

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2003-0143

WASTE DISCHARGE REQUIREMENTS  
FOR  
BUTTE-GLENN COMMUNITY COLLEGE DISTRICT  
BUTTE COLLEGE WASTEWATER TREATMENT PLANT  
BUTTE COUNTY

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

1. Waste Discharge Requirements Order No. 98-079, adopted by the Regional Board on 26 July 1998, prescribes requirements for a discharge of secondary treated domestic wastewater to disposal ponds owned by the Butte-Glenn Community College District (hereafter Discharger). The wastewater treatment plant is on property owned by the Discharger and includes Assessor's Parcel Numbers 041-100-43 and 044; 041-120-022 and 089; and 041-130-034, 044, 045, 046, 047, and 048. The facility is in Section 28, T23N, R3E, MDB&M as shown in Attachment A, which is incorporated herein and made part of this Order.
2. The Discharger currently discharges treated wastewater to one of two locations: a series of three marsh disposal ponds located near the treatment plant or a series of three ecology ponds situated between two forks of Clear Creek. The Discharger, on 7 December 2000, submitted a report of waste discharge for a change in the location of the discharge. The marsh disposal ponds will remain, but the ecology ponds will be replaced by two new disposal ponds that have been constructed on land owned by the Discharger. This change in discharge location is being made to eliminate periodic unregulated overflows from the ecology ponds to Clear Creek. After requesting and receiving additional information from the Discharger, the report of waste discharge was declared complete on 25 April 2003.
3. The Discharger discharges approximately 40,000 gallons per day of treated domestic sewage to land. The treatment system consists of an aerobic digester and two stabilization ponds. The disposal system will consist of the two recently constructed disposal ponds and the three existing shallow marsh disposal ponds. The new disposal ponds have approximately 38.6 acre-feet of storage, and the marsh disposal ponds have approximately 3 acre-feet of storage. The wastewater treatment plant has a design treatment and disposal capacity of 100,000 gallons per day. The property surrounding the new ponds has been signed and fenced to discourage public access. The existing marsh disposal ponds, in a lightly-trafficked area of the campus, are posted, and the stabilization ponds and treatment plant are fenced.

4. Some portions of the Butte College main campus have wildlife refuge status. The wastewater disposal areas are managed for enhancement of wildlife and their construction was partly funded by wildlife agencies. Traditional mosquito control measures (e.g., eliminating plant growth around pond margins) are counter to the goal of providing wildlife habitat. Consequently, this Order allows the discharger flexibility in choosing mosquito abatement methods. Mosquito abatement services are currently provided by the Butte County Insect and Vector Control District.
5. The discharge is within the Butte Basin Hydrologic Area (No. 520.40) as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. Surface water drainage is to Clear Creek, a tributary of Dry Creek, a tributary of Cherokee Canal, a tributary of Butte Creek.
6. Average annual rainfall at the site is approximately 28 inches, according to data from Station No. A 00-06521-00 Oroville, which is approximately 10 miles south-southeast of the site.
7. Soils in the vicinity of the disposal area consist of a thin veneer of silt, clay, and sandy clay extending to a depth of approximately 1 to 3 feet below existing site grade. The geology below near-surface soils to the maximum depth explored (31 feet) consists of completely to highly weathered, interbedded conglomerate, sandstone, siltstone, and tuff of the Tuscan formation. The Tuscan formation geology is unfractured.
8. In 2001, four groundwater monitoring wells (one upgradient and three downgradient) were installed from depths of 28.5 to 31.5 feet below ground surface (bgs). Depth to groundwater was measured as shallow as 8 feet bgs during the 2002/2003 wet season. Groundwater was usually found to be 12 to 21 feet bgs. The bottoms of the two new disposal ponds were built to maintain a minimum 5-foot separation from groundwater. Groundwater flow direction was measured to be south 67° west, which is away from neighboring private residences and wells located more than 500 feet south of the ponds. Groundwater samples were collected from each well in November 2002 and tested for mineral constituents. Test results were as follows (major constituents shown):

<u>Well No.</u>	<u>Electrical Conductivity, µmho/cm</u>	<u>Total Dissolved Solids, mg/L</u>	<u>Nitrate-N, mg/L</u>
MW-1	300	220	3.1
MW-2	260	180	3.6
MW-3	260	210	5.0
MW-4	260	220	4.4

9. The treatment and disposal areas are outside the 100-year flood zone.

10. 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 State Water Resources Control Board (SWRCB) and incorporated by reference into the Basin Plan. These requirements implement the Basin Plan.
11. The beneficial uses of Butte Creek are agricultural supply; water contact recreation; warm and cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development of fish; and wildlife habitat.
12. The beneficial uses of underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
13. 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 the 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.
14. The Regional Board finds that, due to the need for education, 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 municipal wastewater; and
  - d. The degradation does not result in water quality less than that prescribed in the Basin Plan.
15. The wastewater treatment plant appears to meet a level of BPTC commensurate with its remote location and favorable geologic conditions. This Order contains tasks for assuring that BPTC and the highest water quality consistent with the maximum benefit to the people of the State are maintained. Accordingly, the discharge is consistent with the

antidegradation provisions of Resolution 68-16. The Regional Board may reopen this Order to apply groundwater limitations and other requirements as needed to maintain compliance with Resolution 68-16.

16. 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. R5-2003-0143 are necessary to assure compliance with these waste discharge requirements. The Discharger operates facilities that discharge wastes subject to this Order.
17. Federal Regulations for storm water discharges were promulgated by United States Environmental Protection Agency (USEPA) on 16 November 1990 (Title 40 Code of Federal Regulations [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.
18. The 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.
19. The Discharger is the lead agency for the project under the California Environmental Quality Act (CEQA), Public Resources Code Section 21000, et. seq. The Discharger adopted a Mitigated Negative Declaration for a Master Facilities Plan on 24 April 2002 in accordance with CEQA. The Mitigated Negative Declaration addressed the new discharge to the two new disposal ponds. As a responsible agency, the Regional Board finds that the project as approved by Butte County will not have a significant effect on water quality.

20. The Regional Board has considered the mitigated negative declaration and concurs that impacts on water quality will not be significant, if the following mitigation measures identified in the mitigated negative declaration are implemented:
- a. Maintain a minimum 500-foot buffer between new ponds and nearby 5-acre residential lots.
  - b. Install at least four groundwater monitoring wells.
  - c. Periodically test groundwater monitoring wells for pathogenic organisms, salts, and nitrates.

This Order implements the above mitigation measures.

21. The discharge authorized herein and the treatment and storage facilities associated with the discharge, except for discharges of residual sludge 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.
22. 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).
23. The Regional Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The attached Information Sheet is part of this Order.
24. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written comments and recommendations.
25. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Butte-Glenn Community College District, its 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 Finding Nos. 3 and 4 is prohibited.
3. The by-pass or overflow of untreated or partially treated waste from the wastewater collection system or wastewater treatment plant 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.
5. Discharge to the ecology ponds after 30 June 2004 is prohibited.

**B. Discharge Specifications**

1. The monthly average influent flow to the treatment facilities shall not exceed 100,000 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 shall remain within the designated disposal area (aerobic digester, stabilization ponds, marsh disposal ponds, and new disposal ponds) at all times.
4. Public access to the treatment plant and ponds shall be controlled through the use of fencing, signs, or other acceptable alternatives.
5. 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.
6. Ponds shall be managed to prevent breeding of mosquitos by the Butte County Insect and Vector Control District or by another method approved by the Executive Officer:
7. Ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100-years, distributed monthly in accordance with historical rainfall patterns. Freeboard shall never be less than 2 feet (measured vertically from the lowest point of overflow).

8. All disposal ponds shall be at least 500 feet from residential properties.

**C. 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.

**D. Groundwater Limitations**

The discharge shall not cause groundwater under and beyond the disposal area, as determined by an approved well monitoring network, to:

1. 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
Nitrate (as N)	mg/L	10

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

**E. Provisions**

1. The Discharger may be required to submit technical reports as directed by the Executive Officer.
2. By **15 January 2004**, the Discharger shall submit and implement an Operation and Maintenance (O&M) Plan for the wastewater treatment and disposal systems. 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 performance of the wastewater treatment and disposal systems and preclude nuisance conditions (e.g., odors). It shall also include a troubleshooting flowchart with recommend remedial actions and a description of notification requirements. 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 its contents.

3. **By 1 August 2005**, 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 the calculated background concentration. Where 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.
4. The Discharger shall comply with Monitoring and Reporting Program No. R5-2003-0143, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
5. The Discharger shall implement BPTC measures, including proper operation and maintenance of facilities, to comply with this Order.
6. 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).
7. 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.
8. The Discharger shall immediately notify the Regional Board by telephone whenever a violation of these WDRs or an adverse condition that may impair water quality occurs as a result of the extraction operations or the discharge; written confirmation shall follow within two (2) weeks.

9. The Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge.
10. 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.
11. 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.
12. 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 5 September 2003.

original signed by

---

THOMAS R. PINKOS, Executive Officer

9/11/03

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2003-0143  
FOR  
BUTTE-GLENN COMMUNITY COLLEGE DISTRICT  
BUTTE COLLEGE WASTEWATER TREATMENT PLANT  
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.

**INFLUENT MONITORING**

The Discharger shall report the following regarding the wastewater treatment plant:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Influent Flow	gallons per day	Measurement	Monthly

**POND MONITORING**

The Discharger shall report the following regarding all ponds:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Liquid Depth and Freeboard	Feet	Visual	Monthly

The stabilization ponds, marsh disposal ponds, and new disposal ponds shall be inspected weekly to check the following:

- a. Seepage from ponds.
- b. Excessive odors or other nuisance conditions.
- c. Excessive weed growth.

**GROUNDWATER MONITORING**

Prior to sampling, groundwater elevations shall be measured and the wells shall be purged until pH and electrical conductivity have stabilized or at least three well volumes of water have been removed, whichever is greater. 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 <sup>1</sup>
Nitrate as Nitrogen	mg/L	Grab	Quarterly <sup>1</sup>
Total and Fecal Coliform Organisms	MPN/100 mL	Grab	Quarterly <sup>1</sup>
Groundwater flow direction	Degrees	Calculation	Quarterly
Groundwater gradient	ft/ft	Calculation	Quarterly

<sup>1</sup>Semi-annually after 1 October 2005

### 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 associated with sludge. 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 reports shall be submitted to the Regional Board by the **1st day** of the second month following sampling (e.g., the January Report is due by **1 March**). At a minimum the reports shall include:

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 Monitoring Reports**

The Discharger shall establish a quarterly sampling schedule for groundwater such that samples are obtained approximately every three months. Quarterly Monitoring Reports (Quarterly Reports) shall be submitted to the Regional Board by the **1st day** of the second month after the sampled quarter (e.g. the January-March quarterly report is due by **1 May**). Quarterly Reports shall include the following:

1. Results of groundwater monitoring.
2. A narrative description of procedures to assure that wells were purged properly prior to obtaining samples.
3. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of sampling.
4. Summary of data tables of historical and current water table elevations and analytical results.

**C. Annual Monitoring Report**

An Annual Monitoring Report, requested in writing by staff, shall include tabular and graphical summaries of all monitoring data collected during the year. Annual Monitoring Reports are due by 1 February.

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

original signed by  
Ordered by: \_\_\_\_\_  
THOMAS R. PINKOS, Executive Officer  
5 September 2003  
\_\_\_\_\_  
(Date)

9/11/03

## INFORMATION SHEET

ORDER NO. R5-2003-0143  
BUTTE-GLENN COMMUNITY COLLEGE DISTRICT  
BUTTE COLLEGE WASTEWATER TREATMENT PLANT  
BUTTE COUNTY

Butte College, in the Butte-Glenn Community College District, owns and operates a wastewater treatment and disposal system for its main campus, which is located between Chico and Oroville along Durham-Pentz Road. The total campus population, including students, faculty, and staff, is approximately 7,700. Influent flow to the wastewater treatment plant is approximately 40,000 gallons per day. In the past, flows were about twice present flows due to problems with infiltration and inflow (I/I). In 2001, repairs were made to address the I/I problem.

The wastewater treatment system consists of an aerobic digester followed by two stabilization ponds. After treatment, wastewater is conveyed to three shallow marsh disposal ponds or to two newly constructed disposal ponds. The new ponds replaced three ponds that had been used for over 20 years. These ponds were referred to as the “ecology ponds” and were situated between two branches of Clear Creek. Sporadic episodes of the ecology ponds overflowing into Clear Creek eventually lead to the decision to construct the two new disposal ponds.

Surface drainage in the vicinity of the wastewater treatment plant is to Clear Creek, a tributary of Dry Creek, Cherokee Canal, Butte Creek, and finally, the Sacramento River.

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 the 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.

The Regional Board finds that, due to the need for education, 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 municipal wastewater; and
- d. The degradation does not result in water quality less than that prescribed in the Basin Plan.

ORDER NO. R5-2003-0143  
MINERAL RESOURCES LLC AND GOODALL ESTATE COMPANY  
MORRIS RAVINE QUARRY  
BUTTE COUNTY

-2-

The wastewater treatment plant appears to meet a level of BPTC commensurate with its remote location and favorable geologic conditions. This Order contains tasks for assuring that BPTC and the highest water quality consistent with the maximum benefit to the people of the State are maintained. Accordingly, the discharge is consistent with the antidegradation provisions of Resolution 68-16. The Regional Board may reopen this Order to apply groundwater limitations and other requirements as needed to maintain compliance with Resolution 68-16.

RB: sae  
9/11/03