

WASTE DISCHARGE REQUIREMENTS (WDRs)

I. PURPOSE

The primary purpose of Waste Discharge Requirements (WDRs) is to regulate wastewater that is discharged to land. This regulation is put in place to protect the recreational use and drinking water supplies of surface waters and groundwater supplies, and to ensure the protection of fish habitat, other aquatic organisms, and wildlife.

II. SCOPE and APPLICATION

This program involves agricultural operations and discharges from Confined Animal Facilities (CAFs).

III. ROLES and RESPONSIBILITIES

- A. Environmental Health & Safety:
 - 1. Manages and implements the WDRs for university operations, this includes conducting inspections, reviewing lab data and ensuring reporting is complete.
 - 2. Serves as the repository for water quality data, monitoring results, and sprayfield records
 - 3. Using the [WDR Inspection Form](#), conducts inspections before, during and after a measurable rain event greater than 0.5 inches. Inform Agricultural Operations of any violations and if corrective actions are necessary.
 - 4. Submit quarterly, semi-annual, and annual compliance reports to the Regional Board. The report includes CAF data from Agricultural Operations as well as rain volumes, sprayfield records, and any Total Maximum Daily Load (TMDL) data collected during the reporting period.
- B. Agricultural Operations (Ag Ops)
 - 1. Responsible for compiling monthly and organizing data from each CAF (lab results, animal numbers, compost volumes, freeboard of wastewater ponds, etc.) that is used in quarterly/semi-annual/annual reports related to

wastewater retention ponds, disposal spray fields and compost within the campus farm.

2. Using the [WDR Cover Form](#), attach the data and forward the information from above to EHS for reporting.
3. Individual farm units (Dairy, Swine and Beef) are responsible for monthly reporting animal numbers for their unit and submitting it to the Ag Ops supervisor.

IV. REQUIREMENTS

The Central Coast Regional Water Quality Control Board (CCRWQCB) regulates several types of CAFs. CAFs are operations where animals are confined and fed in an area that has a roof or is devoid of vegetation, generating solid and liquid manure wastes that may be collected and disposed of on land.

Cal Poly operates three CAFs and include the Dairy Products Technology Center, Beef Cattle Evaluation Center and the Swine Unit.

The WDR provides a framework for how each CAF should be managed. The WDR specifies how many animals are permitted in the facility, how compost is managed and details the disposal of wastewater, including how many gallons can be discharged from the facility each day. The order provides the requirements for monitoring and reporting. See Appendix

V. FORMS/CHECKLISTS

[WDR Inspection Form](#)

APPENDIX A: REFERENCES

[Disposal to Land](#)

APPENDIX B: RWQCB WDR R3-2003-065

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL COAST REGION

895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

WASTE DISCHARGE REQUIREMENTS ORDER NO. R3-2003-035

Proposed for Consideration at the July 11, 2003 Meeting

For

CALIFORNIA POLYTECHNIC STATE UNIVERSITY,

SAN LUIS OBISPO COUNTY

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

SITE OWNER AND LOCATION

1. California Polytechnic State University, San Luis Obispo, (hereafter "Discharger") operates a 6,000-acre university campus in San Luis Obispo (Attachment A).

PURPOSE OF ORDER

2. The primary objectives of this Order are to: 1) consolidate and streamline water quality requirements to cover the entire spectrum of campus activities, 2) update existing requirements for discharge of treated wastewater to land, 3) update the monitoring and reporting program to comprehensively monitor potential water quality impacts and, 4) to assume compliance with the Basin Plan and applicable laws and regulations pertaining to nonpoint source discharges campus-wide.

SITE/FACILITY DESCRIPTION

3. The campus is composed of the main campus and six ranches. Various habitats exist on the campus and include, urban (instructional core), agriculture, range, riparian, wetland, and aquatic. Water resources include streams, reservoirs, springs, ponds, wetlands, wells, and storage tank facilities. As well as the standard stormwater runoff from the hardened surfaces of the campus core, a variety of animal holding and processing facilities, agricultural fields, landscaping, and various construction and

Created: 10/15/2017; Updated: 9/6/2018

O:\EH&S\ADMIN\Draft EHS Programs\Final Versions\WASTE DISCHARGE PROGRAM PACKAGED\WASTE DISCHARGE REQUIREMENTS.docx

maintenance operations throughout the campus present a significant potential threat to water quality in both the ground water and the creeks (Brizzolara, Stenner, and tributaries of Chorro) running through the campus.

SITE/FACILITY DESCRIPTION

4. **Geology:** The surface soils below the land disposal sites are generally Salinas silty clay loam with 0-2% slopes. Permeability of the soil is moderately slow (0-29" drains between 0.2-0.6 in/hr. and between 29-72" it drains 0.2-0.6 in/hr.) allowing more time for nutrient uptake.

5. **Ground water:** Depth to ground water at the land irrigation (disposal) sites varies from greater than 20 feet to less than 6 feet in fields bordering campus creeks. Ground water movement within the disposal area is generally towards Stenner Creek, to the south-southwest on the main campus and to the southwest in the Chorro watershed.

6. **Surface water:** Stenner Creek, a tributary to San Luis Obispo Creek flows through the western ranch portions of the main campus. It is the most affected by the known point source discharges (Findings 8 through 11). Brizzolara Creek skirts the instructional core of the campus after descending through Poly Canyon and receives the greatest influence of stormwater runoff from hardened surfaces. In the Chorro Creek Watershed, Pennington, Chumash, and Walters are all tributaries of Chorro Creek, which eventually leads to the Morro Bay Estuary (Attachment C). Ranching practices on these lands, most notably excessive erosion from over grazing, has the greatest potential for impact on water quality in these creeks.

MAIN FACILITY DISCHARGES

8. The **Dairy Unit (DU)** is located one mile northwest of the main campus in San Luis Obispo, California. The DU includes barns, milking facilities, milk storage, laboratories and classrooms. The DU is permitted for 375 Animal Units (AU) of cattle^(Design). The DU facilities are in the San Luis Obispo Quad, Section 22, T30S, R12E, as shown on Attachments A and B of this Order. This treatment and disposal facilities consists of solids removal and initial settling in a 13 acre-foot retention pond located on approximately 1.5 acres at the southeast corner for the facility. Waste is then transferred (via gravity) to a 15.7 acre-foot retention pond. Additional emergency wet weather storage is available through two retention ponds at the abandoned State Dairy facility (adjacent to the DU). Each of these ponds has a capacity of approximately 8.9 acre-feet. These ponds are used as backup holding capacity for emergencies, (i.e. excessive storms) and retention pond maintenance activities. The DU has been regulated since 1994 by Order No. 94-01.

* One thousand pounds of live weight of any given livestock species or any combination of livestock species.

9. The discharger also operates a **Beef Unit** (BC) located two miles northwest of the main campus in San Luis Obispo, California. The BC includes 16 feeding pens with each pen having a maximum capacity of 15 head. The facility has a maximum capacity of 240 head of test cattle^(Design). The BC facilities are in the San Luis Obispo Quad, Section 15, T30S, R12E, as shown on Attachment A of this Order. This treatment and disposal facility consists of a 1.7 acre-feet retention pond located on approximately 0.5 acres southeast of the livestock facility. The facility is equipped with a 6 inch lipped concrete pad adjacent to the pens that directs runoff on the east side to a pipe leading to the retention pond. A similar structure on the west side leads wastewater to an overland drain to the pond. The BC has been regulated since 1991 by Order No. 91-44.

10. The discharger also operates a **Swine Unit** (SU) located 0.8 mile northwest of the main campus in San Luis Obispo, California. The SU can contain approximately 600 animals^(Design). The facilities are in the SE 1/4 of Section 15, T30S, R12E, MD B&M, as shown on Attachment A of this order. This treatment and disposal facility consists of two retention ponds (upper and lower). Each pond has the capacity to hold approximately 5.2 acre-feet of wastewater each. The retention ponds are located on 3.8 acres approximately 400 feet southwest of the livestock facility. The SU has been operated since 1986 by Order No. 86-74.

11. The university operates a composting facility on parcel C42 and C45 (attachment D) for the processing and reuse of organic waste material. Produced compost is used to augment soils throughout the campus.

DISPOSAL

12. Treated wastewater accumulated from the DU, BC, and SU is disposed of by spray irrigation on adjacent pasturelands to maintain appropriate freeboard in ponds. Sludge and dredge material from the treatment ponds is placed on adjacent fields.

13. Though documentation shows that all retention ponds are underlain by significant percentages of clay to prevent percolation, groundwater impacts from the ponds have not been evaluated. For this reason, the following values represent volumes discharged to the ponds, rather than actually spray irrigated on adjacent fields. For regulatory purposes, the point of compliance is groundwater underlying the disposal/irrigation fields.

- a. DU – up to 46,000 gallons per day of wastewater is discharged to the pond at this facility. Within this unit, accumulated wastewater is recirculated for washdown of the facility.
- b. BC – up to 1.7 acre-feet of stormwater runoff is discharged by this facility at any given time.
- c. SU - up to 6,000 gallons per day of cleanup water, wastewater and stormwater runoff is discharged at this facility.

14. General Stormwater: Stormwater that comes into contact with the treatment process or animal containment units is collected and treated. Each point discharge site is protected from flooding or washout from a 100-year flood event. Individual construction and maintenance projects before this proposed campus-wide Order have operated under individual stormwater permits. The **Stormwater Pollution Prevention Plan** included in the WQMP provides stormwater management for the developed and rural portions of the Main Campus. The program addresses issues associated with runoff, service, and construction. In addition, equipment storage and cleaning, as well as maintenance areas and pollutants are described. This program proposes BMPs for construction activities and road maintenance, and discusses stormwater monitoring. These practices have been incorporated into the Cal Poly Construction Specifications. The program identified here addresses urban runoff on the Main Campus. It will be in effect until Cal Poly completes the requirement for the NPDES Phase II storm- water program (expected by April, 2004) for the Main Campus. The existing Stormwater Management Plan contained within the Water Quality Management Plan is expected to require little modification to achieve the goals of the Phase II program, once it is adopted for the campus.

15. Construction Stormwater: The State Water Resources Control Board (SWRCB) adopted a statewide General Stormwater Permit for Construction Activities. The permit is reissued every 5 years. The last reissuance was in 1999 when the SWRCB adopted Order 99-08-DWQ. The permit requires all land disturbances of 5 acres or more to file a Notice of Intent and to this office and implement Best Management Practices (BMPs) to prevent the discharge of sediment-laden water off site. These BMPs are detailed in a Stormwater Pollution Prevention Plan (SWPPP) specific to each new construction project. A copy of the SWPPP will be maintained at the site of construction.

MONITORING & REPORTING PROGRAM

- 16. The requirements for monitoring and reporting are contained in the attached Monitoring and Reporting Program No. R3-2003-035. The Discharger is required to

monitor standard parameters (salts, TDS, and nitrogen) in effluent as well as ground water up and down gradient of the discharge(s). Monitoring of all treatment and disposal sites will occur on a regular basis and be submitted with quarterly reports.

BASIN PLAN

17. The Water Quality Control Plan, Central Coast Basin (Basin Plan) was adopted by the Board on November 19, 1989 and approved by the State Board on August 16, 1990. The Board approved amendments to the Basin Plan on February 11, 1994 and September 8, 1994. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State waters.
18. Present and anticipated beneficial uses of ground water in the vicinity of the discharge include:
 - a. Municipal and Domestic Supply, and
 - b. Agricultural Supply; and, c. Industrial Supply.
19. Present and anticipated beneficial uses of Stenner and Brizzolara Creek (tributaries of San Luis Obispo Creek) and tributaries of Chorro Creek passing through the eastern portions of the campus include:
 - a. Domestic and municipal supply,
 - b. Agricultural supply,
 - c. Ground water recharge,
 - d. Non-contact water recreation,
 - e. Water-contact recreation,
 - f. Wildlife habitat,
 - g. Cold freshwater habitat,
 - h. Warm freshwater habitat,
 - i. Fish migration,
 - j. Fish spawning, and
 - k. Freshwater replenishment,
 - l. Preservation of Biological Habitats of Special Significance,
 - m. Rare, threatened or endangered species; and
 - n. Commercial and sport fishing
20. Surface water quality objectives will be further developed through the ongoing Total Maximum Daily Load (TMDL) process. Preliminary objectives have not been included in this order since the Order specifically forbids any direct surface water discharge.

21. Median ground water objectives listed in the Basin Plan for this Sub-basin are:

Constituent	Groundwater objective mg/l
TDS	900
Sodium	50
Chloride	200
Total N	5

Actual groundwater data from existing monitoring wells upgradient and down gradient of disposal operations reveals the following average values:

Constituent	Up-gradient MW-3 (mg/l)	Mid-gradient MW-1 (mg/l)	*Down-gradient MW-4 (mg/l)
TDS	468	940	700
Sodium	93.2	91.4	49.8
Chloride	40.6	148	46
Nitrate (as N)	1.1	18	6.4
Total Nitrogen	1.2	20.0	9.25

Note actual well locations relative to disposal sites on Figure B. Provision D.7 is included to improve the effectiveness of this system.

22. Average effluent values of the same constituents for each disposal unit are as follows:

Constituent	Concentration (mg/l)		
	DU	BC	SU
TDS	1035	2250	501

Created: 10/15/2017; Updated: 9/6/2018

O:\EH&S\ADMIN\Draft EHS Programs\Final Versions\WASTE DISCHARGE PROGRAM PACKAGED\WASTE DISCHARGE REQUIREMENTS.docx

Sodium	67.1	295.4	48
Chloride	73.8	686	43.3
Total Nitrogen	450	9	35

CEQA

23. Waste discharge requirements for the existing discharge are exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21100, et seq.) in accordance with section 13389 of the California Water Code.

EXISTING ORDERS AND GENERAL FINDINGS

24. Discharges from Cal Poly have been subject to Waste Discharge Requirements contained in Orders No. 94-1 (DU), 91-44 (BC), and 86-74 (SU), project specific 401 certifications, stormwater permits, and correspondence from the Regional Board containing requirements and recommendations.
25. The Discharger has developed a Water Quality Management Plan (WQMP) to protect water quality on campus and in surrounding areas influenced by campus activities. The WQMP is the product of a cooperative implementation approach to address water quality issues and is included by reference in this Order. Since the WQMP will be improved and updated on a regular basis to include the most up to date water management practices for the University, it has not been included as an attachment to these waste discharge requirements. Copies of the most recent version of the WQMP can be attained from the University, this office, or are available at the Regional Board web site for electronic review (<http://www.swrcb.ca.gov/~rwqcb3/>)
26. Development and implementation of the WQMP is essential for coordinating campus-wide use of water resources, as well as management of facilities and construction activities. The WQMP also guides implementation of BMPs for the Point and Nonpoint Source Pollution Prevention Programs, and Stormwater Pollution Prevention Programs and construction of facilities. The WQMP also

requires comprehensive training of all necessary staff in the use of best management practices of both land and facilities.

27. To assure that water quality objectives are being implemented, the This Order specifies monitoring of potentially impacted waters, problem assessment, corrective action and reporting to the Regional Board of any operational changes implemented to counter impacts.
28. Discharge of waste is a privilege, not a right, and authorization to discharge is conditional upon the discharge complying with provisions of Division 7 of the California Water Code and any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should assure this and mitigate any potential adverse changes in water quality due to the discharge.
29. On **April 28, 2003**, the Board notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and have provided them with a copy of the proposed Order and an opportunity to submit written views and comments.
30. After considering all comments pertaining to this discharge during a public hearing on **July 11, 2003**, this Order was found consistent with the above findings.

IT IS HEREBY ORDERED, pursuant to authority in Sections 13263 and 13267 of the California Water Code, Cal Poly State University, its agents, successors, and assigns, may discharge waste at the afore-described 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, 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. The Regional Board will base all enforcement actions on the date of Order adoption.

(Note: other prohibitions and 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. Applicable paragraphs are referenced in paragraph D.2. of this Order.)

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

BP Basin Plan

Design Facility design specification

Requirements not referenced are based on staff's best professional judgment.

A. PROHIBITIONS

1. Discharge of animal wastes to any areas other than the animal unit disposal ponds and spray fields as shown in Attachment B, is prohibited.
2. Discharge of any wastes including overflow bypass, seepage and over-spray from transport, treatment or disposal system to any surface water, including but not limited to Stenner Creek, Brizzolara Creek, Chorro Creek and its tributaries and adjacent drainageways, is prohibited.
3. Discharge of wastes to ponds other than animal waste and associated wash water is prohibited.
4. Discharge of solids (pond dredging) or compost products shall fully comply with the WQMP and the solids use/reuse plan described in Provision D. 10. Solids placement will be done in such a way to prevent runoff to surface waters and maximize plant uptake.
5. Disposal of treated wastewater anywhere but the designated spray/disposal fields as specified on Attachment D is prohibited.

B. DISCHARGE SPECIFICATIONS

Created: 10/15/2017; Updated: 9/6/2018

O:\EH&S\ADMIN\Draft EHS Programs\Final Versions\WASTE DISCHARGE PROGRAM PACKAGED\WASTE DISCHARGE REQUIREMENTS.docx

General Specifications

1. Neither the treatment nor the discharge of waste shall create a nuisance, as defined by Section 13050 of the California Water Code (CWC). (H & S.C. Section 5411, CWC Section 13263).
2. Waste shall not be disposed of in any manner or location where it can be carried from the disposal site and discharged into waters of the State or United States.
3. Discharge of uncontaminated stormwaters to the animal waste treatment facilities is prohibited unless adequate capacity is available.
4. Bypass of any treatment facility and discharge of untreated or partially treated waste to the disposal site is prohibited.
5. Animal wastewater discharged to treatment ponds shall not exceed the amount of waste generated by 375 AU of cattle (DU), 240 AU of test cattle^(Design) (BC) and 600 swine (SU), associated washwater and contaminated runoff^(Design).

B. GROUND WATER LIMITATIONS

1. The discharge shall not cause nitrate concentrations in the ground water downgradient of the disposal area to significantly increase (relative to concentrations in upgradient wells) or to exceed 10 mg/l (as N)^{BP}.
2. The discharge shall not cause a significant increase of mineral constituent concentrations in underlying ground waters, as determined by comparison samples collected from wells located upgradient and downgradient of the disposal area. The determination of significance of the increase will require ongoing evaluation of groundwater monitoring data.
3. The discharge shall not cause concentrations of chemicals and radionuclides in ground water to exceed limits set forth in Title 22, Chapter 15, Article 4 and 5 of the California Code of Regulations.

System Operation

1. Freeboard shall exceed 12 inches, or the specified design freeboard, if greater, in the retention ponds.
2. Discharge shall not cause the formation of vector habitat within treatment or disposal areas.
3. The public shall not have contact with inadequately treated wastewater as a result of treatment or disposal
4. The discharge shall not contain substances in concentrations, which are toxic to human, animal, aquatic or plant life operations.

D. PROVISIONS

1. The Discharger will implement the WQMP in its entirety.
2. The Water Quality Management plan is not included as an attachment to this Order, but is included by reference and will thereby be recognized and enforced in the same manner as the Standard provisions or the Monitoring and Reporting Program. It will serve as an extension of these waste discharge requirements.
3. The WQMP will be considered a "living document" and is evaluated annually and updated every 4 years, or as determined necessary through monitoring, assessment and reporting process. All changes to the WQMP will be submitted to the Regional Board's Executive Officer for review/approval. If changes are deemed significant, they will be presented to the Regional Board for incorporation into, these Waste Discharge Requirements.
4. Major adjustments, such as inclusion of additional facilities or changes in discharge patterns will be subject to Board review and approval. Minor changes, such as technical updates of cited BMPs, will not require such approval; however the executive officer will be notified in writing of any changes prior to their implementation.

5. All accumulated sludge, salts, or solid residues (including compost) shall be disposed of in a manner consistent with this Order or other method specifically approved by the Executive Officer.
6. Any actions which could affect water quality (such as construction, stream channel maintenance, stream crossing maintenance, etc...) that are not specifically included in this Order will be presented in writing to the Regional Board 30 days prior to commencement of the operation.
7. In order to accurately determine the impacts of both liquid and solid waste disposal on ground waters underlying the campus disposal fields, the University will submit plans which establishes or identifies a representative groundwater monitoring network **September 30, 2004**. Adequate monitoring networks must establish the true groundwater gradient and allow for representative samples of groundwater to be compared from wells upgradient and downgradient of all disposal sites. Wells for this new monitoring network will be installed by **January 1, 2005**. Once established, this network will be used to evaluate true groundwater impacts of the treatment and disposal operations covered by this order.
8. By **April 1, 2005**, initial conclusions of the newly established monitoring system and recommendations for action shall be submitted for Executive officer approval. The recommendations should consider more aggressive treatment, lined ponds, and alternative disposal methods in order to minimize groundwater impacts. This submittal will contain a detailed time schedule with which the university will comply to improve treatment and disposal practices and meet Basin Plan requirements.
9. On or before **November 30, 2003** the discharger shall submit engineering reports, calculations and/or other documentation confirming the capacity of all animal containment and waste processing facilities covered by this permit.
10. On or before **January 30, 2004**, the discharger shall submit for Executive officer approval a comprehensive plan for the effective use/reuse of all solids on campus (specifically pond bottom solids and compost). The plan shall include an evaluation (using available upgradient and downgradient groundwater comparisons) of the existing disposal practices and identify methods that will be used to minimize water quality impacts associated with the waste disposal on campus. The plan should also

specify that all placement of solids and liquids will be according to a prescribed schedule or after explicit executive officer approval. Any disposal/reuse should be based on soil needs, future crop uptake forecasts, and seasonal weather patterns (to avoid runoff and unnecessary nutrient flow-through and/or runoff).

11. Waste Discharge Requirements Order No. 94-01, California Polytechnic State University Dairy Sciences Instructional Center, adopted by the Board March 11, 1994, are hereby rescinded.
12. Order No. 91-44 Waste Discharge Requirements for California Polytechnic State University, San Luis Obispo Swine Unit, adopted by the Board October 11, 1991, are hereby rescinded.
13. Waste Discharge Requirements for California Polytechnic State University, San Luis Obispo Beef Center, Order No. 86-74, adopted by the Board April, 11 1986, are hereby rescinded.
14. The Discharger shall comply with "Monitoring and Reporting Program No. R3-2003-035", as specified by the Executive Officer and incorporated as part of this Order.
15. The Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated January 1984.
16. The Discharger shall submit a written report by **July 7, 2006**, acceptable to the Executive Officer, addressing:
 - a. Whether there will be changes in the continuity, character, location, or volume of the discharges; and,
 - b. Whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision.
 - c. A summary of all violations of Waste Discharge Requirements, Order No. R3-2003-035, which occurred since adoption of the order along with a description of the nature and corrective action used or planned for their control

I, Roger W. Briggs, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on July 11, 2003.

_____ Roger W. Briggs, Executive Officer

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

MONITORING AND REPORTING PROGRAM NO. R3-2003-035

Modified January 5, 2005

For

**CALIFORNIA POLYTECHNIC STATE UNIVERSITY,
SAN LUIS OBISPO COUNTY**

OBJECTIVE AND PURPOSE OF MONITORING

This Monitoring and Reporting Program is designed to evaluate compliance with the requirements specified by Order No. R3-2003-035 and the California Polytechnic State University, San Luis Obispo, Water Quality Management Plan for Cal Poly Land in the San Luis Obispo and Chorro Creek Watersheds (WQMP).

ANIMAL FACILITIES MONITORING

Animal population shall be monitored according to Table A below:

Table A

Constituent/Parameter	Units	Type of Sample	Minimum Sampling and Analysis Frequency
Animal Population in Confined Area	Head/AU	Count	Monthly

ANIMAL FACILITY EFFLUENT MONITORING

Representative samples of the effluent discharged to each disposal field shall be collected and analyzed for constituents in Table B below:

Table B

Constituent/Parameter	Units	Type of Sample	Minimum Sampling and Analysis Frequency
Freeboard	ft	Measure	Weekly
pH	pH units	Grab	Monthly

All samples will be accompanied by a detailed description of sampling and discharge location.

Created: 10/15/2017; Updated: 9/6/2018

O:\EH&S\ADMIN\Draft EHS Programs\Final Versions\WASTE DISCHARGE PROGRAM PACKAGED\WASTE DISCHARGE REQUIREMENTS.docx

GROUNDWATER MONITORING

Samples of first available groundwater shall be collected from the monitoring wells identified in Table C and Figure 1 below, at the frequency specified in Table C. Samples shall be analyzed for the parameters listed in Table D.

Table C

Well No.	Description and Location	Minimum Sampling and Analysis Frequency
MW-1	Mid-gradient well, South of Field C47B	Semi-annually
MW-3	Up-gradient well, Tartaglia Property, near railroad tracks	Semi-annually
MW-4	Down-gradient well, SW of Field C29	Quarterly
MW-5	Up-gradient well, North of Field C16, Swine Unit	Quarterly
MW-6	Down-gradient well, South of Field C16, Swine Unit	Quarterly
MW-7	Up-gradient well, North of Field C39, East of Dairy Unit	Quarterly
MW-8	Down-gradient well, South of Field C36, SE of Dairy Unit	Quarterly

Figure 1: Groundwater Monitoring Wells Vicinity

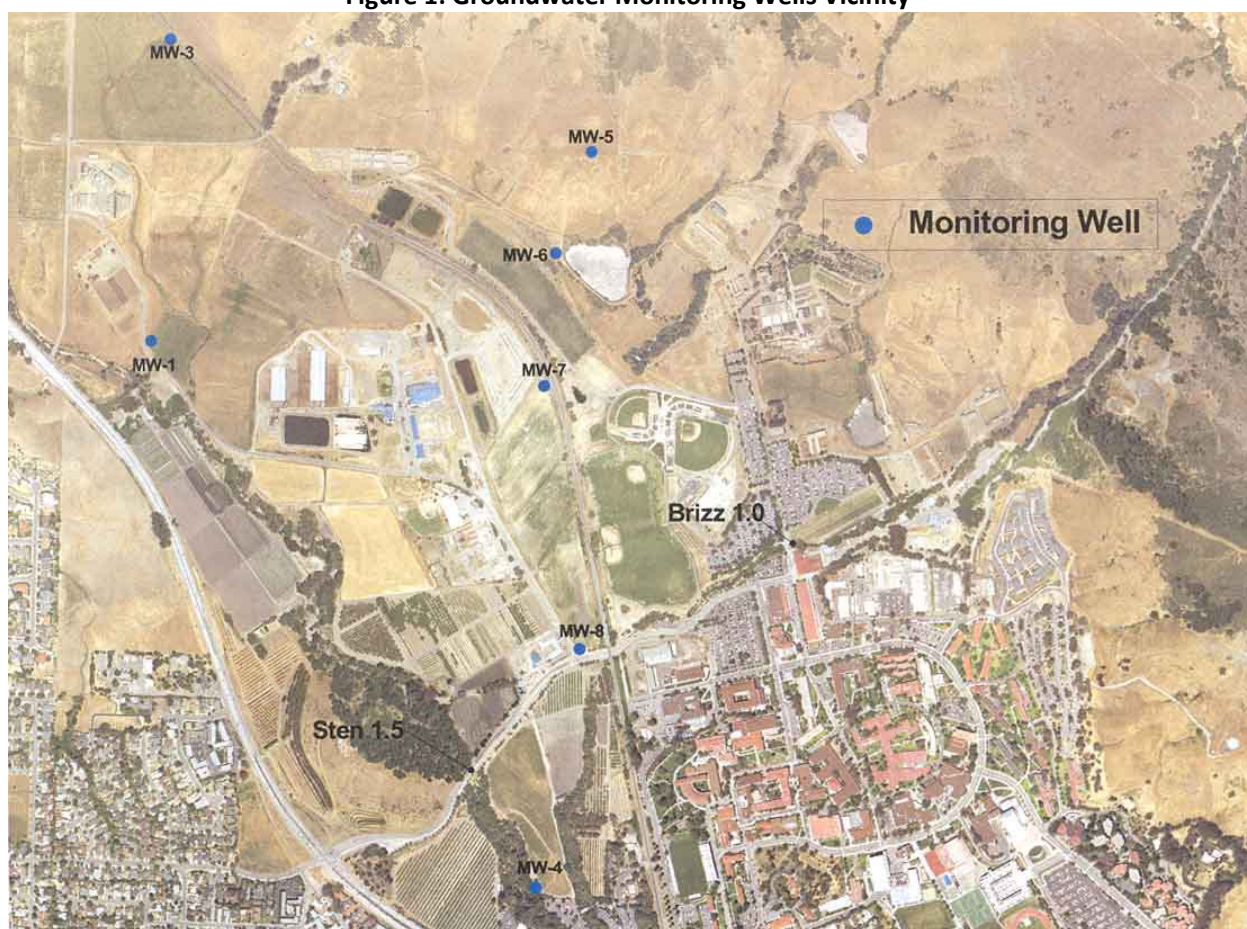


Table D

Parameter	Units	Type of Sample
Depth to Groundwater	feet	Measured
pH	pH units	Grab
Total Dissolved Solids	mg/L	Grab
Sodium	mg/L	Grab
Chloride	mg/L	Grab
Nitrate (as N)	mg/L	Grab

Depth to groundwater shall be used to determine groundwater flow direction at each active spray disposal area. Groundwater flow direction shall be presented graphically in each monitoring report.

DISPOSAL AREA MONITORING

The spray disposal area will be inspected Daily (when irrigation/disposal is occurring) to assure BMPs are in place and functioning and that runoff and/or ponding do not occur. Particular attention will be paid to any liquids flowing from spray disposal fields, retention ponds, waste storage sites, etc., and to verify that spray irrigation is limited to those sites identified for wastewater disposal.

A log must be kept indicating spray area conditions, observations, problems noted, and corrective actions taken.

A summary of WQMP Form 3 Wastewater Irrigation Rotation Form will be included with each quarterly monitoring report, which will summarize the log.

POND SOLIDS AND COMPOST MONITORING

All solids disposal and reuse shall be consistent with an Executive Officer approved plan for its disposal and reuse. At a minimum, the following information shall be submitted with the Annual Report:

- 1) Annual sludge production in dry tons and percent solids.
- 2) Annual compost production in dry tons.
- 3) Map detailing the location(s) of any solids placed throughout the monitoring period.

Table E

Solids Constituent Analysis

Constituent/Parameter	Units	Type of Sample	Minimum Sampling and Analysis Frequency
Quantity	Tons or yds ³	Measured	Measured during removal
Moisture Content	%	Grab	Quarterly
Total Kjeldahl Nitrogen	mg/kg	Grab	Quarterly
Ammonia (as N)	mg/kg	Grab	Quarterly
Nitrate (as N)	mg/l	Grab	Quarterly
Total Phosphorous	mg/l	Grab	Quarterly

* Total

sample (including all solids and any liquid portion) to be analyzed and results reported as mg/kg or µg/kg, as appropriate, based on the dry weight of the sample.

SURFACE WATER MONITORING

Surface water monitoring for fecal coliform shall be carried out quarterly* according to the following time schedule:

- 1 January 1 to March 30th
- 2 April 1 to May 30th,
- 3 June 1 to September 30th, and
- 4 October 1 to December 30th.

*Brizzolara and Stenner Creeks may be dry during one of the time intervals, thereby reducing the number of monitoring opportunities to three times annually.

The designated monitoring sites are as follows:

BRIZ 1.0: in Brizzolara Creek at its intersection with Via Carta Drive, and STEN 1.5: in Stenner Creek at its intersection with Highland Drive

*These locations are clearly identified on Attachment B of this order.

GENERAL REPORTING

Monitoring reports shall include:

- 1 All data required by this monitoring program for the preceding monitoring period.

- 2 A discussion of any non-compliance issues and corrective actions taken. All reports required in this monitoring and reporting program are required pursuant to Water Code § 13267.
3. Results of site inspections carried out during the reporting period. At a minimum this should include:
 - a. Observations of the major creeks and tributaries throughout campus
 - b. Results of any projects (construction, maintenance, earth moving, etc.), which could influence water quality.
 - c. Status of or activity in the quarry.
 - d. Results from inspecting on campus sewage collection and associated lift stations and pumps, including any problems or upsets encountered.
 - e. Any violations of the BMPs required by the WQMP.

REPORTING FREQUENCY

Quarterly monitoring reports will be submitted by the 30th day of April, July, October and January and shall include all monitoring results from the preceding three-month period.

Annual report shall be submitted by January 30th of each year and summarize activities pursuant to the WQMP, including personnel training, BMP effectiveness evaluation, and any proposed revisions to the Plan. Evaluation/discussion of the WQMP in its effectiveness at reducing and controlling impacts to water quality from campus activities should include, but not be limited to:

- a. Problem identification
- b. Potential resolutions
- c. Proposed WQMP updates

Proposed WDR updates to be considered during next Regional Board renewal

This Monitoring and Reporting Program may be revised at any time during the life of the associated Waste Discharge Requirements, as necessary, under the authority of the Executive Officer.

Ordered _____/s/_____ By _____

Date _____