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

26.1 DESCRIPTION

This section is required for all work, including the Contractor's storage sites. It describes the following:

(A) A detailed Storm Water Pollution Prevention Plan (SWPPP) required by a National Pollutant Discharge Elimination System (NPDES) Appendix C General Permit from the State of Hawaii Department of Health (HDOH) and prepared according to Section 7 of Hawaii Administrative Rules (HAR) Chapter 11-55, Appendix C, will satisfy this 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.

26.2 GENERAL REQUIREMENTS

In order to provide for the control of temporary 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, HAR Chapter 11-54 – Water Quality Standards and Chapter 11-55 – Water Pollution Control.

(B) 40 CFR Part 110, Environmental Protection Agency (EPA), Discharge of Oil.

(C) 40 CFR Part 117, EPA, Determination of Reportable Quantities for Hazardous Substances.

(D) 40 CFR Part 261, EPA, Identification and Listing of Hazardous Waste.

(E) 40 CFR Part 302, EPA, Designation, Reportable Quantities, and Notification.

(F) 49 CFR Part 171, U.S. Department of Transportation, Hazardous Materials Regulations.

26.3 MATERIALS

Materials shall conform to the following when applicable:

(A) Grass and Hydromulch. Grass and/or hydromulch shall be provided in accordance with Section 209 – Temporary Water Pollution, Dust, and Erosion Control of the "Standard Specifications."

(B) Fertilizer and Soil Conditioners. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Construction Engineer.

(C) 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.

(D) Inlet Protection. May be constructed of sandbags or other materials acceptable to the Engineer.

(E) Alternate materials or methods to control, prevent, remove, and dispose of pollution are allowable if acceptable to the Construction Engineer.

26.4 CONSTRUCTION

(A) Preconstruction Requirements

(1) Temporary Water Pollution, Dust, and Erosion Control Meeting. The contractor shall be required to submit a SWPPP to the Construction Engineer and address all comments by the Construction Engineer. After the SWPPP 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 SWPPP to the Construction Engineer prior to the start of work for review of compliance with this Article.

(a) The following information shall be described in the SWPPP as specified in Section 7 of HAR 11-55, Appendix C, at a minimum:

1. Storm water team (by name or position), which is responsible for the development of the SWPPP, any later modifications to it, and for compliance with the

requirements in the NPDES permit. The SWPPP must identify the personnel that are part of the storm water team as well as their individual responsibilities.

2. Nature of construction activities including the size of the project site (in acres) and the total area expected to be disturbed by the construction activities (in acres), construction support activity areas covered by permit, and the maximum area expected to be disturbed at any one time.

3. Emergency-related projects in response to a public emergency (e.g., natural disaster, extreme flooding conditions). If this applies to the project, documentation of the cause of the public emergency, information substantiating its occurrence, and a description of the construction necessary to re-establish affected public services shall be included in the SWPPP. The proclamation of a civil defense emergency or similar proclamation is required to be from the President of the United States or State Governor.

4. Identification of other site contractors (e.g., sub-contractors) who will be engaged in construction activities at the site, and the areas of the site over which each contractor has control. If this piece of information is not available at the time the SWPPP is submitted, the plan must be amended to include the information prior to the start of construction activities.

5. Sequence and estimated dates of construction activities including a schedule of the estimated start dates and the duration of the following activities, according to Section 7.2.5 of HAR 11-55, Appendix C:

    a. Installation of storm water control measures.

    b. Commencement and duration of earth-disturbing activities.

    c. Cessation, temporarily or permanently, of construction activities on-site, or in designated portions of the project site.

d. Final or temporary stabilization of areas of exposed soil.

e. Removal of temporary storm water conveyances/ channels and other storm water control measures, removal of construction equipment and vehicles, and cessation of any pollution-generating activities.

6. Site map or series of maps, showing the following features of the project, according to Section 7.2.6 of HAR 11-55, Appendix C:

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 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 construction.

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.

7. Construction site pollutants generated by on-site activities. For each pollutant-generating activity, an inventory of pollutants or pollutant constituents (e.g., sediment, fertilizers and/or pesticides, paints, solvents, fuels) associated with that activity, which could be exposed to rainfall and could be discharged from the construction site (include potential spills and leaks).

   A list of all materials and heavy equipment to be used during construction. Vehicles and equipment shall be well maintained and free from any type of fluid leaks.

8. Sources of non-storm water, including, but not limited to, the design, installation, and maintenance of the control measures to prevent its discharge.

9. Buffer documentation. When a State water is located within 50 feet of the project's earth disturbances, the Contractor shall describe which compliance alternative has been selected for the site, and comply with Section 5.1.2.1 of HAR 11-55, Appendix C.

10. Description of storm water control measures to be used during construction activity including information on:

    a. Storm water control measures to be used during construction activity meet the requirements of Section 5 of HAR 11-55, Appendix C.

        i. Information on the type of storm water control measure to be installed and maintained, including design information;

        ii. What specific sediment controls will be installed and made operational prior to conducting earth-disturbing activities in any given portion of the site to meet the requirement of Section 5.1.2.2.1 of HAR 11-55, Appendix C.

        iii. If contaminated soil exists on-site, the control measures to either prevent the contact of storm water with the contaminated soil, including any contaminated soil stockpiles, or prevent the discharge of any storm water runoff which has contacted contaminated soil or any contaminated soil stockpiles;

        iv. For exit points on the site, document stabilization techniques to be used and any additional controls that are planned to remove sediment prior to vehicle exit.

        v. For linear projects, document the location where the use of perimeter controls in portions of the site is impracticable and the reason why (refer to Section 5.1.2.2.1 of HAR 11-55, Appendix C).

b. Stabilization practices including specific vegetative and/or non-vegetative practices. Document the circumstances preventing from meeting the deadlines specified in Section 5.2.1.1 and/or 5.2.1.2 of HAR 11-55, Appendix C.

c. Post-construction measures that will minimize the discharge of pollutants via storm water discharges after construction operations have been finished.

11. Pollution prevention procedures.

a. Spill prevention and response procedures, including:

i. Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks;

ii. 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. Spill Contact information must be in location that is readily accessible and available.

b. Waste management procedures on handling and disposing of all wastes generated at the site, including, but not limited to, clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

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.

12. Procedures for inspection, maintenance, and corrective action to be followed for conducting site inspections, maintaining the storm water control measures, and, where necessary, taking corrective actions. Additionally, include following information in the SWPPP:

    a. Personnel responsible for conducting inspections;

    b. Inspection schedule. Contractor's Self-Inspections shall be conducted at applicable schedules listed below. Note that inspections are only required during the project's normal working hours.

        i. Inspection Frequency for sites discharging to impaired waters[1]. For any portion of the site that discharges to an impaired water, the inspection shall be conducted at the following intervals:

            (a) Once every seven (7) calendar days; and

            (b) Within 24 hours of the occurrence of the storm event of 0.25 inches or greater.

            (c) Daily during periods of a prolonged storm event of 0.25 inches or greater.

        ii. Inspection Frequency for sites NOT discharging to impaired waters. At a

[1] "Impaired waters" are waters identified as impaired on the State Clean Water Act Section 303(d) list, and waters with a State-established and EPA-approved Total Maximum Daily Load (TMDL). The construction site will be considered to discharge to an impaired water if the first State water to which the discharge enters is to a water on the section 303(d) list or one with a State established and EPA-approved TMDL. For a discharge that enters a storm water drainage system prior to discharge, the first State water to which discharge occurs is the water body that receives the storm water discharge from the storm water drainage system.

minimum, the inspection shall be conducted in accordance with one of the two schedules listed below:

(a) At least weekly; or

(b) Biweekly (once every 14 calendar days), and within 24 hours of the occurrence of a storm event of 0.25 inches or greater, daily during periods of a prolonged storm of 0.25 inches or greater, and within 24 hours after the end of the storm.

iii. Reductions in inspection frequency. For stabilized areas, the Contractor may reduce the frequency of inspections to monthly (once per month) in any area of the site where the stabilization steps have been completed as follows:

(a) For vegetative stabilization, all activities necessary to initially seed or plant the area to be stabilized; and/or

(b) For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

c. Any inspection or maintenance checklists or other forms that will be used.

Contractor shall either keep a properly maintained rain gauge in a secure location to monitor rainfall at the project site, or obtain the storm event information from a weather station that is representative of the location. If a rain gauge is to be utilized to determine if a storm event of 0.25 inches or greater has occurred on the site, it must have a tolerance of at least 0.05 inches of rainfall, and an opening of at least 1-inch diameter. Install the rain gauge on the project site in an area that will not deter rainfall from entering the gauge opening. Maintain the rain gauge and

replace the gauge if stolen, it does not function properly or accurately, is worn out, or needs to be relocated. Do not begin fieldwork until the rain gauge is installed and the SWPPP is in place. For any day of rainfall during normal business hours that measures 0.25 inches or greater, the Contractor shall record the total rainfall measured for that day.

13. Staff training documentation that the required personnel were trained in accordance with Section 7.2.13 of HAR 11-55, Appendix C, to ensure that all activities on the site comply with the requirements of the issued permit. The list of major required personnel is as listed below:

    a. Personnel responsible for the design, installation, maintenance, and/or repair of storm water controls (including pollution prevention measures);

    b. Personnel responsible for the application and storage of chemicals (if applicable);

    c. Personnel responsible for conducting BMP inspections;

    d. Personnel responsible for taking corrective actions

    At a minimum, personnel must be trained to understand the following, if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):

    a. The location of all storm water controls on the site required by the issued permit, and how they are to be maintained;

    b. The proper procedures to follow with respect to the permit's pollution prevention requirements; and

    c. When and how to conduct inspections, record applicable findings, and take corrective actions.

    The Contractor is not required to provide or document formal training for subcontractor or other outside service

providers, but must ensure that such personnel understand any requirements of the permit that may be affected by the work they are subcontracted to perform. Detailed discussion is provided in Section 7.2.13.2 of HAR 11-55 Appendix C.

14. Documentation of compliance with Safe Drinking Water Act Underground Injection Control (UIC) requirements for certain subsurface storm water controls, if using any of the following storm water controls at the project site**:**

    a. Infiltration trench (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);

    b. Commercially manufactured precast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate storm water flow; and

    c. Drywells, seepage pits, or improved sinkholes (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).

15. Other information listed below.

    a. Contractor information (general and subcontractors) including legal name, street address, contact person’s name and position title, telephone number, and email address.

    b. Other state, federal, or county permits including:

        i. Copy of the drainage system owner’s approval allowing the discharge to enter their drainage system (if applicable);

        ii. Copy of the Department of the Army permit and Section 401 water quality certification (if applicable); and

iii. A list of other permits (if applicable).

16. Any other information as requested by the Director of HDOH and/or HDOT.

17. SWPPP certification. The owner or its duly authorized representative must certify, sign, and date the Plan in accordance with Section 15 of HAR 11-55, Appendix A.

(b) The Contractor shall keep the current SWPPP on-site or at 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 SWPPP. Additionally, the planned modifications to the BMP meeting the conditions listed in Section 7.4.1 of HAR 11-55, Appendix C, shall be documented and updated in the SWPPP according to Section 7.4 of HAR-55 Appendix C. 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. Follow applicable CCH *Rules Relating to Water Quality on Erosion Sediment Control Plan and Post Construction Best Management Practices* 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 32.4(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) Address all comments received from the Construction Engineer.

(3) Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

(4) Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

(5) BMP shall be in place and operational until the construction is completed and accepted by Harbors.

(6) 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.

(7) Chemicals may be used as soil stabilizers for either or both erosion and dust control if acceptable to the Construction Engineer.

(8) 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.

(9) Cleanup and remove any pollutant that can be attributed to the Contractor.

(10) 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 SWPPP or a BMP that replaces an accepted one that is not satisfactorily performing.

(11) Properly maintain BMP. For projects that require an NPDES Appendix C General Permit from the HDOH, inspect, prepare a monthly compliance report, and make repairs to BMP on a timely basis. Maintain records of BMP inspections for the duration of the project. Submit copies of the inspection reports to the Construction Engineer upon request.

(12) 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.

(13) The Contractor's designated representative specified in Subsection 32.4(A)(2)(a)1. 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.

(14) The owner or its duly authorized representative shall be responsible for fulfilling the reporting requirements (e.g., state of construction activities, incident notification) according to Section 12 of HAR 11-55, Appendix C and submittal requirements (e.g., monthly compliance report, Notice of Cessation form) according to Section 13 of HAR 11-55, Appendix C.

(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. All costs borne shall be the responsibility of the Contractor.

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.

If the Contractor elects to not obtain an NGPC for the discharge of hydrotesting effluent, then hydrotesting effluent may be disposed of via backtrenching. The

Contractor shall ensure that hydrotesting effluent is not discharged into State waters and/or drainage systems (State of Hawaii and City and County of Honolulu)

(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. All costs borne shall be the responsibility of the Contractor.

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.

If the Contractor elects to not obtain an NGPC for the discharge of dewatering effluent, then dewatering effluent may be disposed of via backtrenching. The Contractor shall ensure that dewatering effluent is not discharged into State waters and/or drainage systems (State of Hawaii and City and County of Honolulu) Dewatering effluent from within contaminated areas, as shown within the construction drawings, if disposed of by back-trenching, shall be infiltrated within contaminated areas shown within the construction drawings.

26.5 MEASUREMENT AND PAYMENT

Installation, maintenance, monitoring, and removal of the BMP will not be measured or paid for separately. The Contractor shall consider this work incidental to the various bid items in the Proposal Schedule.

The Contractor shall measure additional water pollution, dust, and erosion control as required and requested by the Construction Engineer. The Contractor shall consider this work incidental to the various bid items in the Proposal Schedule.

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

END OF ARTICLE