UC Riverside Sewer System Management Plan

May 2019

UC Riverside
Environmental Health & Safety
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1.0 Purpose and Goals

This Sanitary Sewer Management Plan (SSMP) has been developed by the University of California, Riverside (UC Riverside) to comply with State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems adopted on May 2, 2006 (copy attached hereto as Appendix A). Order 2006-0003-DWQ requires Enrollees to develop and implement a system-specific SSMP including provisions to:

- Provide proper and efficient management, operation, and maintenance of the sanitary sewer system, while taking into consideration risk management and cost benefit analysis
- Establish standard procedures for immediate response to a sewer system overflow (SSO) in a manner designed to minimize water quality impacts and potential nuisance conditions

The SWRCB regulates 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).

On August 6, 2013 the SWRCB adopted Order No. WQ 2013-0058-EXEC, Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems which became effective on September 9, 2013 (copy attached hereto as Appendix B). The SWRCB developed this Order to amend the monitoring and reporting requirements provided in WDR Order No. 2006-0003 DWQ. This SSMP incorporates the amended monitoring and reporting requirements contained in Order No. WQ 2013-0058-EXEC.

1.1. Sanitary Sewer System Description

The UC Riverside campus is one of 10 University of California campuses governed by the Regents of the University of California, an internationally recognized public research and teaching institution. The 2017-2018 campus population, which included students, faculty, researchers, staff, and visitors, was approximately 33,000.

The sanitary sewer system at UC Riverside has been in use since 1954 and comprises over 80,000 linear feet of collection pipe ranging from 4 to 15 inches in diameter. 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.

The campus sanitary sewer is served by three major arteries: a 15-inch main located in North Campus Drive, an 8-inch main located in Canyon Crest Drive serving the North District, and an 8-inch main branching out from the 15-inch main and serving the heart of the campus. There is an additional 8-inch sewer line that also branches out from the 15-inch main and serves some areas adjacent to West Campus Drive. Several lateral pipes branching out from the main lines serve various parts of the campus. Although North Campus Drive is part of the campus, the underlying 15-inch sewer is owned by the City of Riverside. The 15-inch line serves as an interceptor for the whole campus and also receives sewage effluent from the residential neighborhood upstream of the campus. The 8-inch main along Canyon Crest Drive is also owned by the city. The remaining pipes serving the campus are owned and maintained by the University.

There are nine grease interceptors and one clarifier located on the main campus. Table 2-1 summarizes the grease interceptor locations and capacities, and the departments responsible for their maintenance. The only other food service facilities on the main campus are Sub Station and Getaway Cafe, which currently do not have grease interceptors. The University Extension food court is managed by an outside contractor, and both Sub Station and Getaway Cafe are leased to private parties.

Table 2-1 - Grease Interceptors

Location		Capacity and Type	Location Address	Responsible Organization
1.	Highlander Union Building (HUB) Main Kitchen	10,000 gallon grease interceptor	North Campus Dr, Campus Map Bldg #191	Facilities Services
2.	Lothian Residential Restaurant	7,000 gallon grease interceptor	500 W Big Springs Rd, Campus Map Bldg #502	Facilities Services
3.	The Habit Burger Grill at Latitude Fifty-Five	2,500 gallon grease interceptor	North Campus Dr, Campus Map Bldg #191	Facilities Services
4.	The Barn	1,500 gallon grease interceptor	West Campus Dr, Campus Map Bldg #358	Facilities Services
5.	Alumni & Visitor Center Dining	1,500 gallon grease interceptor	3701 Canyon Crest Dr, Campus Map Bldg 379	Facilities Services
6.	Scotty's	1,500 gallon grease interceptor	2 Pentland Way, Campus Map Bldg #470	Facilities Services
7.	University Extension Food Court	1,000 gallon grease interceptor	1200 University Ave, Campus Map Bldg #722	UNEX
8.	Corporation Yard, Fleet Services	1,000 gallon clarifier	3401 Watkins Dr, Campus Map Bldg 487	Fleet Services
9.	The Market at Glen Mor	1,500 gallon grease interceptor	400 W Big Springs Rd, Campus Map Bldg #487	Facilities Services
10.	Emerbee's	1,200 gallon grease interceptor	Aberdeen Dr, 33.976614, -117.327959	Facilities Services

1.2. Goal

The goal of the SSMP is 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 sanitary sewer overflows (SSOs), as well as mitigate any SSOs that occur.

1.3. Specific Goals

UCR has identified specific goals that it intends to achieve through implementation of this Plan:

- Effectively plan system expansion to meet the capacity needs of the campus
- Eliminate or minimize preventable SSOs
- Minimize and mitigate the adverse impacts of SSOs that may occur
- Meet all applicable regulatory notification and reporting requirements

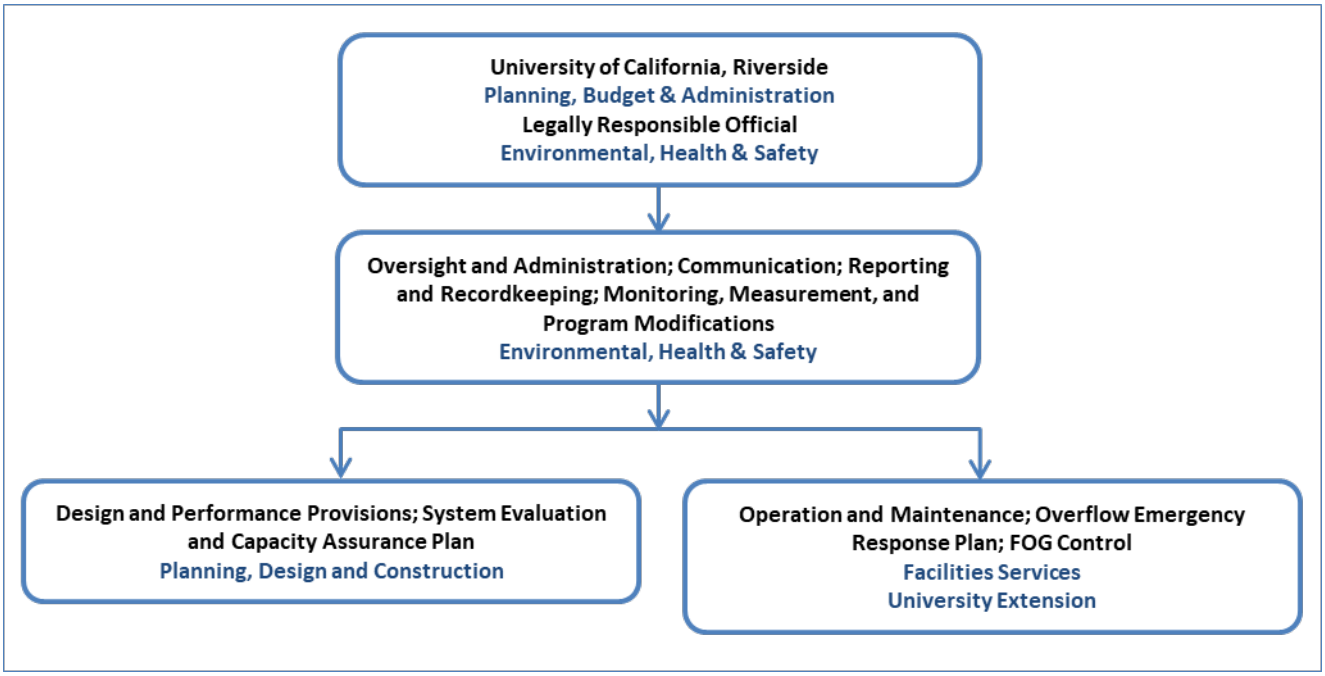
2.0 Organization

2.1. Management, Administration and Maintenance Organization

Management, administration and maintenance responsibility for the UC Riverside sanitary sewer system is shared among several organizations including Environmental Health & Safety, Facilities Services, Planning, Design, and Construction; Highlander Union Building, and University Extension. An organizational chart is included as Figure 3-1.

The responsibilities of each department are summarized below, and the names and telephone numbers of responsible staff for each SSMP element are included at Table 6-1.

Figure 3-1 Management, Administration and Maintenance Responsibilities



2.1.1. Environmental Health & Safety

The Executive Director of Environmental Health & Safety is the designated Legally Responsible Official for the UC Riverside sanitary sewer system, The Executive reports directly to the Vice Chancellor of Planning, Budget and Administration. The Executive Director is registered with SWRCB CIWQS, as well as Amanda Grey, Environmental Programs Manager.

Environmental Health & Safety is responsible for oversight and administration of the sanitary sewer system management plan; reporting to regulatory agencies and recordkeeping; monitoring, measurement, and program modifications, SSMP program audits, and communication.

2.1.2.Planning, Design, and Construction

Planning, Design, and Construction is responsible for the planning and management of design and construction of additions, rehabilitations, or modifications to the sanitary sewer system.

2.1.3.Facilities Services

Facilities Services is responsible for the overall operation and maintenance of the system including oversight of any repair or maintenance contractors; overflow emergency response; and fats, oil, and grease (FOG) control.

2.1.4.University Extension

The University Extension is responsible for the maintenance of those sections of the sanitary sewer system and grease interceptor at the University Extension location.

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 University operations. Under this authority, the UC Riverside has legal authority to:

- Prevent illicit discharges into its system, including control of inflow and infiltration sources such as storm water, chemical dumping, or debris
- Require that sewers and connections be properly designed and constructed
- Ensure access for maintenance, inspection, or repairs of all portions of the owned or maintained by the University
- Limit the discharge of fats, oils and grease and other debris that may cause blockages
- Ensure proper installation, testing, and inspection of new or rehabilitated collector sewers, and new or rehabilitated laterals

4.0 Operation and Maintenance Program

The SSMP establishes Operation and Maintenance Program plans and activities to facilitate the proper management, operation, and maintenance of all parts of the sanitary sewer system to reduce and prevent SSOs. The SSMP is required to include the following Operation and Maintenance Program elements:

(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities;

(b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

(c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;

(d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

The Operations and Maintenance Program is detailed at Table 4-1 – Operation and Maintenance Program Elements. Table 4-1 includes a description of activities associated with each element, and the responsible organization.

Table 4-1 - Operation and Maintenance Program Elements

Operation and Maintenance Program Element	Activities and Responsible Organization
Overall management, operation and maintenance of the sanitary sewer system.	Management, operation and maintenance of the entire UC Riverside sanitary sewer system is the responsibility of the UC Riverside Facilities Services department. The department is also the initial responder to SSOs.
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.	Maps of the portion of the sewer system serving the main campus is in AutoCAD format. The map shows line size and material type. The map also has partial details regarding manholes including name of manhole, invert elevation, and ring elevation. Sewer system maps of Faculty Housing, the Child Development Center, A&I, Lothian, and Pentland Hills Residence Halls are in hard copy format. The process and procedures for maintaining the sanitary sewer system maps are integrated into work processes of Facilities Services, and Planning, Design and Construction.
Routine preventative operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas.	UC Riverside has measures in place to keep the system in good repair and prevent infiltration/ inflow, service interruptions, and system failures. These measures include regular scheduled inspection, maintenance, and cleaning of the collection system as summarized below: ***Routine Inspections:*** • Manholes: Scheduled weekly inspections target specific manholes, rotating through all the manholes on campus at least once each year. If there are any reported or identified problems in the area surrounding a specific manhole, they are addressed on a case by case basis. • Overall system: Each year all system lines > 8-inch are camera inspected and maintained by hydro-jetting. Where accessible, 6-inch lines are also camera inspected. ***Routine Maintenance:*** • Root control: Maintenance for root intrusion is conducted where needed based on results of routine inspections. • Overall System: At least once each year portions of the system are cleaned using a hydro-jet or

Operation and Maintenance Program Element	Activities and Responsible Organization
	vacuum in targeted areas selected according to information obtained through routine inspections. • All grease interceptors are pumped before reaching 25% total occupied capacity. ***Grease Interceptor Self-Inspection Training:*** Grease Interceptor Self-Inspection Training has been developed in collaboration with the City of Riverside Sewerage System Division Environmental Compliance Section to ensure grease interceptors are pumped at appropriate frequencies.
Develop a Rehabilitation and Replacement Plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency.	A campus-wide approach to sanitary sewer infrastructure analysis allows the University to comprehensively review the sewer system to determine areas for recommended improvements and upgrades. The most recent capacity analysis and evaluation was completed as part of the campus 2016 Physical Master Plan Study. This evaluation of the system included the addition of future buildings to estimate anticipated flow rates, and identify strategic priorities and specific recommendations for removal, replacement, and relocation in order to adequately serve existing buildings and as well as future developments in the core campus.
Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained.	Facilities Services provides annual training for staff responsible for overflow emergency response, and technical training to staff when new sewer lines or other appurtenances are installed.
Provide equipment and replacement parts inventories, including identification of critical replacement parts.	A stock room of parts and equipment, including emergency pumps, lights, and generators is maintained. Repairs that require equipment or materials beyond existing capabilities are completed by outside contractor via a service agreement contract.

5.0 Design and Performance Provisions

Planning, Design, and Construction, and Facilities Services are responsible for ensuring that design and performance standards are implemented on campus. There are two categories of design and performance provisions specified in WDR No. 2006-0003-DWQ, discussed below.

5.1. Standards for Installation, Rehabilitation and Repair

Planning, Design, and Construction current design and construction standards include construction specifications for installing new sewer systems, pump stations, and other appurtenances; and for rehabilitation and repair of existing sewer systems. These design and construction standards 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 must adhere to these design and construction standards.

5.2. Standards for Inspection and Testing of New and Rehabilitated Facilities

Planning, Design, and Construction requires established standards for inspection and testing of new or rehabilitated facilities to ensure that facilities are built to construction specifications and to detect construction defects or other issues prior to final approval and acceptance. 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 video inspection to identify grade variations or other construction defects.

6.0 Overflow Emergency Response Plan

6.1. Purpose

The purpose of the Overflow Emergency Response Plan (OERP) is to identify measures to protect public health and the environment in case of a sanitary sewer overflow. The OERP includes the following:

(a) Proper notification procedures so that the initial responders and regulatory agencies are informed of all SSOs in a timely manner;

(b) A program to ensure an appropriate response to all overflows;

(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;

(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;

(e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and

(f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

6.2. OERP Roles and Responsibilities

Facilities Services, Environmental Health & Safety, and Transportation & Parking Services (TAPS) are responsible for implementing the OERP.

6.2.1. Facilities Services

Facilities Services is responsible for:

- Acting as initial responder to SSOs
- Managing and conducting operational aspects of the overflow response to immediately assess the SSO, determine the appropriate response, and take appropriate action to control, contain, and cleanup the SSO
- Identifying and implementing preventive measures to prevent recurrence

6.2.2. Environment Health & Safety

Environmental Health & Safety is responsible for:

- Exposure/hazard assessment & control
- Monitoring, measurement, and modification of program elements in the SSMP
- Preparation and recordkeeping of regulatory related documents
- External agency notification
- Interface with regulatory agency staff

6.2.3. Transportation & Parking Services (TAPS)

TAPS support is not normally needed during a typical SSO response. Facilities Services or Environmental Health & Safety may call upon TAPS to provide services only under circumstances and conditions where additional equipment and assistance is needed to ensure public health and safety. When called upon by or Environmental Health & Safety, TAPS is responsible for providing personnel and equipment such as cones, barricades, and signage to establish:

- Site security
- Traffic control
- Crowd control

6.3. OERP Contacts

Contact information for all persons responsible for implementing the OERP, and all other elements of this SSMP is listed at Table 6-1.

Table 6-1 Contact Information for Persons Responsible for the SSMP

SSMP Element	Responsible Party (Position)	Responsible Party (Name)	Phone Number	Email Address
1 - Goals 2 - Organization 3 - Legal Authority 9 - Monitoring, Measurement, and Program	Executive Director, EH&S	Sheila Hedayati	(951) 827-5119	sheila.hedayati@ucr.edu
	Environmental Programs Manager	Amanda Grey	(951) 827-2416	amanda.grey@ucr.edu

SSMP Element	Responsible Party (Position)	Responsible Party (Name)	Phone Number	Email Address
Modifications 10 - SSMP Program Audits 11 - Communication Change Log				
5 - Design & Performance Provisions 8 - System Evaluation and Capacity Assurance Plan	Senior Project Manager	Gerald Caraig	(951) 827-2432	gerald.caraig@ucr.edu
4 - O&M Program 7 - FOG Control Plan	Executive Director of Facilities Services	Susan Marshburn	(951) 827-3340	susan.marshburn@ucr.edu
	Director of Maintenance Services	Ron Rector	(951) 827-3332	ron.rector@ucr.edu
	Assistant Director of Maintenance Services	Chris Pillen	(951) 827-7932	christopher.pillen@ucr.edu
	Plumbing Shop Supervisor	Steve Burleson	(951) 827-7696	steve.burleson@ucr.edu
	HVAC/R & Food Services Supervisor	Ken Grombacher	(951) 827-4370	kenneth.grombacher@ucr.edu
	Maintenance Supervisor, Evening Shift and HUB	Manny Sanchez	(951) 827-3611	manny.sanchez@ucr.edu
	Maintenance Supervisor, Housing Facilities Services	John Peraino	(951) 827-2121	john.peraino@ucr.edu
	Housing Zone Maintenance Supervisor, Housing Facilities Services	Trenton Mabee	(951) 827-4943	trenton.mabee@ucr.edu
	General Manager, Special Projects, Dining Services	Gustavo Plascencia	(951) 827-6061	gustavo.plascencia@ucr.edu
	Building Maintenance Supervisor, UNEX	Derek Gill	(951) 827-1697	derek.gill@ucr.edu

SSMP Element	Responsible Party (Position)	Responsible Party (Name)	Phone Number	Email Address
6 - Overflow Emergency Response Plan	Plumbing Shop Supervisor	Steve Burleson	(951) 827-7696	steve.burleson@ucr.edu
	Maintenance Supervisor, Evening Shift and HUB	Manny Sanchez	(951) 827-3611	manny.sanchez@ucr.edu
	Housing Zone Maintenance Supervisor, Housing Facilities Services	Trenton Mabee	(951) 827-4943	trenton.mabee@ucr.edu
	Building Maintenance Supervisor, UNEX	Derek Gill	(951) 827-1697	derek.gill@ucr.edu
	Environmental Programs Manager	Amanda Grey	(951) 827-2416	amanda.grey@ucr.edu
	Superintendent, Transportation & Parking Services	Andrew Stewart	(951) 827-2457	andrew.stewart@ucr.edu

6.4. Detection and Reporting of SSOs

SSOs are most often detected by and reported to Facilities Services personnel during routine daily operations. Facilities Services personnel who discover a potential or actual SSO are responsible for making immediate notifications and taking appropriate action.

The Facilities Services Customer Service staff immediately notifies staff responsible for emergency overflow response of any report of observed or potential SSO. Facilities Services is responsible for immediately assessing the SSO, determining the appropriate response, and conducting appropriate control, containment, and cleanup activities. SSOs are reported to the EH&S Environmental Programs Manager, who is responsible for required reporting to the appropriate regulatory agencies.

6.4.1. Notification and Reporting Procedures

6.4.1.1. SSOs Discovered by Facilities Services Staff

SSOs are often discovered by Facilities Services staff during routine daily operations. Facilities Services personnel are trained and responsible for making an immediate assessment of the SSO to determine the appropriate response, notifying their supervisor with SSO information, and conducting appropriate control, containment and cleanup activities.

6.4.1.2. SSOs Discovered by Students, Faculty, Other Campus Staff or Visitors

Students, faculty, other campus staff or visitors who observe a potential SSO are provided instructions on the EH&S website and SSMP webpage to immediately call one of the following phone numbers. A SSO report to any of these phone numbers is directed to Facilities Services staff responsible for SSO emergency response. A number of staff are designated as initial responders responsible for emergency

overflow response 24 hours per day, 7 days per week. Response time to a reported SSO shall be less than one hour after the initial call.

Students, faculty, other staff, or visitors who observe a potential SSO have the following methods to immediately notify Facilities Services:

- Facilities Services Customer Service (951) 827-4214 or -4215
- Facilities Services Customer Service, After Hours Emergency (after 4:30 pm or before 8:00 am) (951) 827-4677
- Environmental Health & Safety (951) 827-5528
- UC Riverside Police Department (951) 827-5222

6.4.1.3. Information Collected on Report of SSO

A report of potential SSO received by Facilities Services Customer Service or After Hours Emergency will include all relevant information available including:

- Time and date the call was received
- Specific location of possible SSO
- Description of the problem, and
- Caller's name and call back phone number

6.4.2.SSO Notification to Environmental Health & Safety

Information for all SSOs discovered by staff, and all reports of SSOs by the campus community shall be forwarded as required to Environmental Health & Safety for reporting to regulatory agencies:

- Initial contact for SSO notification to EH&S:

  Amanda Grey
  Environmental Programs Manager
  (951) 827-2416

- Secondary contact for SSO notification to EH&S:

  Sheila Hedayati
  Executive Director, Environmental Health & Safety
  (951) 827-5119

6.4.3.SSO Reporting to Regulatory Agencies

Monitoring and Reporting Program Order No. WQ 2008-0002-EXEC establishes the monitoring, record keeping, reporting, and public notification requirements for Order No. 2006-2003-DWQ Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. A copy of Order No. WQ 2008-0002-EXEC is attached hereto as Appendix B.

SSOs are reported as specified in Order No. WQ 2008-0002-EXEC. The County of Riverside Department of Environmental Health, Environmental Resource Management program receives reports of SSOs directly from the Office of Emergency Services.

The SSO database will automatically generate an e-mail notification with customized information about

the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the County of Riverside Department of Environmental Health, Environmental Resource Management and the Santa Ana Regional Water Quality Control Board.

The SSO database does not automatically generate an e-mail notification about the SSO for all Category 2 SSOs. Category 2 SSOs shall be reported directly to the Santa Ana Regional Water Quality Control Board, as well as through the SSO Online System.

California Regional Water Quality Control Board, Santa Ana Region
(951) 782-4130

If any SSO enters a Riverside County Flood Control District channel or facility, the Riverside County Flood Control and Water Conservation District shall be notified immediately:

Riverside County Flood Control and Water Conservation District
(951) 955-1200

The City of Riverside Public Works Department, Sewerage Systems Division shall be notified if any SSO results in a violation of any sewer discharge limit.

City of Riverside Public Works Department Sewerage Systems Division
(951) 341-6140

6.5. SSO Response Procedures

6.5.1. Initial SSO Response

In the event of SSO, the initial responder's responsibility is to confirm reported SSOs, notify the Facilities Services supervisor, and to coordinate containment and recovery.

The initial responder will:

1. Assess the failure of equipment or SSO 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, an outside contractor will be called.
3. Use appropriate Personal Protective Equipment.
4. Use appropriate safety precautionary measures including Lockout/Tag-out protocol.
5. Obtain necessary equipment to respond to spill, and maintain 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 SSO occurred onto private property. Be aware that UC Riverside could face increased liability for further damages inflicted to private property during such instances.
7. Coordinate with hazardous materials 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, EH&S should be contacted for appropriate response.
8. SSOs that reach a storm drain will be contained by applying a pipe dam downstream of

the SSO to prevent overflow from reaching waterways.

6.5.2.SSO Correction, Containment, and Clean-Up

The following are specific actions to be performed by the response crews during an SSO:

1. Stop the SSO, identify the source and minimize the exposure
2. If necessary, call TAPS to secure the affected area and post warning signs. TAPS 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 SSO. Assessment will include a check of the sumps and upstream and downstream manholes, and volume estimation to the nearest 5 to 10 gallons.
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 reporting documentation using report forms provided by EH&S
8. Review overall response with the responding parties
9. Sample as required by Order No. WQ 2013-0058-EXEC, Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

6.6. Training

Training on SSO response procedures will be conducted for members of departments responsible for implementing the OERP. EH&S is responsible for providing exposure control training for staff. Facilities Services and EH&S are responsible for providing technical training for staff responsible for SSO response.

The OERP will be distributed to all responsible persons identified in Table 6-1 Contact Information for Persons Responsible for the SSMP.

6.7. Overflow Emergency Response Plan Update

The OERP will be reviewed periodically by Facilities Management, and EH&S and revisions incorporated as needed. Comments, updates, and other relevant information should be submitted to the EH&S Environmental Programs contact.

7.0 Fats, Oils, and Grease (FOG) Control Program

The discharge of FOG from animal and vegetable sources can create sewer line blockages that result in SSOs. The purpose of the FOG control program is to reduce the amount of these substances discharged to the sewer system. The FOG Control Program includes the following elements:

(a) An implementation plan and schedule for a public education and outreach program that promotes proper disposal of FOG

The following measures are taken to promote the successful implementation of the SSMP, and ensure proper disposal of FOG by food facilities on campus:

- A copy of the UC Riverside SSMP will be posted on the UC Riverside EH&S website at http://ehs.ucr.edu/environmentalprograms/
- FOG training includes proper bulk grease management practices, and information on prohibited bacteria, enzymes, and chemicals
- Signs will be posted in the work areas of employees who use grease interceptors

(b) Description of current infrastructure

There are nine grease interceptors and one clarifier on the main campus, listed on Table 2-1 - Grease Interceptors. There are six bulk waste cooking oil storage tanks, and eight portable waste grease bins located at various food preparation facilities on campus. Each of these waste cooking oil and waste grease bins are serviced by a waste cooking oil and grease recycling company.

(c) Procedures for identification of grease blockages; inspection and maintenance

- Grease blockages are identified and cleared as part of routine inspection and maintenance as described in Operation and Maintenance Program Elements. System maintenance includes both preventive maintenance and cleaning determined to be necessary during routine inspections.
- If a grease interceptor is not working properly, either Facilities Services, Housing Services, or Dining Services is contacted for service.
- All grease interceptors are pumped before reaching 25% total occupied capacity.

(d) Requirements for installation of grease interceptors

- Installation of a new grease interceptor is required for newly constructed food preparation facilities. Replacement of existing grease interceptors may be recommended based on findings of inspection and maintenance of the system.
- Installations of new grease interceptors shall conform to current California Plumbing Code design standards.
- Design plans for new grease traps and interceptors are reviewed and approved by Planning, Design, and Construction.

(e) Source control best management practices and training

Source control BMPs are in place to prevent the introduction of FOG into the sanitary sewer.

- FOG training is completed by kitchen staff upon hiring on to ensure BMPs are implemented. Many food facilities employees are students, high turnover is common. Regular training is conducted to address high turnover impacts and ensure proper disposal of FOG.
- FOG BMP training includes bulk grease management practices; bulk

grease from deep fryers or pans is not washed into the sanitary sewer.

- Training is provided on prohibited bacteria, enzymes, and chemicals.
- Signs are posted in the work areas of employees who use grease interceptors.
- Several food facilities are equipped with semi-automated grease collection and storage equipment that eliminates open handling of bulk grease.
- Excess grease generated from grilling or frying at those food facilities that do not have grease interceptors is collected in containers and disposed by a waste cooking oil and grease recycling company.

(f) Recordkeeping

Service records and invoices for pumping, maintenance and repair of grease interceptors are kept by the HVAC/R & Food Services Supervisor and are available upon request.

8.0 System Evaluation and Capacity Assurance Plan

The campus has issued its Physical Master Plan Study in May 2016. UC Riverside's Master Plan Study is a tool to guide future decision making regarding campus development, in support of the Strategic Plan's academic vision and Long Range Development Plan. It defines building development opportunities and their capacity to accommodate anticipated growth, as well as opportunities to improve and better integrate the surrounding framework of circulation and open space. A copy of the Physical Master Plan Study is available here: https://cpp.ucr.edu/masterplan_study/ucriverside_pmps_full_report_05242016a.pdf

The Physical Master Plan Study included assessment and analyses of campus infrastructure systems. A campus-wide approach to the water and sanitary sewer infrastructure analyses allows the campus to comprehensively review these systems to determine areas for recommended improvements and upgrades.

8.1. Evaluation Methodology

The buildings on campus were classified into various categories based on use. Flow from all the non-academic buildings was determined using local planning factors. The remainder of the flow from the academic buildings was prorated based upon population density. The population density analysis is presented in Physical Master Plan Study Fig 6.33: Population Density. A peaking factor of 3.5 was applied to determine the peak flow rates.

Figure 6.33 POPULATION DENSITY

Student Headcount (2014) [1]	21,669
Faculty and Staff FTE [2]	4,201
Total Campus Population FTE	25,870
Total Existing Building Area [3] (GSF)	15,000,000 [3]
Population Density Per 1000 GSF	1.73
Sewage Flow at 20 GPD Per Student (GPD/1000GSF)	35

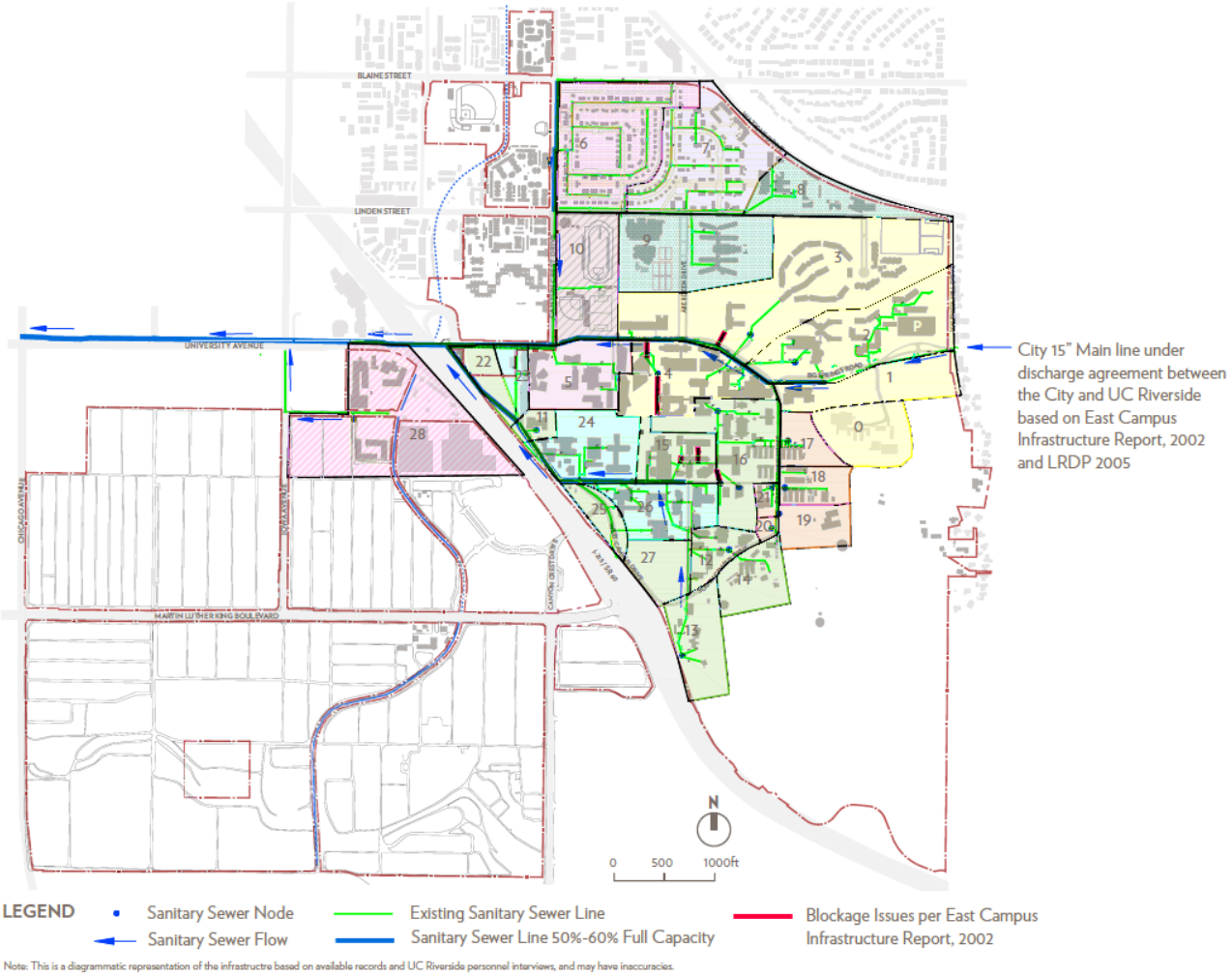
GSF: gross square feet GPD: gallon per day FTE: full-time equivalent

Note:
[1] Student headcount based on Fall 2014 enrollment data
[2] Faculty and Staff FTE based on UC Riverside website
[3] Estimated from campus aerial topography

The on-site sanitary sewer system was mapped per existing utility documentation. Multiple sources were used to identify the location of the existing sewer lines including survey data, electronic design files and the East Campus Infrastructure Project Report (Project No. 950403). A copy of the East Campus Infrastructure Project Report is available here: https://cpp.ucr.edu/files/documents/east_eampus_infrastructure_dpp_june02.pdf

The material of the existing pipes was assumed to be Vitrified Clay Pipe (VCP) which corresponds to a Manning coefficient of 0.014. Manning's equation was used to calculate the capacity of pipes based on full flow capacity. The existing sanitary sewer system is identified in Physical Master Plan Study Figure 6.35.

Figure 6.35 EXISTING SANITARY SEWER NETWORK



A sanitary sewer capacity analysis was performed for sewer mains and laterals which correspond to Areas "0" through "28". Refer to Physical Master Plan Study Appendix 6.8-A for the sewer analysis performed as part of the Physical Master Plan Study. Appendix 6.8-A includes a summary of the existing campus buildings' square footage, occupancy, occupancy type, average daily flow rate, and peak flow rate generated on campus. Based upon the population density analysis, the existing average daily flow rate generated from offsite and on-campus buildings is calculated at 1,701,211 gallons per day (gpd), which is equivalent to a peak flow rate of 2.632 cubic feet per second (cfs.) The North District includes the existing Canyon Crest Family Student Housing facility and for the Master Plan Study analysis, sewer flows were determined based on local planning factors for residential buildings. Considering the facility

is comprised of older, World War II-era buildings, the average daily and peak flow rates for the facility maybe much lower if the University were to perform an analysis based on their fixture unit count.

The sanitary sewer system was evaluated with the addition of future buildings. Physical Master Plan Study Appendix 6.8-A includes a summary of the future campus buildings' square footage, occupancy type, average daily flow rate, and peak flow rate. Based upon the population density analysis performed, the future average daily flow rate generated from existing offsite and future on-campus buildings is calculated at 1,586,045 gallons per day (gpd), which is equivalent to a peak flow rate of 2.454 cubic feet per second (cfs).

8.2. Findings

The sewage flow rates from the existing buildings are within the capacity of the campus' sewer system, with the exception of the 8-inch main running along Canyon Crest Drive, which will be serving the North District. The analysis of the future sewer demands based on planning factors reveal that the anticipated sewage flow rates decrease by nearly 10%. The main reason for the reduction in the sewage flow rate is the use of planning factors for modeling the existing residential development in the North District. A detailed analysis using fixture counts and meter readings may reveal a lower existing average daily flow rate. Physical Master Plan Study Fig 6.34: Sanitary Sewer Flow Summary provides a summary of the total sanitary sewer flow for both existing and future conditions.

Figure 6.34 SANITARY SEWER FLOW SUMMARY

University of California Riverside (East Campus)	Peak Flow GPD	Peak Flow CFS	Peak Flow GPM
Existing Campus Generated Sewer Flows	5,956,120	9.217	4,137
Proposed Campus Generated Sewer Flows	5,405,014	8.364	3,754
Net Increase	-551,106	-0.853	-383

GPD: gallons per day CFS: cubic feet per second GPM: gallon per minute

8.3. Strategic Priorities

The East Campus Infrastructure Project Report (Project No. 950403) provides recommendations for continued maintenance and inspection of the sewer system in order to ensure its service in the future, and should continue to be followed. The following are recommendations for improvements to the existing sanitary sewer system in order to maintain service to the existing buildings:

- The existing 8-inch main sewer line running along the Canyon Crest Road has an average slope of 0.27% and according to analysis presented herein, at peak flow, the pipe section will exceed its current full flow capacity. Upsize the existing 8-inch pipe to 15-inch pipe (with an absolute minimum slope of 0.5%) to meet the minimum velocity requirements and adequately serve the existing buildings.
- The condition of the existing 8-inch sewer lateral pipes serving the Spieth Hall needs to be further investigated in order to provide any recommendations.
- The existing 8-inch sewer pipe serving Pierce Hall is reported to have blockage issues. The condition of the pipe needs to be evaluated in order to provide any recommendations.
- Several sanitary sewer laterals have continuous drainage and blockage problems. It is recommended that the University further investigates the existing pipe conditions in order to improve the drainage conditions. Pipe replacement is recommended when future developments

are planned within the area.

In order to service the future development in the core campus, the following improvements need to be undertaken. Recommendations include relocation, demolition and replacement of various sewer pipes to accommodate expansion of the campus. See Physical Master Plan Figure 6.36 and 6.37 for conceptual illustrations of the recommendations. Pipe sections shown in blue denote new sanitary sewer pipes to be constructed, replaced, or relocated to accommodate future building needs.

- Opportunity Sites A, B, D, & E: In order to provide a clear site for future development in the North District, remove the existing sanitary mains and laterals currently serving the Canyon Crest Family Student Housing. The existing system can be cut at MH-1. An 8-inch lateral main connection along the new 15-inch sewer main on Canyon Crest Drive will be necessary, as shown in Physical Master Plan Study Figure 6.37. This 8-inch lateral will serve as a main sewer line to provide POC's to various sites in the North District.
- Opportunity Site C: Replace the existing 6-inch sewer lateral with a new 6-inch sewer lateral, with a minimum slope of 0.5% and provide POC for future development.
- Opportunity Site F: Install an 8-inch stub-out from the 15-inch sewer main to serve the future development.
- Opportunity Site 1: Remove the existing 8-inch lateral currently serving Hinderaker Hall and provide an 8-inch stub out to serve the future development.
- Opportunity Site 3: Install a 6-inch stub out from 8-inch sewer main to serve the future development.
- Opportunity Site 4: Install a 6-inch stub-out to serve the future development.
- Opportunity Site 5: Remove the existing 4-inch sewer lateral currently serving Fawcett Laboratory and provide a 6-inch stub-out to serve the future development.
- Opportunity Site 6: Relocate the 6-inch sewer lateral to provide a clear site for future development, and install a 6-inch stub out.
- Opportunity Site 9: Relocate the 8-inch sewer lateral currently serving Spieth Hall and the Life Sciences building to provide a clear site for the future development.
- Opportunity Site 11: In order to serve future development, a 6-inch lateral will be installed. This 6-inch lateral will be connected to the existing 6-inch sewer lateral.
- Opportunity Site 12: Replace the existing 8-inch sewer lateral with a new 8-inch sewer lateral, with minimum slope of 0.5% and provide POC for future development.
- Opportunity Site 13: Install a 6-inch lateral to serve future development in the Core Campus and provide a 6-inch stub out to serve the future development.

The recommendations presented herein include removal, replacement, and construction of new sanitary sewer pipes in order to adequately serve the existing buildings as well as future developments in the core campus. Further investigations may be needed for the existing sanitary sewer main lines which have a potential to exceed maximum capacity. The findings and recommendations are determined for master planning analysis with assumed peak flow rates. If the proposed building designs yield larger flow rates than presented herein, it is recommended that the University re-evaluate the data analysis and findings.

9.0 Monitoring, Measurement and Program Modifications

Maintain relevant information to establish and prioritize appropriate SSMP activities.

(a) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP

(b) Assess the success of the preventative maintenance program

(c) Update program elements, as appropriate, based on monitoring or performance evaluations

(d) Identify and illustrate SSO trends, including: frequency, location, and volume

SSOs of any amount of are reported to Environmental Health & Safety. EH&S is responsible for maintaining records regarding SSOs for the purpose of tracking and assessment of trends including frequency, location, and volume. EH&S works with facilities to reduce and prevent SSOs.

10.0 SSMP Program Audits

At a minimum of every two years, periodic internal audits of the SSMP must be conducted, and a report must be prepared and kept on file. This audit shall focus on evaluating compliance with SSMP requirements, its effectiveness, identification of any deficiencies in the SSMP and steps to correct them.

The biennial audit is required to be completed by Environmental Health & Safety and Facilities Services. The Environmental Programs Manager will be responsible for coordinating the biennial audit, and the Plumbing Shop Supervisor will be responsible for providing the information required to complete the biennial audit. A SSMP Biennial Audit Checklist will be used to conduct the audit, and the results are used to prepare the SSMP biennial audit report. A copy of the SSMP Biennial Audit Checklist is attached hereto at Appendix C.

11.0 Communication Program

The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

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

The SSMP will be updated as needed to describe any significant changes in proposed actions or implementation schedules. UC Riverside will communicate with interested parties regarding implementation and performance of the SSMP. Interested parties include:

- City of Riverside
- County of Riverside
- City of Riverside Public Works Department
- Riverside County Flood Control and Water Conservation District
- Santa Ana Regional Water Quality Control Board

11.1. SSMP Certification

Initial certification of the SSMP was completed in compliance with the general WDRs within the time

frame identified in subsection D.15 of Order No. 2006-0003-DWQ for sewer systems serving population between 100,000 and 10,000, no later than 48 months after WDRs adoption, or May 2, 2010. Initial certification of the UC Riverside SSMP was completed in the online SSO database as required.

11.2. SSMP Update and Recertification

The five-year SSMP update must be approved and certified every five years, as do all significant updates to the SSMP.

Approval of updates and recertification of all University of California collection system SSMPs is completed by the Regents of the University of California every five years, at minimum. Approval of updates and recertification for all campus SSMPs is included in a single UC Regents meeting item coordinated by Physical and Environmental Planning staff, University of California Office of the President.

Appendix A

State Water Resources Control Board Order No. 2006-0003- DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

STATE WATER RESOURCES CONTROL BOARD
ORDER NO. 2006-0003-DWQ

STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

The State Water Resources Control Board, hereinafter referred to as "State Water Board", finds that:

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as "Enrollees".

2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.

3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.

4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

SEWER SYSTEM MANAGEMENT PLANS

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.

6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.

7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.

8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.

9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).

10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.

11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

prescriptive WDRs for sanitary sewer systems. Upon issuance or reissuance of a Regional Water Board's WDRs for a system subject to this Order, the Regional Water Board shall coordinate its requirements with stated requirements within this Order, to identify requirements that are more stringent, to remove requirements that are less stringent than this Order, and to provide consistency in reporting.

REGULATORY CONSIDERATIONS

12. California Water Code section 13263 provides that the State Water Board may prescribe general WDRs for a category of discharges if the State Water Board finds or determines that:

    - The discharges are produced by the same or similar operations;
    - The discharges involve the same or similar types of waste;
    - The discharges require the same or similar treatment standards; and
    - The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

    This Order establishes requirements for a class of operations, facilities, and discharges that are similar throughout the state.

13. The issuance of general WDRs to the Enrollees will:
    a) Reduce the administrative burden of issuing individual WDRs to each Enrollee;
    b) Provide for a unified statewide approach for the reporting and database tracking of SSOs;
    c) Establish consistent and uniform requirements for SSMP development and implementation;
    d) Provide statewide consistency in reporting; and
    e) Facilitate consistent enforcement for violations.

14. The beneficial uses of surface waters that can be impaired by SSOs include, but are not limited to, aquatic life, drinking water supply, body contact and non-contact recreation, and aesthetics. The beneficial uses of ground water that can be impaired include, but are not limited to, drinking water and agricultural supply. Surface and ground waters throughout the state support these uses to varying degrees.

15. The implementation of requirements set forth in this Order will ensure the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each region and take into account the environmental characteristics of hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect

water quality in the area, costs associated with compliance with these requirements, the need for developing housing within California, and the need to develop and use recycled water.

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.

17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.

18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
    a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
    b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
    c. Occurs during, or as a result of, the treatment or disposal of wastes.

19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.

20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.

22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.

23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

IT IS HEREBY ORDERED, that pursuant to California Water Code section 13263, the Enrollees, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

A. DEFINITIONS

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
   (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
   (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
   (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipes or sewer lines.

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.

4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is http://ciwqs.waterboards.ca.gov. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.

7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
    a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
    b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
    c. Occurs during, or as a result of, the treatment or disposal of wastes.

B. APPLICATION REQUIREMENTS

1. Deadlines for Application – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.

2. Applications under the general WDRs – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

apply for coverage under the general WDRs to all known public agencies that own sanitary sewer systems. Agencies that do not receive notice may obtain applications and instructions online on the Water Board's website.

3. Coverage under the general WDRs – Permit coverage will be in effect once a complete application package has been submitted and approved by the State Water Board's Division of Water Quality.

C. PROHIBITIONS

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.

2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

D. PROVISIONS

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.

2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:

    (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
    (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
    (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
    (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.

3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.

4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into

flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. All SSOs must be reported in accordance with Section G of the general WDRs.

6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:

   (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;

   (ii) The Enrollee can identify the cause or likely cause of the discharge event;

   (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.

   (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;

   (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
   - Proper management, operation and maintenance;
   - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
   - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
   - Installation of adequate backup equipment; and
   - Inflow and infiltration prevention and control to the extent practicable.

   (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

(vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.

7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

   The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

   (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
   (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
   (iii) Cleanup of debris at the overflow site;
   (iv) System modifications to prevent another SSO at the same location;
   (v) Adequate sampling to determine the nature and impact of the release; and
   (vi) Adequate public notification to protect the public from exposure to the SSO.

8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.

9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.

10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.

11. The Enrollee shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.

12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.

13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

Sewer System Management Plan (SSMP)

(i) **Goal**: The goal of the SSMP is 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.

(ii) **Organization**: The SSMP must identify:

(a) The name of the responsible or authorized representative as described in Section J of this Order.

(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and

(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

(iii) **Legal Authority:** Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

(a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);

(b) Require that sewers and connections be properly designed and constructed;

(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;

(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and

(e) Enforce any violation of its sewer ordinances.

(iv) **Operation and Maintenance Program**. The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;

(b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

(c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;

(d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

(v) **Design and Performance Provisions**:

(a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and

(b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

(vi) **Overflow Emergency Response Plan -** Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;

(b) A program to ensure an appropriate response to all overflows;

(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;

(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;

(e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and

(f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

(vii) **FOG Control Program:** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

(b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;

(d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;

(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

(f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and

(g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

(viii) **System Evaluation and Capacity Assurance Plan**: The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

(a) **Evaluation**: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs

that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

(b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and

(c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

(d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.

(ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:

(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;

(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;

(c) Assess the success of the preventative maintenance program;

(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and

(e) Identify and illustrate SSO trends, including: frequency, location, and volume.

(x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the

Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

(xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

    In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

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

    The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

Sewer System Management Plan Time Schedule

Task and Associated Section	**Completion Date**			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage ***Section C***	6 months after WDRs Adoption			
Reporting Program ***Section G***	6 months after WDRs Adoption[1]			
SSMP Development Plan and Schedule ***No specific Section***	9 months after WDRs Adoption[2]	12 months after WDRs Adoption[2]	15 months after WDRs Adoption[2]	18 months after WDRs Adoption[2]
Goals and Organization Structure ***Section D 13 (i) & (ii)***	12 months after WDRs Adoption[2]		18 months after WDRs Adoption[2]	
Overflow Emergency Response Program ***Section D 13 (vi)***	24 months after WDRs Adoption[2]	30 months after WDRs Adoption[2]	36 months after WDRs Adoption[2]	39 months after WDRs Adoption[2]
Legal Authority ***Section D 13 (iii)***				
Operation and Maintenance Program ***Section D 13 (iv)***				
Grease Control Program ***Section D 13 (vii)***				
Design and Performance ***Section D 13 (v)***	36 months after WDRs Adoption	39 months after WDRs Adoption	48 months after WDRs Adoption	51 months after WDRs Adoption
System Evaluation and Capacity Assurance Plan ***Section D 13 (viii)***				
Final SSMP, incorporating all of the SSMP requirements ***Section D 13***				

1. In the event that by July 1, 2006 the Executive Director is able to execute a memorandum of agreement (MOA) with the California Water Environment Association (CWEA) or discharger representatives outlining a strategy and time schedule for CWEA or another entity to provide statewide training on the adopted monitoring program, SSO database electronic reporting, and SSMP development, consistent with this Order, then the schedule of Reporting Program Section G shall be replaced with the following schedule:

Reporting Program ***Section G***	
Regional Boards 4, 8, and 9	8 months after WDRs Adoption
Regional Boards 1, 2, and 3	12 months after WDRs Adoption
Regional Boards 5, 6, and 7	16 months after WDRs Adoption

If this MOU is not executed by July 1, 2006, the reporting program time schedule will remain six (6) months for all regions and agency size categories.

2. In the event that the Executive Director executes the MOA identified in note 1 by July 1, 2006, then the deadline for this task shall be extended by six (6) months. The time schedule identified in the MOA must be consistent with the extended time schedule provided by this note. If the MOA is not executed by July 1, 2006, the six (6) month time extension will not be granted.

E. WDRs and SSMP AVAILABILITY

1. A copy of the general WDRs and the certified SSMP shall be maintained at appropriate locations (such as the Enrollee's offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

F. ENTRY AND INSPECTION

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

G. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.

2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.

3. All Enrollees must obtain SSO Database accounts and receive a “Username” and “Password” by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the “Collection System Questionnaire”, which collects pertinent information regarding a Enrollee’s collection system. The “Collection System Questionnaire” must be updated at least every 12 months.

4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

   Any SSO greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.

H. CHANGE IN OWNERSHIP

1. This Order is not transferable to any person or party, except after notice to the Executive Director. The Enrollee shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the existing Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date forward.

I. INCOMPLETE REPORTS

1. If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

J. REPORT DECLARATION

1. All applications, reports, or information shall be signed and certified as follows:

    (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)

    (ii) An individual is a duly authorized representative only if:

        (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and

        (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.

2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

falsifying any information provided in the technical or monitoring reports is subject to civil monetary penalties.

L. SEVERABILITY

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

CERTIFICATION

The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None

Song Her
Clerk to the Board

STATE WATER RESOURCES CONTROL BOARD

MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

A. SANITARY SEWER OVERFLOW REPORTING

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
   A. Equal or exceed 1000 gallons, or
   B. Result in a discharge to a drainage channel and/or surface water; or
   C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.

3. Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

SSO Reporting Timeframes

4. Category 1 SSOs – All SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

   The above reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local

County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).

6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.

7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.

8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

At a minimum, the following mandatory information must be included prior to finalizing and certifying an SSO report for each category of SSO:

9. Category 2 SSOs:

   A. Location of SSO by entering GPS coordinates;
   B. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
   C. County where SSO occurred;
   D. Whether or not the SSO entered a drainage channel and/or surface water;
   E. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;

F. Estimated SSO volume in gallons;
G. SSO source (manhole, cleanout, etc.);
H. SSO cause (mainline blockage, roots, etc.);
I. Time of SSO notification or discovery;
J. Estimated operator arrival time;
K. SSO destination;
L. Estimated SSO end time; and
M. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

10. Private Lateral Sewage Discharges:

A. All information listed above (if applicable and known), as well as;
B. Identification of sewage discharge as a private lateral sewage discharge; and
C. Responsible party contact information (if known).

11. Category 1 SSOs:

A. All information listed for Category 2 SSOs, as well as;
B. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
C. Estimated SSO amount recovered;
D. Response and corrective action taken;
E. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
F. Parameters that samples were analyzed for (if applicable);
G. Identification of whether or not health warnings were posted;
H. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
I. Whether or not there is an ongoing investigation;
J. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
K. OES control number (if applicable);
L. Date OES was called (if applicable);
M. Time OES was called (if applicable);
N. Identification of whether or not County Health Officers were called;
O. Date County Health Officer was called (if applicable); and
P. Time County Health Officer was called (if applicable).

Reporting to Other Regulatory Agencies

These reporting requirements do not preclude an Enrollee from reporting SSOs to other regulatory agencies pursuant to California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSOs.

1. The Enrollee shall report SSOs to OES, in accordance with California Water Code Section 13271.

Office of Emergency Services
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.

3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

B. Record Keeping

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.

3. All records shall be made available for review upon State or Regional Water Board staff's request.

4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;

5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:

   a. Record of Certified report, as submitted to the online SSO database;
   b. All original recordings for continuous monitoring instrumentation;
   c. Service call records and complaint logs of calls received by the Enrollee;
   d. SSO calls;
   e. SSO records;
   f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
   g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
   h. A list and description of complaints from customers or others from the previous 5 years; and
   i. Documentation of performance and implementation measures for the previous 5 years.

6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical technique or method used; and,
f. The results of such analyses.

C. Certification

1. All final reports must be certified by an authorized person as required by Provision J of the Order.
2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on May 2, 2006.

Song Her
Clerk to the Board

Appendix B

State Water Resources Control Board Order No. WQ 2013-0058-EXEC, Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

Fact Sheet

STATE WATER RESOURCES CONTROL BOARD | 1001 I Street, Sacramento, CA 95814 | Mailing Address: P. O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov

AMENDED MONITORING AND REPORTING PROGRAM FOR THE STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

BACKGROUND

Water Code section 13193 (2001, A.B. 285) requires the State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (collectively Water Boards) to gather comprehensive and specific Sanitary Sewer Overflow (SSO) information. Water Code section 13193 also requires the Water Boards to make available to the public information including but not limited to the cause, estimated volume, location, date, time, and duration of the SSO; whether the SSO reached or may have reached surface waters; the response and corrective action taken by the collection system owner or operator (hereafter, Enrollee) for each SSO event; and the contact information for each Enrollee.

On May 2, 2006 the State Water Board adopted Water Quality Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems" (hereafter, SSS WDRs) to address Water Code section 13193 requirements and develop the framework for the statewide Sanitary Sewer Overflow Reduction Program. The SSS WDRs' Monitoring and Reporting Program (MRP) includes specific SSO notification and reporting and record keeping requirements to meet SSO reporting requirements in the Water Code and facilitate compliance monitoring and enforcement for violations.

The State Water Board Executive Officer issued a revised MRP for the SSS WDRs on February 20, 2008 to rectify notification deficiencies that occurred early in program implementation and to ensure that first responders (e.g., Water Boards, California Office of Emergency Services, and County Health Departments) are notified in a timely manner for SSOs discharged to surface waters. Based on over six years of implementation of the SSS WDRs, the State Water Board concluded that the February 20, 2008 revised MRP is no longer adequate to advance the Sanitary Sewer Overflow Reduction Program objectives, assess compliance, and enforce the requirements of the SSS WDRs.

Following its January 24, 2012 workshop with stakeholders for the review and update of the SSS WDRs, the State Water Board directed staff to review and evaluate the existing monitoring and reporting requirements and prepare an amended MRP for the Executive Director's issuance. Staff worked with the key stakeholders (e.g., California Association of Sanitation Agencies) to revise the monitoring and reporting requirements. State Water Board staff distributed the draft versions of the MRP to all stakeholders registered on the Lyris e-mail list for the Sanitary Sewer Overflow Reduction Program, solicited comments on the draft versions of the MRP in January and March 2013, and considered all comments received in developing the final revised MRP.

INSPECTION AND AUDIT FINDINGS

Since January 2007, numerous violations of the SSS WDRs have been documented by the Water Boards through data review, compliance monitoring, and onsite inspections. The most common violations related to the MRP that the Water Boards have documented are:

- Failure to properly estimate and report SSO volumes discharged and recovered [violation of section G of the SSS WDRs]
- Failure of the Enrollee to comply with all minimum MRP record keeping requirements [violation of section G of the SSS WDRs]
- Failure of the Enrollee to implement feasible alternatives and actions necessary to identify and correct problems causing SSOs [violation of subsection D.6 of the SSS WDRs]
- Unauthorized use of legally responsible official's SSO Online Database login password and electronic signature; [violation of section J of the SSS WDRs]
- Failure of the Enrollee to develop and/or implement an Overflow Emergency Response Plan to ensure all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including accelerated or additional monitoring necessary to determine the nature and impact of the SSO [violation of subsection D.13(vi) of the SSS WDRs]
- Failure of the Enrollee to implement required training for sewer system operators and contractors [violation of subsections D.13(iv) and D.13(vi) of the SSS WDRs]

Amendments made to the MRP in Order 2013-0058-EXEC address these and other issues that have become apparent in the implementation of the SSS WDRs in over six years.

MONITORING AND REPORTING PROGRAM AMENDMENTS

State Water Board staff and other members of the Data Review Committee reviewed the current SSS WDRs reporting requirements as part of the SSS WDRs review and update process. The Data Review Committee is open to all stakeholders. Consequently, enrollees, non-governmental organizations, and other agencies have participated. As a result of this process, new reporting requirements have been developed that address the compliance and enforcement issues noted above and improve the quality and usefulness of SSO data collected.

While the proposed changes streamline the reporting process overall, some fields have been added to the reports. These additions address critical information gaps in the current reporting that have been identified both internally and by stakeholders.

For example, many enrollees have noted that we need to be able to separate sewer lateral spills from spills occurring in other asset types like main lines or pump stations. The "where did the failure occur" question on the electronic spill report form was not a required field in the original or revised 2008 MRP. Many SSO reports do not have this information, thus, we cannot differentiate lateral spills from main line, pump station, or other types of spills. This is one example of the additions in the required data entry that have been addressed in the 2013 MRP revisions.

The following is a summary of major changes made to the existing MRP (Order 2008-0002-EXEC) and incorporated in the final revised MRP (Order 2013-0058-EXEC):

1. Change in Notification Requirement for spills that reach surface water:

    - Three notification calls were required (California Office of Emergency Services, Regional Water Quality Control Boards, and local Health Departments). Required notification has been changed to call California Office of Emergency Services (Cal OES) only since Cal OES notifies the Regional Water Quality Control Boards and local Health Departments when a spill notification is received.

    - Elimination of requirement to submit a certification to Regional Water Quality Control Boards within 24 hours of making notification calls.

    - Alignment of notification requirement with California Code of Regulations section 2250, Reportable Quantity of Sewage, by requiring notification calls for only spills of 1,000 gallons or more. Notification of Cal OES was required for all spills to surface water.

    - Addition of requirement to update Cal OES when there are substantial changes to previously reported spill volume estimates or impacts.

2. Defined new spill categories and refined spill report fields:

    - Replacement of spill Categories 1 and 2 with Categories 1, 2, and 3. Spills are now classified as follows:

        - Category 1 – Spills of any volume that reach surface water

        - Category 2 – Spills greater than or equal to 1,000 gallons that do not reach surface water

        - Category 3 (formerly Category 2) – Spills less than 1,000 gallons that do not reach surface water

    All spills to surface water will be in a distinct category with this change. Spill reporting fields were refined and streamlined with stakeholder input.

3. Addition of requirement to submit a technical report within 45 days of the end date for spills to surface water over 50,000 gallons.

4. Addition of requirement for all Permit enrollees to develop a Water Quality Monitoring plan to be implemented within 48 hours after initial notification for spills where 50,000 gallons or more reach surface water.

5. Addition of requirement for Permit enrollees to submit an electronic copy of their Sewer System Management Plan (SSMP) or provide the web address where their SSMP is posted.

6. Addition of enhanced record keeping requirements.

7. Elimination of requirement to certify Private Lateral Sewer Discharge reports.

8. Addition of a 120-day time limit for amending and re-certifying spill reports.

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

The State of California, Water Resources Control Board (hereafter State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general Waste Discharge Requirements (WDRs) for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code section 13263(i).

2. Water Code section 13193 *et seq.* requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) to gather Sanitary Sewer Overflow (SSO) information and make this information available to the public, including but not limited to, SSO cause, estimated volume, location, date, time, duration, whether or not the SSO reached or may have reached waters of the state, response and corrective action taken, and an enrollee's contact information for each SSO event. An enrollee is defined as the public entity having legal authority over the operation and maintenance of, or capital improvements to, a sanitary sewer system greater than one mile in length.

3. Water Code section 13271, *et seq.* requires notification to the California Office of Emergency Services (Cal OES), formerly the California Emergency Management Agency, for certain unauthorized discharges, including SSOs.

4. On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems"[1] (hereafter SSS WDRs) to comply with Water Code section 13193 and to establish the framework for the statewide SSO Reduction Program.

5. Subsection G.2 of the SSS WDRs and the Monitoring and Reporting Program (MRP) provide that the Executive Director may modify the terms of the MRP at any time.

6. On February 20, 2008, the State Water Board Executive Director adopted a revised MRP for the SSS WDRs to rectify early notification deficiencies and ensure that first responders are notified in a timely manner of SSOs discharged into waters of the state.

7. When notified of an SSO that reaches a drainage channel or surface water of the state, Cal OES, pursuant to Water Code section 13271(a)(3), forwards the SSO notification information[2] to local government agencies and first responders including local public health officials and the applicable Regional Water Board. Receipt of notifications for a single SSO event from both the SSO reporter

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[1] Available for download at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf

[2] Cal OES Hazardous Materials Spill Reports available Online at:
http://w3.calema.ca.gov/operational/malhaz.nsf/$defaultview and http://w3.calema.ca.gov/operational/malhaz.nsf

and Cal OES is duplicative. To address this, the SSO notification requirements added by the February 20, 2008 MRP revision are being removed in this MRP revision.

8. In the February 28, 2008 Memorandum of Agreement between the State Water Board and the California Water and Environment Association (CWEA), the State Water Board committed to re-designing the CIWQS[3] Online SSO Database to allow "event" based SSO reporting versus the original "location" based reporting. Revisions to this MRP and accompanying changes to the CIWQS Online SSO Database will implement this change by allowing for multiple SSO appearance points to be associated with each SSO event caused by a single asset failure.

9. Based on stakeholder input and Water Board staff experience implementing the SSO Reduction Program, SSO categories have been revised in this MRP. In the prior version of the MRP, SSOs have been categorized as Category 1 or Category 2. This MRP implements changes to SSO categories by adding a Category 3 SSO type. This change will improve data management to further assist Water Board staff with evaluation of high threat and low threat SSOs by placing them in unique categories (i.e., Category 1 and Category 3, respectively). This change will also assist enrollees in identifying SSOs that require Cal OES notification.

10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program[4] objectives, assess compliance, and enforce the requirements of the SSS WDRs.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Water Code section 13267(f), Resolution 2002-0104, and Order 2006-0003-DWQ, the MRP for the SSS WDRs (Order 2006-0003-DWQ) is hereby amended as shown in Attachment A and shall be effective on September 9, 2013.

8/6/13
Date

Thomas Howard
Executive Director

[3] California Integrated Water Quality System (CIWQS) publicly available at http://www.waterboards.ca.gov/ciwqs/publicreports.shtml

[4] Statewide Sanitary Sewer Overflow Reduction Program information is available at: http://www.waterboards.ca.gov/water_issues/programs/sso/

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (SSS WDRs). This MRP shall be effective from September 9, 2013 until it is rescinded. The Executive Director may make revisions to this MRP at any time. These revisions may include a reduction or increase in the monitoring and reporting requirements. All site specific records and data developed pursuant to the SSS WDRs and this MRP shall be complete, accurate, and justified by evidence maintained by the enrollee. Failure to comply with this MRP may subject an enrollee to civil liabilities of up to $5,000 a day per violation pursuant to Water Code section 13350; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. The State Water Resources Control Board (State Water Board) reserves the right to take any further enforcement action authorized by law.

A. SUMMARY OF MRP REQUIREMENTS

Table 1 – Spill Categories and Definitions

CATEGORIES	DEFINITIONS [see Section A on page 5 of Order 2006-0003-DWQ, for Sanitary Sewer Overflow (SSO) definition]
CATEGORY 1	Discharges of untreated or partially treated wastewater of **any volume** resulting from an enrollee's sanitary sewer system failure or flow condition that: • Reach surface water and/or reach a drainage channel tributary to a surface water; or • Reach a Municipal Separate Storm Sewer System (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 of **1,000 gallons or greater** resulting from an enrollee's sanitary sewer system failure or flow condition that **do not** reach surface water, a drainage channel, or a MS4 unless the entire SSO 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.
PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)	Discharges of untreated or partially treated wastewater resulting from blockages or other problems **within a privately owned sewer lateral** connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be voluntarily reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

Table 2 – Notification, Reporting, Monitoring, and Record Keeping Requirements

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION **(see section B of MRP)**	• Within two hours of becoming aware of any Category 1 SSO **greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water**, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number.	Call Cal OES at: **(800) 852-7550**
REPORTING **(see section C of MRP)**	• Category 1 SSO: Submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. • Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. • Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. • "No Spill" Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. • Collection System Questionnaire: Update and certify every 12 months.	Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by enrollee's Legally Responsible Official(s).
WATER QUALITY MONITORING **(see section D of MRP)**	• Conduct water quality sampling **within 48 hours** after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING **(see section E of MRP)**	• SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume.	Self-maintained records shall be available during inspections or upon request.

B. NOTIFICATION REQUIREMENTS

Although Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) staff do not have duties as first responders, this MRP is an appropriate mechanism to ensure that the agencies that have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any Category 1 SSO greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the enrollee shall, as soon as possible, but not later than two (2) hours after (A) the enrollee has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the Cal OES and obtain a notification control number.

2. To satisfy notification requirements for each applicable SSO, the enrollee shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:

    i. Name of person notifying Cal OES and direct return phone number.
    ii. Estimated SSO volume discharged (gallons).
    iii. If ongoing, estimated SSO discharge rate (gallons per minute).
    iv. SSO Incident Description:
        a. Brief narrative.
        b. On-scene point of contact for additional information (name and cell phone number).
        c. Date and time enrollee became aware of the SSO.
        d. Name of sanitary sewer system agency causing the SSO.
        e. SSO cause (if known).
    v. Indication of whether the SSO has been contained.
    vi. Indication of whether surface water is impacted.
    vii. Name of surface water impacted by the SSO, if applicable.
    viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
    ix. Any other known SSO impacts.
    x. SSO incident location (address, city, state, and zip code).

3. Following the initial notification to Cal OES and until such time that an enrollee certifies the SSO report in the CIWQS Online SSO Database, the enrollee shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).

4. PLSDs: The enrollee is strongly encouraged to notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if the enrollee becomes aware of the PLSD.

C. REPORTING REQUIREMENTS

1. **CIWQS Online SSO Database Account:** All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.

2. **SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the enrollee shall complete one SSO report in the CIWQS Online SSO Database which includes the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that caused the SSO, and provide descriptions of the locations of all other discharge points associated with the SSO event.

3. **SSO Categories**

   i. **Category 1** – Discharges of 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).

   ii. **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.

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

4. **Sanitary Sewer Overflow Reporting to CIWQS - Timeframes**

   i. **Category 1 and Category 2 SSOs** – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS Online SSO Database:

      a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO Database within three (3) business days of the enrollee becoming aware of the SSO. Minimum information that shall be reported in a draft Category 1 SSO report shall include all information identified in section 8.i.a. below. Minimum information that shall be reported in a Category 2 SSO draft report shall include all information identified in section 8.i.c below.

      b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS Online SSO Database within 15 calendar days of the end date of the SSO. Minimum information that shall be certified in the final Category 1 SSO report shall include all information identified in section 8.i.b below. Minimum information that shall be certified in a final Category 2 SSO report shall include all information identified in section 8.i.d below.

ii. **Category 3 SSOs** – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Minimum information that shall be certified in a final Category 3 SSO report shall include all information identified in section 8.i.e below.

iii. **"No Spill" Certification** – If there are no SSOs during the calendar month, the enrollee shall either 1) certify, within 30 calendar days after the end of each calendar month, a "No Spill" certification statement in the CIWQS Online SSO Database certifying that there were no SSOs for the designated month, or 2) certify, quarterly within 30 calendar days after the end of each quarter, "No Spill" certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on. For quarterly reporting, the quarters are Q1 - January/ February/ March, Q2 - April/May/June, Q3 - July/August/September, and Q4 - October/November/December.

If there are no SSOs during a calendar month but the enrollee reported a PLSD, the enrollee shall still certify a "No Spill" certification statement for that month.

iv. **Amended SSO Reports** – The enrollee may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the enrollee may contact the SSO Program Manager to request to amend an SSO report if the enrollee also submits justification for why the additional information was not available prior to the end of the 120 days.

5. **SSO Technical Report**

The enrollee shall submit an SSO Technical Report in the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

i. **Causes and Circumstances of the SSO:**

a. Complete and detailed explanation of how and when the SSO was discovered.

b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).

c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.

d. Detailed description of the cause(s) of the SSO.

e. Copies of original field crew records used to document the SSO.

f. Historical maintenance records for the failure location.

ii. **Enrollee's Response to SSO:**

a. Chronological narrative description of all actions taken by enrollee to terminate the spill.

b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.

c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.

iii. **Water Quality Monitoring:**

a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.

b. Detailed location map illustrating all water quality sampling points.

6. **PLSDs**

Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee's sanitary sewer system or from other private sanitary sewer system assets may be voluntarily reported to the CIWQS Online SSO Database.

i. The enrollee is also encouraged to provide notification to Cal OES per section B above when a PLSD greater than or equal to 1,000 gallons has or may result in a discharge to surface water. For any PLSD greater than or equal to 1,000 gallons regardless of the spill destination, the enrollee is also encouraged to file a spill report as required by Health and Safety Code section 5410 et. seq. and Water Code section 13271, or notify the responsible party that notification and reporting should be completed as specified above and required by State law.

ii. If a PLSD is recorded in the CIWQS Online SSO Database, the enrollee must identify the sewage discharge as occurring and caused by a private sanitary sewer system asset and should identify a responsible party (other than the enrollee), if known. Certification of PLSD reports by enrollees is not required.

7. **CIWQS Online SSO Database Unavailability**

In the event that the CIWQS Online SSO Database is not available, the enrollee must fax or e-mail all required information to the appropriate Regional Water Board office in accordance with the time schedules identified herein. In such event, the enrollee must also enter all required information into the CIWQS Online SSO Database when the database becomes available.

8. **Mandatory Information to be Included in CIWQS Online SSO Reporting**

All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS which can be reached at CIWQS@waterboards.ca.gov or by calling (866) 792-4977, M-F, 8 A.M. to 5 P.M. These accounts will allow controlled and secure entry into the CIWQS Online SSO Database. Additionally, within thirty (30) days of initial enrollment and prior to recording SSOs into the CIWQS Online SSO Database, all enrollees must complete a Collection System Questionnaire (Questionnaire). The Questionnaire shall be updated at least once every 12 months.

i. **SSO Reports**

At a minimum, the following mandatory information shall be reported prior to finalizing and certifying an SSO report for each category of SSO:

a. **Draft Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 1 SSO report:

1. SSO Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the SSO being reported.
2. SSO Location Name.
3. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
4. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
5. Whether or not the SSO reached a municipal separate storm drain system.
6. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
7. Estimate of the SSO volume, inclusive of all discharge point(s).
8. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.
9. Estimate of the SSO volume recovered (if applicable).
10. Number of SSO appearance point(s).
11. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
12. SSO start date and time.
13. Date and time the enrollee was notified of, or self-discovered, the SSO.
14. Estimated operator arrival time.
15. For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.
16. For spills greater than or equal to 1,000 gallons, the Cal OES control number.

b. **Certified Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to all fields in section 8.i.a :

1. Description of SSO destination(s).
2. SSO end date and time.
3. SSO causes (mainline blockage, roots, etc.).
4. SSO failure point (main, lateral, etc.).
5. Whether or not the spill was associated with a storm event.
6. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
7. Description of spill response activities.
8. Spill response completion date.
9. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.

10. Whether or not a beach closure occurred or may have occurred as a result of the SSO.
11. Whether or not health warnings were posted as a result of the SSO.
12. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.
13. Name of surface water(s) impacted.
14. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
15. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
16. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.
17. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.

c. **Draft Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO.

d. **Certified Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-9, and 17 in section 8.i.b above for Certified Category 1 SSO.

e. **Certified Category 3 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 3 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-5, and 17 in section 8.i.b above for Certified Category 1 SSO.

ii. **Reporting SSOs to Other Regulatory Agencies**

These reporting requirements do not preclude an enrollee from reporting SSOs to other regulatory agencies pursuant to state law. In addition, these reporting requirements do not replace other Regional Water Board notification and reporting requirements for SSOs.

iii. **Collection System Questionnaire**

The required Questionnaire (see subsection G of the SSS WDRs) provides the Water Boards with site-specific information related to the enrollee's sanitary sewer system. The enrollee shall complete and certify the Questionnaire at least every 12 months to facilitate program implementation, compliance assessment, and enforcement response.

iv. **SSMP Availability**

The enrollee shall provide the publicly available internet web site address to the CIWQS Online SSO Database where a downloadable copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP is posted. If all of the SSMP documentation listed in this subsection is not publicly available on the Internet, the enrollee shall comply with the following procedure:

a. Submit an **electronic** copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP to the State Water Board, within 30 days of that approval and within 30 days of any subsequent SSMP re-certifications, to the following mailing address:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
1001 I Street, 15th Floor, Sacramento, CA 95814

D. WATER QUALITY MONITORING REQUIREMENTS:

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.

2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).

3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.

4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.

5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
   i. Ammonia
   ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

E. RECORD KEEPING REQUIREMENTS:

The following records shall be maintained by the enrollee for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The enrollee shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned including any required records generated by an enrollee's sanitary sewer system contractor(s).

2. SSO Records: The enrollee shall maintain records for each SSO event, including but not limited to:
   i. Complaint records documenting how the enrollee responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not

result in SSOs. Each complaint record shall, at a minimum, include the following information:

a. Date, time, and method of notification.

b. Date and time the complainant or informant first noticed the SSO.

c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.

d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.

e. Final resolution of the complaint.

ii. Records documenting steps and/or remedial actions undertaken by enrollee, using all available information, to comply with section D.7 of the SSS WDRs.

iii. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.

3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.

4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:

i. Supervisory Control and Data Acquisition (SCADA) systems

ii. Alarm system(s)

iii. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

F. CERTIFICATION

1. All information required to be reported into the CIWQS Online SSO Database shall be certified by a person designated as described in subsection J of the SSS WDRs. This designated person is also known as a Legally Responsible Official (LRO). An enrollee may have more than one LRO.

2. Any designated person (i.e. an LRO) shall be registered with the State Water Board to certify reports in accordance with the CIWQS protocols for reporting.

3. Data Submitter (DS): Any enrollee employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of the enrollee if authorized by the LRO and registered with the State Water Board. However, only LROs may certify reports in CIWQS.

4. The enrollee shall maintain continuous coverage by an LRO. Any change of a registered LRO or DS (e.g., retired staff), including deactivation or a change to the LRO's or DS's contact information, shall be submitted by the enrollee to the State Water Board within 30 days of the change by calling (866) 792-4977 or e-mailing help@ciwqs.waterboards.ca.gov.

5. A registered designated person (i.e., an LRO) shall certify all required reports under penalty of perjury laws of the state as stated in the CIWQS Online SSO Database at the time of certification.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Resources Control Board.

7/30/13
Date

Jeanine Townsend
Clerk to the Board

Appendix C

UCR SSMP Biennial Audit Checklist

University of California, Riverside
Sewer System Management Plan Audit
Period: 7/1/20xx - 6/30/20xx

Every two years a review of the Sewer System Management Plan (SSMP) must be conducted by representatives from the following departments:

- Plumbing Shop (required)
- Environment, Health and Safety (required)
- Fire Department (recommended)
- Physical Planning & Construction (recommended)
- Physical Plant (recommended)

Representatives should each have a copy of the SSMP and use the following checklist to determine if the plan is effective and in compliance with the regulatory requirements. Environment, Health and Safety shall maintain the documentation of this review for five years.

Section A - General Information

This is a review of the UC SSMP for the period from 7/1/20xx through 6/30/20xx.

This review is being conducted by the following persons:

Printed Name:	Title, Department:
Amanda Grey	Environmental Programs Manager, Environmental Health & Safety

Section B - Performance Indicators

Plumbing shall extract data for performance indicators from Facilities Maintainence Work Order System and maintain documentation in Plumbing Shop area.

Performance Indicators

1	Number of sewer system overflows (SSOs) during the review period.	20xx-20xx: 5 Category 2 20xx-20xx: 1 Category 2
2	Indicate the location of all SSOs during the review period on a map. Utility prints documented in Plumbing Shop area.	20xx-20xx: 20xx-20xx:
3	Total volume of all SSOs during the review period.	20xx-20xx: 20xx-20xx:

University of California, Riverside
Sewer System Management Plan Audit
Period: 7/1/20xx - 6/30/20xx

4	Average volume of an SSO during the review period.	20xx-20xx: 20xx-20xx:
5	Volume of the largest SSO during the review period.	20xx-20xx: 20xx-20xx:
6	% of sewer lines without obstructions.	20xx-20xx: 20xx-20xx:
7	% of blockages cleared within 4 hours.	20xx-20xx: 20xx-20xx:
8	% of repairs completed within campus established time frames.	20xx-20xx: 20xx-20xx:
9	Miles of sanitary sewer lines cleaned.	20xx-20xx: miles (LF) 20xx-20xx: miles (LF)
10	Miles of sanitary sewer lines inspected.	20xx-20xx: miles (LF) 20xx-20xx: miles (LF)

Section C - SSMP Requirements

Requirement		Answer		
		Yes	No	N/A
1	Have there been changes to the regulations since the SSMP was last reviewed?			
	If yes, have the applicable SSMP sections been updated?			
I. Goals				
2	Are the goals stated in the SSMP still appropriate and accurate?			
	If no, have the applicable SSMP sections been updated?			
II. Organization				
3	Is the contact information for the responsible or authorized representative current?			
	If no, have the applicable SSMP sections been updated?			
4	Is the contact information for the staff responsible for implementing specific measures in the SSMP program current?			
	If no, have the applicable SSMP sections been updated?			
5	Is SSO reporting and response Chain of Communication current?			
	If no, have the applicable SSMP sections been updated?			
III. Legal Authority				
6	Does the SSMP cite the University's authority to:			
	6.1 Prevent illicit discharges?			
	6.2 Require proper design and construction of sewers and connections?			
	6.3 Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the University?			

	6.4 Limit discharge of fats, oils, grease, and other debris that may cause blockages?			
	6.5 Enforce any violation of its sewer ordinances?			
	If no, have the applicable SSMP sections been updated?			
IV. Operation and Maintenance Program				
7	Does the SSMP reference the current process and procedures for maintaining the University's sanitary sewer system maps?			
	If no, have the applicable SSMP sections been updated?			
8	Are the University's sanitary sewer system maps complete, current, and sufficiently detailed?			
	If no, have the applicable SSMP sections and/or maps been updated?			
9	Does the SSMP describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system?			
	If no, have the applicable SSMP sections been updated?			
10	Does the SSMP address the need for more frequent cleaning and maintenance targeted at known problem areas?			
	If no, have the applicable SSMP sections been updated?			
11	Does the University's Preventative Maintenance program referenced in the SSMP have a system to document scheduled and conducted activities, such as work orders?			
	If no, have the applicable SSMP sections been updated?			
12	Does the University's Rehabilitation and Replacement Plan referenced in the SSMP identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency?			
	If no, have the applicable SSMP sections been updated?			
13	Does the SSMP describe training expectations and programs?			
	If no, have the applicable SSMP sections been updated?			
14	Does the SSMP list the major equipment currently used in the operation and maintenance of the sanitary sewer systems and does it list the procedures for inventory management?			
	If no, have the applicable SSMP sections been updated?			
15	Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?			
V. Design and Performance Provisions				
16	Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems, pump stations, and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?			
	If no, have the applicable SSMP sections been updated?			
17	Does the SSMP include current procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and the rehabilitation and repair of existing sewer lines?			
	If no, have the applicable SSMP sections been updated?			

University of California, Riverside
Sewer System Management Plan Audit
Period: 7/1/20xx - 6/30/20xx

VI. Overflow Emergency Response Plan				
18	Does the Overflow Emergency Response Plan establish procedures for the emergency response, notification, and reporting of SSO's?			
	If no, have the applicable SSMP sections been updated?			
19	Does the SSMP include procedures to ensure the University's staff and contractor personnel are appropriately trained on the procedures of the Overflow Emergency Response Plan?			
	If no, have the applicable SSMP sections been updated?			
20	Is the Overflow Emergency Response Plan effective in handling SSOs in order to safeguard public health and the environment?			
	If no, have the applicable SSMP sections been updated?			
21	Are all components of the Overflow Emergency Response Plan up to date?			
	If no, have the applicable SSMP sections been updated?			
VII. Fats, Oils, and Grease Control Program				
22	Does the Fats, Oils, and Grease (FOG) Control Program include efforts to educate the public on the proper handling and disposal of FOG?			
	If no, have the applicable SSMP sections been updated?			
23	Does the FOG Control Program identify sections of the sanitary sewer system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize the blockages?			
	If no, have the applicable SSMP sections been updated?			
24	Does the University have sufficient legal authority to implement and enforce the FOG Control Program?			
	If no, have the applicable SSMP sections been updated?			
25	Are requirements for grease removal devices, best management practices (BMP), record keeping, and reporting established in the FOG Control Program?			
	If no, have the applicable SSMP sections been updated?			
26	Is the current FOG Control Program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?			
	If no, have the applicable SSMP sections been updated?			
VIII. System Evaluation and Capacity Assurance Plan				
27	Does the hydraulic capacity evaluation identify deficiencies in the sanitary sewer systems, establish sufficient design criteria and recommend both short-term and long-term capacity enhancement and improvement projects?			
	If no, have the applicable SSMP sections been updated?			
28	Does the Capital Improvement Program (CIP) establish a schedule of completion dates for both short-term and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?			
	If no, have the applicable SSMP sections been updated?			

University of California, Riverside
Sewer System Management Plan Audit
Period: 7/1/20xx - 6/30/20xx

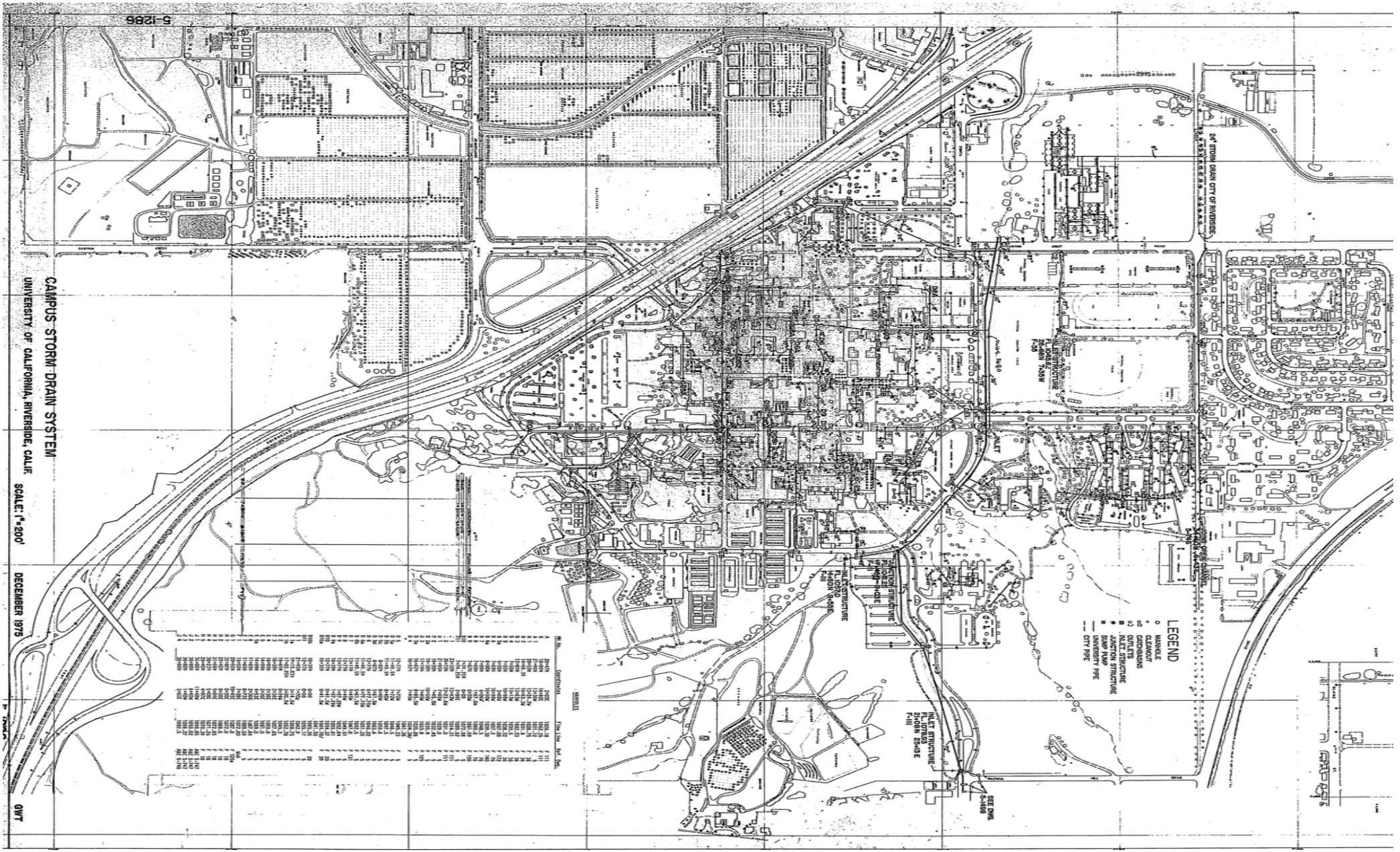
IX. Monitoring, Measurement, and Program Modifications				
29	Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?			
	If no, have the applicable SSMP sections been updated?			
30	Is the University able to sufficiently evaluate the effectiveness of SSMP elements based on relevant information?			
	If no, have the applicable SSMP sections been updated?			
X. SSMP Program Audits				
31	Is this audit occurring at an appropriate frequency based on the size of the system and the number of SSOs?			
	If no, have the applicable SSMP sections been updated?			
32	Will the audit be submitted to the Regional Water Quality Control Board?			
	If no, have the applicable SSMP sections been updated?			
33	Does this audit record changes made and/or corrective actions taken?			
	If no, have the applicable SSMP sections been updated?			
XI. Communication Program				
34	Does the University effectively communicate the performance of their sanitary sewer systems with the public?			
	If no, have the applicable SSMP sections been updated?			
35	Will the most current SSMP be posted on the University's EH&S website?			

Audit Prepared By:

Signature Date	Signature Date
Amanda Grey	
Name	Name
Environmental Programs Manager	Maintenance Plumber Supervisor
Title	Title

Appendix D

Sewer System Drawings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CAMPUS STORM DRAIN SYSTEM
UNIVERSITY OF CALIFORNIA, RIVERSIDE, CALIF.
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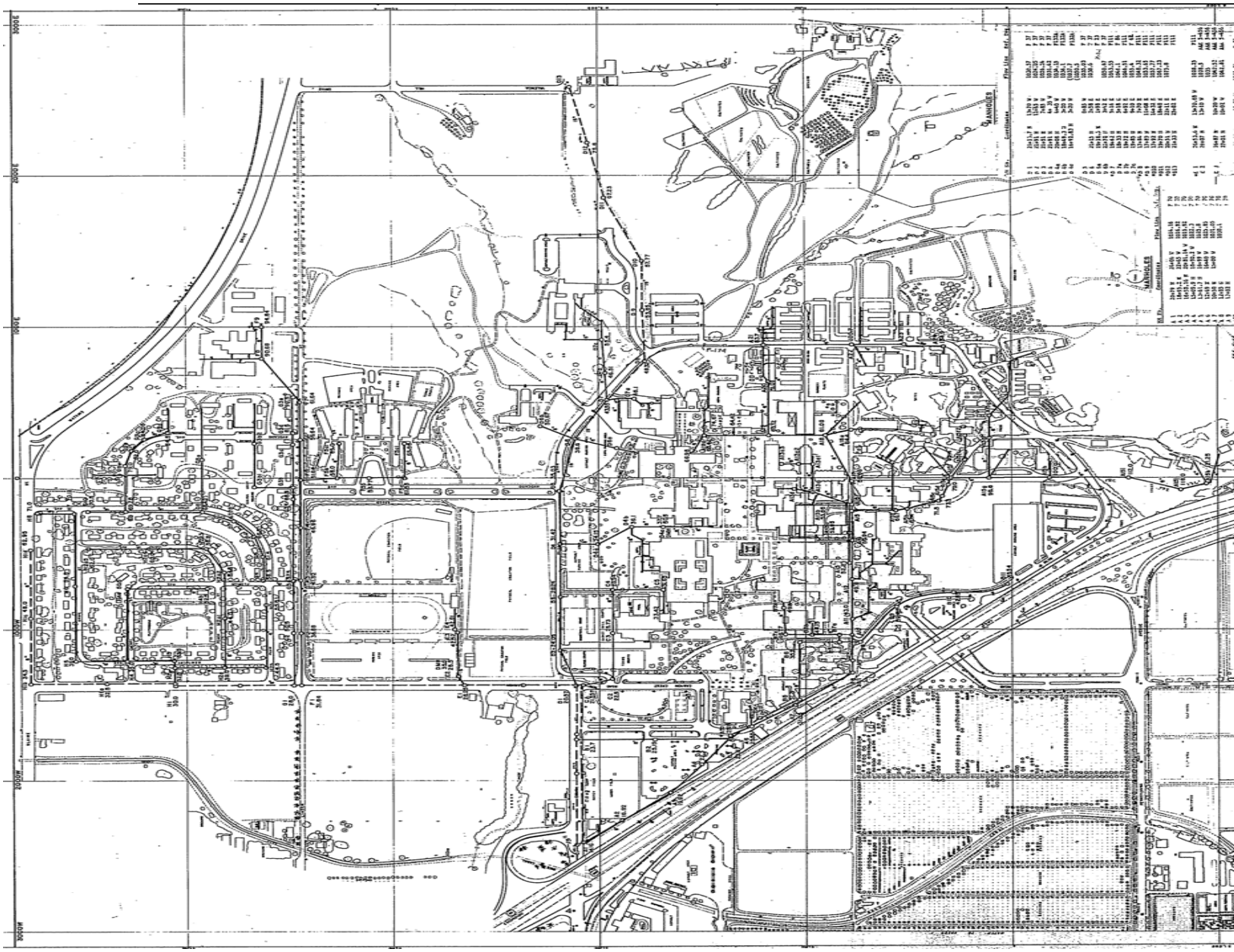
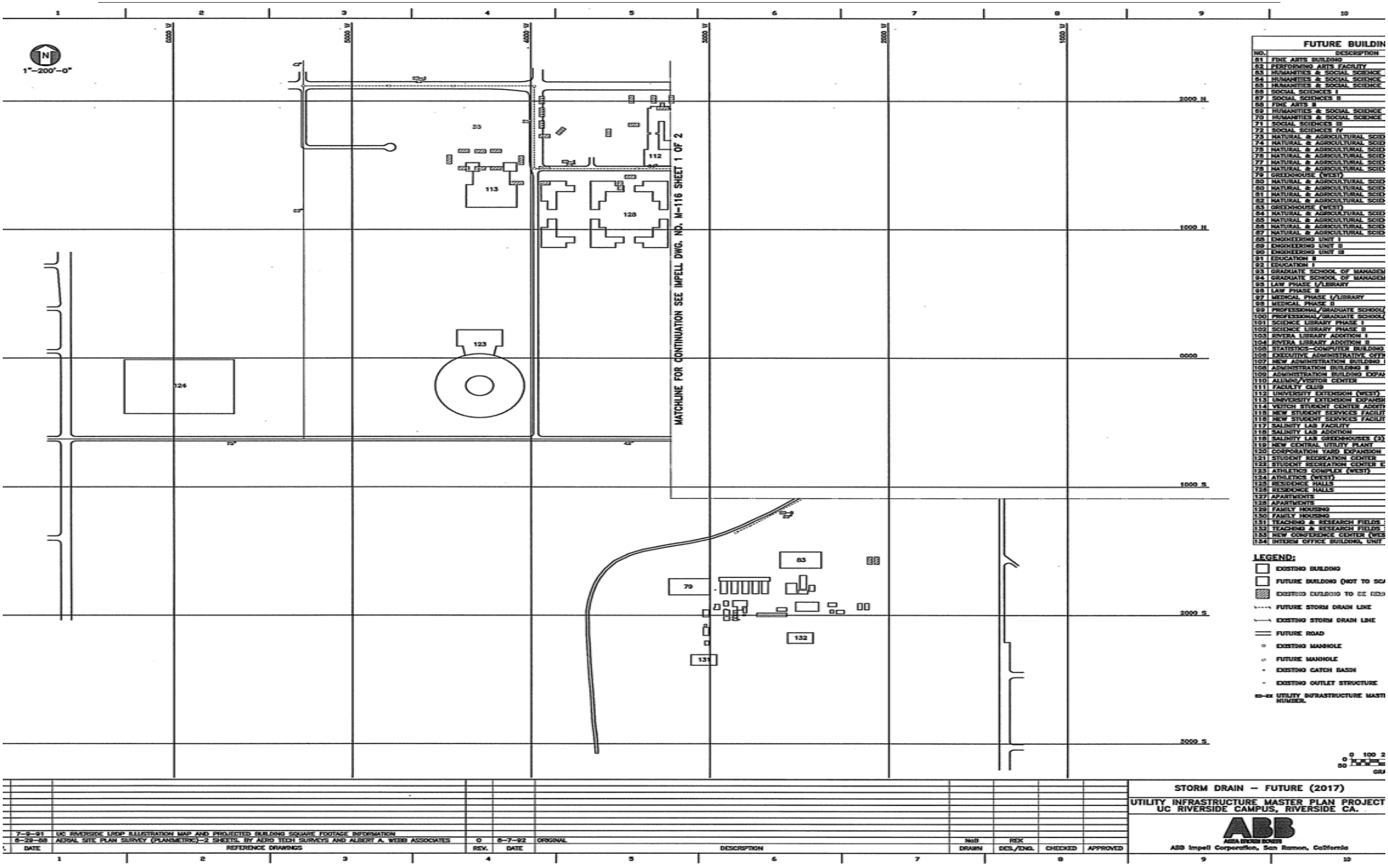
DECEMBER 1975
GWT
LEGEND
MANHOLE
CLEANOUT
CATCHBASINS
OUTLETS
INLET STRUCTURE
JUNCTION STRUCTURE
SUMP PUMP
UNIVERSITY PIPE
CITY PIPE
84" STORM DRAIN CITY OF RIVERSIDE
SEE DWG. 5-1409

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FUTURE STORM DRAIN LINE
EXISTING STORM DRAIN LINE
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EXISTING MANHOLE
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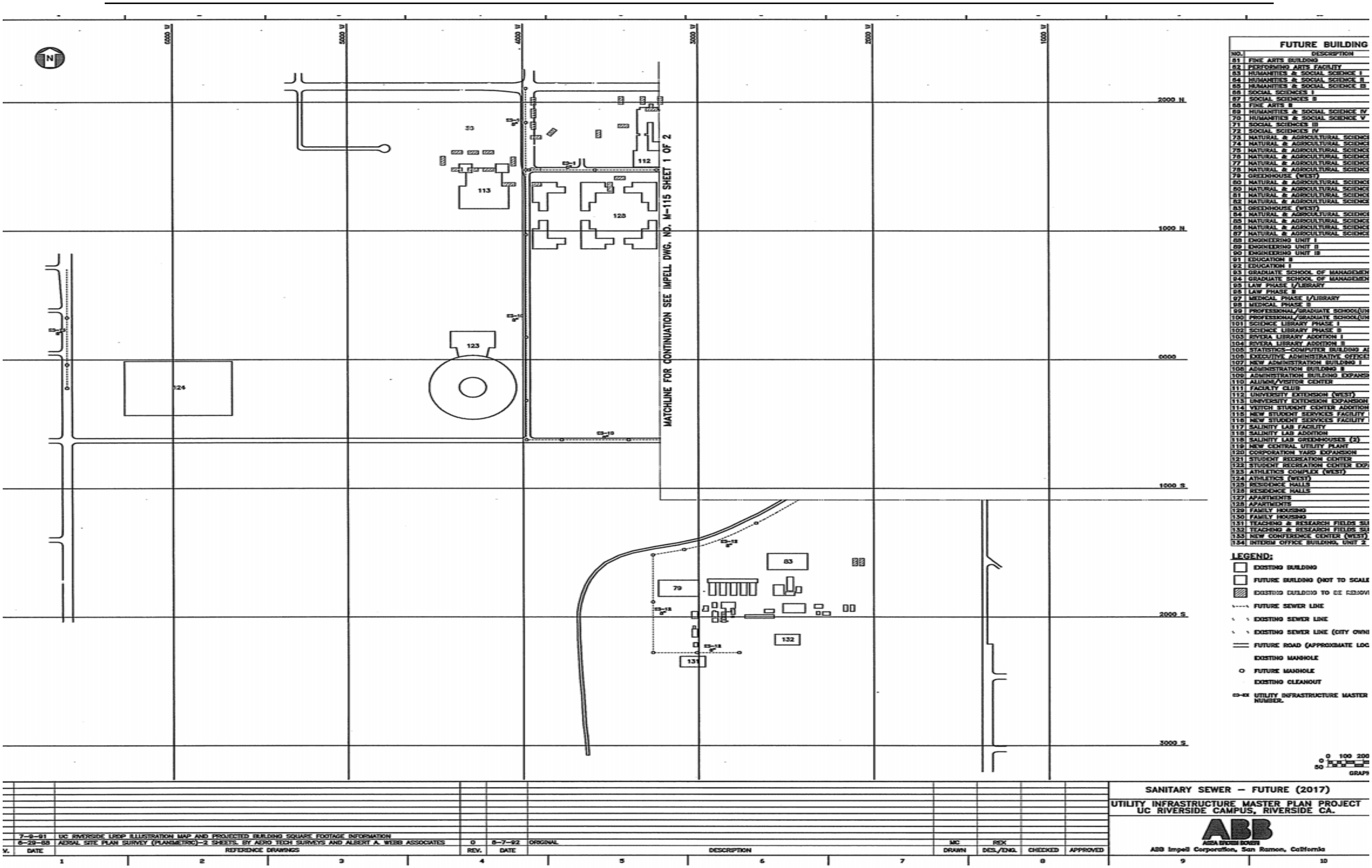
EXISTING CATCH BASIN
EXISTING OUTLET STRUCTURE
UTILITY INFRASTRUCTURE MASTE NUMBER.
7-9-91 UC RIVERSIDE LRDP ILLUSTRATION MAP AND PROJECTED BUILDING SQUARE FOOTAGE INFORMATION
6-22-88 AERIAL SITE PLAN SURVEY (PLANIMETRIC)-2 SHEETS, BY AERO TECH SURVEYS AND ALBERT A. WEBB ASSOCIATES
DATE REFERENCE DRAWINGS
0 6-7-92 ORIGINAL
REV. DATE DESCRIPTION
DRAWN DES./ENG. CHECKED APPROVED
STORM DRAIN – FUTURE (2017)
UTILITY INFRASTRUCTURE MASTER PLAN PROJECT
UC RIVERSIDE CAMPUS, RIVERSIDE CA.
ABB Impell Corporation, San Ramon, California



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62 PERFORMING ARTS FACILITY
63 HUMANITIES & SOCIAL SCIENCE I
64 HUMANITIES & SOCIAL SCIENCE II
65 HUMANITIES & SOCIAL SCIENCE III
66 SOCIAL SCIENCES I
67 SOCIAL SCIENCES II
68 FINE ARTS II
69 HUMANITIES & SOCIAL SCIENCE IV
70 HUMANITIES & SOCIAL SCIENCE V
71 SOCIAL SCIENCES III
72 SOCIAL SCIENCES IV
73 NATURAL & AGRICULTURAL SCIENCE
74 NATURAL & AGRICULTURAL SCIENCE
75 NATURAL & AGRICULTURAL SCIENCE
76 NATURAL & AGRICULTURAL SCIENCE
77 NATURAL & AGRICULTURAL SCIENCE
78 NATURAL & AGRICULTURAL SCIENCE
79 GREENHOUSE (WEST)
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81 NATURAL & AGRICULTURAL SCIENCE
82 NATURAL & AGRICULTURAL SCIENCE
83 GREENHOUSE (WEST)
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86 NATURAL & AGRICULTURAL SCIENCE
87 NATURAL & AGRICULTURAL SCIENCE
88 ENGINEERING UNIT I
89 ENGINEERING UNIT II
90 ENGINEERING UNIT III
91 EDUCATION II
92 EDUCATION I
93 GRADUATE SCHOOL OF MANAGEMEN
94 GRADUATE SCHOOL OF MANAGEMEN
95 LAW PHASE I/LIBRARY
96 LAW PHASE II
97 MEDICAL PHASE I/LIBRARY
98 MEDICAL PHASE II
99 PROFESSIONAL/GRADUATE SCHOOL(UN
100 PROFESSIONAL/GRADUATE SCHOOL(UN
101 SCIENCE LIBRARY PHASE I
102 SCIENCE LIBRARY PHASE II
103 RIVERA LIBRARY ADDITION I
104 RIVERA LIBRARY ADDITION II
105 STATISTICS-COMPUTER BUILDING AI
106 EXECUTIVE ADMINISTRATIVE OFFICE
107 NEW ADMINISTRATION BUILDING I
108 ADMINISTRATION BUILDING II
109 ADMINISTRATION BUILDING EXPANSI
110 ALUMNI/VISITOR CENTER
111 FACULTY CLUB
112 UNIVERSITY EXTENSION (WEST)
113 UNIVERSITY EXTENSION EXPANSION
114 VEITCH STUDENT CENTER ADDITION
115 NEW STUDENT SERVICES FACILITY
116 NEW STUDENT SERVICES FACILITY
117 SALINITY LAB FACILITY
118 SALINITY LAB ADDITION
118 SALINITY LAB GREENHOUSES (2)
119 NEW CENTRAL UTILITY PLANT
120 CORPORATION YARD EXPANSION
121 STUDENT RECREATION CENTER
122 STUDENT RECREATION CENTER EXP
123 ATHLETICS COMPLEX (WEST)
124 ATHLETICS (WEST)
125 RESIDENCE HALLS
126 RESIDENCE HALLS
127 APARTMENTS
128 APARTMENTS
129 FAMILY HOUSING
130 FAMILY HOUSING
131 TEACHING & RESEARCH FIELDS SU
132 TEACHING & RESEARCH FIELDS SU
133 NEW CONFERENCE CENTER (WEST)
134 INTERIM OFFICE BUILDING, UNIT 2
LEGEND:
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FUTURE SEWER LINE
EXISTING SEWER LINE
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FUTURE MANHOLE
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UTILITY INFRASTRUCTURE MASTER NUMBER.
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UTILITY INFRASTRUCTURE MASTER PLAN PROJECT
UC RIVERSIDE CAMPUS, RIVERSIDE CA.
ABB
ABB Impell Corporation, San Ramon, California
7-9-91 UC RIVERSIDE LRDP ILLUSTRATION MAP AND PROJECTED BUILDING SQUARE FOOTAGE INFORMATION
6-29-88 AERIAL SITE PLAN SURVEY (PLANIMETRIC)-2 SHEETS. BY AERO TECH SURVEYS AND ALBERT A. WEBB ASSOCIATES
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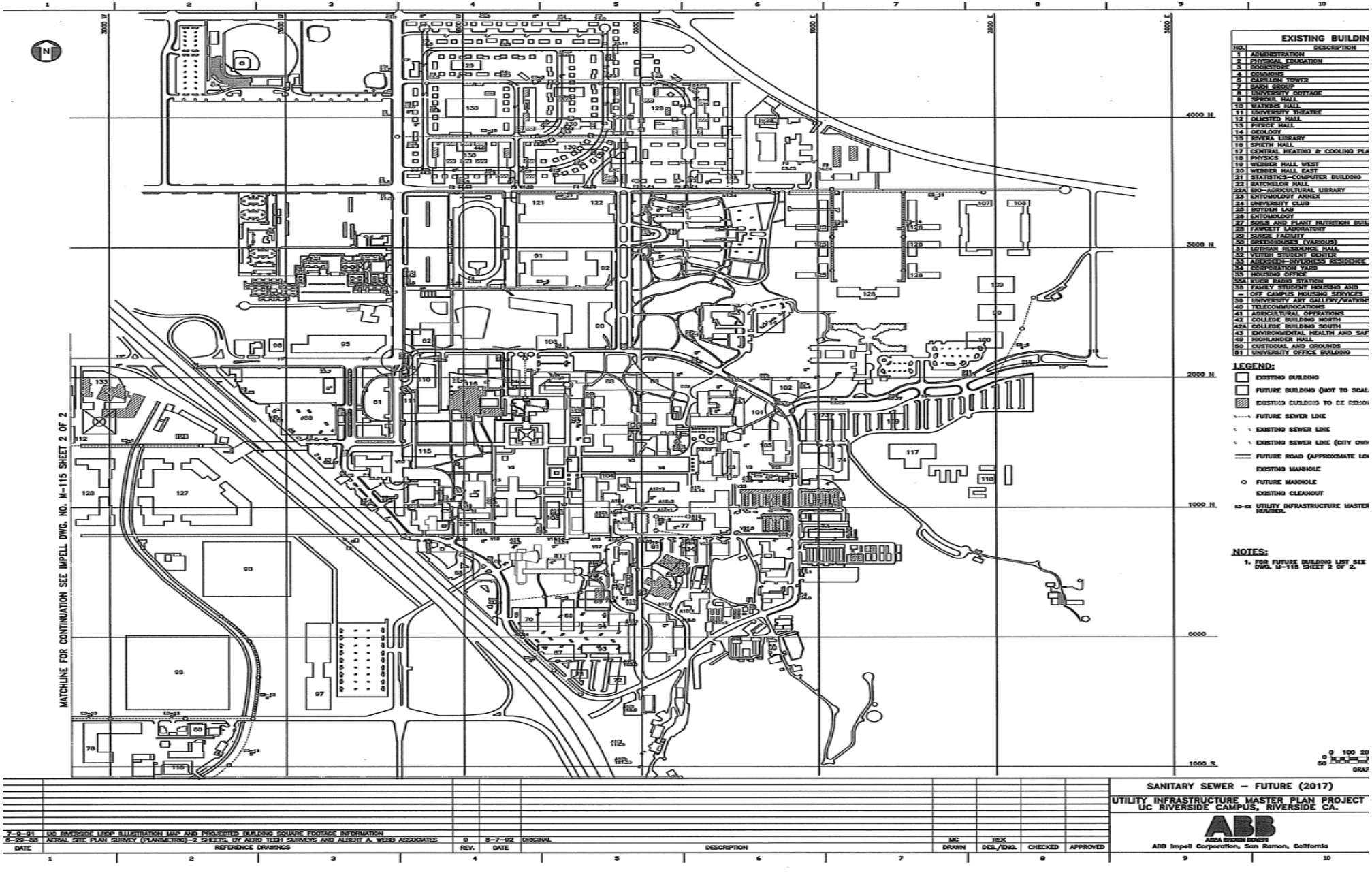
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4 COMMONS
5 CARILLON TOWER
7 BARN GROUP
8 UNIVERSITY COTTAGE
9 SPROUL HALL
10 WATKINS HALL
11 UNIVERSITY THEATRE
12 OLMSTED HALL
13 PIERCE HALL
14 GEOLOGY
15 RIVERA LIBRARY
16 SPIETH HALL
17 CENTRAL HEATING & COOLING PLA
18 PHYSICS
19 WEBBER HALL WEST
20 WEBBER HALL EAST
21 STATISTICS-COMPUTER BUILDING
22 BATCHELDER HALL
22A BIO-AGRICULTURAL LIBRARY
23 ENTOMOLOGY ANNEX
24 UNIVERSITY CLUB
25 BOYDEN LAB
26 ENTOMOLOGY
27 SOILS AND PLANT NUTRITION BUIL
28 FAIRCHILD LABORATORY
29 SURGE FACILITY
30 GREENHOUSES (VARIOUS)
31 LOTHIAN RESIDENCE HALL
32 VEITCH STUDENT CENTER
33 ABERDEEN-INVERNESS RESIDENCE
34 CORPORATION YARD
35 HOUSING OFFICE
35A RUCR RADIO STATION
36 FAMILY STUDENT HOUSING AND
- OFF CAMPUS HOUSING SERVICES
39 UNIVERSITY ART GALLERY/WATKINS
40 TELECOMMUNICATIONS
41 AGRICULTURAL OPERATIONS
42 COLLEGE BUILDING NORTH
42A COLLEGE BUILDING SOUTH
43 ENVIRONMENTAL HEALTH AND SAF
49 HIGHLANDER HALL
50 EXISTIONAL AND GROUNDS
51 UNIVERSITY OFFICE BUILDING
LEGEND:
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EXISTING MANHOLE
FUTURE MANHOLE
EXISTING CLEANOUT
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SANITARY SEWER - FUTURE (2017)
UTILITY INFRASTRUCTURE MASTER PLAN PROJECT
UC RIVERSIDE CAMPUS, RIVERSIDE CA.
ABB
ABB Impell Corporation, San Ramon, California
7-9-91 UC RIVERSIDE LRDP ILLUSTRATION MAP AND PROJECTED BUILDING SQUARE FOOTAGE INFORMATION
6-22-88 AERIAL SITE PLAN SURVEY (PLANIMETRIC)-2 SHEETS, BY AERO TECH SURVEYS AND ALBERT A. WEBB ASSOCIATES
DATE REFERENCE DRAWINGS
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REV. DATE DESCRIPTION
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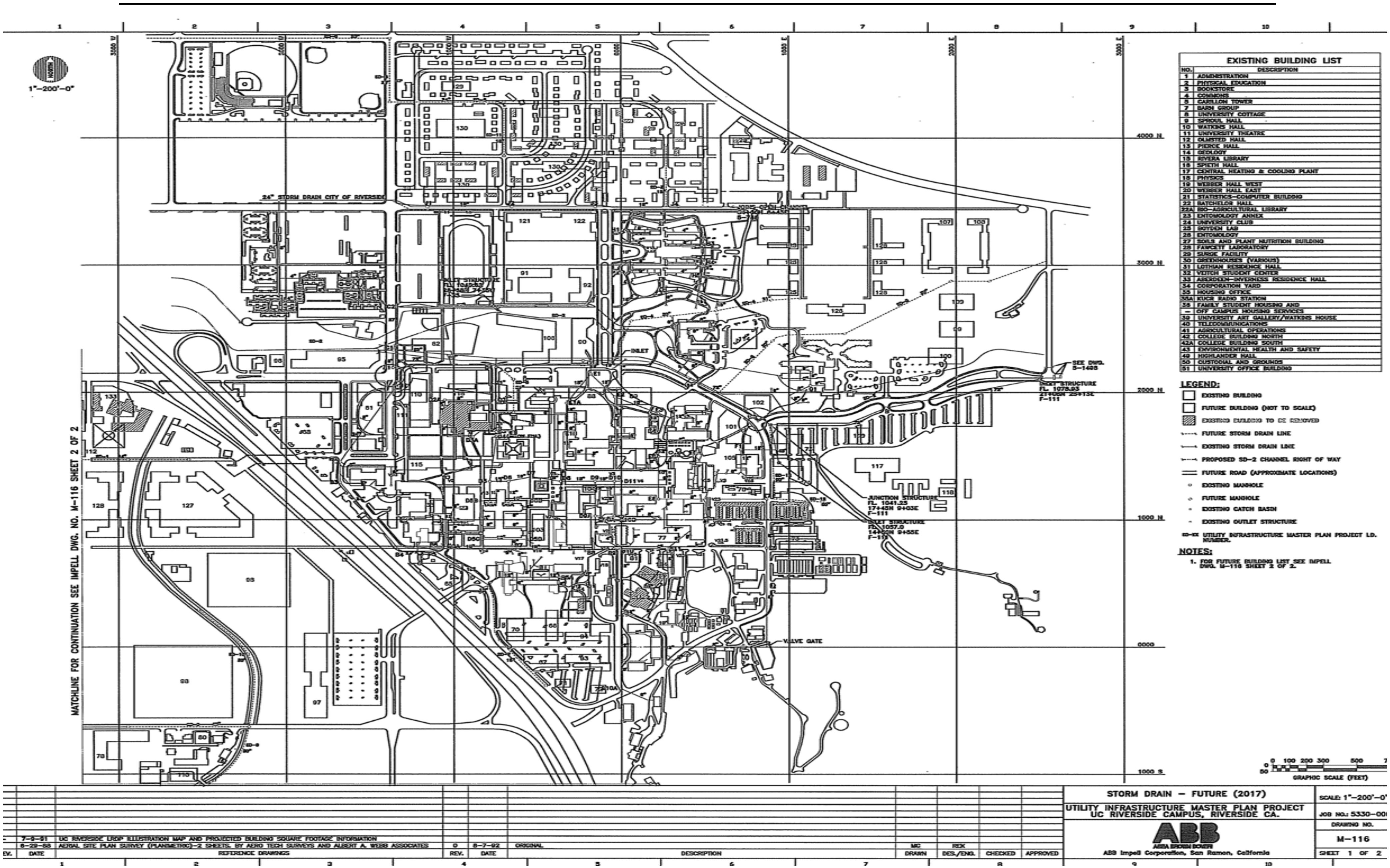
APPROVED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9 SPROUL HALL
10 WATKINS HALL
11 UNIVERSITY THEATRE
12 OLMSTED HALL
13 PIERCE HALL
14 GEOLOGY
15 RIVERA LIBRARY
16 SPIETH HALL
17 CENTRAL HEATING & COOLING PLANT
18 PHYSICS
19 WEBBER HALL WEST
20 WEBBER HALL EAST
21 STATISTICS-COMPUTER BUILDING
22 BATCHELOR HALL
22A BIO-AGRICULTURAL LIBRARY
23 ENTOMOLOGY ANNEX
24 UNIVERSITY CLUB
25 BOYDEN LAB
26 ENTOMOLOGY
27 SOILS AND PLANT NUTRITION BUILDING
28 FAWCETT LABORATORY
29 SURGE FACILITY
30 GREENHOUSES (VARIOUS)
31 LOTHIAN RESIDENCE HALL
32 VEITCH STUDENT CENTER
33 ABERDEEN-INVERNESS RESIDENCE HALL
34 CORPORATION YARD
35 HOUSING OFFICE
35A KUCR RADIO STATION
36 FAMILY STUDENT HOUSING AND
– OFF CAMPUS HOUSING SERVICES
39 UNIVERSITY ART GALLERY/WATKINS HOUSE
40 TELECOMMUNICATIONS
41 AGRICULTURAL OPERATIONS
42 COLLEGE BUILDING NORTH
42A COLLEGE BUILDING SOUTH
43 ENVIRONMENTAL HEALTH AND SAFETY
49 HIGHLANDER HALL
50 CUSTODIAL AND GROUNDS
51 UNIVERSITY OFFICE BUILDING
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EXISTING BUILDING TO BE REMOVED
FUTURE STORM DRAIN LINE
EXISTING STORM DRAIN LINE
PROPOSED SD-2 CHANNEL RIGHT OF WAY
FUTURE ROAD (APPROXIMATE LOCATIONS)
EXISTING MANHOLE
FUTURE MANHOLE
EXISTING CATCH BASIN
EXISTING OUTLET STRUCTURE
SD-XX UTILITY INFRASTRUCTURE MASTER PLAN PROJECT I.D. NUMBER.
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GRAPHIC SCALE (FEET)
STORM DRAIN – FUTURE (2017)
UTILITY INFRASTRUCTURE MASTER PLAN PROJECT
UC RIVERSIDE CAMPUS, RIVERSIDE CA.
ABB
ABB Impell Corporation, San Ramon, California
SCALE: 1"=200'-0"
DRAWING NO.
M-116
SHEET 1 OF 2
7-9-91 UC RIVERSIDE LRDP ILLUSTRATION MAP AND PROJECTED BUILDING SQUARE FOOTAGE INFORMATION
6-29-88 AERIAL SITE PLAN SURVEY (PLANIMETRIC)-2 SHEETS. BY AERO TECH SURVEYS AND ALBERT A. WEBB ASSOCIATES
REFERENCE DRAWINGS
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REV. DATE DESCRIPTION DRAWN DES./ENG. CHECKED APPROVED