B&L Woodwaste Site
Pierce County, Washington

Engineering Design Report (EDR) Addendum 1

Phase 1 Part 1 Remediation Design Report

Barrier Wall and Interceptor Trench

Appendix 1D
Spill Prevention and Containment Plan

FINAL

B&L Woodwaste Site
Pierce County, Washington

Engineering Design Report (EDR) Addendum 1: Appendix 1D

Spill Prevention and Containment Plan Phase 1 Part 1 Cleanup Action

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1.0 Introduction

This Spill Prevention and Containment Plan (Plan) has been prepared as part of the Engineering Design Report (EDR) Addendum I for the B&L Woodwaste Site (Site) in Pierce County, Washington. This Plan addresses potential spills related to the construction activities associated with the Phase 1 Part 1 cleanup action. Potential releases due to stormwater runoff are addressed in the Stormwater Pollution Prevention Plan.

The purpose of this Plan is to ensure practices and procedures are in place to minimize the potential for a spill or release of pollutants into the environment or the navigable waters of the United States or waters of the State during the construction activities. This Plan addresses the following:

- Potential spill sources associated with the construction activities;
- Procedures, methods, equipment, and other requirements to prevent spills from occurring and potentially discharging into waters of the State;
- Who to contact in the event of a spill; and
- Spill response procedures in the event a spill occurs.

A copy of this Plan shall be kept at the construction Site and shall be familiar to construction personnel.

The remainder of this document is organized as follows:

- Section 2 provides facility identification information.
- Section 3 provides project background and work area description.
- Section 4 describes the existing stormwater drainage system.
- Section 5 identifies potential spill sources in the work area and describes spill prevention and containment measures that will be implemented to prevent spills/releases.
- Section 6 describes the procedures that should be implemented in the event of a spill in the work area.
- Section 7 describes training procedures that will be implemented to ensure on-site workers understand the potential spill sources and spill response procedures

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2.0 Facility Identification

Facility Name:	B&L Woodwaste Site
Type of Facility:	Non-operating wood waste landfill
Location of Facility:	Pierce County, Washington
Township and Range:	Township 20 North, Range 4 East, Section 5
Owner/Operator of Facility:	B&L Woodwaste Site Trust 606 Columbia Street NW Olympia, WA 98501
Spill Response Coordinator:	Remedial Construction Services, Inc.

The spill response coordinator shall be responsible for implementation of this Plan.

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3.0 Project Background and Work Area Description

The Site is located in unincorporated Pierce County, Washington, in Township 20 North, Range 4 East, Section 5, Willamette Meridian (EDR Figure 3.1). The Site consists of the B&L Property (Property), which includes the B&L Woodwaste Landfill (Landfill), and adjacent areas that have been affected by releases from the Landfill. The Property occupies about 18.5 acres of undeveloped land approximately 0.25 mile east of Interstate 5 and 5 miles east of Tacoma. Within the Property, the pentagonal-shaped Landfill encompasses roughly 11.5 acres and rises to an elevation of approximately 53 feet (NAVD88). Farmland borders the western and southwestern edges of the Property, the Autumn Village Apartment complex adjoins the southeastern corner, and Fife Way defines the eastern boundary. A private property is located to the northeast of the property and Puget Power Access Road, which was recently converted to a bicycle trail and is now known as the Interurban Trail, borders the north side of the property. Former farmland that has re-established itself as a grassy wetland lies to the north of the Landfill and Interurban Trail.

Beginning in the 1970s, the Landfill was operated as a disposal site for deck debris from log sort yards operating in the Tacoma Tideflats area. Log sort yard operators used Asarco slag as roadway and yard ballast, believing it to be inert “rock.” The slag was mixed with the bark and dirt that was periodically cleaned from the log sort yards and transported to the Landfill for disposal. During the 1980s, Ecology discovered that the slag at the Landfill was leaching arsenic at concentrations in exceedance of surface water standards. The Landfill was included as a source of metal contamination to Hylebos Waterway and the Commencement Nearshore/Tideflats CERCLA site by the U.S. Environmental Protection Agency. Remediation and monitoring activities at the Landfill began in the late 1980s and have continued through the present day.

The work area for the Phase 1 Part 1 cleanup action is within the Property, as shown in Drawing G-2 of EDR Addendum 1. Construction activities include installation of a low-permeability subsurface barrier wall around the Landfill perimeter, installation of groundwater interceptor trenches along the upgradient sides of the Landfill, construction of infiltration ponds on the downgradient sides of the Landfill, and restoration of the Landfill cap.

The barrier wall will be constructed along the existing stormwater collection ditch by excavating to the design depth while the trench is kept full with bentonite slurry. The excavated soil will be mixed with bentonite and water to form a relatively homogenous soil-bentonite mixture and used to backfill the excavation to form the low-permeability barrier wall (EDR Addendum 1 Drawing C-1).

The groundwater interception trenches will include a passive, gravity drain system constructed with ballast and perforated piping wrapped in geotextile, and an active, pumped system above the gravity system piping (EDR Addendum 1 Drawing C-10). Two infiltration ponds along the downgradient sides of the Landfill will infiltrate the groundwater collected by the passive and active drain systems. The existing stormwater detention pond will become the northern infiltration pond. The western infiltration pond will be constructed between the Landfill and the western boundary of the Property (EDR Addendum 1 Drawing C-6).

Following completion of barrier wall installation and construction of the infiltration ponds, the Landfill cap will be extended over the barrier wall and restored. The restored Landfill cap will be re-graded to match pre-construction drainage conditions. The re-graded surface will be hydroseeded. A new perimeter stormwater collection ditch will be installed to direct runoff from the restored Landfill cap to the northern infiltration pond.

4.0 Existing Stormwater Drainage System

The ground surface on the Property is mostly vegetated with grass. The Property topography is characterized by a mound in the middle, where the Landfill and access road are located, and lower elevation in the perimeter area outside the Landfill cap. The Landfill cap slopes downward towards the access road from the topographical high in the middle. The access road is higher than the perimeter ground surface by approximately 4 to 5 feet. Agricultural ditches that collect surface runoff from agricultural farmlands are located along the southern, western, and northern boundaries of the Property. The agricultural ditches join with water from the Surprise Lake Drain and ultimately discharge to Hylebos Creek.

Stormwater runoff from the Landfill cap presently drains to the perimeter stormwater collection ditch around the Landfill. The ditch conveys the runoff from south to north and discharges to the stormwater detention pond immediately north of the Landfill through three culverts. An overflow pipe in the detention pond discharges into the agricultural ditch along the northern boundary of the Property. Stormwater runoff from the perimeter road either drains inward to the stormwater ditch or drains outward to the agricultural ditches. Stormwater runoff from the topographically low area on the east side of the Landfill drains via a culvert to the agricultural ditch. Therefore, a spill in the work area could reach waters of the state through surface runoff.

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5.0 Potential Spill Sources, Spill Prevention, and Containment Features

This section identifies potential spill sources associated with the planned construction and describes spill prevention and containment measures that will be implemented to prevent spills/releases.

5.1 CONSTRUCTION OF BARRIER WALL

5.1.1 Potential Spill Source

After the barrier wall trench is excavated, it will be filled with bentonite slurry and then backfilled with soil-bentonite slurry. Bentonite slurry will be mixed in a slurry batch plant located outside the excavation area. There is a potential for bentonite slurry to spill on the ground and flow into the agricultural ditch and to leak from conveyance pipes connecting the mixing plant with the active barrier wall trench. In the case of a spill of slurry there is potential for bentonite slurry and soil-bentonite slurry to flow to the existing stormwater ditch or to overtop the perimeter access road, which could lead to a release to the agricultural ditches via the existing drainage system. If the barrier wall trench intersects permeable underground soil units that could act as conduits to the area outside the trench, there is also a potential for slurry to flow into the agricultural ditches.

5.1.2 Spill Prevention and Containment Features

Prior to commencing construction of the barrier wall, test trenches will be excavated to a minimum depth of 5 feet along the entire barrier wall alignment (EDR Addendum 1 Drawing C-6). These trenches will supplement the soil borings that have already been placed along the planned barrier wall alignment. Potential conduits, gravel, rock, or void areas that could lead to release of slurry outside the trench will be identified in these trenches. For example, a gravel and cobble layer was encountered at a pre-design investigation boring; a test trench will be placed at this location to assess the gravel deposit and its potential for causing a release of slurry. Upon establishing the depth and extent of the potential problematic areas, mitigation measures, such as soil exchange, will be implemented to prevent release of slurry from the trench.

Slurry mixing will occur inside completely contained areas. The bentonite slurry batch plant will be located on the southeast side of the Landfill within the contractor staging area (EDR Addendum 1 Drawing C-2). A temporary soil berm will be placed around the entire slurry mixing area to contain slurry spills. All of the pump system connection points will be located within containment areas. The integrity of the conveyance pipe and connection points will be regularly monitored during pumping operations. Spill buckets will be available to capture any release of slurry.

The work area for barrier wall construction, which includes the barrier wall trench, the mixing pad, and perimeter access road, will be fully contained by two containment berms. One berm

will be constructed on the Landfill cap uphill of the work area to prevent runoff from undisturbed cap from entering the work area. Runoff from the uphill area will be conveyed to the downhill side of the work area via solid HDPE pipes, bypassing the work area. The downslope berm will be installed on the existing perimeter access road around the Landfill, against the fence or at the outer edge of the road. The layout and construction details for the stormwater containment berms are shown on Drawings G-3 and G-4 in EDR Addendum 1. Any slurry spills in the work area will be contained within the two containment berms.

Spills of bentonite slurry outside the containment area will be removed in a timely manner so as not to allow it to leave the work or containment areas and affect the wetlands or the agricultural ditches.

5.2 FUEL/CHEMICAL STORAGE

5.2.1 Potential Spill Source

No on-site central fueling area will be established. Fuel storage tank(s) will be set up in the staging area. A vendor tanker truck will periodically come on-site to replenish the fuel storage tank(s). The fuel will be transferred to a transfer tank, which will be transported around the work area by a forklift to fuel construction equipments where they are located. There is a potential for fuel spill during replenishing of the storage tank(s), transferring fuel to the transfer tank, transporting the transfer tank, and fueling of the equipment.

Other potential fuel/chemical spill sources are leaks of hydraulic fluid or coolant from the construction equipment and leaks or spills during maintenance and repair of construction equipment. Maintenance activities typically involve oil changes, hydraulic system drain down, coolant flushing, greasing, cleaning, etc.

5.2.2 Spill Prevention and Containment Features

The following procedures will be implemented to prevent spills during equipment fueling and maintenance operations:

- The on-site fuel storage tank(s) will be double-walled to provide for secondary containment. A containment berm will be built around the tank(s). The ground within the containment will be covered with plastic sheeting.
- The vendor tanker truck driver as well as an on-site construction worker will be present during fuel tank replenishment. Construction workers will be on-site during all fuel transfers.
- All openings on the transfer tank will be closed during transportation by forklift.
- The amount of fuel to be added to equipment should be determined prior to starting fueling operations.
- Oil- and fuel-absorbent material will be readily available during all oil and fuel handling and transfer operations to contain any inadvertent spills that may occur.

- Spill buckets will be used during all fuel and oil transfers to catch any drips or leaks during fueling and maintenance operations.
- When transferring petroleum products, connections and transfer points will be carefully monitored for leaks.
- Equipment fuel tanks will never be topped off completely. Adequate headspace at the top of the tank will be left to allow for product expansion.
- Equipment receiving fuel and oil will be carefully checked prior to and during delivery to ensure that there are no leaks or open drain valves.
- When possible, maintenance of equipment will be performed in a contained area, such as the decontamination area.

A spill kit will be maintained on-site (see Section 6.3.3) to handle potential fuel or oil leaks/spills from construction equipment.

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6.0 Spill Response Procedures

This section describes the procedures that should be implemented in the event of a spill at the Site. Spills at the Site are not anticipated to enter the sanitary sewer system, as no inlets to the sanitary sewer are present on the Property.

6.1 NOTIFICATION

Discovery of **any** spill at the Site shall be immediately reported to the Engineer. Discovery of any spill at the Site that leaves the work area and reaches a nearby waterway (i.e., agricultural ditches) or any spill that exceeds 10,000 pounds shall be **immediately** reported to the agencies listed below:

Agencies for Spill Notification

Personnel/Agency	*Phone Number*
National Response Center (NRC)	1-800-424-8802
Washington Division of Emergency Management	1-800-258-5990 or 1-800-OILS-911
Washington Department of Ecology (Southwest Regional Office) Spill Compliance Section	1-360-407-6300
Environmental Protection Agency, Region 10	1-206-553-1263

In the event of a fire or security problem associated with the spill, the following agencies shall be immediately contacted as appropriate for emergency assistance:

FIRE: City of Milton Fire Department, Phone 911 / (253) 922-0944

POLICE: City of Milton Police Department, Phone 911 / (253) 922-8735

6.2 SPILL REPORTING AND DOCUMENTATION

In the event of a spill, personnel identified in Section 6.1 shall be notified. The Resident Engineer shall be responsible for completing the Spill Notification Form (Attachment 1D.1). **It is not necessary to complete the Spill Notification Form before calling the agencies listed in Section 6.1.** All spills at the Site, regardless of volume, shall be documented. The designated Spill Response Coordinator (identified in Section 2.0) is responsible for any verbal and follow-up reporting with the regulatory agencies as deemed necessary based on discussions with Site personnel.

Agencies may request written follow-up notification following a verbally reported spill incident. The Spill Notification Form (Attachment 1D.1) will be used for any required written notification to local, state, and federal government agencies.

For hazardous substance releases, Washington Department of Ecology (Ecology) regulations [WAC-173-303-360(k)] require written notification within 15 days of the spill incident. The notification report must include:

- Name, address, and telephone number of the owner or operator
- Name, address, and telephone number of the facility
- Date, time, and type of incident (spill to water, spill to land, fire, etc.)
- Name and quantity of material(s) involved
- The extent of injuries, if any
- An assessment of actual or potential hazards to human health or the environment, where applicable
- Estimated quantity and disposition of recovered material that resulted from the incident
- Cause of incident
- Description of corrective action taken to prevent reoccurrence of the incident

The report must be submitted to the following address:

Washington Department of Ecology – Southwest Regional Office
Hazardous Waste and Toxics Reduction Department
300 Desmond Drive
Lacey, WA 98503

6.3 SPILL RESPONSE AND CONTROL

When a spill occurs, the following basic actions shall be implemented, **if it is safe to do so**:

- Control the access area
- Identify the hazards
- Rescue personnel
- Stop or control further releases
- Contain the spilled material
- Implement clean-up measures
- Recover the spilled substance
- Establish proper decontamination procedures

Section 6.3.1 describes the spill response procedures for fuel/oil spills. Section 6.3.2 describes the spill response procedures for all other types of spills.

6.3.1 Fuel/Oil Spills

This section discusses the response and control of minor fuel/oil spills (less than 10 gallons) and major fuel/oil spills (greater than 10 gallons).

Minor Spills (less than 10 gallons)

Minor spills can occur from disconnection of hoses, hose or fitting leakage or failure, pump leaks, and overfilling of tanks. These types of spills are typically less than 10 gallons and are limited to the surface area around the equipment fueling or maintenance area. These types of spills can typically be cleaned up by trained personnel or contractors.

If minor spills do occur, the on-site supervisor shall (1) direct clean-up of the spill using personnel or contractors and absorbent materials on hand at the facility, (2) report the spill as directed in Section 6.1, and (3) fill out the Spill Notification Form (Attachment 1D.1). Do not dispose of spill clean-up waste in the facility's trash containers. Any fuel/oil that has been released or any fuel/oil-contaminated media (such as absorbent materials) from a spill or overfill must be properly disposed off-site in accordance with all applicable local, state, and federal regulations.

Major Spills (greater than 10 gallons)

In a worst-case scenario, the maximum amount of fuel/oil to be released would be the entire contents of a fuel tanker truck, estimated at approximately 5,000 gallons. The Site will be completely contained by a temporary berm. However, if these measures were to fail, a spill on-site could possibly enter the agricultural ditches and then discharge to the Hylebos Creek.

If a major release occurs, the following actions shall be immediately implemented, **if it is safe to do so**:

1. Stop the release if safely possible and practical. For example,
   - apply personal protective equipment,
   - close valves,
   - shut off pumps,
   - seal holes with nonmetallic plugs or caps,
   - remove fuel/oil from the tank to below the level of the hole where the oil is being released.
2. Follow the notification procedure in Section 6.1 of this Plan.

3. Identify and mitigate fire, explosion, and vapor hazards:
   - Eliminate possible sources of ignition.
   - Shut off engines, if necessary.
   - Shut off electrical power, if necessary.
4. Contain the spill and stop it from spreading:
   - Soak up as much of the spilled material as possible with absorbent materials.
   - Identify the drainage route of the spill and locate a capture site where the spilled material may pond or be diverted or contained. Blocking drainage using absorbent materials is preferred over ditching when practical.
   - Place absorbent materials and booms at the entrance to any nearby drains (if they are not already covered) or bodies of water.
   - Put up "CAUTION" tape or other temporary barriers to prevent unauthorized personnel from entering the spill area, if necessary.
5. Assist spill response personnel, if requested to do so:
   - Continue to monitor and mitigate fire and safety hazards.
   - Clean affected surfaces of residual spillage.
   - Dispose of all dispensable contaminated materials properly. Do not place these materials in standard waste containers. Any fuel/oil that has been released or any fuel/oil-contaminated media (such as absorbent materials) from a spill or overfill must be properly disposed of in accordance with all applicable local, state, and federal regulations.
6. Document the spill:
   - Fill out the Spill Notification Form (Attachment 1D.1).

6.3.2 Other Spills

Whereas most oil products tend to behave in a consistent manner and require similar spill response procedures, spill response procedures for hazardous substances vary according to the nature of the substance. For this reason, spill response personnel should use extreme caution until the hazardous substance is identified. It may be necessary to delay response actions until safe levels of exposure are determined. Spill response procedures should be based on the hazardous substances' chemical behavior and potential health effects.

Copies of Material Safety Data Sheets (MSDS) for all hazardous materials brought on-site will be attached to this Plan (as Attachment 1D.2) so that they are readily available in the event of a spill.

6.3.3 Spill Response Equipment

A spill kit containing the following items shall be maintained at the facility:

- 20-gallon plastic container/recovery drum
- Sorbent booms and socks
- Sorbent pads
- Sorbent material
- Disposal bags/ties
- Barrier tape
- Plastic shovel
- Broom
- Rubber boots, gloves, safety glasses, etc.

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7.0 Training

All personnel on-site shall be familiar with the spill prevention and response procedures described in this Plan. Prior to starting any work on-site, personnel shall be briefed on the contents of this Plan and shall be made aware of where the Plan is maintained on-site.

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B&L Woodwaste Site
Pierce County, Washington

Engineering Design Report (EDR)
Addendum 1: Appendix 1D

Spill Prevention and Containment Plan
Phase 1 Part 1 Cleanup Action

Attachment 1D.1
Spill Response Notification Form

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Attachment 1D.1
Spill Response Notification Form

NAME AND PHONE NUMBER OF PERSON COMPLETING FORM	
Date & Time Form Completed/Updated	
REPORTER INFORMATION	
Date and Time Initial Spill Report Received	
REPORTER'S NAME (LAST, FIRST)	
REPORTER'S PHONE NUMBER	
Company	
Position	
Reporter's Location	Street:
	City:
	State and Zip Code:
INCIDENT DESCRIPTION	
MATERIAL RELEASED	☐ Oil/Fuel Type of Fuel _____ ☐ Hazmat/Unknown Chemical Name & CHRIS Code_____
	Is material a CERCLA Hazardous Substance? ☐ Yes ☐ No Is material an Extremely Hazardous Substance? ☐ Yes ☐ No
	Best Estimate of Quantity Released to Land _____(include units) Best Estimate of Quantity Released to Water _____(include units)
	Is material still being released ☐ Yes ☐ No Current Spill Rate_____
TYPE OF INCIDENT (CHECK ALL THAT APPLY)	_____ Inside building or containment area _____ Navigable water (freshwater, marine, wetland, storm drain) _____ Release to sanitary sewer _____ Fire _____ Explosion _____ Air release
SOURCE AND CAUSE OF INCIDENT	
DATE AND TIME OF INCIDENT	

Attachment 1D.1
Spill Response Notification Form

INCIDENT ADDRESS/LOCATION	
Street	
City, State and Zip Code	
County	
Township, Range, Section	
Nearest City & Distance from City (miles)	
Container Type & Capacity (include units)	
Weather Conditions	
Wind speed and direction; Temperature	
Precipitation Rate and Type	
Wave\Current Information	
RESPONSE ACTIONS	
Initial Actions Taken	
Actions Taken to Stop Release	
Actions Taken to Contain Release	
Actions Taken to Cleanup Release	
IMPACT/HEALTH THREATS	
NUMBER OF INJURIES	
NUMBER OF DEATHS	
EVACUATION(S) REQUIRED	☐ Yes ☐ NO
Description of Areas to be Evacuated and Areas Already Evacuated including Number Evacuated	
Was There Any Property Damage?	☐ YES ☐ NO

Attachment 1D.1
Spill Response Notification Form

Damage in Dollars (estimated)			
Environmental Media Affected			
Description of Environmental and Health Threats			
Additional Information: Any information about the incident not recorded elsewhere in the report			
AGENCY NOTIFICATIONS			
National Response Center	☐ YES TIME:	☐ NO	NRC Call No._____
WA State Dept. of Emergency Management	☐ YES	☐ NO	TIME:
WA State Dept. of Ecology	☐ YES	☐ NO	TIME:
Environmental Protection Agency, Region 10	☐ YES	☐ NO	TIME:
Other (List)	☐ YES	☐ NO	TIME:
Other (List)	☐ YES	☐ NO	TIME:
Other (List)	☐ YES	☐ NO	TIME:
Other (List)	☐ YES	☐ NO	TIME:

B&L Woodwaste Site
Pierce County, Washington

Engineering Design Report (EDR)
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Attachment 1D.2
Material Safety Data Sheets
(Will be added for all hazardous materials brought on-site.)

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