

***Sonoma State University***

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**Storm Water Pollution Prevention Plan**

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**March 2011**

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## DESCRIPTION OF GENERAL STORM WATER PERMIT CONDITIONS

### Prohibitions

This General Permit authorizes storm water and authorized non-storm water discharges from facilities that are required to be covered by a storm water permit. This General Permit prohibits discharges of material other than storm water (non-storm water discharges) that are not authorized by the General Permit and discharges containing hazardous substances in storm water in excess of reportable quantities established at 40 CFR 117.3 and 40 CFR 302.4. Authorized non-storm water discharges are addressed in the Special Conditions of the General Permit.

### Effluent Limitations

NPDES Permits for storm water discharges must meet all applicable provisions of Sections 301 and 402 of the federal Clean Water Act. These provisions require control of pollutant discharges using best available technology economically achievable (BAT) and best conventional control technology (BCT) to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards.

U.S. EPA regulations (40 CFR Subchapter N) establish effluent limitation guidelines for storm water discharges from facilities in ten industrial categories. For these facilities, compliance with the effluent limitation guidelines constitutes compliance with BAT and BCT for the specified pollutants and must be met to comply with this General Permit.

Discharges from facilities not among the ten industrial categories listed in 40 CFR Subchapter N, it is not feasible at this time to establish numeric effluent limitations. The reasons why establishment of numeric effluent limitations is not feasible are discussed in detail in State Water Board Orders No. WQ 91-03 and WQ 91-04. Therefore, this General Permit allows the facility operator to implement Best Management Practices (BMPs) to comply with the requirements of this General Permit. This approach is consistent with the U.S. EPA's August 1, 1996 "Interim Permitting Approach for Water Quality Based Effluent Limitations in Storm Water Permits".

### Receiving Water Limitations

Storm water discharges shall not cause or contribute to a violation of an applicable water quality standard. The General Permit requires facility operators to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges through the development and implementation of BMPs which constitutes compliance with BAT and BCT, in most cases, compliance with water quality standards. If receiving water quality standards are exceeded, facility operators are required to submit a written report providing additional BMPs that will be implemented to achieve water quality standards.

### Storm Water Pollution Prevention Plans (SWPPPs)

All facility operators must prepare, retain on site, and implement an SWPPP. The SWPPP has two major objectives:

- (1) to help identify the sources of pollution that affect the quality of industrial storm water discharges and authorized non-storm water discharges, and

(2) to describe and ensure the implementation of BMPs to reduce or prevent pollutants in industrial storm water discharges and authorized non-storm water discharges.

This General Permit requires development and implementation of an SWPPP emphasizing BMPs. This approach provides the flexibility necessary to establish appropriate BMPs for potential storm water pollutant sources.

# SONOMA STATE UNIVERSITY

## STORM WATER POLLUTION PREVENTION PLAN

### **1. Implementation Schedule & History**

Development of Sonoma State University's Storm Water Pollution Prevention Plan commenced with the filing of a Notice of Intent on April 10, 1997. The determining factor for permit requirements is the Standard Industrial Classification (SIC) designation for each facility. Under the SIC system, each establishment is classified according to its primary activity. Automotive servicing and other routine maintenance performed in support of primary activity is designated with an auxiliary number. Sonoma State University is primarily an educational institution (SIC 8221) with auxiliary maintenance (SIC auxiliary 9). Although educational institutions are not required to obtain an NPDES permit under federal regulations, the State Water Resources Control Board has determined that auxiliary activities must be considered when determining applicability of the permit.

Sonoma State University was not considered to have regular storm water discharges of hazardous pollutants associated with its activities. Therefore, regardless of the primary or auxiliary Standard Industrial Classification, SSU was not considered in need of an NPDES permit.

Sonoma State University has been proactive in preventing discharges to natural waters. Installation of the vehicle wash down area, hazardous waste storage building, plugged drains, worker educational programs, and emergency spill response teams all attest to the University's commitment to prevent the discharge of contaminants to the storm sewer system.

The present Notice of Intent under the State Water Resources Control Board general permit was submitted as a result of low level concentrations of heavy metals entering storm drains in the Art Department Corporation Yard. A routine inspection of the area by City of Santa Rosa personnel noted the potential need to monitor for possible contaminants. Initial sampling revealed that varying concentrations of heavy metals were accumulating in storm drains within the Art Department Corporation Yard. Subsequent to the identification of contaminants, a survey was conducted by SSU's Environmental Health & Safety staff that identified control options for minimizing metal contaminants from entering the storm water system.

A major renovation project occurring in the Spring and Summer of 1997 that involved significant work to mitigate the spread of ceramics glazes to the storm drains. The glaze process areas were isolated from the Corporation Yard and paths of travel were directed to newly covered spaces on the NW side of the Art Department. Ceramicware kilns were moved to a covered location. Presently, all ceramic activity occurs under covered areas where special trench drains have been installed to direct accumulated dusts and fugitive glaze material to the sedimentation basin in line with the sanitary sewer. The sedimentation basin is periodically cleaned out by permitted hazardous waste disposal contractors.

It is expected that the changes within the glaze area will significantly reduce contaminants of concern from entering natural waterways, and that in time, monitoring requirements will be reduced. Full implementation of the SWPPP monitoring program for the Art Department Corporation Yard will continue until contaminant levels are sufficiently mitigated and SWRCB officials modify the permit.

## **2. Objectives**

Sonoma State University's Storm Water Pollution Prevention Program has two major objectives:

- (a) Identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and
- (b) Identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges.

BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives, Sonoma State University has followed the five phase process for SWPPP development and implementation as shown in Table A of SWRCB documents. The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. *SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.*

### **Compliance Activity Schedule**

- (1) Implement BMP's for Facilities Services aboveground storage tank.
  - (a) Minimize run-on of storm water into fueling area.
  - (b) Cover fueling area.
  - (c) Implement proper spill prevention control plan.
  - (d) Add tank and hose line inspection to preventative maintenance schedule.

### **A Description of Industrial Activities and Pollutant Sources**

See Index, Tables, and Annual Reports

### **Descriptions of BMP's**

See Potential Pollutant source tables.

### **Drawings & Maps**

Drawings & maps are included in the SSU Storm Water Pollution Prevention Plan located in the Environmental Health & Safety Office.

### **Relevant Copies or References of Parts of Other Plans.**

See formal SWPPP section after this section.

SSU Environmental Health & Safety will revise the SWPPP as directed by the SWCRB or when appropriate. This plan shall be readily available for review by facility employees or Regional Water Board inspectors.

### **3. Planning & Organization**

#### **a. Pollution Prevention Team**

Environmental Health & Safety staff are primarily responsible for implementing Sonoma State University's Storm Water Pollution Prevention Plan. In the event of an emergency release EHS staff will take appropriate action to protect the environment, including mitigation of accidental spills or hazardous materials releases. Large accidental releases are coordinated with external response agencies (see SSU Emergency Response Contingency Plan for Hazardous Materials Releases).

The following individuals comprise the storm water pollution prevention team and are responsible for developing, implementing, and revising SSU's Storm Water Pollution Prevention Program. Additionally, all monitoring program activities required in Section B of this General Permit will be carried out by SWPP Team members as indicated.

<b>SWPP Team Member</b>	<b>General Permit-Related Duties</b>	<b>Activities</b>
Craig Dawson, EHS Director	Emergency Response Identification of potential pollution sources, program assessment	Program oversight.
Thomas Sargent, Environmental Health & Safety Specialist	SWPPP development and revision. Emergency Response Identification of potential pollution sources, program assessment	Program oversight. Conduct sampling as directed by permit conditions.
Chuck Elliott, Mechanic	Facilities Aboveground Storage Tank Inspections, Non-emergency spill cleanup	Document AST inspections.
Todd Simmons, Mechanic	Identification of potential pollution sources, non-emergency spill cleanup.	Auto and electric cart fluid cleanup.
John-Scott Forester, Art Instructional Technician	Identification of potential pollution sources, non-emergency spill cleanup.	Instruct students on storm water pollution prevention in Art.
Davide Furtado, Supervising Engineer	Identification of potential pollution sources, non-emergency spill cleanup.	Ensure engineering activities do not result in storm water discharges.

## **b. Existing Facility Plans Related to SWPPP Requirements**

The City of Santa Rosa Sewer Use Permit conditions call for a variety of measures to minimize contaminant levels in the sanitary sewer as well as to natural waterways. Activities in the past have included removing oil water separators behind the Auto Shop, sealing interior drains, and installing a wash down rack for grounds maintenance machinery and fleet vehicles. The City of Santa Rosa conducts annual inspections and assists with identifying potential storm water pollution sources.

Sonoma State University Policy & Procedures that relate to storm water protection include the following:

### *Emergency Response Contingency Plan for Hazardous Materials Releases*

Sonoma State University Environmental Health & Safety staff maintain Hazardous Waste Operations and Emergency Response certification and respond to hazardous materials releases of moderate quantity and toxicity. EHS staff activate and implement a coordinated response to potential emergencies involving chemical releases. Advance planning provides an effective and efficient response to such emergencies, thereby minimizing personal injury to students, faculty, and staff. Sufficient preparation will also prevent excessive damage to campus structures and the environment.

### *Hazardous Waste Management Policy & Procedure (& Related Documents)*

It is the policy of Sonoma State University to manage hazardous waste generated on campus in compliance with applicable federal, state, and local regulations. Wherever possible, hazardous waste generated at Sonoma State University is managed in a manner that minimizes short and long term liability associated with such waste. Environmental Health & Safety has primary authority in determining management options to achieve this objective.

### *Hazardous Waste Minimization Program*

It is the policy of Sonoma State University to make every effort to reduce the volume and toxicity of hazardous waste generated to the degree determined to be economically practicable (waste minimization).

## **4. Site Map**

See Facility Site Maps Tab Section in this binder.



## **5. List of Significant Materials**

A comprehensive list of significant materials handled and stored at Sonoma State University is maintained by various departments and centrally located on the EHS Chemical Inventory Server. A hard copy binder "Hazardous Materials Inventories & Locations" is maintained in the SSU Environmental Health & Safety Office. The binder describes the locations where the materials are being stored in addition to storage quantity ranges.

Nearly all hazardous materials are received in the Facilities Services Receiving area in the Corporation Yard. Hazardous materials shipping from Sonoma State University is limited to hazardous waste that is shipped and handled at the staging area on the west end of the Facilities warehouse which is located at the east entrance to the University. Hazardous materials are subsequently handled at the various locations that they are used or applied.

Solid recycled wastes are collected in satellite areas throughout the campus and picked up by regular staff and student volunteers. Solid recycled waste includes waste electronic devices ("e-waste") generated at the University. E-waste is collected in palletized gaylord boxes and stored in a covered and fenced area at Recycle located just west of the Facilities Corporation Yard.

Most industrial activity occurs in the shops of the Facilities Services Corporation Yard. SSU maintains its own electrical, plumbing, carpentry, automotive, and grounds maintenance shops. SSU does not manufacture products other than those for general use within the campus proper.

## **6. Description of Potential Pollutant Sources**

(a) A narrative description of the facility's industrial activities, as identified in Section 4 (e) above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. The following items related to a SSU's industrial activities shall be considered:

### *(i) Industrial Processes*

Each industrial process is described below. Descriptions include the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Areas protected by containment structures and the corresponding containment capacity are described where applicable.

(1) Art Department Corporation Yard. The Art Corporation Yard houses a variety of dust and sediment producing activities. Most of the activities result in accumulation of non-hazardous sediments with very low settling velocities. The previous configuration of the glazing area (pre-1997) contributed low levels of regulated heavy metals to these storm drains. Outfall sampling with the North Coast Regional Water Quality Control Board during the Spring of 1997 indicated no impact at the main outfall to Copeland Creek.

(2) Facilities Services Trades Shops & Boiler Plant. All materials related to industrial activity in these areas, including waste materials, are covered and not exposed to storm water.

*(ii) Material Handling & Storage Areas*

Hazardous materials handling and storage areas are described and illustrated in the Emergency Response Contingency Plan for Hazardous Materials Releases and the Hazardous Waste Minimization Plan. The combined Science & Technology Outdoor Storage unit and the Hazardous Waste Staging Facility are both prefabricated Safety Storage units with secondary containment and overflow containment. Both of these facilities are impervious to precipitation. The only other outdoor storage area with containment structures is the Facilities Services canopy, where drums of hazardous materials are stored on poly spill containment pallets.

Detailed inventories that show quantities and types of materials in major storage areas are kept in the SSU Hazardous Materials Inventories & Locations binder.

*(iii) Dust and Particulate Generating Activities*

(a) Industrial activities that generate dust or particulates that may be deposited within the facility's boundaries with discharge locations are identified below. Descriptions include the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

(1) Art Department Kilns. The Art Department kilns may produce particulate during the firing process. The high temperature gas fired kilns may produce particulate from the ceramicware placed inside the kilns. The amount of particulate generated is considered to be very small and not widely disbursed as the only particulate source would be the ceramicware itself.

(2) Art Department Raku Process. Raku staining of glazes generates particulate from non-hazardous fuel/smoke sources, including waste paper, dried hay, and small pieces of wood. Small smoky fires are maintained in metal cans as a means to stain ceramicware. Particulate pollutants from this process are generally considered non-hazardous.

(3) Art Department Ceramic Glaze Dry Mixing. This process has been moved indoors and is not exposed to storm water. Clean up of these areas is done by rinsing fugitive glaze dusts to the trench drains that lead into the sedimentation basin in line with the sanitary sewer. These glazes contain a variety of silicious minerals and inorganic heavy metal compounds.

(4) Grinding Wheels. Grinding wheels are located in the Boiler Plant and the Art Department as well as several Trades Shops in Facilities Services. These include Plumbing, Carpentry, Paint, and Auto Shops. Grinding wheel effluent is collected in metal containers for recycling or hazardous waste disposal.

*(iv) Significant Spills and Leaks*

Materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994 are described in the "Releases" tab of the EHS office copy of the SWPPP. No oil or hazardous substances in excess of reportable quantities have been released at Sonoma State University.

The hazardous materials release description includes the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges. If warranted, the preventative measures taken to ensure spill or leaks do not reoccur are documented in the file. This database is updated whenever a new accidental release occurs (see actual database for most current copy).

(v) *Non-Storm Water Discharges*

Sonoma State University personnel have identified all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) that connect to the storm drain system and may serve as a conveyance for hazardous materials have been sealed with concrete (e.g. Art 144B, Auto Shop, etc.). Standard procedure for releases indoors and out call for recovering spilled material as hazardous waste consistent with occupational safety and environmental protection regulations.

Authorized Non-Storm Water Discharges include:

Foundation and Footing Drainage from Darwin and Stevenson Hall.

Atmospheric condensates from HVAC equipment.

Potential discharges are described below:

Irrigation Water from sprinkler heads out of adjustment may result in reclaimed water entering the storm drain system until such time that the release is observed and corrected.

Swimming Pool Water is continually discharged at low flow rates to the sanitary sewer as part of the disinfection system.

Boiler Blowdown is discharged to the sanitary sewer through the floor drains in the Boiler Plant.

Rinse Water & Wash Water from vehicle maintenance is discharged to a pretreatment clarifier in line with the sanitary sewer system.

There is no contact of non-storm water discharges with significant materials or equipment.

(vi) *Soil Erosion*

(a) Locations where soil erosion may occur as a result of industrial activity include only those areas that are uncovered to repair subsurface utilities. University property is very level and any holes made in the Earth are subsequently filled in and landscaped. Thus, only minimal soil erosion occurs during these spot repairs.

There are several unpaved roads that receive heavy equipment and maintenance vehicle traffic, though no visible loss of soil has occurred along these pathways. Unpaved roads include the A to G Lot service road parallel to Copeland Creek and Grounds areas to the northwest of the Facilities Services Corporation Yard.

There are no known locations where soil erosion may occur as a result of activity that involves storm water discharges associated with industrial activity or authorized non-storm water discharges.

(b) Sonoma State University's Storm Water Pollution Prevention Plan includes a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information is summarized below:

Art Department:

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
(1) Art Department Corporation Yard	Ceramic Glazing	Spills and leaks during application  Spills and residue from overcoating  Hosing or washing down exterior area  Emissions from kilns	ceramic glazes (heavy metals)	<input type="checkbox"/> Clean up spills immediately <input type="checkbox"/> Minimize amount applied to ceramicware <input type="checkbox"/> Keep glazed ceramic pieces within confines of sanitary trench drains <input type="checkbox"/> Use wet methods to sanitary sewer <input type="checkbox"/> Clean floor areas weekly, particularly around north vehicle access <input type="checkbox"/> Inspect ceramic areas regularly to detect problems before they occur <input type="checkbox"/> Train employees and students on proper application, cleanup, and pollution prevention techniques.

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
(2) Art Department Corporation Yard	Large Sculpture Preparation	Grinding, welding, and general sculpture fabrication	Inorganic and organic dusts	<input type="checkbox"/> Conduct primary welding and metal grinding indoors <input type="checkbox"/> Conduct primary wood sanding and fabrication indoors <input type="checkbox"/> Store metallic raw materials under canopies <input type="checkbox"/> Maintain local sedimentation basins (storm drains) for proper capacity

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
(3) Art Department Corporation Yard	Patina Application	application of patinas to ceramicware	copper sulfate	<input type="checkbox"/> Apply patinas in indoor areas that drain to sedimentation basin <input type="checkbox"/> Minimize amount applied to ceramicware <input type="checkbox"/> Store patina applied materials indoors or under canopy

Facilities Services:

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
(1) Facilities Services Corporation Yard	Vehicle & Equipment Fueling	<p>Spills and leaks during delivery</p> <p>Spills caused by topping of fuel tanks</p> <p>Hosing or washing down fuel area</p> <p>leaking storage tanks</p> <p>Rainfall running off fueling area, and rainfall running onto and off fueling area</p>	diesel/gasoline	<p><input type="checkbox"/> Use spill and overflow protection</p> <p><input type="checkbox"/> Minimize run-on of storm water into the fueling area</p> <p><input type="checkbox"/> Cover fueling area</p> <p><input type="checkbox"/> Use dry cleanup methods rather than hosing down area</p> <p><input type="checkbox"/> Implement proper spill prevention control program</p> <p><input type="checkbox"/> Implement adequate preventative maintenance program to prevent tank and line leaks</p> <p><input type="checkbox"/> Inspect fueling areas regularly to detect problems before they occur</p> <p><input type="checkbox"/> Train employees on proper fueling, cleanup, and spill response techniques.</p>
Campus Wide	Fire Hydrant Testing & Maintenance	Fire suppression system	Reclaimed water	<p><input type="checkbox"/> Use fire hose to direct reclaimed water to landscape.</p>

Anthropology Studies Building:

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
(1) Anthropology Studies Building	Rinsing of artifacts	Runoff from artifact rinsing and strainers	sediment and material residue (depends on material source)	<input type="checkbox"/> Rinse only non-hazardous artifacts in outdoor area <input type="checkbox"/> Rinse potentially hazardous commodities to collection containers (hazardous waste) or to sanitary sewer (wash down rack) <input type="checkbox"/> Direct flows to bermed areas for natural percolation/filtration of non-hazardous sediments <input type="checkbox"/> Cease artifact rinses during heavy rainfall to prevent overflow to Copeland Creek

Food Services & Commons:

<b>Area</b>	<b>Activity</b>	<b>Pollutant Source</b>	<b>Pollutant</b>	<b>Best Management Practices</b>
(1) Food Services North Loading Dock/Trash Area	Solid waste disposal	Solid waste storage bins/dumpsters	liquid food waste or leachate	<input type="checkbox"/> Rinse drain mats and other kitchen items to sanitary sewer via closeted drain installation. <input type="checkbox"/> Inspect area for signs of leaks or missing drain plugs <input type="checkbox"/> Clean up spill immediately and rinse to sanitary sewer. <input type="checkbox"/> Exchange leaking dumpsters for water tight units.
(2) Food Services Grease Traps & Interceptors	Collection of grease from Food Service operations	Grease collection in interceptors	Grease and cooking oil	<input type="checkbox"/> Grease trap/interceptor is inspected and cleaned regularly <input type="checkbox"/> Grease trap/interceptor cleaning is observed to ensure service provider pumps dry and cleans the sides and bottom.
(3) Commons East Loading Dock/Trash Area	Solid waste disposal	Solid waste storage bins/dumpsters	liquid food waste or leachate	<input type="checkbox"/> Dumpsters and recycling containers to be covered on 9/15/98. <input type="checkbox"/> Inspect area for signs of leaks or missing drain plugs <input type="checkbox"/> Clean up spill immediately and rinse to sanitary sewer. <input type="checkbox"/> Exchange leaking dumpsters for water tight units.
(4) Commons Grease Traps & Interceptors	Collection of grease from food preparation operations	Grease collection in interceptors	Grease and cooking oil	<input type="checkbox"/> Grease trap/interceptor is inspected and cleaned regularly <input type="checkbox"/> Grease trap/interceptor cleaning is observed to ensure service provider pumps dry and cleans the sides and bottom.



## **7. Assessment of Potential Pollutant Sources**

(a) Sonoma State University's Storm Water Pollution Prevention Plan includes a narrative assessment of all industrial activities and potential pollutant sources as described in the tables above to determine the following:

(i) Areas of the facility that are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

(ii) Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. SSU is required to consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

(b) SSU is required to summarize the areas of the campus that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges. This evaluation is performed as part of the Summary Tables in Section 7.

SSU is required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. Additional BMP's are developed and implemented if water quality impacts are not sufficiently mitigated by existing best management practices.

Best management practices will be narratively described in Section 7 and 8 of this document. In addition, specific procedures or guidance documents may be prepared for specific areas.

## **8. Storm Water Best Management Practices**

Sonoma State University's Storm Water Pollution Prevention Plan includes a narrative description of the storm water Best Management Practices (BMPs) to be implemented at the campus for each potential pollutant and its source identified in the site assessment phase (Sections 6 and 7 above). Best Management Practices are periodically reviewed and updated where appropriate. Best Management Practices are developed and implemented in an effort to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may possess one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

**FIVE PHASES FOR DEVELOPING & IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS**

**1. Planning & Organization**

- (a) Form Pollution Prevention Team.

See Item 3.a. Page 5 of this document.

- (b) Review other plans.

See Item 3.b. Page 5 of this document.

**2. Assessment Phase**

- (a) Develop a Site Map.

See Site Map Tab in EHS SWPPP binder.

- (b) Identify Potential Pollutant Sources.

Art Department Corporation Yard. The Art Corporation Yard houses a variety of dust and sediment producing activities. Most of the activities result in accumulation of non-hazardous sediments with very low settling velocities. The previous configuration of the glazing area (pre-1997) contributed low levels of regulated heavy metals to these storm drains. Outfall sampling with the North Coast Regional Water Quality Control Board during the Spring of 1997 indicated no impact at the main outfall to Copeland Creek.

- (c) Inventory of Materials & Chemicals.

Comprehensive inventories of materials and chemicals are kept on file at each location, on the EHS Server, and in a binder in the SSU Environmental Health & Safety Office.

- (d) List Significant Spills & Leaks.

Environmental Health & Safety maintains a database of Emergency and non-emergency responses to spills and leaks. A printout is included in this document (see "Releases" tab).

- (e) Identify Non-Storm Water Discharges.

Sanitary Sewer. Low levels of non-regulated, biodegradable, and water soluble chemicals are discharged to the sanitary sewer. These discharges are incidental to maintenance and laboratory practice. For example, 5% solution of ethanol would be suitable for sanitary sewer disposal.

Air. The hot water boilers in the Boiler Plant are the only major air emission source on the Sonoma State University campus. The hot water boilers are regulated and permitted by the Bay Area Air Quality Management District. Minor campus sources of air emissions include laboratory fume hoods and Art Department ceramics kilns. Minor sources with treatment devices include the silica forming area (Art 115) and the Paint Shop paint spray booth; both with particulate filtration, or carbon adsorption filters for infrequent high VOC paint applications.

(f) Assess Pollutant Risks.

Since the inception of SSU's Environmental Health & Safety Department, many of the pollutant risks have been identified and mitigated. Environmental Health & Safety staff continue to work closely with Pollution Prevention Team members and other campus personnel to assess pollutant risks. Environmental Health & Safety has the authority to take the necessary steps to mitigate pollutant risks.

### 3. Best Management Practices Identification Phase

(a) Non-structural BMPs .

(1) Distribute copies of SSU Storm Water Pollution Prevention Plan to the following campus personnel:

- Director of Facilities Services
- Supervisor of Engineering
- Director of University Dining Services
- Art Department Chair
- Anthropological Studies Center Director
- Senior Director for Capital Planning Design & Construction

(b) Structural BMPs

(1) Structural BMP's have been fully implemented in the Art Department Corporation Yard area.  
(2) Remaining BMP's have been identified and included in the potential pollutant source tables.

(c) Select activity and site-specific BMPs

(1) Activities and site-specific BMP's are included in the potential pollutant source tables.

### 4. Implementation Phase

(a) Train employees

(1) Training is conducted periodically on campus by Environmental Health & Safety staff. Storm water pollution prevention control techniques and training on specific elements of SSU's SWPPP are included in comprehensive environmental management training courses. See training schedule for dates, training binders for course content, or consult the SSU employee database in Human Services for individual training history.

(b) Implement BMPs

(1) Non-structural BMP's are carried out by the individual staff members in affected areas on a regular basis.

(2) Structural BMP's are implemented as time and resources allow.

(c) Conduct recordkeeping and reporting

(1) Recordkeeping and reporting is performed and maintained by SSU Environmental Health & Safety staff. Copies of all inspection forms, annual reports, and related documents are located in the EHS Office.

### 5. Evaluation / Monitoring

(a) Conduct annual site evaluation

(1) EHS Staff conduct annual site evaluations.

(b) Review monitoring information

(1) EHS reviews monitoring information and compares with California drinking water quality standards as specified in California Code of Regulations, Title 22.

(c) Evaluate BMPs

(1) BMP's are evaluated during the annual site evaluation. In order to determine the efficacy of storm water protection measures, evaluations consider inspection records, monitoring data, and internal procedures.

(d) Review and revise SWPPP

(1) Environmental Health & Safety staff review and revise the Storm Water Pollution Prevention Plan as plans or requirements change. The SWPPP is reviewed and revised during June of each year as part of the comprehensive site compliance evaluation.

(e) The following information is included as part of SWPPP site maps:

(1) SSU's boundaries; the outline of all storm water drainage areas within SSU's boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. Maps also identify nearby water bodies (such as rivers, lakes, ponds) and municipal storm drain inlets where SSU's storm water discharges and authorized non-storm water discharges may be received.

(2) The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

(3) An outline of all impervious areas of SSU, including paved areas, buildings, covered storage areas, or other roofed structures.

(4) Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.

(5) Areas of industrial activity. This includes the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate

## **Appendix A**

generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

**SPECIAL RECLAIMED WATER USE REQUIREMENTS**

The following use requirements are taken from the California Department of Health Services Guidelines for Use of Reclaimed Water.

1. Reclaimed water and spray shall be confined to the authorized use area.
2. Signs shall be provided by the user to inform the public that reclaimed water is being used.
3. Reclaimed water piping, controllers, valves, etc. ,shall be marked to differentiate the reclaimed water facilities from the potable water facilities.
4. Reclaimed water valves, outlets, quick couplers and sprinklers shall be of a type, or secured in a manner, that permits operation only by User's authorized personnel.
5. Any use of installation of hose bibs shall be posted "RECLAIMED WATER. DO NOT DRINK."
6. In accordance with DHS requirements, there shall be at least a 10 foot horizontal and 1 foot vertical separation between all pipelines transporting reclaimed water and those transporting potable water, with the potable water pipeline above the reclaimed water pipeline.
7. An air-gap separation of reduced pressure principle device shall be provided at all potable water service connections to reclaimed water use areas. There shall be no connection between potable water supply and reclaimed water piping. Supplementing reclaimed water with an other source shall not be allowed except through and air-gap separation.
8. Drinking water facilities shall be protected from reclaimed water spray.
9. There shall be no reclaimed water irrigation or impoundment within 50 feet of any well for domestic supply.
10. Adequate measures shall be taken to minimize ponding and runoff and to prevent the breeding of mosquitoes of public health significance.
11. Inspection, supervision and employee training shall be provided by user to assure a safe and proper operation of the reclaimed water system.

## FOOD FACILITIES STORM WATER POLLUTION QUICK REFERENCE

*Prepared by the City of Santa Rosa and the County of Sonoma*

### Impact of Pollution

In the Sonoma County area, storm drains flow directly to local creeks, the Laguna De Santa Rosa, the Russian River, and the ocean, with no treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for people who live near polluted streams.

Food handling facilities, such as restaurants, institutional cafeterias, grocery stores, bakeries and delis, can contribute to storm water pollution, mainly through improper waste handling and cleanup practices that allow food particles, oil and grease, and cleaning products to flow to a street, gutter or storm drain. **Nothing but rainwater should go into storm drains.**

Polluting storm drains causes damage to the environment and liability for the discharger.

A storm drain violation is a misdemeanor. Violators may also be subject to civil action, be charged for cleanup costs, and have their names published in the newspaper. Civil liability is up to \$10,000 per day of violation, plus additional penalties for discharges over 1,000 gallons. These guidelines will show how you may be inadvertently breaking the law and simple changes you need to make.

### Types of Pollutants Food Handling Facilities Generate

All substances left in a street, gutter, parking lot, alley, or dumped into a storm drain end up in local creeks, rivers and ocean, with no treatment.

- In addition to drawing flies, vermin, and causing odor and public health problems, decaying organic materials use up dissolved oxygen in streams, rivers, and the ocean, stressing or killing aquatic life.
- Oil and grease cause additional health problems, and also plug sanitary sewer lines, causing backups and severe risks to human health.
- Food handling facilities sometimes discharge toxic materials, including cleaning products, disinfectants and pesticides. Even biodegradable soaps contain ingredients which are initially toxic to aquatic life.

### Pavement Cleaning

When cleaning dumpster areas, loading docks and other paved surfaces, either use a qualified firm, or:

- Do not use degreasers, bleach or disinfectants in an area where rinse water could flow to a street, gutter, storm drain, or creek. Even products labeled "environmentally safe" cannot be used.
- If flows could enter storm drain, block flow with sand bags, rags, absorbents or a pile of dirt.

- Dry sweep next. Dispose of debris as solid waste.

If wet cleaning (including high temperature or high pressure washing) is required, the following three step process should be used:

- (1) Clean up as much as possible with rags.
- (2) Use absorbents (e.g. cat litter) to collect residue. Sweep and dispose of materials to the trash if hazardous materials are not involved.
- (3) Mop, wet vac (or, if absolutely necessary, wash) and collect water, and dispose of water in sink or sanitary sewer drain, not the storm drain.

If a final rinse is necessary for health reasons, then collect rinse water and dispose of the janitorial sink or indoor floor drain. If outdoors, block storm drain before applying water, collect water and dispose of to the janitorial sink or indoor floor drain.

### **Disposal of Hazardous Materials**

Do not dump hazardous materials to storm drains or sanitary sewers. Contact Environmental Health & Safety for disposal of unused or concentrated chemicals. Note that most spent cleaning solutions are suitable for sanitary sewer disposal, including, but not limited to soaps, detergents, bleach solutions, and mop rinses.



**FOOD SERVICE WATER QUALITY PROTECTION CHECKLIST**

**General Information**

- 1. All management and supervisory personnel have reviewed this checklist.
- 2. All employees have been advised of these practices.
- 3. Storm drains are identified and labeled.

**Equipment Cleaning**

- 1. The following items are cleaned in such a manner that all wash water goes to the sanitary sewer or is hauled offsite.

  - a. Grease filters.
  - b. Floor mats.
  - c. Floor (mop water and rinse water).
  - d. Grills and oven components.
  - e. Garbage cans and dumpsters .
  - f. Other kitchen items.

**Dumpsters, Grease Bins, and other Recycling Containers**

- 1. Dumpsters and recycling containers are covered.
- 2. There are no signs of leaks or missing drain plugs.
- 3. Spilled materials around containers are picked up regularly.
- 4. If water is used to clean the area, wash water is collected or directed to the sanitary sewer.
- 5. Dumpsters are "switched out" by provider when leaking.

**Spill Response**

- 1. In case of a spill (e.g. grease), absorbents such as cat litter are readily available. Note: Food service personnel are responsible for cleaning up non-hazardous food waste spills. Liquids should be rinsed to the sanitary sewer and absorbents with liquids should be placed in non-leaking dumpsters.
- 2. Employees are trained:

  - a. To control and clean up spills.
  - b. To call for assistance in case of emergencies (e.g. x2911).

**Grease Traps / Interceptors**

- 1. A grease trap/interceptor is located inside or outside of the facility.
- 2. Grease trap/interceptor is inspected and cleaned regularly.
- 3. Grease trap/interceptor cleaning is observed to ensure service provider pumps dry and cleans the sides and bottom.

If you have any questions regarding storm water protection, use of sanitary sewer, or disposal of hazardous materials, contact Environmental Health & Safety, x4003.

**STORM WATER POLLUTION PREVENTION**

**CLEANUP PROCEDURE FOR ART DEPARTMENT CORPORATION YARD**

Under most circumstances, dry sweeping should be sufficient to clean up debris accumulated in the Art Department Corporation Yard as follows:

- (1) Remove equipment, materials, and other large pieces of Art project debris from the areas to be cleaned.
- (2) Use brooms to dry sweep sidewalks and other surface areas to be cleaned. Collect dust and debris in dust pans and place in dumpsters.

Water entering storm drains from power washers is prohibited under Storm Water Pollution Prevention Plan guidelines. If wet power washing is necessary, all runoff from the power washer must be directed to the sanitary sewer as follows:

- (3) Seal storm drains with plastic sheeting, metal covers with gaskets, or other means to prevent contaminated water\* from entering storm drains.
- (4) Use hose or power washer for final cleanup. Push brooms, squeegees, water pumps, or other means must be used to direct contaminated water away from storm drains and into sanitary sewer receiving areas.

\*Contaminated water means water contaminated with joint compound, sheetrock debris, dirt, sawdust, cement, metal grinding, or any other non-hazardous material. Hazardous materials must be managed in accordance with applicable regulations.

**STORM WATER POLLUTION PREVENTION**

**CLEANUP PROCEDURE FOR EXTERIOR CONSTRUCTION DEBRIS**

- (1) Remove all equipment, materials, and other large pieces of construction debris from sidewalks, porches, and other areas to be cleaned.
- (2) Use brooms to dry sweep sidewalks and other surface areas to be cleaned. Collect dust and debris in dust pans and place in dumpsters.
- (3) Seal storm drains with plastic sheeting, metal covers with gaskets, or other means to prevent contaminated water\* from entering storm drains.
- (4) Use hose or power washer for final cleanup. Push brooms or squeegees must be used to direct contaminated water away from storm drains and onto the landscape.

\*Contaminated water means water contaminated with joint compound, sheetrock debris, dirt, sawdust, or any other non-hazardous material. Hazardous materials must be managed in accordance with applicable regulations.

**CONTRACT SPECIFICATIONS FOR STORM WATER PROTECTION**

**1.0 STORM WATER PROTECTION**

1.1 All work to be performed shall comply in all respects with the requirements of the federal Resource Conservation & Recovery Act (RCRA) and the California Hazardous Waste Control Act (HWCA) as codified in Title 40 Code of Federal Regulations and Title 22 California Code of Regulations, and with all other applicable codes, rules, and regulations.

1.2 Hazardous Waste. All hazardous waste generated as a result of this project must be handled in a safe, responsible, and legal manner by the contractor and any respective subcontractors. It is illegal to dispose of hazardous waste in storm drains or sanitary sewers.

1.3 Contractor shall manage all solvent based paint and primary latex paint as hazardous waste. Contractor is responsible for determining which discarded materials are hazardous waste and managing them according to applicable regulations.

1.4 Contractor agrees to pay any fines or fees assessed against them by any regulatory agency having jurisdiction, including, but not limited to, the Bay Area Air Quality Management District (BAAQMD), California Department of Toxic Substances Control (DTSC), and the California Occupational Health & Safety Administration (Cal-OSHA).

1.5 Nothing may be rinsed to storm drains (exterior drains and some covered drains). It illegal to discharge paint rinses, high sediment loads, joint compound cleanup rinses, water soluble solvents or oils, or any other constituent to a storm drain. Nothing may flow into storm drains except uncontaminated rainwater.

1.6 Contractor shall pay any fines or fees assessed against them by any regulatory agency having jurisdiction, including, but not limited to the North Coast Regional Water Quality Control Board. Contractor shall be financially responsible for any costs associated with cleaning up hazardous materials entering storm drains or the natural environment as a result of primary contractor's or subcontractor's activity.

<b>HAZARDOUS WASTE</b>	<b>SANITARY SEWER DRAINS (Interior Plumbing)</b>	<b>STORM DRAINS (Outdoor drains &amp; grates)</b>
Collect in D.O.T. approved containers & manage according to California EPA standards	Suitable for cleanup of most non-hazardous rinses and small quantity materials	Nothing to enter storm drains except uncontaminated rainwater.
Examples: <ul style="list-style-type: none"> <li>• Solvent Based Paint</li> <li>• Latex Paint</li> <li>• Latex Paint 1st &amp; 2nd Rinses</li> <li>• Paint Thinner</li> <li>• Waste Gasoline or Diesel</li> <li>• PCB light ballasts</li> <li>• Flammable Liquids</li> <li>• Corrosive Liquids or Solids</li> <li>• Finely Divided Metals</li> <li>• Solvent contaminated debris</li> </ul>	Examples: <ul style="list-style-type: none"> <li>• Joint Compound Rinses</li> <li>• Latex Paint 3rd Rinses</li> <li>• Mop bucket waters</li> </ul>	Examples: <ul style="list-style-type: none"> <li>• Water</li> </ul>

## Appendix F

\* This table is meant as a quick guide to protecting the environment. It is the individual Primary Contractor's responsibility to comply with all applicable regulations regarding hazardous waste management, sewer use, and storm water protection.