, 1<sup>st</sup> ¶ As discussed above, Attachment C's terminology should be consistent with the Draft Permit's terminology. The first sentence of item 8's first paragraph therefore should be edited as follows:

A demonstration that the project will not violate the Injected Water ~~or Receiving Water~~ and Groundwater Limitations of the General Order.

## 2. *Comments on Monitoring and Reporting Program*

Our comments on the draft monitoring and reporting program are as follows:

P. 5, ¶ B.4 This portion of the draft Monitoring and Reporting Program would require that an annual monitoring report discuss, among other things, how a permittee would bring a project's operations into "full compliance with . . . the applicable Basin Plan." Basin plans contain a wide variety of terms and the general permit should not create ambiguity about which of those many terms an annual monitoring report should address. Paragraph B.4 therefore should be edited as follows:

A discussion of compliance and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the Order, and/or the Notice of Applicability, ~~and/or the applicable Basin Plan.~~

3. *Comments on Initial Study and Draft Mitigated Negative Declaration*

Our comments on the initial study and draft mitigated negative declaration primarily concern the initial study's Hydrology and Water Quality discussion. We also have a few more limited comments on other resource categories.

A. *Hydrology and Water Quality*

We agree with the initial study's conclusion that the Draft Permit will have no significant water quality impacts. We believe that there are a number of reasons to reach this conclusion in addition to those discussed in the initial study.

First, the fundamental point of an ASR program would be to make additional water available to be pumped, which would result in the injected water being removed from the relevant groundwater aquifer. To the extent that injections under the Draft Permit would have any impacts on groundwater quality at all, those impacts would be addressed to a significant degree by the subsequent extraction of at least a large portion of the injected water.

Second, the water that would be injected under the Draft Permit would be drinking water treated under a CDPH-issued permit. That water therefore would be required to comply with MCLs. The Regional Boards' basin plans generally rely on MCLs in setting water quality objectives for groundwater. (North Coast Region Basin Plan, p. III-12; San Francisco Bay Basin Plan, p. 3-9; Central Coastal Basin Plan, p. III-14; Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties, p. 3-18; Central Valley Sacramento River and San Joaquin River Basins Plan, p. III-10; Tulare Lake Basin Plan, III-7 to III-8; Lahontan Region Basin Plan, p. 3-11; Colorado River Region Basin Plan, p. 3-8; SWRCB Resolution No. 2011-0063 (approving changes to Colorado River Basin Plan in Colorado River Regional Board Resolution No. R7-2011-0015, Attachment 2, pp. 13-14); Santa Ana River Basin Plan, pp. 4-18 to 4-23.)<sup>1</sup> Accordingly, while ASR injections might introduce to groundwater byproducts of drinking-water treatment required by CDPH, compliance with the relevant drinking-water permit terms – and therefore MCLs – will keep the levels of any such byproducts at those contemplated by basin plans. Any potential impacts associated with the introduction of such byproducts to groundwater therefore would not be significant.

Third, as discussed in Roseville's environmental impact report (EIR) for its proposed ASR program, Roseville's monitoring of the presence of such byproducts during the demonstration phase of its project demonstrates that those byproducts degrade to very low levels

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<sup>1</sup>Chapter three of the San Diego Basin Plan cites MCLs as the basis for numerous water quality objectives that apply to both surface water and groundwater.

within months of the relevant ASR injections. (See Roseville's Aquifer Storage and Recovery Program Draft Environmental Impact Report [DEIR], pp. 4-17 to 4-18 (December 2011)(available at <http://www.roseville.ca.us/civica/filebank/blobdload.asp?BlobID=22109>).)<sup>2</sup>

Fourth, ASR injections under the Draft Permit would use surface water as their source of injectate. Surface water generally has lower total dissolved solids (TDS), and is of better quality on many parameters, than groundwater. For example, as discussed in Roseville's draft EIR, TDS in Roseville's native groundwater are several times higher than those in surface water supplies. (Roseville's DEIR, p. 4-15.) While many surface water sources have higher TDS than Roseville's surface supplies, surface water supplies nonetheless tend to have significantly lower TDS than groundwater. The introduction of surface water supplies to groundwater – particularly after those surface supplies have been treated as required by a CDPH drinking-water permit – therefore may improve overall water quality in groundwater aquifers that receive such surface supplies via ASR injections. ASR operations under the Draft Permit therefore will not have any significant environmental impacts.

In relation to hydrology, we also agree that the Draft Permit will have no significant impact on groundwater supplies. In fact, we believe that the initial study overstates any potential impacts. The initial study states, on page 24, "[s]ome ASR projects might create a net deficit in the target aquifer volume or a [*sic*] lower the local groundwater table." We do not believe that any such impacts will occur because reducing available groundwater supplies would be contrary to an ASR project's fundamental purpose. If a proponent of an ASR project were to determine through its feasibility studies that the project actually would reduce available groundwater supplies, that proponent probably would not pursue the project.

#### *B. Agricultural and Forest Resources*

In addition to the reasons discussed in the initial study, the Draft Permit would have no significant impacts in this resource category because ASR projects generally use only small parcels of land as well sites and those parcels are in urbanized areas that are served by CDPH-permitted drinking water systems.

#### *C. Cultural Resources*

The initial study states, on page 17, that ASR project proponents would have to address historical resources under Public Resources Code section 21159. That statute, however, applies to certain state agencies' adoption of pollution controls or performance standards and therefore would not apply to local agencies' implementation of ASR projects. The statutory reference therefore should be changed to CEQA generally, as local agencies would have to address cultural resources in their project-specific CEQA documents.

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<sup>2</sup> This portion of Roseville's draft EIR was not modified in the final EIR that Roseville certified.

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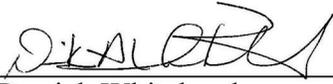
*Conclusion*

Once again, we would like to thank the State Board and the Regional Board – especially Ms. Creedon and Mr. Moss of the Regional Board – for the demonstrated leadership in advancing the Draft Permit to this point. We strongly believe that adoption of the Draft Permit will be a landmark in California's progress toward better integrated management of its surface water, groundwater and environmental resources. We remain available to answer any questions regarding our comments on the Draft Permit.

Very truly yours,

CITY OF ROSEVILLE

SACRAMENTO SUBURBAN WATER  
DISTRICT

By:   
Derrick Whitehead  
Environmental Utilities Director

By:   
Robert Roscoe  
General Manager