



**Lynnwood Link Extension L300**  
**Contract No. RTA/CN 0010-16**

## **Slug Discharge Control Plan**

Department of Ecology State Waste Discharge Permit #ST0501325 S4.A

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## Slug Discharge Control Plan

### Revision History

Revision Number	Revision Date	Description of Changes
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# Slug Discharge Control Plan

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## 1.0 INTRODUCTION

This Slug Discharge Control Plan (SDCP) has been prepared for Skanska in support of Sound Transit's Lynwood Link Extension Project (L300) in Montlake Terrace, Washington. The SDCP has been designed in accordance with the Department of Ecology Terrace State Waste Discharge Permit Special Condition S8.a.1. SKANSKA is responsible for compliance with permit conditions. O'Neill Service Group (OSG) will work closely with SKANSKA to implement field operations, monitoring, and reporting to ensure compliance with this Plan.

The purpose of the SDCP is to describe the means and methods that will be implemented during the Project to minimize, prevent, and respond to potential slug or spill discharges to the City of Montlake Terrace (MLT) sanitary sewer system. The United States (US) Environmental Protection Agency (EPA) defines a slug discharge as *"any discharge of a non-routine, episodic nature, including but not limited to, an accidental spill or a non-customary batch discharge, which has a reasonable potential to cause interference or pass through, or in any way violate the POTW's [publicly owned treatment works] regulations, local limits, or permit conditions."* Due to planned construction activities, the nature of anticipated construction process water generated onsite, and the proposed pretreatment, risk of slug generation and discharge is considered very low. Turbidity of discharge water will be controlled with the proposed pre-treatment system detailed in C.2 of the Application for a State Waste Discharge Permit to Discharge Industrial Wastewater to a Publicly-Owned Treatment Works (the permit application) and construction activities are not anticipated to generate excess fats, oils, or greases that would contribute to grease buildup within the system.

### 1.1 RESPONSIBLE PERSONNEL

The following table lists the names, titles, and contact information for the personnel responsible for implementing the SDCP.

Table 1. Project Personnel

Name and Title	Contact Information
<b>Katie Dale</b> Environmental Engineer	Company: SKANSKA Cell Phone: 206-561-6181
<b>Adrian Zoodsma</b> Environmental Engineer	Company: SKANSKA Cell Phone: 206-445-4632

Name and Title	Contact Information
<b>Rick Truitt</b> TESC Superintendent	Company: SKANSKA Cell Phone: 575-590-0211
<b>Bill Jordan</b> CSEMS (Environmental Manager) (Primary 24/7 Environmental Contact)	Company: O'Neill Service Group Office Phone: 425-429-7800 Cell Phone: 425-457-0642
<b>Zane Sharif</b> Environmental Compliance Inspector (CESCL)	Company: O'Neill Service Group Office Phone: 425-429-7800 Cell Phone: 425-449-9923

## 1.2 REPORTING PROTOCOL

In the event of a spill, slug, or any other prohibited discharge SKANSKA will (if safe), immediately control and contain the spill until appropriate contingency measures can be taken. Project personnel will immediately stop the discharge and notify their foreman or manager who will then notify the Construction Site Environmental Management Supervisor (CSEMS). The CSEMS along with SKANSKA leadership is then responsible for notifying the Sound Transit Resident Engineer and Department of Ecology's Region Office. The Montlake Terrace representative must immediately be notified verbally, and a follow-up written notification must be provided within five days of the discharge.

## 2.0 DISCHARGE PRACTICES

The pre-treatment system schematics shown in C.2 of the permit application detail the baker tank system that will be used for the Project. The system will discharge to the Montlake Terrace Sewer at the approved discharge locations identified as MLT 7-13; MLT B-2; MLT 3-21A; and MLT 3-56 (Table 3). Only one discharge point will be active at any given time. The Project's pre-treatment systems will be inspected daily, when in use, to ensure the system is functioning as intended and there is adequate storage capacity throughout construction. Discharges leaving the system will be monitored for the parameters listed in Table 1 below at the indicated frequency in Table 2. Facility operators will be trained by a staff member listed in section 1.1 and provided with Operation and Maintenance Manual, which is submitted under a separate cover.

## 2.1 SLUG MONITORING, INSPECTIONS, CONTROL, AND DISPOSAL PLAN

SKANSKA is required to properly operate and maintain all wastewater pre-treatment systems (baker tanks) to ensure compliance with established effluent discharge limits. Solids accumulation in tanks used

- 1 for settling shall not exceed 25 percent of the tank's hydraulic capacity. As a pre-treatment system settling
- 2 tank nears 25 percent of settable solids, all slug and residual water will be removed from the tanks and
- 3 disposed of at a permitted facility.

1 Table 2. Monitoring requirements

Parameter	Units	Laboratory Method	Sampling Frequency	Sample Type
<b>The following monitoring requirements are applicable to all outfalls. The discharge locations authorized in this permit are outlined in Table 3.</b> The Permittee must take a sample from all outfalls that discharge in any given month.				
Flow – total for all discharge points	gpd	N/A	Daily	Calculated
Flow – for each specific discharge point	gpd	N/A	Daily	Metered
Settleable Solids	mL/L	SM 2540-F	Weekly	Grab <sup>a</sup>
Oil and Grease (Hexane Extractable Material)	mg/L	EPA 1664 A or B	Monthly	Grab
Total Residual Chlorine <sup>b</sup>	mg/L	SM 4500 Cl G	Daily	Grab
pH	Standard Units	SM 4500-H <sup>+</sup> B	Daily	Grab
<sup>a</sup>	Grab means an individual sample collected over a 15 minute, or less, period.			
<sup>b</sup>	The Permittee only needs to monitor for total residual chlorine when discharging process wastewater generated from drilling which utilizes the polymer slurry.			

2 Table 3. Outfall locations

Discharge Location Name	MLT Asset Identifier	Approximate Coordinates <sup>a</sup> (NAD83/WGS84 reference datum)
The Permittee is only authorized to discharge to one outfall at any given time.		
Area 6 (south of 236 <sup>th</sup> Street)	MLT 7-13	47.780142, -122.316375
Area 7 (MLT Transit Center)	MLT B2 (new manhole)	47.784962, -122.315672
Area 9 (south of 228 <sup>th</sup> Street)	MLT 3-21A	47.792170, -122.316857
Area 10 (Melody Hill yard)	MLT 3-56	47.797603, -122.316832
<sup>a</sup>	Outfalls are located at the MLT Asset Identifier. Approximate coordinates are given to help in locating the outfalls.	

1 Table 4. Effluent limits

Parameter	Maximum Daily <sup>a</sup>
The following effluent limits are applicable to all outfalls. The outfalls authorized in this permit are outlined in Table 3.	
The Permittee is only authorized to discharge to one outfall at any given time.	
Flow – total for all discharge points (gpd)	Dry season <sup>b</sup> – 312,000 Wet season <sup>b</sup> – 96,000
Flow – total for each specific discharge point (gpd)	Report Only
Discharge Rate (gpm)	Dry season: Off peak <sup>c</sup> – 250 Peak <sup>c</sup> – 150  Wet season: Off peak – 100 Peak – No discharge allowed
Settleable Solids (mL/L)	7
Oil and Grease (mg/L)	100
Total Residual Chlorine (mg/L)	Report Only

  

Parameter	Daily Minimum	Daily Maximum
pH (standard units)	5.0	11.0

  

<sup>a</sup>	Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge means the maximum discharge of a pollutant measured during a calendar day.
<sup>b</sup>	Dry season means between May 1 and September 30. Wet season means between October 1 and April 30.
<sup>c</sup>	Off peak means between the daytime hours of 9am to 5pm and nighttime hours of 8pm to 4am. Peak means between the morning hours of 4am to 9am and evening hours of 5pm to 8pm.



## **2.1 NON-ROUTINE BATCH DISCHARGES**

There are no anticipated non-routine batch discharges.

## **3.0 SPILL AND LEAK PREVENTATIVE MEASURES**

SKANSKA will take the following preventative measures to prevent a spill or slug discharge Montlake Terrace sanitary sewer system.

### **3.1 SPILL RESPONSE, INSPECTION, AND MAINTENANCE PROCEDURES**

SKANSKA will take preventative measures including but not limited to daily inspections of spill prevention measures, inspection of equipment, maintenance of storage areas, and use of secondary containment for stored chemicals. Daily inspections of equipment and spill prevention measures will occur in order to ensure that spill control BMPs are in place and are functioning as intended and to prevent drips, leaks or failures of hoses, valves, fittings, containers, pumps, or other systems that contain or transfer hazardous materials. Secondary containment capable of containing 110 percent of the largest tank within the containment structure will be provided for chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. Secondary containment will also be provided for petroleum powered, stationary equipment used on-site such as generators, air compressors, light plants, and concrete mixers. Petroleum powered, stationary equipment that have double walled fuel tanks or have secondary containment built into its design will not be required to be stored in secondary containment. The project maintains a Spill Prevention Control and Countermeasures Plan which details the procedures to prevent and respond to accidental spills, inspection, and maintenance of storage areas, handling and transfer practices, and containment structures and equipment. Baker tanks will be emptied of all liquids before being loaded or unloaded. SKANSKA will hold routine trainings to ensure spill response awareness is maintained throughout the project.

### **3.2 EMERGENCY RESPONSE EQUIPMENT**

Spill response kits will be maintained near hazardous materials and equipment and will be immediately accessible to project personnel. The Project's spill kits will be checked during site inspections by the Project's CSEMS and/or Certified Erosion and Sediment Control Lead (CESCL) to ensure the on-site spill kits are adequately stocked with spill response materials. Spill kits will be stocked with the following (or similar) materials.

- Absorbent pads
- Absorbent booms
- Absorbent Litter or Powder
- Nitrile gloves
- Disposal bags

The various absorbent materials found in the on-site spill kits are used for specific types of spills. Absorbent pads and booms are used for the cleanup of a petroleum spill onto water. Absorbent litter or powder is used for the cleanup of spills onto paved surfaces, asphalt, or concrete.

#### **4.0 INVENTORY OF STORED CHEMICALS**

A 50-lb CO2 tank will be stored onsite and used to pH modifying treatment. At this time, only small volumes of petroleum products are kept on site. If a mobile generator is required to power a system, secondary containment will be staged to contain 110% of the unit's fuel capacity.

#### **5.0 INVENTORY OF STORED CHEMICALS**

At this time, only small volumes of petroleum products are kept on site.

#### **6.0 PRIOR UNAUTHORIZED DISCHARGES**

No unauthorized discharges have occurred in the past 36-months prior to the effective start date of the permit.

#### **7.0 ENVIRONMENTAL TRAINING**

Prior to starting work on-site, Project personnel include, but not limited to, craft workers, subcontractors, vendors, field engineers, and inspectors will be required to attend Project Orientation Training that will include spill response and awareness training.