

**Attachment G – Waste Management Procedures (SWPPP/IWPPP Section 7.2.11.2)**

## **Waste Management Procedures**

**The Contractor shall submit the DOH “Solid Waste Disclosure Form for Construction Sites” to the Engineer within 30 calendar days of contract execution. The form can be downloaded at: <http://health.hawaii.gov/shwb/files/2013/06/swdiscformnov2008.pdf> Attach signed copy, including solid waste generated by sub-contractors, in Attachment G.**

Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly, this should also include documentation from any intermediary facility where solid waste is handled or processed, or as directed by the Engineer.

### **Solid Waste Management (SM-6)**

<b>Description</b>	Practices and procedures to prevent or reduce the discharge of pollutants from construction site wastes to the drainage system or adjacent water bodies.
<b>Applications</b>	<p>Construction projects generating non-hazardous solid wastes from construction and demolition (C&amp;D) activities. These wastes include C&amp;D wastes, inert fill material, and recycle/reuse material. C&amp;D wastes include materials originating from the demolition of roads, buildings, or other structures. Materials generated from these activities include concrete, brick, bituminous concrete, wood, masonry, composition roofing, roofing paper, steel, plaster, and minor amounts of metals.</p> <p>Inert fill materials are wastes that are not contaminated with hazardous materials such as asbestos or lead-based paint. Inert fill materials do not decompose or produce leachate or other products harmful to the environment. Inert fill materials include earth, soil, rock, cured asphalt, brick, and clean concrete (no exposed steel-reinforcing rod) with no dimension greater than eight inches.</p> <p>Recycle/reuse materials include but are not limited to: asphalt pavement, cardboard, concrete aggregate (no LBP, asbestos-free), electronic equipment, excavated rock, soil (uncontaminated), Freon from appliances, glass, green waste, metals, ferrous/non-ferrous, used tires, wood and lumbers, furniture, etc.</p>
<b>Installation and Implementation Requirements</b>	<ul style="list-style-type: none"><li>• Separate contaminated clean up materials from C&amp;D wastes. Contamination may be from hazardous substances, friable asbestos, waste paint, solvents, sealers, or adhesives. (See Section SM-9 Hazardous Waste Management)</li><li>• Inert fill material shall not contain vegetation, organic material, or other solid waste.</li><li>• Inert fill materials shall not be mixed with other C&amp;D waste.</li><li>• Provide waste containers of sufficient size and number to contain construction and domestic waste. Dumpsters should be securely lidded. Roll off containers should have a cover to keep rain out or loss of waste during windy conditions. Waste containers shall meet all local and State solid waste management regulations</li><li>• Clean up and dispose of waste in designated waste containers.</li><li>• The Contractor's supervisory personnel shall be instructed regarding the correct practices for waste disposal. Post notices stating these practices in the office</li></ul>

trailer and the Contractor shall be responsible for seeing that these practices are followed.

**Limitations**

None

**Inspections and Maintenance**

- *Inspect construction waste and recycling areas regularly.*
- *Schedule solid waste collection regularly. Empty waste containers weekly or when they are two-thirds full, whichever is sooner.*
- *Schedule recycling activities based on construction/demolition phases.*
- *Do not allow containers to overflow and clean up immediately if they do.*

## **Sanitary/Septic Waste Management (SM-7)**

<b>Description</b>	<i>Practices and procedures to reduce or prevent the discharge of sanitary wastes from construction sites into the storm drain system or adjacent water bodies.</i>
<b>Applications</b>	<i>Construction sites with temporary or portable sanitary/septic waste systems.</i>
<b>Installation and Implementation Requirements</b>	<ul style="list-style-type: none"><li>• <i>Locate sanitary facilities in a convenient place away from drainage facilities and State Waters.</i></li><li>• <i>Untreated wastewater shall not be discharged into the drainage system, State waters, to the ground or buried.</i></li><li>• <i>Position sanitary facilities where they are secure and will not be knocked down.</i></li><li>• <i>Comply with the State of Hawaii, Department of Health requirements when using an on-site disposal system such as a septic system.</i></li><li>• <i>Avoid illicit discharges by properly connecting temporary sanitary facilities to the sanitary sewer system.</i></li><li>• <i>Sanitary/septic systems discharging to the sanitary sewer shall comply with the local wastewater treatment plant requirements.</i></li><li>• <i>A licensed service provider shall maintain sanitary/septic facilities in good working order.</i></li><li>• <i>Schedule regular waste collection by a licensed transporter at least once a week or as required.</i></li></ul>
<b>Limitations</b>	<i>None</i>
<b>Inspections and Maintenance</b>	<ul style="list-style-type: none"><li>• <i>Inspect and maintain facilities regularly.</i></li><li>• <i>Schedule regular waste collection.</i></li><li>• <i>Prevent illicit discharges.</i></li></ul>

## **Hazardous Waste Management (SM-9)**

<b>Description</b>	<i>Practices and procedures to prevent the discharge of hazardous waste to the land, storm drain system, sewer system, or adjacent water bodies.</i>
<b>Applications</b>	<p><i>Handling procedures on construction sites involving one of the following hazardous wastes:</i></p> <ul style="list-style-type: none"><li>• <i>Paints and solvents;</i></li><li>• <i>Petroleum products such as oils, fuels, and grease;</i></li><li>• <i>Herbicides;</i></li><li>• <i>Acids for cleaning masonry;</i></li><li>• <i>Concrete curing and repair compounds; and</i></li><li>• <i>Contaminated waste material.</i></li></ul> <p><i>Hazardous waste management shall also be implemented for wastes from existing structures including:</i></p> <ul style="list-style-type: none"><li>• <i>Sandblasted material such as grit or chips containing lead, cadmium, or chromium-based paints;</i></li><li>• <i>Asbestos; and</i></li><li>• <i>Polychlorinated Biphenyls (PCBs). Older transformers are a common source of PCBs.</i></li></ul>
<b>Installation and Implementation Requirements</b>	<p><i>Recognize potentially hazardous waste by implementing the following:</i></p> <ul style="list-style-type: none"><li>• <i>Review product label and shipping papers;</i></li><li>• <i>Identify key words such as flammable or ignitable (able to catch fire); carcinogenic (causes cancer); toxic or poisonous (injures or harms people or animals); and hazardous, danger, caustic or corrosive (burns through chemical action). Hawaii Administrative Rules (HAR) Title 11, Chapter 261 includes a list of hazardous waste and criteria;</i></li><li>• <i>Review safety data sheets (SDS), formerly material safety data sheets (MSDS) from the manufacturer and supplier of the product; and</i></li><li>• <i>Contact DOH, Hazardous Waste Program Office at 586-4226 for additional questions and information.</i></li></ul> <p><i>Material use practices and procedures for hazardous waste management include the following:</i></p> <ul style="list-style-type: none"><li>• <i>Dispose container only after all of the product has been used;</i></li><li>• <i>Keep the original product label on the container since it includes important safety and disposal information;</i></li><li>• <i>Restrict amount of herbicide prepared to quantity necessary for the current application. Comply with the recommended usage instructions. Do not apply herbicides during or just before a rain event; and</i></li><li>• <i>Remove as much paint from brushes on painted surface. Do not clean or rinse water-based paint brushes in soil, streets, gutters, storm drains, or streams. Rinse from water-based paints shall be discharged into the sanitary sewer system. Filter and re-use solvents and thinners. Dispose of oil-based paints and residue as a hazardous waste.</i></li><li>• <i>See SM-2 Material Delivery and Storage and SM-3 Material Use for other requirements.</i></li></ul>

Waste recycling and disposal practices and procedures for hazardous waste management include the following:

- Designate areas for collection of hazardous wastes;
- Store hazardous materials and wastes in covered containers and label according to applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, and local requirements;
- Provide appropriately-sized secondary containment for hazardous waste containers or cover to prevent from contact with rainwater and stormwater runoff;
- Keep wastes separate to prevent chemical reactions which make recycling and disposal difficult;
- Recycle useful materials such as oil or water-based paint;
- Do not dispose of toxic liquid wastes (solvents, used oils, and paints) or chemicals (additives, acids, and curing compounds) in dumpsters allocated for construction debris;
- Schedule periodic waste collection to prevent overflow of containers; and
- Ensure collection, removal, and disposal of hazardous waste complies with manufacturer's recommendations and in compliance with federal, state, and local requirements.
- Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.
- Do not clean surfaces or spills by hosing the area down.
- Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

Hazardous waste management training shall include the following:

- Awareness of potential dangers from hazardous wastes;
- Identifying hazardous wastes;
- Proper hazardous waste storage and disposal procedures;
- Safety procedures for hazardous wastes;
- Placement of warning signs in areas recently treated with chemicals;
- Use of cleanup materials for spills.

**Limitations**

Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.

**Inspections and Maintenance**

- Regularly inspect hazardous waste collection and storage areas and containers.
- Schedule hazardous waste collection regularly.

# ***Litter Management Plan***

## ***Kaipapa'u Stream Bridge Replacement***

### ***A. Construction site preparations.***

*Before the start of construction activities, during the mobilization process, proper litter waste receptacles will be located at the construction site. Litter receptacles will be placed within the boundaries of the project right-of-way or within a project related vehicle on-site. Construction debris receptacles that accept mixed reuse may also act as litter control receptacles.*

### ***B. Daily Construction Site Litter Prevention Activities.***

#### ***➤ Pre-Construction activities litter prevention and control activities.***

- At the start of each work day, the active work areas of the construction site(s) will be inspected for litter debris.*
- Litter debris found will be collected and properly sorted into the proper debris receptacle.*
- Litter will be collected whether or not it was sourced from the job site and construction related activities.*
- After collection, litter will be disposed of in appropriate waste containers and all practices outlined in the Waste Management Plan will be followed.*
- Waste containers will be inspected regularly to prevent overfilling.*

#### ***➤ Post-Construction Site Litter Prevention Activities***

- At the end of each work day, the active work areas of the construction site(s) will be inspected for litter debris.*
- Litter debris found will be collected and properly sorted into the proper debris receptacle.*
- Litter will be collected whether or not it was sourced from the job site and construction related activities.*
- After collection, litter will be disposed of in appropriate waste containers and all practices outlined in the Waste Management Plan will be followed.*
- Waste containers will be inspected regularly to prevent overfilling.*

➤ *BMPs and Litter Control*

- *Construction Site BMPs will be inspected for litter debris when conducted weekly BMP inspection or after a significant rain event as litter debris may reduce the performance of BMPs.*