



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

May 18, 2007

Mr. David Cuneo
Sonoma County Water Agency
P.O. Box 11628
Santa Rosa, CA 95406-1628

Subject: Draft Environmental Impact Statement for North Sonoma County
Agricultural Reuse Project (NSCARP), Sonoma County, CA (CEQ#
20070123

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

EPA commends the reuse of highly treated wastewater in order to increase the operational flexibility of water supply systems to benefit in-stream flow requirements, reduce the use of over-drafted groundwater, and to benefit fisheries. While we support the water reuse concept of this project, there is a lack of project detail on which to determine specific impacts.

Based on our review, we have rated the Draft Environmental Impact Statement (DEIS) as Environmental Concerns – Insufficient Information (EC-2) (see enclosed "*Summary of Rating Definitions*") due to the need for additional detailed information regarding project components, alternatives, and potential air and water quality impacts. EPA specifically recommends that the FEIS: 1) identify the anticipated volumes of water dedicated to fisheries and in-stream beneficial uses and the mechanisms that will ensure in-stream beneficial use commitments are met, 2) provide specific information on the project phases, 3) document potential water quality and air quality impacts of future construction phases, 4) include a detailed evaluation of the practicability of utilizing the existing Gallo Asti Reservoir, and 5) describe expected water quality within the reservoirs.

We appreciate the opportunity to review this DEIS. When the FEIS is released for public review, please send one (1) hard copy to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3846 or Laura Fujii, the lead reviewer for this project. Laura can be reached at (415) 972-3852 or fujii.laura@epa.gov.

Sincerely,

/s/

Nova Blazej, Manager
Environmental Review Office

Enclosure:
Summary of EPA Rating Definitions
Detailed Comments

cc: Douglas Kleinsmith, Bureau of Reclamation

Project Scope

Provide additional information regarding project components. The North Sonoma County Agricultural Reuse Project (NSCARP) would provide recycled water to agricultural users to be used in-lieu of potable water supplies for irrigation. As a result, there would be fewer agricultural diversions from the Russian River and its tributaries which would enable the Sonoma County Water Agency (SCWA) to release less water from storage in Lake Mendocino and Lake Sonoma to meet water demands and in-stream flow requirements. This would result in more water being conserved in storage which would provide more operational flexibility to benefit fisheries in the Russian River. The project is expected to be constructed in phases over a 10 to 20 year period.

While the DEIS provides a general description of the project, it does not present specific information on the potential amount and location of reduced agricultural diversions; potential amount of water dedicated to fisheries, in-stream, and wetland beneficial uses; potential increase in summer tributary flows; projected amount and location of recycled water use; prospective users; or the potential design and schedule of the construction phases. We believe this information would better define the benefits and anticipated environmental effects of the NSCARP.

Recommendation:

We recommend the final environmental impact statement (FEIS) include specific information regarding the following items:

- Potential amount and location of reduced agricultural diversions,
- Potential amount of water dedicated to fisheries, in-stream, and wetland beneficial uses,
- Minimum required stream flows in the Russian River and tributaries, who requires these flows, and the adequacy of these flows for fisheries and other in-stream beneficial uses,
- Probable amount of recycled water to be stored and used,
- Location and volume of potential increased summer tributary flows,
- Projected energy consumption required to convey and store recycled reuse water compared to the energy requirements of the existing irrigation system,
- Prospective agricultural users, and
- Potential design (e.g., proposed reservoirs, pipeline segments), schedule, and environmental documentation of future construction phases. We recommend a clear commitment in the FEIS to environmental analysis for the future project phases. The degree to which future environmental analysis will tier to the existing evaluation should be clearly described.

Ensuring project needs are met. Given anticipated urban growth, climate change, and the potential effect of climate change on water quantity¹, it is likely there will be increasing demands on SCWA supplies, the Russian River, and its tributaries. Although a primary purpose of the project is to allow water to remain in the Russian River system to improve habitat for listed fish species (ES-1), the DEIS does not discuss how the project would ensure the conserved water is used to improve listed fish habitat or the mechanisms to ensure adaptability with changing water supply and demand conditions.

Recommendation:

We recommend the FEIS describe the type and volume of demand for the water stored in Lake Mendocino and Lake Sonoma. The FEIS should also describe the mechanisms in place, or to be developed, to ensure the stored water and improved operational flexibilities benefit fisheries, fish habitat, and other in-stream beneficial uses. For example, describe whether specific language--reconfirmation of existing water rights and the use of operational flexibility for fishery benefits--will be included in the proposed Recycled Water Use Agreements.

Project Alternatives

Provide additional information on the development of project alternatives. The DEIS states that potential irrigation demand associated with serviceable lands in three of the four subareas exceeds the proposed reservoir storage capacity and identified dry-season recycled water supplies. Therefore, scaled-back subarea alternatives were developed (p. 2-16).

Recommendations:

We recommend the FEIS include additional information on the process and criteria used in developing these scaled-back alternatives. For instance, describe the rationale for selecting the specific alternate subareas, proposed reservoirs, and pipeline routes.

Since potential irrigation demand exceeds water supplies, we recommend the FEIS evaluate the feasibility of increasing irrigation efficiencies and other conservation practices to maximize the acreage that can utilize available recycled water. The FEIS should identify the entities that could implement these irrigation efficiencies.

Provide additional evaluation of the Gallo Asti Reservoir. The DEIS states that use of the existing Gallo Asti Reservoir for storing recycled water would require a major diversion of natural inflow to isolate the reservoir from its tributary drainage area pursuant to California Title 22 Code of Regulations for the use of tertiary-treated recycled water which requires a separation between natural surface flows and recycled water (p. 2-33).

¹ Our Changing Climate--Assessing the Risks to California. A Summary Report from the California Climate Change Center to Governor Schwarzenegger and the Legislature. July 2006. Available at: http://www.climatechange.ca.gov/climate_action_team/index.html.

Recommendation:

Given the need for a major diversion of natural inflow to utilize this reservoir, we recommend the FEIS provide a detailed evaluation of the benefits, costs, and feasibility and need for this project component. For instance, describe how critical this component is for the project and the context for its inclusion in the project design.

Identify how the ‘beneficiary pays’ principle may be applied. The NSCARP would be financed with a combination of funding sources, including local funds, grants, loans, and bonds (p. 2-66). The total estimated project cost for the preferred alternative, Alternative 2–Entire NSCARP, would be \$385.3 million with a capitalized unit storage cost of \$696 per acre-feet (pps. 2-19, 2-21).

Recommendation:

Given the cost and scale of the proposed project, we recommend the FEIS evaluate the applicability of the ‘beneficiary pays’ principle, whereby users that benefit from the project, shall be responsible for funding a reasonable proportion of the costs associated with implementation.

Water Quality

Water quality within the reservoirs. There is little description in the DEIS of the expected water quality within the proposed new reservoirs. For instance, the DEIS states that project construction would not create objectionable odors (p. 3.3-17) because there would not be any construction component with the potential to create this odor. However, the possibility of odors from stored water does not appear to be evaluated.

Recommendation:

We recommend the FEIS include additional description of the water quality within the proposed reservoirs. For instance, address the likelihood of algae blooms and subsequent odors in these reservoirs.

Air Quality

Provide an updated description of Air Quality Regulations. As stated in the DEIS, the NSCARP area is in attainment of the National Ambient Air Quality Standards (NAAQS) for all pollutants other than ozone (p. 3.3-8). The project area is also designated non-attainment for ozone and particulate matter 10 microns or less in diameter (PM10) under the California standards (p. 3.3-9). While the DEIS states the Bay Area Ozone Attainment Plan forecasts attainment of the 1-hour ozone NAAQS by 2006, it does not indicate whether this attainment date has been achieved. We note that the Clean Air Diesel Rules, which would significantly cut nitrogen oxides, an ozone precursor, may soon be in effect [Final Rule, Federal Register Volume 69, Number 124, June 29, 2004; <http://www.epa.gov/cleandiesel>].

Recommendations:

We recommend the FEIS update the description of the Air Quality Regulatory Setting to include information on the current status of the Bay Area Ozone

Attainment Plan to meet NAAQS, and the requirements for control of emissions from the diesel fleet.

To minimize air emissions, we recommend a commitment in the FEIS to reduce emissions to the greatest extent possible during construction. For example, EPA recommends the FEIS commit to use of the cleanest on-road vehicles available and the most recent pollution control equipment for all off-road equipment, use of electrical power for all stationary equipment, reduction of haulage miles, and scheduling to minimize the overlap of emission producing activities, where feasible.

General Comments

Describe possible research on subsurface storage of recycled water and conjunctive use. The DEIS states that subsurface storage would meet project objectives but is currently not feasible due to the need to identify, test, and permit possible underground storage sites (p. 2-14).

Recommendation:

EPA recommends the FEIS describe possible future research, research entities, and funding sources that may help determine whether subsurface storage of recycled water and conjunctive use is feasible in the project area for this and future projects.

Describe the relationship to the City of Santa Rosa water reuse system and other reuse projects. EPA received a copy of the May 3, 2007 Santa Rosa Sub-regional Water Reuse System Incremental Recycled Water Program Discharge Compliance Project Revisions to the August 2006 Notice of Preparation and Initial Study. Although the DEIS mentions the City of Santa Rosa Incremental Recycled Water Program (p. 1-4), the relationship between past recycled water projects and the North Sonoma County Agricultural Reuse Project is not clear.

Recommendation:

We recommend the FEIS clarify the relationship between the North Sonoma County Agricultural Reuse Project and other water reuse projects by the City of Santa Rosa, Sonoma County Water Agency, Town of Windsor, City of Healdsburg, City of Cloverdale, Geyserville, and Geysers steam field. For example, provide a list or chart of past and current projects, their environmental documents, and whether or not the projects are linked in any manner.

Correction of discrepancies between text and tables. The DEIS has slight discrepancies between the text and tables regarding the loss of riparian vegetation and potential impacts to wetlands.

Recommendation:

We recommend the FEIS correct the following discrepancies:

1. Table ES-1 should indicate there will be a loss of riparian vegetation as stated in Table 3.4-2.
2. Table 2-1.3 (page 2-70) should identify the Federal Wetlands Executive Order as Executive Order 11990, Protection of Wetlands.
3. Add scientific names to the special status species descriptions starting on page 3.4-4.
4. Ensure the acreage impact figures in Table 3.4-2 are consistent with the figures presented in the nearby text.