



# Memorandum

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TO: Michael Johnson, LSJR Committee  
Manager

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COPY TO: LSJR Committee – Technical Group

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SUBJECT: **DRAFT Finalize Beneficial Uses Review (Task 8a)**

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This memorandum is being submitted on behalf of the LWA Team<sup>1</sup> to fulfill the requirement of Task 8a of the Scope of Work for Development of a Basin Plan Amendment (BPA) for Salt and Boron in the Lower San Joaquin River, *Finalize Beneficial Uses Review*.

The primary purpose of Task 8a is to review and edit the document that provides an evaluation of existing and potential beneficial uses in Reach 83 of the San Joaquin River and proposed draft Basin Plan language<sup>2</sup> (Evaluation Document), which was previously prepared for the Lower San Joaquin River Committee (LSJRC). This Task 8a memorandum provides a determination of the appropriateness of the recommendations contained in the Evaluation Document as well as the sufficiency of available technical information to support the implementation of the recommendations at this time. It is intended that the Task 8a memorandum be used to finalize decisions in the LSJRC about any proposed changes to the beneficial uses for Reach 83 within the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan)<sup>3</sup>.

The LWA Team also reviewed the Evaluation Document and developed a redline/strikeout version of that document for the LSJRC's consideration (**Appendix A**).

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<sup>1</sup> The LWA Team consists of the following firms: Larry Walker Associates, Carollo Engineers, Kennedy/Jenks Consultants, Systech Water Resources, PlanTierra, Luhdorff and Scalmanini Consulting Engineers, Ascent Environmental, and Dr. Richard Howitt.

<sup>2</sup> *Existing and Potential Beneficial Uses in Reach 83 of the San Joaquin River (Merced River Inflow to Vernalis)*

<sup>3</sup> The primary focus is on those beneficial uses that are affected by salinity.

In addition to making a series of recommendations within this technical memorandum, **Appendix A** includes suggested language modifications to assist with the readability and streamlining of the document. The basis of the suggested modifications and corresponding recommendations are provided below.

## **BACKGROUND**

Changes to the beneficial use designations in the current version of the Basin Plan require a BPA and supporting technical information that is contained in a staff report that accompanies the amendment. Water bodies designated with beneficial uses must be protected with water quality objectives or criteria unless the designated use is removed through a BPA. Following is a brief summary of:

- a) the necessary information to be included in a BPA staff report (i.e. technical information and California Environmental Quality Act (CEQA) documentation) to support a change in use designations; and
- b) the steps needed to de-designate an existing use through a structured scientific analysis (i.e. use attainability analysis).

BPAs follow a structured process and involve public participation and environmental review. Basin Plans and their amendments must meet the regulatory requirements of the federal Clean Water Act (CWA) and the California Porter-Cologne Water Quality Control Act. Changes to designated uses in the Basin Plan must be adopted by the Regional Water Quality Control Board (Regional Water Board) and approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law and the U.S. Environmental Protection Agency (US EPA) and must meet the requirements of CWA Section 303 and California Water Code Section 13050.

The staff report for a BPA must contain the full evidentiary record of the technical, legal and policy information used to support the BPA. A complete administrative record of each BPA is maintained and eventually archived. The record allows the reviewing agencies and the public to understand the Regional Water Board's proceedings and decision. The record includes all information and publications relied upon, as well as all public comments and responses to those comments. In adopting amendments to Basin Plans, the Regional Water Boards must comply with Cal/EPA's "Policy and Guiding Principles for External Peer Review" dated March 1998 and with the State Water Board's internal peer review guidelines dated August 1998. These documents set out procedures to ensure compliance with California Health and Safety Code Section 57004. Peer review of scientifically-based regulatory measures and staff response to any significant peer review comments must take place before their adoption as BPAs.

All BPAs are subject to CEQA; however, the Secretary for Resources has certified that the State Water Board's water quality planning process is "functionally equivalent to" and, therefore, exempt, from the CEQA requirements to prepare an environmental impact report or negative declaration and initial study. However, a CEQA checklist must be completed for any BPA.

In order to add, remove or change a beneficial use designation, the following steps must be performed<sup>4</sup>:

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<sup>4</sup> Also see the Continuing Planning Process, State Water Resource Control Board, May 2001  
[http://www.waterboards.ca.gov/plans\\_policies/](http://www.waterboards.ca.gov/plans_policies/)

- Add a Designated Beneficial Use - To add a designated beneficial use to a surface water body, the Regional Water Board must demonstrate that the use exists or has the potential to occur in the water body. Depending on the designation, scientific peer review may be required.
- Add a Beneficial Use Definition - To add a new beneficial use definition, the Regional Water Board must demonstrate the necessity for the new definition and explain the new use of water and why it needs to be defined.
- Remove a Designated Use - To remove a designated use from a surface water, for a designated use that is not an existing use, federal regulations require that a structured scientific assessment must be conducted that demonstrates that the use is not feasible, consistent with at least one of the factors listed in 40 CFR 131.10(g). Those factors, which explain why a designated use cannot be attained, include:
  - Naturally occurring pollutant concentrations; or
  - Naturally intermittent or low flow conditions (unless these conditions may be compensated for by a sufficient volume of effluent discharge without violating water conservation requirements); or
  - Human-caused conditions or sources of pollution that cannot be remedied or would cause more environmental damage to correct than to leave in place; or
  - Dams, diversions or other types of hydrologic modifications that preclude attainment, and it is not feasible to restore the water body to its original condition or operate the modification in a way that would result in attainment of the use; or
  - Natural physical features or conditions of the water body, unrelated to water quality, that preclude aquatic life protection; or
  - Widespread economic and social impacts that would result from requiring controls more stringent than required by Clean Water Act Sections 301 and 306.

The necessary technical information to support a structured scientific analysis must be presented in the BPA staff report. The required demonstrations must be supported by substantial evidence in the record.

- Remove a MUN Beneficial Use - To remove an MUN beneficial use designation from a surface water body, in addition to the above federal requirements, the Regional Water Board must clearly demonstrate that the water body meets one of the exception criteria identified within State Water Board Resolution 88-63, the Sources of Drinking Water Policy, such as Exception 4.

**Exception 4:** The Regional Boards shall also assure that the beneficial uses of municipal and domestic supply are designated for protection wherever those uses are *presently being attained* (emphasis added), and assure that any changes in beneficial use designations for waters of the State are consistent with all applicable regulations adopted by the U. S. Environmental Protection Agency.

## SUMMARY OF THE EVALUATION DOCUMENT

The LSJRC developed the Evaluation Document that addressed existing and potential beneficial uses in Reach 83 of the San Joaquin River (Merced River inflow to Vernalis). The evaluation included a description of the existing and potential uses and recommended changes to those beneficial uses based on recent information. The Evaluation Document also included a strike-out/underlined version of the current Basin Plan language.

The Evaluation Document identified three options that may be considered for the beneficial use designations within the Basin Plan. The Document also included recommendations for beneficial use modifications that should be considered by the LSJRC. The three options and corresponding recommendations that were made for each of the beneficial uses within the Evaluation Document included the following:

### Option 1 – No Changes

This option presumes that the current designations listed below are appropriate and protective of current or future uses of water in Reach 83.

Continue Beneficial Use Designation for:

- Agricultural Use (AGR) for Irrigation and Stock Watering
- Water Contact Recreation (REC-1)
- Non-Contact Recreation (REC-2)
- Warm Freshwater Habitat (WARM)
- Cold Water Migration of Aquatic Organisms (MIGR-COLD)
- Warm Water Spawning (SPWN-WARM)
- Wildlife Habitat (WILD)

Continue No Beneficial Use Designation for:

- Industrial Service Supply (IND)
- Industrial Power Supply (POW)
- Cold Freshwater Habitat (COLD)
- Cold Water Spawning (SPWN-COLD)
- Navigation (NAV)

*The LWA Team agrees with these recommendations. Since the recommendations do not require a change to the Basin Plan, there would be no additional discussion and/or technical information required to implement these recommendations.*

### Option 2 – Modify Existing Use Designations

- Change the Existing Designation for Industrial Process Supply (PRO) to an Existing but Limited Beneficial Use Designation

*Change the “Existing” (E) beneficial use designation to a “Limited” (L) beneficial use designation.*

This option presumes that the existing designation for Industrial Process Supply (PRO) needs to be clarified to indicate that there is likely to be “Limited” use in the foreseeable future. That use would only be incidental use associated with agricultural harvesting and processing operations or associated with diversions for other agricultural activities.

*This recommendation is discussed in additional detail below under Option 3.*

- Add a Beneficial Use for Sport Fishing (COMM) to Table II-1

*Add an “Existing” (E) beneficial use designation for COMM*

Based on the observation that professionally-guided sport fishing is widespread along the San Joaquin River and Southern Delta and that national and international sport fishing tournaments will expand in the future, this option presumes that the sport and recreational beneficial (COMM) use could be added to Table II-1 in the Basin Plan as an existing use for Reach 83.

*Since the primary focus of this review was on those beneficial uses related to salinity, the LWA Team does not recommend implementation of this recommendation at this time. Information to support the designation of this new use will not be developed as part of the LWA technical services scope and will not be readily available for the proposed BPA. However, the LSJRC may want to consider this recommendation for a future BPA.*

- Add a Beneficial Use for Wildlife Refuges (BIOL) to Table II-1

*Add an “Existing” (E) beneficial use designation for BIOL*

Because of the expanding use of water on the San Joaquin River National Wildlife Refuge and the need to protect critical riparian habitat, this option presumes that a new beneficial use of BIOL could be designated for Reach 83 in Table II-1 in the Basin Plan.

*The LWA Team does not recommend implementation of this modification at this time. Information to support the designation of this new use will not be developed as part of the LWA technical services scope and will not be readily available for the proposed BPA. However, the LSJRC may want to consider this recommendation for a future BPA.*

### Option 3 – Clarify the Beneficial Use Designations

- Change in Footnote (3) to Table II-1 for Warm Water Migration of Aquatic Organisms (MIGR-WARM)

*3 - ~~Striped bass, sturgeon, and shad~~*

Warm Water Migration (MIGR-WARM) and Warm Water Spawning (SPWN-WARM) have a footnote (3) attached to each. The footnote reads: (3) *Striped bass, sturgeon and shad*. Under this option, it is recommended that Striped bass be removed from this footnote.

*Since the primary focus of this review was on those beneficial uses related to salinity, the LWA Team does not recommend implementation of this recommendation at this time. Information to support the designation of this new use will not be developed as part of the LWA technical services scope and will not be readily available for the proposed BPA. However, the LSJRC may consider this recommendation for a future BPA.*

- Add Footnote (12) to Table II-1 for Industrial Process Supply (PRO)

*12 – Not likely to be a use in the future other than incidental use during agricultural field harvest associated with diversions for other agricultural uses.*

The existing designation for Industrial Process Supply needs to be clarified that there is likely to be “Limited” use in the foreseeable future will only be incidental use associated

with field agricultural harvesting and processing operations associated with diversions for other agricultural activities.

*The LWA Team does not recommend implementation of this modification at this time. Information to support the designation of this new “Limited” use will not be developed as part of the LWA technical services scope and will not be readily available for the proposed BPA. However, the LSJRC may consider this recommendation for a future BPA.*

### MUN Beneficial Use Designation

The Evaluation Document also recommended that a footnote be added to the MUN “potential” beneficial use designation since there may be “incidental” use that occurs during recreational and short-term activities in and near the LSJR. In this context, “incidental use” has been considered to be either consumption of untreated surface water for domestic use or the incidental intake of surface waters during contact recreational use. Since the volumes of water consumed and legal considerations under these two circumstances are very different, they should be considered separately.

There are three significant considerations regarding the proposal to add footnote language to the existing MUN use.

- First, the addition of footnote language would not materially change the implementation of the MUN objective. If consumption of untreated surface water was specifically described as an intended domestic use to be protected in the Basin Plan, the water quality objectives pertaining to such a use would be the same as those that pertain to other municipal and domestic uses. Therefore, there would be no change in the effective regulation resulting from implementation of the MUN use, with or without the footnote.
- Second, the addition of the proposed language would set policy precedent and would require significant support in the BPA. Depending on the interpretation rendered by Regional Water Board, State Water Board and/or US EPA staff, a use attainability analysis could be required to add the proposed footnote to the Basin Plan. Based on conversations with Regional Water Board Basin Planning staff, it is likely that a UAA would be required.
- Third, the concept of “Incidental” use of the receiving water for municipal and domestic supply is constrained by the following legal and policy considerations:
  - It can be argued that the concept and protection of incidental use is neither reasonable nor legal, since the 2002 Long Term Interim Enhanced Surface Water Treatment Rule (IESTWR) promulgated under the Safe Drinking Water Act (SDWA) and State health codes require that surface water supplies be treated prior to domestic use;
  - As noted above, the California Department of Public Health’s Drinking Water Division have stated in correspondence with the Regional Board and the Stanislaus County Health Department that they will not permit a municipal or domestic use of the Lower San Joaquin River in Reach 83 under any conditions;
  - Since no regulatory body sanctions such a use, the use should be discouraged; and

- The existing water quality objectives and criteria to protect the MUN use are based on adult consumption rate of 2 liters per day<sup>5,6</sup>.

*Given the above considerations, it is not recommended that the LSJRC pursue a Basin Plan amendment to add the proposed footnote to the potential MUN use.*

Regarding the application of the incidental use concept to the REC-1 use, no change in the existing Basin Plan language is necessary. The incidental consumption of surface water during swimming or other contact recreational activities is already presumed in this use. The MUN water quality objectives are typically not applied to protect the REC-1 use because of amount of water consumed are (a) low volume (typically less than 100 ml as compared to 2 liters) and (b) intermittent (as compared to daily as presumed in the development of MUN water quality objectives). Therefore, no changes to the MUN use are recommended to address the incidental intake of water during contact recreation.

## **SUMMARY OF RECOMMENDATIONS AND NEXT STEPS**

The LWA Team review focused on those beneficial use modifications that were directly related to Reach 83 and salinity and boron. For the following reasons, no changes to the Beneficial Use designations in the existing Basin Plan are recommended at this point in time:

- The recommended changes are not essential to the immediate interests of the LSJRC<sup>7</sup>;
- The technical and CEQA information required to support such an effort is not available or scoped, and
- The time required to develop such information is not consistent with the desired time schedule associated with the current effort to adopt salinity objectives for the LSJR.

However, the LSJRC may want to explore changes to beneficial use designations as recommended in the Evaluation Document at some time in the future.

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<sup>5</sup> Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, USEPA, 40 CFR Part 131 F.3.

<sup>6</sup> Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health, October 2000, USEPA

<sup>7</sup> The immediate interests being the development of a BPA for salt and boron in the LSJR within the next year.