1. Program Description (Purpose)

The UC Irvine (UCI) Environmental Health and Safety (EH&S) 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. 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, stenciling storm drains and developing education guidelines and programs. In addition to the existing SARWQCB permitting programs required by the state law, UCI 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) regulations of the Clean Water Act.

2. Scope

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

3. Specific Program Components

3.1 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 National Pollution Discharge Elimination System (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 (e.g., SARWQCB).
3.2 State Water Pollution Control Program

The State water quality and pollution control program began with the Porter-Cologne Water Quality Control Act of 1969, which established a comprehensive program for both regulating water quality and controlling sources of pollution from point and non-point discharges.

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).

3.3 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, a number of special regulatory programs have been developed to assure necessary protection of state waters.

3.3.1 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].

3.3.2 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.

3.3.3 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 (See EH&S Underground and Aboveground Storage Tank Compliance Programs).

3.3.4 Toxic or underground injection wells. Any disposal of wastes into a well shaft or dry well that poses a significant threat to groundwater is subject to all the provisions for regulating discharges of waste [Health and Safety Code Section 25159-25159.25].

3.4 The Safe Drinking Water and Toxics Enforcement Act (Proposition 65)

Proposition 65 prohibits the discharge to a potential source of drinking water of a chemical known to the state to cause cancer or reproductive harm [22 CCR
Sections 12000 (b) and (c)]. About 600 chemicals are listed and any detectable amount triggers applicability of the statute unless the discharger can demonstrate that the discharge results in no significant risk.

3.5 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 1 or more acres of soil or projects that disturb less than 1 acre but are part of a larger common plan of development that in total disturb 1 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-permitees 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.

3.6 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. UCI as a campus discharges all of 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.

4. Responsibilities And Specific Program Components

4.1 Department Chairs/Directors/PI’s

4.1.1 Make certain that staff is aware that they must not discharge any recognizable hazardous wastes into the sewer system.

4.1.2 Notify EH&S immediately in the event there are any illicit point and non-point discharges noticed on campus.

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

4.2.1 Determine if the new/existing construction projects are subject to the NPDES permitting requirements. Please contact the EH&S Environmental Programs Manager if there are any questions.

4.2.2 If the projects have been designated as being subject to the NPDES permitting requirements, ensure the contractors prepare and submit the necessary application forms, such as the Notice of Intent (NOI) or the Notice of Termination (NOT).

4.2.3 Submit either the NOIs/NOTs to the EH&S Environmental Programs Manager.

4.2.4 Once the Director of EH&S approves the applications, they will be returned to D&CS/FM for submittal.

4.3 EH&S Environmental Management Division

4.3.1 Provide training resources/consultative services to campus entities.
4.3.2 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. Furthermore, if there are any changes to existing permitted sources, then the same aforementioned fee structure applies.

4.3.3 Review all construction and renovation plans from D&CS and FM to identify any new point and non-point water discharge sources.

4.3.4 Will implement and maintain the campus SWMP, along with the San Joaquin Landfill Storm Water Pollution Prevention Plan (San Joaquin Landfill SWPPP), including Best Management Practices (BMPs) and annual fees.

4.3.5 Identify (with campus assistance) and eliminate any illicit connections between polluting activities and storm water run-off routes.

4.3.6 Conduct individual or group monitoring of storm water run-off for pollutants annually during each wet season.

4.3.7 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.

5. Reporting requirements

5.1 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 EH&S Director, that the information contained in the report is true and accurate.

5.2 Illegal Discharges and Illicit Connections

Pursuant to Proposition 65, Health and Safety Code 25180.7, provides that “Any designated government employee who obtains information in the course of his/her official duties revealing the illegal discharge or threatened illegal discharge of a hazardous waste within the geographical area of his/her jurisdiction, and who knows that such discharge or threatened discharge is likely to cause substantial injury to public health or safety, must, within 72 hours, disclose such information to the local health officer”, or the EH&S Department.

Illegal discharges to both municipal storm and sewer drains include the following examples (not exhaustive): spills (liquid or solid), illicit connections, overflows from sewage systems.

6. Information references

6.1 Urban Runoff and Water Pollution: This help sheet outlines how to manage pollutants in urban runoff.
6.2 **Urban Management Measures**: This document discusses urban non-point sources of pollution that affect State waters.

6.3 **The State Water Quality Control Board (SWQCB)**: This web page will provide an overview of the SWQCB.

7. **External references**

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

7.1 **State Laws**

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7.2 **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

7.3 **State Regulations**

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7.4 **Federal Regulations**

<p>| Water Programs and Enforcement | 40 CFR §§100-149 |</p>
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