Port Of Tillamook Bay Stormwater Training

Sector S- Air Transportation Facilities

Port of Tillamook Bay

4000 Blimp Boulevard, Suite 100

Tillamook, OR 97141

August 2021

Purposes And Goals of Presentation

PURPOSES

- Satisfy requirements of the National Pollutant Discharge Elimination System, Stormwater Discharge General Permit Number 1200-Z
- Describe required procedures in Port's Stormwater Pollution Control Plan

GOALS

1. Educate all personnel on industrial Port property.
2. Minimize or eliminate stormwater contamination.
3. Prevent impacts to natural environment.

1200-Z Permit

- Administered by the Oregon Department of Environmental Quality
- Permit regulates SW discharges to water bodies from industrial facilities
- The Port must adhere to the 1200-Z permit requirements
- Port tenants and other users of the Port's stormwater system also must abide
- Goal of the permit is to reduce or eliminate pollutants from contaminating SW

1200-Z Permit Sector-Specific Requirements
Sector S, Air Transportation Facilities

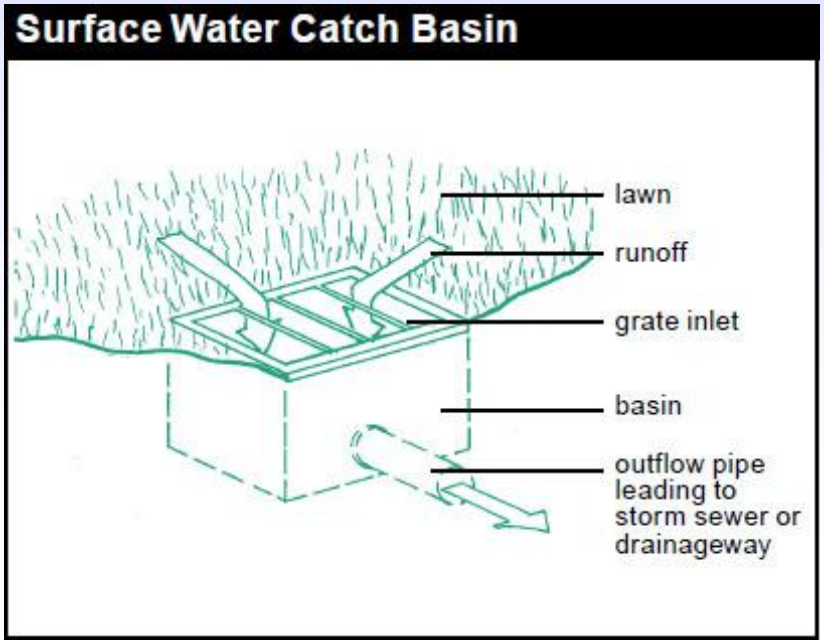
- Some tenants have additional sector-specific requirements.
- Tenants who engage in land transportation and warehousing are classified in Sector S.
- Sector S tenants must be familiar with and abide by associated requirements.
  - *Users of airport*
  - *POTB*

Stormwater – Did You Know?

- Storm Water (SW) is precipitation runoff that directly enters lakes, rivers, etc.
  - Can you give an example of a location of SW runoff here at the Port?
- SW is NOT the same as sanitary sewer water, which is treated prior to discharge.
- SW pollution –what is it?
  - ANYTHING that enters the water that is NOT naturally occurring. WHY? Because it changes the characteristics of the SW!
  - Can you give an example of something in your work area that could pollute SW?

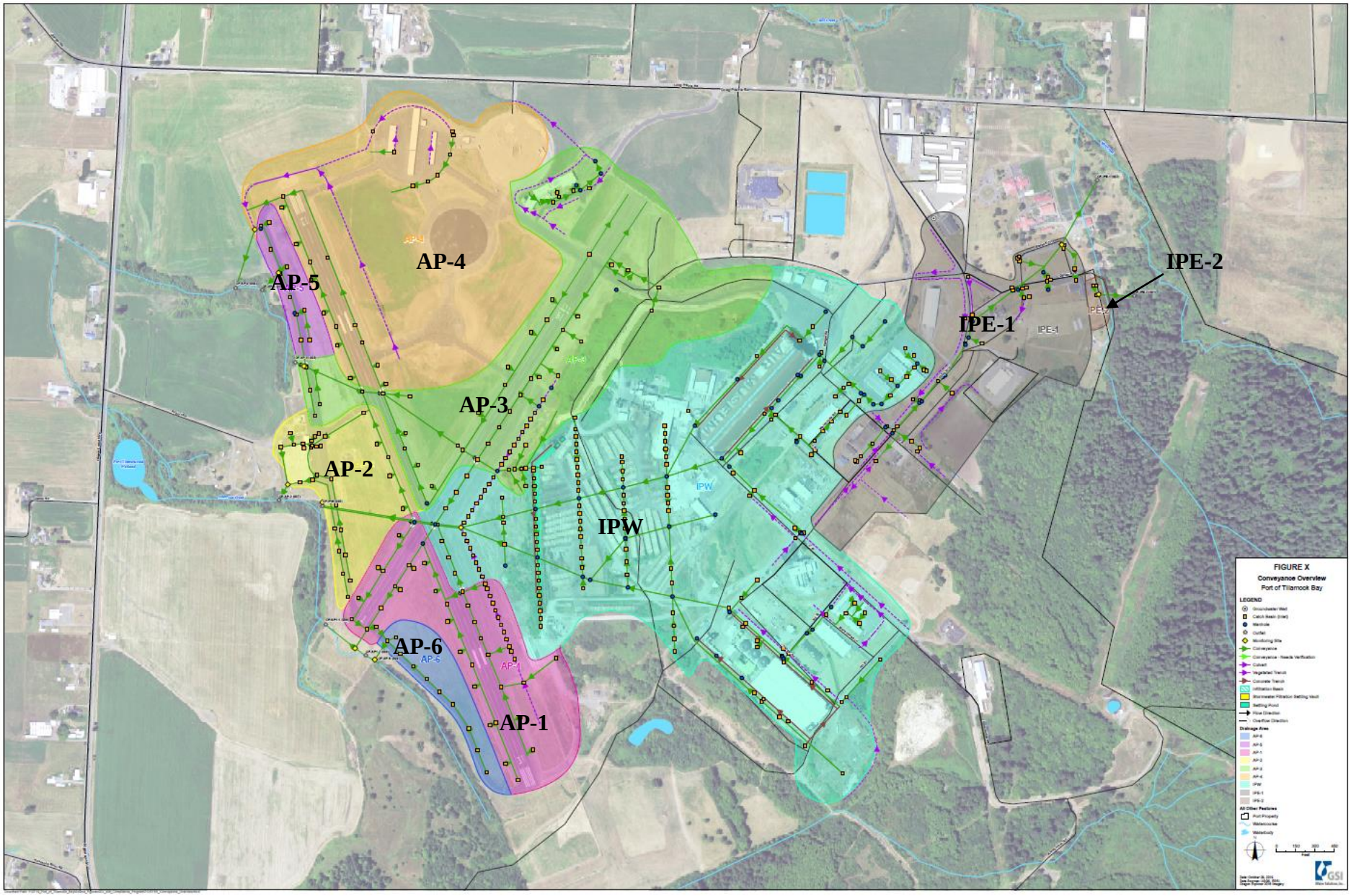
Elements Of Port's Stormwater System

- Catch Basins
  - What are they?
    - Entry point for stormwater into conveyance system.
    - Prevents debris from entering system.



Elements Of Port's Stormwater System (cont.)

- Conveyance system
  - Pipes convey SW captured in catch basins.
- Structural control measures
- Drainage Areas
  - Ten drainage areas
  - Drainage areas borders based on elevation
  - Generally, SW in one basin does not enter another basin



Port of Tillamook Bay Drainage Areas and Conveyance System

Elements Of Port's Stormwater System (cont.)

- Outfalls
  - Each drainage area has a corresponding outfall.
  - Final discharge point for entire drainage area.
  - Discharges into local creeks like Anderson Creek, then Tillamook or Trask Rivers, and eventually Tillamook Bay.

Did You Know? Generally, SW is not treated before it reaches nearby waterways.

Remember

Do not let anything other than rainwater enter a storm drain!

Stormwater Pollutants

- Anything other than stormwater
- Examples of potential pollutants
  - Raw materials – grain or wood
  - Metals – shavings, wire
  - Hazardous materials – gasoline, acetone
  - Fertilizers/pesticides
- *Can you think of other materials that may contaminate SW at your place of employment?*

Assessing Potential Pollutant Sources
Sector S Tenants

Assess the potential for the following to contribute pollutants to stormwater discharges:

- Onsite waste storage or disposal
- Fueling operations
- Aircraft maintenance areas

Control Measures To Achieve Permit Requirements

- Permit requires that control measures are in place to reduce contamination of SW from Port activities.
- Examples in place at the Port:
  - Graveling or paving roads ⇨ *reduce dust generation*
  - Vegetating exposed areas ⇨ *reduce erosion*
  - The use of catch basin filters⇨ *prevents contaminants from entering SW conveyance system*
  - Litter pick up ⇨ *prevent clogging of stormwater system*
  - Maintenance of motor vehicles indoors ⇨ *prevents introduction of materials into SW conveyance system*
  - General housekeeping ⇨ *routine inspection of storage areas holding potentially contaminating materials*

Control Measures To Achieve Permit Requirements (cont.)

Two types of Control Measures

1. Structural Measures
2. Best Management Practices

Control Measures To Achieve Permit Requirements: *Structural Measures*

- What are Structural Measures?
  - Physical measures that minimize SW contamination and control flow.
- Examples:
  - Berms
  - Settling ponds
  - Oil/Water separators
  - Vegetated areas
- Actions to AVOID:
  - Not maintaining structural measures, e.g. oil/water separators
  - Not inspecting structural measures (e.g. berms) for efficacy

Control Measures To Achieve Permit Requirements: *Best Management Practices (BMPs)*

- What are BMPs?
  - Combination of practices used to minimize contamination of stormwater and control flow.
  - Tenants must evaluate and select effective BMPs for their operations.
- Examples:
  - Routine cleaning of working areas.
  - Inspect spill kits to make sure they are complete.
  - Inspect containers storing potentially-contaminating materials.
  - Using drip pans/sorbents during vehicles/equipment maintenance.
- Actions to AVOID:
  - Maintenance work on vehicles and aircraft outside.
  - Leaving residues of potentially-contaminating materials in areas exposed to SW.

Methods To Minimize Exposure And Examples

1. Prevent materials, material handling, loading/unloading activities from contaminating precipitation and SW ⇨ *Perform operations undercover or indoors*
2. Use grading, berming, or curbing ⇨ *Prevents SW from entering potentially-contaminated areas*
3. Hazardous substance/waste storage ⇨ *Use appropriate storage method to store and label all chemicals and waste*
4. Use containment areas ⇨ *Transfer raw or finished materials in areas with dedicated drain to wastewater treatment plant*
5. Store materials undercover, in container, or indoors ⇨ *Sawdust and wood debris*

Methods To Minimize Exposure and Examples (cont.)

6. Drip pans/sorbents ⇨ *Use drip pans when maintaining vehicles and fueling vehicles*
7. Cleaning operations indoors ⇨ *Use degreasing equipment indoors*
8. Identify spill clean up procedures ⇨ *Provide written plan and educate staff to assure response is appropriate*
9. Manage wash water ⇨ *Use Port designated areas to wash vehicles*
10. Oil, grease, diesel ⇨ S*tore in labeled container indoors or use secondary containment*

Methods To Minimize Exposure and Examples (cont.)

11. Waste chemicals and materials storage ⇨ *Store materials in designated waste bins and keep bins covered when not in use*
12. Erosion and sediment control ⇨ *Install silt fences during earthwork*
13. Dust generation and vehicle tracking ⇨ *Lay gravel on dirt roads*
14. Housekeeping ⇨ *Create schedule for cleaning work areas regularly*
15. Preventative maintenance ⇨ *Inspecting equipment regularly for wear and tear to avoid future leaks*
16. Non-stormwater discharges ⇨ *Minimize fire hydrant flushing*

Methods To Minimize Exposure and Examples *Sector S Tenants*

Store all aircraft, ground vehicles and equipment awaiting maintenance in covered areas only and minimize the contamination of stormwater runoff from these areas

⇨ *Perform maintenance indoors only, store waste (e.g. oils, contaminated rags) indoors in labeled containers*

Minimize the discharge of fuel during fueling operations

⇨ *Fuel only at the aircraft fueling station near FBO, maintain constant visual on fueling operations, know where spill kit is located*

Monitoring, Inspection, Reporting/Documentation Requirements

Every tenant must conduct monthly inspections. Inspect for:

1. Materials that may have come into contact with stormwater.	6. Evidence of pollutants discharging to receiving waters.
2. Leaks or spills from equipment or containers.	7. Stormwater control measures.
3. Offsite tracking of contaminating materials.	8. Spill kits available and complete.
4. Onsite tracking of raw or final products.	9. Sector-specific requirements.
5. Evidence of, or potential, for pollutants entering drainage system.	

Monitoring, Inspection, Reporting/Documentation Requirements (cont.)

- Inspections conducted by trained staff familiar with SWPCP requirements
- Record visual observations on a monthly basis.
- Completed monthly inspection forms sent to the Port monthly via email.
- Include the following identifiable information:

1. Inspection date and time.
2. Name(s) of inspector(s).
3. Control measures and treatment facilities needing cleaning, replacement, maintenance, reconditioning, or repair.
4. Condition of the drainage and conveyance system and need for maintenance.
5. Previously unidentified sources of pollutants.
6. Stormwater discharge visual observations.
7. Nature of the discharge.
8. Any corrective actions taken or scheduled to remedy problems observed.

Monthly Monitoring Report

STORMWATER MONTHLY SITE INSPECTION CHECKLIST FOR TENANTS

Appendix F to the Port of Tillamook Bay Stormwater Pollution Control Plan (2020)

Maintenance Month: _____ Performed by: _____ Date and Time of Inspection: _____

Instructions: Monthly, inspect areas where industrial materials or activities are exposed to stormwater and areas where stormwater control measures, structures, catch basins, and treatment facilities are located in your leasehold. Conduct this inspection during a precipitation event if one occurs during the month, regardless of whether this monthly site inspection has already occurred.

Inspections must be performed by personnel who has completed employee training and who are familiar with aspects of POTB's Stormwater Water Pollution Control Plan. Monthly, submit a completed checklist to POTB's Utilities Supervisor at mchristie@potb.org.

Activities or Conditions for Inspection	Inspected?
1. Industrial materials, residue, or trash that may have or could come into contact with stormwater	
2. Leaks or spills from industrial equipment, drums, tanks, and other containers	
3. Offsite and internal tracking of industrial or waste materials, or sediment where vehicles enter or exit the site	
4. Tracking or blowing of raw, final, or waste materials that results in exposure of stormwater falling on the site	
5. Evidence of, or the potential for, pollutants entering the drainage system--examples include floating, suspended or settleable solids; color; odor; foam; or visible oil-like sheen.	
6. Evidence of pollutants discharging to receiving waters at all discharge point(s)	
7. Stormwater control measures to ensure they are functioning properly*	
8. Spill kit(s) present and stocked, as applicable	
9. Additional inspection requirements, as applicable. See page 2.	

*Measures may be passive, such as berms for oil tanks or catch basin filters, or active, such as sweeping.

Findings and Corrective Actions

Control measures and treatment facilities requiring cleaning, replacement, maintenance, reconditioning, or repair: _____

_____

Condition of the drainage and conveyance system and need for maintenance: _____

_____

Previously unidentified sources of pollutants (refer to POTB's SWPCP for pollutants identified at your leasehold, if any): _____

_____

Corrective action, source control, or maintenance taken or scheduled to remedy problem(s) found: _____

Other notes: _____

***Questions*? Call Mike Christie, POTB Supervisor, at 503-354-8056 or email mchristie@potb.org**

Monitoring, Inspection, Reporting/Documentation Requirements: *Sector S Tenants*

During routine inspections, inspect the following area for leaks, potential leaks, or activities or conditions that could lead to leaks or spills:

- Fueling areas and equipment used to prevent or control leaks or spills (e.g. berms, auto-shut-off fueling valves)

Examples of Observed Violations at Port

- Storage and waste containers left open when not in use
- Metal parts stored outdoors and exposed to SW
- Drag-out of material or product onto Port roads
- Leaking equipment
- Washing of vehicles outside of Port-designated areas
- Above-ground storage tanks without structural controls (e.g. berms, double-walls) to prevent leaks

Spill Prevention and Preparation

Be Proactive!

- Spill prevention is everyone's job.
- All spills can be prevented.
- We're all responsible for our actions!
- Establish spill response plan per onsite materials
- Use a spill kit capable of collecting onsite materials, e.g.
  - fuels, oils, gas spill kit
  - battery acid spill kit
  - water absorbing spill kit
  - hazardous chemicals spill kits

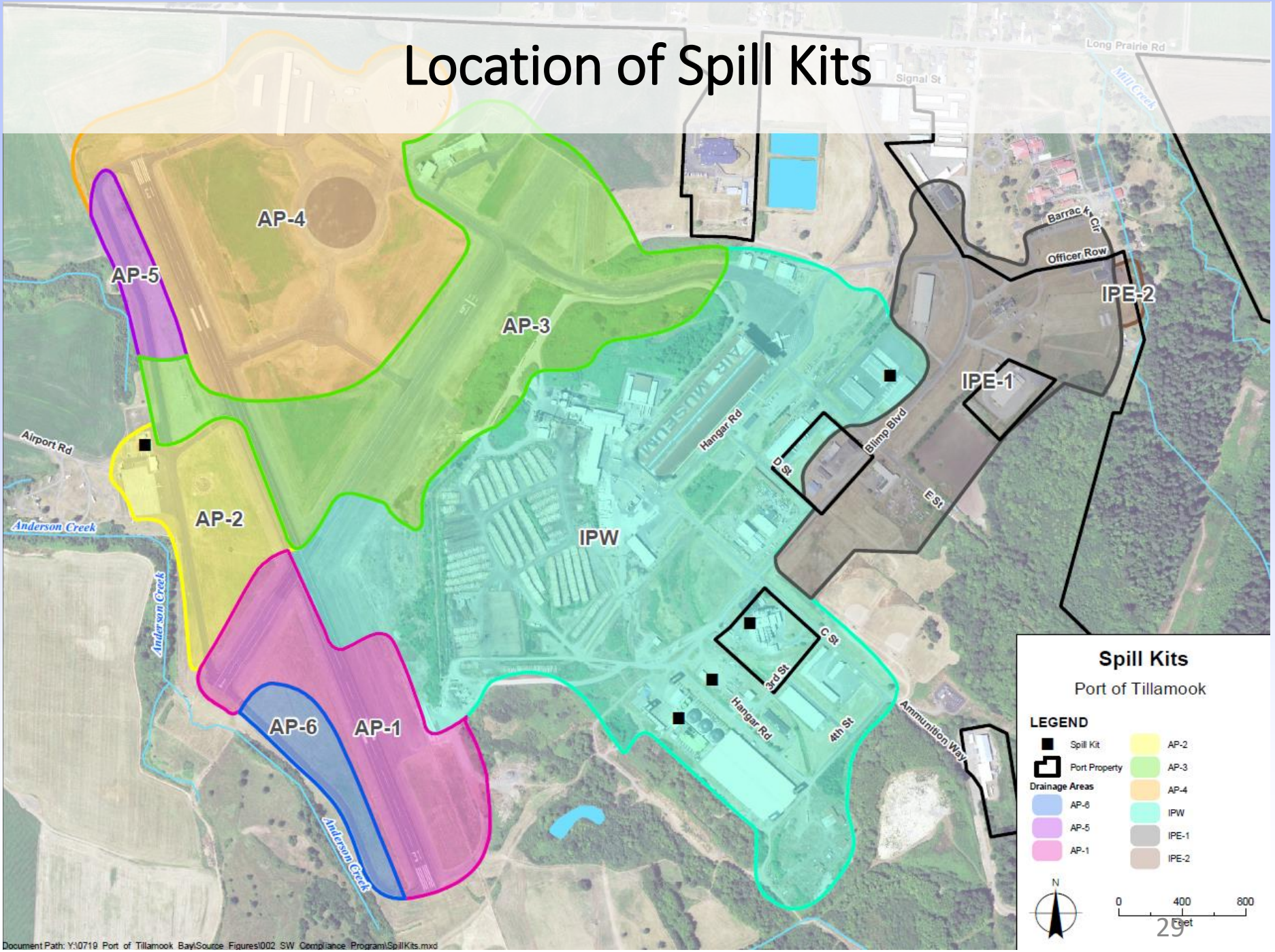
Steps to Take If There Is A Spill

1. React in a safe manner. Get away from spill until material identified. Notify Port staff of the spill. Port staff will activate necessary emergency procedures as necessary. Seal off area and review material MSDS.
2. Enact response plan and obtain proper equipment from spill cabinets.
3. Attempt to contain the spill & keep it from entering SW or ground.
   - Attempt to stop the source of the spill.
   - Use storm drain covers to protect SW drains.
   - Use pads, or granule absorbent to create a dam around the spill.

Steps to Take If There Is A Spill (cont.)

4. Cleanup and dispose of spilled material. Ensure the material is placed in the appropriate receptacle. Not sure? Ask the Port District Engineer or Utility Supervisor.
5. Document incident – material identity, quantity, people involved, cause, containment & disposal method, how incident could have been prevented, assessment of response.
6. Turn report into Port District Engineer.
7. Restock any items removed from spill supply cabinets.
8. Evaluate and enact methods to avoid similar spills in future.

Location of Spill Kits



Questions?