

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2005-0050

WASTE DISCHARGE REQUIREMENTS  
FOR  
STEPHEN J. SCHUSTER  
AND  
SIERRA MOON HOMEOWNERS' ASSOCIATION  
WASTEWATER TREATMENT FACILITY  
BUTTE COUNTY

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

1. Mr. Stephen J. Schuster submitted a Report of Waste Discharge, dated 10 September 2002, for a proposed discharge of domestic wastewater to land from a residential subdivision. The Report of Waste Discharge was deemed complete on 12 December 2002. On 6 August 2003, Tentative Waste Discharge Requirements were circulated for comment, but due to delays in the local approval process, the tentative Waste Discharge Requirements were withdrawn from the Regional Board's 5 September 2003 agenda. Butte County adopted a tentative subdivision map and environmental document on 28 September 2004, allowing the waste discharge requirements process to continue. The subdivision, known as Sierra Moon, is in Butte County on the northern boundary of the Chico Urban Area and west of the Chico Municipal Airport, as shown in Attachment A, which is incorporated herein and made part of this Order. The Sierra Moon Subdivision includes Assessor's Parcel Number 047-710-001 and is in Section 33, T23N, R1E, MDB&M.
2. The subdivision, totaling 300 acres, consists of 118 single-family lots, ranging from approximately one-half to one acre in size, a 70.15-acre remainder lot for a single family residence, and approximately 135 acres of open space. Individual lots are currently owned by Stephen J. Schuster, while Stephen J. Schuster and Sierra Moon Homeowners' Association share ownership of the common area, including the wastewater treatment and disposal system, jointly referred to as the wastewater treatment facility (WWTF). Stephen J. Schuster and the Sierra Moon Homeowners' Association are referred to hereafter as Discharger.
3. The Discharger proposes to discharge wastewater collected from up to 119 individual septic tanks (one per lot) to a centralized wastewater treatment plant followed by subsurface disposal. Primary treated wastewater will be pumped from the individual septic tanks to the centrally-located wastewater treatment plant. Wastewater will be secondary and tertiary treated in NitroRaptor<sup>®</sup> treatment units prior to subsurface disposal via shallow drip lines. Wastewater will be treated to a high standard to prevent clogging subsurface emitters and soils. The WWTF will be built-out sequentially in two parts (called schedules): Schedule No. 1 Wastewater for Construction Phases 1 and 2, and

Schedule No. 2 Wastewater for Construction Phases 3 and 4. Estimated influent and effluent concentrations are given below:

<u>Constituent</u>	<u>Influent</u> <u>BOD</u>	<u>Influent</u> <u>TSS</u>	<u>Influent</u> <u>Total N</u>	<u>Effluent</u> <u>BOD</u>	<u>Effluent</u> <u>TSS</u>	<u>Effluent</u> <u>Total N</u>
Concentration	204 mg/L	181 mg/L	36 mg/L	<10 mg/L	<10 mg/L	<7 mg/L

4. The Discharger will install two package wastewater treatment plants (a 20,000 gallon per day capacity plant for Schedule 1 and a 30,000 gallon per day capacity plant for Schedule 2) for treatment and disinfection of wastewater with on-site disposal through subsurface drip emitters. The plants have been designed and will be constructed by 7-H Technical Services Group, Inc. (7-H), a wastewater design and construction firm.
5. The package treatment plants, utilize an advanced secondary process consisting of an intermittent cycle (batch system), extended aeration activated sludge process, followed by activated-carbon filtration and ozone disinfection. Although filtration and disinfection are intended to prevent clogging of the effluent emitters, disinfection will also provide additional assurance against groundwater contamination by pathogens.
6. The treatment system is designed to remove nitrogen to less than 7 mg/L by a process of nitrification in the aeration portion and denitrification in the batch secondary clarification process. Although, nitrogen removal is not required, because the subdivision is outside the Greater Chico Nitrate Action Area and the average gross lot size exceeds one acre, the enhanced groundwater protection afforded by nitrogen removal is an added benefit of this treatment system.
7. Digested sludge and grit accumulated within the process tanks will be periodically pumped and disposed by a licensed septage hauler.
8. Treated effluent will be directly discharged to a subsurface drip system which will be installed in the disposal area along the southeastern boundary of the Discharger's property. The disposal area covers approximately 4.2 acres, 2.1 acres original and 2.1 acres replacement. A loading rate of approximately 0.5 gallons per square foot per day over the disposal area is proposed. The subsurface drip lines will be placed approximately 6 to 12 inches below the ground surface. Drip lines and emitters will be spaced approximately 2 feet on center. "Pulsed" irrigation will be automatically controlled by a computerized system connected to subsurface moisture sensors. Because of nitrogen removal and the fact that wastewater application is solely for disposal, both by percolation and evapotranspiration, consideration has not been give to agronomic application rates of the wastewater.
9. The Discharger plans to contract with 7-H to operate and maintain the WWTF.
10. The discharge is within the Red Bluff Hydrologic Area (No. 504.20) as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in

August 1986. Surface water drainage is to Mud Creek. Mud Creek is tributary to Big Chico Creek near its confluence with the Sacramento River.

11. Average annual rainfall at the site is approximately 25 inches, according to data from Station Chico UF (approximately 8 miles south east of and at the same elevation as the site).
12. Soils in the vicinity of the disposal area are loams in the upper 0.2 to 4.1 feet. The loams are underlain by sand with gravels and cobbles increasing at depth. Highest anticipated groundwater in the disposal area is, including mounding, approximately 1.5 feet below original grade. To provide at least five feet of separation between subsurface emitters and groundwater, four feet of soil will be imported to the disposal area.
13. The treatment and disposal areas are outside the 100-year flood zone.
14. The Regional Board adopted a *Water Quality Control Plan, Fourth Edition, for the Sacramento River Basin and the San Joaquin River Basin* (hereafter Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for protecting waters of the basin, including plans and policies adopted by the SWRCB and incorporated by reference into the Basin Plan. These requirements implement the Basin Plan.
15. The beneficial uses of Big Chico Creek are agricultural supply; water contact recreation; non-contact water recreation; warm and cold freshwater habitat; migration of aquatic organisms (cold); spawning, reproduction, and/or early development of fish; and wildlife habitat.
16. The beneficial uses of underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
17. State Water Resources Control Board Resolution No. 68-16 (*Policy with Respect to Maintaining High Quality Waters of the State*—hereafter Resolution 68-16) requires a regional board in regulating the discharge of waste to maintain high quality waters of the state (i.e., background water quality) until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than as described in plans and policies. If a change in water quality is allowed, the discharge is required to meet waste discharge requirements that will result in the best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and highest water quality consistent with maximum benefit to the people will be maintained.
18. The Regional Board finds that, due to the need for housing, some degradation of groundwater in the discharge area is consistent with Resolution 68-16 provided that:

- a. The degradation is confined to a reasonable area;
  - b. The Discharger minimizes the degradation by fully implementing, regularly maintaining, and optimally operating best practicable treatment and control (BPTC) measures;
  - c. The degradation is limited to waste constituents typically encountered in domestic wastewater; and
  - d. The degradation does not result in water quality less than that prescribed in the Basin Plan.
19. Effluent limitations contained in this Order are intended to ensure that BPTC and the high quality of effluent needed for a properly functioning disposal system are maintained.
20. This Order establishes interim groundwater limitations for the WWTF that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. The proposed WWTF with its tertiary treatment, nitrogen removal, and disinfection appears to meet BPTC. This Order contains tasks for assuring that BPTC and the highest water quality consistent with the maximum benefit to the people of the State will be maintained. Accordingly, the discharge is consistent with the antidegradation provisions of Resolution 68-16. The Regional Board may reopen this Order to reconsider groundwater limitations and other requirements as needed to maintain compliance with Resolution 68-16.
21. Section 13267(b) of the California Water Code (CWC) states, in part, that "In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste outside of its region that could affect the quality of waters of the state within its region shall furnish under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs of these reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports." The reports required by Monitoring and Reporting Program No. R5-2005-0050 are necessary to assure compliance with these waste discharge requirements. The Discharger operates facilities that discharge wastes subject to this Order.
22. Federal Regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (USEPA) on 16 November 1990 (40 CFR Parts 122, 123, and 124) which require specific categories of facilities discharging storm water associated with industrial activity to obtain NPDES permits and to implement Best

Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate industrial storm water pollution.

23. The State Water Resources Control Board (SWRCB) adopted Order No. 97-03-DWQ (General Permit No. CAS000001), on 17 April 1997, specifying waste discharge requirements for discharge of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent (NOI) by industries covered under the permit. This facility is not subject to the General Permit because the discharge is less than 1.0 mgd.
24. The Butte County Board of Supervisors, on 28 September 2004, approved a mitigated negative declaration in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.), and the State CEQA Guidelines.
25. The Regional Board has considered the mitigated negative declaration and concurs that the project as proposed will not have a significant impact on water quality.
26. The discharge authorized herein and the treatment and storage facilities associated with the discharge, except for discharges of residual sludges and solid waste, are exempt from the requirements of Title 27. The exemption, pursuant to Title 27 section 20090(a), is based on the following:
  - a. The waste consists primarily of domestic sewage and treated effluent;
  - b. The waste discharge requirements are consistent with water quality objectives; and
  - c. The treatment and storage facilities described herein are comparable in function to a municipal wastewater treatment plant.
27. The DWR has established standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards). These standards are described in two DWR publications: *Water Well Standards: State of California*, Bulletin 74-81 (December 1981) and *California Well Standards*, Bulletin 74-90 (June 1991—supplement to Bulletin 74-81).
28. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated herein and made a part of this Order, were considered in establishing the following conditions of discharge.
29. The Discharger and interested agencies and persons were notified of the intent to prescribe waste discharge requirements for this discharge, and provided an opportunity to submit written views and recommendations and to be heard in a public meeting.

30. In a public meeting, all comments pertaining to the discharge were heard and considered.

IT IS HEREBY ORDERED that Stephen J. Schuster and Sierra Moon Homeowners' Association, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

**A. Discharge Prohibitions**

1. The discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. The discharge of wastes in a manner different than specified in the Findings is prohibited.
3. The by-pass or overflow of untreated or partially treated waste from the collection or treatment facilities is prohibited.
4. Discharge of waste classified as "hazardous" as defined in Sections 2521(a) of Title 23, CCR, Section 2510, et seq., or "designated," as defined in Section 13173 of the CWC, is prohibited.

**B. Discharge Specifications**

1. The monthly average influent flow to the treatment facilities shall not exceed the following: Schedule 1 - 20,000 gallons per day; and the combined flow of Schedules 1 and 2 - 50,000 gallons per day.
2. Objectionable odors originating at this facility shall not be perceived beyond the limits of the Discharger's property.
3. The discharge to the subsurface application area shall remain underground at all times.
4. The discharge shall remain within the designated disposal area at all times.
5. Public access to the disposal area and treatment plant shall be controlled through the use of fencing, signs, or other acceptable alternatives.
6. The treatment facilities and disposal area shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

**C. Effluent Limitations**

1. Effluent shall not exceed the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>30-Day Average</u>	<u>Daily Maximum</u>
BOD <sub>5</sub>	mg/L	15	45
Total Suspended Solids	mg/L	15	45
Total Nitrogen (TKN plus Nitrate)	mg/L	10	20

2. The concentration of total coliform bacteria in the effluent shall not exceed a median most probable number (MPN) of 2.2/100 mL utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria shall not exceed 23 MPN/100 mL in more than one sample in any 30-day period.

**D. Sludge Disposal**

1. Collected screenings, grit, sludges, and other solids removed from liquid wastes shall be disposed of in a manner that is approved by the Executive Officer, and consistent with Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq.
2. Any proposed change in sludge use or disposal practice shall be reported to the Executive Officer for approval at least 90 days in advance of the change.

**E. Septic Tanks**

All septic tanks within the project boundary shall be inspected every three years and pumped if necessary. If a septic tank is not pumped after a three-year inspection, it shall be inspected annually thereafter until it is pumped. Septic tank pumpings shall be disposed of in a manner approved by the Executive Officer.

**F. Groundwater Limitations**

1. The discharge shall not cause groundwater under and beyond the disposal area, as determined by an approved well monitoring network, to:
  - a. Contain any of the following constituents in concentration greater than as listed or greater than natural background quality, whichever is greater:

<u>Constituent</u>	<u>Units</u>	<u>Limitation</u>
Total Coliform Organisms	MPN/100 mL	2.2
Total Dissolved Solids	mg/L	500

<u>Constituent</u>	<u>Units</u>	<u>Limitation</u>
Nitrate (as N)	mg/L	10

- b. Impart taste, odor, or toxicity that creates nuisance or impairs any beneficial use.

#### **G. Provisions**

1. The Discharger may be required to submit technical reports as directed by the Executive Officer.
2. **Prior to any discharge**, Sierra Moon Homeowners' Association shall be established and by-laws approved by the Executive Officer.
3. **At least 30 days prior to commencing discharge**, the Discharger shall submit a report certifying substantial completion of WWTF construction. The report shall include as-built drawings signed and stamped by a California registered engineer showing the treatment plant layout; disposal area details; and a detailed description of construction quality assurance testing to ensure the constructed disposal mound will accept design effluent flows without surfacing of effluent. The report shall clearly document any significant deviation from the system design as presented in the Report of Waste Discharge.
4. **Within 60 days of adoption of this Order**, the Discharger shall submit the following and implement the required measures as appropriate:
  - a. A report prepared by a California registered Civil Engineer that describes potential scenarios of WWTF failure, and the costs to remedy such failures. **Within 30 days** of Regional Board staff's written acceptance of this report, the Discharger shall provide for this amount or a financial assurance of this amount to be placed into the reserve fund of the Homeowners Association (HOA). The treasurer of the HOA shall verify this has been done by a letter to the Executive Officer **within 30 days** of the deposit of funds or financial assurance mechanism. The financial assurance must remain available to the HOA for repairs until such time that the Executive Officer indicates the financial assurance is no longer needed. The Discharger shall notify the Regional Board annually **by 1 January** that the financial assurance mechanism remains in place.
  - b. A signed contract for the operation, maintenance, and monitoring of the WWTF. The contractor performing these functions shall be a California Certified Treatment Plant Operator of appropriate grade. Termination, modifications, or transfer of the contract to another person or agency shall be subject to approval of the Executive Officer.



- c. A report by a California registered Civil Engineer that estimates the annual amount of funds necessary to accrue an amount of capital sufficient to replace the treatment and disposal system at the end of its useful life. The Discharger shall then establish an account for these funds and shall file an annual report with the Regional Board **by 1 January** of each year verifying the account contains adequate capital in accordance with the engineer's report.
5. By **1 July 2005**, the Discharger shall submit and implement an Operation and Maintenance (O&M) Plan for the WWTF. The O&M Plan shall instruct field personnel on how to manage the day-to-day discharge operations to comply with the terms and conditions of this Order and how to make field adjustments, as necessary, to optimize the effectiveness and life of the subsurface disposal fields and preclude nuisance conditions (e.g., surfacing wastewater). It shall also include a troubleshooting flowchart with recommend remedial actions and a description of notification requirements. The O&M Plan shall address management of the WWTF in sufficient detail to optimize compliance with this Order. The Discharger shall ensure that an up-to-date O&M Plan is readily available to operating personnel at all times, and that personnel are familiar with it.
6. The Discharger shall perform water quality studies, and implement the required monitoring program according to the following time schedule. All reports shall be submitted pursuant to Section 13267 of the California Water Code, and shall be prepared by a California registered Civil Engineer, except groundwater work plans and studies, which shall be prepared by a California Registered Civil Engineer experienced in such studies, a Registered Geologist, or a Certified Engineering Geologist.
  - a. **Within 90 days of the adoption of this Order**, the Discharger shall submit a workplan for characterization of groundwater quality. The workplan shall describe the installation of monitoring wells to allow evaluation of the groundwater quality upgradient and downgradient of the disposal field. Every monitoring well shall be constructed to yield representative samples from the uppermost layer of the uppermost aquifer and to comply with applicable well standards.
  - b. **Within 120 days of the adoption of this Order**, the Discharger shall submit a Monitoring Well Installation Report that describes the installation of groundwater monitoring wells.
  - c. **By 1 May 2006**, the Discharger shall submit a Background Groundwater Quality Study Report. For each groundwater monitoring parameter/constituent identified in the MRP, the report shall present a summary of monitoring data, calculation of the concentration in background monitoring wells, and comparison of background groundwater quality to that in wells downgradient of the disposal area. For each

monitoring parameter/constituent, the report shall compare measured concentrations for downgradient monitoring wells with: 1) the calculated background concentration, and 2) the listed interim limitations set forth in Groundwater Limitations. Where background concentrations are statistically greater than the listed interim limitations specified in Groundwater Limitations, then the Discharger shall use background concentrations for final limitations. Where background concentrations are statistically less than the listed interim concentrations and the concentrations in the downgradient wells are statistically greater than background concentrations, the Discharger shall begin the preparation of a BPTC Evaluation Report to be approved by the Executive Officer.

7. **By 1 October 2005**, the Discharger shall destroy, in accordance with Butte County standards, all older wells in the subdivision previously used for groundwater level monitoring, that are not built to Butte County and DWR standards.
8. The Discharger shall comply with Monitoring and Reporting Program No. R5-2005-0050, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
9. The Discharger shall implement best practicable treatment and control measures, including proper operation and maintenance of facilities, to comply with this Order.
10. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991, which are incorporated herein and made part of this Order. This attachment and its individual paragraphs are commonly referenced as Standard Provision(s).
11. In the event of any change in control or ownership of land or waste discharge facilities described herein, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Regional Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the proposed owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved by the Executive Officer.

12. The Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge.
13. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
14. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
15. The Regional Board will review this Order periodically and will revise requirements when necessary.

I, THOMAS R. PINKOS, 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 Valley Region, on 17 March 2005.

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THOMAS R. PINKOS, Executive Officer

RB: sae  
6 September 2005

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2005-0050  
FOR  
STEPHEN J. SCHUSTER  
AND  
SIERRA MOON HOMEOWNERS' ASSOCIATION  
WASTEWATER TREATMENT FACILITY  
BUTTE COUNTY

The Discharger shall not implement any changes to this Program unless and until the Regional Board or Executive Officer issues a revised Monitoring and Reporting Program.

**EFFLUENT MONITORING**

Effluent samples shall be collected from the effluent pumping basin of the wastewater plant. The date and time of collection shall be recorded. Effluent monitoring shall include at least the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	mgd	Meter	Monthly
BOD <sub>5</sub>	mg/L	Grab	Monthly
TSS	mg/L	Grab	Monthly
Total Nitrogen (as Nitrogen)	mg/L	Grab	Monthly
Total Coliform Bacteria	MPN/100 mL	Grab	Monthly
Turbidity	NTU	Grab	Monthly

**DISPOSAL AREA MONITORING**

Effluent disposal areas shall be monitored twice per month for signs of surfacing effluent or excessive weed growth.

**SEPTIC TANK MONITORING**

Septic tank maintenance inspections (including tank sludge level measurement) shall be performed at least once every 3 years (see Waste Discharge Requirements E. Septic Tanks for more specific instructions). Information concerning inspections and maintenance activities (including, but not limited to, pumping, replacement, and repairs) shall be included in the monitoring reports submitted to the Regional Board.

### GROUNDWATER MONITORING

Prior to construction of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Executive Officer for review and approval. Once installed, new wells shall be included in the Monitoring and Reporting Program and shall be sampled and analyzed according to the schedule below.

Prior to sampling, groundwater elevations shall be measured and the wells shall be purged at least three well volumes until pH and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 foot. Water table elevations shall be calculated and used to determine groundwater gradient and direction of flow.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Groundwater elevation	0.01 Foot	Measurement	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly
Total and Fecal Coliform Organisms	MPN/100 mL	Grab	Quarterly
Groundwater flow direction	Degrees	Bearing	Quarterly

### SLUDGE MONITORING

The Discharger shall keep records regarding the quantity of sludge generated by the treatment processes; any sampling and analytical data; the quantity of sludge stored on site; and the quantity removed for disposal. The records shall also indicate that steps taken to reduce odor and other nuisance conditions. Records shall be stored onsite and available for reviewing during inspections.

All records shall be submitted as part of the Annual Monitoring Report.

### REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type, and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Regional Board.

**A. Monthly Monitoring Reports**

Monthly Monitoring Reports (Monthly Reports) shall be submitted to the Regional Board by the **1<sup>st</sup> day** of the second month following sample collection (e.g., the January Report is due by **1 March**). Monthly Reports shall include the following:

1. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format.
2. If requested by staff, copies of laboratory analytical report(s).

**B. Quarterly Groundwater Monitoring Reports**

Quarterly Groundwater Monitoring Reports (Quarterly Reports) are due by **1 May, 1 August, 1 November, and 1 February**, for the first through fourth calendar quarters, respectively. Quarterly Reports shall be submitted with the appropriate Monthly Report. Quarterly Reports shall include the following:

1. Results of groundwater monitoring, per the Groundwater Monitoring section.
2. A narrative description of procedures to assure that wells were purged properly prior to obtaining samples.
3. Calculations for groundwater elevations and groundwater flow direction and gradient.
4. Summary table depicting historical and current water table elevations and analytical results.

**C. Annual Monitoring Report**

Annual Monitoring Reports (Annual Reports) may be requested in writing by Regional Board staff. When requested, Annual Reports shall be due by **1 February**.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: \_\_\_\_\_  
THOMAS R. PINKOS, Executive Officer

17 March 2005

\_\_\_\_\_  
(Date)

RB: sae  
6 September 2005

## INFORMATION SHEET

ORDER NO. R5-2005-0050

STEPHEN J. SCHUSTER AND SIERRA MOON HOMEOWNERS' ASSOCIATION  
WASTEWATER TREATMENT FACILITY  
BUTTE COUNTY

Stephen J. Schuster and Sierra Moon Homeowner's Association propose to discharge up to 50,000 gallons per day of tertiary-treated and disinfected domestic wastewater to subsurface emitters in a raised soil bed. About four feet of soil will be imported to the disposal area to provide five feet of unsaturated depth between the subsurface drip lines and highest anticipated groundwater. The Sierra Moon Subdivision consists of 119 single family lots and approximately 135 acres of open space. The total project area is 300 acres.

Secondary tertiary treatment will be accomplished by modified sequencing batch reactors (SBRs) each consisting of an equalization tank, aeration tank, and batch clarifier. Wastewater will be tertiary treated and disinfected by filtration (activated carbon) and ozone. Solids will be subject to aerobic digestion, and stabilized solids will be periodically removed by septic pumper truck and hauled to an approved facility. Treated wastewater will be discharged to subsurface drip lines buried 6 to 12 inches below the surface of a 4-foot thick raised soil bed. Replacement disposal area has been provided.

Design influent strength to the SBRs (after primary treatment) is BOD, 204 mg/L; TSS, 181 mg/L; and Total Nitrogen-N, 36 mg/L. Projected effluent quality is BOD, <10 mg/L; TSS, <10 mg/L; Total Nitrogen-N, <7 mg/L; total coliform organisms, <2.2 MPN/100mL. This Order contains effluent limitations to ensure the treatment system is being properly operated and that water quality is protected.

Surface water drainage is to Mud Creek. Mud Creek is tributary to Big Chico Creek.

RB: sae

6 September 2005

