California Regional Water Quality Control Board
Central Coast Region

Linda S. Adams
Secretary for Environmental Protection

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Arnold Schwarzenegger
Governor

January 21, 2009

James Giannopoulos
Chief, Ground Water Branch
State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento, CA 95814

Dear Mr. Giannopoulos:

COMMENTS ON AB 885 DRAFT ENVIRONMENTAL IMPACT REPORT AND PROPOSED REGULATIONS FOR ONSITE WASTEWATER TREATMENT SYSTEMS

Thank you for the opportunity to discuss the proposed statewide onsite wastewater treatment regulations and obtain feedback regarding some of our concerns at the January 6, 2009 State Water Resources Control and Regional Water Quality Control Board (Regional Water Board) staff teleconference on the topic. Considering the information provided during that meeting and upon our review of the *Program Draft Environmental Impact Report for AB 885 Onsite Wastewater Treatment Systems*, we have the following comments and recommendations. Some of the comments below have already been presented during the January 6, 2009 teleconference with your staff. Therefore, we have paraphrased the issues for ease of documentation and tracking.

1. Over the past few years, we have provided detailed comments and recommendations regarding proposals for statewide regulations for onsite systems. We appreciate the increased clarity that has addressed some of our prior comments. However, our September 8, 2006 letter is attached with this renewed request to address each of our prior comments. Comment No. 3 of our September 8, 2006, letter remains of particular concern with the current proposal.

2. As currently proposed, the statewide regulations call for extensive use of supplemental treatment units to overcome limited site conditions. However, the current proposal does not adequately address operational and regulatory oversight of such systems. The current proposal relies upon voluntary compliance with technically challenging criteria in a manner that is not consistent with guidance provided by the U.S. Environmental Protection Agency (EPA). We recommend that you revise the proposed regulations to reflect consistency with U.S. EPA recommendations.

Item No. 18 Attachment No. 5
March 19-20, 2009 Meeting
Regionwide Onsite System Implementation Program

3. The proposed regulations call for a 600 foot setback of conventional onsite systems from impaired water bodies, if onsite systems have been identified as a source of the impairment. Based upon the proposed language, we believe considerable time, effort and resources will be needed to link any single onsite system to the water body impairment, before the required supplemental treatment will be implemented. To our knowledge, no such resources are available.

4. Where supplemental treatment systems are required, existing and new onsite systems must include nitrogen removal to 10 micrograms per liter (mg/L) or disinfection to 10 most probable number (MPN) or 100 MPN (depending upon impairment constituent and percolation rates). We are not aware of technology currently available that can meet such limits in a consistent and cost-effective manner. Furthermore, we are not aware of technically sound scientific basis supporting such discharge limitations for waste discharged to soil.

5. During the January 6, 2009 teleconference, you mentioned that the Regional Water Boards will be responsible for implementing the proposed regulations. The proposed statewide waiver (included in the proposed regulations) would directly waive waste discharge requirements for onsite system owners immediately after adoption. However, with no application, enrollment, or notification requirements, it is unclear how Regional Water Boards would implement any of the proposed requirements. Enforcement against onsite system owners for noncompliance with the new regulations will also be the Regional Water Board's responsibility; however, it is not clear how such noncompliance might be identified.

6. During the January 6, 2009 teleconference, you proposed incorporating flexibility in the form of a waiver from the statewide criteria, based upon certification by the local health official that an onsite system is not degrading water quality. We strongly support incorporating flexibility into the proposed regulations. However, we believe that waiver from the statewide criteria should be based upon onsite system compliance with a Regional Water Board-approved onsite wastewater management plan implemented by the local permitting jurisdiction. Implementation of an onsite wastewater management plan could provide for functionally equivalent water quality protection while addressing site-specific characteristics. Onsite management plan components could be described in adequate detail to ensure comprehensive plans are developed and implemented. Regional Water Board approval and periodic re-evaluation could ensure consistency with waiver requirements specified in Section 13269 of the California Water Code. A conditional waiver implementation program such as that described above will be proposed to the Central Coast Regional Water Board for consideration at its March 20, 2009, hearing. Please see the draft agenda package available on our website at the following link for further details. http://www.waterboards.ca.gov/centralcoast/public_notices/announcements/docs/onsite_wastewater_system_implementation.pdf

Because our region is primarily rural, we have large areas served by onsite systems and have spent many years working with local permitting jurisdictions and other stakeholders developing effective approaches to water quality protection and practical management of such systems. We amended our Basin Plan in 1983 to include siting criteria, prohibitions, and recommendations for onsite systems. In our 25 years of implementing these regulations in our region, in many different physical settings, we have established a good track record with this method. Our recent amendment of this section of the Basin Plan left most siting criteria unchanged because they have been successful. Our changes primarily changed some recommendations to requirements. I believe a statewide approach similar to the Central Coast Region's approach is workable in a cost-effective, practical, scientifically supportable manner.

Sincerely,

Roger W. Briggs
Executive Officer

Attachment: September 8, 2006, Central Coast Water Board letter to James Giannopoulos

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Arnold Schwarzenegger
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September 8, 2006

James Giannopoulos
Chief,Groundwater Branch
State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento, CA 95814

Dear Mr. Giannopoulos:

COMMENTS ON AB 885 DRAFT OF PROPOSED REGULATIONS FOR ONSITE WASTEWATER TREATMENT SYSTEMS

Thank you for the opportunity to review the AB 885 Draft of Proposed Regulations for Onsite Wastewater Treatment Systems. We appreciate the time and effort expended in developing the proposed regulations. The geologic and hydrologic diversity across the State of California makes the task of developing an applicable set of regulations very complex. We support the overall regulations and offer the following general and specific comments to facilitate application of these regulations at the regional level.

GENERAL COMMENTS

1. We encourage you to revise the proposed regulations to support Water Board implementation of the proposed regulations. Portions of the proposed regulations are not clear and are subject to interpretation (see specific comments section below).

2. We encourage you to use existing definitions (see EPA Manual (EPA/625/R-00/008)) to describe onsite wastewater disposal, rather than create new definitions.

3. Conventional septic systems should be "fool proof." In other words, the definition of a conventional system is simple: design is simple, installation is simple, and operation is simple. The proposed requirements transform what should be a simple process for conventional systems into one that requires technical design, a high level of operation and maintenance, and a high degree of oversight. The simplicity of using a conventional system is lost. The benefits to the community are lost.

4. The proposed regulations should include clear requirements for conventional onsite wastewater disposal. We suggest developing two separate sections of the proposed regulations: Section 1 - Conventional Systems and Section 2 – Alternative Onsite Wastewater Treatment Systems.

   Section 1 - Conventional Systems, should clearly explain conventional system requirements. The section should also include the following:
   a) For repair of existing systems, if site constraints prevent the installation of a conventional system, Alternative Onsite Wastewater treatment systems shall be installed.
   b) For proposed new systems, if site constraints prevent the installation of a conventional system, Alternative Onsite Wastewater treatment systems shall be considered.

   Section 2 – Alternative Onsite Wastewater, should clearly explain treatment system requirements.

   The proposed regulations should include clear requirements for local onsite wastewater management programs. The onsite wastewater management programs will regulate the construction, inspection, monitoring, maintenance, and performance of onsite sewage treatment systems. Local management programs shall be required throughout the local jurisdiction.

5. The proposed regulations rely heavily on qualified professionals to design, install, and monitor systems. We support the use of qualified professionals with strong local oversight through implementation of local onsite wastewater management programs.

6. Local onsite wastewater management programs should include septage management.

7. The proposed regulations should require repair standards for existing systems.

8. Please include language that states if a Water Board has adopted a wastewater managernent program into the Basin Plan, this program is allowed a specific time frame (five years) to comply with new State Board regulations.

SPECIFIC COMMENTS

1. "Conventional System" - please revise the "Conventional System" definition to remove evapotranspiration and infiltration system, mound system, and at grade system. These systems are typically considered as alternatives. The EPA

Manual (EPA/625/R-00/008, Glossary, page Glossary-2) defines conventional systems as a wastewater treatment system consisting of a septic tank and subsurface wastewater infiltration system.

2. "Existing OWTS" - Please revise the "Existing OWTS" definition to include all systems installed (permitted and non-permitted) before the effective date of the proposed regulations.

3. "Gravel-less Chamber" - Please revise the "Gravel-Less Chamber" definition to include other types of trench fill material besides stone aggregate.

4. Grease interceptor – What is the source of this definition?

5. "Soil texture" – The document has no Table 1a. Please include and label Table 1a.

6. Supplemental treatment – Please delete this definition and use the EPA Manual (EPA/625/R-00/008) definition for Alternative Onsite Wastewater Treatment System. Please see the EPA Manual (EPA/625/R-00/008, Glossary, page Glossary-1) for definition.

7. Add "TN" to general definitions

8. Add "TSS" to general definitions

9. Add "BOD" to general definitions

10. Add "Pollution" to general definitions

11. Add "Impermeable layer" to general definitions

12. §22901.c.1: Please revise. There is no gallon limit on discharge. The Porter Cologne Water Quality Act requires all dischargers to submit a report of waste discharge regardless of flow. Through written agreement with local agencies, the Central Coast Water Board supports local agency review and management of all systems with domestic sewage discharge at 2500 gallons per day or less.

13. §22901 (f): This section is unclear. As written, the section implies that the State Board may authorize a local agency through a Memorandum of Understanding (MOU) to administer "this Chapter or portions thereof." Typically, such MOU's are implemented at the regional level. Please clarify this section.

14. §22910.e: Please revise the sentence to include "and required level of treatment to protect water quality and/or human health."

15. §22910.i: Consistent with the proposed regulations' definition of a conventional system, this section states that a property owner can install an evapotranspiration and infiltration system, mound system, or at grade system. Typically, these types of systems require installation by a qualified professional.

16. §22910.j: Does this section include concentrated brines from self-regenerating water softeners?

17. §22910.l: Given that the regulations as proposed do not require regulatory system tracking and reporting, how are the maintenance contracts kept in place?

18. §22910.q: Please add language that requires tanks to be watertight.

19. §22910.v: Add ammonia, organic nitrogen, and orthophosphate.

20. §22910. w. This section states that septic tank inspections will occur every five years. Who will track this information and confirm compliance?

21. §22910.x: Add section for deed recordation.

22. §22912.a.4: Add - the monitoring program shall be reviewed and approved (if appropriate) by the local agency and/or the Regional Water Quality Control Board.

    Also how are these monitoring programs tracked? Can any qualified professional develop and certify any monitoring program?

23. §22912.a.5: Please clarify this sentence. Does this imply that "more than one significant rain event" occurs after 60% of the annual average rainfall has fallen?

24. §22913.c.1: Six months is an insufficient time period to evaluate system performance. We suggest a minimum of 12 months to capture seasonal variation.

25. §22913.c.2.A: BOD of 125 milligrams per liter is very low. We typically see BOD of 200 to 300 milligrams per liter. We suggest a testing range of 200 to 300 milligrams per liter that is more representative of domestic sewage.

26. §22913.c.2.B: TSS of 125 milligrams per liter is very low. We typically see TSS of 200 to 300 milligrams per liter. We suggest a testing range of 200 to 300 milligrams per liter that is more representative of domestic sewage.

27. §22913.c.2.C: TN of 20 milligrams per liter is very low. We typically see TN of 40 to 100 milligrams per liter. We suggest a testing range of 40 to 100 milligrams per liter that is more representative of domestic sewage.

28. §22913.c.3: Add (E) Holiday use (one week at minimum). Holiday use being when occupancy produces more than 300 gallons per day.

29. §22913.c.4: Please label the table and provide a table number. Please reference the table in the text.

30. §22914.a: Please define "shallowest practicable depth."

31. §22914.b: Please delete reference to §22914(g) as this section also requires the use of the bottom area of the dispersal system as the infiltrative area.

32. §22914.c: First line, please change "three" to "five."

33. §22914.c: We do not support the use of three feet of separation between the bottom of the dispersal system and seasonal high groundwater, impermeable strata, or fractured/weathered bedrock. Three feet separation is insufficient for conventional systems. It provides no "factor of safety," allows no room for construction errors, nor addresses the variability of longer-term groundwater level fluctuations.

    The EPA Manual (EPA/625/R-00/008, page 4-6, Section 4.4.2) states, "Generally, 2 to 4-foot of separation distances have proven to be adequate in removing most fecal coliforms in septic tank effluents (Ayres Associates, 1993)." This would imply that three feet of separation would not be sufficient in some cases. The State Board requirements should be protective of water quality in all situations. We would support a minimum of five feet of separation (depending on soil types additional separation may be needed) between the bottom of the dispersal system and seasonal high groundwater, impermeable strata, or fractured/weathered bedrock. Five feet would be consistent with the EPA Manual recommendation of 2 to 4-foot of separation distances and provide an additional factor of safety.

34. §22914.c: This section states that three feet of separation is sufficient. In item (1) of this section, there is reference to Figure 2. Figure 2 shows that conventional OWTS must have at least four feet of separation. Please address

this inconsistency in the proposed regulations. Also, please reference Figure 2 (what is the source of this figure?).

Again, we do not support the use of three feet of separation between the bottom of the dispersal system and seasonal high groundwater, impermeable strata, or fractured/weathered bedrock.

We recommend that the separation to groundwater be revised to five where percolation rate is greater than 30 minutes per inch. For percolation rates between 1 and 30 minutes per inch, we recommend that groundwater separation range from eight to fifty feet (see Central Coast Region Basin Plan, page IV-65, Section VIII.D.3.i.3).

35. §22914.e: Does two feet of continuous soil also include the one-foot of fill?

36. §22914.e: This section implies that a conventional system can use fill. We do not support the use of fill in conventional systems to replace "native soil."

37. §22914.e: This section implies that a mound system can use fill in the place of "native soil". We do not support the use of fill in the place of "native soil."

38. §22914.g: - Please delete "The infiltrative surface may be adjusted with a multiplier of no less than 0.7." Please provide reliable documentation to support this multiplier.

39. Table 1 (page 10 of 15): these application rates are inconsistent with the Central Coast Region Basin Plan and the EPA Manual. For conventional systems, the Central Coast Region Basin Plan (page IV-61, Section VIII.D.3.b.) recommends hydraulic loading rates between 0.1 and 0.8 gallons per square foot per day. For conventional systems, the EPA Manual (EPA/625/R-00/008, page 4-12, Section 4.4.5, Table 1) suggests hydraulic loading rates between 0.2 and 0.8 gallons per square foot per day. Please revise the proposed regulations to be consistent with these loading rates.

40. Figure 1: These application rates are inconsistent with the Central Coast Region Basin Plan and the EPA Manual. As stated in comments 39 above, please revise the proposed regulations to be consistent with the loading rates found in the Central Coast Region Basin Plan and the EPA Manual.

41. §22914.i: For seepage pits, calculations based on sidewall should begin where perforations on distribution pipe begin.

42. §22940.c: Add "or Basin Plan amendment" after "(c) A TMDL."

43. §22940.d: Does a sewer system need to be available (constructed) or can this requirement be met on the promise of a system?

44. We appreciate the inclusion of the mound construction standards Wisconsin Mound Soil Absorption Siting, Design, and Construction Manual, January 2000 (Document WWBKDM09), published by National Small Flows Clearinghouse. This is a much-needed update for the State Mound Guidelines of 1980.

Sincerely,

Roger W. Briggs
Executive Officer

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