Farrington Highway- Replacement Maipalaoa Bridge

CWB-NOI Form F NPDES Application

Attachment D.1: Hydrotesting Best Management Practices Plan

CONSTRUCTION ACTIVITY

The project involves installation of approximately 2,900 linear feet (approximately 0.55 miles) of water mains in the Ahuimanu area on the island of Kaneohe, Oahu. The project will be confined along portions of Hui Ulili Street between Hui Kelu Street and Hui Io Street. The project also involves connection of the new mains to existing mains, reconnection of existing service laterals, installation of new service laterals and meter boxes, and installation of new fire hydrants, as required. This Best Management Practices (BMPs) Plan covers the approximately 2,900 linear feet project route.

The project requires hydrotesting effluent discharge. Along Hui Ulili Street, the bottom of the trench elevation is above mean sea level and construction dewatering of groundwater for the water main installation will not be required.

Hydrotesting activities are expected to occur between January 2011 and May 2011. Specific dates for hydrotesting discharge will be provided by the selected contractor at least 30 days prior to discharge.

PROHIBITED PRACTICES

Discharge of non-treated hydrotest/chlorination effluent. Effluent will be discharged only when effluent has been filtrated and dechlorinized. See Items 03 and 03a for flow chart and dechlorination system, respectively.

OPERATION AND MAINTENANCE (O&M) PROCEDURES

A. Responsible/Contact Person for System

The selected contractor will specify the responsible/contact person for the hydrotesting system.

B. Operations Plan

1. The hydrotest/chlorination effluent discharge will occur at all locations where new water main is to be connected to existing lines and at all construction phase changeovers.
2. There are multiple storm drainage facilities in the project area. Hydrotesting effluent will be discharged into drain inlets/discharge points along the roadway as shown in Item 02b.

C. Maintenance Scheduling or Action Criteria

1. All hydrotesting/chlorination effluent discharge pumps will be taken out of service for maintenance in accordance with the manufacturer's recommendations.
2. All hydrotesting/chlorination system equipment will be inspected by the contractor's Quality Control Engineer. Any component requiring maintenance will be serviced immediately to ensure that no pollutants are introduced into the effluent.
3. Watering of excavated materials will be done to allay dust and migration of dirt onto adjacent areas. The rate of watering will be controlled to avoid stockpile erosion.
4. In the event a rainstorm occurs while a trench is open, the excavated material is to be compacted or covered to mitigate erosion and runoff of dirt. The trench is to be covered with bridging material to minimize collection of rainfall in to the excavation. If work is stopped for the remainder of the day, the bridging material is to be properly secured for vehicular and pedestrian safety.

The excavated trench material is to be stockpiled in a location where it will not create an erosion problem or hazard to traffic.

5. Good housekeeping, including proper storage and disposal of all materials and wastes onsite, will be performed to assure no contaminants are conveyed in the construction area runoff.

D. Monitoring and Visual Inspection Program

1. Monitoring: Water samples shall be taken by the contractor's Quality Control Engineer. Samples shall be compliant with water quality requirements established for release of the discharges onto the arranged private properties. Hydrotest waters shall be neutralized before discharge as stated below under **TREATMENT REQUIREMENTS**.
2. Visual Inspection: Effluent shall be visually inspected throughout discharge operations.

E. Cessation of Discharge, Revised Effluent Control and/or Mitigative Measures Plan

1. Long Term: The discharge is from hydrotest and chlorination effluent and is of a temporary duration. No long-term effluent control or mitigation plan is required since the hydrotesting and chlorination are not a long-term or continuous operation.
2. Short Term: Total cessation will occur if turbid or colored discharge is observed. Once the source of the problem is determined, and mitigative action is taken, discharge of effluent may continue.

OTHER MANAGEMENT PRACTICES TO PREVENT/REDUCE POLLUTION OF STATE WATERS

1. Erosion Control Measures

   (a) Since all work will be done below grade, no surface erosion is expected. No erosion control plan is required for the project by the City and County of Honolulu Department of Planning and Permitting.

   (b) Trench excavated materials will be placed on the paved roadway adjacent to the water line trench excavation. The material piles will be dampened to prevent wind blow dust. The watering will be controlled so as not to cause soil runoff onto adjacent paving. Bedding and selected backfill materials will be hauled in as needed, and off loaded from the haul vehicle directly into the trench. Material stockpile areas will be treated as discussed in **Control Practices**, below.

2. Operating Procedures

   (a) Hosing off vehicle tires on-site in a contained area will be undertaken to avoid depositing mud and debris in off-site areas.

TREATMENT REQUIREMENTS

The filtration system and dechlorination methods shall be determined by the selected contractor. Regardless of the filtration and dechlorination method chosen, all hydrotesting/chlorination effluent shall have acceptable levels (less than 19 micrograms/liter) of chlorine prior to being discharged to the identified disposal areas.

CONTROL PRACTICES

1. Spillage or Leaks

   (a) For refueling and maintenance of equipment, extra care will be taken to avoid spills. Fueling operations will be conducted from a fuel truck on-site in a contained area. However, if a spill

does occur, the contaminated soil will be immediately removed, transported, treated, and disposed in a safe and legal manner.

(b) No special equipment or materials will be stored at the site.

2. Waste Disposal

(a) Operating Procedures

(1) Solid wastes will be contained at all times and will be properly disposed off-site.
(2) Liquid wastes will also be contained and properly disposed off-site.

(b) Treatment Requirements

(1) Treatment of any waste removal from the site will be undertaken as required for proper disposal. The method of treatment and means of ultimate disposal will be based on the waste material generated.

3. Drainage From Raw Material Storage or Stockpiling Areas:

(a) Operating Procedures

(1) Runoff from storage of materials to off-site areas will be mitigated by covering soil stockpiles and/or berming to contain water within the storage area. Runoff will be contained within depressions within the storage area or directed to the excavation for percolation into the groundwater. Materials stored on-site will be those normally used in waterline construction (pipe, fittings, backfill, valves, meter boxes, etc.) and will not be hazardous in nature.

(b) Treatment Requirements

(1) No treatment of runoff from material storage areas is necessary.