

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 83-27

WATER RECLAMATION REQUIREMENTS FOR:

CITY OF ST. HELENA, NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter Board) finds that:

1. The City of St. Helena, hereinafter Producer, by application dated July 13, 1983, has applied for water reclamation requirements for secondary treated and disinfected municipal wastewater. The City proposes the following:
  - a. The City will acquire 100 to 110 acres of agricultural land adjacent to the existing secondary treatment plant which will be flood irrigated to grow hay and provide pasture. The location and size of the area to be irrigated are shown on the map, Attachment A, which is hereby made a part of this Order.
  - b. Animals, consisting of non-milking cows and goats, may be pastured on land irrigated with wastewater. The pasture may be leased by the City to a farmer at a later date.
  - c. Sufficient storage and irrigation will be provided so that all the discharger's wastewater will be contained without discharge to the Napa River from May 1 through November 30 of each year.
  - d. From December 1 through April 30 of each year, the wastewater may be discharged to the Napa River from the treatment ponds.
2. The discharge from the treatment plant's ponds to the Napa River between December 1 and April 30 is covered by a separate set of requirements adopted by the Regional Board under the National Pollutant Discharge Elimination System.
3. The Board adopted a revised Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region on July 21, 1982. The goals to be used in regulating water quality factors as set forth in the Basin Plan include maximum feasible reclamation and reuse of municipal, industrial, and agricultural wastewaters.
4. Section 13523 of the California Water Code provides that a Regional Board, after consulting with and receiving the recommendations of the State Department of Public Health, and if it determines such action to be necessary to protect the public health, safety or welfare, shall prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water. The use of reclaimed water for the purposes specified in Finding 1 could affect the public health, safety or welfare, and requirements for these uses are therefore necessary in accordance with the Water Code.

5. The California Department of Health Services has published regulations to establish acceptable levels of constituents in reclaimed water and to prescribe means for assurance of reliability in the production of reclaimed water in order to ensure that the use of reclaimed water for specified purposes does not impose undue risks to health. The regulations are contained in Title 22 of the California Administrative Code and form the basis for these requirements.
6. The City of St. Helena, on May 17, 1983, certified as complete a Final Subsequent Environmental Impact Report (EIR) on the proposed water reclamation project. This EIR describes impacts and identifies mitigations for the use of reclaimed water on the irrigation site shown on Attachment A. The members of the Regional Board have received and reviewed a summary of this document.
7. The EIR specifies that this project could have the following adverse impacts on the environment:
  - a. Public contact with wastewater at and adjacent to storage and application sites.
  - b. Public exposure to pathogens in wastewater through inhalation of contaminated aerosols resulting from spray irrigation.
  - c. Pollution of surface water resulting from irrigation site runoff.
  - d. Degradation of localized groundwater, and local wells and springs.
  - e. Possible odors resulting from the storage and application of wastewater.
  - f. Production of nuisance midges and mosquitoes in storage ponds and at the irrigation site.
  - g. Impacts on adjacent vineyards from wastewater aerosols and from a change in microclimates.
  - h. Possible degradation of soil.
  - i. Construction may possibly disrupt areas having archaeological significance.
  - j. Construction impacts may include dust, destruction of vegetation, noise, traffic disruption and public safety hazards.
  - k. Energy usage is projected to increase slightly due to wastewater pumping.

8. The Regional Board finds that the potential adverse water quality and public health related impacts stemming from the City's project, as identified in the Subsequent Environmental Impact Report, have been mitigated by measures incorporated in the project design or required by this Order.
9. The Regional Board has notified the City of St. Helena and interested persons and agencies of its intent to prescribe water reclamation requirements for the proposed use.
10. This Board, at a public meeting, heard and considered all comments pertaining to this reuse.

IT IS HEREBY ORDERED, that the City of St. Helena, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Reclaimed Water Quality Specifications

1. The Producer shall assure that reclaimed water is at all times an adequately disinfected, oxidized water that meets the following quality limits at all times:

5-day BOD	30 mg/l (30 day Avg) 60 mg/l (daily Max.)
Dissolved Oxygen	1.0 mg/l, minimum
Dissolved Sulfide	0.1 mg/l, maximum
Coliform Organisms	Total coliform bacteria for a median of 5 consecutive effluent samples shall not exceed 240 MPN/100 ml. Any single sample shall not exceed 10,000 MPN/100 ml when verified by a repeat sample taken within 48 hours.

2. The Producer shall discontinue the diversion of reclaimed water to the User during any period in which he has reason to believe the limits specified in A.1. are not being met.

B. Reclaimed Water Use Restriction

The following restrictions shall apply for the use of reclaimed water:

1. Use of reclaimed wastewater under provisions of this Order shall be limited to irrigation of fodder, fiber and seed crops, and pasturing of non-milking animals.
2. Areas with public access irrigated with reclaimed wastewater shall be fenced and clearly identified with posted notices to the public. The method and form of notification shall be subject to the review and approval of the Executive Officer.

3. Reclaimed wastewater shall be applied to use areas in a manner which will prevent direct public contact with the wastewater.
4. All equipment, including pumps, piping, valves, etc. with public access which may at any time contain waste shall be adequately and clearly identified with warning signs and the Producer shall make all necessary provisions, in addition, to inform the public that the liquid contained is sewage and is unfit for human consumption.
5. No reclaimed wastewater used for irrigation shall be allowed to escape from the irrigation site via surface flow or airborne spray.
6. Reclaimed water shall not be applied within 100 feet of any well or Napa River.
7. Reclaimed water shall not be used as a domestic or animal water supply.
8. Fodder, fiber, and seed crops shall not be harvested when wet from spraying with reclaimed water.
9. Surface drainage channels for areas irrigated with reclaimed water shall be dammed to prevent any runoff of reclaimed water from entering Napa River. All ponded (dammed) reclaimed water shall be disposed of properly, in accord with the restrictions, specifications and provisions of this Order.
10. Use of reclaimed water shall be managed so as to minimize mosquito breeding.
11. If a use restriction should be violated, the irrigation with reclaimed wastewater shall be immediately terminated at the specific location and not resumed until all violations and conditions which would permit the violations to recur have been corrected.

C. Provisions

1. The treatment, distribution or reuse of reclaimed water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. Unless written authorization permitting reclamation of wastewater on a specific field or defined area other than shown in Attachment A is received from this Board's Executive Officer, the Producer shall not supply such a use of wastewater.
3. Wastewater shall not impair ground water quality. Reclaimed water shall be applied at a rate equal to the evaporation rate of the pasture.
4. Ninety days prior to initial commencement of wastewater reclamation on the use area, the Producer will submit a report, which is satisfactory to the Executive Officer demonstrating

how the mitigation measures outlined in the Subsequent EIR regarding contamination of wells and springs, surface runoff control and water quality effects, and public health will be implemented.

5. This Order includes all items in "Requirements of Design for Reclamation Facilities" dated October 1, 1975, which is Attachment B and hereby made a part of this Order.
6. The Producer shall file with the Board technical reports on self-monitoring work performed according to detailed specifications as directed by the Executive Officer.
7. The Producer shall permit the Board or its authorized representative in accordance with California Water Code Section 13267(c):
  - a. Entry upon premises in which an effluent source is located or in which any required records are kept.
  - b. Access to copy any records required to be kept under terms and conditions of this Order.
  - c. Inspection of any monitoring equipment or method required by this Order.
  - d. Sampling of any discharge or reclaimed water.
8. The Producer shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the water reclamation requirements.
9. The Board will review this Order periodically and may revise the requirements when necessary.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 20, 1983.

FRED H. DIERKER  
Executive Officer

Attachments:

- A. Reclaimed Water Use Area Location Map
- B. Requirements of Design for Reclamation Facilities dated 10/1/75

ATTACHMENT A. RECLAIMED WATER USE AREA LOCATION MAP

