California Regional Water Quality Control Board
Central Coast Region

Alan C. Lloyd, PhD.
Secretary for Environmental Protection

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

Arnold Schwarzenegger
Governor

March 30, 2005

State Water Resources Control Board
Attn: Ms. Debbie Irvin
Clerk to the Board
1001 I Street, 24th Floor [95814]
P.O. Box 100
Sacramento, CA 95812-0100

Dear Chairman Baggett and Board Members:

SLIC: 425 TENNANT AVENUE, MORGAN HILL; CENTRAL COAST WATER BOARD RESPONSE TO DRAFT STATE WATER BOARD ORDER, CONCERNING CLEANUP AND ABATEMENT ORDER NO. R3-2004-0101, SWRCB/OCC FILES A-1654 AND A-1654(a)

Central Coast Water Board staff appreciates the opportunity to comment on the State Water Resources Control Board's (State Water Board) draft Order (Draft Order), concerning the Central Coast Regional Water Quality Control Board's (Central Coast Water Board) Cleanup and Abatement Order No. R3-2004-0101[1] (CAO R3-2004-0101). In brief, the Central Coast Water Board staff believes:

1. The most appropriate action for the State Water Board is to uphold Cleanup or Abatement Order R3-2004-0101.
2. The State Water Board could revise the Draft Order to allow the dischargers to request the Central Coast Water Board to reconsider or revise the replacement water triggers after the science supporting safe consumption levels is no longer in a state of flux. By delaying action, the State Water Board could address this very important issue through rule making.
3. If the State Water Board disagrees with the above approach, the next best option is to remand CAO R3-2004-0101 back to the Central Coast Water Board (as recommended by the Draft Order) for reconsideration rather than a direct amendment by the State Water Board.

We appreciate the opportunity to provide comments on the Draft Order and we disagree with the Draft Order's conclusion that public health goals or maximum contaminant levels limit our replacement water jurisdiction. We are also providing comments on the Draft Order's footnotes and findings.

[1] Incorrectly numbered R4-2004-0101 when originally issued.

Central Coast Water Board staff disagrees with the Draft Order finding that the Central Coast Water Board cannot require continued replacement water supply based on a trigger level of four micrograms per liter (µg/L) rather than the final Office of Environmental Health Hazard Assessment (OEHHA) Public Health Goal (PHG) of 6 µg/L. At the time CAO R3-2004-0101 was issued, there was no consensus among states or the Federal government regarding safe levels of perchlorate in drinking water and it made sense to adopt a protective stance regarding replacement water levels[2]. There is still no consensus. In the intervening time period, the National Academy of Sciences (NAS) has issued its report and OEHHA is now evaluating whether the PHG should be revised. While staff understands and acknowledges that OEHHA is responsible for developing the PHG based on the latest scientific methods, the State Water Board and Regional Water Boards are responsible for protecting water quality. The Draft Order affects this responsibility as discussed below.

Additionally, until the time OEHHA makes its final decision, the uncertainty surrounding what level of perchlorate is safe may cause affected well users undue stresses regarding the safety of their drinking water, especially if PHG levels go up and down in response to new health information or if a Maximum Contaminant Level (MCL) is established. We recommend that the State Water Board address the appropriate water replacement level through a rule making proceeding rather than a site-specific determination.

Since the public's health is potentially at stake, we determined and still believe, the only appropriate course of action at this time is to be cautious on the side of people's health. Neither the State Water Board nor the Central Coast Water Board knows what an appropriately protective level is. There is no compelling reason to err on the side of greater risk to the public's health. Considering this gray area, and the Central Coast Water Board's action to be on the safe side of this gray area for the protection of public health, we vehemently disagree with the Draft Order's finding that we abused our discretion.[3]

There is also a somewhat philosophical question. Whether an industrial chemical has an MCL or an action level or a PHG, why should a corporation that discharged illegally have the right to add that contaminant to an innocent well owner's drinking water, right up to the maximum public health level? We think it is much more appropriate to have a trigger concentration that is less than the absolute maximum allowed. This approach still "allows" the illegally discharging corporation to add contaminants to drinking water, and in the case of our CAO, the Discharger is allowed to have 67% of the "maximum allowable" (4 µg/L out of 6 µg/L) with no repercussions to the Discharger. The well owner, however, is left with the repercussions of having an industrial chemical in their drinking water. We think that scenario is very lenient towards the Discharger, affords the Discharger the benefit of a balanced approach by the Central Coast Water Board, and should not be relaxed any further.

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[2] Refer to the Central Coast Water Board's response to Olin's appeal of CAO R3-2004-0101 for the arguments regarding why the replacement water level should remain at a conservative level.

[3] "Abuse of discretion" is a legal standard that courts apply when reviewing administrative action. The Draft Order is based on the policy decision to defer to another State agency in this matter of regulating water quality. The Draft Order does not conclude that the Central Coast Water Board's findings are not supported by the weight of the evidence. (CCP §1094.5(c).) Rather, the State Water Board substituted its policy decision for the Regional Water Board's. "Abuse of discretion" is not the standard that the Draft Order applies; application of that standard would require the State Water Board to uphold CAO R3-2004-0101.

The State Water Board Draft Order proposes a scenario that appears to be contrary to the requirements of State Water Board Resolutions No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California), and 92-49 (Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 11304).

As the Central Coast Water Board noted in its response to the Petition (page 8):

> In addition, the MCL process only establishes levels that public water purveyors must meet in order to meet license requirements. Allowing purveyors to meet less stringent requirements than complete clean-up makes sense. Purveyors are not the entities responsible for causing the contamination, and must bear the cost of providing an affordable, potable drinking water supply using whatever water supplies are available. In this case, however, Olin and Standard Fusee are not purveyors but dischargers. Requiring them to abate all effects of the waste is within the Regional Board's Section 13304 authority.

Finally, the Draft Order will have cleanup implications that go far beyond the appropriate replacement water trigger in this one case. The precedential order requires the Regional Boards to set all future water replacement trigger levels and water supply cleanup levels based on MCLs and PHGs "unless specific and compelling evidence exists to show that the prevailing goals and standards are insufficient to protect public health." (page 6.) There are several problems with this new requirement:

a) The regional water boards often need to control groundwater plumes to prevent them from spreading, both to protect wells that have not yet been impacted at significant levels and to design and conduct an effective final remediation. Continued pumping of wells in the close proximity of plumes often defeats these important remedial goals. If no alternative water supply is made available by the discharger, it will be financially prohibitive for the innocent well user to stop pumping unless the well user has alternate supplies of its own, thereby frustrating our cleanup efforts or shifting the financial burden from the discharger to the water users. This may even have the effect to shifting the cost to the State Water Board's Cleanup and Abatement Account. The State Water Board recently allocated millions of dollars to providing replacement water in the Santa Ana Region. Although in that case the levels in the well exceeded OEHHA notification levels, a similar result would follow if it becomes necessary to stop pumping a municipal well in order to avoid exacerbating the contamination. In such a case, the regional water boards could not require the discharger to provide alternative water supplies under the Draft Order, but the purveyor still could not use existing supplies. This situation is indistinguishable from a purveyor that cannot use its wells because contaminant levels exceed MCLs or action levels.

b) In order to prevent plumes from spreading, most regional water boards have found it necessary to insist that innocent large water suppliers cease or minimize the pumping from municipal wells, even before the plumes have reached the wells. We believe that purveyors will argue that the Draft Order effectively requires that the regional water boards stop this important interim approach, because the regional water boards could not justify holding the innocent water purveyors to a higher standard than the dischargers that actually caused the

pollution. This would have the effect of spreading plumes away from source areas, increasing the size of "hot spots" that require source-area removal, and making clean-ups more expensive, slower and possible less effective. The Draft Order should clearly state that water purveyors cannot "pull" a groundwater plume, even if contaminant concentrations in their own wells are at or well below MCLs.

c) The Draft Order creates a false dichotomy between setting final groundwater cleanup levels and setting water replacement trigger levels. In fact, if the water replacement trigger levels are required to be set at MCLs or PHGs, then it will be virtually impossible for the regional water boards to set groundwater cleanup levels at anything lower than the MCLs or PHGs, as currently required by State Water Board Resolution No. 92-49. That is because the regional water boards would effectively be requiring that the unused water be cleaned up to levels that are cleaner than the purveyors are serving at the tap from the same plume, a politically untenable position.

d) MCLs can be set at inappropriate concentrations for groundwater cleanup level purposes, and they are frequently in need of review and revision. A MCL may be inappropriate for a cleanup number, for example with drinking water chlorination, trihalomethane concentration is elevated compared to what's allowed for aquatic habitat. Additionally, some MCLs were set at detection limits, which have since been revised downward.

e) Many regional water boards have already issued Cleanup and Abatement Orders with water replacement triggers that are lower than the applicable MCLs or PHGs, often with the State Water Board's knowledge. Although the Draft Order states that it does not apply to other existing agreements, as a practical matter it would require that many of those important orders be revised to be less protective of the public since affected dischargers would surely request such revisions, and petition any refusal to the State Water Board.

f) The Central Coast Water Board supports statewide consistency to the extent it is appropriate given the unique facts of many groundwater cleanup cases. However, the proper method for the State Water Board to consider a consistent approach for water replacement trigger levels is through the consideration of amendments to State Water Board Resolution No. 92-49. That way, all the stakeholders (including the Legislature, which has a keen interest in these issues) can be heard, and the State Water Board consider all appropriate facts in order to better assess the ramifications of its actions.

In addition to our aforementioned comment, we submit the following comments and recommendations related to the Draft Order's footnotes and findings for your review and consideration:

1. Footnote 13 of the Draft Order states:

> "The United States Environmental Protection Agency (USEPA) issued a Draft Toxicological Health Assessment for perchlorate in 2002. The draft document indicated a preliminary goal of 1 µg/L for perchlorate in drinking water. USEPA, together with several other federal agencies, referred the draft health assessment

> document to the National Academy of Sciences (NAS) for further review. On January 10, 2005, the NAS issued findings *that are supportive of the methods and result of the OEHHA PHG determination.* It has been anticipated that OEHHA and DHS would take the NAS findings into account in any revision of the PHG and in finalizing an MCL for perchlorate." [Emphasis added.]

The January 10, 2005 NAS study is not in the administrative record. (See Draft Order, p. 2, fn. 3.) Without the NAS study evidence in the record, there is no basis for the conclusion that the NAS findings "are supportive of the methods and result of the OEHHA PHG determination." In fact, various experts have reviewed the NAS study and concluded that it supports a public health goal and MCL even lower than the current 6.0 µg/L PHG. (See, Petition of Center For Community Action and Environmental Justice, et al., Before The Office Of Environmental Health Hazard Assessment, California Environmental Protection Agency, and The California Department Of Health Services, To Issue An Emergency Maximum Contaminant Level For Perchlorate and To Revise The Perchlorate Public Health Goal (January 25, 2005) attached as Exhibit A[4].) The Petition argues that a much lower MCL is necessary to protect pregnant women, infants and fetuses. Additionally, Assemblymembers John Laird, Fran Pavley, Dave Jones, Nell Soto and Elaine Alquist sent a letter, included as Exhibit B, to the Director of OEHHA, Dr. Joan Denton, outlining their belief that the NAS study provides a basis for OEHHA to adjust the PHG downward. The Assemblymembers point out that a recent US Food and Drug Administration published study showed perchlorate levels in milk and lettuce samples are much higher in California than accounted for in the initial OEHHA PHG assessment.

We do not object to augmenting the record to include the NAS study, *provided that* the Central Coast Water Board has the opportunity to respond by submitting the above-referenced documents. We request the State Water Board to augment the record to include these documents, and to consider them, before concluding that the NAS Study supports the PHG methodology or conclusions. (See Cal. Code of Regs., Tit. 23, §2050.6. The aforementioned evidence could not have been submitted previously because it did not exist. There was no reason to submit the aforementioned evidence previously, since the State Water Board had not yet ruled on the Petitioners' January 24, 2005 request to augment the record to include this evidence.) These documents are also relevant to show that the science is still in a state a flux.

2. Footnote 21 should be deleted. This footnote states:

> "The logical result of the Central Coast Water Board's argument that the State Water Board Res. 92-49 requirement for cleanup to background contaminant levels justifies its water replacement levels would routinely require water replacement at levels that may be many times lower than that determined safe by state and federal agencies. Simply put, while cleaning up to background may be

[4] Central Coast Water Board staff has been unable to obtain a signed copy, but understands that OEHHA has one.

required, that does not mean that replacement water is always necessary until the cleanup is complete, regardless of the amount of contamination."

Footnote 21 ignores the fact that in most cases, no one is currently drinking contaminated groundwater during the cleanup. In other cases, wellhead treatment by a municipal supplier can adequately protect users, or other water is available. In this case, in contrast, thousands of domestic users are drinking Llagas subbasin groundwater now, and have no other water supply pending completion of the cleanup. Additionally, in a separate cleanup or abatement order[5] issued by the Central Coast Water Board, the Dischargers (Olin Corporation and Standard Fusee Corporation) have been directed to propose a cleanup level for the Llagas groundwater subbasin. Currently, the Dischargers are required to propose a cleanup level that is either background or as close to background as technically and economically achievable. In theory, the cleanup level could be set at a level that is 1 to 6 µg/L lower than the Draft Order would require for the trigger for alternative water supply[6]. The Draft Order footnote sets up a situation where the resource, groundwater, is afforded more protection than human health. We believe this is contrary to the provisions of Resolution No. 92-49 and State Water Board Resolution No. 68-16, the State Water Board's anti-degradation policy. Central Coast Water Board staff recommends that the State Water Board reconsider Footnote 21 and find that Resolution No. 92-49 does support water replacement at lower levels than MCL, PHG, or Notification Levels, since beneficial uses have been impacted and will not be fully restored until the cleanup goal required by Resolution No. 92-49, or a site specific cleanup level approved by the Central Coast Water Board, is achieved.

3. The Central Coast Water Board requests clarification of the State Water Board's direction to consider "additional measures that may be judged necessary to address fluctuations in contaminant levels and ensure that the PHG is being met." (Draft Order, p. 6.) The Draft Order directs the Central Coast Water Board to ensure accuracy of data given fluctuating groundwater levels, stating, "As discussed above, the Cleanup Order currently requires that Olin provide replacement water for domestic well owners whose wells test below 4 µg/L until four consecutive quarters of monitoring data show no detections of 4 µg/L or greater. The Regional Board may choose to revise this requirement in order to ensure consistent water replacement should groundwater levels exceed safe requirements." (Draft Order, p. 6, fn. 23.) The Central Coast Water Board understands the quoted language to mean that the monitoring requirements are acceptable. (See CAO R3-2004-0101, Ordering Paragraph, 2.) For example, if perchlorate were detected even at levels well below 6 µg/L, the Dischargers would have to continue monitoring until four consecutive quarters of monitoring confirm that perchlorate levels are truly below 6 µg/L. Similarly, monitoring may be necessary more frequently than quarterly. This makes sense, since the time lag between quarterly sampling could mean that users are drinking well water with levels above 6 µg/L for three months, or even more if laboratory turn-around, notification and delivery start-up time is considered. This could be critical for

[5] Cleanup or Abatement Order No. R3-2005-0014, issued to Olin Corporation and Standard Fusee Corporation on March 10, 2005.

[6] Essentially an alternative water supply level that is protective of the well users health, based on the PHG or established MCL.

pregnant women or infants.[7] If that is incorrect, we request further clarification so we can avoid another petition on the aforementioned issue.

4. Page 2, **BACKGROUND**

   Revise the fourth sentence to read "...A plume of perchlorate extends approximately ~~nine~~ **ten** miles downgradient..." to reflect current plume information.

5. Page 2, **BACKGROUND**
   Revise first paragraph's last sentence to reflect that the Dischargers had voluntarily provided interim alternative water supply to well owners with detections between 2 and 4 µg/L. For example the suggested language could read: "...Olin has been providing alternative water to owners of private domestic and municipal water wells in which perchlorate concentrations exceed 4 µg/L **and had been voluntarily supplying alternative water to well owners with concentrations between 2 and 4 µg/L prior to CAO R3-2004-0101 issuance**. ..."

6. Page 3, **BACKGROUND**
   Consider adding the following language to reflect that a draft MCL has been released by DHS: "...DHS has not yet completed an MCL for perchlorate. **A draft MCL was released by the DHS on October 22, 2004, and is currently undergoing DHS's regulatory review process.** However, DHS has..."

We appreciate the opportunity to comment on the Draft Order. Our efforts have been focused on protection of the well owners' health and our belief that protection of beneficial uses requires that the affected well owners should receive replacement water until their well water is clearly safe to drink. Other regional water boards share our views. The North Coast, Los Angeles, Central Valley, and Santa Ana Regional Water Boards have reviewed and concur with the positions stated above. We look forward to attending the State Water Board Workshop to discuss these issues and our comments.

If you have any questions, please contact David Athey at (805) 542-4644 or Eric Gobler at (805) 549-3467.

Sincerely,

Roger W. Briggs
Executive Officer

Exhibit A: Petition of Center For Community Action and Environmental Justice, et al.
B: Correspondence to Dr. Joan Denton from Assemblymembers John Laird, Fran Pavley, Dave Jones, Nell Soto and Elaine Alquist.

[7] Another alternative is to require much more frequent sampling than quarterly, e.g., bi-weekly or monthly.

cc via E-mail:

Olin Interested Party List

Ms. Lori Okun
Office of the Chief Counsel
State Water Resources Control Board

cc via U.S. Mail:

Mr. Jay Baksa
City of Gilroy
7351 Rosanna Street
Gilroy, CA 95020-6197

Mr. Eric Lacy
CA Dept. of Health Services
2151 Berkeley Way
Berkeley, CA 94704-1011

Ms. Helene Leichter
City of Morgan Hill
17555 Peak Avenue
Morgan Hill, CA 95037

Mr. Eugene Leung
CA Dept. of Health Services
2151 Berkeley Way
Berkeley, CA 94704-1011

Mr. Richard Peekema
4817 Wellington Park Dr.
San Jose, CA 95136

Ms. Suzanne Muzzio
Santa Clara Co. Env. Health Services
1555 Berger Drive, Suite 300
San Jose, CA 95112-2716

Mr. Joe Root, General Manager
Corde Valle
One Corde Valle Club Drive
San Martin, CA 95046

Mr. Rob Stern
7510 Kenbrook Place
Suwanee, GA 30024

Mr. Keith M. Casto
Sedgwick, Detert, Moran & Arnold
One Embarcadero, 16th Floor
San Francisco, CA 94111-3628

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