CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
81 Higuera Street, Suite 200
San Luis Obispo, California 93401-5427

WASTE DISCHARGE/RECYCLED WATER REQUIREMENTS
ORDER NO. R3-2003-0007

Waste Discharger Identification No. 3 401078001

For

LOS OSOS COMMUNITY SERVICES DISTRICT
LOS OSOS WASTEWATER FACILITY
San Luis Obispo County

The California Regional Water Quality Control Board, Central Coast Region (hereafter Board), finds that:

PURPOSE OF ORDER

1. The purpose of the Order is to issue new Waste Discharge and Recycled Water Requirements for the Los Osos Community Services District (hereafter Discharger). The Discharger submitted a report of waste discharge on July 8, 2002, for authorization to discharge treated municipal wastewater from the proposed Los Osos Wastewater Facilities serving the communities of Cuesta-by-the-Sea, Baywood Park and Los Osos, in San Luis Obispo County. The purpose of the Los Osos Wastewater Facilities is to collect, treat and dispose of domestic and municipal wastewater and to eliminate discharges from on-site systems in accordance with Resolution No. 83-13.

FACILITY OWNER AND LOCATION

2. The Discharger's Wastewater Treatment Plant will be located on property owned by the Discharger in San Luis Obispo County at the intersection of Ravenna Avenue and Los Osos Valley Road (Latitude 35°18'40" Longitude 120°50'24"), as shown on Attachment A, included as part of this Order.

FACILITY/SITE DESCRIPTION

3. **Treatment** - The proposed treatment system consists of grit removal, secondary treatment (extended aeration process), denitrification, secondary sedimentation, filtration and disinfection. Solids will be aerobically digested, dewatered and disposed of at an approved biosolids disposal site. The treatment plant's annual average flow design capacity is 1.4 million gallons per day (MGD) and peak capacity is 1.6 MGD. A diagram of the treatment processes is shown on Attachment B, included as part of this Order.

4. **Disposal and Reuse** - Treated municipal wastewater will be discharged to leachfields or reused for landscape irrigation within the community. Discharge areas are depicted on Attachment C of this Order. Details of the Discharger's reuse program are not yet available, therefore reclamation requirements according to Water Code Section 13523 are included in this Order as guidance for development of that program and may be updated and/or revised to address reuse program specifics.

5. **Geology, Soils and Ground Water** – The vicinity of the discharge is characterized by sandy soils overlying an upper aquifer (Old Dune Sand deposits) and a lower aquifer (Paso Robles formation). The primary disposal area is located in sandy soils on moderately sloping

terrain, overlying 150 feet separation to ground water in the Los Osos Valley Ground Water Basin. Other disposal and reuse areas are located on level to gently sloping terrain with depth to ground water varying from 30 to 150 feet. The direction of ground water flow is predominantly northwest toward Morro Bay, however localized flow direction variations occur due to pumping of ground water.

6. **Watershed and Surface Waters** - Morro Bay State and National Estuary abuts the community of Los Osos along the northern and western perimeters. Los Osos Creek meanders east of the community and discharges to Morro Bay at the northeastern tip of Los Osos. Both water bodies are depicted on Attachment C of the proposed Order. Water quality in Morro Bay is impaired by pathogens, metals and sediment.

   A DNA study completed in 2002 for Morro Bay identified humans as the primary source of coliform bacteria in freshwater seeps from shallow groundwater along the estuarine edge of Los Osos. Los Osos Creek is impaired by nutrients and priority organic pollutants. However, based on local topography and direction of ground water flow, such impacts are likely the result of surface runoff to Los Osos Creek rather than seepage of ground water. On December 13, 2002, the Regional Board adopted a pathogen Total Maximum Daily Load (TMDL) for Morro Bay, including an associated implementation plan to achieve TMDL goals. Completion of the community wastewater system in Los Osos is a vital component of the Pathogen TMDL Implementation Plan.

7. **Existing Disposal Practices** – A small portion of the Los Osos community (approximately 80 homes plus a motel) is served by a tertiary treatment facility which produces fully treated and disinfected water for reuse as golf course irrigation. The remainder of the community's wastewater treatment and disposal (from approximately 5000 homes) is by septic systems. Many of these septic systems discharge partially treated wastewater within close proximity or directly to shallow ground water. Such practices have impaired ground water with nitrate contamination and impaired surface waters in Morro Bay as indicated in Finding No. 6 (above).

8. **Ground Water Quality** - Recent ground water quality in the uppermost aquifer in Los Osos is as depicted in the following table (well sites depicted on Attachment C). Similar to historical data, the monitoring data continues to show ground water impaired by nitrates (15 wells exceeding the Maximum Contaminant Level (MCL) for drinking water and five wells approaching the MCL of 10 mg/L Nitrate as Nitrogen). Historically, shallow ground water was the predominant source of domestic supply for Los Osos. However, due to nitrate contamination in the shallow zones beyond state drinking water standards, ground water use has shifted to the better quality, deeper zones. Both upper and lower ground water zones are needed to meet the community's long-term water supply needs.

Well ID #	Depth to Water (ft)	Nitrate as N (mg/l)	Sample Date	Well ID #	Depth to Water (ft)	Nitrate as N (mg/l)	Sample Date
7K3	51	12	06/24/02	17N4	30	7.6	06/28/02
7L3	36	15	06/24/02	18B1	18	6.9	06/24/02
7N1	5	3	06/28/02	18C1	16	15	06/24/02
7Q1	7	16	06/26/02	18E1	25	11	06/27/02
7R1	21	12	06/24/02	18H3	60	11	07/09/02
8N2	35	2.4	06/25/02	18J6	24	6.9	06/25/02
13A7	5	12	07/02/02	18L3	38	9.2	06/25/02
13G	39	9.3	06/26/02	18L4	19	19	06/26/02
13H	25	1	06/26/02	18N1	68	18	06/27/02
13L5	22	19	06/26/02	18R1	10	14	07/02/02

13Q1	82	20	06/27/02	20B	60	5.7	07/02/02
17D	NA	17	07/09/02	24A	149	11	06/27/02
17F4	40	3	06/28/02	13F1	NA	20	08/20/02

Data Source: Los Osos Community Services District NA – Data not available at time of report preparation

9. In September 2000, Cleath and Associates, consultants for the Los Osos CSD, completed hydrogeologic investigations of the wastewater disposal sites and movement of ground water influenced by such disposal. These investigations concluded that ground water coming in contact with percolating wastewater will take at least one year to migrate off the disposal site and at least 14 years to reach the Bay. Accordingly, movement through the soil will contribute to further treatment of such ground waters. The investigations further conclude that some strategic ground water pumping may be needed to mitigate mounded ground water downgradient from the disposal site.

BASIN PLAN

10. The Water Quality Control Plan, Central Coast Basin (Basin Plan), was adopted by the Board on and approved on September 8, 1994. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of surface and ground waters in the vicinity of the discharge.

11. **Surface Water Beneficial Uses** - Present and anticipated beneficial uses of Morro Bay include:

    a. Industrial Process Supply
    b. Water Contact Recreation
    c. Non-contact Water Recreation
    d. Wildlife Habitat
    e. Cold Fresh Water Habitat
    f. Migration of Aquatic Organisms
    g. Spawning, Reproduction and/or Early Development
    h. Preservation of Biological Habitats of Special Significance
    i. Rare, Threatened or Endangered Species
    j. Estuarine Habitat
    x. Aquaculture
    y. Shellfish Harvesting

    Present and anticipated beneficial uses of Los Osos Creek include:

    a. Municipal
    b. Agricultural
    c. Ground Water Recharge
    d. Water Contact Recreation
    e. Non-contact Water Recreation
    f. Wildlife Habitat
    g. Cold Fresh Water Habitat
    h. Warm Fresh Water Habitat
    i. Migration of Aquatic Organisms
    j. Spawning, Reproduction and/or Early Development
    k. Rare, Threatened or Endangered Species
    l. Fresh Water Replenishment
    m. Commercial and Sport Fishing

12. **Ground Water Beneficial Uses** - Present and anticipated beneficial uses of ground water in the vicinity of Los Osos include:

    a. Municipal,
    b. Domestic,
    c. Agricultural and
    d. Industrial supply.

13. **Recycled Water** – Title 22, Division 4, Chapter 3 of the California Code of Regulations specifies State Department of Health Services' criteria for use of recycled water. Water Code section 13523 authorizes the Regional Board to issue reclamation requirements for water that is proposed to be used as reclaimed (recycled) water. The Regional Board has consulted with the State and County Health Departments regarding these reuse requirements. The State Department of Health Services (DHS) has evaluated the proposed project description and these waste discharge requirements and provided comments and recommendations

m. Commercial and Sport Fishing

which have been incorporated into this Order. DHS has determined that this Order is consistent with DHS's requirements, recommendations and policies regarding use of recycled water and protection of water quality and public health. DHS has also determined that this is a disposal project, not a ground water recharge project.

14. The Los Osos CSD project is designed to meet Title 22 requirements for recycled water. This Order incorporates those requirements and has been reviewed by DHS.

15. **Stormwater** - Federal Regulations for stormwater discharges, promulgated by the U.S. Environmental Protection Agency, require specific categories of industrial activities including Publicly Owned Treatment Works (POTWs) and construction activities that disturb a total of five acres or more to obtain a NPDES permit regulating the control of stormwater. The State Water Resources Control Board has adopted general NPDES permits for stormwater discharges associated with industrial facilities and stormwater discharges associated with construction activities. The California Environmental Quality Act (CEQA) mitigation and monitoring program in the Order require the Discharger to obtain coverage under the appropriate general NPDES permit before commencing construction and before operation of the wastewater treatment facility.

MONITORING PROGRAM

16. Monitoring and Reporting Program (MRP) No. R3-2003-0007 is part of this Order. The MRP requires routine wastewater influent and effluent and receiving water (ground water) sampling and analysis to verify compliance with this Order. Monitoring reports are required monthly and an annual report is required by January 30th of each year. Additionally, this Order requires the Discharger to comply with the CEQA mitigation monitoring program in Resolution R3-2003-0006.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

17. The Los Osos Community Services District certified a Final Environmental Impact Report (EIR) on March 1, 2002, in accordance with CEQA (Public Resources Code, Section 21000, et seq.) and the California Code of Regulations.

    Pursuant to CEQA guidelines Section 15096, the Regional Board, as a responsible agency, adopted Resolution No. R3-2003-0006 that contains required findings and a mitigation monitoring program. These findings are limited to the portion of the wastewater project approved by the Regional Board and to mitigation measures that are within the Regional Board's jurisdiction. Compliance with the mitigation measures and mitigation monitoring program described in the Resolution is mandated by this Order.

EXISTING ORDERS AND RESOLUTIONS

18. **Resolution No. 83-13** – In 1983, the Regional Board adopted Resolution 83-13, which amended the Basin Plan and prohibited, effective November 1, 1988, discharges of waste from individual and community sewage systems within portions of the Los Osos area of San Luis Obispo County. At the time of adoption of Resolution No. 83-13, the County represented that it could design and complete a wastewater, collection treatment and disposal system that would eliminate the need for individual and community on-site sewage systems by the prohibition date of November 1, 1988.

19. **Cease and Desist Orders** – The Discharger replaced the County as the agency responsible for implementing the community wastewater project and developed a plan and schedule for project implementation. In May 1999, the Regional Board issued Cease and Desist Orders (Nos. 99-53, 99-54, 99-55 and 99-56) to the Discharger and included the project implementation into those Orders. At the time

of adoption, the project implementation schedule appeared reasonably attainable.

20. **Time Schedule Order** – To address uncertainties in the original CSD project, the Discharger embarked on an evaluation of multiple collection, treatment, disposal and management alternatives. This evaluation resulted in modifications to the proposed project and the project implementation schedule. In October 2000, the Regional Board adopted Time Schedule Order No. 00-131 based on Section 13308 of the California Water Code. Time Schedule Order No. 00-131 contains a date-specific compliance schedule and a daily penalty of $10,000 for failure to meet the scheduled compliance dates. Order No. 00-131 also provides that the Regional Board may modify the time schedule in the Order to permit specified tasks to be completed at later dates if the Discharger demonstrates and the Regional Board determines that the delay was beyond the reasonable control of the Discharger.

GENERAL FINDINGS

21. On **September 6, 2002,** the Board notified the Discharger and interested agencies and persons of its intent to consider adoption of waste discharge requirements for the discharge and has provided them with a copy of the proposed Order and an opportunity to submit written comments and scheduled a public hearing.

22. In a public hearing on **February 7, 2003,** the Board heard and considered all comments pertaining to the discharge, all evidence in the record, the Final Environmental Impact Report and the applicable law and found this Order consistent with the above findings.

IT IS HEREBY ORDERED, pursuant to authority in Section 13263, 13267 and 13523 of the California Water Code, that Los Osos Community Services District, its agents, successors, and assigns, may discharge waste from the Los Osos Wastewater Facility providing compliance is maintained with the following:

All technical and monitoring reports submitted pursuant to this Order are required pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or attachments to this Order, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.

(Note: General permit conditions, definitions and the method of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated January 1984, referenced in paragraph E.2. of this Order.)

Throughout these requirements footnotes are listed to indicate the source of requirements specified. Requirement footnotes are as follows:.

WC = Water Code
BP = Basin Plan
T22 = California Code of Regulations, Title 22, Recycled Water Criteria
DHS = State Department of Health Services

Requirements without footnotes are based on staff's professional judgment.

A. PROHIBITIONS

1. Discharge to areas other than the disposal facilities shown on Attachment C of this Order or reuse sites approved by the Executive Officer, is prohibited. [T22, WC]

2. Discharge of any wastes including overflow, bypass and runoff from transport, treatment or disposal systems to adjacent drainage ways or adjacent properties is prohibited. [T22, WC]

3. Discharge of untreated or partially treated wastewater is prohibited. [WC]

4. Discharge of wastewater within 100 feet of any well used for domestic supply or irrigation of food crops is prohibited. [BP]

B. EFFLUENT LIMITATIONS
(Discharge to Leachfields)

1. The annual average effluent shall not exceed 1.4 MGD.

2. Effluent discharged to the disposal system shall not exceed the following limitations:

Constituent	Units	Monthly (30-Day) Average	Daily Maximum
Settleable Solids	ml/l	0.1	0.5
BOD, 5-Day	mg/l	60	100
Suspended Solids	mg/l	60	100
Total Nitrogen (as N)	mg/l	7	10

C. RECYCLED WATER SPECIFICATIONS
(Reclamation (reuse) Requirements adopted under Water Code section 13523 apply in addition to Effluent Limitations specified above)

1. Discharger shall develop an Engineering Report on the Production, Distribution and Use of Recycled Water (Engineering Report) in conformance with Title 22 of the California Code of Regulations, for review and approval of the Executive Officer (after consultation with State and local Health Departments). The Engineering Report must be submitted no less than six months in advance of proposed reuse of wastewater.

2. Recycled water production and use shall at all times be in conformance with recycled water criteria established in Title 22, Division 4, Chapter 3 of the California Code of Regulations and the Engineering Report[T22, WC]. Recycled water shall be adequately oxidized, coagulated, clarified, filtered, disinfected[T22] and not exceed the following limitations:

Parameter	Units	Monthly Mean	Max.
BOD_5	mg/l	30	90
Suspended Solids	mg/l	30	90
Turbidity[T22]	NTU	2*	5**
pH[BP]	units	In range 6.5-8.4	

* 24-hr mean value. [T22]

**Turbidity must not exceed 5 NTU more than 5% of the time within a 24-hr period and must not exceed 10 NTU. [T22]

3. The median number of coliform organisms in recycled water shall not exceed 2.2 MPN per 100 ml, as determined from the bacteriological results of the last 7 days for which analyses have been completed. The number of coliform organisms shall not exceed 23 MPN per 100 ml in more than one sample in any 30-day period and shall not exceed 240 MPN per 100 ml in any single sample. [T22]

4. Recycled water subject to a chlorine disinfection process shall include a CT (chlorine concentration times model contact time) of not less than 450 milligram-minutes per liter at all times with a model contact time of at least 90 minutes, based on peak dry weather design flow. [T22] Chlorine residual in reclaimed water shall equal or exceed 0.5 mg/l, as measured immediately after the chlorine contact zone.

5. Any alternative, comparable disinfection process must be approved by California Department of Health Services and the Executive Officer.

6. Delivery of reclaimed water for irrigation purposes shall cease as soon as possible and all wastewater shall be returned to the treatment and/or disposal system if:

   a. Disinfection of wastewater ceases at any time; or,

   b. Reclamation specifications are violated or threaten to be violated.

7. Recycled water shall be confined within the authorized reuse areas (approved by the Executive Officer after consultation with State and local health departments).

8. Recycled water shall not be used for irrigation during extended periods of rainfall and/or runoff.

9. Personnel involved in producing, transporting or using recycled water shall be informed of possible health hazards that may result from contact and use of recycled water.

10. Use of recycled water shall occur at a time and in a manner to prevent or minimize public contact with recycled water and to prevent ponding in irrigation areas.

11. Areas irrigated with recycled water shall be posted in English and Spanish to warn the public that recycled water is being used. Signs shall be no less than four inches high by eight inches wide and include the wording "RECYCLED WATER – DO NOT DRINK".

12. Recycled water valves shall be of a design to prevent public access.

13. Drinking fountains shall be protected from recycled water spray, mist or runoff.

14. Tank trucks used to transport recycled water shall be appropriately labeled and shall not leak.

D. RECEIVING WATER LIMITATIONS
(Ground Water Limitations)

(Receiving water quality is a result of many factors, some unrelated to the discharge. This permit considers these factors and is designed to minimize the influence of the discharge to receiving waters.)

The discharge shall not cause:

1. The nitrate-nitrogen (NO_3 as N) level of ground water to exceed 10 mg/l.[BP]

2. Significant increase of mineral constituent concentrations in underlying ground water, as determined by comparison of samples collected from wells prior to and post discharge commencement.

3. Concentrations of chemicals and radionuclides in ground water to exceed limits set forth in Title 22, Chapter 15, Articles 4 and 5 of the California Code of Regulations. [BP]

E. PROVISIONS

1. Discharger shall comply with "Monitoring and Reporting Program No. R3-2003-0007" (included as part of this Order), as ordered by the Executive Officer.

2. Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated January 1984 (included as part of this Order).

3. Implementation of Mitigation Measures pursuant to California Environmental Quality Act:

   a. The Discharger shall incorporate into the work required by this Order the following mitigation measures, identified in the FEIR and set forth in Resolution No. R3-2003-0006:

      i. Geology: Geo-1, Geo-2, Geo-3, Geo-4, Geo-5, Geo 6, Geo-7, Geo-8 and Geo-9.
      ii. Drainage: WR-1, WR-2 & WR-3.
      iii. Air Quality: AQ-3.
      iv. Public Health, Safety and Services: PS-1 and PS-3.

   b. The Discharger shall implement the Mitigation Monitoring Program in Resolution No. R3-2003-0006.

4. Treatment and discharge shall not cause pollution or nuisance as defined in Section 13050 of the California Water Code.

5. All accumulated biosolids or solid residue shall be disposed at a location authorized by law. Discharger shall report to the Executive Officer, plans to discharge at a facility not covered by existing waste discharge requirements or

general waste discharge requirements at least six months before disposal begins. If the Executive Officer directs the Discharger to submit a report of waste discharge, Discharger shall not begin disposal until it has obtained coverage under individual or general waste discharge requirements or other authorization to discharge.

6. Treatment, storage and disposal facilities shall be managed to exclude the public and posted to warn the public of the presence of wastewater.

7. Discharger shall develop and implement an on-site wastewater management plan no later than **January 1, 2004** assure ongoing operations, maintenance and monitoring of on-site disposal systems for the unsewered areas in the community of Los Osos.

8. Pursuant to Title 23, Division 3, Chapter 9, of the California Code of Regulations, the Discharger must submit a report to the Executive Officer, no later than **August 7, 2007,** addressing:

   a. Whether there will be changes in the continuity, character, location or volume of the discharge; and,

   b. Whether, in their opinion, there is any portion of the Order that is incorrect, obsolete or otherwise in need of revision.

I, Roger W. Briggs, 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, Central Coast Region, on February 7, 2003.

Executive Officer

2-10-03
Date

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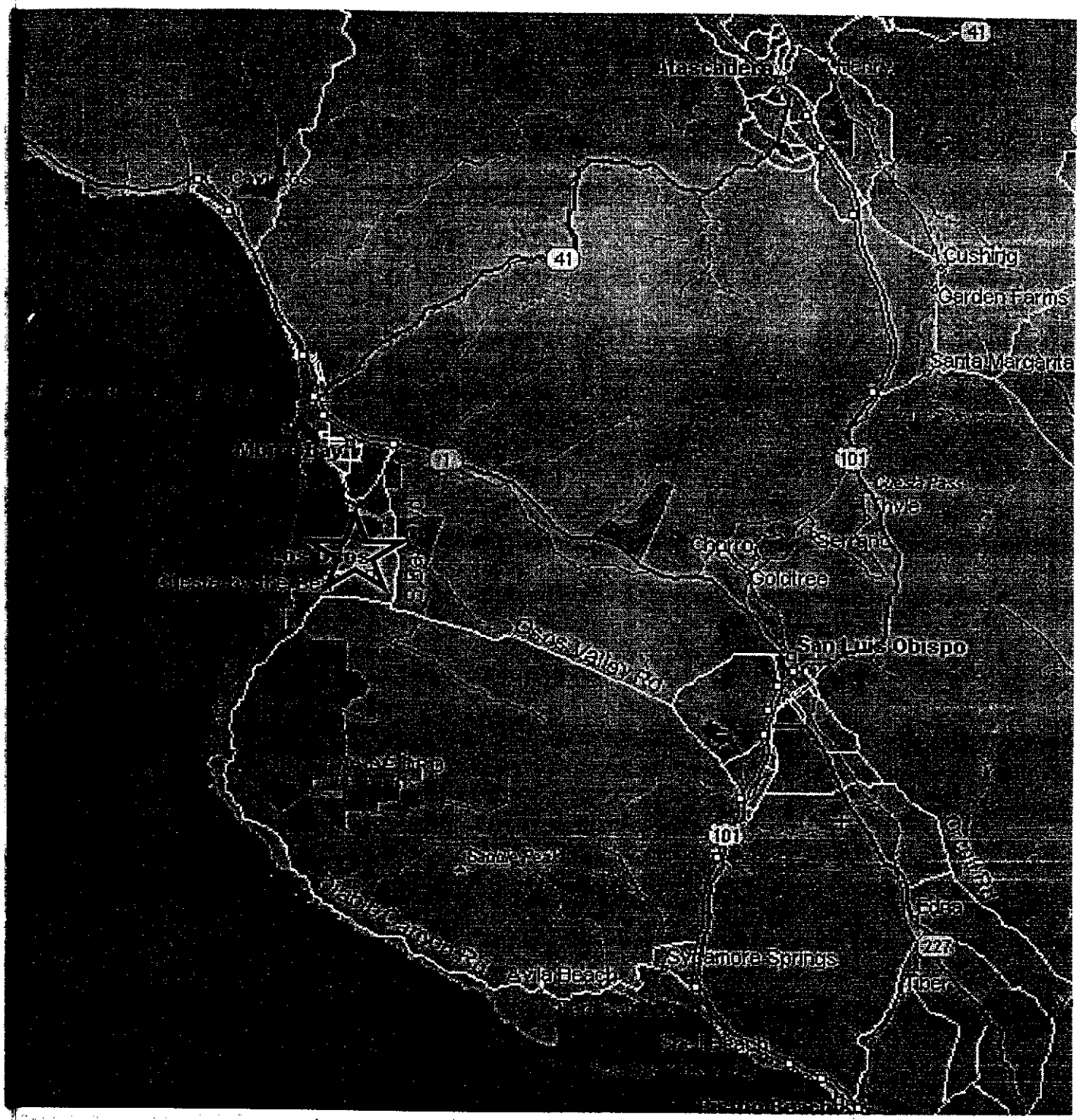
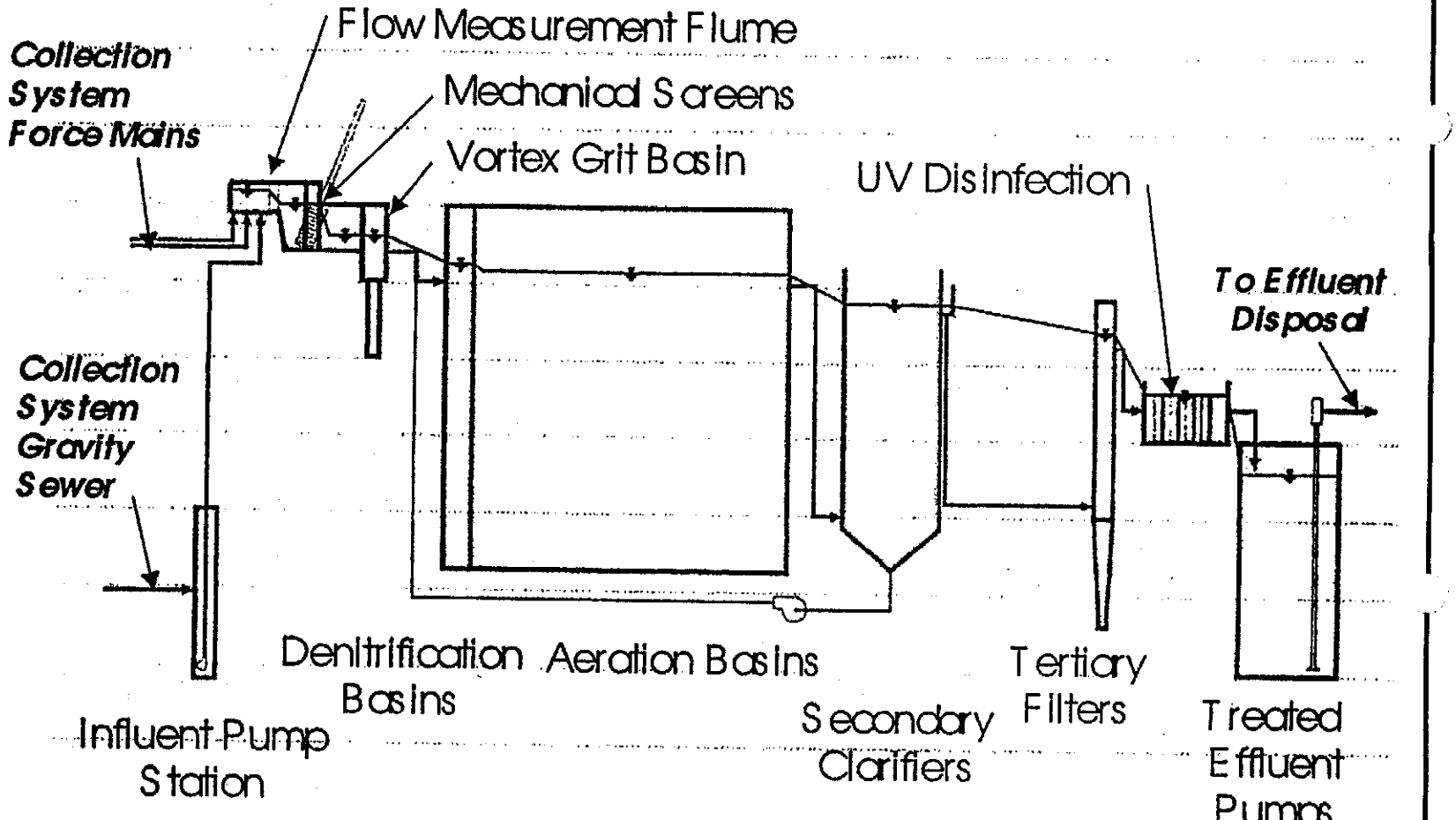


ATTACHMENT A

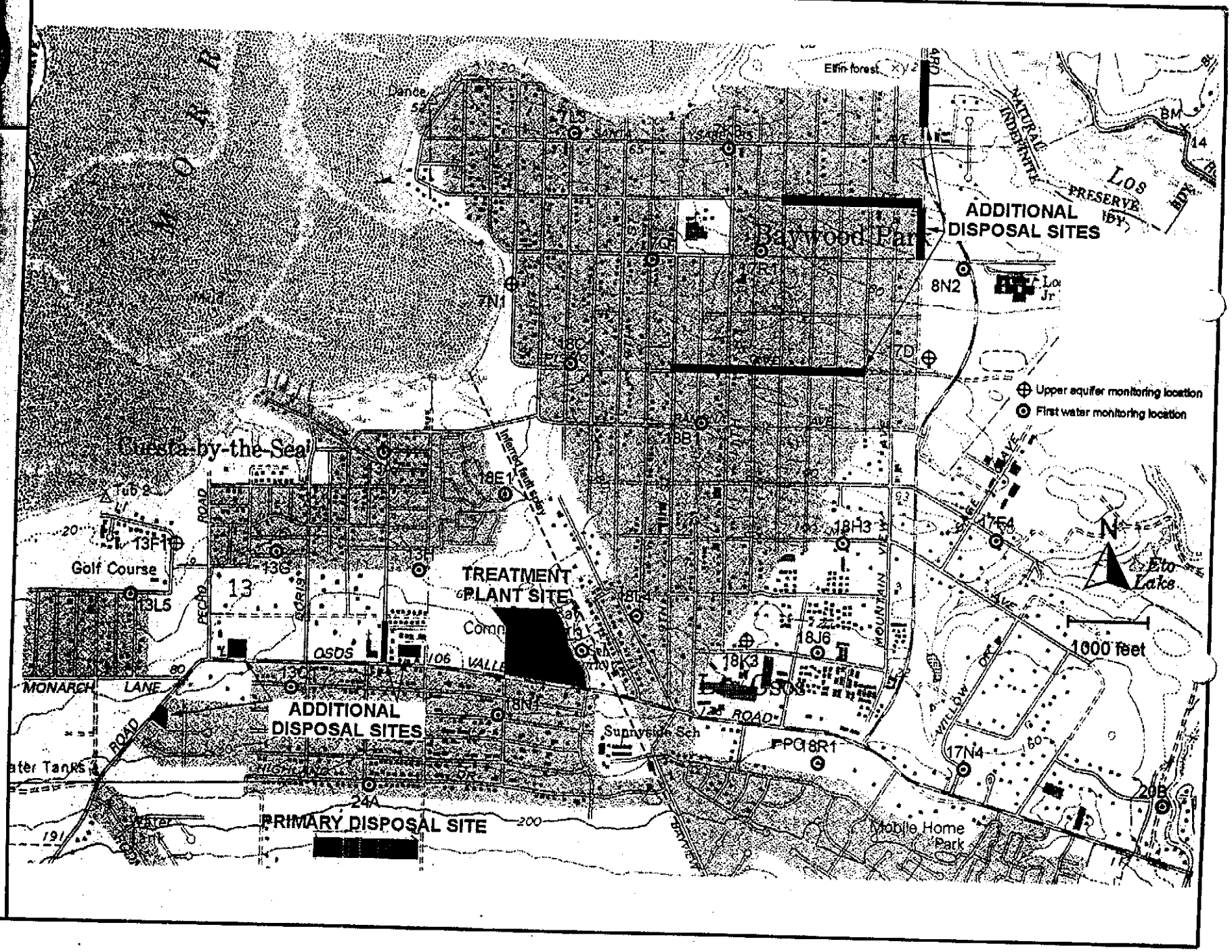
LOS OSOS COMMUNITY SERVICES DISTRICT

ORDER NO. R3-2002-0108

ATTACHMENT B
LOS OSOS COMMUNITY SERVICES DISTRICT
ORDER NO. R3-2002-0108



ATTACHMENT C
LOS OSOS COMMUNITY SERVICES DISTRICT
ORDER NO. R3-2002-0108



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COASTAL REGION

MONITORING AND REPORTING PROGRAM NO. R3-2003-0007
FOR
LOS OSOS COMMUNITY SERVICES DISTRICT
LOS OSOS WASTEWATER FACILITY
SAN LUIS OBISPO COUNTY

Influent Monitoring

Representative samples of the influent to the treatment plant shall be collected and analyzed as follows:

Constituent	Units	Type of Sample	Minimum Sampling and Analyzing Frequency
Flow Volume	mgd	metered	Daily
Maximum Daily Flow	mgd	calculated	Monthly
Suspended Solids	mg/l	24-hr. composite	Monthly
Biochemical Oxygen Demand, 5-day	mg/l	24-hr. composite	Monthly

Effluent Monitoring

Representative samples of the effluent shall be collected and analyzed as follows:

Constituent	Units	Type of Sample	Minimum Sampling and Analyzing Frequency
Flow Volume	mgd	metered	Daily
Settleable Solids	ml/l	grab	Daily
Biochemical Oxygen Demand, 5-day	mg/l	24-hr. composite	Weekly
Suspended Solids	mg/l	24-hr. composite	Weekly
Total Nitrogen (as N)	mg/l	grab	Monthly
Heavy Metals	mg/l	grab	Annually

Recycled Water Monitoring

Representative samples of water provided for reuse shall be collected and analyzed as follows (in addition to Effluent Monitoring above):

Constituent	Units	Type of Sample	Minimum Sampling and Analyzing Frequency
Flow Volume	mgd	metered	Daily
Site of use	--	site identification	Daily (as used)
Total Coliform Organisms	MPN/100ml	grab	Daily
Total Chlorine Residual	mg/l	metered	Continuous[2]
Turbidity[1]	NTU	metered	Continuous
Biochemical Oxygen Demand, 5-day	mg/l	24-hr. composite	Weekly
Suspended Solids	mg/l	24-hr. composite	Weekly
pH	units	grab	Weekly

[1] Recycled water shall be sampled for turbidity using a continuous meter and recorder following filtration. Compliance with the 2 NTU daily average limitation shall be determined by averaging the recorded turbidity levels at a minimum of four-hour intervals over a 24-hour period. Compliance with the 5 NTU limitation shall be determined using the recorded turbidity levels taken at intervals of no more than 12 hours over a 24-hour period. Should the continuous turbidity meter and recorder fail, grab sampling at a minimum frequency of 12 hours may be substituted for a period of up to 24 hours.

[2] Continuous chlorine residual monitoring may be performed using alternative methods until such time as methods of analysis for continuous chlorine residual monitoring are approved by U.S. EPA under 40 CFR 136. Chlorine monitoring is not required if chlorine is not need for treatment

Ground Water Monitoring

Representative samples of ground water shall be collected and analyzed from the following twenty five (25) monitoring wells Well ID Nos. 13A7, 13G, 13H, 13L5, 13Q1, 24A, 7K3, 7L3, 7N1, 7Q1, 7R1, 8N2, 17D, 17F4, 17N4, 18B1, 18C1, 18E1, 18H3, 18J6, 18L3, 18L4, 18N1, 18R1, 20B (as identified and described in the Discharger's Ground Water Monitoring Network Design, dated February 2002). These monitoring wells are graphically shown on Attachment C of Order No. R3-2003-0007. Additional wells may be added to the Ground Water Monitoring Program as deemed appropriate. The samples are to be analyzed as follows:

Constituent	Units	Type of Sample	Minimum Sampling and Analyzing Frequency
Depth to ground water	feet	measure	Semi-annually
Total Dissolved Solids	mg/l	grab	Semi-annually
pH	Units	grab	Semi-annually
Total Nitrogen (as N) (all forms identified)	mg/l	grab	Semi-annually
Sodium	mg/l	grab	Semi-annually
Chloride	mg/l	grab	Semi-annually
Sulfate	mg/l	grab	Semi-annually
Boron	mg/l	grab	Semi-annually

In addition, representative ground water samples shall be collected from Well No. 24A and analyzed for Priority Pollutants annually, with data reported in the Annual Summary Report.

The results shall be tabulated and include a narrative description of analytical results (general mineral constituents, including all forms of nitrogen, depth to ground water, and ground water flow direction) and water quality trends (changes in water quality, impacts from sea water intrusion). Sample procedures, and equipment used shall also be reported. Contour maps shall be provided that include: a) ground water elevations and flow direction, b) TDS concentrations, and c) Nitrate as Nitrogen concentrations.

In addition, analytical results for water quality data collected from water purveyor wells in the basin shall be reported. Any additional monitoring performed shall be submitted with regular monitoring reports.

Disposal Area Monitoring

The disposal areas shall be inspected daily for indications of actual or threatened overflow, seepage, surfacing or other problems. An inspection log shall be kept of the disposal areas conditions, observations, problems noted, and corrective actions taken. A summary of the log shall be included with each month's monitoring report.

Biosolids Monitoring

Representative samples of biosolids removed from the facilities for disposal shall be collected and analyzed as follows:

Constituent	Units	Type of Sample	Minimum Sampling and Analyzing Frequency
Volume	Gallons or Cubic Yards	Grab	Annually or when disposal occurs (whichever is less frequent)
Moisture Content	percent	Grab	" " "
Total metals	mg/kg	Grab	" " "

Reporting

Monthly monitoring reports shall be submitted to the Regional Board by the 30th day of each month following sampling. Reports shall summarize monitoring data, noncompliance, reasons for noncompliance, corrective action, disposal area monitoring, and any other significant events relating to compliance with Order No. R3-2003-0007. Copies of monitoring reports shall also be submitted to the Department of Health Services at 1180 Eugenia Place, Suite 200, Carpinteria, CA 93013. Annual summary reports shall be submitted in accordance with Standard Provision C.16.

ORDERED BY _____
Executive Officer

February 7, 2003
Date

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

RESOLUTION NO. R3-2003-0006

Adoption of Findings of Mitigation and Adoption of Mitigation Monitoring Program Waste Discharge Requirements Order No. R3-2003-0007 for the Los Osos Community Services District, Los Osos Wastewater Facility

The California Regional Water Quality Control Board, Central Coast Region (Regional Board), finds:

I. FINAL EIR CERTIFICATION AND REGIONAL BOARD ROLE AS RESPONSIBLE AGENCY

In accordance with the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations sections 15000, et seq.), the Los Osos Community Services District (Los Osos CSD), as Lead Agency, prepared a draft Environmental Impact Report (EIR) for the Los Osos Wastewater Facilities Project. The draft EIR was prepared and circulated for public review in accordance with CEQA and guidelines for Environmental Review of State Revolving Fund projects. The document was available for public review and subject to several workshops of the Los Osos CSD. Relevant environmental issues were included in the EIR. Following public review and comment, the Los Osos CSD certified the Final EIR on March 1, 2001.

The contents of the Draft EIR, the response to comments, and any other related attachments including the Mitigation Monitoring Program compose the Final EIR for the Los Osos CSD Wastewater Facilities Project (Project). The Final EIR is incorporated into these findings by reference and was considered in adoption of this Resolution.

As a responsible agency, the Regional Board is required to make findings of mitigation or overriding considerations and adopt a mitigation monitoring program only for those portions of the project that are being approved by the responsible agency. (CEQA Guidelines section 15096(g)(1).) In 1983, the Regional Board adopted a Basin Plan amendment prohibiting discharges to septic tanks in the Baywood Park/ Los Osos prohibition area effective November 1988. The decision to prohibit septic tanks was made over twenty years ago and is not the subject of this proceeding. The portion of the project to be approved by the Regional Board in this proceeding is set forth in Waste Discharge Requirements Order R3-2003-0007.

The Regional Board may require only those alternatives and mitigation measures that are within its jurisdiction. CEQA does not grant the Regional Board any additional discretionary authority. (CEQA Guidelines sections 15040 and 15096(g).) The jurisdiction of the Regional Board is limited to regulating the impacts to water quality and the beneficial uses of water caused by the discharge of wastes. Additionally, the Regional Board may require prevention and abatement of conditions of nuisance that are associated with the discharge of wastes, as defined in Water Code section 13050. The Regional Board does not have jurisdiction over water supply, water rights or sea water intrusion. Finally, subject to limited exceptions that do not apply

here, the Regional Board may not specify the design, location, type of construction, or particular manner in which compliance may be had with any waste discharge requirement or other order of the Regional Board. (Water Code section 13360.)

Findings in Resolution No. R3-2003-0006 are limited to portions of the project approved by Waste Discharge Requirements Order No. R3-2003-0007 and mitigation measures within the Board's jurisdiction.

II. PROJECT BACKGROUND AND DESCRIPTION SUMMARY

The following summary description is excerpted from Chapter 3 of the Final EIR for the Los Osos Wastewater Facilities Project and covers the entire project approved by the Lead Agency. **Only a portion of the project described below is subject to approval of the Regional Board. The portion subject to Regional Board approval is described in Waste Discharge Requirements Order R3-2003-0007.**

Project Components

The Project consists of a comprehensive wastewater management program for the community of Los Osos with the following components:

- A Septic System Maintenance and Management Program (SSMMP);
- A wastewater collection system;
- A wastewater treatment facility;
- Wastewater disposal facilities and ground water harvesting and monitoring wells;
- Wastewater solids handling facilities at the wastewater treatment plant to enable the hauling of biosolids to a disposal or recycling facility;
- Appurtenant structures and on-site amenities;
- Construction activities;
- A program for the mitigation of direct impacts to habitat for endangered species;

Description of Project Components

Septic System Maintenance and Management Program (SSMMP): A Septic System Maintenance and Management Program is proposed which would affect all properties within the General Plan urban reserve line that lie outside the Regional Board Prohibition Area, as illustrated by (see Figure 3-2 of the Final EIR), in addition to the neighborhoods of Bayview Heights and the Martin Tract, which are within the Prohibition Area but outside the wastewater collection area. Within the SSMMP, each of the 1,051 remaining septic tanks and leach fields would remain in place and would be maintained by the Los Osos CSD. On a regular schedule (about once every five years) each septic tank would be pumped of septage and the septage would be transported to the wastewater treatment facility. Substandard septic systems would need to be upgraded to current standards by individual property owners. The program would include initial inspections of septic tanks to determine their efficacy and age, as well as ongoing routine inspections and septage hauling and disposal.

Collection System: The collection system consists of the installation of about 204,000 feet of sewer pipe. Within the collection area (the Regional Board Prohibition Area) all of the septic tanks would be abandoned and all sewage would be collected through a series of gravity and pressurized (pumped) sewer lines which would convey waste to a treatment plant. The collection system would also include control telemetry to monitor and manage collection operations.

The proposed collection system would serve a build-out population of 17,963 within the Collection/Regional Board Prohibition Zone (4,774 connections), or an area roughly 87 percent of the community. Collection system components include main laterals, piping connections to the property line, pumps and effluent filters. Preliminary estimates are that about 22% of the individual connections would occur at the rear of a property and that about 600 connections will require an onsite pump.

The collection system will be a conventional gravity system consisting of three major components:

- Connection lines at each property to convey flow from the dwellings to the sewer main in the street;
- Sewer mains to convey flow to the treatment plant;
- Pump stations to lift the flow over hills and high areas.

In addition to the gravity and pressurized sewer lines, a series of up to 11 pump stations would be needed. Pump stations would be located on vacant lots purchased by the Los Osos CSD or within public rights-of-way. These stations will generally be required in low-lying areas and where sewer depths approach 11 feet in depth. The stations will use electrically driven submersible pumps set in pre-cast concrete vaults with two pumps per station. The concrete vaults will be sited within lightly traveled public right of ways.

Solids from all septic systems outside the collection system area and within the SSMMP will be periodically pumped and transported by truck to the septage receiving and treatment facility incorporated into the treatment plant (see below). Septage will be pumped from every maintained septic tank at least once every five years. Assuming 1,051 septic tanks and 250 working days per year, this amounts to an average of about 210 septic tanks per year, or about 4,000 gallons per week (2-3 tanker truck loads). The septage receiving station, consisting of a truck drive-through, discharge area and underground vaults, would be enclosed within the Wastewater Treatment Facility and would be fully odor scrubbed.

Wastewater Treatment Facility: The wastewater treatment facility would consist of a hybrid extended aeration wastewater treatment plant which relies primarily on natural organisms and processes to treat collected wastewater. The preferred configuration is considered a hybrid, because it will be constructed almost entirely underground and will be fully odor scrubbed. The facility will be designed to treat the collected wastewater to achieve water quality standards established by the Regional Board, primarily as they relate to the removal of excess nitrate from the effluent stream. The treated wastewater will also undergo filtration and final disinfection to permit safe, approved disposal and/or reuse.

The treatment facility will be designed with a capacity to treat an average daily dry weather flow (ADWF) of approximately 1.365 million gallons per day (mgd). Implementation of a water

conservation program is expected to conserve 150,000 gallons per day, making the adjusted average dry weather flow about 1.2 mgd which is intended to serve a build-out population of 17,283 residents within the Collection/Prohibition Zone. Septage pumped periodically from the septic tanks within the service area of the SSMMP will be received and treated at the wastewater treatment facility site.

The preferred location for the wastewater treatment facility is an 11 acre parcel owned by Tri-W Inc. located at the northwest corner of Los Osos Valley Road and Palisades, across the street from the Los Osos Community Center and adjacent to the community library. The wastewater treatment facility is expected to occupy about 5-6 acres of the site, with the remainder devoted to landscaped open space. The site is currently vacant.

The extended aeration process produces biosolids that are stabilized and therefore non-putrescible. It is estimated that the treatment plant will generate approximately 1,400 pounds per day (dry weight basis) of biosolids, which will be hauled to a landfill or composting facility.

The entire treatment plant will be covered and odor scrubbed. The buildings and enclosed structures of the treatment plant will be held under negative air pressure, meaning that clean outside air will be drawn into the air spaces above the treatment processes. This approach prevents the 'leakage' of unscrubbed air to the outside.

Effluent Disposal: At build-out of the Prohibition Area, wet weather flows through the treatment system could reach as high as 1.7 mgd at build-out of the community. However, during the dry season (most of the year) the flow will be lower, around 1.365 mgd. Implementation of a water conservation program is expected to reduce water consumption by about 150,000 gallons per day, which will reduce the amount of water entering the collection system. Therefore, between 1.2 - 1.7 mgd of treated wastewater will need to be disposed. The preferred disposal method is to percolate the highly treated and disinfected wastewater into the ground by way of sub-surface leach fields.

The preferred disposal strategy addresses these factors through a combination of recycling and sub-surface disposal. During dry weather up to 200,000 gallons per day of treated wastewater will be recycled by irrigating play fields and landscaping within the community. Among the sites being considered are the four public schools (Baywood Elementary, Monarch Grove Elementary, Sunnyside Elementary and Los Osos Middle School) and the Sea Pines Golf Course. The balance of the highly treated and disinfected wastewater (about 950,000 gallons per day during dry weather) will be pumped to sub-surface leach fields where it will percolate ultimately into the sandy soils. Also during the dry season, leach field use will be rotated to maximize the long-term life of the system and to ensure that the sub-surface soils do not become saturated.

During the rainy season, treated wastewater passing through the treatment process could reach as high as 1.7 mgd for short periods (60 days or less) and require disposal. During wet weather when surface irrigation is unavailable, all of the treated wastewater will be disposed of exclusively through the sub-surface leach fields. Leach fields will be located in portions of the community where sufficient depth to ground water (30 feet or more) exists to accept the treated wastewater without resulting in the saturation of surface soils. The areas tentatively chosen are located primarily within street right-of-way and on other lands. Every five to ten years the disposal leach fields will require maintenance in which the field would be completely exposed and rehabilitated.

Ground water modeling indicates that the area west of the inferred trace of Strand B of the Los Osos fault has the capacity to accept about 950,000 gallons per day of treated effluent, once individual septic leach fields are no longer in use. The primary disposal site is a 40 acre portion of an 80 acre parcel located south of Broderson Avenue (the Broderson site) adjacent to a developed residential neighborhood. Leach fields would be constructed in linear arrays parallel with Highland Drive on an eight-acre portion of the property located toward the southerly property boundary (up-slope). Preliminary sub-surface geotechnical investigations suggest that the Broderson site can accommodate up to 800,000 gallons per day of treated effluent. Other locations proposed for disposal on the west side of the fault are:

- Vista de Oro property on the east side of Pecho Valley Road south of Monarch.
- The Los Osos Valley Road right-of-way between Broderson Avenue and Doris Avenue, and the Pine Avenue right-of-way from Los Osos Valley Road northward.
- A portion of Monarch Grove Elementary School (backup)

To prevent the mounded ground water from surfacing downslope of the Broderson site, a series of four ground water harvesting wells (and one alternate) will be employed. It is estimated that 400,000 gallons per day will need to be harvested. A series of up to 30 monitoring wells will also be used to monitor the sub-surface ground water mounding and to monitor ground water quality.

The preferred option for the disposal of recovered water is to undergo additional nitrogen reduction through either blending with water from the deep aquifer, or through additional treatment that may include ion exchange or some other denitrification process to meet drinking water standards.

The area east of the inferred fault trace is more limited in its capacity to accept treated wastewater for disposal. This is due to the generally shallower depth to ground water and the prevalence of perched clays which restrict percolation. Areas on the east side of the fault considered for disposal include:

- A portion of the Pismo Avenue right-of-way between 7th and 14th Streets
- A portion of the Santa Maria Avenue right-of-way between 13th Street and 17th Street.
- Los Osos Middle School (stand-by only)
- A portion of the Santa Paula Avenue right-of-way between South Bay Boulevard and 15th Street
- A four-acre portion of the 30 acre Powell property located east of the Middle School at the end of El Moro.

Wastewater Bio-Solids Disposal: An extended aeration treatment plant serving the Prohibition Area would produce approximately 1,400 pounds of bio-solids per day (dry weight) and non-toxic chemicals (40 lbs.). Once treated to satisfy federal and state requirements, treated solids would be removed from the wastewater treatment facility about three times per week and hauled (initially) to a landfill. To be disposed of in a landfill, bio-solids must meet the pollutant concentrations specified by Title 40 Section 503.23 of the Code of Federal Regulations, which also prescribes landfill management practices to be followed for sludge handling. A more complete discussion of

bio-solids disposal and management regulations is provided in Chapter 6.2: Hydrogeology and Water Resources.

Wastewater Facility Appurtenant Structures: The Los Osos Wastewater Facility treatment plant site is a multi-use facility intended to benefit the entire Los Osos/Baywood Park community by providing a state of the art wastewater treatment plant in a park like setting.

The treatment facility consists of two major components, the principal treatment areas, which are buried beneath the park; and a cluster of buildings that include final treatment and processing, lab facilities, visitor and operations space and maintenance facilities. The buildings are clustered low on the site set into the natural grade so that only a portion of the roofs are visible from Los Osos Valley Road. Approximately three-quarters of the treatment facility will be located below grade, thereby minimizing visual impacts, and creating additional area for recreational uses. Vehicular access to the treatment facility by employees, visitors and the septage and bio-solids trucks will be directly from the northerly extension of Ravenna Avenue. The bio-filter/odor scrubber is located between the underground portion of the treatment facility, separating the more active park and play fields from uses on top of the treatment facility structure.

Open Space and Landscaping: Constructing the treatment plant underground provides an opportunity for most of the site to be landscaped or otherwise improved to provide an open space and recreation amenity for the community. A preliminary design is illustrated by Figure 3-8 of the Final EIR, which incorporates a large grass area suitable for youth soccer or other types of active recreation. The site will also incorporate a system of pedestrian/bicycle trails and visitor parking.

Appurtenant Structures and Offsite Improvements: The cluster of buildings include the Los Osos CSD offices, visitor/reception and information area (4,000 square feet), and public meeting hall for the Los Osos CSD. This building is located near the County Library site and the proposed parking lot to serve the park and public uses in the vicinity. A covered walkway/arbor directly connects the Los Osos CSD offices with the treatment facility.

In addition, a stormwater retention basin is provided in the northwest corner of the site, which is designed to accept runoff expected from a 50-year storm. The retention system also provides for up to 18 hours of emergency storage in the event of a major failure of the treatment plant.

Full street frontage improvements will be installed along Los Osos Valley Road (curb, gutter, sidewalk, Class I bicycle path, and parking) and a two-thirds street construction of Ravenna Avenue north of Los Osos Valley Road along the property frontage to provide direct access to the treatment plant site.

Construction Activities: Construction of the project is expected to take about 16-24 months. Construction of the collection system will involve the installation of collection pipes within easements and public rights-of-way using trenching techniques. Because of the predominance of sandy soils in the Los Osos area, a given trench will be limited to a maximum of 1,000 feet open at any given time. Trenching will require de-watering in shallow ground water areas as well as stabilizing measures. In general, construction activities will have as many as 6 pipe runs excavated at a time to avoid disrupting traffic. The collection system will also involve the installation of [redacted] submersible pump stations, which will involve excavation and construction of underground vaults.

Construction of the treatment plant and the recreation amenities will involve grading, excavation and building construction. Due to the shallow ground water associated with the treatment plant site, it may need to be de-watered during construction activities.

Lastly, individual property owners will be responsible for the de-commissioning their septic tanks, the installation of on-site collection laterals and for the replacement of plumbing fixtures with water conserving fixtures. Septic tank de-commissioning involves pumping the tank out, removing the top of the tank and backfilling the tank with sand.

Mitigation of Biological Impacts: Construction of the various components of the Project will result in the permanent loss of habitat for special status plant and animal species. The species of most concern is the federally endangered Morro Shoulderband Dune Snail whose habitat includes portions of the proposed treatment plant site, and may occupy undeveloped lots throughout the community.

Impacts to federally listed plant or animal species are governed by the federal Endangered Species Act and enforced by the United State Fish and Wildlife Service (USFWS). Recognizing that any permanent loss of habitat for an endangered species will be considered a significant and irreversible environmental impact, the Los Osos CSD has made a mitigation proposal to the USFWS that is summarized in the mitigation measures at the end of Chapter 6.11 of the Final EIR.

III. THE RECORD

CEQA Guidelines section 15091(b) requires that the Responsible Agency's findings be supported by substantial evidence in the record. Accordingly, the Responsible Agency's record consists of the following:

1. Documentary and oral evidence, testimony, and staff comments and responses received and reviewed by the Board during its public meetings (various times from 1971 through February 2003), and the public hearing (February 7, 2003) on the project described in Waste Discharge Requirements No. R3-2003-0007. All documents in the Regional Board's files including, but not limited to those listed below, are also part of the record.

2. The Los Osos Community Service District Wastewater Facility Project, Final Environmental Impact Report, as certified on March 1, 2001.

3. Documentary and oral evidence, testimony, and staff comments and responses received and reviewed by the Regional Board during public hearings on the project.

4. Crawford Multari & Clark Associates (2001) Draft and Final Environmental Impact Report for the Los Osos Wastewater Facilities Project.

5. Bertrando and Bertrando Research Consultants (2000), Cultural Resource Inventory of the Resource Park site.

6. Brown and Caldwell (1983), Phase I Water Quality Management Study Vol. I and II.

7. California Department of Water Resources (1989), Geohydrology and Management of Los Osos Valley Ground Water Basin San Luis Obispo County.

8. Engineering Development Associates (1998), Preliminary Drainage Evaluation, Los Osos/Baywood Park Community Drainage Project.

9. Fugro West, Inc. (1997), Final Supplemental Environmental Impact Report for the CSA 9 Wastewater Treatment Facilities.

10. Metcalf and Eddy (1996), Hydrogeologic Evaluation of the Proposed Broderson Recharge Site.

11. Metcalf and Eddy (1996), Final Los Osos Water Reclamation Project, Technical Memoranda.

12. Morro Group (1987), *Final Environmental Impact Report for the County Service Area No. 9 Wastewater Treatment Facilities. Volumes I and II.* August. Los Osos, California. Prepared for County of San Luis Obispo, Office of Environmental Coordinator. San Luis Obispo, California.

13. Oswald Engineering Associates, Inc. (2000), The Resource Park Wastewater Facilities Project Draft Project Report.

14. San Luis Obispo County Planning and Building Department (1987), *Addendum Environmental Impact Report, County Service Area No. 9 Wastewater Treatment Facilities*. Prepared for the County of San Luis Obispo by The Morro Group.

15. San Luis Obispo County Planning and Building Department (1989), *Final Supplemental Environmental Impact Report, County Service Area No. 9 Wastewater Treatment Facilities*. Prepared for the County of San Luis Obispo by The Morro Group.

16. State Water Resources Control Board (1998). Policy for Implementing the State Revolving Fund for Construction of Wastewater Treatment Facilities.

17. U.S Geological Survey (1988), Hydrogeology and Water Resources of the Los Osos Valley Ground-Water Basin, San Luis Obispo County, California.

18. URS Corporation (2000), Baseline Report of the Los Osos Valley Groundwater Basin, Los Osos, California.

19. Wallace, John. L and Associates (2000) *Urban Water Management Plan.*

20. Montgomery Watson Engineers, Inc., (2001) Draft Project Report for the Los Osos Wastewater Facilities Project.

21. Water quality data compiled since 1983 by the Regional Water Quality Control Board documenting nitrate concentrations in the Los Osos groundwater basin.

22. The Staff Report prepared for the regular meeting of February 7, 2003 for the Regional Water Quality Control Board.

23. Montgomery Watson Harza, Inc., (2002) Report of Waste Discharge for the Los Osos Wastewater Project.

24. Matters of common knowledge to the Responsible Agency which they consider, such as:

    A. The Water Quality Control Plan, Central Coast Region, adopted by the Regional Water Quality Control Board, Central Coast Region.
    B. The Porter-Cologne Water Quality Control Act, Water Code Section 13000 et seq.
    C. Title 23 California Code of Regulations Division 2, governing the State Water Resources Control Board and the 9 Regional Water Quality Control Boards.
    D. The California Environmental Quality Act (CEQA) and the state CEQA guidelines implementing the Act.
    E. Other formally adopted policies and ordinances of the Regional Board and the State Board.

IV. FINDINGS FOR PROJECT IMPACTS

The following section contains the findings required by CEQA Guidelines section 15096. These findings are organized by resource issue area, with impacts that result from the portion of the project to be mandated in Waste Discharge Requirements Order No. R3-2003-0007. The impacts were identified in the March 2001 Final Environmental Impact Report for the Los Osos Community Service District's Wastewater Facility Project. The organization of this section is as follows, and reflects the organization of the March 2001 Final EIR.

Geology
Drainage
Air Quality
Public Health and Safety

Each significant impact of the portion of the project being regulated by Waste Discharge Requirements Order No. R3-2003-0007, is set forth below, followed by the recommended mitigation measures, a specific finding for the impact, the supporting evidence, and a description of the residual impact after mitigation has been implemented.

POTENTIAL SIGNIFICANT EFFECTS WHICH HAVE BEEN MITIGATED TO A LEVEL OF INSIGNIFICANCE

The Regional Board has concluded that the mitigation measures identified in the Mitigation Monitoring Program included in this Resolution will result in substantial mitigation of the following effects and that these effects are not considered significant or they have been mitigated to a level of insignificance.

GEOLOGY

A. **Impact GEO-1:** Construction of the collection system (including the collection pipes and up to 11 pump stations) will involve trenching within road rights-of-way and easements at 200-foot increments. Such disturbance will temporarily increase the potential for erosion and reduce the stability of the soil. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 118.

B. **Mitigation GEO-1:** An NPDES Construction Activity Storm Water Permit shall be obtained prior to the onset of construction activities. Appropriate BMPs, as established in the project NPDES Construction Storm Water Permit, shall be employed during project construction, which may include, but are not limited to, temporary sand bagging; construction of berms; installation of geofabric, and revegetation of areas by hydroseeding and mulching; and the use of trench stabilizing and de-watering. The NPDES permit shall apply to all proposed facilities, and shall address 50 to 100-year precipitation events to the extent feasible. The Pollution Prevention Plan portion of the NPDES permit shall be reviewed and approved by the County Engineering Department and the RWQCB.

Mitigation GEO-2: Project implementation shall include a long-term Erosion Control Plan. The plan shall include the treatment plant site, the collection system, and the disposal sites. The Erosion Control Plan shall identify erosion control practices to be implemented throughout the construction and operation of these facilities. These measures may include, but are not limited to, recompaction of soils; revegetation of disturbed areas; utilization of soil binding; or other methods for reducing short-term and long-term erosion. The Plan shall be reviewed by the County Office of Planning and Building, and shall be included in contractor bid and contract documents.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** The requirements of the NPDES and the elements described for the required long term erosion control plan will avoid potential erosion impacts associated with construction of the collection system within road rights-of-way.

A. **Impact GEO-2:** The collection system will require the installation of up to 11 pump stations in sub-surface vaults. Excavation and construction of the pump/lift stations will increase the potential for erosion and soil instability. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 118.

B. **Mitigation: GEO-1, GEO-2** (see above)

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** As many as eleven pump stations will be required. Each station will be constructed in a concrete vault approximately 6 feet wide by 8 feet long. The remainder of the stations will require pumps between 30 and 85 horsepower in concrete vaults

approximately 8 feet wide by 12 feet long. The depth of all the pump stations will generally be less than approximately fifteen feet. The concrete vaults will be sited within lightly traveled public right of ways and fitted with traffic rated access hatches which will allow maintenance of the pumps and station structure. Soils associated with excavation sites are poorly consolidated and potentially unstable. Compliance with the discharge requirements of an NPDES permit and adherence to the measures described in the erosion control plan will reduce these potential impacts to less than significant.

A. **Impact GEO-3:** The collection system infrastructure (pipes, pump stations, etc.) could be damaged or ruptured as a result of a seismic event due to ground shaking or liquefaction. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 118.

B. **Mitigation GEO-6:** Implementation of CDMG Liquefaction Mitigation. Where determined necessary by geotechnical investigations, design of system components shall incorporate recommendations contained in the CDMG publication "Guidelines for Evaluating and Mitigating Seismic Hazards in California." Mitigation cited in this publication include recompaction of liquefiable soils and use of reinforced shallow foundations.

Mitigation GEO-7: Prior to construction, a complete grading and drainage plan shall be submitted to the LOCSD and County Department of Planning and Building for review and approval. Such grading and drainage plan shall address the requirements of the geotechnical investigation described in Measure GEO-5.

Mitigation GEO-8: Rehabilitation of disposal leach fields shall be rotated so that no more than one field is under re-construction at a time.

Mitigation GEO-9: In addition to the long-term erosion control plan cited in Measure GEO-2, above, plans for the Broderson disposal site shall designate access routes for review and approval by the LOCSD that intrude minimally into the landscape. Plans shall include prompt re-vegetation of disturbed areas.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Portions of the collection system may be isolated due to fault rupture, where the system crosses potentially active strands of the Los Osos Fault. Liquefiable soils in the area may also have similar effects. Mitigation specified below, including design for isolation and quick repair of damaged portions, and compliance with relevant sections of the Uniform Building Code, will reduce these potential impacts to a less than significant level.

A. **Impact GEO-5:** The construction of the Hybrid Extended Aeration system will require the excavation of about 193,600 cubic yards of soil material. Sandy soils associated with the treatment plant site are potentially unstable and will require stabilization to enable construction. Impacts associated with soil instability are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 119.

B. **Mitigation GEO-1:** An NPDES Construction Activity Storm Water Permit shall be obtained prior to the onset of construction activities. Appropriate BMPs, as established in the project NPDES Construction Storm Water Permit, shall be employed during project construction, which may include, but are not limited to, temporary sand bagging; construction of berms; installation of geofabric, and revegetation of areas by hydroseeding and mulching; and the use of trench stabilizing and de-watering. The NPDES permit shall apply to all proposed facilities, and shall address 50 to 100-year precipitation events to the extent feasible. The Pollution Prevention Plan portion of the NPDES permit shall be reviewed and approved by the County Engineering Department and the RWQCB.

Mitigation GEO-2: Project implementation shall include a long-term Erosion Control Plan. The plan shall include the treatment plant site, the collection system, and the disposal sites. The Erosion Control Plan shall identify erosion control practices to be implemented throughout the construction and operation of these facilities. These measures may include, but are not limited to, recompaction of soils; revegetation of disturbed areas; utilization of soil binding; or other methods for reducing short-term and long-term erosion. The Plan shall be reviewed by the County Office of Planning and Building, and shall be included in contractor bid and contract documents.

Mitigation GEO-7: Prior to construction, a complete grading and drainage plan shall be submitted to the LOCSD and County Department of Planning and Building for review and approval. Such grading and drainage plan shall address the requirements of the geotechnical investigation described in Measure GEO-5.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** The treatment plant will be constructed underground on about five acres of the Tri-W site. The area to be excavated is about 4 acres and about 30 feet deep. The walls of the excavated area will require grading and stabilization to enable construction of the treatment plant. The excess dirt excavated from the site will be exported to a point of disposal.

Final grading and drainage plans for the project have not been prepared. However, the mitigation measures described above require adherence to the requirements of an NPDES permit, long term erosion control plan and complete grading and drainage plans which will be prepared for the final project design to address these issues.

A. **Impact GEO-6:** Grading of the treatment plant site to accommodate the treatment plant, water feature(s) and landscaping will result in soil disturbance and a temporary increase in erosion potential. This impact is considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 119.

B. **Mitigation: GEO-1, GEO-2, GEO-7** (see above)

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** The treatment plant will be constructed underground on about five acres of the Tri-W site. The area to be excavated is about 4 acres and about 30 feet deep. The walls of the excavated area will require grading and stabilization to enable construction of the treatment plant. The excess dirt excavated from the site will be exported to a point of disposal.

Final grading and drainage plans for the project have not been prepared. However, the mitigation measures described above require adherence to the requirements of an NPDES permit, long term erosion control plan and complete grading and drainage plans which will be prepared for the final project design to address these issues.

A. **Impact GEO-7:** The treatment plant site is located in proximity to the inferred trace of Strand B of the Los Osos Fault. The exact location of the fault is unknown, and therefore a precise determination of its potential to produce surface rupture is likewise unknown. However, should the trace of the fault coincide with the treatment plant, a seismic event associated with the fault could damage facilities associated with the treatment plant. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 119.

B. **Mitigation GEO-5:** Prior to construction, a geotechnical investigation shall be carried out as part of final facility design. This geotechnical investigation shall include analysis of the proposed treatment plant site, the disposal system, and the collection system, where determined necessary by the LOCSD and governing regulatory agencies. The geotechnical investigation shall address the following issues:

- Design of facility foundations and walls such that potential impact associated with fault rupture onsite would be reduced to the extent feasible. Design measures for rapid repair of facilities shall be identified as necessary.

- The investigation shall determine onsite ground water levels, and identify soil layers that could be subject to liquefaction during a seismic event. Specific measures, such as excavation/recompaction of foundation areas, long-term dewatering, or utilization of foundation piles, should be identified as necessary to reduce potential impacts to a less than significant level.

- The investigation shall identify the potential for settlement or lurching associated with seismic events. Specific measures, such as excavation/recompaction, shall be identified as necessary to reduce potential impacts to a less than significant level.

- The investigation shall identify the potential for disruption of collection associated with fault rupture. Design measures for isolation and rapid repair of facilities shall be identified, where necessary.

- The County Engineering Department shall review and approve the scope and findings of the geotechnical investigation, and shall review final project design to ensure incorporation of recommended measures.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** The treatment plant site parallels the inferred trace of Strand B of the Los Osos Fault, which was discussed in detail in the 1989 Final Supplemental EIR for the CSA 9 Wastewater Treatment Facilities, SCH 89030816 and incorporated by reference. This portion of the fault, if it does exist, is not considered active, and due to the nature of the local soils, previous environmental analysis cited a low potential for ground rupture. All facilities associated with the plant will be designed and installed in accordance with the UBC standards for Seismic Zone 4, and will include mechanisms for isolation of damaged areas and rapid recovery as described in the mitigation measures listed below. The plant is also designed with 6 hours of emergency storage capacity and potential for onsite emergency retention in the event it is isolated.

A. **Impact GEO-8:** A seismic event associated with any of the potentially faults described in "Setting", above, could adversely impact the treatment plant and its function. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 120.

B. **Mitigation GEO-3:** All proposed facilities shall be designed and constructed in accordance with UBC Seismic Zone 4 regulations.

Mitigation GEO-4: Prior to finalization of project design, the LOCSD shall consult with the California Division of Mines and Geology CDMG to determine the Design Basis Earthquake for system components.

Mitigation GEO-5: Prior to construction, a geotechnical investigation shall be carried out as part of final facility design. This geotechnical investigation shall include analysis of the proposed treatment plant site, the disposal system, and the collection system, where determined necessary by the LOCSD and governing regulatory agencies. The geotechnical investigation shall address the following issues:

- Design of facility foundations and walls such that potential impact associated with fault rupture onsite would be reduced to the extent feasible. Design measures for rapid repair of facilities shall be identified as necessary.

- The investigation shall determine onsite ground water levels, and identify soil layers that could be subject to liquefaction during a seismic event. Specific measures, such as excavation/recompaction of foundation areas, long-term dewatering, or utilization of foundation piles, should be identified as necessary to reduce potential impacts to a less than significant level.

- The investigation shall identify the potential for settlement or lurching associated with seismic events. Specific measures, such as excavation/recompaction, shall be identified as necessary to reduce potential impacts to a less than significant level.

- The investigation shall identify the potential for disruption of collection associated with fault rupture. Design measures for isolation and rapid repair of facilities shall be identified, where necessary.

- The County Engineering Department shall review and approve the scope and findings of the geotechnical investigation, and shall review final project design to ensure incorporation of recommended measures.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** The treatment plant will be designed to satisfy federal, state and local standards for construction in Seismic Zone 4 as required by the UBC, and will incorporate emergency treatment capacity in the event the treatment process is interrupted. Seismic impacts associated with a substantial earthquake event cannot be completely mitigated. However, all feasible measures are being incorporated into the design and operation of the project.

A. **Impact GEO-9:** Soils associated with the treatment plant site consist of unconsolidated sands that may pose a significant risk of liquefaction. This impact is considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 120.

B. **Mitigation GEO-7:** Prior to construction, a complete grading and drainage plan shall be submitted to the LOCSD and County Department of Planning and Building for review and approval. Such grading and drainage plan shall address the requirements of the geotechnical investigation described in Measure GEO-5.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** The occurrence of liquefaction of soils at the project site could result in failure of the structural integrity of the Treatment Plant, which in turn could result in the release of large quantities of treated effluent. A recent geophysical survey and geological analysis of a groundwater anomaly just east of the treatment facility site concludes that liquefaction susceptibility is increased due to the presence of a buried fluvial channel (Mann 1998). Mitigation suggested by the California Division of Mines and Geology in their publication "Mitigating the Impacts of Liquefaction" will be incorporated into the treatment plant project design and all components of the system will be designed to comply with UBC standards.

A. **Impact GEO-11:** Construction of the disposal leach fields will result in the temporary disturbance of soils and potential erosion at the Broderson site and various street rights-of-way within the community. These impacts will be temporary but are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 121.

B. **Mitigation GEO-2:** Project implementation shall include a long-term Erosion Control Plan. The plan shall include the treatment plant site, the collection system, and the disposal sites.

The Erosion Control Plan shall identify erosion control practices to be implemented throughout the construction and operation of these facilities. These measures may include, but are not limited to, recompaction of soils; revegetation of disturbed areas; utilization of soil binding; or other methods for reducing short-term and long-term erosion. The Plan shall be reviewed by the County Office of Planning and Building, and shall be included in contractor bid and contract documents.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Construction of the disposal leach fields on the Broderson site will take place over a period of approximately 6 months and will entail removal of vegetation over an 8-acre portion of the site for equipment access and leach field placement. The Broderson site exhibits slopes of over 10 percent at the upper (southerly) elevations where the leach field would be constructed, and sandy soils which may be subject to erosion or landsliding once disturbed. The leach fields will be installed in shallow (3 feet or less) trenches arranged parallel to the slope and dug using conventional trenching machinery. Compliance with an erosion control plan that identifies strategies for minimizing erosion caused by leach field construction will reduce these impacts to a less than significant level.

A. **Impact GEO-12:** The Los Osos area is within Seismic Zone 4 as defined by the UBC. A seismic event associated with one or more of the active faults affecting the region could result in ground shaking that could damage the leach fields. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 121.

B. **Mitigation GEO-3:** All proposed facilities shall be designed and constructed in accordance with UBC Seismic Zone 4 regulations.

Mitigation GEO-4: Prior to finalization of project design, the LOCSD shall consult with the California Division of Mines and Geology CDMG to determine the Design Basis Earthquake for system components.

Mitigation GEO-5: Prior to construction, a geotechnical investigation shall be carried out as part of final facility design. This geotechnical investigation shall include analysis of the proposed treatment plant site, the disposal system, and the collection system, where determined necessary by the LOCSD and governing regulatory agencies. The geotechnical investigation shall address the following issues:

- Design of facility foundations and walls such that potential impact associated with fault rupture onsite would be reduced to the extent feasible. Design measures for rapid repair of facilities shall be identified as necessary.

- The investigation shall determine onsite ground water levels, and identify soil layers that could be subject to liquefaction during a seismic event. Specific measures, such as excavation/recompaction of foundation areas, long-term dewatering, or utilization of foundation piles, should be identified as necessary to reduce potential impacts to a less than significant level.

- The investigation shall identify the potential for settlement or lurching associated with seismic events. Specific measures, such as excavation/recompaction, shall be identified as necessary to reduce potential impacts to a less than significant level.

- The investigation shall identify the potential for disruption of collection associated with fault rupture. Design measures for isolation and rapid repair of facilities shall be identified, where necessary.

- The County Engineering Department shall review and approve the scope and findings of the geotechnical investigation, and shall review final project design to ensure incorporation of recommended measures.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Similar potential impacts to the disposal system could occur as those described under Impact GEO-3, above, for the collection system. Again, adherence to the requirements of the Uniform Building Code and the inclusion of storage in the system will reduce these impacts to a less than significant level.

A. **Impact GEO-13:** The disposal leach fields would release treated wastewater into potentially liquefiable zones that may increase the potential for liquefaction over existing conditions. These impacts are considered significant unless mitigated. Refer to the February 2001 Final EIR page 122.

B. **Mitigation GEO-8:** Rehabilitation of disposal leach fields shall be rotated so that no more than one field is under re-construction at a time.

Mitigation GEO-9: In addition to the long-term erosion control plan cited in Measure GEO-2, plans for the Broderson disposal site shall designate access routes for review and approval by the LOCSD which intrude minimally into the landscape. Plans shall include prompt re-vegetation of disturbed areas.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** As described in Chapter 6.1, page 115, Geologic Hazards, liquefaction can occur where poorly consolidated surface material overlies shallow groundwater. When energy is introduced into this system, such as during a seismic event, the soils temporarily lose cohesion as the soils become saturated. The introduction of additional water into the sub-surface environment associated with the disposal system has the potential to increase the potential for liquefaction.

A preliminary liquefaction analysis of the treatment plant site and the various disposal sites prepared by CFS Geotechnical Consultants, Inc. (Appendix B of the Final EIR) concludes that liquefaction potential on the various sites would generally be no different than present

conditions once the septic systems cease operation and the disposal leach fields are installed. Table 6.1-1 on pages 1123 and 124 of the Final EIR provides a summary of the liquefaction potential for each disposal site. Based on this analysis, the potential for liquefaction at these sites is no greater with the project than under existing conditions.

A. **Impact GEO-15:** The disposal system will consist of a series of sub-surface leach fields which will periodically (about every 10 years) require maintenance and rehabilitation. Impacts associated with these activities will be temporary and comparable to those associated with leach field construction. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 124.

B. **Mitigation GEO-9:** In addition to the long-term erosion control plan cited in Measure GEO-2, plans for the Broderson disposal site shall designate access routes for review and approval by the LOCSD which intrude minimally into the landscape. Plans shall include prompt re-vegetation of disturbed areas.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Sub-surface leach fields require periodic maintenance and about once every ten years require complete excavation and rehabilitation. Impacts associated with rehabilitation are comparable to those associated with construction since a comparable effort is required. Adherence to an erosion control plan as described in Mitigation GEO-2 will reduce these impacts to a less than significant level. It should be noted that a schedule that rotates the timing of rehabilitation will be employed to minimize potential impacts.

DRAINAGE

A. **Impact WR-2:** Construction activities at the treatment plant site will increase the potential for erosion, which could adversely affect the quality of stormwater entering the site as well as waters downstream. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 152.

B. **Mitigation WR-1:** Grading, Drainage and Erosion Control Plan. Construction plans for the Tri-W site shall include a complete grading and drainage plan incorporating the recommendations of a geotechnical engineering evaluation (see Mitigation GEO-5). Measures to be considered for the mitigation of potential drainage, erosion, seepage and water quality impacts include, but are not limited to:

- The incorporation of an on-site runoff collection system which includes energy dissipation, berms, temporary settling basins, and/or a silt/hydrocarbon separator for the collection and removal of hazardous materials and sediments.

- The incorporation of an on-site drainage system to collect runoff from all impervious onsite services, including parking spaces, roads and buildings.

- Surface runoff should be collected by curbs, gutters and drainage swales and conveyed to an appropriate point of disposal. Discharges of greater than five feet per second should be released through an energy dissipater or outlet.

- The incorporation of sub-surface drains to intercept seepage and convey it to an acceptable point of disposal.

- Watering the site at least twice per day during construction, or more frequently if determined necessary by the LOCSD.

- Re-vegetating portions of the site exclusive of paved areas as soon as reasonable following grading.

- Incorporating rain gutters and downspouts for buildings.

- Grading surfaces adjacent to buildings so that runoff is conveyed away from foundations and onto paved surfaces or underground collection pipes.

Mitigation WR-2: NPDES Permit. The LOCSD will obtain and comply with an NPDES stormwater permit for construction activities and will develop an SWPP for the project, which will include, among other requirements, the identification of Best Management Practices (BMPs) to be used for erosion control, actions for control of potential fuel or drill tailing release, and requirements for disposal (i.e., location, quality) of water from dewatering activities. Note: The mitigation measure description from the Final EIR has been modified because LOCSD can obtain coverage under the General NPDES permits for stormwater discharges associated with construction activities and industrial facilities issued by the State Water Resources Control Board.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Construction of the treatment plant will require excavation of a four-acre area for the treatment plant and grading over much of the site. Disturbance of soils and vegetation associated with construction will increase the potential for erosion. Adherence to the erosion control plan identified in Mitigation Measure WR-1 and the NPDES permit requirements identified in Measure WR-2 will reduce these impacts to a less than significant level.

A. **Impact WR-4:** Constructing a treatment plant and park on the Tri-W site will alter the volume and velocity of runoff leaving the site and will alter existing drainage patterns. The increase in surface runoff could adversely affect downstream drainage courses. This impact is considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 152.

B. **Mitigation WR-1, WR-2:** (see above)

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Construction of the treatment plant will significantly alter the drainage onsite. Included in the design of the project is parking, buildings, concrete walkways and other impermeable surfaces which will increase runoff (see Figure 3-8 of the Final EIR). The increase in impermeable surfaces will increase the amount and velocity of runoff generated on the site and entering surrounding drainage systems, which in turn could accelerate erosion and could contribute to localized flooding.

Included in the project description is a retention basin located at the northerly boundary of the site where runoff would be collected and meted out to the existing downstream drainage consistent with historic flows from the site. The retention basin is being sized to accommodate runoff from the project site after development and is system is expected to fully mitigate potential drainage impacts.

A. **Impact WR-5:** Heavy metals and other hazardous materials washed from on-site parking could enter the surface flow during a rainstorm, adversely affecting water quality downstream. This impact is considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 152.

B. **Mitigation WR-2:** (see above)

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** When a site is developed with facilities for automobiles, or lies downstream of an area in which the primary source of runoff is from streets, the potential exists for pollution of storm water runoff. The sources of pollution are the hydrocarbons used by automobiles and hydrocarbons in asphaltic pavement materials. The primary concern in this case is the potential to increase pollutants entering surface and sub-surface flows that eventually enter Morro Bay and the Sweet Springs Preserve. According to a publication by the Metropolitan Washington Council of Governments entitled "Controlling Urban Runoff", storm water sampled in the study area contained between 2 and 10 milligrams of pollutants per liter. The pollutant load generated at the project site will likely be less than these samples because the test sites used in the study were from highly urbanized areas with a higher potential for hydrocarbon pollution.

A. **Impact WR-6:** Construction of the disposal leach field on the Broderson property will involve soil and vegetative disturbance which will alter on-site drainage and may increase the potential for erosion. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 153.

B. **Mitigation WR-2:** (see above)

Mitigation WR-3: Revegetation Plan. A comprehensive revegetation plan will be developed for the Broderson and Powell sites, which at a minimum will include re-planting of exposed surfaces with native vegetation.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** The construction of the leach field will temporarily create site conditions that may adversely affect runoff. Mitigation identified below, including the acquisition of an NPDES permit, and development of a revegetation plan, would reduce impacts to a less than significant level.

A. **Impact WR-7:** Construction of the disposal leach fields in street rights-of-way will increase the potential for erosion and runoff into surface water bodies. This impact is considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 154.

B. **Mitigation WR-2:** (see above)

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Adherence to the erosion control plan identified in Mitigation Measure WR-1 and the NPDES permit requirements identified in Measure WR-2 will reduce these impacts to a less than significant level.

A. **Impact WR-8:** Periodic renovation of the sub-surface leach fields will require excavation activities that have the potential to result in short-term runoff impacts similar to those associated with construction. This is considered a significant adverse impact unless mitigated (Class II). Refer to the February 2001 Final EIR page 154.

B. **Mitigation WR-2:** (see above)

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Adherence to the erosion control plan identified in Mitigation Measure WR-1 and the NPDES permit requirements identified in Measure WR-2 will reduce these impacts to a less than significant level.

AIR QUALITY

A. **Impact AQ-4:** Operation of the treatment facility may result in periodic odors that would adversely affect surrounding neighborhoods. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 208.

B. **Mitigation AQ-3:** Odor Performance Standard. Neighbors of the Tri-W site shall be informed that odor nuisance complaints are to be directed to the APCD for documentation.

Any odor complaints received by the County Engineering Department or plant staff shall be forwarded within one day of receipt to the APCD. The APCD will contact plant staff following each odor nuisance complaint to determine the nature and cause of the odor sources. The Los Osos Community Services District shall utilize a threshold of three nuisance complaints per year as a performance guideline with respect to odor generation. Should nuisance complaints exceed this number, the District shall assess odor levels at the treatment plant site. The assessment shall include the following:

Utilization of a scentometer to assess odor concentration with respect to the BAAQMD dilution to threshold ratio (D/T ratio). This ratio indicates the number of equal volume dilutions to the point at which 50% of the population below the age of 45 first detects the odor. Regulation 7 adopted by the BAAQMD restricts the release of odorous substances to 4 D/T at the property line. If the D/T ratio exceeds the 4 D/T ratio threshold established by the BAAQMD, the district shall provide a letter report to the APCD summarizing the nature and cause of the odor source, the frequency at which this source has caused complaints in the past, the frequency at which this source is anticipated to occur, and a course of action to reduce onsite odor generation. Measures may include, but are not limited to, the following:

- Upstream addition of ferrous chloride to the influent stream to reduce septic conditions;
- Establishment of additional "negative air" containment areas; Additional treatment component enclosure, and; Installation of airflow baffles to improve odor dissipation.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** The Tri-W site where the treatment facility will be located is bordered to the south by single-family residences and on the east by the library and community center/county park. Prevailing winds are generally on-shore during the day (from the west) and would be expected to carry odors downwind (to the east) and elsewhere should odors emanate from the plant.

Odors generated at wastewater treatment facilities are typically associated with specific components of the treatment train that deal with organic solids or provide the opportunity for septic conditions. Sources of odor commonly generated at wastewater treatment plant facilities include hydrogen sulfide gas and ammonia, which are by-products of the treatment process. The proposed project would employ an Extended Aeration plant constructed underground where it would be sealed and fully odor scrubbed.

However, under adverse circumstances, accidents or malfunctions can occur which, if left uncorrected, could result in adverse odors being emitted. During light wind conditions when the dissipation of odors generated onsite is reduced, the potential exists for increased odor concentrations to occur. These concentrated odors can then be transported, without breaking up, offsite to adjacent land uses. Prevailing wind conditions within the Los Osos area are characterized by wind speeds of 2 to 8 mph, with prevailing winds associated with eastward onshore flow from the Pacific Ocean. Under these prevailing conditions, windspeed is anticipated to be adequate such that odors generated onsite are reduced to adequate concentrations.

With regard to wind conditions that could contribute to concentrated movement of odors, it should be noted that light wind conditions of less than 1 mph have a 19 percent occurrence frequency. This is equivalent to 69 days per year. Under these light wind conditions, wind direction is variable, with a small prevailing frequency occurrence of 31 percent (of light wind days) from the south. However, light winds from both the east and west occur at a frequency of 29 percent. Therefore, concentrated movement of air under light wind conditions would have a basically equal potential to affect sensitive receptors located to the east, west and north of the subject property.

Complaints associated with other conventional treatment plants in San Luis Obispo County have been compiled by the APCD. Primary factors associated with nuisance complaints appear to be geographic location of the plant with respect to sensitive receptors, prevailing wind conditions, and treatment procedures. Review of 1994 to 1996 nuisance complaints for treatment plants within San Luis Obispo County indicate that the APCD has received complaints for only the City of San Luis Obispo Water Reclamation Plant and the California Men's Colony, neither of which are extended aeration plants or fully odor scrubbed. The City of San Luis Obispo Water Reclamation Plant is located upwind and adjacent to residential areas along South Higuera Street. It should be noted that this plant utilizes secondary biological treatment processes that differ from those proposed with the Hybrid Extended Aeration system, and is located adjacent to residential land uses.

Review of the APCD file for the City of San Luis Obispo Water Reclamation Plant indicate eleven complaints were received by the APCD in 1994 (all from one resident), three were received in 1995, and eight were received in 1996. Reviews of files indicate that these complaints are generally associated with periodic procedures or conditions, rather than long-term operation.

Given the design of the system, and the proximity of residences, in the event of a malfunction in the odor scrubbing system odor levels could potentially reach levels that would prompt a nuisance complaint. Based upon the number of complaints associated with the City of San Luis Obispo Treatment Plant, and given the proximity of the Tri-W site to existing sensitive receptors, it is anticipated that the number of complaints received would average about one per year. Therefore, under the BAAQMP threshold previously discussed, this impact is considered adverse but not significant because of mitigation incorporated into the design of the project.

PUBLIC HEALTH AND SAFETY

A. **Impact PS-3:** A break or malfunction in the collection system could result in the accidental release of untreated effluent. These impacts are considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 230.

B. **Mitigation PS-1:** Hazardous Materials Management Plan. A Hazardous Materials Management Plan shall be developed and submitted to the County of San Luis Obispo Health Department for approval. The plan shall identify hazardous materials utilized onsite and their characteristics, storage, handling and training procedures; and spill contingency procedures. Additionally, the Plan should address fuel storage at the pump station sites.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** As discussed in Chapter 6.1 of the Final EIR, Geology, the collection system would be designed for rapid repair and isolation of damaged sections. Operation of the collection and treatment system will require preparation of an Emergency Response Plan identifying manpower and equipment needed for efficient response to release onsite. The plan is required to address the following topics.

- Hazardous materials handling, storage and application.
- Hazardous material spill response.
- Emergency release of untreated influent from the collection system or treatment facilities.
- Emergency failure of treatment facilities, resulting in a release of untreated or primary treated effluent.

Together, these measures will reduce potential impacts to a less than significant level.

A. **Impact PS-5:** Chemicals utilized within the proposed treatment process would be limited to agents utilized for bio-solids thickening, and to ensure adequate removal of nitrogen. Agents utilized (alum, polymer and methanol) are liquids with low human contact risks. This is considered to be potentially significant, but mitigable (Class II). Refer to the February 2001 Final EIR page 230.

B. **Mitigation PS-1:** (see above)

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Storage and handling procedures would conform to appropriate state regulations and would subject to a Hazardous Materials Management Plan. Storage onsite for these materials would utilize above ground storage tanks (ASTs), and secondary containment would be provided through utilization of a wall or containment berm surrounding the tank area. These agents would be added to the treatment train through direct feed mechanisms controlled by the plant's SCADA (System Control and Data Analysis) system. Therefore, potential health risks associated with these agents are considered less than significant.

As discussed in Mitigation PS-1, operation of the treatment plant would require preparation and submittal of a Hazardous Waste Management Plan to the County Health Department for review and approval. This plan would identify material characteristics, storage volumes, handling procedures, and spill response. Project implementation would also include preparation of an Emergency Response Plan identifying manpower and equipment for efficient response to agent release onsite. The County Hazardous Materials Response Team is

equipped to handle such a release. Therefore, potential public safety associated with storage and use of treatment agents onsite will be reduced to less than significant .

A. **Impact PS-9:** Disposal of bio-solids in a landfill could adversely impact landfill capacity. This impact is considered significant unless mitigated (Class II). Refer to the February 2001 Final EIR page 232.

B. **Mitigation PS-3:** Prior to operation of the wastewater treatment system, the Los Osos CSD shall either 1) secure a contract for bio-solids disposal with a land disposal or recycling facility or 2) construct a bio-solids recycling facility that satisfies Title 40, Section 503 of the Code of Federal Regulations.

C. **Findings:** The aforementioned mitigation measures, along with mitigation incorporated into the project description, reduce the impact to a level of insignificance.

D. **Supportive Evidence:** Approximately 1,640 pounds of brown sludge (bio-solids) would be produced by the wastewater treatment plant per day. Once treated to satisfy federal and state requirements, treated bio-solids would be removed from the Wastewater Treatment facility about three times per week and hauled to a landfill. To be disposed of in a landfill, bio-solids must meet the pollutant concentrations specified by Title 40 Section 503.23 of the Code of Federal Regulations, which also prescribes landfill management practices to be followed for bio-solids handling. The bio-solids would be classified as Class B and be fully oxidized and stable. The moisture content would be approximately 25%.

Nearby landfills include Cold Canyon and Chicago Grade. According to a Site Engineer at Cold Canyon, although the recent expansion includes a lined disposal section, they have not historically accepted bio-solids. Their staff was uncertain regarding future policies for bio-solids and whether they would accept ongoing bio-solids disposal from the proposed wastewater system. It should be noted that capacity exists to accept the bio-solids associated with the project, and San Luis Obispo County received tentative approval for bio-solids disposal for the County proposed project. If Cold Canyon decides to accept the bio-solids, it would be required to meet restrictive standards and would be fairly costly (upwards of $88/ton).

It should be noted that the project will not start producing bio-solids for disposal until 2005. In the intervening time, the LOCSD will have the option of either securing permission to dispose of bio-solids at one of the landfills or constructing a bio-solids recycling facility. Regardless Mitigation Measure PS-3 requires the CSD to either contract for land disposal or to construct a recycling facility proper to start-up of the treatment plant.

V. CEQA GENERAL FINDINGS

A. The Regional Board finds that changes or alterations have been incorporated into the portion of the project approved by Waste Discharge Requirements Order R3-2003-0007 to mitigate or avoid significant impacts. These changes or alterations include mitigation measures and project modifications outlined herein and set forth in more detail in the March 2001 Final EIR. These changes and alterations have been proposed by LOCSD and so may be required for

compliance with Waste Discharge Requirements Order R3-2003-0007, without violating Water Code section 13360.

B. Any significant impacts described in the Final EIR but not described in this resolution will not result from the portion of the project approved by Waste Discharge Requirements Order R3-2003-0007. Any project alternatives or mitigation measures described in the Final EIR but not described in this resolution are either not relevant to significant environmental effects of the portion of the project approved by Waste Discharge Requirements Order R3-2003-0007 or are outside the jurisdiction of the Regional Board.

C. The Regional Board finds that the project as approved by Waste Discharge Requirements Order R3-2003-0007 includes an appropriate Mitigation Monitoring Program. This Mitigation Monitoring Program ensures that measures that avoid or lessen the significant project impacts, as required by CEQA and the State CEQA Guidelines, will be implemented as described.

VI. MITIGATION MONITORING PROGRAM

Section 21081.6 of the Public Resources Code requires that when a public agency is making the findings required by State CEQA Guidelines Section 15091(a)(1), codified as Section 21081(a) of the Public Resources Code, the public agency shall adopt a reporting or monitoring program for the changes to the proposed project which it has adopted or made a condition of approval, in order to mitigate or avoid significant effects on the environment.

A. Compliance with approved mitigation measures is to be achieved through two primary methods. Both methods integrate mitigation monitoring into existing processes, as encouraged by CEQA.

- The Regional Board will include the mitigation measures in Waste Discharge Requirements Order No. R3-2003-0007.

- The Regional Board will monitor implementation of the mitigation measures along with its monitoring of compliance with Waste Discharge Requirements Order No. R3-2003-0007 through regular monitoring, status reports and direct staff oversight.

THEREFORE, be it resolved that:

The Regional Board hereby adopts findings of mitigation and a mitigation monitoring program, as described herein, for the Los Osos Community Service District's Wastewater Facility Project.

Further, the Board certifies that compliance with the mitigation monitoring program is adequate to ensure the implementation of the mitigation measures described herein.

I, Roger W. Briggs, Executive Officer of the California Regional Water Quality Control Board, Central Coast Region, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Coast Region, on February 7, 2003.

Roger W. Briggs
Executive Officer

2-10-03
Date

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Mitigation Measures	Specific Monitoring Action(s)	Timeframe for Monitoring	Responsible Monitoring Party	Discussion
Mitigation GEO-5: Prior to construction, a geotechnical investigation shall be carried out as part of final facility design. This geotechnical investigation shall include analysis of the proposed treatment plant site, the disposal system, and the collection system, where determined necessary by the LOCSD and governing regulatory agencies. The geotechnical investigation shall address the following issues: • Design of facility foundations and walls such that potential impact associated with fault rupture onsite would be reduced to the extent feasible. Design measures for rapid repair of facilities shall be identified as necessary. • The investigation shall determine onsite ground water levels, and identify soil layers that could be subject to liquefaction during a seismic event. Specific measures, such as excavation/recompaction of foundation areas, long-term dewatering, or utilization of foundation piles, should be identified as necessary to reduce potential impacts to a less than significant level. • The investigation shall identify the potential for settlement or lurching associated with seismic events. Specific measures, such as excavation/recompaction, shall be identified as necessary to reduce potential impacts to a less than significant level. • The investigation shall identify the potential for disruption of collection associated with fault rupture. Design measures for isolation and rapid repair of facilities shall be identified, where necessary. • The County Engineering Department shall review and approve the scope and findings of the geotechnical investigation, and shall review final project design to ensure incorporation of recommended measures.	LOCSD shall submit a copy of the geotechnical investigation report to RWQCB.	Prior to starting conceptual drawings	RWQCB staff	Ground water levels and geologic structure of the treatment and disposal sites have already been determined. Other items, including seismic potential and specific analysis of structural requirements remain to be determined
Mitigation GEO-6: Implementation of CDMG Liquefaction Mitigation. Where determined necessary by geotechnical investigations, design of system components shall incorporate recommendations contained in the CDMG publication "Guidelines for Evaluating and Mitigating Seismic Hazards in California." Mitigation cited in this publication include recompaction of liquefiable soils and use of reinforced shallow foundations.	LOCSD shall submit to the RWQCB a letter report of implementation of CDMG mitigation where applicable	Plan Check / 50% Construction Documents	RWQCB staff	None

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Mitigation Measures	Specific Monitoring Action(s)	Timeframe for Monitoring	Responsible Monitoring Party	Discussion
Mitigation GEO-7: Prior to construction, a complete grading and drainage plan shall be submitted to the LOCSD and County Department of Planning and Building for review and approval. Such grading and drainage plan shall address the requirements of the geotechnical investigation described in Measure GEO-5, above.	LOSCD shall submit to the RWQCB a copy of project grading and drainage plans that the County Department of Planning and Building has reviewed	Prior to Construction	RWQCB staff	Submittal of grading and drainage plans will be required for final building permit approval
Mitigation GEO-8: Rehabilitation of disposal leach fields shall be rotated so that no more than one field is under re-construction at a time.	Submit documentation to the RWQCB through standard operating procedures (SOP) that rehabilitation will take place in the specified manner	Prior to Operation of Leach Field Systems	RWQCB staff	SOP will be developed as part of facilities management
Mitigation GEO-9: In addition to the long-term erosion control plan cited in Measure GEO-2, above, plans for the Broderson disposal site shall designate access routes for review and approval by the LOCSD which intrude minimally into the landscape. Plans shall include prompt re-vegetation of disturbed areas.	LOCSD shall provide to the RWQCB a letter report confirming plans that include the items identified.	Plan Check/50% Construction Documents	RWQCB staff	
Drainage				

Mitigation Measures	Specific Monitoring Action(s)	Timeframe for Monitoring	Responsible Monitoring Party	Discussion
Mitigation WR-1: Grading, Drainage and Erosion Control Plan. Construction plans for the Tri-W site shall include a complete grading and drainage plan incorporating the recommendations of a geotechnical engineering evaluation (see Mitigation GEO-5). Measures to be considered for the mitigation of potential drainage, erosion, seepage and water quality impacts include, but are not limited to: • The incorporation of an on-site runoff collection system which includes energy dissipation, berms, temporary settling basins, and/or a silt/hydrocarbon separator for the collection and removal of hazardous materials and sediments. • The incorporation of an on-site drainage system to collect runoff from all impervious onsite services, including parking spaces, roads and buildings. • Surface runoff should be collected by curbs, gutters and drainage swales and conveyed to an appropriate point of disposal. Discharges of greater than five feet per second should be released through an energy dissipater or outlet. • The incorporation of sub-surface drains to intercept seepage and convey it to an acceptable point of disposal. • Watering the site at least twice per day during construction, or more frequently if determined necessary by the LOCSD. • Re-vegetating portions of the site exclusive of paved areas as soon as reasonable following grading. • Incorporating rain gutters and downspouts for buildings. • Grading surfaces adjacent to buildings so that runoff is conveyed away from foundations and onto paved surfaces or underground collection pipes.	LOCSD shall submit to RWQCB a copy of grading, drainage, and erosion control plans and the incorporation of listed items	Plan Check/50% Construction Documents	RWQCB staff	Inclusion of grading, drainage and erosion control plans will be required by the County prior to issuance of building permits
Mitigation WR-2: NPDES Permit. The LOCSD will obtain and comply with an NPDES permit and will develop an SWPPP for the project, which will include, among other requirements, the identification of Best Management Practices (BMPs) to be used for erosion control, actions for control of potential fuel or drill tailing release, and requirements for disposal (i.e., location, quality) of water from dewatering activities. NOTE: The mitigation measure description from the Final EIR has been modified because LOCSD can obtain coverage under the General NPDES permits for stormwater discharges associated with construction activities and industrial facilities issued by the State Water Resources Control Board.	LOSCD shall confirm that the it has obtained coverage under the General Construction Activity Storm Water Permit by submitting to RWQCB a copy of NOI. Review copy of SWPPP	Prior to construction	RWQCB staff	

Mitigation Measures	Specific Monitoring Action(s)	Timeframe for Monitoring	Responsible Monitoring Party	Discussion
Mitigation WR-3: Revegetation Plan. A comprehensive revegetation plan will be developed for the Broderson and Powell sites, which at a minimum, will include re-planting of exposed surfaces with native vegetation.	LOCSD shall verify by letter report to RWQCB the inclusion of re-vegetation plans in 100% construction documents	Prior to Construction/100% Construction Documents Review	RWQCB staff	
Air Quality				
Mitigation AQ-3.Odor Performance Standard. Neighbors of the Tri-W site shall be informed that odor nuisance complaints are to be directed to the APCD for documentation. Any odor complaints received by the County Engineering Department or plant staff shall be forwarded within one day of receipt to the APCD. The APCD will contact plant staff following each odor nuisance complaint to determine the nature and cause of the odor sources. The Los Osos Community Services District shall utilize a threshold of three nuisance complaints per year as a performance guideline with respect to odor generation. Should nuisance complaints exceed this number, the District shall assess odor levels at the treatment plant site. The assessment shall include the following: • Utilization of a scentometer to assess odor concentration with respect to the BAAQMD dilution to threshold ratio (D/T ratio). This ratio indicates the number of equal volume dilutions to the point at which 50% of the population below the age of 45 first detects the odor. Regulation 7 adopted by the BAAQMD restricts the release of odorous substances to 4 D/T at the property line. If the D/T ratio exceeds the 4 D/T ratio threshold established by the BAAQMD, the district shall provide a letter report to the APCD summarizing the nature and cause of the odor source, the frequency at which this source has caused complaints in the past, the frequency at which this source is anticipated to occur, and a course of action to reduce onsite odor generation. Measures may include, but are not limited to, the following: o Upstream addition of ferrous chloride to the influent stream to reduce septic conditions; o Establishment of additional "negative air" containment areas; o Additional treatment component enclosure, and; o Installation of air flow baffles to improve odor dissipation.	LOCSD shall submit to RWQCB a copy of the "Odor Performance Standard" protocol in Standard Operating Procedures (SOP) for plant	Prior to Operation	RWQCB staff	The SOP for the plant will be developed prior to operation
Public Health, Safety and Services				
Mitigation PS-1 Hazardous Materials Management Plan. A Hazardous Materials Management Plan shall be developed and submitted to the County of San Luis Obispo Health Department for approval. The plan shall identify hazardous materials utilized onsite and their characteristics; storage, handling and training procedures; and spill contingency procedures. Additionally, the Plan should address fuel storage at the pump station sites.	LOCSD shall by letter report to the RWQCB verify submittal of plans for containment and spill prevention to the County Health Department for both construction and operational phases	Prior to Construction (Spill Prevention and Response) / Prior to Operation (HMMP)	RWQCB staff	

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Mitigation Measures		Specific Monitoring Action(s)	Timeframe for Monitoring	Responsible Monitoring Party	Discussion
Mitigation PS-3	Prior to the operation of the wastewater treatment system, the Los Osos CSD shall either 1) secure a contract for bio-solids disposal with a land disposal or recycling facility or 2) construct a bio-solids recycling facility that satisfies Title 40, Section 503 of the Code of Federal Regulations.	LOCSD shall submit a report to RWQCB describing plans for bio-solids disposal either by construction or contract If LOCSD chooses the construction options, it shall submit to the RWQCB a report of waste discharge, upon request of the Executive Officer.	Prior to Operation of Treatment Facility	RWQCB staff	