FOCUSED STAKEHOLDER GROUP COMMENTS ON STATE ANTIDEGRADATION POLICY

October and November 2013

(Number after comment indicates related agenda items as listed at end of document)

The following bullet points summarize opinions and concerns expressed by the invited stakeholders, and are not intended to reflect the position of the Water Boards or staff on any issue.

Dairy and Agriculture Dischargers

- Non-regulatory guidance may not provide enough certainty.
- The State Water Board should limit this effort to groundwater.
- The State Water Board should not delay acting on petitions pending development of a groundwater policy. The Water Boards, rather than the courts, should decide policy issues.
- The agriculture industry has long recognized the need for good quality water.
- Using the date an objective or policy was adopted as baseline is difficult due to data gaps. (1)
- A basin-wide approach should be used; it is not feasible to use a facility-by-facility approach. Source determination is not feasible, in part due to decades-long transport time in some cases from surface discharge to groundwater. (2)
- Water Board policy should recognize that agriculture will continue in California. (6)
- A two-step approach must be used: allow lawful, continuing land use that impacts beneficial uses, but also address the degradation or potential degradation that results from the land use. This could be addressed through mitigation and/or a commitment to manage the groundwater basin. Consider adopting a Water Board resolution to capture this concept as a guiding direction for staff. (6)
- If the agriculture industry is minimizing their impact, it should not be necessary to decrease productivity; decreasing productivity would reduce the industry's economic means to mitigate impacts. (6)
- Addressing drinking water problems in the areas where food is grown is the number one issue. Growers are already addressing drinking water problems on their land. (6)
- Not all constituents should be treated the same. Salt is more difficult to remove than nitrates, and does not pose a human health risk. (6)
- Maximum benefit should consider the value of agriculture to the economy. (7)
- Agricultural regulatory programs are heavily predicated on management practices, which must be affordable. (8)
- An iterative approach is necessary. One option is to consider dischargers in compliance as long as management practices are implemented or alternatively, as long as dischargers comply with iterative process requirements, even if they are not yet meeting water quality objectives. Dairies may need additional time to develop management practices. (8)
- Use a coalition approach or other process so the Regional Water Boards do not have to be solely responsible for oversight of each individual grower. The coalitions have provided assurance by pinpointing issues of concern in surface water if limits are exceeded, meeting with

every grower in the watershed, and reporting back to the Regional Water Boards. This would be more difficult with groundwater. (8)

- Large growers have the ability to use research to get a better crop with less fertilizer and less water; this is the sweet spot to capture in a policy. Reducing nitrogen impacts does not necessarily lead to reduced productivity and may increase productivity. (8)
- The point of compliance should be the first usable aquifer, not the shallowest groundwater. However, waste continues to migrate to lower aquifers. (9)
- The Water Boards should look at where municipal and domestic supply (MUN) is actually occurring and not where it is only a potential use. (9)
- Additional clarity is needed regarding how representative monitoring programs comply with *Asociacion de Gente Unida por el Agua v. Central Valley Water Board* (*AGUA*). (9)

Environmental Groups

- Consider other states' guidelines, such as those of Arizona, New Mexico, and Ohio, in revising California's antidegradation guidelines (2008).
- The State Water Board should consider performing routine audits of the Regional Water Boards' implementation of 68-16 (2008).
- The Water Boards have Resolution 68-16 and guidance in place, but have not generally required a rigorous antidegradation analysis, especially for groundwater. This must be done at the outset of a permit or program. There is no need to re-open Resolution 68-16.
- The Regional Water Boards need more expertise to provide antidegradation analyses.
- Individual permits should be analyzed on a watershed basis to avoid allocating the same assimilative capacity to multiple permittees.
- Dischargers should not be allowed to use the entire assimilative capacity as the default, i.e., water quality objectives should not be the presumptive permit limits.
- The purpose of an antidegradation analysis is to make decisions with eyes wide open. Guidance should ensure that antidegradation analyses serve that purpose.
- The cost of antidegradation analysis should be built into permit fees.
- Dischargers should provide monetary support for safe drinking water. The permitting process should examine what degradation the Water Boards are allowing and what the costs will be to dischargers and users, with estimates of those costs.
- The State Water Board should address Environmental Law Foundation's petition to classify Wild and Scenic Rivers as Tier 3.
- Limit degradation to establish a buffer to anticipate the effects of climate change and other sources.
- The Rice Commission's program has been successful over the last decade and may be useful as an example.
- Baseline is difficult to determine because of past discharges and a lack of monitoring upstream and at the source sites. (1)

- In order to determine whether a water body is high quality, it is only necessary to determine whether water quality was better than applicable objectives at any point. (1)
- The current degraded condition should not be used as the antidegradation baseline. The State Water Board could establish baselines for water bodies, and designate which waters are high quality. GAMA should work with Regional Water Boards to establish baseline. (1)
- Major portions of analyses could be done when general orders are issued. The analysis could be fine-tuned for smaller areas. The irrigated lands program should not punt the antidegradation analysis until after the order is implemented, but should predict a range of degradation based on permit requirements and management practices, such as the 1.4 range used for dairies. (5)
- Guidance for how Regional Water Boards and dischargers should approach an antidegradation analysis and the value of doing this analysis would be useful. This is particularly important for general orders but needed for individual orders as well. (5)
- The current way agriculture is practiced might not be sustainable. (6)
- Coalition monitoring is inadequate to inform the public what is happening at individual farms, and monitoring points are too far apart to capture all upstream impacts. (6)
- Consolidate treatment systems to minimize cost. (6)
- Cost analyses need to consider costs to water users, dischargers, the environment, and socioeconomic factors. The Water Boards should only allow degradation under circumstances where there are obvious offsetting benefits to everyone. (7)
- The determination of what is BPTC should not depend upon dischargers' ability or willingness to pay, but on what reasonably can be done. (8)
- The BPTC study done for the Central Valley Water Board's dairy permit is a good example of what should be done. (8)
- Monitoring should establish baseline, check best practicable treatment and control, and quantify allowable degradation. All permits should require a robust monitoring program. *AGUA* requires a monitoring program to verify compliance. (9)

Water Districts and Purveyors

- The policy should allow for groundwater basins to be classified as Tier 1 (waters achieving water quality standards), and the APU should be revised to discuss the conditions that would allow a Tier 1 classification for certain constituents (2008).
- Resolution 68-16 should apply to basins that do not meet water quality objectives, as well as high-quality waters; it can be used to require responsible parties to clean up sites and reduce total dissolved solids.
- Antidegradation should not be treated as "non-degradation" – maximum flexibility should be allowed so long as public health is addressed and protected, even if that means degradation of raw/untreated water characteristics that get "fixed" through treatment or natural filtration/residence time.
- Water districts want to manage basins in a long-term planning effort with a focus on conjunctive and recycled water use, and improvement of overall basin water quality over time.

- Purveyors need the flexibility to have some portions of the basin absorb short-term impacts while other portions are improving water quality.
- Flexibility in local control should come with responsibility, accountability, and transparency.
- Watershed-based analysis is necessary given existing groundwater pollution, climate change and overdraft. Groundwater recharge must be maximized.
- A watershed-based approach needs to start with a true baseline, which will require monitoring. (1)
- Low-threat, short-term discharges should require a lower level of analysis. (3)
- Recycled water that meets drinking water standards is appropriate for recharge. Acknowledge that there will be disinfection byproducts and require monitoring but not treatment. (4)
- It is unclear how to use salt/nutrient management plans to support recycled water projects. (4)
- Water quality objectives and analyses should take into account the increase in salts as water is reused further down the watershed. (4)
- The Antidegradation Policy should not be a barrier to important recycling projects, but should be used to advance water management capabilities going forward. (4)
- Groundwater recharge into basins south of the Delta is necessary to reduce reliance on the Delta. (4)
- The duration of the project needs to be considered in permitting recharge projects. (4)
- Templates and case studies could be useful in antidegradation analyses. (4)
- Water districts should not have to bear the cost of a problem created by someone else. (6)
- Financial or other incentives are needed to create watershed-based management that results in reductions in pollution loads. (6)
- State Water Board should evaluate applicability of USEPA guidance documents such as Interim Economic Guidance for Water Quality Standards, March 1995, to address role of socioeconomics in antidegradation analysis (2008). (7)
- The concept of maximum benefit should be defined and expanded as a more holistic, integrated option or approach. (7)
- It may be to the maximum benefit of the people of the state to recharge basins with storm water even though it does not meet water quality objectives, or to save water from evaporation while picking up some minerals during recharge. (7)
- There needs to be a more practical interpretive structure that will vary depending on available data and the value of the resource. (7)
- ACWA can provide technical assistance to incentivize industry to scale up best practices. (8)
- The GAMA program can be used to look at data from prioritized wells. (9)
- Monitoring will be difficult for small districts and areas where basins are not managed. (9)
- Surrogates can be used to reduce the cost of monitoring. (9)

POTW Dischargers

- Our challenge is that protecting uses such as agriculture and municipal uses may eliminate the uses. The water must be protected, but still used.

- Linking salt/nutrient management plans and the Recycled Water Policy makes people think that recycled water agencies and users need to take more responsibility to protect groundwater than other stakeholders. Recycled water is not the primary reason for doing a salt/nutrient management plan.
- If there is recognition that some areas will be permitted to continue degrading, POTWs will be ready to do their part to improve the basin on a net basis.
- Recycled water should be managed as a resource, not a waste.
- Missing data may require the use of existing data as baseline. (1)
- Baseline considerations should include four dimensions, including length, width, depth, and time. (1)
- In determining baseline, it is necessary to determine the cause of changes in background, which may fluctuate for reasons unrelated to a particular discharger. (1)
- Thresholds such as those in the Recycled Water Policy should be established for small dischargers. Low-threat discharges should not require antidegradation analysis unless they are close to a sensitive use or not meeting water quality objectives. (3)
- Smaller treatment facilities with pristine basins and recycled water want to be looked at on a local, not basin-wide, basis. In areas of naturally high salinity, the discharges need to be considered on a basin-wide basis. (4)
- APU 90-004 should be updated for surface water and groundwater so dischargers can prepare an analysis and know if a project is feasible.(4)
- Once an antidegradation analysis is completed, dischargers should not have to update it for permit renewals. (4)
- The constituent-by-constituent analysis is a challenge. Limit the focus to probable compounds for which there are water quality objectives. (4)
- Consider adopting general orders without an antidegradation analysis, then requiring the enrollee to submit the analysis with their notice of intent; or limiting the analysis for a general order to statewide constituents of concern, with a site-specific analysis upon enrollment. (5)
- Salt cannot be cost-effectively removed, particularly in small communities. Trading salt loading would help offset some of the costs of a small community. (6, 8)
- It may be more cost-effective to treat the water at the point of use than in the basin. (6)
- The wastewater community will take responsibility for their impacts. (6)
- It will be easier to evaluate costs and benefits on a basin-wide basis. (7)
- The framework for maximum benefit should focus on economics, and recognize broad benefits and costs, including energy efficiency. (7)
- The level of monitoring should match the level of the threat to groundwater quality. (9)
- Sample at existing facilities to monitor compliance because monitoring wells can become a conduit for surface water, and monitoring costs are too high. (9)
- Measuring point of compliance at first groundwater may not be appropriate. (9)

Site Cleanup

- Site cleanup activities are not done under permits, so permitting will not get at the issue.

- The primary impact of the Antidegradation Policy on DOD is restoration, as it is an ARAR (applicable or relevant and appropriate requirement).
- Resolution 68-16 and Resolution 92-49 sometimes require clean up to background or a level far below what CERCLA requires, and clash with risk-based cleanup decisions. Clean-up levels should be cost-effective and risk-based.
- Eliminate unreasonable regulation, and balance preserving the environment with the best interests of our mission and resources.
- Expand the concept of the Low-Threat Closure Policy to non-UST sites.
- The Antidegradation Policy should not apply to groundwater cleanup sites, because the water is already degraded; there are other mechanisms to handle that degradation.
- The State Water Board should consider specific criteria for near-surface waters that are already degraded and won't be used.
- Solicit comments from the Governor's military liaison office.
- Hydrocarbons are not naturally occurring, so background or baseline is not relevant to cleanup. (1)
- There is currently no guidance to follow for groundwater antidegradation analysis. (2)
- A groundwater policy should consider what happens to storm water that is retained and percolated. (4)
- The Sources of Drinking Water Policy says that all water needs to be protected, irrespective of greater good to the state. (7)
- Allow extraction, treatment, and discharge of water that exceeds water quality objectives due to naturally occurring conditions as a maximum benefit to the state. (7)
- Evaluation of maximum benefit needs to be balanced with protection to human health and the environment based on risk. (7)
- Wellhead treatment may be a more viable economic option for maximum benefit, because the discharger only incurs costs when there is an actual use of water; this is preferable to incurring costs to protect an unknown future use. (7)
- Allow remediation to terminate when the engineered remedy has been maximized for cost effectiveness (do not exceed point of diminishing returns); the Antidegradation Policy should not drive cleanup goals. (8)
- BPTC analyses should focus on risk to the environment and human health. (8)
- Figure out how to monitor using fewer wells. (9)

Food Processors and Wineries

- Industry needs clearer guidance on what is high quality water. Modify beneficial use designations where water quality does not meet MUN objectives. The Antidegradation Policy should not apply to water that has been naturally degraded.
- The Water Boards could look at ways of ranking changes to water quality and how they impact beneficial uses. For instance, health impacts and taste/odor impacts could be ranked differently.

- 1968 is a very impractical baseline due to data gaps and legacy pollution. A more appropriate baseline would be one for which data is available. Consider establishing a ten-year look-back period. (1)
- The most important constituents are total dissolved solids, electrical conductivity, arsenic, and fluoride; some of these are naturally occurring elements or parameters over which dischargers have no control. (1)
- Regional data, rather than site-specific data, could be used for baseline for both individual and general orders. (1)
- Variability of first-encountered groundwater is tremendous, especially in floodplains near rivers; this makes baseline determination difficult. Use of first-encountered groundwater to determine baseline is not reliable. (1)
- Establish a standard for baseline determination, including statistical analysis. (1)
- Risk could be analyzed by hydrogeology and vertical gradients in certain areas; the risk would determine the need to protect groundwater at deeper levels. (2)
- General orders are a benefit to the industry. Evaluate hydrogeology and assess impacts on a basin-wide basis. (5)
- Consider whether there is an actual drinking water use in analyzing maximum benefit. (7)
- Recognize water reuse, and use for crop production, as benefits. (7)
- Place more weight on providing jobs for disadvantaged communities, and contribution to the local economy. (7)
- Take into account the imputed cost of salinity impacts. (7)
- The cost of reverse osmosis will make the industry uncompetitive. (8)
- BPTC is very site-specific in the food processing industry. The California League of Food Processors put together a manual of best practices based on variables such as soil type. The California Wine Institute has published guidelines for land application of winery process water. These studies can be used to guide BPTC determinations. (8)
- Consider EPA's highly-developed methodology for BPTC for use in groundwater analyses. (8)
- BPTC should be determined based on risk to groundwater, not size of the site. (8)
- The industry relies on research, outreach, and education for best practices. (8)
- The Water Boards should provide incentives for reduction of monitoring requirements. (9)
- Monitor for compliance (protecting beneficial use) in the water that is beneficially used, not first groundwater or shallow perched aquifers. Codes require sanitary seals on wells to 50 feet, yet the Water Boards require monitoring shallower perched aquifers. The industry recognizes discharges to the shallow zone could impact deeper water over time. This could be addressed by other means, such as using trigger wells to require follow-up actions, but not to determine violations if a current beneficial use is not impacted. (9)
- Vadose zone monitoring with lysimeters is expensive and has not provided accurate results. Soil monitoring has been more effective. (9)

<u>Agenda Items</u>

1. Determination of baseline for analysis

2. How to incorporate complex flow patterns and slow mixing rates in groundwater into analyses
3. Lower level analyses or exemption for small, low threat discharges
4. Type of analysis for water recycling and reuse projects
5. Conducting analysis for a general order
6. How to deal with groundwater degradation associated with permitted intensive land uses like agriculture and urbanization
7. How to evaluate “maximum benefit to the people of the state”
8. How to evaluate “best practicable treatment or control”
9. How to monitor compliance