



November 14, 2011

OWTS Policy  
State Water Resources Control Board  
P.O. Box 2231, Sacramento, CA 95812

Re: Draft AB 885 Policy – Comments

Dear Sir(s):

Thank you for the opportunity to comment on the most recent draft policy developed pursuant to AB 885. While certain aspects of the current draft are an improvement over the last publicly released document there remain significant concerns over the extent to which this policy would adversely impact rural communities, such as ours, compared to the degree of benefit that may be realized.

The supplemental environmental document is based on scoping prior to public release of this draft policy. Because there was no clearly defined project available to the public at that time the environmental review is flawed. At a minimum, public scoping input for environmental review must be repeated and a new draft SED prepared. It should be recognized that the current draft policy needs significant revision, possibly resulting in a substantially different program. A better approach would be to withhold environmental review at least until consensus is reached on the framework of the regulations.

#### **INTENT OF AB 885**

AB 885 was introduced in early 1999 to address impaired waters in California's coastal zones. Before passage in late 2000 the bill saw numerous revisions, ultimately requiring statewide participation. Still, it would be advantageous to recognize the problems that initiated the legislation and focus the policy more carefully on impaired coastal waters and other water bodies for which evidence supports a linkage to OWTS. This would optimize public health and water quality protection with minimal burden on areas of the state where OWTS have not significantly contributed to adverse impacts.

AB 885 required that the state board, in consultation with the State Department of Health Services, the California Coastal Commission, the California Conference of Directors of Environmental Health, counties, cities, and other interested parties, adopt regulations or standards for the permitting and operation of onsite sewage treatment systems. Of this list of participants it appears that cities and counties have not been consulted in policy development in recent years. The state board should inform

the public which organizations have been party to the development of this document since the last public release.

One of the key points of AB 885 was that it required the regulations adopted to include exemption criteria to be established by regional boards. The only reference to exemption in the proposed document is section 4.5:

“Regional Water Boards may adopt waste discharge requirements, or conditional waivers of waste discharge requirements, that exempt individual OWTS from requirements contained in this Policy.”

This optional language misses the mark entirely.

In adopting AB 885 it was the declared intent of the Legislature to assist private property owners with existing systems who incur costs as a result of the implementation of the regulations established under this section by encouraging the state board to make loans under Chapter 6.5 of the California Water Code (commencing with Section 13475) to local agencies to assist private property owners whose cost of compliance with these regulations exceeds one-half of one percent of the current assessed value of the property on which the onsite sewage system is located. The cost associated with virtually any significant OWTS repair or alteration far exceeds one-half of one percent of the property value. The policy is silent on this matter but it is a significant impact and needs to be addressed.

## **THE POLICY**

The five tiered policy is not a bad approach, conceptually, but the current document lacks polish. In its present form it is likely to create more problems than it solves. While some portions are highly prescriptive and excessively conservative there remain many inconsistencies and missing information which would defeat the prescriptive intent and perpetuate or perhaps worsen questionable practices that contributed to the originally identified problem.

As written, the policy does not address chemical toilets, vault toilets, holding tanks or lined evaporative beds. It is unclear if it addresses privately owned grease interceptors or on-site septic and or pump tanks which connect to a community system subject to WDRs. It is unclear if or how this policy relates to gray water systems. It is unclear if this policy affects OWTS on state, federal or tribal lands. These points should be clarified.

The policy contains many highly prescriptive criteria, not just in Tier 1 but throughout, which in some instances constrain the Local Agencies (LAs) unnecessarily. There are integral criteria, however, upon which the document is silent. Much of Tier 1 is predicated on percolation test results but no standardized percolation test method is given. Without an established standard test parameters can be altered to produce desired results. Similarly the policy does not establish standardized daily design flow criteria for residential OWTS for single family dwellings or for multiple unit systems.

### **1.0 Definitions**

As defined, “cesspools” would include pit privies. It should be clarified whether this is intended and whether continued use of existing cesspools (or pit privies) is authorized pursuant to Tier 0.

Elimination of the term “community water system” is recommended, to be replaced with “public water

system” where it appears in the text. Use of “community water system” is confusing despite the policy specific definition because it is a subset of public water systems as defined in Section 116275 (i), Health and Safety Code.

“Percolation test” should include in the definition reference to an established standard method. If not, a standard method should be described in the policy.

Based on the context of “qualified professional” as used throughout the policy, the term should be defined as an individual licensed or certified by a State of California agency to design (not or construct) OWTS.

### **3.0 Local Agency Requirements and Responsibilities**

Section 3.1 is poorly written. It appears to offer a 60 month window for continued implementation of existing local programs but states that in the absence of a Tier 2 Local Agency Management Program, to the extent that there is a direct conflict between the applicable minimum standards and the local codes or ordinances (such that it is impossible to comply with both the applicable minimum standards and the local ordinances or codes), the more restrictive standards shall govern. Since one of the first acts to follow policy adoption would be realignment of Regional Water Quality Control Board basin plans to be consistent with the policy, it would appear that there is no real 60 month grace period for local jurisdictions to continue program delivery unless the local program is in strict compliance with the policy.

Section 3.3 requires periodic reporting to the Regional Board. It is unclear what the ramifications may be if a LA has not proposed a Tier 2 program and does not report.

### **4.0 Regional Water Board Functions and Duties**

Aside from establishing timeframes for review of Tier 2 programs and an appeal process this portion of the policy accomplishes little. The intent is clearly to place tight controls on LAs but the only restraint on the Regional Boards is via the appeals process. At a minimum the regional boards should be prohibited from establishing additional prescriptive criteria for Tier 2 programs. Regional boards should also be precluded from requiring that local agencies implement new monitoring programs for Tier 0 systems.

## **Tier 0**

### **6.0 Coverage for Properly Operating Existing OWTS**

Under Section 6.0 it states that existing OWTS with projected flows under 10,000 gpd are to be covered by the waiver under Tier 0. Standardized design flow assumptions for single family and multi-unit residential uses are needed.

Section 6.1 states that systems meeting certain criteria are “automatically covered” by the policy and waiver. No request or application for coverage is mentioned. Section 6.2 refers to denial of coverage by the Regional Board. It is unclear how the Regional Boards are to be informed of non-compliant

systems subject to denial of coverage.

Regional boards shall be precluded from altering the criteria for automatic coverage under Tier 0 or from establishing new requirements for Tier 0 eligibility other than those established in this policy.

## **Tier 1**

### **7.0 Minimum Site Evaluation and Siting Standards**

Tier 1 is in many ways too restrictive and unlikely to be of sufficient real value to most, if not all, jurisdictions. Unless a local jurisdiction receives approval of a proposed Tier 2 program the only alternative for owners wishing to build on properties that do not comply with Tier 1 or 3 are extremely expensive. This places great pressure on local jurisdictions to submit a Tier 2 proposal and is virtually an unfunded mandate.

Tier 1 contains detailed prescriptive standards based on percolation test results. Without standardized percolation test methods the application rate and groundwater separation requirements are meaningless.

In section 7.3.1, deletion of the word “direct” is suggested so as to eliminate confusion in section 7.3.4.

For section 7.5.3, definition of “unstable land mass” is needed. A uniform 100 foot setback regardless the size or type of unstable land mass, site slope, or the orientation of the OWTS to the mass with regard to gradient may often be unnecessary.

Sections 7.5.7 and 7.5.8 can be eliminated since section 8.1.8 states, “Dispersal systems shall not exceed a maximum depth of 10 feet as measured from the ground surface to the bottom of the trench.”

Sections 7.5.9 and 7.5.10 should give consideration to flowing water bodies and direction of flow.

Section 7.6.3 should be reworded. It is the applicant’s responsibility to describe the intended use(s) to be served. The policy should standardized flow assumptions for residential applications under Tier 1. The applicant’s qualified professional should provide wastewater flow estimates for non residential applications to be verified or approved by the permitting agency.

### **8.0 Minimum OWTS Design and Construction Standards**

8.1.4 requires 5 feet of native soil below the dispersal trench. 8.1.5 requires 12 inches of soil cover. The policy does not establish minimum trench depth and does not provide adequate information on trench sidewall credit. The policy should clarify whether imported material may be used for any portion of a Tier 1 installation including trench sidewalls or cover.

For Table 1 please clarify whether the required groundwater separation for an OWTS with a design percolation rate of 5 mpi is 8 or 20 feet. If OWTS design is based on soil texture rather than perc rate Table 1 indicates that groundwater separation shall be based on the equivalent perc as determined by the local agency. Please clarify if it is the intent that the local agency would compare the application rate as determined by texture in Table 3 to the perc rate as linked to the application rate in Table 2 to

determine appropriate groundwater separation or is this decision, as the policy states, entirely up to the LA.

Table 2 appears to be extremely conservative at moderate to slow perc rates, resulting in extremely large and expensive OWTS dispersal fields. Please provide the formula used to generate the table and explain how it was developed.

Please provide the source of the information in Table 3. According to the table, the highest application rate would be for sites with very coarse, structureless soil while other soil texture/structure combinations which do not appear to be high risk are allocated very low application rates or are prohibited. This approach appears high risk and out of character with the apparent intent of Tier 1.

Section 8.2.1 should be located in a general Tier 1 construction section rather than under the heading Septic Tank Construction and Installation. Some repairs do not entail tank repair or replacement. Please clarify whether inspections or as-built diagrams are required of qualified contractors. It should be made abundantly clear that tank or piping repairs only to a Tier 0 system would not trigger Tier 1, 2, or 3 classification of the entire system and mandate compliance with the respective dispersal field standards.

The rationale behind the proposed piecemeal adoption of portions of Section K5, part 5, Title 24 of the California Code of Regulations is unclear and the result is confusing. It is recommended that section 8.2.2 be revised to state that new or replaced septic tanks shall comply with Section K5 of Appendix K with the exception that steel tanks are prohibited and that grease interceptors shall comply with Appendix H, again with a prohibition on steel interceptor tanks, of Part 5, Title 24 of the 2007 California Code of Regulations and all updates thereto.

Section 8.2.3.1 requires water tight risers for septic tank access openings, the tops of which are to be set within 6 inches of finished grade. The policy should make clear whether termination of riser 6 inches below grade is acceptable and why risers extending more than 6 inches above grade would be a problem.

Section 8.2.6 should be revised to indicate that the certified septic tank effluent filter installed at the point of discharge from the septic tank rather than point of discharge from the OWTS satisfies the requirement to prevent solids in excess of three-sixteenths (3/16) of an inch in diameter from passing to the dispersal system.

## **Tier 2**

### **9.0 Local Agency Management Program for Minimum OWTS Standards**

Local jurisdictions have, in the vast majority of instances, implemented extremely effective on-site wastewater treatment system programs. By comparison most Regional Board personnel have limited experience with these systems, at best. Local jurisdictions are also in a much better position than the Regional Boards to cost effectively provide permit and inspection services. The policy should minimize, to the extent possible, the degree of reporting required of the local agencies proposing Tier 2 programs and should limit the amount of oversight by the Regional Boards of those local programs. Individual water well monitoring shall not be established as a prerequisite for approval of Tier 2 programs.

Tier 2 contains too many restrictive criteria to enable jurisdictions to propose effective program alternatives to Tier 1.

Section 9.3.8 mandates some level of water quality monitoring by the LA. A number of factors other than OWTS can adversely impact water quality. The policy should explain who will review or have access to this data and how the data will be interpreted or used. There is a concern that OWTS be the default culprit for any impacts. Contaminated ground or surface water linked to sanitary sewer leaks or overflows and POTWs which may or not be in compliance with WDRs would be difficult to discern from OWTS. There are numerous local examples of such discharges.

In addition to the impacts listed above, livestock and wildlife impacts are a real concern. Rattlesnake Creek, the only water body listed in Amador County as bacteriologically impaired, drains a high elevation timberland watershed where there are no OWTS and no other development. Please describe how data collected and submitted pursuant to this policy will differentiate OWTS from other sources of contamination.

Section 9.4.3 prohibits OWTS that utilize any form of effluent disposal on or above the ground surface. Please clarify whether this includes lined and covered evaporative beds which discharge water vapor to the atmosphere.

Section 9.4.5 prohibits slopes greater than 30 percent without a slope stability report approved by a registered professional. While there may be problems in some parts of the state that necessitate such local control, a preferred alternative under would be the ability of the LA to have a qualified consultant prepare a broader document establishing a different threshold for individual site assessments.

Section 9.4.6 prohibits the decrease in leaching area for chamber dispersal systems using a multiplier less than 0.70. This is excessive control over what should be a program designed by the LA.

Section 9.4.7 prohibits Advanced OWTS without requirements for periodic monitoring. The policy needs to define advanced OWTS and should clarify whether periodic monitoring may be performed by owner/user or if it must always be a qualified service provider. Would the same monitoring requirement apply to advanced OWTS located in low risk sites? The State Water Resources Control Board should maintain a list of State Board approved advanced OWTS technology which could be adopted by reference in Tier 2 applications to encourage statewide consistency and efficiency.

Sections 9.4.10 through 9.5.4 are identical to Tier 1 requirements. Tier 1 is intended to be a conservative, low risk program requiring minimal oversight. With the increased level of oversight and control possible with a Tier 2 program such conservative criteria should not be necessary.

### **Tier 3**

#### **10.0 Advanced Protection Management Program**

Section 10.0 indicates that local agencies are not required to notice or enforce the requirements of Tier 3 for existing OWTS. Please explain whether the Regional Boards will notice owners of existing OWTS in Tier 3 affected areas and, if so, how the Regional Boards will determine who to contact.

Since 303(d) listing of water bodies is integral to the policy and the list is subject to change, there should be some discussion how candidate water bodies are selected for investigation and how the list is maintained and updated. Communication with potentially affected local government should be part of the ongoing process.

Section 10.2.2 requires that, under defined circumstances, existing OWTS near water bodies 303(d) listed due to pathogens shall comply with the advanced treatment requirements of Section 10.8, and the other enhanced requirements of Section 10, within 2 years of the date established by 10.2.1. Site conditions on some parcels may not enable compliance. The policy should provide options for cases such as this that do not include submittal of a report of waste discharge to the Regional Board.

Section 10.3 describes a report that an owner or owners may have generated by a qualified professional regarding their OWTS and the potential for contribution to degradation of water quality. The policy should provide some incentive for owners to generate such a report.

Amador County has had notable success with engineered fills, creating a dispersal site where no suitable site existed naturally. It is believed that, like Amador, significant areas of shallow soils exist statewide where engineering solutions such as fills can greatly improve the ability of the site to assimilate effluent. Section 10.4.9 requires a minimum of two feet of separation between dispersal system bottom and groundwater. This may not be possible to accomplish with native soil. The engineered fill option should be considered.

According to section 10.5, the requirements contained in Section 10 shall not apply to owners of existing OWTS who commit by way of a legally binding document to connect to a centralized wastewater collection and treatment system regulated through WDRs as specified within stated timeframes. The policy should discuss how this option may be impacted by a moratorium on new connections.

Section 10.7.1 establishes that effluent from the supplemental treatment components designed to reduce nitrogen shall be certified by NSF, or other approved third party tester, to meet a 50 percent reduction in total nitrogen when comparing the 30-day average influent to the 30-day average effluent. 10.8.1 establishes that supplemental treatment components designed to perform disinfection shall provide sufficient pretreatment of the wastewater so that effluent does not exceed a 30-day average TSS of 30 mg/L and shall further achieve an effluent fecal coliform bacteria concentration less than or equal to 200 Most Probable Number (MPN) per 100 milliliters. The State Water Resources Control Board should maintain a list of approved technology to avoid errors and inconsistency and to maximize efficiency statewide.

Section 10.8.2 requires a minimum native soil depth and the minimum depth to the anticipated highest level of groundwater below the bottom of the dispersal system of three feet. If site conditions are such that it is not possible to meet this criteria the use of engineered fill should be recognized as an acceptable alternative.

Section 10.12 references telemetry for supplemental treatment to notify the owner and service provider in the event of malfunction. The policy is silent whether the owner or provider would be required to routinely report to the LA or others or whether any special events, such as failure, should be reported promptly. It may also be appropriate for the owner or provider to take other actions in the event of

system malfunction, such as sampling of the receiving water, notification of other potentially affected persons, etc.

In section 10.13 the reference to section 10.7 should be revised to 10.8. This section requires periodic monitoring for coliform bacteria. No similar requirement for periodic monitoring of OWTS treating for nitrogen removal per section 10.7 is found.

#### **TIER 4**

##### **11.0 Corrective Action for OWTS**

The policy should define “pooling effluent” as mentioned in 11.1. Failure can sometimes be corrected via correction of a plumbing leak, repair of a broken pipe, or cessation of overuse of the OWTS. It should be clear that this form of correction eliminates the need for a major repair requiring adherence to all criteria of the appropriate tier.

Per 11.3, any OWTS that accepts discharged wastewater at greater volumes than the design flow of the OWTS shall be modified or replaced so as to return to proper sizing and comply with Tier 1, 2 or 3 as appropriate. Since failed systems are sometimes linked to use of the system beyond the design intent an acceptable alternative to system modification or replacement should be reduction of flows.

Sections 11.6 and 11.7 are vague in terms of timeframe for correction. Correction is most often delayed due to finances and weather. It should be recognized that the LA is much more likely to be familiar with the OWTS, cause(s) of failure, site conditions, probable cost of correction, ability of the owner to pay for correction, impact of ongoing failure, interim measures that can be taken to reduce or eliminate impacts to public health or the environment, etc. The LA should be the lead in determining if and when to refer the matter to the Regional Board for submittal of a report of waste discharge.

Cost estimates provided in table 8-2 of the SED for single family residential repairs are unrealistically low. Tier 1, as written, will increase the cost of many major repairs and new installations due to the requirement for significant increase in dispersal field size for site with moderate to slowly permeable soils, more than doubling the amount currently required in many cases.

Again, thank you for the opportunity to participate in the process. Please seriously consider our comments and those of others. It is far more important to produce a well designed and useable document than to rush to complete a flawed product of little benefit.

Sincerely,

Handwritten signatures in blue ink. The signature on the left is 'John Plasse' and the signature on the right is 'Michael W. Israel'.

John Plasse  
Chairman

Michael W. Israel, REHS  
Environmental Health Director