

Meeting Notes

Appropriate Beneficial Uses for Agricultural Dominated Water Bodies

May 3, 2012

9:00 AM - 3:00 PM

Location: Central Valley Regional Water Quality Control Board Office, 11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670: Training Room

Attendees:

California Department of Fish and Game (Fresno) – Rachel McNeal (*by phone*)

California Rice Commission - Roberta Firoved, Tim Johnson

Central Valley Water Board - Anne Littlejohn, Betty Yee, Calvin Yang, Heidi Bauer (*by phone*), Jerry Bruns, Jeanne Chilcott, Katie Bowman (*by phone*), Susan Fregien

Central Valley Clean Water Association - Debbie Webster

City of Biggs - Steve Speights

City of Colusa - Dale Klever, Jesse Cain

City of Live Oak - Bill Lewis, Ron Walker

City of Willows - Dan Rich (Nexgen Utility Management), John Wanger (*by phone*)

Delta Stewardship Council - Carl Lischeske, Mark Bradley

Larry Walker Associates - Tom Grovhoug

Northern California Water Association - Sacramento Valley Coalition - Bruce Houdesheldt

San Joaquin River Drainage Authority - David Cory

San Joaquin River Group Authority - Dennis Westcot

United States Environmental Protection Agency - Matthew Mitchell (*by phone*)

Meeting Objectives

- *Provide an update on the current monitoring program*
- *Provide an overview of the Inland Surface Water Plan*
- *Provide an overview of the Ag. Water Task Force*
- *Obtain participant feedback on past consensus items and recommendations*
- *Obtain participant feedback on the categorization of water bodies*
- *Brainstorming steps and components for developing a decision tree*

- Review any decisions made and identify action items and next steps.

Meeting Summary

Monitoring Program Update (PPT presentation available)

- Local Meetings and Site Surveys
 - Feb-March 2012 - Central Valley Water Board Staff met with local stakeholders (water districts, reclamation districts, coalitions, POTWs) in the Biggs, Colusa, Live Oak and Willows study areas.
 - March 2012 – Site surveys conducted in all four POTW areas. Findings:
 - No indication of MUN use
 - Ag. dominated areas with primarily construct Ag. drains and channels
 - Many diversions and re-use of water
- CV-SALTS Technical Advisory Meeting recommendations
 - In general, monitoring approach and questions approved
 - Better to monitor for more parameters than less for first 3 months
 - Critical reviews every 3 months, especially after first 3 months
 - Flow data not worth the expense
 - Policy issues need to be addressed by CV-SALTS Executive Committee and larger Ag. stakeholder group
- Monitoring
 - Reasonable Potential Analyses (RPA) were reviewed by Central Valley Water Board staff and constituents of concern (“key” constituents) identified
 - Note – City of Biggs has less RPA data available, not less constituents of concern
 - Monitoring 1x/month for key constituents and 2x/month for field measurements
 - Central Valley Water Board spending >\$12 K during first 3 months for lab costs
- Results for first sampling period (conducted week of April 16, 2012)
 - Specific Conductivity was lower than the secondary MCL, with exception of 2 upstream Powell Slough sites.
 - Nitrate as Nitrogen above primary MCL in Willows, Colusa and Live Oak effluent
 - Note – City of Biggs does not have nitrification so ammonia levels are higher; if Biggs nitrified, nitrate levels would be similar to other communities
 - Turbidity greater than secondary MCL at most sites
 - Sodium greater than EPA Drinking water Advisory at most sites
 - Aluminum results greater than secondary MCL at most sites
 - Manganese results greater than secondary MCL at most sites

Action Items:

- *Central Valley Water Board staff will post data results on website at http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/mun_beneficial_use/index.shtml*
- *Central Valley Water Board staff will need to research the question regarding the CA Public Health's position on the use of water for municipal purposes if the concentrations of drinking water constituents are greater than half the MCL.*
- *Central Valley Water Board staff will re-evaluate remaining budget in June to determine ability to include full nutrient scans and pathogen indicator analyses.*

Review of Inland Surface Water Plan (ISWP) [PPT presentation available]

- Background
 - 1991 Statewide Plan - Satisfied federal CWA to adopt water quality objectives for priority pollutants
 - Covered all surface water bodies
 - Set out program for implementation for agriculture
 - 1992 - Regional Board Report identifying ag dominated water bodies due
- Stakeholder participation
 - 700 agencies contacted, 60 area meetings conducted, over 350 reports covering 90% of Central Valley irrigated agriculture were submitted
- Water Body Categorization
 - Defined Drainage Basins
 - Identified categories of water bodies (B – Ag. dominated natural water bodies, C- Ag. dominated constructed water bodies)
 - One flow chart for categorization
 - Over 7,500 ag dominated water bodies identified
- Prioritized water bodies based on 5-criteria
 - Magnitude of existing beneficial use
 - Water body size (length)
 - Flow (perennial vs. intermittent and volume)
 - Degree of beneficial use impairment
 - Degree of threat to downstream water body

- Identified inappropriate numerical objectives
- What Happened?
 - ISWP approved by the Central Valley Water Board and submitted for State Board approval in 1992
 - ISWP rescinded in 1994
 - Public Advisory task forces convened to help develop new document in 1994; task forces had diverse stakeholder participation

Review of Ag. Water Task Force (AgWTF) [PPT available]

- Background
 - Purpose to address issues identified in 1991 ISWP
 - Total of Eight Task Forces were convened – Chapter 4 was Agricultural Waters
- Stakeholder participation in AgWTF
 - Representatives from major interest groups: POTWs, Stormwater, Industry, Agriculture, Environmental, Fish and Wildlife, Regulatory Boards, US EPA and Water Supply
 - Special additions of CA Dept. of Food & Ag. and CA Dept. of Pesticide Regulation
- Overall agreement
 - Agricultural water bodies are unique
 - They *may* not support full beneficial uses
- Outcomes
 - Use of *working* definitions
 - Twenty-one consensus recommendations
 - Options presented when consensus not reached (e.g., 5 flowchart options for categorization of water bodies)
 - Overarching policy issues identified
- What Happened?
 - Report provided to State Board in 1995
 - Revised statewide ISWP not developed
 - US EPA promulgated draft California Toxics Rule in 1997 and a final version in 2000
 - Issues identified by the AgWTF continue today
- Recent History
 - Change in the wording of the Basin Plan as to how Resolution 88-63 is to be interpreted and implemented – a Basin Plan Amendment is needed to apply exceptions to Drinking Water Policy.

Stakeholder Discussion

- **Questions that were raised:**
 - What type of process took place for the language related to applying exceptions to the Drinking Water Policy (88-63) to be changed in the Basin Plan in 1998?
 - How can we look at changing or refining the language now?

- **Agreement to build off of previous work**
 - The general agreement from meeting participants was that the past work should be utilized as much as possible, recognizing that new perspectives and legal findings since 1995 need to be considered and optional approaches should be suggested.

Review of Ag. Water Task Force (AgWTF) Consensus Recommendations (Stakeholder Discussion)

Exemptions from Water Quality Objectives

1. *Exemption for Water in Agricultural Fields and On-Farm Ancillary Structures*
2. *Guidance Document for Ancillary Structures*
3. *Exemptions for Individual Closed Recirculating Systems*
 - The general agreement was that on-farm ancillary structures should be exempt from water quality objectives, recognizing that definitions like “ancillary structures” and “recirculating systems” need to be better defined.

Categorization of Water Bodies

1. *Water Body Categorization Framework*
2. *Flow Charts to Aid Categorization*
 - The general agreement was that a water body categorization framework and flow charts similar to the options in the AgWTF report should be used.
 - Suggestion that effluent dominated water bodies be included in the same framework
3. *Reliance on Water Management Agencies for Categorization*
 - The reliance on water management agencies for categorization was generally supported. Meeting participants did not agree that there should be a default presumption that water bodies not categorized would be considered a natural water body.
 - Concern was voiced as to what would happen to small water bodies that are forgotten in the initial assessment or new water bodies that are not listed. Participants did not want a Basin Plan Amendment process for every new water body.
 - A suggestion was made to include CV-SALTS and Water Board staff in the categorization process.
 - A suggestion was made to adopt a framework that included a process instead of (or in addition to) a hard list of water body names.
 - A suggestion was made to use something similar to the tributary rule method for the Ag. dominated water bodies

- A suggestion was made to determine if the Basin Plan could identify use of a Board resolution rather than a Basin Plan Amendment to categorize water bodies.

Beneficial Use Designations

1. *Recognition that Agricultural Waters are Unique*
 - There was concern that the wording was not clear with this recommendation. The title referred to “Agricultural Waters”, but the body of the text refers to water bodies dominated by “agricultural drainage”.
 - More clarification is needed to distinguish types of water bodies. Note that an Ag. supplier may transfer “MUN” designated water in their canals (e.g. City of Stockton)
 - Special consideration should be given to the Aquatic Life beneficial use and the Department of Fish and Game’s position supporting its full attainment in non-perennial streams.
2. *Ancillary Structures and Individual Closed Recirculating Systems do not Require Beneficial Use Designations*
 - There was general agreement that ancillary and individual recirculating systems should be exempt from beneficial use designation, but the definitions in the recommendation need to be clarified.
3. *Need for New or Limited Beneficial Uses*
 - Meeting participants agreed that new or limited beneficial uses *may* be appropriate in some cases.
4. *Protection of “Existing” Uses*
 - There was agreement that “existing” beneficial uses should be protected.
 - Concern was voiced as to how “existing” is defined (The Clean Water Act has its own definition) – (see policy issues)
 - Question as to how “illegal” or “incidental” use would be considered (e.g., a canal has a no swimming sign but people still swim in it, should this be protected?)
 - Consideration should be given to “potential” use, not just “existing” use
 - Surface water may be in growing demand if ground water sources are contaminated – question was raised whether the use designation in the basin Plan would interfere with water rights determinations or water supply availability
 - Consideration should be given to US EPA’s “fishable/swimmable” beneficial use designation (is the water body a “Water of the US?”)

Water Quality Objectives

1. *Narrative Toxicity Objective for All Non-Exempted Inland Surface Waters*
 - The general consensus was that this recommendation for a narrative toxicity objective needed to be examined in more detail.
 - State Board is currently working on a toxicity objective with numeric end points
 - More clarity needed on terms like “seasonal” and “high” and “low” flow years.

- Objectives should not interfere with the function of the water body (e.g., if the water body is for flood control, maintenance activities like weed control should not be inhibited).

Implementation

1. *Goals: follow a logical sequence that allows for consistency while being flexible; prioritizes water quality problems while allowing realistic timelines; and allocates appropriate funding while avoiding duplication of effort. Etc.*
2. *Hierarchy for Regulation: protection of most sensitive water bodies first*
3. *Process: Two stage containing Planning and Response to Findings*
4. *Guidance on a Draft Implementation Plan (provided as Appendix D of AgWTF Report)*
 - The general consensus was that the current agricultural implementation program, the Irrigated Lands Regulatory Program (ILRP), should reflect these goals and recommendations.
 - Since ILRP is now in place, the suggestion was made to hold off spending too much time on the implementation recommendations until the other previous categories are evaluated.
 - A suggestion was made to promote an implementation program that is very flexible and not a “hands-tied” process

Other Policy Issues

- *Incorporation of Basin Plans’ Existing Site Specific Objectives into the ISWP* – No longer applies directly because there was no adoption of the ISWP; but concept needs to be discussed if amending portions of the Basin Plan
- *Water Conservation Clause*– Agreement was reached on the need for clarification on the water conservation clause
- *Clarification of the Term “Existing”*– Agreement was reached on the need for clarification on the term “existing.”
- *Net Environmental Benefit*– Agreement was reached on the need for clarification of the “net environmental benefit”
 - What does it mean to “Protect and enhance” the water body?
- *Further Investigation of Protocols for Toxicity Monitoring* – Since the State Board is working on a toxicity protocol, this recommendation is of lower priority (awaiting the work by the State Board).
- *Economic Considerations*– Agreement that required economic considerations should be clearly defined.

Review of five AgWTF flow chart options for water body categorization (handout of flow charts included in agenda)

The flow charts progress from the most simple to the most complex scenarios and include additional categorical types of water bodies for each option.

- Option 1 – Most simple flow chart
 - R – Reconstructed natural water body
 - B – Ag. dominated natural water body
 - C – Constructed Ag. water body

- Option 2 – Differentiated between water bodies containing supply and those containing drainage water (B1, B2, C1, C2)

- Option 3 – Included a category for totally Ag dependent water body (B3)
 - *The new category raised questions as to its application (e.g. in areas where levee construction eliminated natural headwater)*

- Option 4 – Included a category for Closed Recycling Systems larger than a single field/farm (C4)

- Option 5 – Added the same exemption that was recommended for ancillary structures to Closed Recycling Systems

Stakeholder Discussion: No decision was made on a “favorite” flow chart at the meeting but issues were identified as follows

- How do we define “natural flow”?
- Can the default be a different process instead of just “natural water body”?
- Are we going to focus on channels with discharge (control of water is “released”) or supply (water is controlled)?
- Can “segments” be used for water bodies that fall under multiple categories? (e.g. Gilzisor Slough)
- How does storm/urban runoff affect the categorization?
- How does seasonality affect the categorization?
- Where is the regulatory boundary ?(e.g. should road side ditches be included?)
- How will each category be regulated?
- How do we manage new or previously uncategorized Ag. channels once an initial assessment is done?
- How can we go back to the simplest approach and not get bogged down in the process?
- Which water bodies are “Waters of the US?” How does that designation limit regulatory flexibility?

Decision Tree - brainstorming

- Background – Dedicatign of MUN in Old Alamo Creek for the City of Vacaville’s NPDES permit produced an excess amount of rework with associated high costs and lengthy timelines. A decision tree could help to incorporate “lessons learned” from Vacaville and avoid repeating the same costly mistakes.
 - Distinction between different types of decision trees:
 - Dedicatign of MUN (and other regulatory options) needed to comply with NPDES permit requirements (in the case of a POTW)
 - Categorization decision trees – depends on the type of water body and type of beneficial use that needs to be evaluated
 - Considerations – What factors need to be considered for a decision tree?
 - Is the water body a “Water of the US”?
 - 40 CFR 131.10(g) factors
 - Differences in the Basins
 - “Induced “Beneficial Uses versus “natural” Beneficial uses
 - Water body categorization
 - When the water body was constructed (was it before the Clean Water Act?)
 - Exceptions in SWRCB Resolution 88-63.
 - Anti-degradation Policy
 - How will Beneficial Uses be assigned to each water body category?
 - Cumulative effects – will taking away a beneficial use cause cumulative effects downstream?
 - Where and when does monitoring start/end?
 - How do we bridge the water body categorization to the appropriate water quality objective or appropriate beneficial use?

Discussion – Central Valley Water Board staff is directed to evaluate **all** of the appropriate beneficial uses in **all** Ag. dominated water bodies. What is the best approach for such a large effort and how does it link back to the more focused MUN evaluation in Ag dominated water bodies receiving POTW discharges? The suggestion was made to first focus on the development of a categorical/flow chart for the Ag waters categorization step and then to use that as the basis for evaluating the appropriate approach and level of participation of the work group (and CV-SALTS) in the MUN archetype effort.

Decisions:

- Break the effort into manageable steps.
- Start with utilizing a categorical/flowchart approach similar to the AgWTF recommended option to develop decision trees to identify all types of Ag dominated water bodies
- Beneficial use discussions will first focus on MUN (as was proposed using the 4 POTW CV-SALTS archetypes) for all types of Ag. dominated water bodies
- Simultaneously work on a decision tree to evaluate beneficial use options for MUN compliance (de-designate; refine; site-specific objectives, etc.) in Ag dominated water bodies.

Action Items:

- *Meeting participants will send their considerations for a decision tree to Tom Grovhoug at tomg@lwa.com by the end of May 2012*
- *Meeting participants will review the 5 flow chart options and email their favorite choice, along with any changes they would make to it, to Anne Littlejohn at alittlejohn@waterboards.ca.gov by the end of May 2012.*

Next Steps

- Meeting participants will provide feedback as described in above action items to the appropriate person by the end of May 2012
- Meeting notes will be developed for this meeting and potential discussion items will be listed and prioritized for upcoming meetings.
- The next meeting will be scheduled for the end of June 2012.

Action Items:

- *Anne Littlejohn will send out meeting notes for participants to review in the next week*
- *Anne Littlejohn will send out a Meet-o-Matic email to schedule a meeting some time during the last 2 weeks of June 2012*
- *Per a request, a link to the State Implementation Program will be added to the MUN webpage*
- *An agenda for the next meeting will be developed using the issues identified in this meeting and the feedback provided by the meeting participants.*