SECTION 01351 STORM WATER POLLUTION PREVENTION

PART 1 - GENERAL

1.1 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. Furnishing, placing, and installing 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 SWPPP plan at the Contractor's work site. Three copies 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.

1.2 REGULATIONS AND STANDARDS

A. Contractor shall comply with the following applicable regulations:
   2. Central Valley Basin (Region 5) Water Quality Control Plan (Basin Plan), California Regional Water Quality Control Board, 1998 Edition
   3. Waste Discharge Requirements Order No. 99-08 DWQ (National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000002) and Resolution No. 2001-046, Modification of Water Quality Order 99-08, State Water Resources Control Board. These Orders are referred to as the General Permit.

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

1.3 SUBMITTALS

A. Submittals shall comply with requirements specified in Section 01334 Shop Drawings, Product Data and Samples.

B. Submit a New Construction Project Information Form to the University's Representative prior to ground breaking. This form is required for compliance with the campus-wide permit with the California RWQCB for discharges of storm water associated with construction activities.

C. Submit a Storm Water Pollution Prevention Plan (SWPPP) using the SWPPP Template in Appendix B of the California Stormwater Quality Association – Stormwater Best Management Practice Handbook for Construction. This template can be downloaded from the California Stormwater Quality Association website at http://www.cabmphandbooks.org/Construction.asp. Five copies of the SWPPP must be submitted to the University's Representative prior to ground breaking. The SWPPP must contain all required elements specified in the General Permit. The SWPPP shall be developed and revised 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 should be dated and directly attached to the SWPPP.
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 list of topics to be covered in the plan are included in Part 3 Execution of this Section.

D. Site work shall not commence until the SWPPP has been reviewed and accepted by the University of California Davis Environmental Health & Safety (UCDEH&S).

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 will write and implement a 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:

1. Contractor Certification:
   a. In compliance with the General Permit, the SWPPP must have the following signed certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather 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 and imprisonment for knowing violations."

2. Introduction/Site Description:
   a. The SWPPP shall include basic information about the project including: size of site, type of construction, location of site, project start date and estimated completion date.

3. Maps:
   a. The General Permit has specific map requirements, including a topographic map showing the location of nearby surface water bodies and the discharge location(s) for the site. A detailed site map is also required, which shall identify areas of soil disturbance, location of surface water bodies, areas of existing surface vegetation, location of sediment or pollutant control measures, site drainage patterns, areas used for storage of soils, waste, or materials, vehicle and equipment parking or service areas, existing paved areas and location of post-construction controls. The maps shall be updated as needed to reflect changes as the project progresses. The approved map and plan shall be kept onsite for reference by the Contractor, University's Representative or governmental agencies.

4. Description of Site and Soil Types:
   a. Include the following estimates:
      (1) The size of the construction site (in acres);
      (2) The runoff coefficient of the site before and after construction;
      (3) The percentage of the area of construction that is impervious before and after construction.
   b. Above quantities are required information that the University must submit to the Central Valley RWQCB for every construction project.

5. Pollutant Sources:
   a. List and describe pollutants that are likely to be present in storm water discharges from the site, such as sediment, waste materials, concrete, etc. Describe the locations of storage or use of such materials and the measures to prevent pollution.

6. Toxic Materials:
   a. Describe all toxic materials that will be used during construction, such as adhesives, paint, petroleum products, pesticides, and vehicle fluids. Describe the locations of storage or use of such materials and the measures to prevent pollution.

7. Erosion and Sediment Control:
   a. Provide a description of erosion and sediment control measures that will be used on the site, and correlate the description with the site map. Areas requiring erosion control measures are exposed soil, such as soil piles, bare soil, sloped soil, and any area of disturbed soil. Erosion control measures include paving, tarp placement, soil blankets, mulching, seeding, hydro-mulching, and spreading straw. Sediment control measures include drain inlet protection, filter fabric, geo-textile silt fencing, gravel placement, gravel or sand bag placement, and straw
wattle placement. This list is not all inclusive and the Contractor should refer to the resources listed in this section to identify the best measures for the project. Describe measures to reduce the tracking of sediment from the site. Describe waste disposal practices and methods to prevent waste materials from polluting storm water. Indicate the location of concrete washout areas. Both erosion and sediment control practices are designed to be implemented as an integrated system of pollution control. Without erosion controls, sediment controls are easily overwhelmed and will not prevent pollution.

8. Non-Storm Water Management:
   a. Describe all non-storm water discharges that may occur on site. Examples of non-storm water discharges include irrigation runoff, street cleaning, spills, or leakage from storage tanks. Non-storm water discharges should be eliminated or reduced to the extent feasible. Discharges from dewatering are allowed only if they are free of pollutants, including sediment.

9. Maintenance, Inspection and Repair of Controls:
   a. Structural pollution controls require ongoing inspection, maintenance and repair. Contractor shall maintain all pollution control measures to achieve compliance with the SWPPP and General Permit. Describe procedures for responding to failure of any structural controls and indicate the persons responsible for inspection, maintenance and repair.

10. Spill Prevention and Control:
    a. Measures to prevent, control and respond to spills shall be described in the SWPPP. Contractor shall take precautions to prevent accidental spills of pollutants, including hazardous materials brought onsite by the Contractor. However, in the event of a spill, the Contractor shall be responsible for the following:

    (1) Immediately contain and prevent leaks and spills of prohibited pollutants from entering the storm drain system. Clean up the spill and label the contained material. Store the container in a safe place and contact the University's Representative prior to disposal of the waste by the Contractor. Contractor shall keep a spill kit on site at all times for this purpose.

    (2) Contractor shall comply with all federal, state, and local hazardous waste requirements. Ensure that no spilled materials are washed into the streets, gutters, storm drains, or creeks.

    (3) Report any hazardous or unknown material spills immediately to UCDEH&S at (530) 752-1493. If a spill occurs after hours or on a weekend, call (530) 752-1234 to contact the UC Davis Fire and Police Dispatch.

11. Post-Construction Storm Water Management:
    a. Describe all the control practices to reduce pollutants in storm water discharges after the construction activities are completed at the site. Post-constructions BMPs include: minimizing land disturbance, minimizing impervious surfaces, treatment of storm water runoff using filtration, use of efficient irrigation systems, and planting to reduce erodable surfaces.
12. Personnel:
   a. Identify and describe the training of the personnel responsible for the implementation and monitoring of the SWPPP and BMPs. These activities must be performed by trained, competent personnel. Documentation of training shall be available upon the request of the University's Representative or a regulatory agency.

13. Notification List:
   a. Provide the company's name, address and telephone number, along with a contact person's name and telephone number for everyone responsible for implementation of the SWPPP. The Contractor shall inform all subcontractors (if any) of the water pollution prevention requirements contained in this specification and the site-specific SWPPP and include appropriate subcontract provisions to ensure that these requirements are met.

14. Monitoring and Reporting:
   a. The SWPPP shall describe the monitoring program to ensure compliance with the General Permit. The monitoring plan shall include site inspections and the Contractor shall conduct inspections of the construction site weekly, prior to anticipated storm events, during extended storm events, and after actual storm events to identify areas contributing to a discharge of storm water associated with construction activity. The name(s) and contact number(s) of the assigned inspection personnel shall be listed in the SWPPP. Weekly and pre-storm inspections are to ensure that BMPs are properly installed and maintained; post-storm inspections are to assure that the BMPs have functioned adequately. During extended storm events, inspections shall be required each 24-hour period. BMPs shall be evaluated for adequacy and proper implementation and whether additional BMPs are required in accordance with the terms of the General Permit. The Contractor shall submit a copy of all inspection reports to the University's Representative for review.
   
   b. Inspections must be documented and the records maintained onsite for review by the University's Representative or regulatory agencies. If instances of non-compliance with the General Permit are identified, the Contractor shall notify the University's Representative immediately. Corrective measures should be implemented immediately following discovery of an exceedance of water quality standards or other instance of non-compliance.

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 01351