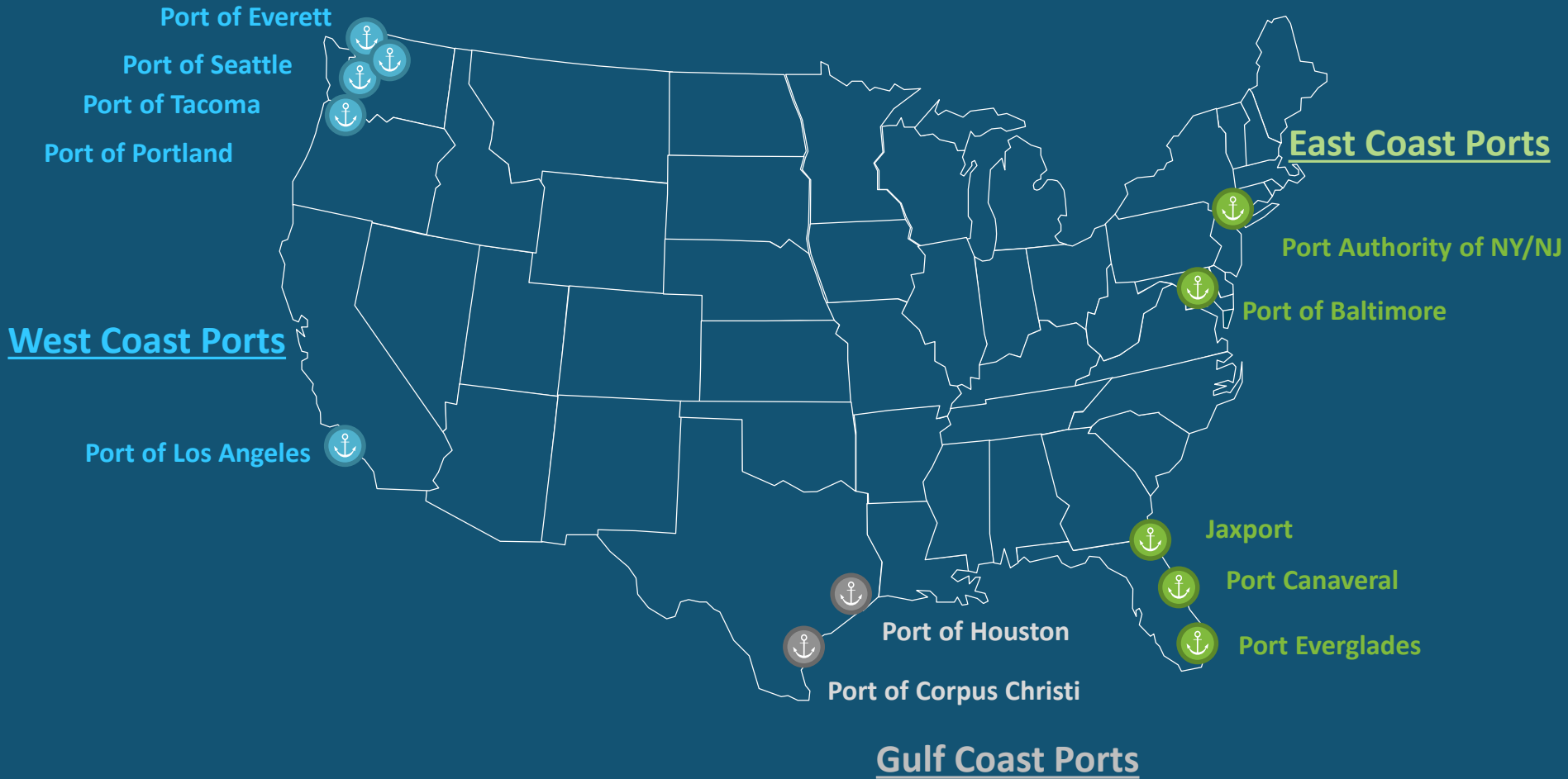


# Stormwater Trends: Seattle and Beyond

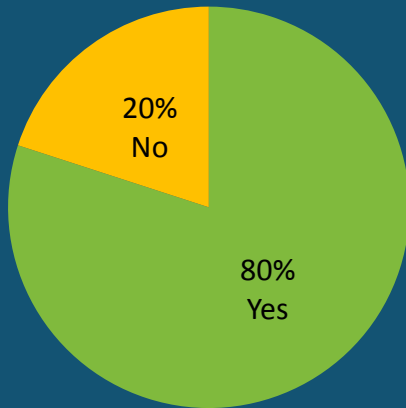
AAPA Energy and Environment Seminar  
Stephanie Jones Stebbins,  
Director, Seaport Environmental and Planning  
Port of Seattle

# Port Survey Participants

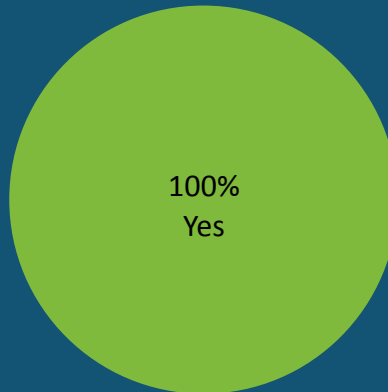


# Coverage by municipal permit

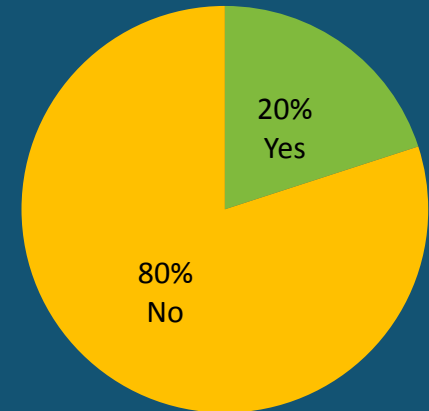
West Coast Ports



Gulf Coast Ports

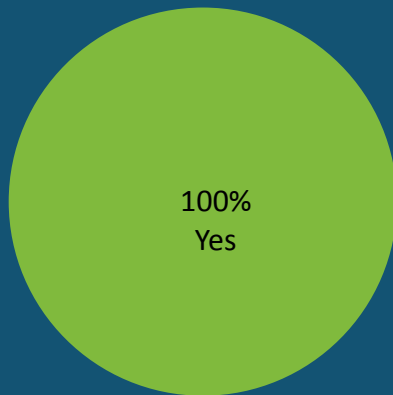


East Coast Ports

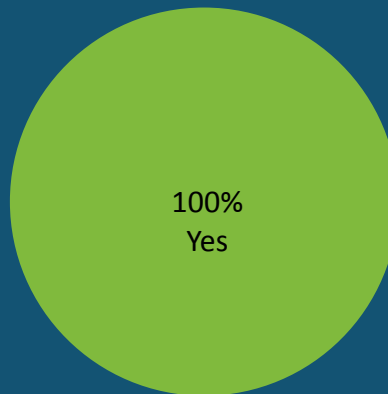


# Industrial Permit Coverage

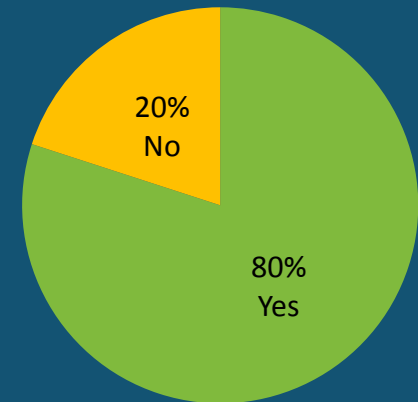
West Coast Ports



Gulf Coast Ports

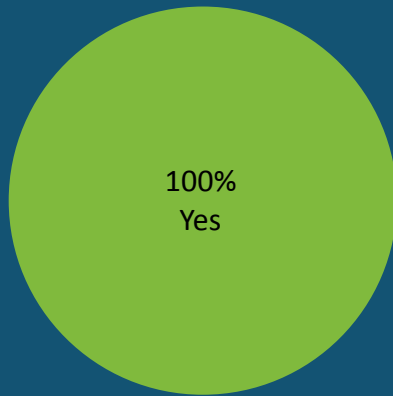


East Coast Ports

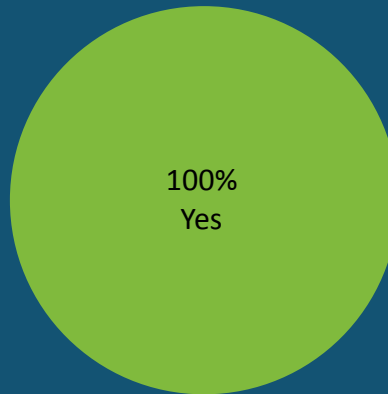


# Required to conduct monitoring

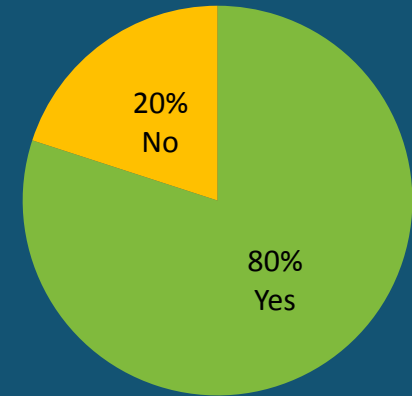
West Coast Ports



Gulf Coast Ports

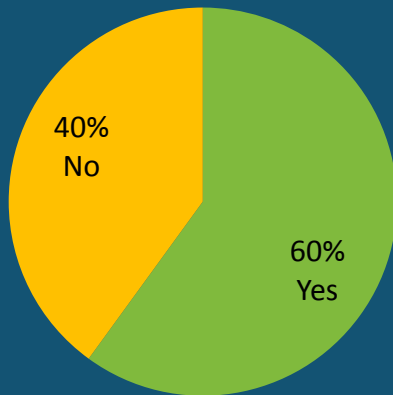


East Coast Ports

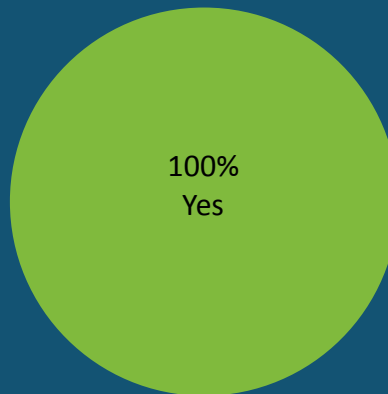


# Ports and/or tenants required to meet enforceable effluent limits.

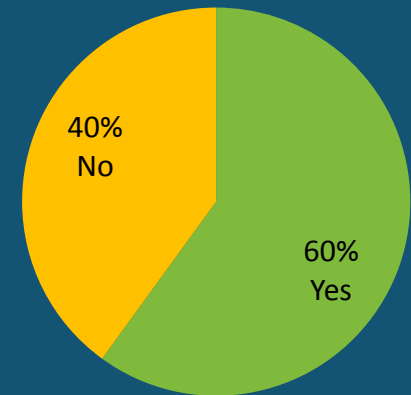
West Coast Ports



Gulf Coast Ports

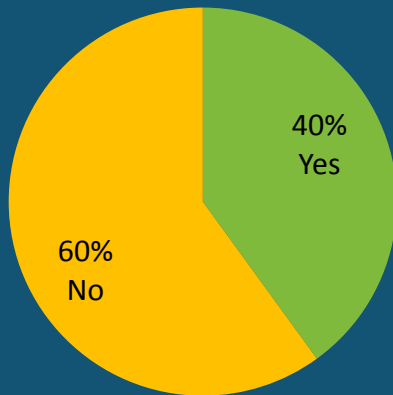


East Coast Ports

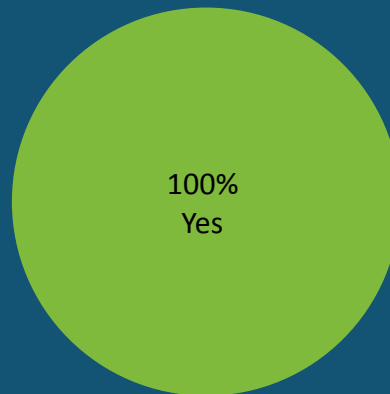


# Ports that receive copies/updates to tenants' SWPPPs.

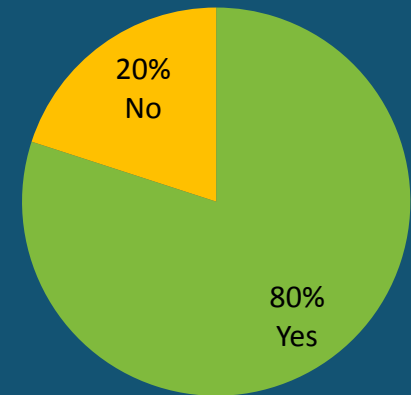
## West Coast Ports



## Gulf Coast Ports

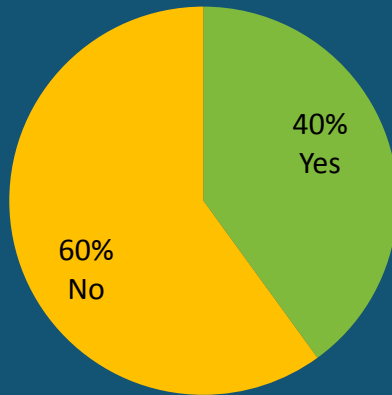


## East Coast Ports

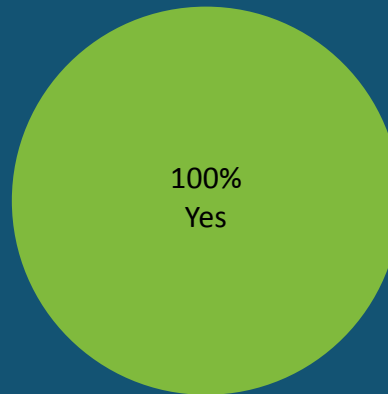


Ports that have tariffs and lease contract language that require tenants' compliance with port's SWPPP.

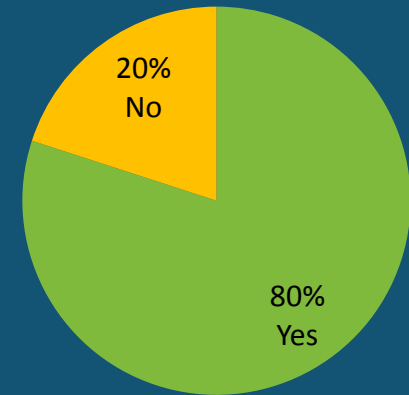
West Coast Ports



Gulf Coast Ports



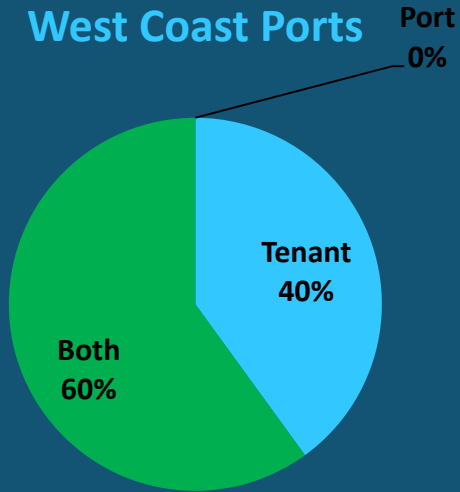
East Coast Ports



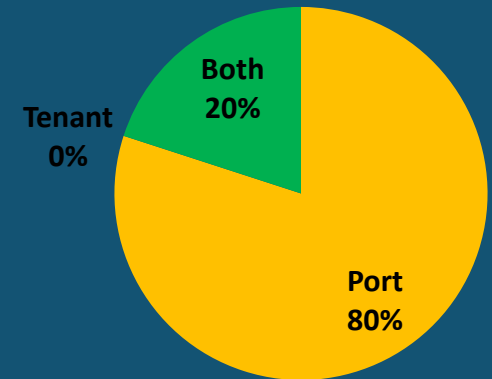


Is Port or tenant responsible for selection, design, installation and/or maintenance of treatment devices or other BMPs?

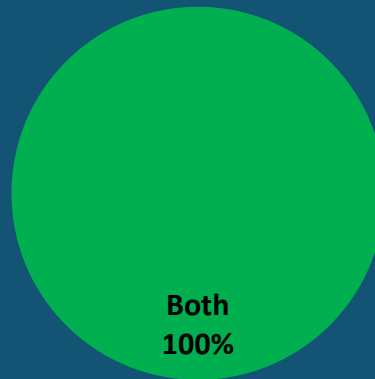
**West Coast Ports**



**East Coast Ports**

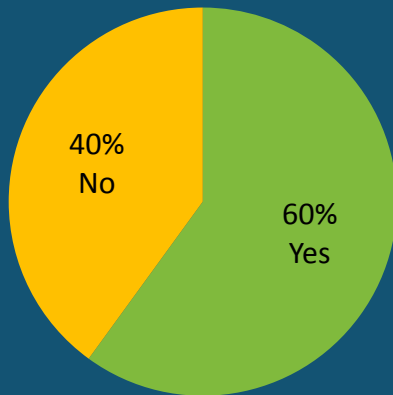


**Gulf Coast Ports**

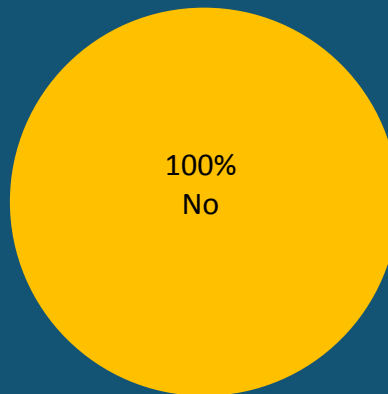


Port has participated in verification and testing of new treatment technology.

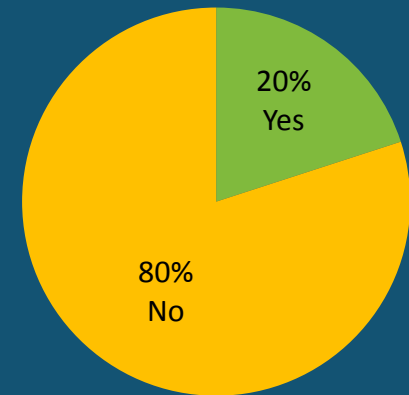
West Coast Ports



Gulf Coast Ports

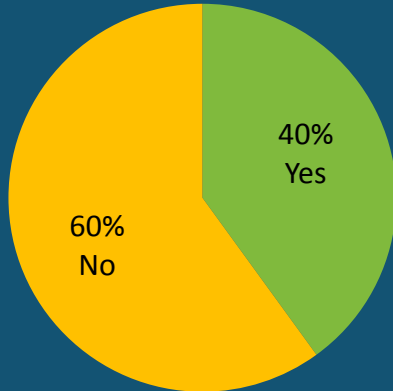


East Coast Ports

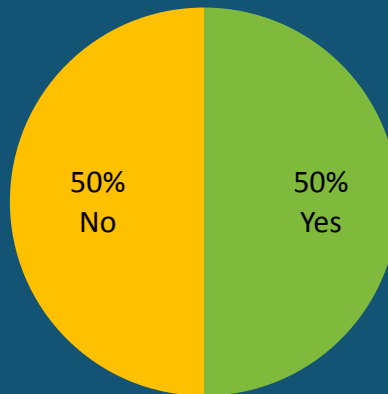


# Port is subject to Total Maximum Daily Loads, TMDLs.

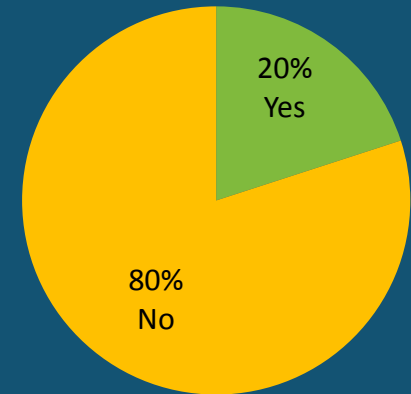
## West Coast Ports






## Gulf Coast Ports



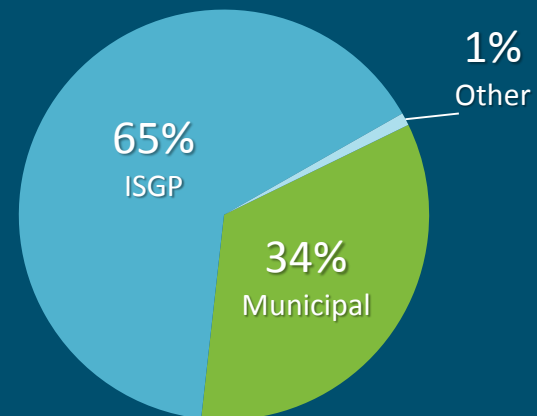
## East Coast Ports



# Permit Coverage

-  Phase I Municipal Stormwater Permit
-  ISGP Permits
  - 18 Tenant Permits
  - 2 Port Permits
  - Covering 700 Acres
-  Other SEA/RE NPESP Permits
  - Individual, Boatyard, Construction

## All NPDES Permits 100% of Permit Coverage at RE/SEA



# ISGP – Tenants



**T-46:** Port installing Up-flo on 3 of 4 outfalls / ~80 acres

**T-18:** 20 outfalls / ~200 acres: treatment at source locations

**T-5:** 14 outfalls~160 acres

**T-115:** Chitosan treatment system on 2 of 5 outfalls / ~70 acres

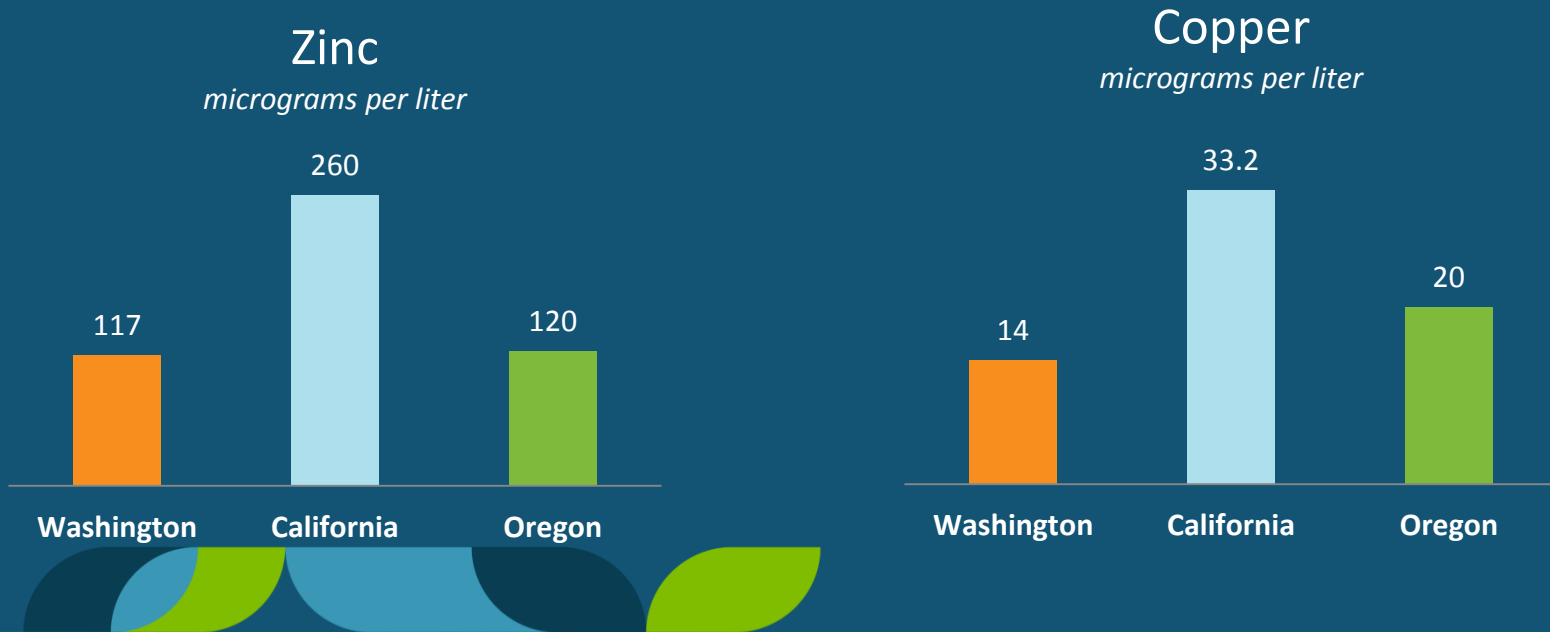
**Also Treatment needed at:**

- T104, T106, T108, T25 & T30

# ISGP Thresholds

WA State ISGPs contain the most stringent requirements in the country for Zinc & Copper.

## Corrective Action Threshold Limits



# Stormwater Costs

(5-year estimate)

**ISGP  
costs**

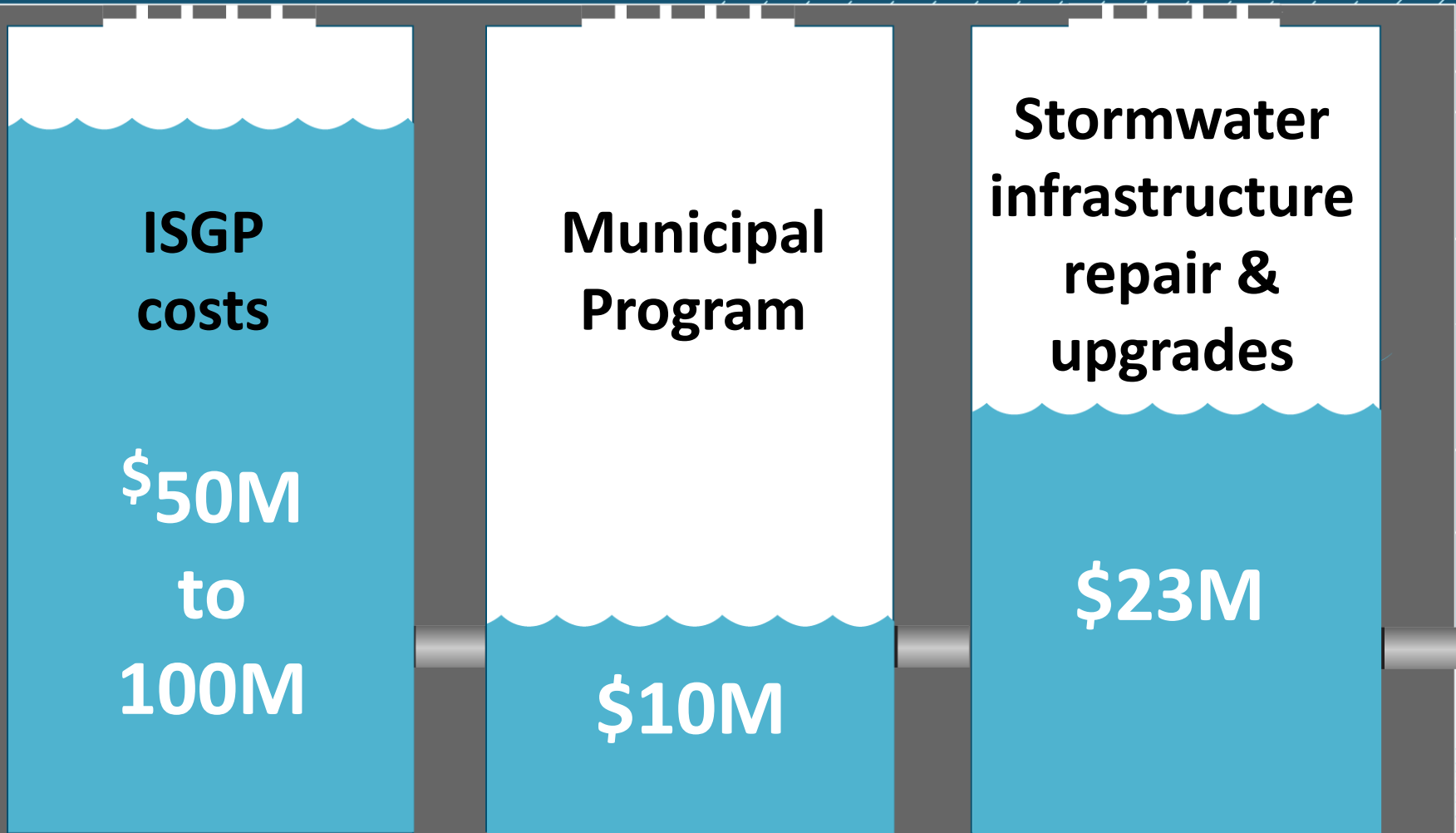
**\$50M  
to  
100M**

**Municipal  
Program**

**\$10M**

**Stormwater  
infrastructure  
repair &  
upgrades**

**\$23M**



# Total Stormwater requirements

Next 5 years

\$85 to \$135 Million  
in SW Requirements

Plus

\$23 Million in SWM fees

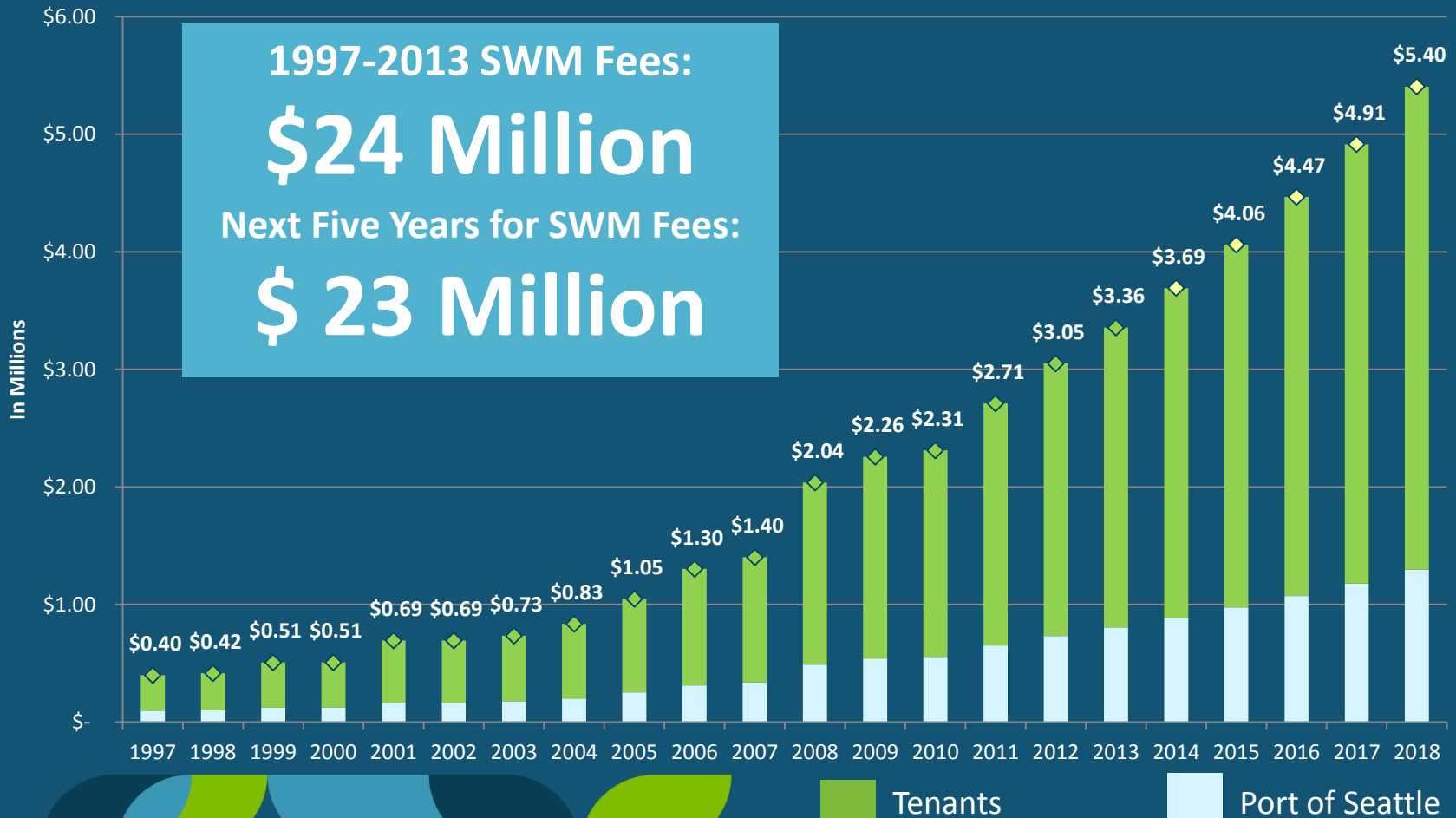


\$23 million could be used repair and replaced **16 miles** of Port owned stormwater pipes.



# City Stormwater Fees

## SWM Fees to City: 1997 - 2018



Port has the same obligations and authority as the City.

## Obligations:

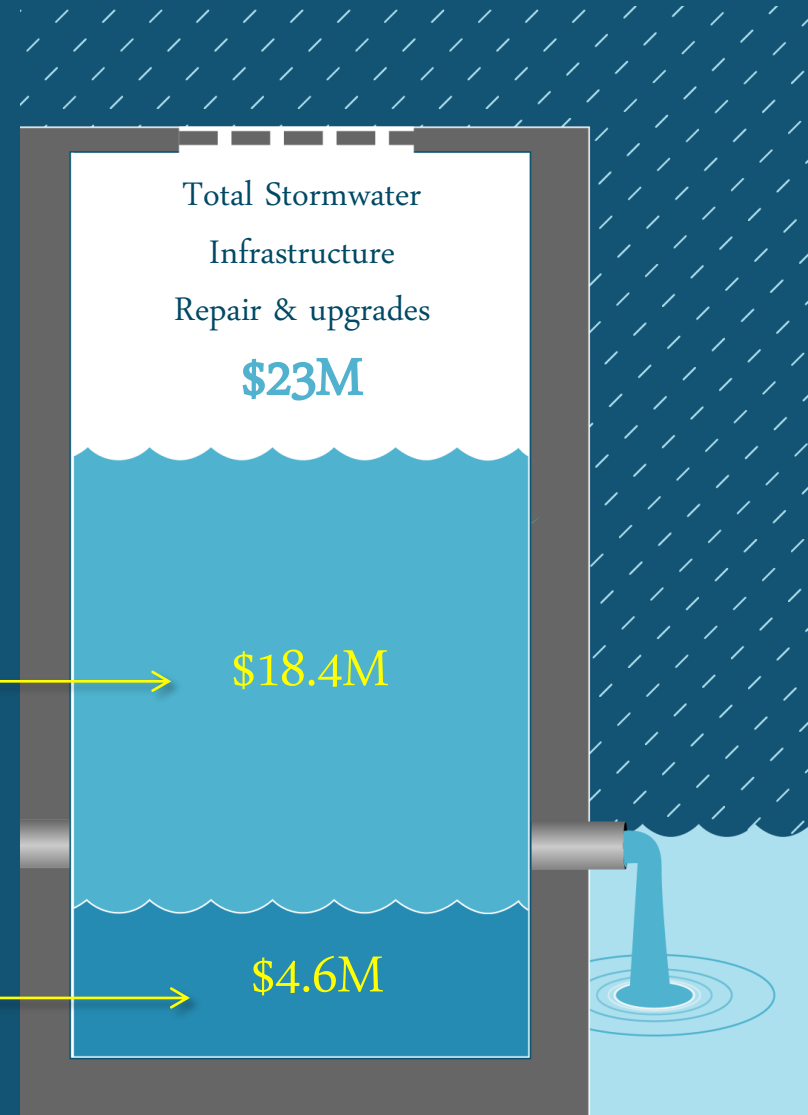
- Phase 1 municipal permits

## Authority

- **RCW 53.08.043** expressly grants port districts "all of the powers relating to systems of sewerage" that are granted to cities.

# Port SWM Fees and Expenditures

- Commission approved rates and budget
- Utility spending includes:
  - **80% SIRUP**  
Stormwater Infrastructure Repair & Upgrades
  - **20% Phase I Permit**  
Compliance & Administration





Thanks!