SECTION 01 57 23 STORM WATER POLLUTION PREVENTION

PART 1 - GENERAL

1.1 APPLICABILITY

A. Construction projects resulting in land disturbance of one acre or more: Contractor shall apply for
coverage under the Construction General Permit, Waste Discharge Requirements Order No. 2009-
0009 DWQ (National Pollutant Discharge Elimination System (NPDES) Permit No.CAS000002 prior
to commencement of construction activities. The document is available from the State Water
Resources Control Board website at

OR

B. Construction projects resulting in land disturbance of less than one acre: Contractor shall comply
with the Campus Storm Water Management Plan (SWMP). The document is available at the UC
Davis Safety Services website: http://safetyservices.ucdavis.edu/programs-and-
services/environmental-compliance/water-1/ucd_swmp_2010.pdf

1.2 SCOPE

A. Discharge of pollutants (any substance, material, or waste other than clear, uncontaminated storm
water) from the project into the storm drain system is strictly prohibited by the Central Valley
Regional Water Quality Control Board's (RWQCB) Water Quality Control Plan (Basin Plan).

B. Provide all material, labor, equipment for installation, implementation, and maintenance of all
surface-water pollution prevention measures. This work includes the following:

1. Provide, place, and install effective measures for preventing runoff of soil, silts, gravel,
hazardous chemicals or other materials prohibited by the Central Valley RWQCB from
entering the storm water drainage system.

2. Management of on-site construction materials in such a manner as to prevent said materials
from contacting storm water or wash water and running off into the storm drain system.

3. Complying with applicable standards and regulations specified herein.

4. Maintain the most current revised Storm Water Pollution Prevention Plan (SWPPP) at the
Contractor's work site. Three hard copies and an electronic copy of the original and each
revision shall be forwarded to the University's Representative.

5. Review any changes in the SWPPP plan each week at the weekly meetings with University's
Representative and others. At each weekly meeting, the Contractor shall submit a numbered
checklist of the current status of each prevention measure on the job site

C. In this section, the term "storm drain system" shall include storm water conduits, storm drain inlets
and other storm drain structures, street gutters, channels, ditches, and the Arboretum waterway.

D. Sanitary sewer discharge regulations are intended to provide protection of the sanitary sewer
system and the campus Waste Water Treatment Plant (WWTP). In this section, "sanitary sewer"
shall include any sanitary sewer manhole, clean out, sewer laterals or other connection to the
WWTP.

E. Contractor shall have storm water pollution prevention measures in place and conduct inspections
year-round. It is the responsibility of the Contractor to be prepared for a rain event in the non-rainy
season, and to be aware of weather predictions. The University is not responsible for informing the Contractor of rain predictions.

F. Sanitary sewer blockages can result in a back-up and discharge to the storm drain system. Contractor shall immediately notify the University's Representative if they become aware of a clogged sanitary sewer associated with the project.

G. Contractor shall not allow any non-storm water from the project to enter the storm drain system. Examples of non-storm water include water used for dust suppression, pipe flushing and testing, and domestic supply water used to wash streets, painting and drywall equipment, vehicles, or other uses.

H. Water resulting from de-watering an excavation may be discharged to a storm drain only if it is free of pollutants, including sediment. Contractor shall use methods such as a settling basin or filter to ensure that dewatering discharges are free of pollutants.

1.3 REGULATIONS AND STANDARDS

A. Contractor shall comply with the following applicable regulations:


3. Construction General Permit, Waste Discharge Requirements Order No. 2009-0009 DWQ (National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000002). This Order is referred to as the Construction General Permit (CGP).

4. Small Municipal Separate Storm Sewer System (MS4) General Permit, Waste Discharge Requirements Order No. 2003-0005 DWQ NPDES Permit No. CAS 000004. This Order refers to the Campus Storm Water Management Plan (SWMP). WDID # 5A57NP00014

B. Contractor shall comply with the following standards and guidelines on storm water pollution prevention:

1. California Stormwater Quality Association (CASQA) - Construction BMP Handbook Portal. This document is available for a fee from the CASQA website at http://www.casqa.org/

1.4 QUALITY ASSURANCE

A. Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and certified by a Qualified SWPPP Developer (QSD). A Construction Site Monitoring Program (CSMP) shall be part of the SWPPP and included as an appendix or separate SWPPP chapter.

B. Qualified SWPPP Practitioner (QSP) shall oversee the implementation of all BMPs, monitoring, inspections and reports required by the Construction General Permit. Effective September 1, 2011, a QSP shall be either a QSD or have one of the following certifications:

1. A certified erosion, sediment and storm water inspector (CESSWI) registered through Enviro Cert International, Inc.; or,

2. A certified inspector of sediment and erosion control (CISEC) registered through Certified Inspector of Sediment and Erosion Control, Inc.

3. Effective September 1, 2011, both QSDs and QSPs shall have attended a State Water Board sponsored or approved QSD/QSP training course and pass the State proctored exam. A current list of certified QSD/QSPs is available from the CASQA website at: http://www.casqa.org/

1.5 SUBMITTALS
A. Submittals shall comply with requirements specified in Section 01 33 23 Shop Drawings, Product Data and Samples. All submittals listed below shall be submitted to the University’s Representative 21 days prior to groundbreaking to allow for review and acceptance by the University of California Davis Office of Environmental Health & Safety (EH&S). No sitework may occur prior to review and certification of the submittals.

B. The contractor shall comply with additional requirements for Linear Underground/Overhead Projects (LUPs) as outlined in Attachment A of the Construction General Permit.

C. The contractor shall comply with additional requirements for Active Treatment Systems (ATS) as outlined in Attachment F of the Construction General Permit.

Construction projects resulting in land disturbance of less than one acre use the following paragraphs and the forms at the end of this section. These construction projects are not required to register in the State’s SMARTS on-line reporting system, submit Permit Registration Documents (PDRs) in SMARTS or pay an annual permit fee.

D. Construction projects resulting in land disturbances of less than one acre shall comply with the Campus Storm Water Management Plan (SWMP).

E. Submit a New Construction Project Form (following section) to the University’s Representative 21 days prior to ground breaking. This form is required for documentation of compliance with the campus Storm Water Management Plan (SWMP).

F. Submit a Storm Water Pollution Prevention Plan (SWPPP) using the SWPPP Template in Appendix B of the California Stormwater Quality Association (CASQA) - Construction BMP Handbook Portal. This template can be downloaded from the California Stormwater Quality Association website at http://www.casqa.org/. Three hard copies and an electronic copy of the SWPPP must be submitted to the University’s Representative 21 days prior to ground breaking. The SWPPP must contain all required elements specified in the General Permit. The SWPPP shall be developed and revised by a Qualified SWPPP Developer (QSD) as necessary to meet the following objectives:

1. To identify pollutant sources that may affect the quality of storm water discharges associated with construction activity from the construction site.

2. To identify non-storm water discharges.

3. To identify, construct, and implement storm water pollution prevention measures (Best Management Practices, or BMPs) to reduce or eliminate pollutants in storm water discharges from the construction site, both during construction and after construction is completed.

4. Develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs).

5. Contractor shall amend the SWPPP whenever there is a change in construction or operations that may affect the discharge of pollutants to surface waters. All amendments shall be done by a QSD and attach a copy to the SWPPP at the construction site.

6. The plan shall include a site map and site-specific written plan that describes pollution sources for the construction activity and the methods that will be used for erosion and sediment control, hazardous materials management, and any other construction activity that are sources of storm drain system pollution. The lists of topics to be covered in the plan are included in Part 3 Execution of this Section.

G. Comply with UC Davis Construction Stormwater Minimum Best Management Practices (BMPs) Requirements outlined in Exhibit C.

H. Submit a Project Completion Form (following section) to the University’s Representative when final stabilization has been reached. Final stabilization is obtained at 70% final cover, and when there is no potential for construction-related storm water pollutants to be discharged into site runoff.
Construction projects resulting in land disturbance of one acre or more use the following paragraphs. These projects are required to apply for coverage under the CA Construction General Permit in the State’s SMARTS on-line reporting system, submit Permit Registration Documents (PDRs) and pay an annual permit fee. Delete the forms at the end of this section.

I. Construction projects resulting in land disturbance of one acre or more shall submit Permit Registration Documents (PRDs). PRDs shall be electronically submitted [21] days prior to commencement of construction activity using the State Water Resources Control Board’s Storm Water Multi-Application Report Tracking System (SMARTS) at http://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin. Contractor must register as a Data Submitter in SMARTS and provide their user ID# to the University’s Representative prior to uploading PRDs. The following information shall be submitted and must be deemed complete by SMARTS, before a WDID number will be issued confirming coverage under the General Construction Permit.

J. Initial Permit Registration Documents (PRDs):

1. Notice of Intent (NOI)

2. Risk Assessment (Construction Site Sediment and Receiving Water Risk Determination) The Contractor shall comply with additional permit requirements which are based on the outcome of the construction project risk determination. These requirements are outlined in the Construction General Permit (CGP).

   a. Risk Level 1 Requirements - CGP (Attachment C)
   b. Risk Level 2 Requirements - CGP (Attachment D)
   c. Risk Level 3 Requirements - CGP (Attachment E)

3. Site Map-

   a. The project’s surrounding area (vicinity)
   b. Site layout
   c. Construction site boundaries
   d. Drainage areas
   e. Discharge locations
   f. Sampling locations
   g. Areas of soil disturbances (temporary or permanent)
   h. Active areas of soil disturbances (cut and fill)
   i. Locations of all runoff Best Management Practices (BMPs)
   j. Locations of all erosion control BMPs
   k. Locations of all sediment control BMPs
   l. Active Treatment System (ATS) location (if applicable)
   m. Locations of sensitive habitats, watercourses, or other features which are not to be disturbed
   n. Locations of all post-construction BMPs
   o. Locations of storage areas for waste, vehicles, service, loading/unloading of materials, access (entrances/exits) points to construction site, fueling, and water storage, water transfer for dust control and compaction practices

4. Storm Water Pollution Prevention Plan (SWPPP) including a Construction Site Monitoring Program (CSMP) shall be certified by a Qualified SWPPP Developer (QSD) and shall meet the minimum criteria using the SWPPP template in Section 2, Appendix B of the CASQA - Construction BMP Handbook Portal. This template is available from the CASQA website for a fee at http://www.casqa.org/. The SWPPP must contain all required elements specified in the Construction General Permit. The SWPPP shall be designed, developed and revised as necessary, and signed by the QSD to meet the following objectives:
a. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled.
b. All non-storm water discharges must be identified and either eliminated, controlled or treated.
c. Site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity using Best Available Technologies Economically Achievable (BAT) and Best Conventional Pollutant Control Technologies (BCT).
d. Design details as well as BMP controls for site run-on must be complete and correct.
e. Stabilization BMPs installed to reduce or eliminate pollutants after construction is complete.
f. The Qualified SWPPP Developer (QSD) shall include information in the SWPPP that supports the conclusions, selections, use and maintenance of BMPs.
g. The SWPPP shall be available at the construction site during working hours while construction is occurring and shall be made available upon request by a State Inspector.

5. University's Representative will secure the Annual Permit Fee which is payable to the SWRCB.

K. Additional PRD Requirements:

1. The Annual Report is due by August 15th of each year, or prior to submittal of a Notice of Termination (NOT). The reporting period is July 1st to June 30th.
   a. Submittal of the report is completed by filling out the Annual Report form in the SMARTS on-line reporting system.

2. Notice of Termination (NOT) required within 90 days of when construction is complete and shall include electronic photo(s) representative of the site showing final stabilization. The NOT must demonstrate that final stabilization is attained by one of the following methods as outline in the Construction General Permit.
   a. 70% final cover method
   b. RUSLE or RUSLE 2 method
   c. Custom method

3. Site work shall not commence until the initial Permit Registration Documents (PRDs) have been electronically submitted to the State Water Resources Control Board's Storm Water Multi-Application Report Tracking System (SMARTS) and a WDID number has been issued to confirm coverage under the Construction General Permit. PRDs will be reviewed and certified by the University of California Davis, Office of Environmental Health & Safety (EH&S).

1.6 TRAINING REQUIREMENTS

A. Qualified SWPPP Developer (QSD) shall write, amend and certify SWPPPs. A QSD shall have one of the following registrations or certifications, and appropriate experience, as required for:

1. A California registered professional civil engineer
2. A California registered professional geologist or engineering geologist
3. A California registered landscape architect
4. A professional hydrologist registered through the American Institute of Hydrology
7. A professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET)

B. Qualified SWPPP Practitioner (QSP) shall implement all BMPs required by the General Construction Permit. Effective September 1, 2011, a QSP shall be either a QSD or have one of the following certifications:
   1. A certified erosion, sediment and storm water inspector (CESSWI) registered through Enviro Cert International, Inc.; or,
   2. A certified inspector of sediment and erosion control (CISEC) registered through Certified Inspector of Sediment and Erosion Control, Inc.

C. Effective September 1, 2011, both QSDs and QSPs shall have attended a State Water Board sponsored or approved QSD/QSP training course and pass the State proctored exam.

PART 2 - PRODUCTS

2.1 MATERIAL

A. General: Provide materials as required for execution of the work.

PART 3 - EXECUTION

3.1 GENERAL

A. The Contractor shall ensure a Qualified SWPPP Developer (QSD) will write and amend the SWPPP that includes a site map and written description of pollution prevention methods. The intent of this requirement is to ensure Contractor compliance with applicable regulations for the discharge of storm water from the project. The Contractor will choose the best available performance-based technology and methods to prevent storm water pollution for construction site activity. The method(s) chosen shall be appropriate for each specific site condition.

3.2 SWPPP TOPICS

A. Following are topics the Contractor shall address in the SWPPP:

<table>
<thead>
<tr>
<th>SWPPP Certification By Qualified SWPPP Developer (QSD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1 SWPPP Requirements</td>
</tr>
<tr>
<td>1.1 Introduction</td>
</tr>
<tr>
<td>1.2 Permit Registration Documents (PDRs)</td>
</tr>
<tr>
<td>1.3 SWPPP Availability and Implementation</td>
</tr>
<tr>
<td>1.4 SWPPP Amendments</td>
</tr>
<tr>
<td>1.5 Retention of Records</td>
</tr>
<tr>
<td>1.6 Required Non-Compliance Reporting</td>
</tr>
<tr>
<td>1.7 Annual Report</td>
</tr>
<tr>
<td>1.8 Changes to Permit Coverage</td>
</tr>
<tr>
<td>1.9 Notice of Termination</td>
</tr>
<tr>
<td>Section 2 Project Information</td>
</tr>
<tr>
<td>1.10 Project and Site Description</td>
</tr>
<tr>
<td>1.11 Stormwater Run-On From Offsite Areas</td>
</tr>
<tr>
<td>1.12 Findings of the Construction Site Sediment and Receiving Water Risk Determination</td>
</tr>
<tr>
<td>1.13 Construction Schedule</td>
</tr>
<tr>
<td>1.14 Potential Construction Site Pollutant Sources</td>
</tr>
<tr>
<td>1.15 Identification of Non-Stormwater Discharges</td>
</tr>
<tr>
<td>Section 3 Best Management Practices (BMPs)</td>
</tr>
<tr>
<td>3.1 Schedule for BMP Implementation</td>
</tr>
<tr>
<td>3.2 Erosion Control and Sediment Control</td>
</tr>
<tr>
<td>3.3 Non-Stormwater and Material Management</td>
</tr>
<tr>
<td>3.4 Post-Construction Stormwater Management Measures</td>
</tr>
</tbody>
</table>
B. The Contractor shall insure a Qualified SWPPP Practitioner (QSP) will oversee the implementation of the SWPPP, Construction Site Monitoring Program (CSMP), BMPs, monitoring, inspections and reporting. Inspections shall be performed weekly, pre-storm, post-storm and at least once each 24-hour period during qualifying storm events. Non-storm water discharge observations shall be performed quarterly. A qualifying storm event has a 50% or greater probability of precipitation. The CGP requires that dischargers only use the National Oceanographic and Atmospheric Administration (NOAA) weather forecasts to predict qualifying storm events. The NOAA website is located at: http://www/srh.noaa.gov/. Repairs and design changes to BMPs shall be implemented within 72 hours of identification. For each inspection required complete the Inspection Checklist using the template in Appendix D -Field Monitoring and Analysis Guidance of the CASQA - Construction BMP Handbook Portal. The template is available from the CASQA website for a fee at http://www .casqa.org

1. Inspection Checklist - The checklist at a minimum shall include:
   a. Inspection date and date inspection report was written
   b. Weather information, including duration of rain event, time elapsed since last storm, approximate amount of rainfall
   c. Site information, including state of construction, activities completed, and approximate area of the site exposed
   d. A description of any BMPs evaluated and any deficiencies noted
   e. If construction site is safely accessible during inclement weather, list the observations of all BMPs, or list the results of visual inspections of all relevant outfalls, discharge points, downstream locations and any projected maintenance activities
   f. Report presence of noticeable odors, or visible sheen on the surface of any discharges
   g. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates
   h. Photographs taken during the inspection, if any
   i. Inspector’s name, title and signature

C. Retention of Records - All required storm water records must be maintained by the discharger for 3 years from the date the Notice of Termination (NOT) was approved by the RWQQCB. Contractor shall provide copies of stormwater documents, inspections and reports to the University’s representative at project completion.

For projects with Risk Level 2 and Risk Level 3 Requirements add the following article, describe the risks:
3.3 RISK LEVEL 2 AND RISK LEVEL 3 REQUIREMENTS

A. The project has Risk level [2] [3] due to _____________.

B. Additional requirements for Risk Level 2 and Risk Level 3 sites are outlined in Attachment D and Attachment E of the General Construction Permit. This information is available from the State Water Resources Control Board website at http://www.swrcb.ca.gov/water_issues/programs/stormwater/

3.3 ENVIRONMENTAL ENFORCEMENT

A. The Central Valley RWQCB has authority to enforce, through codified regulations, any portions of this Section that may violate applicable regulations. Agency enforcement may include but is not limited to: citations, orders to abate, bills for cleanup costs and administration, civil suits, and criminal charges. Contract compliance action by the University shall not be construed to void or suspend any enforcement actions by these or other regulatory agencies.

B. Contractor shall notify the University's Representative within 24 hours after issuance of any citation(s) issued by any regulatory agency and shall be responsible for all fines and costs necessary to correct the conditions listed in the citation(s) to include all legal fees and University expenses.

END OF SECTION 01 57 23

Following are two added forms for projects less than 1 acre. Delete if project is 1 acre or more.
NEW CONSTRUCTION PROJECT FORM

To Comply with the terms of the Campus Storm Water Management Plan (SWMP)

(Construction activity that disturbs less than one acre of land surface)

CONTRACTOR INFORMATION

Contractor: Contact Person:

Mailing Address: Title:

City: Phone:

State: Zip:

Emergency Phone: Email:

PROJECT INFORMATION

DCM PM: Phone:

Physical Address: Site Phone:

Total size of construction site: (Acres) Total area to be disturbed: (% of total)

Percent of site imperviousness: (%) Pre- Construction: (%) Post- Construction: (%)

Construction commencement date: Construction completion date:

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

☐ A SWPPP has been prepared for this project and is available for review:

Date prepared: Date Amended:

☐ A SWPPP will be prepared and ready for review by:

☐ SWPPP was developed by a Qualified SWPPP Developer (QSD)

Name: Certification #:

☐ SWPPP will be implemented by a Qualified SWPPP Practitioner (QSP)

Name: Certification #:

CONSTRUCTION SITE MONITORING PROGRAM (CSMP)

☐ A CSMP has been prepared for this project and is available for review:

Date prepared: Date Amended:

☐ CSMP complies with Risk Level 1 Requirements of the Construction General Permit:

CONTRACTOR CERTIFICATION:

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations. In addition, I certify that the provisions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan will be complied with."

Name: Title:

Signature: Date:

UNIVERSITY'S REPRESENTATIVE:

Name: Title:

Signature: Date:
**NOTICE OF CONSTRUCTION PROJECT COMPLETION FORM**

To comply with the terms of the Campus Storm Water Management Plan (SWMP) (Construction activity that disturbs less than one acre of land surface)

<table>
<thead>
<tr>
<th>PROJECT INFORMATION:</th>
<th>CONTRACTOR INFORMATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor:</td>
<td>Contact Person:</td>
</tr>
<tr>
<td>DCM Project Manager:</td>
<td>Phone:</td>
</tr>
<tr>
<td>Phone:</td>
<td>Email:</td>
</tr>
</tbody>
</table>

**BASIS OF COMPLETION: (choose one)**

- ☐ 1. The construction project is complete based on one of the following conditions. There is no potential for construction-related storm water pollutants to be discharged into site runoff and all construction materials/wastes have been disposed of properly
  - ☐ A. 70% Final Cover Method - no computation proof required
  - ☐ B. Revised Universal Soil Loss Equation (RUSLE or RULSE2) Method - computational proof required
  - ☐ C. Custom Method - Site will not pose any additional sediment risk than it did prior to construction activity, other than option A or B above

Date of Project Completion:

- ☐ 2. Construction activities have been suspended, either temporarily or indefinitely
  - ☐ A. Erosion and sediment controls have been implemented prior to suspension of construction activity

Date of Project Suspension: Expected Startup Date:

**EXPLANATION OF BASIS OF COMPLETION:** (attach site photos)

---

**RETENTION OF RECORDS:** (3 years after completion of project)

- ☐ Construction storm water documents such as the SWPPP, CSMP, Monitoring Reports and Inspection/Observation Reports were submitted to University’s Representative at project completion

Date Submitted:

**CONTRACTOR’S REPRESENTATIVE:**

*Submission of this Notice of Construction Project Completion Form constitutes notice to the University’s Representative that the construction site identified on this form is no longer authorized to discharge storm water associated with construction activity by the NPDES Small Municipal Separate Storm Sewer System (MS4) General Permit No. CAS000004 and the Campus Storm Water Management Plan (SWMP)*

Name: 
Title: 
Signature: 
Date: 

**UNIVERSITY’S REPRESENTATIVE:**

Name: 
Title: 
Signature: 
Date: 

March 1, 2013

Storm Water Pollution Prevention

L/B/M/DB 01 57 23 - 10