

Protecting Groundwater Quality in the Tulare Lake Basin

**East San Joaquin Order Proposed EJ Edits and State
Antidegradation Policy Overview**

Presented by:

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Major problems with the order:

1. Lack of public review and input
2. Inadequate requirements for baseline information to determine degradation.
3. Compliance Limitations Inadequate



...Key water quality plans and programs will be developed and approved without any public review or input

- Groundwater Assessment Report
- Establishment of and changes to high and low vulnerability areas for groundwater
- Trend Monitoring Plan
- Management Practices Evaluation Program

...and reporting requirements reduced

Draft order, page 25, Section VII.B.2.

After 1 March 2017, the Executive Officer may approve reduction in the frequency of updates and submission of Farm Evaluations, if the third-party demonstrates that year to year changes in Farm Evaluation updates are minimal. and the Executive Officer concurs that the practices identified in the Farm Evaluations are consistent with practices that, when properly implemented, will achieve receiving water limitations or best practicable treatment or control, where applicable.

... with insufficient justification or notice

Page 25, section VII.2.b

After 1 March 2017, the Executive Officer may approve reduction in the frequency of submission of Nitrogen Management Plan Summary Reports, if the third-party demonstrates that year to year changes in Nitrogen Management Summary Reports are minimal. and the Executive Officer concurs that the implemented practices are achieving the performance standard (see section IV.B.8).

Proposed Changes

At a minimum:

Require same requirements for public review and input as required now for templates and groundwater management plans for the following key plans, programs and fundamental changes in requirements:

1. Groundwater Assessment Report
2. Trend Monitoring Plan
3. Management Practices Evaluation Program
4. Changes in groundwater vulnerability designations
5. Changes in requirements of frequency for farm management plans and nutrient management plan reporting



Inadequate requirements for baseline information to determine degradation

No requirement for establishing baseline for enforcement of anti-degradation policy

Draft order, Page 29, VIII D.

Groundwater Quality Assessment Report and Evaluation/Monitoring Workplans:...

...the GAR must include the following...

Provide data to identify the best water quality since 1968 for purposes of applying/enforcing the state's antidegradation policy (resolution 68-16)

No requirement for tracking degradation of high quality waters through trend monitoring plan

Page 30, VIII.D.3

Groundwater Quality Trend Monitoring Workplan

.... The overall objectives of groundwater trend monitoring are to determine baseline quality of groundwater relevant to irrigated agriculture and develop long-term groundwater quality information that can be used to evaluate the regional effects of irrigated agricultural practices, and to identify any degradation that occurs relative to the 1968 baseline established in the GAR.

...

Not even requirements to identify all constituents related to ag discharges – specifically, pesticides, and include in monitoring program

Table 3: Trend Monitoring Constituents ...

Trend monitoring wells are also to be sampled initially and once every five years thereafter for the following COCs:

Total dissolved solids (TDS) (mg/L)

General minerals (mg/L):

Anions (carbonate, bicarbonate, chloride, and sulfate)

Cations (boron, calcium, sodium, magnesium, and potassium)

Pesticides used by nearby irrigated agricultural operations and pesticide degradation products that are (1) listed on DPR's 6800(a) & 6800 (b) lists of pesticides likely to reach groundwater (2) listed in the relevant basin plan and (3) on neither list but known to have health impacts, including, but not limited to

TCP-123

Proposed changes:

At a minimum:

1. Require the GAR to provide data to identify the best water quality since 1968 for purposes of applying/enforcing the state's antidegradation policy (resolution 68-16)
2. Require trend monitoring plans to include trend monitoring for all Constituents of concern identified in the GAR, and to identify any degradation that occurs relative to the 1968 baseline established in the GAR



Compliance Limitations Inadequate

Fails to comply with Anti-
degradation Policy or the Basin
Plans

Receiving water limitations do not meet legal requirements.

Draft Order, page 17, III.B.

Wastes discharged from Member operations shall not cause or contribute to an exceedance of applicable water quality objectives in the underlying groundwater, unreasonably affect applicable beneficial uses, or cause or contribute to a condition of pollution or nuisance.

But allows at least up to 10 years of continued contribution to exceedences, pollution or nuisance.

Unlikely even to be able to meet the 10 year compliance std given the requirements in the order.

Attachment B, MRP, IV.B.4, Page 164. Management Practices Evaluation Report. No later than ~~six (6)~~ three (3) years after implementation of each phase of the MPEP, the third-party shall submit a Management Practices Evaluation Report (MPER) identifying management practices that are protective of groundwater quality for the range of conditions found at farms covered by that phase of the study.

Not collecting information sufficient to determine impact to water quality (degradation)

Attachment B, MRP, V.C,
Page 22-23

The third-party shall aggregate information from Members' Nitrogen Management Plan Summary Reports to characterize the input, uptake, and loss of nitrogen fertilizer applications by specific crops in the Eastern San Joaquin River Watershed. The third-party's assessment of Nitrogen Management Plan information must include, at a minimum, comparisons of farms with the same crops, similar soil conditions, and similar practices (e.g., irrigation management). This information will include a summary of nitrogen consumption ratios by crop or other equivalent reporting units, and the estimated crop nitrogen needs for the different crop types **and total nitrogen application by farm and by crop.** The nitrogen consumption ratio is the ratio of total nitrogen available for crop uptake (from sources including, but not limited to, fertilizers, manures, composts, nitrates in irrigation supply water and soil) to the estimated crop consumption of nitrogen. The third-party will also provide the data submitted by their Members that were used to develop this summary in an electronic format, compatible with ArcGIS, identified to **at least the township level a spatial level consistent with the extent of the underlying aquifer and recharge area.**



Need to set goal to protect & improve existing water quality to achieve highest quality for max benefit of people of the state.

Need determination of what that max WQ is that may allow for some LIMITED degradation from best water quality since 1968, but still better than water Quality objectives, pollution and nuisance.



Fails to make adequate anti-deg findings

Needed Changes to Compliance standards

- 1) Delete footnote in the groundwater limitations allowing for up to 10 years compliance for exceedences of WQ objectives, nuisance or pollution.
- 2) Make clear in the timetable for compliance (Sec. XII. (pg37?))
“The time schedule identified in a GQMP for compliance ...may not exceed 10 years... for those water quality objectives and water quality criteria adopted after the effective date of the appropriate Basin Plan or otherwise allowed by the Basin Plan.”
- 1) Set baseline through GWQA and define level of degradation above that which is in max benefit.

Needed changes to Receiving Water Limitations:

(Pg 17 III A. &B.) MUST CHANGE TO set compliance in water limits as not exceeding that level of degradation which is in max benefit

Specific language: “Waste discharged from Member operations shall not cause or contribute to, :

Nor shall it cause exceedences of limited degradation or cause or contribute to a change in water quality that exceeds the highest quality of water consistent with the maximum benefit to the people of the state, except where Members are implementing an approved SQMP or GQMP for a specified waste parameter in accordance with an approved time schedule pursuant to Sections VII.H and XII of this Order.

OR

and shall minimize percolation of waste to groundwater and excess nutrient application relative to crop need.

Bottom Line Changes Needed:

1. Insert public review and input for key documents.
2. Requirements baseline information to determine degradation.
3. Correct Compliance Limitations