Heal the Bay

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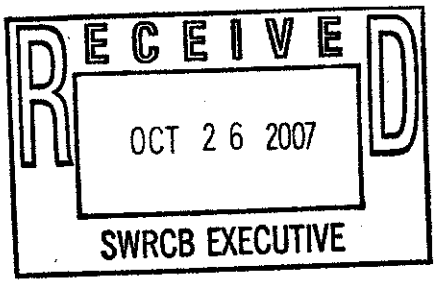
12/4/07 Bd. Mtg.
Water Recycling Policy
Deadline: 10/26/07 Noon



October 26, 2007

Chairwoman Doduc and Board Members
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Re: Comments on the draft Statewide Water Recycling Policy

Dear Chairwoman Doduc and Board Members:

On behalf of Heal the Bay, we submit the following comments on the draft Statewide Water Recycling Policy ("Draft Water Recycling Policy" or "Draft Policy"). We appreciate the opportunity to provide these comments.

We strongly support the development of a statewide policy that encourages the growth of water recycling efforts in the State. In fact, Heal the Bay sees the issuance of a statewide policy on water recycling as a chance to bring all stakeholders together for the common goal of increasing water reuse in California. California's potable water supply is under extreme pressure from an increasing population and many other hurdles. Recycled water has the potential to provide significant relief to already taxed systems like the Bay-Delta and the Colorado River systems.

However, an effective water recycling policy must also ensure that the use of recycled water provides for full protection of existing water quality. As written, the Draft Water Recycling Policy does not adequately balance the promotion of water recycling and the protection of water quality. In other words, water quality is not properly safeguarded. This concern and others are discussed in detail below.

The Draft Policy should include recycled water limits that are based on water quality objectives.

The Draft Policy requires that waste discharge and water reclamation requirements specify that the monthly average TDS concentration in the recycled water shall not exceed the monthly average TDS concentration in the source water supply, plus 300 mg/L. Further, the Staff Report states that "[this requirement] was selected as being a difference that the majority of recycled water producers can meet." Staff Report at 5. This requirement is problematic in several respects. First, the *average* TDS for what producers can currently meet should not be assumed to be an appropriate, protective value. What is the groundwater value that the State Board is trying to protect? The actual recycled water quality at this point in time around the State should not represent where California needs to head with recycled water quality. In other words, maintaining the status quo in recycled water quality is not acceptable. Water providers need to address high salts beyond the TDML process and when high quality users are involved. Further, the Draft Policy states that recycled water projects will be mitigated through use of the best

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practicable treatment or control. Policy at 3. Obviously the "average" TDS is not resulting from the best practicable treatment.

In addition by using the "status quo" approach to determine the TDS limit, water suppliers are not given any incentive to provide water with a lower TDS concentration. Currently, there is little regulatory pressure on water suppliers to limit salts in their water. The end-user has been a far larger influence on drinking water quality than the water boards. This is problematic, as much of the source water for California's water supply has naturally high TDS concentrations. Suppliers must be involved in recycled water issues. In order to fully address chloride issues, suppliers may have to start looking for water sources that have less chlorides or treatment options.

Finally, regional water board basin plans typically provide TDS water quality objectives. For instance, the Los Angeles Basin Plan provides a range of TDS objectives for various waterbodies. Reaches of the Los Angeles and San Gabriel Rivers have TDS water quality objectives as low as 250 mg/L. If recycled water discharges enter these reaches at TDS levels that are 300 mg/L above the source supply concentration, water objectives may be exceeded and salt-sensitive species may be impacted.

Instead, the State Board should establish recycled water limitations for concentrations of salts that are equivalent to the water quality objectives. The Staff Report discusses this option under alternative "a". This alternative would be easy for the regional boards to implement and would ensure that water quality objectives are maintained. The Draft Policy requires that the use of recycled water shall not "... cause or contribute to violations of water quality objectives." Policy at 5. This provision is appropriate but conflicts with much of the Draft Policy, including the proposed TDS requirements that could impact receiving waters such as those with established chloride/salts TMDLs. By using the water quality objectives as the recycled water objectives, this provision can be achieved. On a site-specific basis, if salt water quality objectives are not met in the potable supply, alternative "b" could be utilized if approved by the local regional water board. This alternative establishes limits based on a salt/water balance for an irrigated site.

Groundwater basin salt management plans should be developed and implemented in a timely manner.

An important component of salt management is the development of implementation plans for groundwater basins where salts are currently or are threatening to be an issue. The Draft Policy states that the Regional Water Boards will adopt revised implementation plans by 2018. Further, the Draft Policy states that no additional salt management measures will be required prior to this time. Draft Policy at 5. This timeframe is unnecessarily long. Waiting ten years for the development of such a plan and even longer for its implementation is unacceptable, given that the impaired state of the groundwater basins in question is already established. The development of implementation plans for other water issues in the State has taken much less time. Also, there is a large incentive for water suppliers to finish these plans quickly. Thus, salt management plans should be developed within a maximum of five years (by 2013).

The Draft Policy should include monitoring of recycled water used for irrigation.

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The Draft Policy states that "...it is usually unreasonable to require groundwater monitoring for irrigation projects using recycled water because these projects generally pose a threat to water quality similar to irrigation projects using surface water..." Draft Policy at 2. Further the Draft Policy states that groundwater monitoring will not be required unless shallow groundwater is found. Draft Policy at 5. This finding is an inappropriate generalization and limits the regional boards' flexibility for irrigation projects that may be of concern.

In fact, irrigation projects using recycled water have been known to cause impacts to receiving waters. Heal the Bay's historical monitoring of nitrates in Malibu Creek found that concentrations below Tapia's spray field irrigation fields were higher than upstream concentrations. The sources of high nitrate levels were not limited to surface flows. In fact, groundwater played a significant role in nutrient loading. Thus, the State Board should include monitoring of irrigation sites in the Draft Policy. At a minimum, the Draft Policy should require monitoring of irrigation projects near waterbodies that are 303(d) listed for nitrates and salts. Also the Draft Policy should require monitoring for plume impacts resulting from irrigation. For instance, if there is a significant amount of irrigation in an area that has an MTBE plume, monitoring is necessary to understand the irrigation impact on the fate and transport of the plume.

However, Heal the Bay does not support drilling new monitoring wells for each new project. Groundwater samples should be allowed to be collected from existing wells. If a site is sensitive (high groundwater, close to supply wells or contaminant plumes), then additional monitoring may be required. A regional monitoring approach for irrigation projects also may be acceptable for less sensitive sites.

Numeric effluent limits are necessary for recycled water discharges used in groundwater recharge reuse projects.

The Draft Policy contends that numeric effluent limits are not necessary for groundwater recharge reuse projects when certain constituents are predicted to attenuate in the soils. Draft Policy at 2. Further, the Draft Policy allows for a groundwater limitation in lieu of an effluent limitation. Draft Policy at 5. This provision is inappropriate and will allow for a complete loss of compliance assurance. Numeric effluent limits and associated monitoring is necessary to ensure that high quality effluent is maintained and that water quality degradation does not occur. Thus, the State Board should instead require numeric effluents for pollutants of concern.

The Draft Policy should require a full anti-degradation analysis when a 10% or greater decrease in the remaining assimilative capacity of the groundwater basin is determined.

As stated in the Staff Report, compliance with State Board Resolution No. 68-16, *Policy with Respect to Maintaining High Quality Water* ("Anti-degradation Policy"), must be considered when developing a water recycling policy. The Anti-degradation Policy states that waste discharge requirements must "assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained." The Draft Policy contends that dischargers that comply with the Water Recycling Policy will meet the Anti-degradation Policy requirements. This type of blanket compliance

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with the Anti-degradation Policy is inappropriate, as many aspects of the Draft Policy are very general and subjective and do not ensure that high water quality will be maintained.

The Los Angeles Regional Water Board addressed the anti-degradation/water recycling conundrum during a series of stakeholder meetings over the last nine months. In preparation for these meetings, the Los Angeles Regional Water Board evaluated anti-degradation requirements from across the country and presented these findings to the group. Together the group of stakeholders, including the Regional Water Board, water suppliers, water providers, and environmental groups, agreed with the concept that no project should cause more than a 10% decrease in the remaining assimilative capacity of the groundwater basin. Also, multiple projects should not cause more than a 20% reduction in assimilative capacity. Regulators need assurance that water quality is protected, and in order to promote water reuse, dischargers should be allowed a small margin of degradation before full anti-degradation analysis is required. This approach was an enormous compromise on the part of the Regional Board and the environmental community for the purpose of promoting water reuse while protecting drinking water from major degradation. Thus the State Board should take this approach in the Draft Policy, instead of providing a blanket statement of anti-degradation compliance.

The Draft Policy should include more detailed requirements for the development and implementation of a nutrient management plan.

The Draft Policy requires that water recycling permits include requirements for the development and implementation of a nutrient management plan. Draft Policy at 4. As stated in the Staff Report, the implementation of nutrient management plans helps to reduce the discharge of nitrate to water by estimating the nutrient needs of the crops and tracking the amount of nitrogen that is applied to the crops. However, the Draft Policy fails to include a timeframe for developing and implementing the nutrient management plan and any other specifics about what the plan should include. In addition, the Draft Policy does not specify the nitrate levels that the dischargers should meet through the implementation of these plans. For example, many receiving waters have a water quality objective of 10 mg/l for nitrates/nitrites to protect drinking water while other waterbodies have more stringent limits due to the 303(d) listing decisions or TMDLs. The State Board should clarify the expectations, in order to ensure that management plans protect water quality and are of the same high caliber among different dischargers.

The Draft Policy should address emerging contaminants.

The Draft Policy focuses on TDS and nitrates as the main constituents of concern in recycled water. There is no mention of emerging contaminants throughout the entire Draft Policy. This omission is extremely shortsighted. Although we are only beginning to understand the extent of emerging contaminants such as personal care products and pharmaceuticals in the water supply, we do know that these constituents may be a major health or ecological risk and the concentration of these constituents are increasing. Fifteen years ago there was no extensive discussion about perchlorate and MTBE, but now these constituents are causing major groundwater contamination problems throughout the Country. The State Board must create a Water Recycling Policy that will last for many years. Thus, it is prudent that the Draft Policy include discussion and infrequent (annual) monitoring requirements for emerging contaminants.

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Monitoring is especially important for projects that supply recycled water for indirect potable uses.

Heal the Bay urges the State Board to modify the policy to ensure that water reuse in the State is maximized without threatening water quality in the years to come. Regulatory hurdles have not been the reason for slowed growth of water reuse in most regions. The lack of public confidence in reclaimed water is a far greater issue. "Toilet to Tap" arguments have been pervasive in Los Angeles, Los Angeles County and San Diego. A strong statewide water reuse policy that provides consumers confidence through monitoring programs, groundwater quality protection and a multistakeholder support network is critical to success. California's water crisis is only going to get worse and water reuse, conservation, and stormwater recharge are the most critical solutions to this crisis.

We look forward to working with you on this critical issue. Of all the issues we mutually face, water reuse should be an easy solution to a difficult problem that we can all support.

We thank the Board Members for this opportunity to comment on the Draft Policy. If you have any questions, feel free to contact us at 310-451-1500.

Sincerely,

Mark Gold, D. Env.
President

Kirsten James, MESM
Water Quality Director