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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX**

75 Hawthorne Street
San Francisco, CA 94105

October 7, 1996

CITY OF SANTA ROSA
P.O. Box 1678
Santa Rosa, CA 95402

OCT 07 1996

DEPARTMENT OF
COMMUNITY DEVELOPMENT

District Engineer
US Army Corps of Engineers
333 Market Street
San Francisco, CA. 94105
Attn: Wade Eakle

Dear Mr Eakle:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the project entitled **Santa Rosa Subregional Long-Term Wastewater Project, Sonoma County, CA. (Project)**. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), Section 309 of the Clean Air Act, and Sections 402 and 404 of the Clean Water Act. Our comments are based upon a review of Volumes I - III. The requested appendices were never received. 001

The purpose of the Project is to provide for effluent disposal from the Subregional Sewerage System wastewater treatment facilities operated by the City of Santa Rosa. The project would implement a program to dispose of tertiary treated wastewater. Currently the City of Santa Rosa disposes of wastewater through a combination of agricultural irrigation reuse and discharge of the reclaimed water to the Laguna de Santa Rosa and Santa Rosa Creek which flow into the Russian River. Discharge requirements permit a maximum discharge of one percent of Russian River flow. However, due to drier-than-normal weather conditions and subsequent low river flows, discharge to the Russian River has the potential to exceed the permitted maximum. The City of Santa Rosa is required by the North Coast Regional Water Quality Control Board (NCRWQCB) to put in place by 1999 a reclaimed water disposal solution that meets reliability requirements no matter what weather conditions occur. The US Corps of Engineers (Corps) is the Federal lead for the proposed project pursuant to their responsibilities under Section 404 of the Clean Water Act. Depending on the selected alternative, a Section 404 permit will be required for project implementation. 002

The City of Santa Rosa has worked to address the discharge problem since 1985. The first and second project evaluations (1986, 1991) were challenged in court. The current Project is a new planning and environmental evaluation process to address the wastewater disposal problem. The DEIS evaluates five alternatives: Alternative 1 - No Action; Alternative 2 - South County Reclamation, agricultural irrigation and reclaimed water storage in areas south of Santa Rosa; Alternative 3 - West County Reclamation, agricultural irrigation and reclaimed water storage in areas west of Santa Rosa; Alternative 4 - Geysers Recharge, injection of reclaimed water for recharge of the Geyser steamfield located in northeastern Sonoma County; and Alternative 5 - Discharge, release of reclaimed water to the Russian River or Laguna de Santa Rosa at a design discharge rate of up to 20 percent of river flow. 003

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EPA has been involved with the Project for a number of years and our office has commented on various aspects of the project. We urge you to take note of the concerns and viewpoints set out in our past letters which include: 1) a letter commenting on the US Bureau of Reclamation EIS prepared for this project (1991) [Letter to Richard Chelini from Deanna Wieman, February 15, 1991]; 2) Letter to Ross Liscum, Santa Rosa, from Jeff Rosenbloom, May 26, 1994; and 3) Letter to Dan Carlson, Santa Rosa, from Nancy Yoshikawa, July 1994. The issues that we identified in those letters, include, but are not limited to, the comments summarized below.

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EPA believes that water conservation and reuse should be high priorities for addressing Santa Rosa's wastewater needs. We urge the City of Santa Rosa to approach the wastewater program by: 1) reducing the volume of effluent that must be treated and disposed of, and 2) reusing water to the maximum extent practicable. We believe maximum water conservation should be a crucial component of the wastewater disposal project. Water conservation is preferable because it reduces adverse environmental impacts by lowering the demand for freshwater, and by lowering the volume of wastewater requiring treatment. Although more analysis may be needed to determine the exact level of water conservation that can reasonably be attained, we believe a 35% level of conservation could be achievable. We note that the DEIS appears to assume a level of conservation of 25% (pg. 3.1-6).

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EPA strongly supports reuse of treated effluent for agricultural application and recharge of the Geyser's steamfield. However, applications of wastewater to agricultural areas should be regulated to avoid adverse effects to wetlands or other habitats through pesticide transfer or by alterations in surface or groundwater regimes. We also believe created wetlands could be used to "polish" treated effluent. Wetland creation should occur only if it will not adversely affect existing wetlands such as vernal pool assemblages in the Santa Rosa Plain, or seasonal or tidal wetlands in the North Bay. In addition, conversion of salt marsh to brackish wetlands due to discharge of reclaimed wastewater should be avoided.

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We continue to have grave concerns with the West County Reclamation, South County Reclamation, and Discharge alternatives due to potential adverse impacts to surface and groundwater quality and potential conversion of sensitive wetland habitats. We urge the Corps and City of Santa Rosa to continue exploration of methods to maximize conservation and minimize adverse impacts of proposed wastewater disposal alternatives. We firmly believe a long-term wastewater disposal solution should be based on a multi-faceted program which relies upon a wide spectrum of disposal options. We also strongly recommend a commitment to tracking technological developments such as greywater reuse, aquifer storage and recovery, and more aggressive metering.

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As you know, the North Coast Regional Water Quality Control Board regulates discharges from the Subregional facility to the Laguna de Santa Rosa and the Russian River. EPA retains an oversight role in this regulation, primarily through the triennial review of the Regional Board's Basin Plan. Should the City of Santa Rosa pursue an alternative that increases discharges above the current one percent limit, the Regional Board would be the agency responsible for determining the acceptability of such a discharge. If EPA is presented data indicating such a discharge would prevent the attainment of the designated beneficial uses in the Regional Board's Basin Plan, we would work with the Regional Board to resolve this issue.

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We commend the Corps and City of Santa Rosa for the organized and well written DEIS. Of special note is the commitment to the detailed mitigation and monitoring program

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(Chapter 2) which provides validation and implementation monitoring with a focus on compensatory mitigation on a ecosystem basis. The supporting objective to maximize reclamation, recycling, and reuse of treated wastewater and on wise use of water resources is also noted.

Based upon our current review, we have classified this DEIS as category EC-2, Environmental Concerns -Insufficient Information (see attached "Summary of the EPA Rating System"). While we believe the current evaluation and proposed alternatives are an improvement over past efforts, we remain very concerned with the potential adverse impacts to sensitive wetland and riparian habitats, water quality, and air quality. In addition, specific information, which may be available in the extensive appendices, should be summarized within the main body of the EIS. We appreciate the opportunity to review this DEIS. Please send two copies of the Final EIS to this office at the same time it is officially filed with our Washington, D.C. office. If you have questions, please call Ms. Laura Fujii of my staff at (415) 744-1579.

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Sincerely,



David J. Farrel, Chief
Federal Activities Office
Cross Media Division

Enclosure: (3 pages)
Filename: Santaros.dei
MI0027406

cc: Joel Medlin, USFWS, Sacramento
Jim Bybee, NMFS, Santa Rosa
Tuck Bath, NCRWQCB, Santa Rosa
Steve Ritchie, SFBWQCB, Oakland
Marie Meredith, City of Santa Rosa
BCDC, San Francisco
RRWPC, Guerneville

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SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION**Environmental Impact of the Action****LQ-Lack of Objections**

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement**Category 1-Adequate**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From: EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

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EPA DEIS COMMENTS, COE, SANTA ROSA LONG-TERM WASTEWATER PROJECT, SONOMA CO, CA OCT 1996COMMENTSProject Alternatives

1. Of those alternatives evaluated, EPA supports Alternative 4 Geysers Recharge because it maximizes reuse of the reclaimed water while minimizing adverse effects on wetlands, sensitive habitats, water quality, drinking water wells, air quality, and existing resources such as aggregate material. We note that no offers have yet been made by the Geysers operators to purchase Santa Rosa's reclaimed water (pg. 1-42). We strongly urge the Corps and City of Santa Rosa to aggressively pursue such offers. As noted in the DEIS, the high operation and maintenance costs of this alternative could be offset by payments by the Geysers operators, property tax revenue, and royalty payments (pg. 1-42). We recommend that the FEIS provide information on the true feasibility of this alternative and its actual cost if the reclaimed water is purchased for recharge. 015
2. Although EPA supports the use of reclaimed water for irrigation, we have grave concerns regarding implementation of either the West County or South County Reclamation alternatives (Alternative 2 and 3) for the following reasons: 016
- a) Both of these alternatives include large storage reservoirs which would have significant adverse effects on wetlands and sensitive habitats. 017
- b) Construction, operation, and maintenance effects include potential increased biostimulation in surface and groundwater due to increased nutrients (nitrogen) from reservoir seepage and irrigation, and exceedences of air quality standards (PM10, nitrogen oxides, sulfur oxides, and carbon monoxide) (Chapters 4.6 and 4.12). 018
- c) The storage reservoirs could cause inundation of septic systems from mounding of groundwater and could block groundwater flows to sensitive downstream areas (Chapter 4.5). 019
- d) The West County alternative could adversely affected sensitive habitats and resources in the Esteros, which are within the Gulf of the Farallones National Marine Sanctuary, through reduction of salinity, and. 020
- e) The South County alternative could cause habitat conversion of salt marshes to brackish wetlands in South San Francisco Bay through excessive freshwater discharges. Because of the above concerns, we strongly urge the Corps and City of Santa Rosa to seriously consider implementation of other project alternatives. 021
3. The DEIS states that the environmentally superior alternative is Alternative 5B, the Laguna Discharge alternative (pg. 5-22). This alternative causes the least change on the environment when compared with other alternatives because it minimizes construction of new facilities. The primary change is the discharge of additional volumes of water into the Laguna de Santa Rosa and Russian River at low flow conditions. EPA remains very concerned with implementation of this alternative because of the significant water quality problems which already exist in the Laguna de Santa Rosa. [The DEIS clearly states that dissolved oxygen and ammonia criteria are not attained in the Laguna (pg. 4.6-3) under existing conditions. In fact, the North Coast Regional Water Quality Control Board has created load reduction goals for this waterbody.] Furthermore, water quality in the Laguna has been found to be impaired by the Regional Board pursuant to Section 303(d) of the Clean Water Act (pg. 4.6-24). Implementation of the Laguna Discharge alternative would significantly aggravate the dissolved oxygen and ammonia problem and considerably reduce attainment of water quality standards. Thus, EPA strongly recommends selection of another project alternative. 022 023 024

EPA DEIS COMMENTS, COE, SANTA ROSA LONG-TERM WASTEWATER PROJECT, SONOMA CO, CA, OCT 1996Water ResourcesWetlands

1. Significant acreages of jurisdictional wetlands would be adversely affected by proposed storage reservoirs and pipelines (Tables 4.10-3 and 4.10-5). Nevertheless, the DEIS states that adverse impacts would be less than significant after mitigation (pg. 4.10-38). Proposed mitigation includes creation (1:1 replacement), restoration (2:1 replacement), and preservation (3:1 replacement) of affected wetlands. Given the large acreages of adversely affected wetlands, EPA questions whether the proposed mitigation would actually reduce impacts to a less than significant level and whether the proposed mitigation ratios will adequately replace and compensate for lost functions and values. The FEIS should clearly demonstrate that the proposed mitigation is feasible and will indisputably reduce impacts to a less than significant level and fully compensate for lost wetlands. 025
2. The DEIS provides general habitat descriptions on pages 4.10-11 to 4.10-15. We recommend these descriptions include a report of the major plant species in order to provide a more definitive description of each habitat. 026

Water Quality

- In comparing wastewater and surface water quality with criteria for metals, the DEIS states that direct comparison cannot be made because standards are in dissolved units and the data is in total recoverable units (Chapter 4.6). We recommend a comparison be made using the conservative assumption that all the data expressed as "total recoverable" is completely in dissolved form (a translator of one). 027
- Other potential methods to roughly estimate how much of the total metal is in dissolved form are described in EPA's Draft Metal Translator Guidance, June 1996. One method described, originally proposed in EPA's October 1, 1993 "Metals Policy", utilizes site-specific suspended solids data and nationally derived partitioning coefficients to calculate the "translator." Although far from exact, the above methods provide at least an estimate of whether there may be exceedences of water quality criteria. 028

General Comments

- A segment of the Geysers pipeline along Pine Flat Road will traverse areas of unstable slopes in steep terrain (pg. 4.3-62). Because of its relatively remote location, prompt response to pipe failure will be difficult. Thus, placement of the pipeline along Pine Flat Road could result in significant damage to the pipeline from slope failure and adverse impacts to sensitive resources from drainage of the pipeline due to a major break. The DEIS states that complete mitigation for this adverse impact is not feasible (pg. 4.3-63). Manual isolation valves will be located at 10,000 foot intervals along the Geysers pipeline. We recommend consideration of check valves and automatic cutoff valves (triggered by detection of pressure drops) along the pipeline in areas of unstable slopes or sensitive resources. The distances between valves could also be reduced. If additional valves or pipeline safety features are not included in project design, we strongly recommend consideration of measures such as detention basins and flow diversion structures to protect sensitive resources which could be adversely affected by a major break in the pipeline. 029



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E. coli O157:H7 was isolated from ground beef samples collected from retail outlets in the United States during the outbreak period.

1. *Chlorophyll a* (Chl *a*)

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107-97333

the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion. The number of illiterate people in the world is expected to reach 1.7 billion by the year 2015. The number of illiterate people in the world is expected to reach 1.7 billion by the year 2015.

**FACSIMILE
TRANSMITTAL**

TO: US Army Corps of Engineers - Regulatory Branch
Organization
FAX #: 415-707-543-3218 PHONE # 707-543-3181
SUBJECT: Comments on DEIS Santa Rosa Subregional Ong-Term Wastewater Prj.
Date: 10-07-96 # pages including cover 7

From: Laura Fujii
Office of Federal Activities Fax: 415-744-1598 Phone: 415-744- 1579

Comments:



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

October 7, 1996

District Engineer
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333 Market Street
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