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DIVISION 3

DONALD R. KENDALL, Ph.D., P.E.
GENERAL MANAGER

web site: www.calleguas.com

2100 OLSEN ROAD • THOUSAND OAKS, CALIFORNIA 91360-6800 805/526-9323 • FAX: 805/522-5730 • FAX: 805/526-3675

March 26, 2007

The Honorable Tam M. Dudoc
Chairwoman
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 93814



3/20/07 BdWkshp Item 8
Water Recycling
Deadline: 3/27/07 5 pm

Attention: Song Her, Clerk to the Board commentletters@waterboards.ca.gov

RE: 3/20/07 BOARD MEETING – WATER RECYCLING POLICY

Dear Chairwoman Dudoc and Board Members,

I am writing on behalf of the Calleguas Municipal Water District in support of your efforts to establish a policy that will encourage the development and use of recycled water in the State of California and in response to your question as to whether this policy should also serve as guidance for Aquifer Storage and Recovery (ASR) projects.

Calleguas MWD is the northern-most member agency of Metropolitan Water District of Southern California (MWD) and a wholesale water supplier to the County of Ventura. More than 75% of Ventura County's 870,000 residents and businesses rely on Calleguas for some or all of their water supply – 100% of which comes from the Delta via the State Water Project. Given the current state of the Delta, recycled water and groundwater storage are essential to our local reliability.

For more than a decade, Calleguas has been working with its retail agencies to diversify local water resources and to foster recycled water projects, in particular. We are in the process of building a recycled water conveyance facility that will have the dual benefit of facilitating brackish groundwater treatment, generating additional water while removing 42,300 tons of salt from our watershed, in compliance with Total Maximum Daily Load (TMDL) standards.

In addition, Calleguas operates an ASR project with Metropolitan Water District, which stores **treated drinking water** in a local groundwater basin during wet winter months for later recovery in dry summer months or emergencies. To date, we have a six month supply of water stored – not nearly enough to survive the catastrophic collapse of the Delta that has been forecast by the Department of Water Resources.

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The questions you pose for the development of the Recycled Water Policy raise the issue of regulating ASR projects under that policy as well. Our response to that query is that ASR, as a storage method, should be included in a Recycled Water Policy only for those projects that inject recycled water.

Injection wells are used for a variety of reasons, ranging from the beneficial storage of drinking water to the disposal of hazardous waste¹, and should be regulated according to their use. In many areas of the state, injected water actually improves the quality of water in a basin and contributes numerous other benefits to local pumpers including decreased energy use. Groundwater basins suffer numerous problems ranging from seawater intrusion to contamination by nitrates, industrial waste or naturally occurring compounds. Groundwater quality is often enhanced with additional supplies, which provide the added benefit of preventing contaminant plumes (such as MTBE) from spreading throughout or between basins.

As a wholesale water supplier, Calleguas is primarily concerned that the water we deliver meets strict drinking water standards. For this, we rely on the California Department of Health Services (DHS) to regulate the quality of our water and ensure that the water we serve is fit for consumption. Consumer protection is our number one priority as a municipal water supplier; therefore, it is essential that drinking water standards undergo rigorous review by trained, certified experts in the field of human health sciences.

We recognize, too, that drinking water standards are not always protective of other beneficial uses in the region. As a supplier to Ventura County's \$1 billion agricultural industry, Calleguas is careful to protect the high-value salt-sensitive crops that are grown in the Calleguas Creek watershed. To ensure that we are protecting all beneficial uses of the ground water supply, Calleguas operates the ASR facility under strict protocols outlined in an agreement with the local Fox Canyon Groundwater Management Agency. Under this agreement, Calleguas must ensure that the ASR operation does not degrade local groundwater quality or water levels, which requires extensive modeling, monitoring, reporting and regular meetings with the management agency and local groundwater pumpers.

As a regional water manager, we must do everything to extend and diversify our limited water supplies. At the same time we must appropriately match our water supply options to those uses that protect the public and other beneficiaries.

We are pleased to see the State Water Resources Control Board (SWRCB) exercise its joint authority for enhancing water supplies while assuring water resource protection with the development of a Water Recycling Policy. We think the best way to accomplish this is for water supplies to be regulated for "maximum benefit" according to their use

¹ Health and Safety Code Section 25159.10-25159.25 "The Toxic Injection Well Control Act 1985."

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and according to the quality and assimilative capacity of the receiving waters, whether surface or groundwater sources.

Thank you for providing us the opportunity to share our perspective on water recycling and ASR projects. Calleguas has commented extensively in the past on the need for appropriate regulation of potable ASR projects. Attached for your information, is our comment letter on proposed legislation in 2005, and our appeal to SWRCB, DWR and DHS staff to address this challenge in a cooperative fashion. For additional information on Calleguas and our water management programs, please feel free to contact me at (805) 579-7113.

Very truly yours,



Donald R. Kendall
General Manager

cc: State Water Resources Control Board Members
Song Her, Clerk to the Board
Jeff Kightlinger, Metropolitan Water District of Southern California
Calleguas Board of Directors
Dee Zinke, Manager of Governmental and Legislative Affairs

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May 2nd, 2005

Lester Snow, Director
Department of Water Resources
P. O. Box 942836
Sacramento, CA 94236

Celeste Cantu, Executive Director
State Water Resources Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

David Spath, Ph.D., P.E., Chief
Department of Health Services
P.O. Box 997413
Sacramento, CA 95899

RE: State Policy Direction – Aquifer Storage & Recovery (ASR) Projects

Ladies and Gentlemen:

I am writing you today on behalf of Calleguas Municipal Water District to seek your assistance in clarifying the State's position relative to the development of ASR projects as a means of storing California's water supplies, and the regulation, thereof. As you know, the State is storage deficient. Surface water reservoirs present an economic and environmental challenge under the best of circumstances. Consequently, development of groundwater storage utilizing ASR technology is vital.

Recent actions by the Central Valley Regional Board have called into question the safety of storing treated high quality drinking water in groundwater basins. Of particular concern to the Central Valley region is whether drinking water standards for disinfection by-products (in this case THM's) are protective of groundwater quality. Considering that groundwater beneficial uses are municipal and agriculture, the drinking water standard for disinfection would appear to protect the use for which the water's intended, absent a separate standard for agriculture (which does not currently exist).

May 2nd, 2005

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While we have policy and investment objectives in California to facilitate ASR projects (as one of the more environmentally friendly recharge and storage options), there is a disconnect with our regulatory policies relative to water quality. Absent a specific ASR regulation, Regional Board staff looks to Porter Cologne. As a result, in California, we are treating drinking water as a "waste that is discharged" rather than a "resource to be stored and protected."

ASR by injection is no different than other groundwater recharge options. Rivers that contain secondary treated sewage and toxic runoff are allowable sources for recharge. Yet, we question the injection of treated drinking water for municipal beneficial use. The suggested application of the Toxic Injection Well Control Act, which was written to regulate the disposal of hazardous waste, to drinking water storage shows how far a field we have gone in applying these regulations.

We are asking the three agencies responsible for ensuring California has a clean, adequate and safe supply of water sit down and review the laws and regulations to ensure that these goals can be met in the most responsible manner.

Enclosed please find a resolution of the Calleguas board asking for you to engage in this dialogue. We are also enclosing a copy of our letter to Senator Lowenthal regarding SB 773 (Cox), a bill which would statutorily exempt ASR projects and drinking water, in particular, from the definition of "waste." SB 773 is now a two year bill, pulled by the author to allow for an administrative solution to an ASR project proposed by the City of Roseville in the Central Valley region. We support Roseville's pursuit of an administrative remedy, but would like to see a broader discussion among the state agencies to ensure other ASR projects aren't similarly challenged. As it stands, we risk calling into question all recharge and losing the best storage options for the State.

ASR is a critical component of the State's water storage which provides multiple benefits deserving of the State's support. As an agency that currently operates a successful ASR project, Calleguas appreciates your consideration of our comments.

Very truly yours,



Donald R. Kendall, Ph.D., P.E.
General Manager

cc: Steve Hall, Executive Director, ACWA
Dennis Underwood, CEO, Metropolitan Water District of Southern California
Derrick Whitehead, City of Roseville
Calleguas Board of Directors

RESOLUTION NO. 1467

A RESOLUTION OF THE BOARD OF DIRECTORS
OF CALLEGUAS MUNICIPAL WATER DISTRICT
SUPPORTING A POLICY POSITION ON
ASR PROJECTS

WHEREAS, "the development of the water resources of the State is of vital concern to the people of the State;"¹ and

WHEREAS, it is the "established policy of this State that the use of water for domestic purposes is the highest use of water;"² and

WHEREAS, "It is necessary for the health, safety, and welfare of the people of the State that the groundwater basins of the State be recharged;"³ and that groundwater "recharge is an effective way to maximize availability of scarce water supplies throughout the State;"⁴ and

WHEREAS, storage is a critical need as outlined in the CALFED Record of Decision which calls for the establishment of 500 thousand - 1 million acre feet of groundwater storage; and

WHEREAS, California is facing heightened pressure to identify new storage, particularly South of the Tehachap's, due to decreasing snow pack and increasing run-off as a result of climate shift; and

WHEREAS, Aquifer Storage and Recovery (ASR) projects enable the State to store water underground during the wet winter months when water is plentiful, so that it may be recovered in the dry summer months or in the case of emergency; and

WHEREAS, California has limited options by which to satisfy its storage needs without impacting the State's flora and fauna, and groundwater basins offer an environmentally sensitive alternative to surface water storage; and

WHEREAS, the primary beneficial uses of groundwater are for domestic and irrigation purposes; and drinking water quality is regulated by the Department of Health Services to ensure it meets both state and federal health standards; and

WHEREAS, the injection of treated drinking water is efficient and sometimes the only possible way to recharge confined aquifers; and

WHEREAS, ASR programs are in effect throughout the United States as a viable water management tool; and

WHEREAS, Calleguas Municipal Water District has an existing ASR project underway which helps protect Ventura County against drought and other emergencies. And, in fact, Calleguas' ASR project provides numerous benefits to the region including improved water quality, decreased energy consumption, lower operational costs and greater reliability for all users of the basin; and

WHEREAS, Calleguas works cooperatively with the local Fox Canyon Groundwater Management Agency to monitor the groundwater basin to ensure those benefits are being realized;

NOW, THEREFORE, the Calleguas Municipal Water District does hereby resolve to urge the Department of Water Resources, the Department of Health Services and State Water Resource Control Board to adopt an administrative policy to facilitate the development of ASR for drinking water, which meets state and federal drinking water standards and is protective of the agricultural beneficial uses in the basin.

ADOPTED, SIGNED AND APPROVED this twentieth day of April, 2005.


Ted Grandsen, President
Board of Directors

ATTEST:


Donald G. Hauser, Secretary
Board of Directors

¹ California Water Code Section 105

² California Water Code Section 106

³ California Water Code Section 12926 (c)

⁴ California Water Code Section 12926 (a)

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April 21, 2005

The Honorable Alan Lowenthal, Chair
Senate Environmental Quality Committee
State Capitol
Sacramento, CA 95814

RE: SB 773 (Cox) Ground Water Aquifers: Injection Wells – Scheduled for April 25th
OPPOSE UNLESS AMENDED

Dear Chairman Lowenthal and Members of the Committee:

I write to you today on behalf of Calleguas Municipal Water District, to express our concerns with SB 773 (Cox) as amended on April 19th, 2005. Though we fervently support the intent of SB 773 to facilitate the development of Aquifer Storage and Recovery (ASR) projects in the State, we have concerns with specific language in the bill, and we believe the problem that it seeks to remedy can best be addressed through administrative channels.

ASR projects store water in underground basins during wet winter months when water is plentiful for later extraction during the dry summer months or in emergencies, such as drought. These projects satisfy multiple benefits including storage, groundwater recharge, energy savings and, in many cases, water quality benefits – with minimal impact on the environment. In certain areas with confined aquifers and where permeability of the soil is low, ASR with direct injection is the only means of recharging the basins. ASR is a valuable water management tool, growing all the more critical with recent changes in rainfall patterns and the apparent reduction in snow pack in the High Sierra's, which means California will need to significantly increase its storage capability.

ASR projects have been in operation in California for over 20 years. Calleguas currently operates an ASR project in partnership with Metropolitan Water District of Southern California which will ultimately store more than 300,000 acre feet of treated drinking water in the Las Posas Basin in Ventura County. This supply is a critical lifeline for Ventura County in times of emergency, as Calleguas imports nearly 75% of the County's potable supply through a single connection with the State Water Project.

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SB 773 is intended to aid the City of Roseville and other project proponents struggling to approve ASR projects, in the face of strict water quality objectives set by the Central Valley Regional Board, by creating an exemption for potable drinking water in statute. In so doing, the sponsors of the bill are attempting to regulate the storage of "treated drinking water" under an Act designed for the disposal of hazardous waste and to set a state-wide regulatory framework in place, without regard to the unique characteristics of the stored water, the receiving water, or the groundwater basin.

Specifically, the bill seeks to amend the "Toxic Injection Well Control Act of 1985" to exempt drinking water. The purpose of this Toxic Injection Act is to regulate the underground disposal of hazardous waste. ASR projects do not inject *hazardous* waste, ASR injection wells are not intended to "dispose of" but to "store" treated drinking water for later use, much like other groundwater recharge projects. Reference to the Toxic Injection Well Control Act is inappropriate and will undermine the public's confidence in treated drinking water. The difference between water "stored" underground and water "discharged" to the environment as a waste is fundamental to this discussion.

Despite the success of ASR projects throughout the State, regulators on the Central Valley Regional Board are questioning whether standards for drinking water are appropriate for water that is stored underground and later used for *drinking water*. In fact, the Central Valley board is regulating water "stored" as if it were waste "discharged" to an aquifer whose primary use is municipal supply. No beneficial use is impaired by the injection of this water.

Drinking water is regulated by the Department of Health Services (DHS) to ensure that it is fit for public consumption. Public water systems rely on these standards in managing the public's water supply. If regional boards can challenge drinking water standards absent an impaired beneficial use for the water, then municipal water providers are effectively forced to further treat the water or forgo the environmentally-preferred option of ASR. How do we justify to our customers a higher level of treatment for water put into the ground than we serve them to drink? What liabilities do we incur, and how do we ensure environmental justice? Additional treatment results in a waste stream and added cost, with no apparent beneficiary. Or, more likely, the project becomes cost-prohibitive to ratepayers, and we lose valuable storage and recharge options.

Ground water is not like surface water whose spectrum of use is broadly applicable (i.e., swimmable, fishable, drinkable and farmable). ASR technology is primarily in use with deep confined aquifers that rarely, if ever connect with surface supplies – that is why direct injection is necessary to replenish them. The water must be pumped to be used, and to the extent that it is suitable for the municipal and agricultural uses it is intended, we must take advantage of this capacity. Are there sensitive crops that need protection? Yes. That's why these issues should be sorted out at the local level where unique circumstances can be considered and weighed against the benefits or recharge, which may include improved water quality, much like we do with our local groundwater management agency.

The Honorable Alan Lowenthal
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Calleguas believes that the Central Valley Board action is incongruous with State policies (and investments) to encourage groundwater storage. In light of the State's pressing storage needs, the Central Valley standard for disinfection by-products deserves a second look. That opportunity exists now with the upcoming triennial review process, or by appeal to the State Water Resources Control Board (SWRCB), which is uniquely authorized to consider both water quality and supply benefits.

Senator Cox is wise to bring to the Legislature's attention the current challenges facing Roseville's ASR project, as similar questions may arise with other proposals. Before amending state law and outlining a regulatory scheme, however, Calleguas would urge resolution of this issue at the local level. Like other water districts, Calleguas is concerned that subtle regulatory interpretations and misapplication of water quality laws may unnecessarily undermine the State's long-term water storage goals. To that extent, perhaps it would be wise for the State to gather its water policy leaders in the Department of Water Resources, the Department of Health Services and the State Water Resources Control Board to convene a policy discussion on groundwater storage and how best to utilize the existing capacity in our overdrafted aquifers in a manner that protects local groundwater quality.

As we attempt to address the State's urgent need for fresh water storage, we are compelled to seek out innovative, environmentally-sensitive solutions, like ASR. Calleguas' philosophy is to clean up and utilize existing water supplies and unused storage before investing in new supplies and reservoirs. Attached is a resolution of Calleguas' Board of Directors expressing the District's support for ASR and seeking thoughtful deliberation of these issues by the State's water leaders, lest we deny ourselves the best opportunities for water storage.

We urge you to seek amendments to SB 773 that would initiate this dialogue and leave the regulatory framework to the experts.

Very truly yours,



Donald R. Kendall, Ph.D., P.E.
General Manager

cc: Members of the Senate Environmental Quality Committee
Senator Cox
Committee Consultants
Calleguas Board of Directors
Dee Zinke, Manager of Governmental and Legislative Affairs

Attachment (1)