

# Industrial Wastewater System Policy

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## Background

The Seattle-Tacoma International Airport (STIA), owned and operated by the Port of Seattle (POS), operates and maintains an Industrial Waste System (IWS) that collects stormwater contaminated by industrial activities from airline and maintenance operations. The Port restricts all aircraft maintenance, fueling and deicing operations to those areas served by the IWS stormwater collection and conveyance system.

Contaminates that enter the IWS consist primarily of spilled fuel, de-icing and anti-icing fluids, and lubricants; however, wastewater from aircraft and motor vehicles can also enter the IWS. Materials entering the IWS flow into IWS flush gutters or IWS catch basins and reside there until precipitation events provide sufficient runoff to convey the material to the IWS storage lagoons. If flammable or hazardous materials enter the IWS, the Port Fire Department may flush the area with water to mitigate safety hazards. All discharges from the IWS are regulated by the Port's individual NPDES permit issued by the Washington State Department of Ecology.

**Intentional discharge of pollutants or potential pollutants, including but not limited to grease, oil, fuel, detergents, deicing fluids, off-spec deicing fluids/chemical, debris, ect., to the IWS is prohibited, except for overspray and drips of deicing fluids properly applied to aircraft, and Port approved wash water requests (via IWTP Discharge request form). The IWS system may be used to manage unintentional spills and discharges of fuel that cannot be safely and effectively managed otherwise, consistent with established and applicable spill control planning and best management practices.**

## Routine Discharges

The Industrial Wastewater System (IWS) collects industrial wastewater that is primarily from rainfall that falls around the ramp side of the terminal and on fueling areas, the air cargo area, de-icing areas, hangars, and maintenance areas at STIA. Industrial wastewater is water- or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater, noncontact cooling water, or storm water associated with industrial activities.

Industrial wastewater may result from any process or activity of industry, manufacturing, trade, or business, and includes (but is not limited to): water used for industrial processes such as pipe integrity pressure testing and vehicle and aircraft wash water; storm water contaminated with fuel, lubricants, firefighting foam, cleaning agents and aircraft and ground surface de-icing/anti-icing agents; contaminated construction dewatering waters; excess water from ground water well construction and monitoring; and leachate from solid waste facilities.

The small amount of de-icing/anti-icing fluid (i.e., shear and drip) that may fall from aircraft after they leave the IWS drainage area is not considered industrial wastewater. In addition, at the Port of Seattle's discretion, construction storm water, if treatable by the Industrial Wastewater Treatment Plant (IWTP), may be discharged to the IWS.

### **Non-routine and Unanticipated Discharges**

Occasionally, operations at STIA may generate wastewaters that are not routine discharges and were not anticipated when the STIA National Pollutant Discharge Elimination System (NPDES) Permit was developed. These typically are: waters used to pressure-test storage tanks or fire water systems; or leaks from drinking water systems.

These are usually clean wastewaters, but they may be contaminated with pollutants. The NPDES Permit requires characterization of these wastewaters for pollutants and an examination of the opportunities for reuse. Depending on the pollutants in these wastewaters and opportunities for reuse, the Washington State Department of Ecology may authorize a direct discharge via the process wastewater outfall or through a storm water outfall for clean water; require the wastewater to be discharged through the facility's IWS; or require the water to be reused.

**Contact Aviation Environmental Programs to determine how to characterize, evaluate, and manage such discharges.**

### **POS Policy for the Utilization of the IWS**

**Approvals:** Any use of the IWS by tenants or contractors other than previously discussed approved discharges requires the submittal of an IWTP Discharge Request form (See table 1 for contact info). The form must be completed in its entirety including start and end date as well as volumes discharged. Due to potential discharge restrictions placed on the IWTP, a contingency plan must be in place, to be implemented within 24 hours, if the project's discharge approval is revoked for any reason. The IWS Discharge Request form is included below.

**Treatment Options:** The use of the IWS as treatment for non-process construction storm water can only be done during times of high flow, October through June. Use of the IWS for treatment of construction storm water during low flow, July through September can only be done in the event of an emergency. The IWS may be approved for treatment of construction process water, such as wheel wash water.

**TABLE 1: IWS Discharge Request Contacts List**

<b>Name</b>	<b>Title</b>	<b>Email</b>	<b>Phone number</b>
Jana Braaten	Sr. Environmental Program Manager	braaten.j@portseattle.org	206-475-9764
Chris Milewski	Sr. Environmental Program Manager	milewski.c@portseattle.org	206-605-8333
Nicole Chen	Sr. Environmental Management Specialist	chen.n@portseattle.org	206-399-3658

## Industrial Waste System Discharge Request

7 Day Notice Required prior to Release to the IWS

**Please note: Discharge Approval can be canceled at anytime with minimal notice, due to potential restrictions placed on the IWTP. Therefore, all projects must have a contingency plan in place that can be activated within 24 hours after notification to cease discharge to IWS.**

Date of Request: Duration:	Date of Discharge: Start Date:                      End Date:
Person Requesting: Phone Number:	Company performing work: Project (If applicable):
Contact During Discharge: Phone Number:	Location of discharge:
One-time Discharge: <input type="checkbox"/>	Volume:
Continuous or Ongoing Discharge:	Maximum Discharge Rate (GPM):
Reason for Discharge:	
Contingency Plan:	

**Type of Material: \* Please provide copy of Material Safety Data Sheet or laboratory analytical**

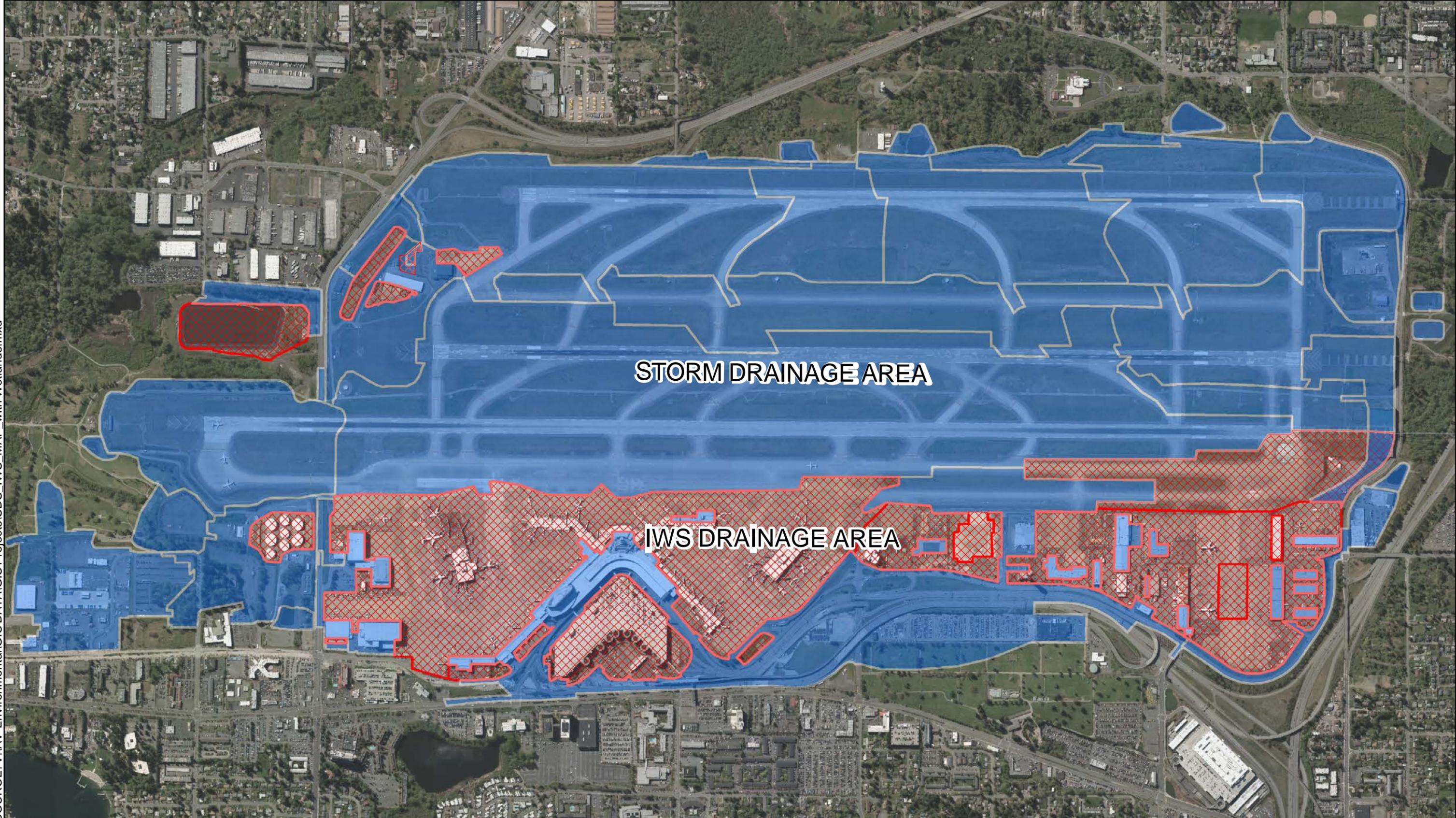
<input type="checkbox"/> Stormwater contaminated with jet fuel	<input type="checkbox"/> Ground Water	<input type="checkbox"/> Drill cutting decant water	
<input type="checkbox"/> Stormwater contaminated with glycol	<input type="checkbox"/> Wash Water	<input type="checkbox"/> Construction Stormwater	
<input type="checkbox"/> Stormwater from secondary containment	<input type="checkbox"/> Potable Water	<input type="checkbox"/> Ground Water	
<input type="checkbox"/> Stormwater contaminated with oil	<input type="checkbox"/> Chlorinated Water	<input type="checkbox"/> Other (specify)	
<b>APPROVAL</b>		<b>Approved</b>	<b>Rejected</b>
Aviation Environmental: Sr. Environmental Program Manager	Jana Braaten	<input type="checkbox"/>	<input type="checkbox"/>
<b>NOTIFICATION</b>			
Aviation Maintenance: Manager, Maintenance & Operations, Mechanical Systems	Angie Schmitke	<input type="checkbox"/>	
Head IWTP Operator	Dave Wells	<input type="checkbox"/>	

**FOR DEPARTMENT USE ONLY:**

**Limitations:** pH:  
6.5 - 8.5  
Oil & Grease: 100 mg/L  
Turbidity: 200 NTU's OR Settleable solids: 100 mg/L (Per ENV may be required to sample for both)

**PLEASE RETURN A COPY OF THE COMPLETED SIGNATURE FORM TO Jana Braaten at [braaten.j@portseattle.org](mailto:braaten.j@portseattle.org) and Angie Schmitke at [schmitke.a@portseattle.org](mailto:schmitke.a@portseattle.org)**

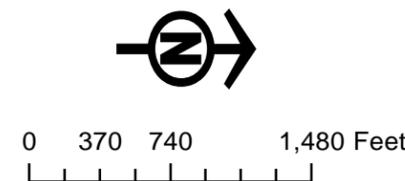
SOURCE: V:\AV-Environmental\GIS DATA\GIS Projects\SDS\_IWS\_MAP\_with Wetlands.mxd



STORM DRAINAGE AREA

IWS DRAINAGE AREA

# STIA FACILITY DRAINAGE



**Legend**

-  IWS DRAINAGE AREA
-  STORM DRAINAGE SYSTEM