UC BERKELEY
RICHMOND FIELD STATION
COLLECTION SYSTEM

Sewer System Management Plan

August 2023

WDID #: 2SSO18100

Berkeley
UNIVERSITY OF CALIFORNIA

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1.0 INTRODUCTION

1.1 Regulatory Background

The Waste Discharge Requirements (WDR) Order No. 2022-0103-DWQ ("General Order No. 2022-0103-DWQ"), adopted by the State Water Resources Control Board (SWRCB) on December 6, 2022, regulates sanitary sewer systems conveying sewage. As a public entity that owns and/or operates one or more sanitary sewer systems greater than one mile in length (each individual sanitary sewer system), University of California, Berkeley (UC Berkeley) maintains regulatory coverage under the General Order No. 2022-0103-DWQ for the UC Berkeley, Richmond Field Station (RFS) Collection System (CS).

Enrollees must develop and implement a Sewer System Management Plan (SSMP). The RFS CS is currently required to meet the SSMP requirements outlined in the previous SWRCB order, WDR Order No. 2006-0003-DWQ ("General Order No. 2006-0003-DWQ"). The required SSMP update due date for the RFS CS is August 2, 2026, at which time the SSMP shall be updated to meet requirements outlined in the General Order No. 2022-0103-DWQ.

1.2 Purpose and Goals of the SSMP

This document was developed to comply with General Order No. 2006-0003-DWQ, which sets specific wastewater collection system requirements for all Enrollees. The General Order No. 2006-0003-DWQ requires Enrollees to prepare and implement a SSMP to:

- Provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system to provide reliable service in the future;
- Minimize infiltration/inflow (I/I);
- Reduce and prevent sanitary sewer overflows (SSOs)[1];
- Help mitigate any SSOs that do occur.

Many spills can be prevented with adequate and appropriate facilities, source control measures, and operation and maintenance of the sanitary sewer system.

[1] The General Order No. 2022-0103-DWQ required preparation of the SERP by June 5, 2023 (plan formerly referred to as the Overflow Emergency Response Plan). As such, this SSMP dated June 2023 includes the SERP as an attachment. Consistent with General Order No. 2006-0003-DWQ terminology, this SSMP continues to use "SSO" to refer to a sanitary sewer spill.

2.0 ORGANIZATION

2.1 Administration and Maintenance Organization

The administrative responsibility for the RFS CS (formerly Berkeley Global Campus [BGC] at Richmond Bay) is shared among several departments including Richmond Field Station Operations and Facilities Management (RFS Operations), Environment, Health & Safety (EH&S), Capital Projects, and Facilities Services (FS). The responsibilities of each department/entity are summarized below and an organizational chart is included in **Figure 2-1**.

RFS Operations: RFS Operations is responsible for the overall operation and maintenance of the sewer system, implementation of the SSMP, and certifications to regulatory agencies. RFS Operations also maintains drawings of new design and construction to the sanitary sewer system.

EH&S: The implementation of permit requirements and collection and submittal of data/reports to regulatory agencies is the responsibility of EH&S, including tracking and reporting of all SSOs, notifying agencies by phone about spills, and development and implementation of the SSMP. EH&S also provides support to all parts of operation and oversees enforcement actions.

Capital Projects: Capital Projects is responsible for the management of the design and construction of additions, rehabilitations or modifications to the sanitary sewer system.

FS: FS, upon request, assists RFS Operations with overall operation and maintenance of the sewer system.

Wareham Development (Third Party): Provides property management services to the Environmental Protection Agency (EPA) Region 9 Laboratory (Building 201).

2.2 Monitoring System and Reporting SSOs

UC Berkeley utilizes Closed-Circuit Television (CCTV) testing to monitor the status of the sanitary sewer system. Surrounding surface waters are visually inspected by staff. Any tests and all preventative maintenance are documented through RFS Operations' work order tracking system.

Reporting and certification reminders are placed on the EH&S Environmental Compliance Calendar, which is a part of the university-wide calendaring system (bCal). Reminders and other notifications are sent out to the Legally Responsible Officials and

members of the EH&S Environmental Protection (EP) team, which consists of Environmental Specialists and the Environmental Programs Manager.

Members of the University community who observe an SSO may call the following departments to report the spill:

- RFS Operations at (510) 665-3401
- EH&S at (510) 642-3073
- Campus Emergency Dispatch Phone Line at (510) 642-3333

The Chain of Communication for Sanitary Sewer Spills is outlined in **Figure 2-2**. Emergency response procedures for sanitary sewer spills are described in **Appendix A**, the Spill Emergency Response Plan (SERP).

2.3 Facility Description

The RFS is a satellite of the UC Berkeley campus, one the 10 University of California campuses governed by the Regents of the University of California. Specifically, only the RFS CS is covered by this SSMP.

The RFS CS is located on a 170.13-acre parcel (Assessor Parcel No. [APN] 560-060-008) and a 3.3923-acre parcel (APN 560-060-007)[2] in Richmond, Contra Costa County, California, approximately 5 miles northwest of UC Berkeley's Campus Park.

The RFS is primarily used by UC Berkeley College of Engineering academic and research activities. It is also used for research and administrative activities by other UC Berkeley campus departments (e.g., Cal Zero Waste, Earth & Planetary Science, Library Bindery) and non-UC tenants (EPA Region 9 Laboratory).

Two sewer lines owned and operated by the City of Richmond are present in the northern portion of the site, running in parallel from the main access gate near Building 478 through the northern portion of the site to the northern site boundary; a third sewer line owned and operated by the City of Richmond is present in the southern portion of the site. These City of Richmond sewer lines were installed prior to UC Regent's acquisition of the site in 1950.

[2] This parcel is surrounded on all sides by the larger parcel. The parcel is operated by EPA Region 9 Laboratory.

The property is located in a mixed residential, commercial, and industrial land use area. Current use of adjacent properties and the associated sanitary sewer collection systems are listed below.

DIRECTION	PROPERTY/LAND USE	COLLECTION SYSTEM
North	Regatta Blvd followed by industrial buildings; and Meade St followed by Interstate 580.	City of Richmond
South	Meeker Slough (tidal marsh) followed by San Francisco Bay	Not applicable
East	Former industrial property under redevelopment	City of Richmond
West	Regatta Blvd/S 32nd St followed by the Regatta property (3200 Regatta Blvd) and industrial buildings; Meeker Slough followed by residences within the Marina Bay community.	City of Richmond

Figure 2-1 Administrative and Maintenance Responsibilities for RFS CS

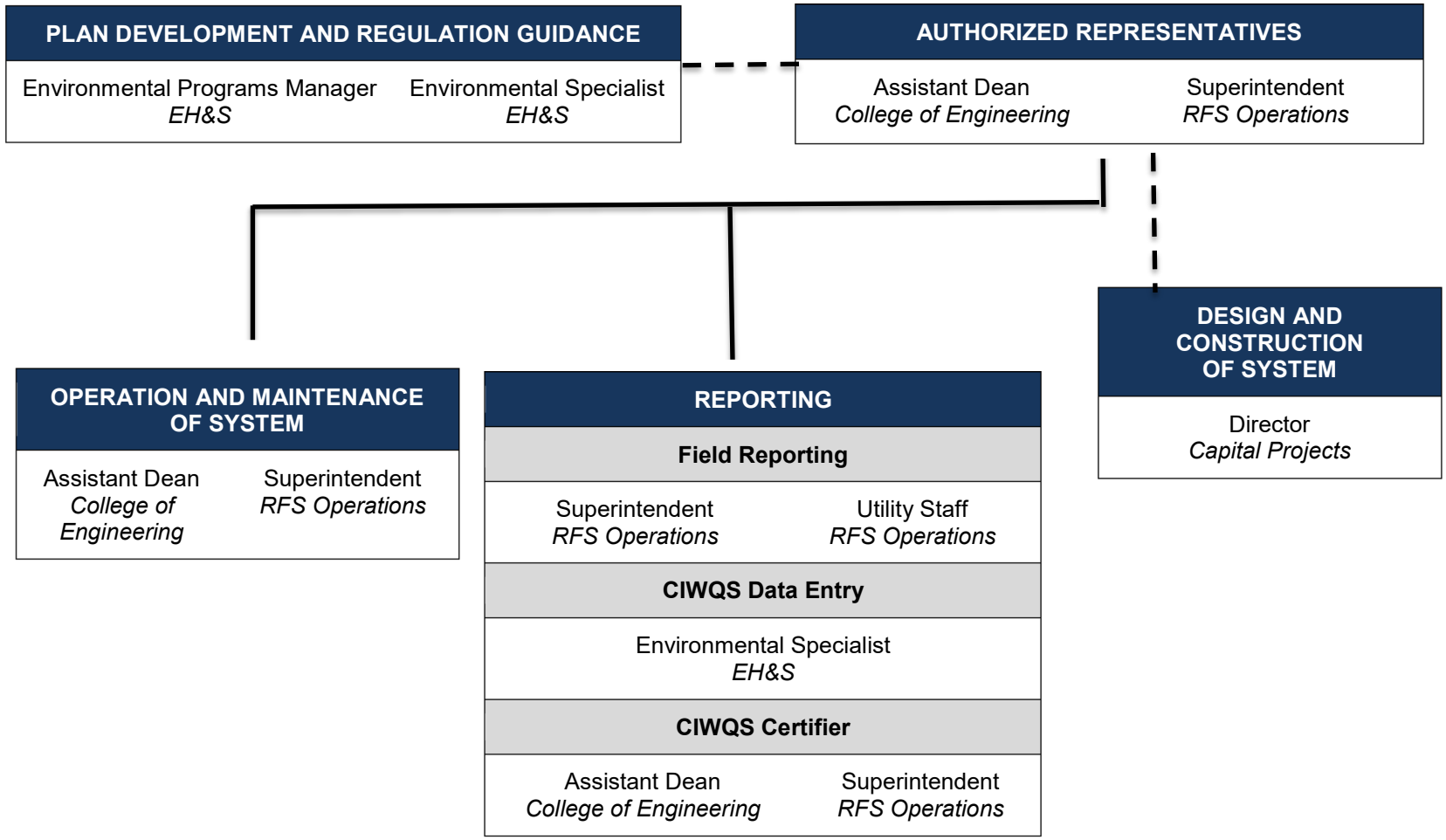
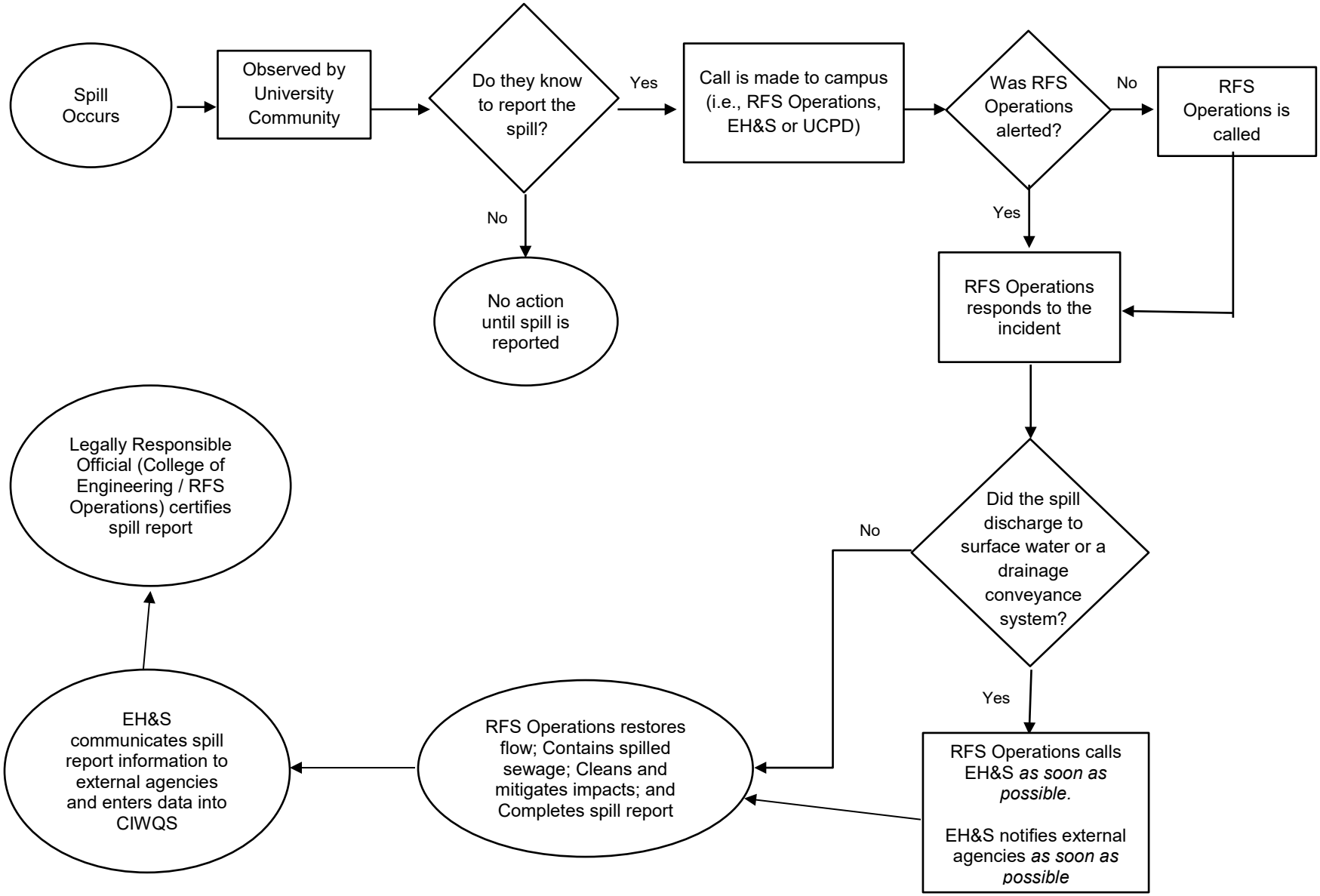


Figure 2-2 Chain of Communication for Sanitary Sewer Spills, RFS CS



2.4 Sanitary Sewer System Description

The RFS CS collects sewage from buildings used for administrative and research purposes. In general, wastewater discharged to the sanitary sewer by RFS occupants consists primarily of sanitary wastewater from restrooms and kitchenettes, equipment cooling water, facility cleaning water and wastewater from warewashing; the RFS maintains an industrial user wastewater discharge permit. An exception is the EPA Region 9 Laboratory, which discharges wastewater from biological and chemical laboratory analyses to the sanitary sewer under a permit issued by the City of Richmond. The RFS CS connects to the City of Richmond CS, which routes sewage to the City of Richmond's wastewater treatment plant.

The RFS CS is approximately 0.06 miles of forced mains and 2.0 miles of gravity sewers. In addition to the sewer line, there are 45 service lateral connections with approximately 1.3 miles of upper and lower laterals, for which UC Berkeley is responsible. There are no pump stations at RFS.

3.0 LEGAL AUTHORITY

The Regents of the University of California is a Constitutional Corporation, organized under Article IX, Section 9 of the California Constitution, with full authority over governance and management of the University operations. Under this authority, the University of California has legal authority to:

- Control infiltration and connections from inflow sources, including satellite systems.
- Require that sewers and connections be properly designed and constructed.
- Ensure proper installation, testing and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated laterals).
- Limit fats and greases and other debris that may cause blockages in the collection system.
- Prevent illicit discharges into its system (e.g., stormwater or chemical dumping).
- Ensure access for maintenance, inspection or repairs of all portions of the system operated by UC Berkeley.
- Implement the national pretreatment program authorities specified under 40 CFR 403.8(f)(1).

4.0 OPERATION AND MAINTENANCE PROGRAM

In order to reduce and prevent SSOs, the SSMP establishes measures and activities to facilitate the proper management, operation and maintenance of all parts of the sanitary sewer system. Measures and activities include maintaining system maps, scheduling routine maintenance in areas that are historically "hot spots", identifying, and addressing system deficiencies, providing public education, and describing fiscal resources and training.

Table 4-1 presents the required elements for the SSMP. The table identifies each element and the person and position at UC Berkeley that is responsible for that element.

Table 4-1: Operation and Maintenance Program

RFS CS: Operation and Maintenance Program	Responsible Party	Point of Contact
A. Operations and Maintenance		
"Provide adequate operations and maintenance of facilities and equipment" Operation and maintenance of the sanitary sewer is the responsibility of the RFS Operations. This includes maintaining all lines and manholes. RFS Operations is also the first responder to SSOs. RFS Operations requests operation and maintenance support from FS, as necessary.	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712
B. Update Maps		
"*Maintain an up-to-date map of the collection system showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and storm water conveyance systems."* The maps of the sanitary sewer system are either in AutoCAD, GIS or hard copy format. Historical sanitary sewer maps are in AutoCAD (kept on the College of Engineering Shared File Server) and a hard copy format (in Building 478). Maps will be updated to show line size, material type, and manhole identification numbers.	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712
C. Maintain Information for Establishing Priorities		
"Maintain relevant information to establish and prioritize appropriate SSMP activities such as the elimination of overflows and identify and illustrate trends in overflows." EH&S is responsible for maintaining records regarding SSOs. All records are kept on the EH&S server and an additional copy may be kept in the EH&S hard copy files. Overflows of any amount of wastewater are reported to EH&S. EH&S tracks overflows and assesses the frequency and volume of overflows and works with campus departments to reduce and prevent overflows.	EH&S Environmental Programs Manager	Alicia Bihler abihler@berkeley.edu (510) 725-2528

RFS CS: Operation and Maintenance Program	Responsible Party	Point of Contact
D. Preventative Maintenance		
"Routine preventative maintenance O&M activities by staff and contractors." RFS has measures in place in order to keep the system in good repair and prevent excessive infiltration/inflow, service interruptions and system failures. This is done through scheduled regular maintenance and cleaning of the collection system, which is summarized below. **Routine Inspections:** • Manholes: Manholes are regularly inspected on an annual basis, at minimum. **Routine Maintenance:** • Root control: Maintenance from root intrusion is conducted on an as-needed basis, documented in the RFS work order system. • Overall System: Once a year (or as necessary), the sewer system at the RFS is cleaned using a hydrojet in targeted areas. This maintenance is documented through the RFS work order system.	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712
E. Scheduled Inspections and Condition Assessment		
"Identify and prioritize structural deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency." **Long term planning:** UC Berkeley is continually updating the infrastructure of the campus over time, including the sanitary sewer systems. RFS had been slated to receive a completely new sanitary sewer infrastructure, under the Long Range Development Plan (LRDP), which was approved in May 2014 by the Regents of the	Capital Projects Director	Shannon Holloway shannonbholloway@berkeley.edu (510) 642-1954

RFS CS: Operation and Maintenance Program	Responsible Party	Point of Contact
University of California. The 2014 LRDP addresses rehabilitation and replacement of sanitary sewer pipes to accommodate the expected growth of the RFS and the Regatta properties through 2034 **Short term actions:** Short term actions are taken on an as-needed basis depending on information gathered during inspections. RFS Operations will work with Capital Projects and EH&S as necessary to develop short-term project scope and subsequently implement the project, all to be documented in the RFS work order system. Short term actions implemented through this method include the following: • Grease interceptor or trap installation • Identification and replacement of laterals • Manhole replacement • Root intrusion corrections	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712
F. Training		
"Provide training on a regular basis for staff collection system operations, maintenance and monitoring and determine if contractors' staffs are properly trained." Training is conducted by both EH&S and RFS Operations. The two departments are responsible for training staff in the following areas: **EH&S:**	EH&S Environmental Programs Manager EH&S Environmental Specialist	Alicia Bihler abihler@berkeley.edu (510) 725-2528 Sharon Harichandran sharon.harichandran@berkeley.edu (510) 812-1541

RFS CS: Operation and Maintenance Program	Responsible Party	Point of Contact
• Provides bloodborne pathogen awareness training for RFS Operations staff; EH&S training is documented through the UC Learning Center. • Provides in-person sewer spill response training for plumbers responding to sewer spills; training is documented through bCal Sewer Summit attendance and other in-person meetings and training events and documentation maintained on the EP(V) drive. • **RFS Operations:** • Provides regular technical training for RFS Operations staff responding to sewer spills; most training is on the job and is not officially documented. • Provides technical training when new systems are installed to operators of the system. Training on new systems is documented. • Responsible for overseeing operations of contractors. UC Berkeley utilizes a service agreement for outside contractors to perform maintenance on the sewer system. The service agreement contract stipulates that contractor's staff must be properly trained; this is documented through the language in the contract.	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712
G. Equipment		
"Provide equipment and replacement parts inventories, including identification of critical replacement parts." RFS Operations stocks parts and equipment, including emergency pumps, lights and generators. Repairs that require equipment or materials beyond existing capabilities are executed by an outside contractor via a service agreement contract.	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712
H. Public Education Outreach Program		
"Establish an implementation plan and schedule for public education outreach program that promotes the proper disposal of grease and fats."	EH&S Environmental Programs Manager	Alicia Bihler abihler@berkeley.edu (510) 725-2528

RFS CS: Operation and Maintenance Program	Responsible Party	Point of Contact
The university has direct control over any food-related facility, within our property line, which disposes of grease and fats into the sanitary sewer system since UC Berkeley owns and operates all of the laterals and mains. Policies adopted in this plan, specifically Section 8, Source Control Program, are adopted by all entities at UC Berkeley. The additional items below comprise the outreach program to the community. The following measures are adopted in order to foster the successful implementation of the SSMP and disposal of grease and fats by those that use the sanitary sewer system: • The most recent copy of the UC Berkeley, RFS CS SSMP will be posted on the UC Berkeley EH&S website (https://ehs.berkeley.edu/safety-subjects/environmental-protection/sewer-system-management-plans) as well as the RFS Environmental website (http://rfs-env.berkeley.edu/).	EH&S Environmental Specialist	Sharon Harichandran sharon.harichandran@berkeley.edu (510) 812-1541
I. Private Property Overflow Plan		
"Establish a plan for responding to overflows from private property that discharge to public right of ways and storm drains, to prevent discharges from overflows to surface waters and storm drains." All of RFS's sanitary sewer system is located on campus property. For Private-Public Partnerships that are within campus properties, maintenance agreements and overflow response regarding laterals are within contract documents. For private property overflows that enter UC Berkeley property, UC Berkeley will alert the entity who owns the sewer lines involved and assist in coordinating response, as necessary.	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712
	EH&S Environmental Programs Manager	Alicia Bihler abihler@berkeley.edu (510) 725-2528
J. Staffing for System Operations		
"Describe staffing available to ensure system operation including developing, implementing and revising the SSMP."	College of Engineering, Assistant Dean	John Mitchell jtmitchell@berkeley.edu (252) 263-2237

RFS CS: Operation and Maintenance Program	Responsible Party	Point of Contact
The responsibility for system operation is shared among departments and is summarized in **Figure 2-1**, Administrative and Maintenance Responsibilities for RFS CS. Staff are available 24 hours a day, 365 days to operate the system. The SSMP revision and implementation will be accomplished by RFS Operations in cooperation with EH&S and Capital Projects. Together, these departments ensure the operation of the sanitary sewer system.	RFS Operations Superintendent EH&S Environmental Programs Manager	Justin Cocke justincocke@berkeley.edu (510) 220-2712 Alicia Bihler abihler@berkeley.edu (510) 725-2528

5.0 DESIGN AND PERFORMANCE PROVISIONS

The University of California, Berkeley has established Construction Design Standards (CDS), revised in 2020, for construction projects on campus. Standards for sanitary sewer installation, rehabilitation and repair are included.

Capital Projects is responsible for ensuring the design standards are implemented on campus. There are two categories of design and performance provisions specified in General Order No. 2006-0003-DWQ, discussed below.

5.1 Standards for Installation, Rehabilitation and Repair

The CDS outlines construction specifications for installing new sewer systems and for rehabilitation and repair of existing sewer systems. Design criteria include specifications for items such as pipe materials, minimum sizes, minimum cover, strength, minimum slope, trench and backfill, structure standards, and other factors. Any new construction, rehabilitation or repair of the sanitary sewer system will adhere to the CDS.

5.2 Standards for Inspection and Testing of New and Rehabilitated Facilities

Inspection and testing of new or rehabilitated facilities ensures that the established standards are being implemented in the field. Acceptance testing for gravity sewers can include low pressure air test or water test to identify leakage, mandrel test to identify deflection of flexible pipe, water or vacuum test of manholes to identify leakage, and television inspection to identify grade variations or other construction defects.

6.0 SPILL EMERGENCY RESPONSE PLAN

6.1 Objective and Purpose

The SERP (formerly the Overflow Emergency Response Plan) is attached as **Appendix A** to this SSMP and has the purpose of establishing guidelines and measures to protect public health and the environment in case of an accidental sewer spill.

In the case of a sewer spill, UC Berkeley shall dispatch the appropriate crews to investigate, identify the cause, and provide appropriate service to minimize the effects of the spill on public health and quality of surface waters. The SERP further specifies the required notification and reporting that is necessary for local and state agencies.

All utility personnel should be required to read the SERP and familiarize themselves with the procedures. Training is made available for all utility personnel on the SERP. The plan is also posted on the EH&S website to allow easy access for all utility personnel and the general public.

6.2 Plan Update

The effectiveness of the SERP is reviewed on an annual basis by EH&S with feedback requested from First Responders, Designated Urgent Response Team (DURT), and Legally Responsible Officials. The plan is updated, as necessary, following the review.

7.0 FOG CONTROL PROGRAM

This fats, oils and grease (FOG) control program has been developed as part of the RFS CS SSMP and builds upon the Best Management Practices for FOG (fact sheet) that UC Berkeley has in place (**Appendix B**). The purpose of the program is to reduce the amount of fats, oils and grease discharged to the wastewater collection system.

7.1 Current Infrastructure

Currently, there are no commercial grease interceptors or traps at RFS that the University maintains.

If commercial grease interceptors or traps are installed within the RFS CS in the future, the entity operating the food-related facility would be responsible for performing their own maintenance on their commercial grease devices.

7.2 Elements of FOG Control Program

The elements of the FOG control program include identification of grease blockages, maintenance, best management practices (BMPs), record keeping practices and inspections. The details are provided in **Table 7-1**.

Table 7-1: Operation and Maintenance Program

FOG Control Measures	Responsible Party	Point of Contact
A. Identification of Grease Blockages and Maintenance Requirements		
Grease blockages are identified through routine inspections of the sanitary sewer system. The inspections are conducted as part of the regular scheduled maintenance and cleaning of the system, which is outlined in **Table 4-1**, Measures and Activities, Parts D and E. System maintenance includes both preventative maintenance and maintenances of parts of the system determined to be in need of cleaning during routine inspections. Preventive maintenance procedures are outlined in **Table 4-1**, Part D.	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712
B. Installation of New Grease Traps or Interceptors		
Installation of a new grease trap or interceptor may be recommended based on inspection and maintenance of the system. Installations of new grease traps or interceptors will conform to City of Richmond's design specifications. Design plans for new grease traps and interceptors will be reviewed by BGC and EH&S.	Capital Projects Director EH&S Environmental Programs Manager	Shannon Holloway shannonbholloway@berkeley.edu (510) 642-1954 Alicia Bihler abihler@berkeley.edu (510) 725-2528
C. Best Management Practices		
BMPs are in place to prevent the introduction of grease and fats into the sanitary sewer and consist of training.	EH&S Environmental Programs Manager EH&S Environmental Specialist	Alicia Bihler abihler@berkeley.edu (510) 725-2528 Sharon Harichandran sharon.harichandran@berkeley.edu (510) 812-1541

FOG Control Measures	Responsible Party	Point of Contact
D. Recordkeeping		
Currently, this section is not applicable to the RFS CS because there are no grease interceptors or grease traps.	Not applicable	
E. Inspection		
RFS is responsible for routine inspections to ensure proper maintenance of the sanitary sewer system. Grease blockages would be identified during the yearly preventative maintenance tags of the system. Inspections may also have EH&S staff present.	RFS Operations Superintendent	Justin Cocke justincocke@berkeley.edu (510) 220-2712

8.0 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

RFS has an on-going long range infrastructure rehabilitation initiative that will address shortfalls and deficiencies within the sanitary sewer system and upgrade key components as necessary to meet loads associated with future growth expectations.

8.1 System Evaluation and Capacity Enhancement Measures

RFS is continually updating the infrastructure of the campus, including the sanitary sewer. RFS began evaluating the system using the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Program in 2015 and was expected to take 5 years to camera the entire system.

8.2 Design Criteria

Capital Projects, RFS Operations, and EH&S are involved in plan review for projects on campus involving infrastructure upgrades and construction projects which may have an environmental or infrastructure impact. During plan review, RFS Operations and EH&S ensure that sanitary sewer design meets best practices. Capital Projects has sanitary sewer specifications.

8.3 Schedule

RFS is implementing sanitary sewer upgrades as budget allows and in conjunction of new building projects. Over time, the sanitary sewer infrastructure renewal will address rehabilitation and replacement of sewer pipes which are at risk of collapse or are prone to more frequent blockages due to pipe deficiencies.

A list of projects is available on the EH&S website at ehs.berkeley.edu/ssmp.

9.0 MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

EH&S will monitor the effectiveness and implementation of the SSMP. Members of the EH&S EP team will communicate with each other mid-year in order to monitor plan implementation. This can occur with a meeting or by e-mail. The purpose of the mid-year communication is to monitor how effectively the SSMP is working and is being implemented.

Every two years, the EP team and RFS Operations staff will evaluate the effectiveness of each element of the SSMP. As part of the first annual plan update, the EP team will create a checklist of the SSMP requirements, which will be utilized in annual reviews going forward. The checklist will assist in determining if all elements of the SSMP are effective and are being implemented. Program elements will be updated, as appropriate, based upon monitoring or performance evaluation.

10.0 SSMP AUDITS

The EH&S EP team will assess the effectiveness of the SSMP, complete an audit, and will make updates in accordance with the General Order No. 2022-0103-DWQ. The next 3-year audit period is from August 3, 2022, to August 2, 2025, and the audit report is due within six months on February 2, 2026.

The EP team will evaluate any sanitary sewer spills and make recommendations to prevent them from reoccurring. As part of the first annual plan update, the EP team will create a checklist of the SSMP requirements, which will be utilized in annual reviews going forward. The checklist will assist the EP team in evaluating all the components of the SSMP. Through this review, the EP team will evaluate the SSMP, including its deficiencies, and recommend steps to correct them.

11.0 COMMUNICATION PROGRAM

11.1 Communicating Plan Information and Updates

EH&S will communicate with the campus community regarding the development, implementation and performance of the SSMP. The SSMP is posted on the UC Berkeley EH&S website and the RFS website for the campus community to review and comment.

The SSMP will be updated as needed to describe any significant changes in proposed actions or implementation schedules. The update will include available information on the performance of measures that have been implemented. UC Berkeley will communicate with campus stakeholders regarding implementation and performance of the SSMP.

The RFS has a Community Listserv to send out updates, including those related to the SSMP. In addition, there are periodic Townhall Meetings and Facility-Wide Safety Meetings that can be used to communicate information.

12.0 ACRONYMS

The acronyms below are relevant for all three sewer system management plans that are being implemented by the University of California, Berkeley.

BGCRB	Berkeley Global Campus at Richmond Bay
BGC	Berkeley Global Campus
BGC Operations	Berkeley Global Campus Operations and Facilities Management
BMP	Best Management Practice
CCTV	Closed-Circuit Television
CDS	Construction Design Standards
CFR	Code of Federal Regulations
CIWQS	California Integrated Water Quality System
EH&S	Environment, Health & Safety
EP	Environmental Protection
EPA	Environmental Protection Agency
FOG	Fats, Oils and Grease
FS	Facilities Services (formerly, Physical Plant-Campus Services [PP-CS])
I/I	Inflow and Infiltration
LF	Linear feet
LRDP	Long Range Development Plan
NASSCO	National Association of Sewer Service Companies
O&M	Operations and Maintenance
RFS	Richmond Field Station
RFS CS	Richmond Field Station Collection System

RFS Operations	Richmond Field Station Operations
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
UC Berkeley	University of California, Berkeley
UCPD	University of California, Police Department
WDR	Waste Discharge Requirements

13.0 UPDATES TO THE SEWER SYSTEM MANAGEMENT PLAN

Below documents all updates to the SSMP:

DATE UPDATED	SECTIONS REVISED	NOTES	CHANGE AUTHORIZED BY
05/2014	Section 2.0; Section 4.0; Section 8.0; Section 11.0	**Finalized New Content:** • Section 2.0 - Organization, Operation and Maintenance • Section 4.0 – Operation and Maintenance Program • Section 8.0 - System Evaluation and Capacity Assurance Plan • Section 11.0 - Communication Program	Greg Haet, EH&S
10/2014	Section 1.0; Section 3.0; Section 5.0; Section 9.0;	**Finalized New Content:** • Section 1.0 – Goal • Section 3.0 – Legal Authority • Section 5.0 - System Evaluation and Capacity Assurance Plan • Section 9.0 – Monitoring, Measurement and Program Modifications	Greg Haet, EH&S
05/2014	Various	**Revisions:** • Updated staff contacts • Minor re-formatting and re-numbering of appendices, attachments, figures and tables • Minor grammar edits • Updated LRDP text to state that LRDP was approved by the Regents in May 2014 **Finalized New Content:** • Section 6.0 – Overflow Emergency Response Plan • Section 7.0 – FOG Control Program • Section 10.0 – SSMP Audits • Section 12.0 – Acronyms • Appendices	Greg Haet, EH&S
05/2015	Various	**Revisions:** • Updated staff contacts for Regatta property	Greg Haet, EH&S

		• Revised property name from Richmond Field Station to Berkeley Global Campus at Richmond Bay throughout document, including title • Section 2.4 – Updated section to include description of Berkeley Global Campus at Richmond Bay • Table 4-1(B) – Added ArcGIS description • Section 11.0 – Communications Program – Revised section to say "UC Berkeley will communicate annually with *campus stakeholders* regarding implementation and performance of the SSMP" instead of "interested parties". • Section 12.0 - Acronyms – Added BGCRB, BGC, BGC Ops, C&D, FS	
06/2015	Various	**Revisions:** • Added WDID # to the Title Page of SSMP • Updated Berkeley Global Campus Ops to official department name: Berkeley Global Campus Operations and Facilities Management (BGC Operations) • Added: "For Private-Public Partnerships that are within campus properties, maintenance agreements and overflow response regarding laterals are within contract documents." • Section 2.1 – Added Newmark Grubb Knight Frank as an organization. • Section 2.3 – Updated Facilities Description to specify that latest version of map is maintained by BGC Operations. • Figure 2-1 – Update Operation and Maintenance of System departments/companies; Update department names • Section 2.4 – Update Sanitary Sewer System Descriptions to remove excess information regarding non-sewer utilities • Table 4-1(A) – Updated Responsible Parties and separated contacts by property (RFS/Regatta) • Table 4-1(B) – Revised BGC server to official name: College of Engineering shared file server, Update to note that CAD files have been converted to ArcGIS and SewerGEMS • Table 4-1(D) – Update contacts; Update text to note that BGC work order system is called "Maintenance Connection" • Table 4-1(E) – Update contacts • Table 4-1(G) – Update contacts; Update service agreement contractors to include Berkeley Plumbing • Table 4-1(J) – Update language • Section 6.1 – Update language from "All utility personnel should be required…" to "All staff that handle and respond to SSOs should be required…"	Greg Haet, EH&S

		• Section 7.1 – Updated language to note that Eunice Café does not produce any fats, oils or grease based on their operations and that EH&S is currently evaluating tenants at Regatta for FOG. • Table 7-1(C) – Removed text: "Signage is located in Eunice Café 2" since they do not pose any issues for the FOG Program. • Section 8-1 – Added text: "BGC will begin to evaluate the system using the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Program" starting in 2015. • Section 8-3 – Added Table. • Section 11 – Added resources such as the Community Listserve, Townhall Meetings and Facility-Wide Safety meetings are ways to communicate information regarding the collection system. • Section 12 – Updated BGC Ops to BGC Operations (Berkeley Global Campus Operations and Facilities Management), Added National Association of Sewer Service Companies (NASSCO)	
07/2015	Section 8.3	**Revisions:** • Section 8.3 – Added two projects to Table	Greg Haet, EH&S
08/2015	Section 2.1; Figure 2-1; Section 2.4; Table 4-1	**Revisions:** • Section 2.1 - Added the word "entity" to the following sentence: "The responsibilities of each department/**entity** are summarized below…" • Section 2-1 - Added Wareham Development and summary of services. • Figure 2-1 – Added Wareham Development to Operations and Maintenance of System • Section 2.4 – Replaced the word "for sewer" with "sanitary sewer system" in the following sentence: "The Berkeley Global Campus at Richmond Bay is connected to the City of Richmond **sanitary sewer system**." • Section 2.4 – Replaced "Richmond Municipal Sewer District" with "City of Richmond (Richmond Municipal Sewer District)". • Table 4-1(A), (D), (F), (G) – Added Wareham Contact – Debby Barrall – (415) 457-4964	Greg Haet, EH&S
05/2019	Various	• **Global Replace:** o Update "Newmark Grubb Knight Frank" to "Newmark Knight Frank" (company name change)	Greg Haet, EH&S

		○ Update "Berkeley Global Campus Operations" to "Richmond Field Station Operations" (department name change)Remove Interim from Karen Lobo's title (Associate Director, Operations) ○ Minor grammatical revisions and changes to word choice to improve clarity • **Section 2.0:** ○ **Section 2.1:** Update department responsibilities descriptions for Facilities Services and Newmark Knight Frank ○ **Section 2.1:** Added Bonetti Plumbing as a third party contractor. ○ **Section 2.1:** Listed another alias for EPA building. ○ **Section 2.**3: Updated sentence: "The ~~former~~ Richmond Field Station site and the Regatta property are known collectively as the Berkeley Global Campus at Richmond Bay." ○ **Section 2.3:** Updated sentence: "The latest version of the map is maintained by ~~BGC~~ **EH&S**." ○ Figure 2-1: Updated Department Names and position titles. ○ Figure 2-2: Change "responsible" to "response" in Private Lateral Sewage Discharge box. • **Section 4.0** ○ **Section A:** Add Newmark Frank to description. ○ **Section B:** Updated map description to include historical vs. current maps and EH&S responsibility. ○ **Section E:** ▪ Replace "Brian Main" with "Shannon Holloway (510) 642-1954" ▪ Remove reference to "Lawrence Berkeley National Lab." ▪ Updated to include Angus work order system. ○ **Section G**: Remove sentence: "Currently, a service agreement is maintained with Roto-Rooter and Berkeley Plumbing." ○ **Section H:** Update sentence: "~~A~~ **The most recent copy** of the UC Berkeley – BGC SSMP will be posted on the UC Berkeley EH&S website (http://ehs.berkeley.edu) as well as the RFS Environmental website (http://rfs-env.berkeley.edu/)." ○ **Section I:** Remove "Therefore, there is no private property overflow plan." ○ **Section J:** Remove sentence: "There are approximately two BGC staff members that operate the sanitary sewer system as a whole, which assist in the operation of the sewer system inside BGC buildings." • **Section 5.0:** Update Construction & Design website and description of standards • **Section 7.0:**	

		○ **Section 7.1:** Change name of "Eunice Café" to "Eunice Gourmet Café" • **Section 8.0:** ○ **Section 8.3:** Updated schedule description and removed project table. Added link to up-to-date projects list. • **Section 11.0:** ○ **Section 11.1**: Update "regular" Townhall meetings to "periodic" Townhall meetings.	
8/2023	Various	• Global updates to update personnel positions, names, contact information, and departments; and general locations of relevant features within the CS. • **Sections 1.0 and 2.0** updated to include the reissued permit language around the SERP. • Revised **Figure 2-2** with updated chain of communication for sanitary sewer spills. • Removed references to Appendix A: Regulatory Language and replaced with a link. • Changed SERP from Appendix B to Appendix A. • Changed Appendix D: Resources to Appendix B: Best Management Practices for FOG • Removed references to Appendix C: Maps as figures/maps are GIS-based and housed with FS, with supplemental hard copies maintained by FS and RSSP staff. • Revised inspections/audits; complies with the regulation. • Removed references to BCG and removed Regatta property from discussion of the RFS CS because the Regatta property's sanitary sewer is not connected to the system at the RFS. • **Section 10.0** updated to reflect the next audit timelines.	Alicia Bihler, EH&S