

ARTICLE XII – TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL

12.1 DESCRIPTION – This section is required for all work, including the Contractor’s storage sites. It describes the following:

- A. A detailed site-specific Best Management Practice (BMP) Plan including diagrams and narratives; constructing, maintaining, and repairing temporary water pollution, dust, and erosion control measures at the project site including local material sources, work areas and access roads; removing and disposing of wastes and hazardous wastes; and control of fugitive dust (defined as uncontrolled emission of solid airborne particulate matter from any source other than combustion). Additionally, all projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors are subject to State of Hawaii, Department of Transportation (HDOT) Harbors Division, Storm Water Management Plan (SWMP) requirements, unless exempted, and are subject to Harbors BMP inspections. If any requirement conflicts with those administered by State of Hawaii, Department of Health (HDOH), the Contractor shall follow the more stringent requirement.
- B. Compliance with applicable federal and other state permit conditions.
- C. Work associated with dewatering and hydrotesting activities and compliance with conditions of the NPDES general permit coverage authorizing discharges associated with construction activity dewatering and hydrotesting.

12.2 GENERAL REQUIREMENTS – In order to provide for the control of water pollution, dust, and erosion arising from the construction activities of the Contractor and his subcontractors in the performance of this contract, the work performed shall comply with all applicable federal, state, and local laws and regulations concerning water pollution control including, but not limited to, the following regulations:

- A. State of Hawaii, HDOH, Hawaii Administrative Rules (HAR) Chapter 11-54 – Water Quality Standards and Chapter 11-55 – Water Pollution Control.
- B. For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, HDOT Harbors Division, Storm Water Management Plan.
- C. For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, City and County of Honolulu (CCH), Rules Relating to Water Quality.
- D. For projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors ONLY, CCH, Storm Water BMP Manual for Construction.
- E. 40 CFR Part 110, Environmental Protection Agency (EPA), Discharge of Oil.
- F. 40 CFR Part 117, EPA, Determination of Reportable Quantities for Hazardous Substances.

- G. 40 CFR Part 261, EPA, Identification and Listing of Hazardous Waste.
- H. 40 CFR Part 302, EPA, Designation, Reportable Quantities, and Notification.
- I. 49 CFR Part 171, U.S. Department of Transportation, Hazardous Materials Regulations.

12.3 MATERIALS - Materials shall conform to the following when applicable:

- A. Slope Drains. Slope drains may be constructed of pipe, fiber, mats, erosion control fabric, geotextiles, rubble, Portland cement concrete, bituminous concrete, plastic sheets, or other materials acceptable to the Construction Engineer.
- B. Grass. Grass shall be quick growing species such as rye grass, Italian grass, or cereal grasses. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover. Alternative grasses are allowable if acceptable to the Construction Engineer.
- C. Fertilizer and Soil Conditions. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Construction Engineer.
- D. Silt Fences. Silt fences shall be synthetic filter fabric mounted on posts and embedded in compacted ground in compliance with American Society for Testing and Materials (ASTM) D6462-03, Standard Practice for Silt Fence Installation.
- E. Berms. Berms shall be gravel or sand wrapped with geotextile material. Alternate materials are allowable if acceptable to the Construction Engineer.
- F. Alternate materials or methods to control, prevent, remove, and dispose of pollution are allowable if acceptable to the Construction Engineer.

12.4 CONSTRUCTION

- A. Preconstruction Requirements.
 - 1. Temporary Water Pollution, Dust, and Erosion Control Meeting. The Contractor shall be required to submit a site-specific BMP Plan to the Construction Engineer and address all comments by the Construction Engineer. After the Plan is accepted in writing by the Construction Engineer, the Contractor shall schedule a meeting with the Construction Engineer before the start of construction work to discuss the sequence of work, and plans and proposals for water pollution, dust, and erosion control.

2. Temporary Water Pollution, Dust, and Erosion Control Submittals. The Contractor shall submit the site-specific BMP Plan for approval by the Construction Engineer prior to the start of work:
- a. Written site-specific BMP Plan shall include the following as applicable:
- 1) Identification of potential pollutants and their sources and other factors that may cause water pollution, dust, and erosion.
 - 2) A list of all material and heavy equipment to be used during construction. Vehicles and equipment shall be well maintained and free from any type of fluid leaks.
 - 3) Construction schedule.
 - 4) Name(s) of specific individual(s) designated responsible for water pollution, dust, and erosion controls on the project site. Include home, business, and cellular telephone numbers, fax numbers, and e-mail addresses.
 - 5) Descriptions of the methods and devices used to eliminate certain pollutants (e.g., wastewater, fuels, solvents, detergents, toxic or hazardous substances) from discharging into state waters and drainage systems, and provide details of BMP(s) to be installed or utilized. Indicate approximate dates when BMP(s) will be installed and removed.
 - 6) Description of maintenance and subsequent removal of BMP(s).
 - 7) Method(s) of removal and disposal of solid and regulated hazardous wastes encountered or generated during construction. The Contractor is advised to procure regulated hazardous materials on an as-needed basis, as feasible. All excess regulated hazardous materials at the conclusion of this project shall remain the property of the Contractor and shall be removed from HDOT Harbors Division property upon the completion of the project.
 - 8) Method(s) of removing and disposing concrete and asphalt pavement cutting slurry, concrete curing water, and hydrodemolition water.
 - 9) Method(s) of containing, removing, and disposing of demolition dust and debris to minimize the discharge of these pollutants into state waters and drainage systems.

- 10) Spill kit contents and location.
- 11) Fugitive dust control, including dust from grinding, sweeping, or brooming off operations or combination thereof.
- 12) Method(s) of storing and handling of regulated hazardous materials (e.g. oils, paints) and other products used for the project. Safety Data Sheets (SDS) for all regulated hazardous materials used during construction activities shall be kept on-site throughout the duration of the project and readily available upon inspection. All containers of regulated hazardous materials should be provided with secondary containment during storage. Regulated hazardous materials not specifically needed in the execution of this project shall not be brought or stored on site. As feasible, the Contractor is encouraged to use products that do not contain any regulated constituents. The use of green products is encouraged.
- 13) Method(s) of concrete washout/waste control.
- 14) Method(s) of managing material stockpiles to minimize erosion and dust.
- 15) Good housekeeping practices.
 - a) Minimize tracking of sediment offsite from project entrances and exits.
 - b) Litter management. The Contractor shall have a comprehensive housekeeping policy and shall actively enforce housekeeping requirements. Housekeeping items include, but are not limited to, cups, cans, bottles and other forms of lightweight litter, unattended containers of hazardous materials, concrete debris (e.g. dust, chips, and other sweepings), and discarded articles of disposable Personal Protective Equipment (e.g., earplugs, dust masks, and gloves). Employees who are specifically tasked with housekeeping duties shall be identified by name.
 - c) The Contractor should provide and maintain covered waste receptacles. No construction debris or other refuse that is generated as a result of project activities is to be disposed in HDOT Harbors Division-owned waste receptacles.

- 16) Provide plan(s)/drawing(s) showing location of followings when applicable:
- a) Boundaries of the property and the locations where construction activities will occur, including:
 - i. Locations where earth-disturbing activities will occur (noting any sequencing of construction activities);
 - ii. Approximate slopes and drainage patterns with flow arrows before and after the construction;
 - iii. Locations where sediment, soil, or other construction materials will be stockpiled;
 - iv. Locations of any contaminated soil or contaminated soil stockpiles;
 - v. Locations of any crossings of state waters;
 - vi. Designated points on the site where vehicle will exit onto paved roads;
 - vii. Locations of structures and other impervious surfaces upon completion of construction; and
 - viii. Locations of construction support activity areas covered by the permit.
 - b) Locations of all state waters, including wetlands and indicate which water bodies are listed as impaired.
 - c) The boundary lines of any natural buffers.
 - d) Topography of the site, existing vegetative cover, and features (e.g., forest, pasture, pavement, structures), and drainage pattern(s) of storm water

onto, over, and from the site property before and after major grading activities.

- e) Storm water discharge locations, including locations of any storm drain inlets on-site and in the immediate vicinity of the site to receive storm water runoff from the project; and locations where storm water will be discharging to state waters (including wetlands).
 - f) Locations of all potential pollutant-generating activities.
 - g) Locations of storm water control measures; and
 - h) Locations where chemicals will be used and stored.
- 17) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Parts 110, 117, or 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available.
- 18) The Contractor shall date and sign the site-specific BMP Plan.
- b. The Contractor shall keep the current Plan on-site or an easily accessible location throughout the duration of the project. Revisions to the Plan shall be included with the original plan. Modify contract documents to conform to revisions. Include actual date of installation and removal of BMP. Obtain written acceptance by the Construction Engineer before revising BMP. An updated Plan shall be kept on-site throughout the remainder duration of the project.

The Contractor shall follow guidelines in the “*The City and County of Honolulu Storm Water Best Management Practice Manual – Construction*,” (dated November 2011) in developing, installing, and maintaining BMP for the project. Additionally, the Contractor shall follow applicable City and County of Honolulu *Rules Relating to Soil Erosion Standards and Guidelines* (dated April 1999) **for all projects at Honolulu, Kalaeloa Barbers Point, and Kahului Harbors**, and use respective Soil Erosion Guidelines for

other Maui, Kauai, and Hawaii County projects. Information can be found at the respective County websites.

B. Construction Requirements are as follows.

1. No work shall be allowed to begin until submittals detailed in Subsection 12.4.A.2 – Temporary Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Construction Engineer. The Contractor shall prevent pollutants from entering state waters. These efforts shall address areas such as those that drain to water, are over water, or drain to storm drains in the area of the project site. The Contractor shall design, operate, implement, and maintain the Plan to ensure that storm water discharges associated with construction activities will not cause or contribute to a violation of applicable state water quality standards.
2. All projects at Honolulu, Kalaheo Barbers Point, and Kahului Harbors are subject to HDOT Harbors Division SWMP requirements for construction at those harbors unless the project meets a specified exemption class. The requirements include, but are not limited to, construction site BMP initial, recurring (i.e. every two weeks from October through March and every two months otherwise), and final inspections at the frequencies outlined in the SWMP. No grading or land disturbance activities are allowed until the initial BMP inspection is completed and required BMPs are found to be properly installed.
3. Address all comments received from the Construction Engineer.
4. Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.
5. Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.
6. BMP shall be in place and operational until the construction is completed and accepted by Harbors.
7. Install and maintain either or both stabilized construction entrances and wheel washes to minimize tracking of dirt and mud onto roadways. Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other material tracked onto the road immediately. Modify stabilized construction entrances to prevent mud from being tracked onto roadways.
8. Chemicals may be used as soil stabilizers for either or both erosion and dust control if acceptable to the Construction Engineer.

9. Cover exposed surface of materials completely with tarpaulin or similar device when transporting aggregate, soil, excavated material or material that may be a source of fugitive dust. Protect and cover any soil stockpiles from rain and runoff including at the end of each day.
10. Clean up and remove any pollutant that can be attributed to the Contractor.
11. Install or modify BMP due to change in the Contractor's means and methods, or for omitted condition that should have been allowed for in the accepted site-specific BMP Plan or a BMP that replaces an accepted site-specific BMP that is not satisfactorily performing.
12. Properly maintain BMP.
13. Remove, replace, or relocate any BMP that must be removed, replaced or relocated due to potential or actual flooding, or potential danger or damage to the project or public.
14. The Contractor's designated representative specified in Subsection 12.4.A.2.a.4 shall address any BMP concerns brought up by the Construction Engineer within 24 hours of notification, including weekends and holidays. Should the Contractor fail to satisfactorily address these concerns, the Construction Engineer reserves the right to employ outside assistance or use the Construction Engineer's own labor forces to provide necessary corrective measures. The Construction Engineer will charge the Contractor such incurred costs plus any associated project engineering costs. The Construction Engineer will make appropriate deductions from the Contractor's monthly progress estimate. Failure to apply BMP shall result in either or both the establishment and increase in the amount of retainage due to unsatisfactory progress or withholding of monthly progress payment. Continued failure to apply BMP may result in one or more of the following: The Contractor being fully responsible for all additional costs incurred by HDOT Harbors Division including any fines levied by HDOH, suspension of the Contract, or cancellation of the Contract.

- C. Hydrotesting Activities. If work includes removing, relocation or installing waterlines, and the Contractor elects to flush waterline or discharge hydrotesting effluent into state waters or drainage systems, obtain a Notice of General Permit Coverage (NGPC) authorizing discharges associated with hydrotesting waters from the HDOH Clean Water Branch (CWB). If a permit is required, prepare, and submit permit application (CWB-Notice of Intent (NOI) Form F) to the HDOH CWB.

Do not begin hydrotesting activities until the HDOH CWB has issued a NGPC. Hydrotesting operations shall be in accordance with conditions in the NGPC.

Submit a copy of the NPDES Hydrotesting Waters Application and Permit to the Construction Engineer.

- D. Dewatering Activities. If excavation of backfilling operations requires dewatering, and the Contractor elects to discharge dewatering effluent into state waters or existing drainage systems, obtain an NGPC authorizing discharges associated with construction activity dewatering from the HDOH CWB. If a permit is required, prepare and submit permit application (CWB-NOI Form G) to the HDOH CWB.

Do not begin dewatering activities until the HDOH-CWB has issued an NGPC. Conduct dewatering operations in accordance with the conditions in the NGPC. Submit a copy of the NPDES Dewatering Application and Permit to the Construction Engineer.

12.5 PAYMENT – Payment for Temporary Water Pollution, Dust, and Erosion Control will not be measured and paid for separately but shall be considered incidental to the applicable items in the Proposal Schedule.

No progress payment will be authorized until the Construction Engineer accepts in writing the site-specific BMP Plan or when the Contractor fails to maintain the project site in accordance with the accepted BMP Plan.

The Contractor shall reimburse the State of Hawaii within 30-day for the full amount of all outstanding costs incurred by the State of Hawaii for all citations or fines received as a result of the Contractor's non-compliance with regulations.