

UC SANTA BARBARA

Sanitary Sewer Spill Emergency Response Plan

Rev. JULY 2024

Prepared by

Environmental Health & Safety

Design, Facilities and Safety Services

Table of Contents

1. Introduction.....	1
1.1 Overview.....	1
1.2 Plan Location	1
1.3 Spill Categories	2
1.4 Notification, Monitoring, and Reporting Requirements	2
1.5 Annual Review	3
2. Spill Response Procedures.....	3
2.1 Spill Notification	3
2.2 Spill Assessment	3
2.3 Spill Containment	4
2.4 Spill Cleanup	4
3. Safety Procedures.....	4
4. Spill Notification Procedures	5
4.1 Notification to Cal OES	6
4.2 Notification Updates to Cal OES	6
5. Water Quality Sampling and Analysis Plan.....	6
5.1 Sampling Locations and Frequency	6
5.2 Water Quality Parameters.....	7
5.3 Water Quality Sampling and Analysis.....	8
5.4 Safety and Access Exceptions.....	8
6. Training.....	9
7. External Resources	9

[Attachment 1: Environmental Health & Safety Notification](#)

[Attachment 2: Spill Volume Estimation Methodology](#)

[Attachment 3: Sanitary Sewer Spill - Incident Report Form](#)

[Attachment 4: Personal Protective Equipment](#)

[Attachment 5: Example Training Log](#)

1. Introduction

This Spill Emergency Response Plan (SERP) is prepared for the University of California, Santa Barbara (UCSB) in accordance with the Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems (SWRCB Order No. 2022-0103) (General Order) adopted on December 6, 2022 and effective June 5, 2023.

1.1 Overview

This SERP is designed to:

1. ensure prompt detection and response to spills;
2. to reduce spill volumes; and
3. to collect information for prevention of future spills.

This SERP includes procedures to:

- Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner;
- Notify other potentially affected entities (for example, health agencies, water suppliers, etc.) of spills that potentially affect public health or reach waters of the State;
- Comply with the notification, monitoring and reporting requirements of this General Order, State law and regulations, and applicable Regional Water Board Orders;
- Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained;
- Address emergency system operations, traffic control and other necessary response activities;
- Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system;
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State;
- Remove sewage from the drainage conveyance system;
- Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters;
- Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery;
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event;
- Conduct post-spill assessments of spill response activities;
- Document and report spill events as required in this General Order; and
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.

1.2 Plan Location

This SERP is stored electronically on the Office of Environmental Health and Safety (EH&S) server and can be accessed publicly on the EH&S website at ehs.ucsb.edu/index.php/programs-services/environmental-compliance/waste-water.

1.3 Spill Categories

Category 1 Spill: A spill of any volume of sewage from or caused by a regulated sanitary sewer system that results in a discharge to:

- A surface water, including a surface water body that contains no flow or volume of water; or
- A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly.

Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water, unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility. A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill.

Category 2 Spill: A spill of 1,000 gallons or greater, from or caused by a regulated sanitary sewer system that does not discharge to a surface water. A spill of 1,000 gallons or greater that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 2 spill.

Category 3 Spill: A spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a regulated sanitary sewer system that does not discharge to a surface water. A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.

Category 4 Spill: A spill of less than 50 gallons, from or caused by a regulated sanitary sewer system that does not discharge to a surface water. A spill of less than 50 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.

1.4 Notification, Monitoring, and Reporting Requirements

The following table summarizes the notification, monitoring, and reporting requirements for each of the four spill categories. Reports are submitted to the State and Regional Water Quality Control Boards via the California Integrated Water Quality System (CIWQS).

Notification, Monitoring, and Reporting Requirements	Spill Category				
	1	2	3	4	*
Notify the California Office of Emergency Services (Cal OES) within 2 hours of knowledge of a spill of 1,000 gallons or more, discharging or threatening to discharge to surface waters; obtain notification control number from Cal OES.	X	X			
Assess the spill location, spread, and estimate spill volume. For spills discharging to surface waters, conduct additional observations of the receiving water.	X	X	X	X	
Conduct water quality sampling of the receiving water within 18 hours of initial knowledge of a spill that is 50,000 gallons or more, discharging to surface waters.	X				
Submit a Draft Spill Report within 3 business days of knowledge of the spill.	X	X			
Submit a Certified Spill Report within 15 calendar days of the spill end date.	X	X			
Submit monthly Certified Spill Report within 30 calendar days after the end of the month in which the spill occurs.			X		
Certify monthly the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills; submit within 30 calendar days after the end of the month in which the spill occurs.				X	
Submit a Technical Report within 45 days after the spill end date for a spill of 50,000 gallons or more discharged to surface waters.	X				

If necessary to update a Certified Spill Report, submit an Amended Spill Report within 90 calendar days after the spill end date.	X	X			
If necessary to update a monthly Certified Spill Report, submit an Amended Spill Report within 90 calendar days after the Certified Spill Report due date.			X		
Upload and certify a report of all spills of this category by February 1st after the end of the calendar year in which the spills occur.				X	X

Note: (*) is a non-numerical placeholder for spills less than 1,000 gallons from Enrollee owned and/or operated laterals that do not discharge to surface waters.

1.5 Annual Review

Qualified EH&S personnel will annually review and assess effectiveness of this SERP and update as needed.

2. Spill Response Procedures

This SERP details a strategy to respond to spills with appropriate personnel, materials, and resources. An appropriate response will help to correct or repair any condition which may cause or contribute to an unpermitted discharge from the sanitary sewer system.

2.1 Spill Notification

In the event of a sanitary sewer spill, the employee who first identifies the spill is the designated First Spill Responder. During normal business hours (8am-5pm, M-F) the First Spill Responder will immediately notify:

- Facilities Management (FM) Dispatch (805-451-9914); or
- Housing, Dining & Auxiliary Enterprises (805-448-0474) Dispatch; and
- Environmental Health & Safety ([Attachment 1](#)).

If a sanitary sewer spill is identified outside of normal business hours, the First Spill Responder will immediately notify:

- UCSB Police Department (UCPD) Non-Emergency (805-893-3446).

The following sections detail the spill response procedures that should be followed in the event of sanitary sewer spill.

2.2 Spill Assessment

After notification of a spill or failure of any element of the sanitary sewer system that threatens to cause a spill, the First Spill Responder will assess the affected area and determine an appropriate spill response by evaluating the following factors:

- Location and extent of the spill;
- Cause or potential cause of the spill;
- Impacts to downstream receiving water(s); and
- Estimate spill volume ([Attachment 2](#)).

The First Spill Responder will record with photographs and/or videos, as appropriate, to document spill conditions. The assessment may include observation of lift station pumps, sewer access holes, and stormwater conveyance infrastructure. To assist with accurate and complete data collection throughout the spill response, an Incident Report Form is included as an attachment to this SERP ([Attachment 3](#)).

Additionally, the First Spill Responder will evaluate the potential hazard to employees and surrounding public. If it is determined that the spill cannot be safely and effectively controlled with UCSB resources and personnel, then the First Spill Responder will initiate an evacuation and immediately notify outside emergency response agencies and/ or contactors to implement spill containment and cleanup.

2.3 Spill Containment

Upon completion of the spill assessment, the First Spill Responder will direct employees trained in spill response, to obtain appropriate spill response materials. Examples of spill response materials include sand or gravel bags, dirt or sand piles, plastic sheeting, storm drain covers, and absorbents (socks, booms, pads, pillows, and rolls). The spill responder(s) will attempt to contain the spill to prevent its entry into any downstream receiving waters or conveyance that eventually discharges to downstream receiving waters. Sewage may be pumped to an alternate/ unimpaired sewer access hole. Water supply to the upstream building(s) may be turned off.

While the spill is being contained, other spill responders will attempt to seal or otherwise stop the source of the spill. If only one spill responder is available, then spill containment should be completed before the spill source is stopped.

2.4 Spill Cleanup

Once the spill is contained and the source is eliminated, the spill responder(s) will:

- Remove residual sewage from any drainage conveyance system(s) utilizing methods that will not impact water quality in downstream receiving waters and record the estimated volume of sewage recovered;
- Clean and sanitize the affected area(s), ensuring that only de-chlorinated water is discharged into drainage conveyance system(s); and
- Collect contaminated materials in an appropriate manner for disposal to landfill.

Spill responders will take photos of all affected areas once the spill is contained, prior to and post cleanup. Send documentation of spill incident including location, date, time, estimate of spill volume, estimate of spill volume recovered, photos, videos, and a narrative description of spill response and cleanup activities to EH&S.

3. Safety Procedures

When appropriately trained to do so, spill responders may be required to implement the following safety procedures:

- [Lock-Out/Tag-Out](#) for equipment repair or maintenance;
- [Confined Space Entry](#);
- [Hazard Communication](#);
- Traffic Control; and
- Use of Personal Protective Equipment (PPE).

If it is determined that traffic control is necessary, the spill responders will contact UCPD and/or Transportation & Parking Services (TPS) staff for assistance. Traffic control measures may include:

- Barricades, traffic cones, and/ or warning tape to restrict access;
- Reflective vests when working in or around a roadway; and
- Appropriate traffic control patterns and advanced warning signs.

Spill responders are trained on the proper use of PPE in response to sanitary sewer spills. Depending on the size and nature of the spill, required PPE may include safety glasses or goggles, dust mask, protective face mask or splash-proof face shield, latex or nitrile gloves, poly-laminated Tyvek, water-resistant work or rubber boots, waterproof and slip resistant boots ([Attachment 4](#)).

4. Spill Notification Procedures

EH&S is responsible for notifying appropriate regulatory agencies of a spill in a timely manner. Additionally, EH&S will notify other potentially affected entities of spills that potentially affect public health or reach downstream receiving waters. The table below identifies the immediate entities to be notified, as well as other potentially affected entities that will be notified at the discretion of EH&S.

Notification	Trigger	Timeline	Contacts
Immediate	Sanitary sewer spill of 1,000 gallons or more to surface water or threatening to discharge to surface water	As soon as possible, but no later than (2) hours after: Enrollee has knowledge of the spill & notification can be provided without substantially impending cleanup or other emergency measures	California Office of Emergency Services (Cal OES) (800) 852-7550
Additional (External)	Sanitary sewer spill of 1,000 gallons or more to surface water or threatening to discharge to surface water	Within 24 hours	Santa Barbara County Office of Emergency Management (SBC-OEM) (805) 681-5526
Additional (External)	Public health concern or release to a waterway	Within 24 hours	Santa Barbara County Public Health Department/Environmental Health Services (SBEHS) (805) 681-4900
Additional (Internal)	Public health concern or release to a waterway	Courtesy notification as necessary in addition to SB County Public Health	UCSB Environmental Health Specialist (Shannon Hinrichs) (805) 893-2471
Additional (External)	Spill to a waterway	Courtesy notification as necessary	Central Coast Regional Water Quality Control Board (805) 549-3147
Additional (External)	Spill to a waterway	Courtesy notification as necessary	California Department of Fish and Wildlife (South Coast Region, Region 5) (858) 467-4201
Additional (External)	If overflow affects traffic along State Route 217	Courtesy notification as necessary	California Department of Transportation (Caltrans, District 5) (805) 549-3111

Additional (External)	Spill to a waterway	Courtesy notification as necessary	US Environmental Protection Agency (EPA) (415) 744-2000
Additional (External)	GSD and/or GWSD will be notified if there is any violation of a discharge prohibition	Courtesy notification as necessary	Goleta Sanitary District (GSD) (805) 967-4519 & Goleta West Sanitary District (GWSD) (805) 968-2617

4.1 Notification to Cal OES

EH&S will notify Cal OES **within two (2) hours** after becoming aware of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters. The notification will include:

- Name and phone number of the person notifying Cal OES;
- Estimated spill volume (gallons);
- Estimated spill rate from the system (gallons per minute);
- Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
- Brief narrative of the spill event;
- Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
- Name and phone number of contact person on-scene;
- Date and time the Enrollee was informed of the spill event;
- Name of sanitary sewer system causing the spill;
- Spill cause or suspected cause (if known);
- Amount of spill contained;
- Name of receiving water body receiving or potentially receiving discharge; and
- Description of water body impact and/ or potential impact to beneficial uses.

4.2 Notification Updates to Cal OES

After the initial notification to Cal OES and until EH&S certifies the spill report in CIWQS, EH&S will provide updates to Cal OES regarding any changes to the:

- Estimated spill volume (increase or decrease in gallons than initially stated);
- Estimated discharge volume discharged directly into waters of California or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
- Additional impact(s) to the receiving water(s) and beneficial uses.

5. Water Quality Sampling and Analysis Plan

UCSB will conduct water quality sampling no later than **18 hours** after becoming aware of a sewage spill in which an estimated 50,000 gallons or greater is discharged into a surface water.

5.1 Sampling Locations and Frequency

One (1) water sample will be collected each day for the duration of a spill, at the following locations:

Sample Type	Sampling Location	Sampling Location Description
Drainage Conveyance System (DCS)	DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.
Receiving Surface Water (RSW)	RSW-001	A point in the receiving water where sewage initially enters the receiving water.
	RSW-001U	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.
	RSW-001D	A point in the receiving water, downstream of the point of sewage discharge, where the spill material is fully mixed with the receiving water.

Note: If the receiving water has no flow during the duration of the spill, the Enrollee must report “No Sampling Due To No Flow” for its receiving water sampling locations. Additional water samples will be collected and analyzed as required by the applicable Regional Water Board Executive Officer or designee.

5.2 Water Quality Parameters

Samples will be collected and analyzed for ammonia and appropriate bacterial indicators per Central Coast Basin Plan (Basin Plan) water quality objectives. Water quality objectives for specific beneficial uses for bacteria for inland surface waters, enclosed bays, and estuaries are:

- Water Contact Recreation (REC1)
 - Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than ten percent of total samples during any 30-day period exceed 400/100 mL.
- Non-Contact Water Recreation (REC2)
 - Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 2000/100 mL, nor shall more than ten percent of samples collected during any 30-day period exceed 4000/100 mL.
- Shellfish Harvesting (SHELL)
 - The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three-tube decimal dilution test is used.

Water quality objectives for specific beneficial uses for bacteria for ocean waters are:

- Water Contact Recreation (REC1)
 - A six-week rolling GM* of enterococci not to exceed 30 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a statistical threshold value* (STV) of 110 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month*, calculated in a static manner.
 - A 30-day geometric mean* (GM) of fecal coliform density not to exceed 200 per 100 milliliters (mL), calculated based on the five most recent samples from each site, and a single sample maximum* (SSM) not to exceed 400 per 100 mL.
- Shellfish Harvesting (SHELL)

- The median total coliform density shall not exceed 70 per 100 mL, and not more than 10 percent of the samples shall exceed 230 per 100 mL.

A summary table of waterbodies proximal to the UCSB campus and relevant beneficial use designations are summarized in the table below.

Waterbody	Reference	Beneficial Use		
		REC1	REC2	SHELL
Devereaux Ranch Lagoon	Basin Plan	X	X	X
Devereaux Creek	Basin Plan	X	X	
Goleta Point Marsh	Basin Plan	X	X	
Goleta Slough/Estuary	Basin Plan	X	X	X
Tecolotito Creek	Basin Plan	X	X	
Pt. Arguello to Coal Oil Pt.	Ocean Plan	X	X	X
Coal Oil Pt. to Rincon Pt.	Ocean Plan	X	X	X

Note: Modified from Central Coast Basin Plan (2019), Tables 2-1 and 2-2.

Samples collected from all inland surface waters, enclosed bays, and estuaries will be analyzed for total coliform and fecal coliform. Samples collected from ocean waters will be sampled for total coliform, fecal coliform, and enterococcus.

5.3 Water Quality Sampling and Analysis

Water quality sampling and analysis will be performed by Fruit Growers Laboratory, Inc. (FGL) in Santa Paula, California or another laboratory with Environmental Laboratory Accreditation Program (ELAP) accreditation. Analytical method specifications and sample handling information for the selected water quality parameters are summarized in the table below.

Parameter	Test Method	Sample Container	Preservative	Hold Time
Ammonia (as N)	SM4500-NH3	16oz plastic	H2SO4	28 days
Total Coliform	SM 9221 B	120 ml Sterile Plastic Bacti Bottle	Na2S2O3	8 hours
Fecal Coliform	SM 9221 B,E	120 ml Sterile Plastic Bacti Bottle	Na2S2O3	8 hours
Enterococci	Enterolert	120 ml Sterile Plastic Bacti Bottle	Na2S2O3	8 hours

5.4 Safety and Access Exceptions

Water quality sampling will only be conducted under safe conditions with unrestricted accesses to surface water. Unsafe conditions include limited visibility, heavy wind or rain, and steep water banks. In cases where sampling cannot be done, details of access restrictions and/or safety hazards will be documented in related reports (e.g., Draft Spill Report, Certified Spill Report, Spill Technical Report).

6. Training

Initial and annual training is conducted for employees that are responsible for performing duties related to the sanitary sewer system and this SERP. Initial training is conducted in collaboration between EH&S and DKF Solutions Group. Initial training items include:

- Requirements of the General Order;
- UCSB's Spill Emergency Response Plan procedures and practice drills;
- Skilled estimation of spill volume for field operators; and
- Electronic CIWQS reporting procedures for staff submitting data (*for EH&S staff responsible for electronic reporting only*).

Upon completion of initial training, employees are required annually to attend a live online training "Spill Volume & Start Time Determination" and to review the requirements of this SERP. Training records are maintained in a local electronic file system ([Attachment 5](#)).

7. External Resources

As necessary, contractors may be utilized to aid in spill response, cleanup and monitoring. Contractors will be experienced with sanitary sewer work, knowledgeable of the General Order and comply with the requirements of this SERP. Contact information for some potential contractors are provided in the table below.

Contractor	Services
Fruit Growers Laboratory, Inc. 853 Corporation Street Santa Paula, CA 93060 (805) 392-2000	Water quality sampling and analysis
DKF Solutions Group 164 Robles Way, Suite 274 Vallejo, California 94591 (800) 215-5206	Initial and annual live online and in-person training, SERP review, and surface water sampling support
Marborg Industries 728 E Yanonali Street Santa Barbara, CA 93103 (805) 963-1852	Spill response and cleanup

Attachment 1: Environmental Health & Safety Notification

Attachment 2: Spill Volume Estimation Methodology

Attachment 3: Sanitary Sewer Spill - Incident Report Form

Attachment 4: Personal Protective Equipment

Attachment 5: Example Training Log