UNIVERSITY OF CALIFORNIA, IRVINE

SEWER SYSTEM MANAGEMENT PLAN

MAY 2019 REVISION

UC Irvine

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1.0 GOAL

1.1 REGULATORY BACKGROUND

This Sewer System Management Plan (SSMP) is required under Waste Discharge Requirements (WDR) Order No. 2006-0003-DWQ, issued by the State Water Resources Control Board (SWRCB). The WDR stipulates that the permittees, which include the University of California, Irvine (UC Irvine), must develop and implement a Management Plan in order to reduce sanitary sewer overflows. Additionally, the Management Plan provides measures to ensure efficient and effective response to overflows, and implement source control measures to minimize the introduction of grease and oils, and other materials that may cause blockages. This Management Plan satisfies the requirements specified in the WDR Order No. 2006-0003-DWQ.

The State Water Resources Control Board (SWRCB) adopted WDR Order No. 2006-0003-DWQ, Statewide General Discharge Requirements for Sanitary Sewer Overflows, (SSOs) on May 2, 2006. The SWRCB developed this WDR to promote uniformity in the management of California's wastewater collection systems and to reduce SSOs. The SWRCB found that districts that have implemented SSMPs similar to this have been effective not only in improving spill reporting, but also in mitigating SSO impacts. Data also supported the conclusion that better collection system management will benefit water quality and prolong the life of sanitary sewer systems.

The SWRCB may regulate sanitary sewer overflows based on authority in the federal Clean Water Act (EPA 2002) and the Porter-Cologne Water Quality Control Act, Section 13263 (California Water Code of Regulation 2006).

1.2 PURPOSE AND GOALS OF THE SSMP

This document has been developed to comply with WDR 2006-0003-DWQ, which is included in Appendix A. The WDR requires permittees to prepare and implement a SSMP in order to:

- Provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur in order to provide reliable service in the future;
- Minimize infiltration/inflow (I/I) Reduce and prevent SSOs;

Sanitary sewer overflows, or SSOs, are overflows from sanitary sewer systems of domestic, industrial, and/or commercial wastewater. SSOs may cause a public nuisance, particularly when untreated wastewater is discharged to waters designated for contact recreation. Many SSOs can be prevented with adequate and appropriate facilities, source control measures, and operation and maintenance of the sanitary sewer system.

1.3 WASTEWATER WORKING GROUP

The University of California, Irvine has created a wastewater working group (WWG) consisting of representatives from key departments and facilities to facilitate the implementation, monitoring, and updating of the SSMP. Members of the WWG include the following departments and groups:

- Environmental Planning and Sustainability (EP&S);
- Design & Construction Services (D&CS)

- Environment Health and Safety (EH&S);
- Housing and Food Facilities (H&FF);
- Facilities Management (FM); and
- University Hills

The WWG's responsibilities include the following:

- Monitor and measure implementation of the plan and make modifications as necessary (addressed in Section 9 of this plan).
- At least every two years make recommendations for changes to SSMP based on the assessment of the implementation of the plan (addressed in Section 10).
- Review and evaluate response to overflows. As appropriate, update Overflow Emergency Response Plan (addressed in Section 6).

2.0 ORGANIZATION

2.1 ADMINISTRATION AND MAINTENANCE ORGANIZATION

The administrative responsibility for the UC Irvine sanitary sewer system is shared among several departments including EH&S, FM, Housing & Food Facilities, D&CS, and University Hills. The responsibilities of each department are summarized below, and an organizational chart is included as Figure 2-1.

EH&S: The Director of EH&S is considered the permittee for the sanitary sewer system. The implementation of permit requirements and reporting to regulatory agencies is the responsibility of the EH&S program manager, including tracking of all SSOs.

FM: The Assistant Vice-Chancellor of Facilities Management is responsible for the overall operation and maintenance of the system including oversight of any contractor making repairs on the system. The Senior Superintendent of Skilled Trades will be responsible for reporting all and/or non SSOs on to the on-line CIWQS.

Housing and Food Facilities: Grease traps and interceptors are located within several housing and food facilities throughout the campus. The managers of housing and food facilities are responsible for maintenance of the grease traps or interceptors located at their respective facilities.

Design and Construction Services: The Associate Director of Design and Construction is responsible for the management of the design and construction of additions, rehabilitations, or modifications to the sanitary sewer system.

University Hills: The Vice President of Community Housing is responsible for the management of the overall operation and maintenance of the University Hills sewer system, including oversight of any contractor making repairs on the system.

2.2 MONITORING SYSTEM AND REPORTING SSOs

Members of the University community who observe an SSO may call the campus emergency dispatch phone line at 949-824-5444 to report the incident. Campus dispatch immediately notifies the FM staff member who is designated as the campus first responder for SSOs. The campus first responder is responsible for immediately investigating any overflow and determining the appropriate response. Any overflow is reported to EH&S, which is responsible for reporting the overflows to the appropriate regulatory agency. The response to and reporting of SSOs is described in Section 6.0 Overflow Emergency Response Plan.

2.3 FACILITY DESCRIPTION

The Irvine campus is one of 10 University of California campuses governed by the Regents of the University of California and is an internationally recognized public teaching and research institution.
The 2001-2002 population, which included students, faculty, staff, visiting scholars, researchers, and visitors, was approximately 25,081. The long-range planning document (2007 Long Range Development Plan) identifies a horizon year of 2025-26 that could accommodate an enrollment of 37,000 students.

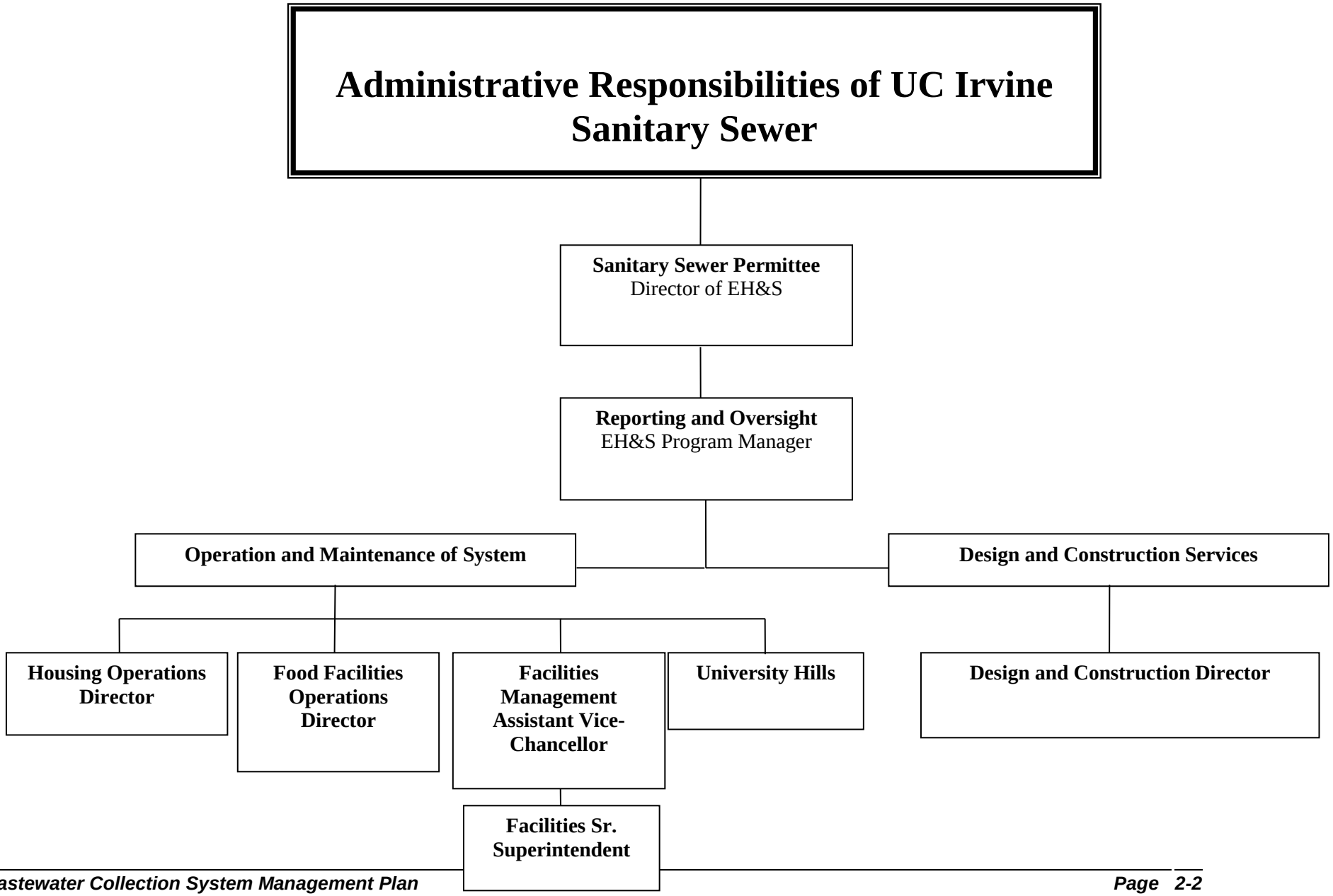


Figure 2-1
Administrative Responsibilities for UCI Sanitary Sewer System

2.4 SANITARY SEWER SYSTEM DESCRIPTION

The UC Irvine sanitary sewer system serves the majority of the campus including University Hills, student housing, and food facilities.

The sanitary sewer system at UC Irvine has been in use since 1965 and comprises of over 15,000 linear feet of collection pipe. Original pipe has been replaced as upgrades or repairs have been required or new facilities have been constructed. The piping consists of a combination of vitrified clay, cast iron, polyvinyl chloride, asbestos and cement. Sanitary sewage is collected from campus buildings that house administration, classroom, research, residential, and dining hall facilities. The system ultimately feeds to the Irvine Ranch Water District wastewater treatment plant.

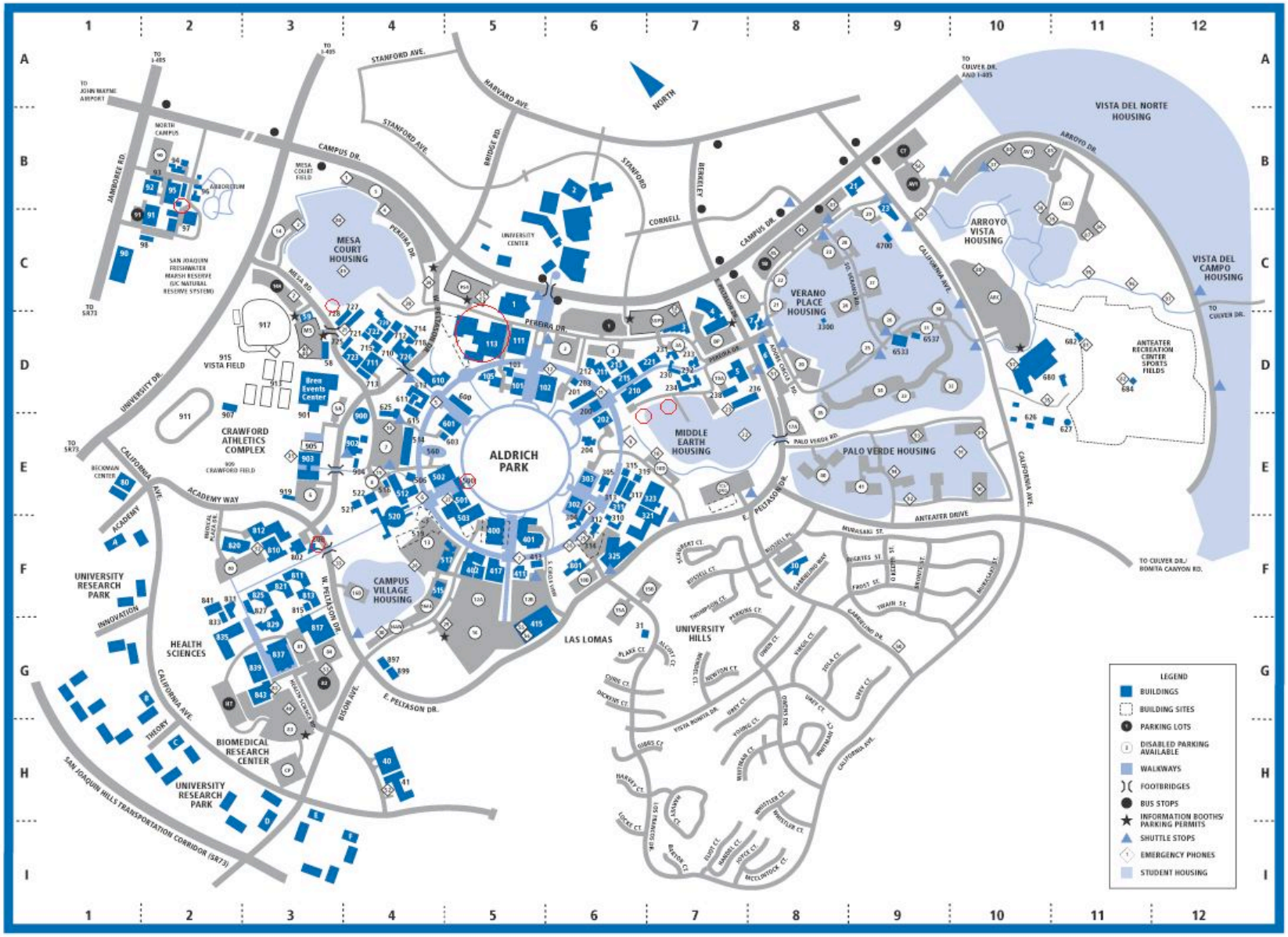
There are fourteen grease interceptors and seven grease traps located on the main campus. Table 2-1 summarizes the grease interceptor or trap and the departments that are responsible for their maintenance. The locations of the grease traps and interceptors maintained by UC Irvine are shown on Figure 2-2.

Table 2-1
Grease Interceptors and Traps

Location	Type	Responsible Organization
Middle Earth Pippins Commons (Bldg. 553)	Interceptor and Trap	Food Operations & FM
Brandywine (Bldg. 559)	Trap	FM
Mesa Commons	Interceptor and Trap	Food Operations & FM
BC Cavern (Bldg. 500)	Interceptor and Trap	Food Operations & FM
Café Med (Bldg. 800)	Interceptor and Trap	Food Operations & FM
North Campus (Bldg. 95)	Interceptor	FM
Gateway Study Center (Bldg. 101)	Trap	FM
Student Center (Bldg. 113)	Trap	FM
Retail Food Facilities/Markets		
Aramark's Catering Kitchen (Bldg. 113)	Interceptor	Food Operations
Bene and Green's (Bldg. 113)	Interceptor	Food Operations
The Pub (Bldg. 113)	Interceptor	Food Operations
Quizno's (Bldg. 113)	Interceptor	Food Operations

Location	Type	Responsible Organization
Rice Garden (Bldg. 113)	Interceptor	Food Operations
Tortilla Express (Bldg. 113)	Interceptor	Food Operations
Wendy's (Bldg. 113)	Interceptor	Food Operations
Starbuck's (Bldg. 113)	Interceptor	Food Operations
Zot and Go (Bldg. 113)	Interceptor	Food Operations

Figure 2-2 UC Irvine Grease Trap and Interceptor Locations



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 Irvine.

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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, 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 Irvine that is responsible for that element.

Table 4-1
Operation and Maintenance Program

UC Irvine Operation and Maintenance Program	Responsible Party	POC	Telephone Number
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 UC Irvine Facilities Management. This includes maintaining all lines, sewage pumps, force mains, and alarm systems. The department is also the first responder to sanitary sewer overflows.	FM, Assistant Vice Chancellor	Allen Shiroma	949-824-5444
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 or hard copy format. • The main campus is in AutoCAD format. The map shows line size.	FM, Assistant Vice Chancellor	Allen Shiroma	949-824-5444
C. Maintain Information for Establishing Priorities			
"Maintain relevant information to establish and prioritize appropriate SSMP [Waste Water Collection System Management Plan] activities such as the elimination of overflows and identify and illustrate trends in overflows." EH&S is responsible for maintaining records regarding SSOs. 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 facilities to reduce and prevent SSOs.	EH&S, Program Manager	TBD	949-824-6200
D. Preventative Maintenance			
"Routine preventative maintenance O&M activities by staff and contractors." UC 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:***	FM, Sr. Superintendent	Stephan Fidele Mike Bonomo	949-824-5444 949-824-5444

UC Irvine Operation and Maintenance Program	Responsible Party	POC	Telephone Number
• Emergency standby generators: No-load runs are conducted for 20 minutes every month. Load tests are conducted every 8 months and require 1 to 2 hours plus additional time if repairs are necessary • Manholes: A portion of the system's manholes are inspected weekly. The weekly inspection targets specific manholes, based on a schedule, which rotates through all the manholes on campus. Therefore, throughout the course of a year each manhole gets examined at least once. If there are any reported problems in the area surrounding a manhole, they are included in the weekly inspection. ***Routine Maintenance:*** • Root control: Maintenance from root intrusion is conducted on an as-needed basis, based on the results of routine inspections. • Overall System: Once a year the system is cleaned using a hydrojet or vacuum in targeted areas selected based on the information obtained through routine inspections. • FOG control.			
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 Irvine is updating the infrastructure of the campus, including the sanitary sewer. The sanitary sewer system was evaluated and long-term planning recommendations made by Campus & Environmental Planning (C&EP) and FM. The recommendations addresses rehabilitation and replacement of sewer pipes, which are at risk of collapse or are prone to more frequent blockages due to pipe deficiencies.	C&EP. Director/FM, Assistant Vice-Chancellor	Richard Demerjian Allen Shiroma	949-824-7058 949-824-5444
Short term actions: Short-term actions are taken on an as-needed basis depending on information gathered during routine inspections. FM will e-mail the information to D&CS; the two departments will	FM, Assistant Vice-Chancellor/ Director, D&CS	Allen Shiroma John Scharf	949-824-5444 949-824-6630

UC Irvine Operation and Maintenance Program	Responsible Party	POC	Telephone Number
develop a scope and subsequently implement the project. Short term actions implemented through this method include the following: • Grease interceptor or trap installation • Identification and replacement of laterals • Manhole replacement • Reverse grade and root intrusion corrections			
F. Training			
"Provide training on a regular basis for staff collection system operations, maintenance and monitoring and determine if contractors' staffs are properly trained."			
• Provides technical training for FM staff responding to sewer spills.	FM, Sr. Superintendent	Stephan Fedele	949-824-5444
• Provides technical training when new systems are installed to operators of system.		Jeff Crouch	949-824-5444
• Responsible for overseeing operations of contractors. UC Irvine utilizes a service agreement contract for outside contractors to perform maintenance on the sewer system. The service agreement contract stipulates that contractor's staff must be properly trained.			
G. Equipment			
"Provide equipment and replacement parts inventories, including identification of critical replacement parts."	FM, Sr. Superintendent	Stephan Fedele	949-824-5444
		Jeff Crouch	949-824-5444
A stock room of parts and equipment, including emergency pumps, lights, and generators is maintained. An outside contractor via a service agreement contract executes repairs that require equipment or materials beyond existing capabilities.		Mike Bonomo	949-824-5444

5.0 DESIGN AND PERFORMANCE PROVISIONS

The university references the Irvine Ranch Water District's (IRWD) design and performance standards as a minimum quality level. UC Irvine Design and Construction Services (D&CS) and Facilities Management evaluated the design and performance standards and have modified them and incorporated the modified versions into the Campus Standards and Design Criteria.

FM and D&CS are responsible for ensuring the design and performance standards are implemented on campus. There are two categories of design and performance provisions specified in WDR No. 2006-0003, which are discussed below.

5.1 STANDARDS FOR INSTALLATION, REHABILIATION AND REPAIR

The UC Irvine standards outline construction specifications for installing new sewer systems, pump stations, and other appurtenances; 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 UC Irvine standards.

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. UC Irvine will adhere to the standards for inspection and testing of new or rehabilitated facilities that are outlined in the Campus standards.

6.0 OVERFLOW EMERGENCY RESPONSE PLAN

6.1 OBJECTIVE AND PURPOSE

The Overflow Emergency Response Plan (OERP) is developed as part of the UC Irvine Sewer System Management Plan. The purpose of the OERP is to establish guidelines and measures to protect public health and the environment in case of an accidental overflow.

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

All utility personnel should be required to read the OERP and familiarize themselves with the procedures. The OERP should be kept in an easily available location for all utility personnel and public access reference.

6.2 ROLES AND RESPONSIBILITIES

The departments of Environmental Health and Safety – Environmental Sanitation Program (EH&S-ESP), Facilities Management (FM), and Transportation & Distribution Services (T&DS) are the campus entities responsible for implementing the OERP. The responsibilities of the departments are specified below.

6.2.1 Environment Health & Safety-Environmental Health Program (EH&S-EHP)

EH&S-EHP is responsible for:

a) External agency notification,
b) Exposure/hazard assessment & control,
c) Preparation of regulatory related documents, and
d) Interface with external regulatory agencies.

6.2.2 Facilities Management (FM)

FM is responsible for:

a) Acting as first responder;
a) Providing and coordinating the operational aspects of the emergency in order to control and mitigate the overflow; and,
b) Establishing preventive measures in order to minimize future accidental releases.

6.2.3 Transportation & Distribution Services (T&DS)

T&DS is responsible for site security, traffic, and crowd control measures on as a needed basis.

6.3 RECEIPT OF INFORMATION REGARDING AN OVERFLOW

Overflows are typically detected and reported in one of two ways:

1. By FM personnel during daily routines - FM personnel who discover a potential overflow during their daily operations are responsible for immediately notifying the proper supervisor and taking appropriate action

2. By the public - Members of the university community who observe a sanitary sewer overflow (SSO) may also call the campus emergency dispatch phone line at 949-824-5444. Section 3.2 details dispatch responsibility.

Emergency response is available 24 hours per day, every day.

6.4 DISPATCH RESPONSIBLITY

When the dispatch personnel receive calls from the public, they will obtain all relevant information available regarding the possible overflow including:

1. Time and date the call was received,

2. Specific location of possible overflow,

3. Description of the problem, and

4. Caller's name and call back phone number.

Campus dispatch immediately notifies the designated campus first responder for SSOs, who is a member of the FM staff. Response time to a SSO will be less than an hour after the first call.

6.5 FIRST RESPONDER ASSESSMENT OF OVERFLOW

The failure of any element of the sanitary sewer system that threatens to cause or causes a SSO will be responded to by the FM first responder. The first responder's responsibility is to isolate and correct the problem.

The first responder will:

1. Assess the failure of equipment or overflow release,

2. Call for assistance (if needed) including additional personnel, materials, supplies, and equipment. If the spill is larger then they can adequately respond to, an outside contractor will be called,

3. Use appropriate Personal Protective Equipment,

4. Use appropriate safety precautionary measures including Lockout/Tagout protocol,

5. Obtain necessary equipment to respond to spill. FM maintains a supply of materials to mitigate spills. Available equipment includes sand bags, by pass pumps, hoses, emergency generators, and heavy equipment,

6. Assess if the overflow occurred onto private property. Be aware that UC Irvine could face increased liability for further damages inflicted to private property during such instances, and

7. Coordinate with EH&S Spill Response if there is a suspicious substance (e.g. oil sheen, foam) to be found on the ground surface. Additionally, if there is a suspicious odor (e.g. gasoline) not common to the sewer system.

Internal Notification Procedures

Based on the professional judgment of the FM staff, other party(ies) is notified.

Internal contact phone numbers:

EH&S
7:30 am to 4:30 pm, Monday – Friday: 949-824-6200
After hours: Non-Emergency Dispatch: 949-824-5444, Emergency 949-824-5224

FM
8:00 am to 5:00 pm, Monday – Friday: 949-824-5444
After hours: Dispatch (non-emergency) 949-824-5444

T&DS
8:00 am to 5:00 pm, Monday – Friday: 949-824-7486
After hours: Dispatch (non-emergency) 949-824-5444

6.6 OVERFLOW CORRECTION, CONTAINMENT, AND CLEAN-UP

Blocked sewers, pipe failures, or mechanical malfunctions can cause SSOs. The following are specific actions to be performed by the response crews during an SSO.

1. Stop the overflow. If the failure is at a lift station, take the malfunctioning pump off line,

2. If necessary, call T&DS to secure the affected area and post warning signs. T&DS has barricades, cones, and fencing available to secure the site,

3. Contain the wastewater discharged to the maximum extent possible by utilizing spill containment devices,

4. Determine the location and cause of the overflow. Assessment will include a check of the lift station pumps and upstream and downstream manholes,

5. Implement appropriate corrective actions. This may include the use of vacuum trucks, emergency pumps, stand-by force main, emergency generators,

6. Clean and sanitize the affected area(s),

7. Finalize the documentation for the incident,

8. Review overall response with the Responding Parties, and

9. Sample as necessary. Any sampling performed will be coordinated with the Orange County Health Care Agency/Environmental Health Services. The sampling methodology needs to be consistent with the sampling requirements outlined in the RWQCB's Sewage Spill Reporting Guidance.

6.7 REGULATORY NOTIFICATION PROCEDURES

If a SSO occurred, it is required that certain regulatory agencies be contacted. The following reporting criteria explain when notifications should be sent, and the various forms that are required. Online regulatory notification procedures are administered by FM using the form in Appendix E, which FM will notify the EH&S department, so that the notifications can be reviewed and certified. EH&S will provide the other required reporting to the other agencies using the flow chart in Appendix D to determine the other agencies that require notification.

6.8 ORAL NOTIFICATION

Sewage spills greater than 1,000 gallons, all sewage spills that enter waters of the state, and spills that occur where public contact is likely, regardless of the size are reported to the following:

RWQCB – Santa Ana Region by telephone (951) 782-4130.
OC Health Care Agency (714) 433-6000
Irvine Ranch Water District (949) 453-5300
Department of Fish and Game Headquarters (916) 445-0411 After hours (916) 445-0045
Office of Emergency Services (800) 852-7550 (ability to notify all agencies)

6.9 WRITTEN REPORT

Certify to RWQCB within 24 hours that OES and local health officer notified.
Online report required within 3 days for a Category 1 SSO.
Online report required within 30 days after the end of the month for Category 2 SSO.

RWQCB (Santa Ana Region)
3737 Main Street, Suite 500
Riverside, CA 92501

6.10 ADDITIONAL EXTERNAL NOTIFICATION

The following agencies should also be notified when an overflow has occurred:

The Department of Fish and Game is notified if there is a spill to any waterway. The Department of Fish and Game will investigate the spill and make a determination if there are any deleterious effects of the spill.

California Department of Fish and Game (South Coast Region, Region 5)
3883 Ruffin Road
San Diego, CA 92123
858-467-4201

Any discharge of sewage into or onto a water way must be reported to OES:

Office of Emergency Services (OES)
800-852-7550 or 916-845-8911 (OES Warning Center)

6.11 OVERFLOW EMERGENCY RESPONSE PLAN UPDATE

OERP is reviewed on an annual basis by EH&S-ESP and FM. Interim changes are incorporated into the document by EH&S-ESP on an as needed basis.

Comments, updates, and other relevant information should be submitted to the EH&S-ESP for review, consideration, and incorporation into OERP.

7.0 FOG CONTROL PROGRAM

This FOG control program has been developed as part of the UC Irvine SSMP, and builds upon the on-going grease and oil source control program that UC Irvine has in place. 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

There are 21 grease traps or interceptors on the main campus. The locations of these grease traps or interceptors are shown on Figure 2-2 and are listed in Table 2-1. These systems are:

Location	Type
Middle Earth Pippins Commons	Interceptor and Trap
Brandywine	Trap
Mesa Commons	Interceptor and Trap
BC Cavern	Interceptor and Trap
Café Med	Interceptor and Trap
North Campus	Interceptor
Gateway Study Center	Trap
Student Center	Trap
Aramark's Catering Kitchen	Interceptor
Bene and Green's	Interceptor
The Pub	Interceptor
Quizno's	Interceptor
Rice Garden	Interceptor
Totilla Express	Interceptor
Wendy's	Interceptor
Starbuck's	Interceptor
Zot and Go	Interceptor

7.2 ELEMENTS OF FOG CONTROL PROGRAM

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

Table 7-1
FOG Control Program

FOG Control Measures	Responsible Party	POC	Telephone Number
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. The tasks include annual video inspections of the system. System maintenance includes both preventative maintenance and maintenance of parts of the system determined to be in need of cleaning during routine inspections. Preventative maintenance procedures are outlined in Table 4-1, Part D.	FM, Sr. Superintendent	Stephan Fedele & Jeff Crouch	949-824-5444
B. Installation of New Grease Traps or Interceptors			
Installation of a new grease trap or interceptor may be recommended base on inspection and maintenance of the system. Design and construction of any new food facility will include the installation of a grease trap or interceptor	FM, Sr. Superintendent	Stephan Fedele & Jeff Crouch	949-824-5444
Installations of new grease traps or interceptors will conform to the Uniform Plumbing Code design specifications. Design plans for new grease traps and interceptors will be reviewed by D&CS and FM.	Director, D&CS Assistant Vice-Chancellor, FM	Jim Brittel Allen Shiroma	949-824-6630 949-824-5444
C. Best Management Practices			
As stated earlier, BMPs are in place to prevent the introduction of grease and fats into the sanitary sewer and consist of training. Training occurs upon hiring by the kitchen manager • Kitchen staff are trained upon hiring on BMPs to ensure that they are implemented • Kitchen staff are trained upon hiring on bulk grease practices. Bulk grease is not washed into the sanitary sewer. Additionally, grease in pans is not washed down the drain. • Excess grease that is generated from grilling or frying is collected in a dedicated container with secondary containment. A grease rendering company disposes of the grease. • Grease traps are cleaned on a regular basis (e.g., weekly). • If a grease interceptor is not working properly, FM is contacted.	Housing and Food Facilities	Melissa Falkenstein Lin Tang	949-824-6814 949-824-1492

FOG Control Measures	Responsible Party	POC	Telephone Number
D. Record Keeping			
Grease Interceptors Invoice records for pumping of grease interceptors are kept by the Food Facility Managers. They are reviewed to ensure the contractor is maintaining the inspection schedule and pumping out the grease interceptors when necessary. ***Grease Traps*** The grease traps on campus are managed by Food Facility Managers. The managers will maintain a checklist indicating when the grease traps at the facilities were cleaned.	Food Facilities Managers	Lin Tang	949-824-1492
E. Inspection			
Grease Interceptors UC Irvine performs their own inspections to ensure proper maintenance of the grease interceptors. The interceptors are inspected quarterly and cleaned at least three times a year as needed.	FM, Sr. Superintendent	Stephan Fedele & Jeff Crouch	949-824-5444
Grease Traps The grease traps are inspected weekly. The food facility managers maintain a checklist indicating when the grease traps were inspected.	Food Facility Managers	Lin Tang	949-824-1492

8.0 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

The university is currently managing a large-scale 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

As part of its plan to ensure adequate infrastructure capacity to support the expected increase in population over the next several years, UC Irvine executed a comprehensive infrastructure evaluation in 2003 (Tetra Tech, Inc. 2003). The evaluation consisted of: review of the Existing Sewer System, flow model & evaluation criteria, model calibration & results; Analysis of Future System Capacity; Recommended System Improvements; Proposed Monitoring Plan; and University Hills Housings Impact on the Main Sewer System. The following improvements are recommended and categorized under five improvement priorities as detailed in the Tetra Tech report:

- Priority 1: Improve the reaches that are either full or have a major deficiency at peak flow at present time, which is comprised of approximately 515 lineal feet of 18" and 33" diameter pipe.
- Priority 2: Improvement of 135 lineal feet of sewer pipe to 18" diameter pipe.
- Priority 3: Improve 245 lineal feet of sewer pipe to 18" diameter pipe.
- Priority 4: Improvement of approximately 1500 lineal feet of sewer pipe to 15" to 27" diameter pipe.
- Priority 5: Improve overall main sewer lines when it reaches the end useful life, or as necessary.

8.2 DESIGN CRITERIA

Undertake the evaluation identified in the system evaluation above to establish appropriate design criteria.

8.3 CAPACITY (PROPOSED) MONITORING PLAN

Based on the systems evaluation, the recommended priorities will require comprehensive planning, design, and construction to address. UC Irvine has adapted the findings of the assessment and will implement the proposed monitoring plan, and is as follows:

- Complete priority 1 improvements as soon as possible.
- Visually inspect priority 2 & 3 reaches every 3 months.
- All reaches recommended for improvement should be visually inspected on an annual basis.

8.4 SCHEDULE

Due to the State's budget crisis, there are no current plans to conduct any upgrades to the sanitary sewer system until the budget climate improves. At that time, UC Irvine will develop a phased approach on the capital improvement plans, and will be updated annually thereafter to coincide with the WSCMP updates.

9.0 MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

The WWG will monitor the effectiveness and implementation of the SSMP by reporting updates to the group through meetings, conference calls, or by email. This communication will allow the WWG to gauge how well the SSMP is working and being executed on campus. Each element of the SSMP will be reviewed by the WWG biennially in order to evaluate if all elements of the SSMP are effective and are being implemented. Program elements will be updated, as appropriate, based up on monitoring or performance evaluation. The plan will be available for audit at all times.

10.0 SSMP PROGRAM AUDITS

The WWG will assess the effectiveness of the SSMP by conducting periodic internal audits. These audits will occur biennially at a minimum. EH&S will conduct the audits. Through this review, the WWG 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 Plan will be posted on the UC Irvine EH&S website for the campus community to review and comment on.

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 Irvine will communicate with interested parties regarding implementation and performance of the SSMP. Interested parties include:

- RWQCB
- Irvine Ranch Water District
- Orange County Health Care Agency

12.0 BIBLIOGRAPHY

California Water Code of Regulations, Division 7. Porter-Cologne Water Quality Control Act. January 1, 2006. http://www.swrcb.ca.gov/water_laws/docs/portercologne.pdf

Environmental Protection Agency
2002 Clean Water Act. November 27, 2002. http://www.epa.gov/r5water/cwa.htm#Links

State Water Resources Control Board
2006 Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.. May 2, 2006.
http://www.swrcb.ca.gov/resdec/wqorders/2006/wqo/wqo2006_0003.pdf

Tetra-Tech
2003 Sanitary Sewer System Evaluation, Final Report. October 20, 2003.

APPENDICES

APPENDIX A – WASTE DISCHARGE REQUIREMENTS (WDR)

APPENDIX B – SSMP BIENNIAL CHECKLIST

APPENDIX B
BIENNIAL CHECKLIST FOR IMPLEMENTATION OF SSMP

SITE: **DATE:**

Proposed Attendees:

Biennial review of the SSMP is conducted through the WWG, which consists of the representatives from the following departments:

- Design and Construction Services;
- Environmental Health and Safety;
- Facilities Management;
- Food Facilities; and
- Housing.

Agenda:

The SSMP consists of eleven sections that are listed below. Members should each have a copy of the SSMP and use the following checklist to evaluate if the plan is up-to-date, and evaluate the effectiveness and implementation of the SSMP.

I.	Goals	Meets	Needs Revisions	Complete
	The goal of the SSMP is to prevent overflows and to provide a plan and schedule for implementation of measures to prevent overflows. This annual review is to assess the effectiveness of the plan	θ	θ	θ

II.	Organization	Meets	Needs Revisions	Complete
	Review Figure 2-1 for any changes regarding the administrative and maintenance organization of departments responsible for the sanitary sewer.	θ	θ	θ
	Review description of sanitary sewer (Section 2.4). Has there been any addition or changes to the system?	θ	θ	θ

III.	Legal Authority	Meets	Needs Revisions	Complete
	Review Section III of the SSMP to ensure elements are current and update as necessary.	θ	θ	θ

IV.	Measures and Activities	Meets	Needs Revisions	Complete

The elements of the measures and activities portion of the SSMP is implemented by EH&S, Housing, FM, Food Facilities, Design and Construction Services, and University Hills. The elements are specified in Table 4-1 in the SSMP. In order to ensure the Measures and Activities are being implemented, address the following questions, which reference Table 4-1 in the SSMP.

Part A	Is the information up-to-date?	θ	θ	θ
Part B	Are the maps of the sanitary sewer up-to-date?	θ	θ	θ
	Is the required information shown on the maps?	θ	θ	θ
Part C	Were records regarding the frequency of flow and volume of overflows maintained?	θ	θ	θ
Part D	Are records (such as work orders) available to indicate that the routine inspections and maintenance activities specified in Table 4-1 were completed?	θ	θ	θ
Part E	Do any structural deficiencies exist within the system that is not yet being addressed in the short or long term planning?	θ	θ	θ
Part F	Are there records of yearly training events conducted by EH&S (for exposure control) and FM (for technical training regarding response to sewer spills)?	θ	θ	θ
Part G	Is there a list of "critical items" that must always be in stock?	θ	θ	θ
	Is the status of the inventory up-to-date?	θ	θ	θ
Part H	Is an up-to-date copy of the SSMP on the UC Irvine Website?	θ	θ	θ
	Have all members of the email distribution list been contacted regarding the status of the SSMP?	θ	θ	θ
Part I	Were there any overflows to private property in the last year?	θ	θ	θ
	Did the plan facilitate a satisfactory response?	θ	θ	θ
Part J	The requirements of this section are reviewed in Section 8.	θ	θ	θ
Part K	Were there adequate fiscal resources for operation of the system changed in the past year?	θ	θ	θ
Part L	Have there been any changes in the organizational structure?	θ	θ	θ
	Has there been additional staff members hired to operate and maintain the system?	θ	θ	θ

V.	**Design and Performance Provisions**	Meets	Needs Revisions	Complete
	Review design and construction standards and specifications; update as necessary.	θ	θ	θ

VI. Monitoring, Measurement, and Plan Modifications

Requirements of this section are being met through the annual review by the SSMP.

VII.	**Overflow Emergency Response Plan**	Meets	Needs Revisions	Complete

The elements of the OERP are implemented by FM, EH&S, T&DS. The OERP is included in Appendix E of the SSMP. Review for any updates. Additionally, address the following questions, which address requirements specified in the general permit:

Part A	Were the SSOs responded to in a timely manner	θ	θ	θ
Part B	Were SSOs responded to by appropriate staff?	θ	θ	θ
	Were appropriate actions implemented to contain overflow?	θ	θ	θ
Part C	If there was a SSO, were the appropriate agencies contacted?	θ	θ	θ
Part D	Are records available for training events that were conducted by EH&S and FM?	θ	θ	θ
Part E	If a SSO event required traffic and crowd control, was response by T&DS or the Orange County satisfactory?	θ	θ	θ
Part F	During a SSO event, were the appropriate materials available for spill response?	θ	θ	θ
Part G	If contractors were required to respond to a SSO, was the response satisfactory?	θ	θ	θ
Part H	Were SSOs responded to within a half hour from the first call?	θ	θ	θ
Part I	Were there any issues with the functioning of the alarm system in the last year?	θ	θ	θ

VIII. FOG Control Program	Meets	Needs Revisions	Complete

The elements of the Food, Oil, and Grease Control Program are implemented by following the guidelines stipulated by the IRWD. The elements of the FOG Control Program are summarized in Table 8-1 in the SSMP. In order to ensure the FOG Control Program is being implemented, address the following questions which reference Table 8-1 in the SSMP.

Part A	No Action necessary (elements reviewed in Section 4).	θ	θ	θ
Part B	If new grease traps or interceptors were installed, were their locations added to the maps?	θ	θ	θ
Part C	Were BMPs implemented effectively?	θ	θ	θ
	Are additional BMPs needed?	θ	θ	θ
Part D	Were the necessary records (invoices and checklists) maintained?	θ	θ	θ
Part E	Are the inspection and cleanout schedules accurate?	θ	θ	θ
	Are the records available for review?	θ	θ	θ

IX. System Evaluation and Capacity Assurance Plan	Meets	Needs Revisions	Complete

UC Irvine is implementing an infrastructure renewal project. The project included an evaluation of the current capacity of the sanitary sewer system and established short and long-term capital improvement programs.

Has there been any significant change in proposed actions or implementation schedules in the last year? If so, update plan accordingly. Updates should include available information on the performance of measures that have been implemented.	θ	θ	θ

X.	SSMP Program Audits	Meets	Needs Revisions	Complete

This section is being met with this checklist.

XI.	Time Schedule/Communication	Meets	Needs Revisions	Complete

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

The SSMP will be updated every five (5) years to describe any significant changes in proposed actions or implementation schedules. In order to recertify the Plan, UC Irvine will enter the data in the Online SSO Database and mail the form to the State Water Board at:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
P.O. Box 100
Sacramento, CA 95812

The update will include available information on the performance of measures that have been implemented. UC Irvine will communicate the changes and/or updates with interested parties, such as the RWQCB, IRWD, and the Orange County Health Care Agency, on implementation and performance of the SSMP

Has there been any significant change in proposed actions or implementation schedules in the last year? If so, update plan accordingly. Updates should include available information on the performance of measures that have been implemented.	θ	θ	θ

END OF CHECKLIST

APPENDIX C – OVERFLOW EMERGENCY RESPONSE PLAN

UNIVERSITY CALIFORNIA, IRVINE

Overflow Emergency Response Plan

TABLE OF CONTENTS

1.0 OBJECTIVE AND PURPOSE

The Overflow Emergency Response Plan (OERP) is developed as part of the UC Irvine SSMP. The purpose of the plan is to establish guidelines and measures to protect public health and the environment in case of an accidental overflow.

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

All utility personnel should be required to read the OERP and familiarize themselves with the procedures. The OERP should be kept in an easily available location for all utility personnel and public access reference.

2.0 ROLES AND RESPONSIBILITIES

The departments of Environmental Health and Safety – Environmental Sanitation Program (EH&S-ESP), Facilities Management (FM), and Parking and Transportation Services (T&DS) are the campus entities responsible for implementing the OERP. The responsibilities of the departments are specified below.

2.1 ENVIRONMENTAL HEALTH AND SAFETY – ENVIRONMENTAL SANITATION PROGRAM (EH&S-ESP)

EH&S-ESP is responsible for:

a) External agency notification;
b) Exposure/hazard assessment & control;
c) Ensure online reporting documents are submitted within the allotted time frame; and
d) Interface with external regulatory agencies.

2.2 FACILITIES MANAGEMENT (FM)

FM is responsible for:

a) Acting as first responder;
b) Providing and coordinating the operational aspects of the emergency in order to control and mitigate the overflow; and
c) Establish preventative measures in order to minimize future accidental releases.

2.3 TRANSPORTATION & DISTRIBUTION SERVICES (T&DS)

T&DS is responsible for site security, traffic, and crowd control measures on an as needed basis.

3.0 OVERFLOW RESPONSE PLAN

The OERP presents a strategy for UC Irvine to respond to potential overflows with appropriate personnel, materials, tools and equipment. An appropriate response will help to correct or repair any condition, which may cause or contribute to an un-permitted discharge from the sanitary sewer.

3.1 RECEIPT OF INFORMATION REGARDING AN OVERFLOW

Overflows are typically detected and reported in one of three ways:

1. By FM personnel during daily routines – FM personnel who discover a potential overflow during their daily operations are responsible for immediately notifying the proper supervisor and taking appropriate measures.

2. By the public – Members of the university community who observe a sanitary sewer overflow (SSO) may also call the campus emergency dispatch phone line at 949-824-5444. Section 3.2 details dispatch responsibilities.

Emergency response is available 24 hours per day, every day.

3.2 DISPATCH RESPONSIBILITY

Campus dispatch immediately notifies the designated campus first responder for SSOs, who is a member of the FM staff.

When the dispatch personnel receive calls from the public, they will obtain all relevant information available regarding the possible overflow including:

1. Time and date the call was received,

2. Specific location of possible overflow,

3. Description of the problem, and

4. Caller's name and call back phone number.

3.3 FIRST RESPONDER ASSESSMENT OF OVERFLOW

The failure of any element of the sanitary sewer system that threatens to cause or causes a SSO will be responded to by the FM first responder. The first responder's responsibility is to trigger isolate and correct the problem.

The first responder will:

1. Assess the failure of equipment or overflow release,

2. Call for assistance (if needed) including additional personnel, materials, supplies, and equipment. If the spill is larger than they can adequately respond to, and outside contractor will be called,

3. Use appropriate Personnel Protective Equipment,

4. Use appropriate safety precautionary measures, including Lockout/Tagout protocol,

5. Obtain necessary equipment to respond to spill. FM maintains a supply of materials to mitigate spills. Available equipment includes sand bags, by-pass pumps, hoses, emergency generators, and heavy equipment.

6. Assess if the overflow occurred onto private property, and

7. Coordinate with Spill Response if there is a suspicious substance (e.g., oil sheen, foam) to be found on the ground surface. Additionally, if there is a suspicious odor (e.g., gasoline) not common to the sewer system, Spill Response should be contacted.

Internal Notification Procedures

Based on the professional judgment of the FM staff, other party (ies) is notified.

Internal contact phone numbers:

EH&S
7:30 am to 4:30 pm, Monday – Friday: 949-824-6200
After hours: Non-Emergency Dispatch: 949-824-5444, Emergency 949-824-5224

FM
8:00 am to 5:00 pm, Monday – Friday: 949-824-5444
After hours: Dispatch (non-emergency) 949-824-5444

T&DS
8:00 am to 5:00 pm, Monday – Friday: 949-824-7486
After hours: Dispatch (non-emergency) 949-824-5444

3.4 OVERFLOW CORRECTION, CONTAINMENT, AND CLEANUP

Blocked sewers, pipe failures, or mechanical malfunctions can cause SSOs. The following are specific actions to be performed by the response crews during an SSO.

1. Stop the overflow. If the failure is at a lift station, take the malfunctioning pump off line;

2. If necessary, call T&DS to secure the affected area and post warning signs. T&DS has barricades, cones, and fencing available to secure the site:

3. Contain the wastewater discharged to the maximum extent possible by utilizing spill containment devices;

4. Determine the location and cause of the overflow. Assessment will include a check of the lift station pumps and upstream and downstream manholes;

5. Implement appropriate corrective actions. This may include the use of vacuum trucks, emergency pumps, stand-by force main, emergency generators;

6. Clean and sanitize the affected areas;

7. Finalize the documentation for the incident;

8. Review overall response with the Responding Parties; and

9. Sample as necessary. Any sampling performed will be coordinated with the OC Health Care Agency. The sampling methodology needs to be consistent with the sampling requirements outlined in the RWQCBs Sewage Spill Reporting Guidance.

4.0 REGULATORY NOTIFICATION PROCEDURES

If a SSO occurred, it is required that certain regulatory agencies be contacted. The following reporting criteria explain when notifications should be sent, and the various forms that are required. Online regulatory notification procedures are administered by FM, which FM will notify the EH&S department that the notifications were completed. EH&S will provide the other required reporting to the other agencies.

4.1 NOTIFICATION LIST

Agency/ Official	Agency Contact	Reason(s) to Notify	When to Notify
UCI EH&S	949-824-6200	Any sewage spill	Immediately
California Office of Emergency Services (OES)	800-852-7550 Or 916-845-8911	Sewage spill greater than 1,000 gallons	Within 2 hours of detection
		Sewage spill occurred where public contact is likely	
		Sewage spill entered state waters/ waterways	
California Department of Fish and Wildlife	916-445-0411 After hours 916-445-0045	Sewage spill entered waterway(s)	As soon as practicable
Regional Water Quality Control Board	951-782-4130	Violation of discharge prohibition	As soon as practicable
Irvine Ranch Water District	949-453-5300	Violation of discharge prohibition	As soon as practicable
Orange County Health Care Agency	714-433-6000	Violation of discharge prohibition	As soon as practicable

4.2 WATER QUALITY MONITORING REQUIREMENTS AND SAMPLING PROTOCOL

The SSO Water Quality Monitoring Program is meant to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled into surface waters.

- Utilize SSO Sampling Protocol shown below*

- When sampling account for spill travel time in the surface water.
- All samples being tested for indicators are to be analyzed in an accredited or certified laboratory.
- When analyzing samples, only use monitoring instruments and devices that have been properly maintained and calibrated.
- Within 48 hours of the enrollee becoming aware of the SSO, water quality sampling must, at a minimum, test for ammonia and appropriate bacterial indicators.

For SSOs that reach surface waters, monitoring and testing activities may include:

- Obtaining water quality samples.
- Gathering samples upstream and downstream of any location where SSO reached surface water.
- Logging the sample location, time, and water temperature on the chain of custody form.
- Creating a map of the sample locations so that follow-up testing can be performed.
- Collecting samples at the location where the SSO entered the water. When taking the sample, submerge the bottle below the surface of the water with the cap on. Once the bottle is under the surface, remove the cap and fill the bottle. Gloves should be worn while sampling to avoid infecting any open wounds.
- Analyzing the sample for at least the following constituents:
    - Ammonia Nitrogen;
    - Biochemical Oxygen Demand (BOD);
    - Dissolved Oxygen (DO);
    - Enterococci, Total Fecal Coliform;
    - Total Suspended Solids (TSS); and
    - Additional sampling requirements as imposed by the SDRWQCB (could include VSS, pH, turbidity, Oil & Grease, etc.)

5.0 TRAINING REQUIREMENTS

EH&S-ESP is responsible for providing exposure control training for FM staff. FM is responsible for providing technical training for FM staff responding to sewer spills.

The OERP will be distributed to designated staff members of the departments as indicated below:

- EH&S-ESP: TBD
- FM: TBD
- T&DS: Ron Fleming, Director

6.0 OVERFLOW EMERGENCY RESPONSE PLAN UPDATE

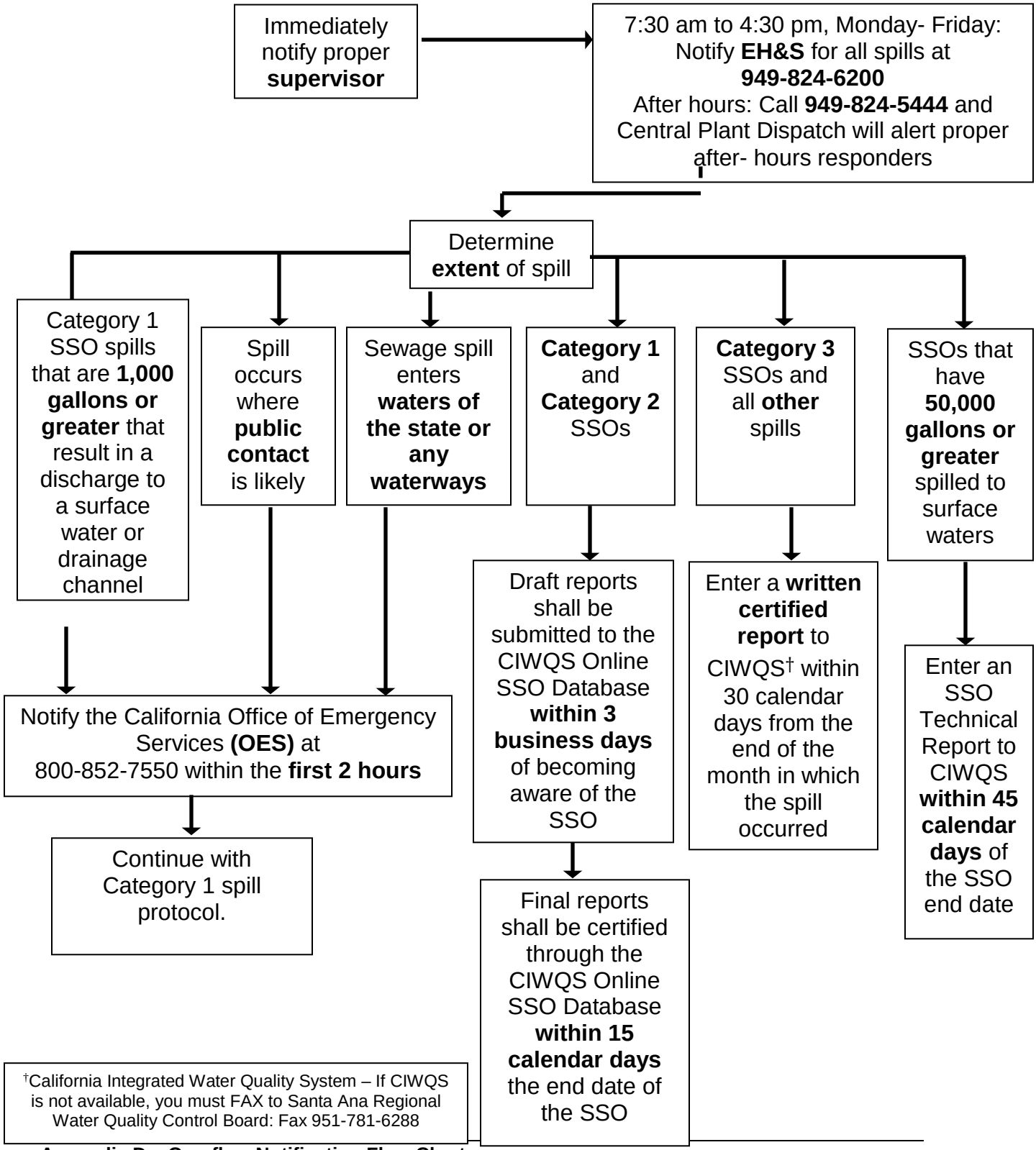
OERP is reviewed on an annual basis by EH&S-ESP and FM. Interim changes are incorporated into the document by EH&S-ESP on an as needed basis.

Comments, updates, and other relevant information should be submitted to the EH&S-ESP for review, consideration, and incorporation into the OERP.

APPENDIX D – OVERFLOW NOTIFICATION FLOW CHART

Overflow Notification Procedures

When an overflow is detected:



†California Integrated Water Quality System – If CIWQS is not available, you must FAX to Santa Ana Regional Water Quality Control Board: Fax 951-781-6288

SSO Category Definitions

Category 1- Discharges untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that:

a. Reach surface water and/ or reach a drainage channel tributary to a surface water; or
b. Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

Category 2- Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from an enrollee's sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.

Category 3- All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

APPENDIX E – UC IRVINE PLUMBING DEPARTMENT SEWAGE SPILL REPORTING FORM

UC Irvine Plumbing Department
SEWAGE SPILL REPORTING FORM

Section 1: check **all** of the appropriate boxes from the following

1. ☐ There are **no** sewage spill(s) to report for the month of _____ 20_
   Check the above box; enter the month and year covered. Then, send this report to Kirk Matin (kmatin@uci.edu) is a report of a sewage spill that has or can be expected to leave campus property
   a. Notify Kirk Matin (949-824-4578) of EH&S **immediately**. Immediate reporting to County Environmental Health and/or OES may be required. EH&S is responsible for regulatory reporting.
3. ☐ This is a report of a spill of **1000 gallons or more**
   a. **Complete section 2** and provide to Kirk Matin (kmatin@uci.edu) of EH&S within **2 business days**. Then,
   b. **Complete section 3** and provide to Kirk Matin (kmatin@uci.edu) of EH&S within **12 days** of concluding the spill response.
4. ☐ This is a report of a spill of **less than 1000 gallons**
   a. **Complete section 2** and forward to Kirk Matin (kmatin@uci.edu) of EH&S no later than the **15th day** of the following month.

Section 2: Complete all of the following

Date of Overflow: _____
Time Overflow Discovered: _____
Operator Arrival Time: _____
Time Overflow Stopped: _____
Overflow Location Description including "source", i.e. Manhole, Clean-out, etc.: _____
_____
Overflow Location GPS Coordinates: _____
Volume of Overflow (gallons): _____
Path of Overflow (Destination/ Areas Affected): _____
Did overflow enter drainage channel or surface water? _____
Did overflow enter storm drain? If so, was the entire overflow captured? _____
_____
Cause of Overflow (grease, roots, vandalism, pump station failure, etc.): _____
_____
_____

Section 3:

Volume that reached Drainage channel or surface water: _____
Volume that was not recovered from storm drain: _____
Estimated volume recovered: _____
Actions taken to stop overflow: _____
_____
_____
_____

Description of clean-up and immediate corrective actions taken: _____
_____
_____
_____
Time Cleanup Began: _____
Time Cleanup Complete: _____
Were Public Health Warnings Posted? If yes, where? _____
Number of Overflows in same location in last three years: _____
Discussion of Measures taken to prevent Overflows at this location. Include a schedule for major milestones:
_____
_____
_____
_____
_____
Were samples taken? If yes, coordinate additional information with EH&S: _____