

Clean Water Program

Responsible Administrator: Environmental Compliance Specialist
 Revised: August 2023

Summary: The University of California, Irvine (UC Irvine) Water Quality Program assists the campus in surface water pollution prevention and provides compliance assistance on Santa Ana Regional Water Quality Control Board (SARWQCB) and other Clean Water Act (CWA) laws and regulations.

1. Program Description 1
 2. Scope 1
 3. Responsibilities 1
 4. Program Components 2
 5. Reporting Requirements 4
 6. References 4

1. Program Description

Program activities include providing compliance assistance to the campus on watershed management and storm water regulations, sampling and analyzing storm water, assessing sources of storm water pollutants on campus, labeling storm drains, and developing outreach and education guidelines. In addition to the existing SARWQCB permitting programs required by the state law, UC Irvine is required to implement a Storm Water Management Plan (SWMP), which includes the campus’ best management practices (BMPs) and meets federal Environmental Protection Agency (EPA) and Clean Water Act laws and regulations.

2. Scope

This program details the elements of the Clean Water Program in order to assist the UC Irvine campus, North Campus, University Hills, San Joaquin Landfill and Marsh are in compliance with all Federal, State and local laws and regulations.

3. Responsibilities

Department Chairs / Directors / Principal Investigators (PI)

- Inform staff that they must not discharge any hazardous materials or wastes into the sanitary sewer system or storm drain.
- Notify Environmental Health and Safety (EHS) immediately of improper dumping of hazardous materials or waste on campus.

Design and Construction Services (D&CS) / Facilities Management (FM)

- Ensure that construction projects follow National Pollutant Discharge Elimination System (NPDES) permitting requirements.
- If the projects have been designated as being subject to the NPDES permitting requirements, the contractors must prepare and submit the necessary application forms, such as the Notice of Intent (NOI) or the Notice of Termination (NOT).
- Submit either the NOIs/NOTs to the EHS Environmental Programs Manager.
- Once the Director of EHS approves the applications, they will be returned to D&CS/FM for submittal.

EHS Environmental Management Division

- Provide training resources/consultation services to campus entities.
- Assist and approve the preparation of all necessary NPDES construction permit applications for D&CS and FM. Departments will be required to pay for initial permit fees, and any annual fees depending on the duration of the construction projects.
- Review all construction and renovation plans from D&CS and FM to identify water discharge sources.
- Implement and maintain the campus SWMP, including BMPs and annual fees.
- Identify (with campus assistance) and eliminate any illicit connections between polluting activities and storm water run-off routes.
- Conduct individual or group monitoring of storm water run-off for pollutants annually during each wet season.
- Annually report results of the past year's monitoring and certifying compliance with BMPs by July 1 of each year, pursuant to the Annual Storm Water Reports to the Regional Water Quality Control Board.

4. Program Components

Federal Clean Water Act

- Addresses water pollution issues through a system of permitting designed to control, and eventually eliminate water pollution. The principal federal mechanism is the NPDES permit, which requires that all point source discharges of pollution (broadly defined to include virtually anything that affects the natural environment) to navigable water are required to be permitted.
- The CWA provides for complete delegation of authority to states for NPDES permitting once the EPA administrator approves the state program. In California, this authority has been designated to the State Water Resources Control Board (SWRCB) and its regional water quality control boards.

State Water Pollution Control Program

- The SWRCB performs the rulemaking and appeals function of the state water resources control program. This responsibility includes water policy issues including water rights and allocations, and other resource related matters. The SWRCB has been part of the Resources Agency, however, given its important role in the area of water quality and pollution control, it was reorganized in 1991 into the new California Environmental Protection Agency (Cal/EPA).

Programs to Address Specific Water-Related Problems

- Given the importance of water resources to California and the myriad situations posing a threat to both surface and ground water supplies, several special regulatory programs have been developed to assure necessary protection of state waters.
 - Subchapter 15 regulations apply to all waste disposals to land, including hazardous and non-hazardous materials, into landfills and surface impoundments [23 California Code of Regulations Sections 2510-2601].
 - Toxic Pit Cleanup Act of 1984 [Health and Safety Code Section 25208, et seq] regulates surface impoundments that existed before Subchapter 15 regulations were established and which do not meet the current requirements, such as double containment, leachate collection and monitoring.

- Underground and aboveground storage tanks are another area where specific regulatory programs have been authorized by federal and state law, and administered by the state and regional water boards.

Storm Water Runoff Regulation

- Since 1992, a federal and state permitting and regulatory program has comprehensively regulated storm water runoff (i.e., non-point discharge). The 1987 amendments to the federal CWA required EPA to establish a regulatory system to manage storm water discharges. The resulting regulation [40 CFR Sections 122-124] became effective in November 1991 and provided for state implementation. In California, the SWRCB adopted by resolution a storm water pollution program that implements the federal regulations. This action, which has the effect of a regulation, defines facilities subject to permitting. A “light industry” exemption is available to any facility, which is not specifically mandated to be subject to this program if it does not expose polluting materials to storm water. However, EPA’s Phase II program (permit) adopted on October 29, 1999, and the State implementation of it now more precisely address such situations, which also includes the campus of UC Irvine.
- The State’s Phase II Program (adopted May 2003) now includes “light industries” if they engage in certain polluting activities, such as material handling out of doors, storage and dispensing activities. Such facilities would be required to obtain a permit or state authorization and comply with program requirements. Small municipalities serving less than 100,000 persons and construction sites disturbing 1 to 5 acres are covered.
- The storm water runoff regulations apply to Construction, Industrial, Municipal, and Caltrans projects. Since UC Irvine engages in construction projects that disturb one or more acres of soil or projects that disturb less than one acre but are part of a larger common plan of development that in total disturb one or more acres, the campus must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).
- UC Irvine also owns the San Joaquin Landfill (SJL), an inactive landfill located on North Campus. The SJL has been inactive since 1969, and because at one time it was an active landfill, it is subject to the Industrial storm water program, regulated under Order No. R8-2013-0010 (Order No. 2013-0010).
- As mentioned earlier, UC Irvine is also subject to the municipal storm water program under the Phase II Program. The municipal storm water permitting program regulates storm water discharges from municipal separate storm sewer systems (MS4s). MS4 permits were issued in two phases.
- Under Phase I, which started in 1990, the Regional Water Quality Control Boards have adopted NPDES storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. These permits are reissued as the permits expire.
- As part of Phase II, the SWRCB adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

Industrial Use of Community Sewer Systems

- The most common method for facilities to dispose of wastewater is by discharge to a community sewer system (i.e., point and/or direct discharge). Facilities using this wastewater management practice are called industrial users and are subject to the regulatory requirements of the municipal, county, or regional sanitation district that serves the user. Publicly Owned Treatment Works (POTWs) or sewage plants, are themselves subject to waste discharge requirements and responsible for implementing federal rules governing industrial categorical pre-treatment

standards. UC Irvine as a campus discharges all its wastewater to the Irvine Ranch Water District (IRWD), which has established effluent limits on the campus discharge. Prior to discharging wastewater to the local sanitation district (e.g., Orange County Sanitation District), IRWD conducts pre-treatment to ensure the wastewater discharge limits are not exceeded.

- The purpose of these standards is to assure that discharges into the sewer system will not adversely affect treatment plant operations or compromise the waste discharge requirements of the POTW, and will result in a sewage sludge which is sufficiently inert that disposal or beneficial reuse will be feasible.

5. Reporting Requirements

Annual Storm Water Report for the San Joaquin Landfill (SJL)

- Since UC Irvine is subject to Order No. R8-2013-0010 for the SJL, the campus is required to submit the requisite report by July 1 of each year. The annual report is required to be certified and signed by the EHS Director, that the information contained in the report is true and accurate.

Illegal Discharges and Illicit Connections

- Illegal discharges to both municipal storm and sanitary sewer drains including but not limited to: spills (liquid or solid), illicit connections, overflows from sewage systems.

6. References

Laws and Regulations on Waste Water Management, Discharges to the Land, and State Waters and Sewer Systems

State Laws

- Waste Water Discharges of Waste to Land and State Waters. Water Code §§13370-13389
- Water Quality Programs Water Code §§13000, et seq.
- Water Quality Regulatory Procedures Water Code §§13370-13389
- Toxic Pit Cleanup Act (TPCA) (surface impoundments) Health and Safety Code §§25208-25208.2
- Toxic or Underground Injection Wells Health and Safety Code §§25159-25159.25
- Safe Drinking Water and Toxics Enforcement Act (Proposition 65) Discharge Prohibitions Health and Safety Code §§24249.5-24249.137.2

Federal Laws

- Federal Clean Water Act – The National Pollution Discharge Elimination System (NPDES). Includes provisions on storm water runoff regulations, discharges to sewer systems and pretreatment requirements. - 42 USC §§1251-1389

State Regulations

- Waste Water Discharges of Waste to Land and State Waters - 23 CCR §§2200-2260, as well as local sanitation district regulations
- Waste Discharges from Non-Point Sources - 23 CCR §§2205-2234
- Waste Discharges from Point Sources - 23 CCR §§2235-2235.4
- Enforcement Procedures - 23 CCR §§2240-2245
- Waste Classification and Management - 23 CCR §§2520-2533
- Surface Impoundments and Other Discharge to Land - 23 CCR §§2510-2601

- Safe Drinking Water and Toxics Enforcement Act (Proposition 65) Discharge Prohibitions - 22 CCR §§12401, et seq.
- Discharges to Sewer Systems - Local sanitation district regulations
- Storm Water Pollution Prevention - Regulations of SWRCB, state General Permit and Guidance documents

Federal Regulations

- Water Programs and Enforcement - 40 CFR §§100-149
- Waste Water Discharges of Waste to Land and Waters (Federal Permits) - 40 CFR §§122
- Storm Water Runoff Regulations - 40 CFR §§122-124
- Pretreatment Standards - 40 CFR §§400-424