

**CITY OF ALAMEDA
PUBLIC WORKS DEPARTMENT
URBAN RUNOFF
BEST MANAGEMENT PRACTICES STANDARDS**

Pre-construction Phase:

The project proponent and the designated contractor shall provide a Water Pollution Control Plan (WPCP) (or a Stormwater Pollution Prevention Plan (SWPPP) for projects one acre or more) for review and approval by the City Engineer with adequate time to ensure that necessary WPCP/SWPPP revisions can be made prior to the pre-construction meeting. This Plan shall include appropriate erosion and sediment control measures to effectively prevent the entry of soil, dirt, debris and other pollutants to stormwater runoff, the storm drain system, the lagoons or the bay/estuary during construction.

Erosion and sediment control plans/sheets shall indicate the specifications and maintenance schedules for the installation and upkeep of the erosion and sediment control mechanisms. Specifications shall be provided for the erosion control practices, perimeter protection(s), any silt fencing and fiber rolls used, the storm drain inlet protections, the stabilized construction entrance(s) and exits, site and excavation dewatering activities, vehicle tire wash area(s), the vehicle and equipment servicing area(s) and the materials handling and storage area(s). These specifications should meet the same level of erosion and sediment control effectiveness established by practices identified in the San Francisco Bay Regional Water Quality Control Board's Erosion and Sediment Control Field Manual (510-622-2465), the Association of Bay Area Government's Manual of Standards for Erosion and Sediment Control (510-464-7900) and/or the California Stormwater Quality Association's Stormwater Best Management Practice Handbook – Construction (www.cabmphandbooks.com). Contact City PWD Clean Water Program Specialist Jim Barse, telephone 510-747-7930, for additional assistance in obtaining copies of these reference documents.

Prior to the commencement of any clearing, grading or excavation resulting in a **land disturbance of 1 (one) acre or more**, the developer must comply with the conditions of the General Construction Stormwater Permit issued by the State Water Resources Control Board (SWRCB). The developer must submit to the City's Public Works Department a copy of the WDID# issued to the project by the State and the required SWPPP document. These Permit requirements can be referenced directly from the SWRCB at http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

Construction phase erosion and sediment control measures shall include:

Construction access routes shall be limited to those approved by the City Engineer and shall be shown on the approved grading plan.

The applicant is responsible for ensuring that all contractors and subcontractors are aware of and implement all stormwater quality control measures. The Contractor(s) shall avoid creating excess dust when breaking asphalt/concrete and during excavation and grading. If water is used for dust control, use as little as possible. All wash water shall be kept out of streets, gutters and storm drains. Controls shall be implemented prior to start of construction, maintained during construction to provide adequate protection and removed at the end of construction. Failure to comply with the approved construction BMPs shall result in the issuance of correction notices, citations and/or a project stop order.

BMP Standards A through Q:

- A. Gather all construction debris on a regular basis and place it in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. After breaking old pavement, remove all pieces to avoid contact with rainfall or runoff.
- B. On-site piles shall be removed regularly from site, with only temporary storage allowed. All temporary soil or other stockpiles on site shall be securely covered with a tarp, plastic sheeting or similar material.
- C. Remove all dirt/mud, gravel, rubbish, refuse and green waste from the sidewalk, street

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pavement, and storm drain system adjoining the project site daily and prior to rain. Clean up leaks, drips and spills immediately. During wet weather, avoid driving vehicles off paved areas and other outdoor work areas.

- D. Stabilized construction entrances shall be installed and maintained to minimize the tracking of dirt, mud, dust and debris onto the public right-of-way.
- E. Broom-sweep the sidewalk and public street pavement adjoining the project site daily and prior to rain. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the completion of work the street shall be washed and the wash water collected and disposed offsite.
- F. Filter materials (such as block and gravel bags, sandbags, filter fabric) shall be installed at the storm drain inlets surrounding the project site. Inlet protections shall be installed prior to: the start of the rainy season, site de-watering activities, saw-cutting activities or any other activity that may result in the discharge of material to the storm drain. Filter materials shall be maintained and/or replaced as necessary to minimize short-cutting and to remove sediment deposits and buildup. Accumulated sediment/debris shall be disposed of properly.
- G. Vacuum saw-cutting slurry immediately and remove from site. Do not allow saw-cut slurry to accumulate on surrounding pavement or enter the storm water conveyance system.
- H. Create a contained and covered area on the site for the storage of cement bags, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by wind, exposure to rainfall or in the event of a material spill.
- I. Never clean machinery, tools, brushes, etc. or rinse containers into a street, gutter, storm drain or stream. See the *Building Maintenance and Remodeling* BMP flyer and ACCWP BMP brochures for more information. Contact Public Works Environmental Services Division at 747-7930 for assistance with obtaining these documents.
- J. Ensure that concrete/gunite supply trucks or concrete/plaster finishing operations do not discharge wash water into street gutters or drains. Concrete trucks shall have a self-contained wash-out system or discharge to a dedicated, secure site wash-out in order to avoid the possibility of debris on city streets or discharge of wash water to the storm water conveyance system.
- K. Minimize removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Re-plant the area, and stabilize all cut and fill slopes as soon as possible after grading is completed. At a minimum, 4,000 pounds/acre of straw with tackifier should be placed on all exposed soils including those within active work areas and flat lots. **No site grading shall occur between October 1 and May 31 unless approved erosion and sedimentation control measures are in place.**
- L. Provide erosion "prevention" and perimeter protection measures (soil stabilization) such as fiber rolls, silt fence, and/or sediment traps or basins. Ensure control measures are adequately maintained and in operable condition. Sediment controls, including inlet protection, are necessary but should be a secondary defense behind good erosion control and site perimeter measures.
- M. Site de-watering operations shall be designed to prevent the discharge of any sediment, debris or other pollutants to the municipal storm water conveyance system.
- N. All erosion prevention and sediment control measures shall be maintained and repaired throughout the season. Replacement supplies should be kept on site. Site inspections shall be conducted before and after each storm event, and every 24 hours for extended storm events,

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to identify areas that contribute to erosion and sediment problems or any other pollutant discharges. If additional measures are needed, revise the SWPPP and implement the measures immediately. Document all inspection findings and actions taken.

- O. Visual observations before, during, and after storm events shall be conducted. Any breach, malfunction, leakage, or spill observed that could result in the discharge of pollutants to surface waters which would not be visually detectable in stormwater shall trigger the collection of a sample of discharge. The following procedures shall be followed during sampling:

Sampling Procedures:

- For all construction activity, identify a sampling and analysis strategy and sampling schedule for potential discharges discovered through visual monitoring.
 - Any breach, malfunction, leakage, or spill observed during visual monitoring which could result in the discharge of pollutants to surface waters that would not be visually detectable in stormwater shall trigger the collection of a sample of discharge.
 - Samples shall be collected at all discharge locations which drain the areas identified by the visual observations and which can be safely accessed.
 - Personnel trained in water quality sampling procedures shall collect stormwater samples.
 - An uncontaminated sample shall be collected for comparison with the discharge sample.
 - Sampling shall be conducted during the first two hours of discharge from rain events that occur during daylight hours and which generate runoff.
 - The uncontaminated sample shall be compared to the samples of discharge using field analysis or through laboratory analysis. Analyses may include, but are not limited to indicator parameters such as: pH, specific conductance, dissolved oxygen, conductivity, salinity, and TDS
 - All field and/or analytical data shall be kept in the SWPPP document, which is to remain at the construction site at all times
- P. The City of Alameda shall be contacted in the event of any slope failure, sediment pond overflow, or any other malfunction resulting in pollutant-laden runoff. The City shall, in turn, report such incidents to the Regional Water Quality Control Board.
- Q. On-site storm drain inlets shall be clearly marked with the words “No Dumping! Drains to Bay,” or equivalent, using methods approved by the City of Alameda. All on-site storm drains must be inspected and, if necessary, cleaned at least once a year immediately prior to the rainy season. Additional cleaning may be required by the City of Alameda.

The objective of these BMP Standards is to ensure that the City’s municipal storm water Permit, the National Pollutant Discharge Elimination System (NPDES) Permit provisions and additional Regional Water Quality Control Board requirements are adequately enforced. These construction-phase controls should be implemented prior to start of construction, maintained during construction to provide adequate protection throughout the construction phase, and removed at the end of construction.

Failure to comply with the above program will result in issuance of noncompliance notices, citations, project stop orders or fines. The State Regional Water Quality Control Board, under the Federal Clean Water Act, can also impose a fine on the contractor.