

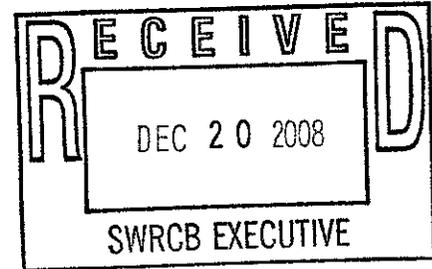


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December 19, 2008

Jeanine Townsend
Clerk to the Board
Executive Office, State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100



Subject: Comment Letter – proposed Recycled Water Policy

Dear Ms. Townsend:

Attached you will find comments to the proposed Recycled Water Policy for consideration. To assist you with review of the comments, comments have been itemized to include references to the Corresponding Proposed Recycled Water Policy Statement, the Comment and a Discussion to clarify the Comment. Not all comments contain a Corresponding Proposed Recycled Water Policy Statement or a Discussion.

Item 1

Corresponding Proposed Recycled Water Policy Statement (paragraph 2.b)

“It is the intent of the State Water Board that all elements of this Policy are to be interpreted in a manner that fully implements state and federal water quality laws and regulations in order to enhance the environment and put the waters of the State to the fullest use of which they are capable.”

Corresponding Proposed Recycled Water Policy Statement (paragraph 6.a.1)

“Some groundwater basins in the State contain salts and nutrients that exceed or threaten to exceed water quality objectives established in the applicable Water Quality Control Plans (Basin Plans), and not all Basin Plans include adequate implementation procedures for achieving or ensuring compliance with the water quality objectives for salt or nutrients.”

Comment 1

The State Water Board should reconcile its Recycled Water Policy with 1) its regional Basin Plan requirement for salt and nutrient management and 2) with the applicable State and federal water quality laws and regulations, in a manner that is clear to stakeholders. Although the requirement for a regional Basin Plan is part of the CWC, its placement within the context of regional, State or federal requirements is not clear, inconsistent, and subject to interpretation.

The Basin Plans contain regional requirements for levels of salt and nutrients that are far more stringent and than generally applicable State law and regulations. However, the State also limits options available



to Regional Water Boards to address salinity. The following provision is incorporated into the CWC and is cited as being an inconsistency between the proposed Recycled Water Policy, Basin Plans and the applicable laws and regulations.

“13523.5 A regional board may not deny issuance of a reclamation requirement to a project which violates only a salinity standard in the basin plan.”

An order of precedence would be beneficial to clarify and interpret the relationship between the regional Basin Plan and applicable State and federal water quality laws and regulations.

Discussion

The State and federal laws and regulations and Basin Plans are cited as part of the proposed Recycled Water Policy. The technical feasibility and cost of achieving the salt and nutrient goals of the Basin Plans places a significant burden upon the affected stakeholders. When the Regional Water Board applies restrictive regional basin standard, the generally applicable State and federal laws and regulations are being superseded. Without an order of precedence, the interrelationship between the Basin Plan, and State and federal law is not clear to stakeholders.

Because the salt and nutrient goals established in the regional Basin Plans are generally far more stringent than the applicable State or federal law, the Basin Plan should be recognized (clarified) as being implemented by the State Water Board by precedence as a means to protect the surface and ground waters of the State. In cases where the Basin Plan water quality goals exceed the applicable State and federal law (e.g. a coastal salt marsh within the basin), the basis for the deviation should be justified.

Existing water quality laws and regulations (e.g. CWC 13523.5) for water recycling (reclamation) do not effectively address salinity control, (and as shown, can be interpreted to specifically exclude potentially beneficial salinity control practices associated with the proposed Recycled Water Policy) whereas Basin Plans are primarily structured as a means to control salt and nutrients. Reconciliation of Recycled Water Policy with Basin Plan goals is needed.

Item 2

Corresponding Proposed Recycled Water Policy Statement (paragraph 6.a.2)

“The State Water Board finds that the appropriate way to address salt and nutrient issues is through the development of regional or sub-regional salt and nutrient management plans rather than through imposing requirements solely on individual recycled water projects.”

Corresponding Proposed Recycled Water Policy Statement (paragraph 6.b.1.b)

“Salt and nutrient plans shall be tailored to address the water quality concerns in each basin / sub-basin and may include constituents other than salt and nutrients that impact water quality in the

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basin / sub-basin. Such plans shall address and implement provisions, as appropriate, for all sources of salt and/or nutrients to groundwater basins, including recycled water irrigation projects and groundwater recharge reuse projects.”

Comment 2

There appears to be a conflict between paragraphs 6.a.2 and 6.b.1.b. In the first statement it is policy not to impose “requirements solely on individual recycled water projects”. This position appears to be inconsistent with the “address and implement” provisions of Basin Plans where recycled water irrigation projects and groundwater recharge projects are applicable to achieving the salt and/or nutrient goals of a “tailored” Basin Plan. It is not understood how recycled water irrigation projects can be used to “address and implement” a “tailored” Basin Plan when salinity is excluded from consideration under CWC 13523.5. Under the current practice, it can be envisioned that a Stakeholder could propose a recycled water project to avoid compliance with salinity requirements contained in the Basin Plan. Provisions such as CWC 13523.5 which are intended to support recycled water projects have the potential for the unintended consequence of impeding the objectives of the Basin Plan, and/or unfairly shifting the burden of Basin Plan goal attainment to other stakeholders.

Discussion

Paragraph 6.a.2 is viewed as being overtly presumptive in favor of the water recycling project, which could be detrimental to regional or sub-regional basin or sub-basin salt and nutrient management plans. It is suggested that to exclude individual recycled water projects (e.g. impose requirements solely on individual recycled water projects) as part of the overall regional or sub-regional salt and nutrient Basin Plan is inconsistent with the objectives of the State Water Board or Regional Water Board. In making this policy statement, it is suggested that the State Water Board or Regional Water Board is excluding a potential means to achieve the goals of the regional or sub-regional salt and nutrient basin or sub-basin management plan. It is not clear as to how and why a recycled water project can be supported by the Regional Water Board if it is shown to be “significantly detrimental” to the Basin or Sub-Basin plan for salt goals. It is suggested that the Regional Water Board should be given the flexibility to consider the regional or sub-regional salt and nutrient management as part of the overall Basin or Sub-Basin Plan for a recycled water project as stated in paragraph 6.b.1.b.

Item 3

Corresponding Proposed Recycled Water Policy Statement (paragraph 6.a.1)

“not all Basin Plans include adequate implementation procedures for achieving or ensuring compliance with the water quality objectives for salt or nutrients.”

Comment 3

The proposed policy does not specifically address the removal of salt beyond the extent to which the proposed project affects the applicable federal and State laws that are relevant to the Basin or Sub-Basin



plan. It is suggested that the Recycled Water Policy consider a policy approach that facilitates cooperation between stakeholders to attain the Basin or Sub-Basin salinity or nutrient objectives in a cost-effective manner.

Discussion

As an example, Stakeholder A wishes to proceed with a project that will substantially reduce salt to levels far below Basin or Sub-Basin plan objectives at cost effective levels. Yet Stakeholder B located in the same Basin or Sub-basin is unable to achieve cost effective salt removal because of inherent limitations including geography or size. In this case, the mutual benefit is for interagency cooperation to achieve the Basin or Sub-basin objectives in the most appropriate and economical manner possible. Cooperation among stakeholders A and B within a Basin or Sub-Basin will facilitate the best projects in the most cost effective manner for the State.

Item 4

Comment 4

Because it may be a more cost effective alternative to recycled water salt and nutrient treatment and management strategies, source water quality control and/or treatment should be incorporated as part of the Recycled Water Policy approach.

Discussion

In developing standards for achieving basin goals, it is agreed that the Regional Water Board should develop a holistic approach (as denoted in the draft staff report) that considers background source water quality, acceptable limits for salt and nutrient increases due to municipal water use, available management practices to mitigate salt and nutrient increases by urban and industrial users, treatment approaches and cost effectiveness, storm water effects, disposal costs, environmental impacts and other considerations. There is a need to recognize that water and wastewater issues are inherently interrelated and that cooperation between stakeholders may yield beneficial and innovative results.

Item 5

Comment 5

Imported water that exceeds the salt limits established in the Basin Plan is a potential source component of recycled water that is subject to the Recycled Water Policy and the anti-degradation and maximum benefit calculations. The Recycled Water Policy should address the impact of imported water on the Basin Plan and recognize that it may be problematic for the affected stakeholders. Although it is not directly related to Recycled Water Policy, the use of the secondary drinking water standards (22 CCR 64449) (by inference or reference), and the waiver of the salinity standard affects stakeholders considering recycled water projects. Colorado River water has historical TDS levels in the range of 500 to 700 mg/L, above the "maximum recommended" secondary drinking water standard of 500 mg/L. State

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Water Project water is historically in the range of 250 to 400 mg/L. Water that is subject to municipal use will exhibit a further increase in salinity (generally stated as 180 to 350 mg/L TDS) prior to treatment and/or discharge or recycling. Given that the limits established in the some Basin Plans can be below 250 mg/L TDS, current discharges or water recycling projects that contain imported water may be severely restricted or contingent upon other factors such as storm water effects and seasonal flows, or necessitate salt removal to comply with the Basin Plan.

Item 6

Comment 6

The proposed Recycled Water Policy does not address the disposal of salts removed from the Basin Plan. The Recycled Water Policy should recognize that the disposal of salts can be particularly troublesome for inland based sources. These sources do not have access to a cost effective means of disposal. For these stakeholders, the access to a cost effective means of disposal (e.g. a regional brine line) should be considered and supported by the State. The Recycled Water Policy should support regional salt and nutrient disposal options and projects that facilitate the achievement of Basin Plan.

Discussion

In terms of salt management, the situation of a coastal basin is different than that of an inland basin, where brine treatment and disposal costs are significantly higher. In some cases the development of a regional brine line for use by multiple stakeholders within a basin may be in the best interest of the stakeholders and a necessary component to achieve basin goals in a cost effective manner. It is suggested that this approach should be supported by a policy statement. The Recycled Water Policy should recognize that the attainment of the Basin Plan water quality objectives in an economic manner may necessitate the development of regional brine lines where applicable.

Item 7

Corresponding Proposed Recycled Water Policy Statement (paragraph 9.c)

Nonetheless, the State Water Board finds that groundwater recharge projects using recycled water have the potential to lower water quality within a basin. The proponent of a groundwater recharge project must demonstrate compliance with Resolution No. 68-16.

Comment 7

The Recycled Water Policy should recognize that a groundwater recharge project and a landscape irrigation project have substantially different impacts upon the Basin Plan. Although it is conceivable that a groundwater recharge project has "the potential to lower water quality within a basin," the overwhelming reality based upon constructed projects in California, and specifically for those projects involving advanced treatment (e.g. reverse osmosis), is that groundwater recharge is being used to improve basin water quality. The concept that a groundwater recharge project has the "potential to lower

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water quality" as a basis to demonstrate compliance with 68-18 is understood, but hypothetical, and the lack of a corresponding finding that a groundwater recharge projects have *the demonstrated ability to improve water quality within a basin* within the Recycled Water Policy is not understood.

When a groundwater recharge and landscape irrigation projects are compared, landscape irrigation projects are generally more neutral (and potentially detrimental if CWC 13523.5 is applied) to meeting the goals of the Basin Plan. Streamlined permitting as described in paragraph 7.c.3 (compliance with salt and nutrient management plans) will be problematic for numerous utilities because of recycled water salt levels in comparison to Basin Plan goals. As such, the ability to achieve the goals of the Basin Plan is contingent upon those projects that address salt and nutrient concerns in a positive manner and priority consideration should be given to recycled water projects that reduce salt and nutrient levels within the relevant area of the Basin Plan.

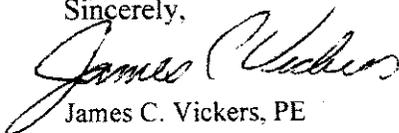
Item 8

Comment 8

The Recycled Water Policy use should consider the constituents of the recycled water and its intended use. The Recycled Water Policy generally assumes that all recycled water is acceptable for landscape irrigation purposes, regardless of salinity. While this is generally accepted, there are plants and grasses that have sensitivity to certain constituents (e.g. sodium and/or chloride) that comprise the recycled water. Under such circumstances, the use of recycled water would be detrimental to the health of plants and grasses.

If you have any questions regarding the above comments, please contact me.

Sincerely,


James C. Vickers, PE
Vice President