

Stormwater Overview Briefing

Presentation Overview

1. Century Agenda Goal

To meet or exceed agency requirements for stormwater leaving Port-owned or operated facilities

2. Permits

Successes and challenges

3. Stormwater Fees

\$4 Million/year to City of Seattle.

Glossary

AKART

All Known, Available and Reasonable methods of prevention, control, and Treatment

BMP

Best Management Practices

ISGP

Industrial Stormwater General Permit

NPDES

National Pollutant Discharge Elimination System

SWM

Storm Water Management

Airport Individual NPDES Permit



 Stormwater Drainage System

Metal treatment and flow control

Miller and Des Moines Creek

 Industrial Wastewater System

Aircraft Deicing and Maintenance

Puget Sound discharge

 Construction Activities

Small to major capital works

Turbidity and oils & grease control

Industrial Wastewater Treatment

- 100 to 300 M gallons/year
- > 95% BOD Reduction
- \$60 million upgrades

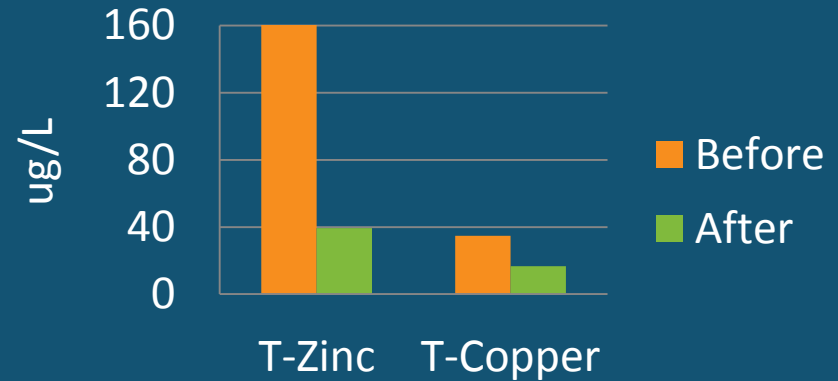


Stormwater Management

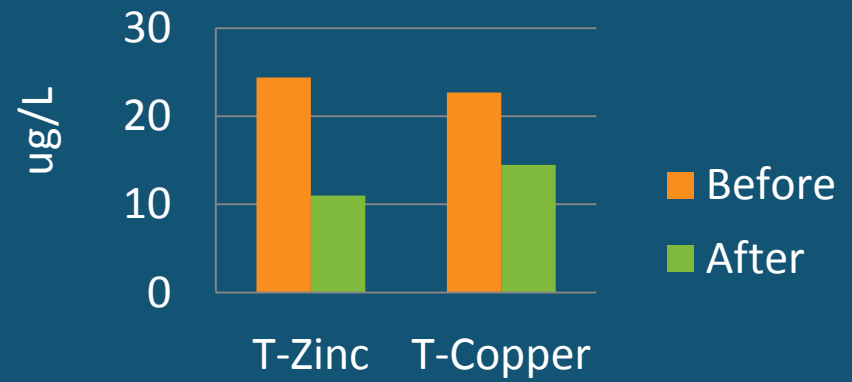
- 100% surfaces detained and treated
- \$78,000,000



Expressways



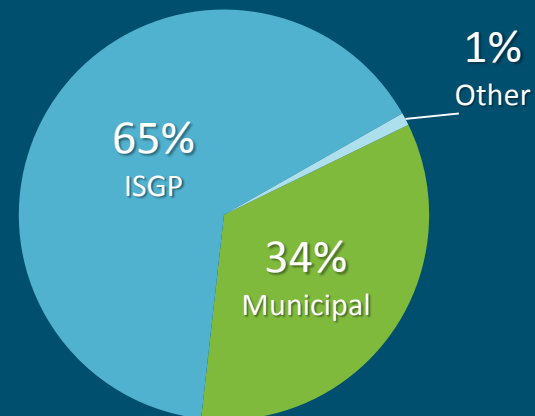
Runways



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



Port of Seattle ISGP



1 Acre Treatment Site



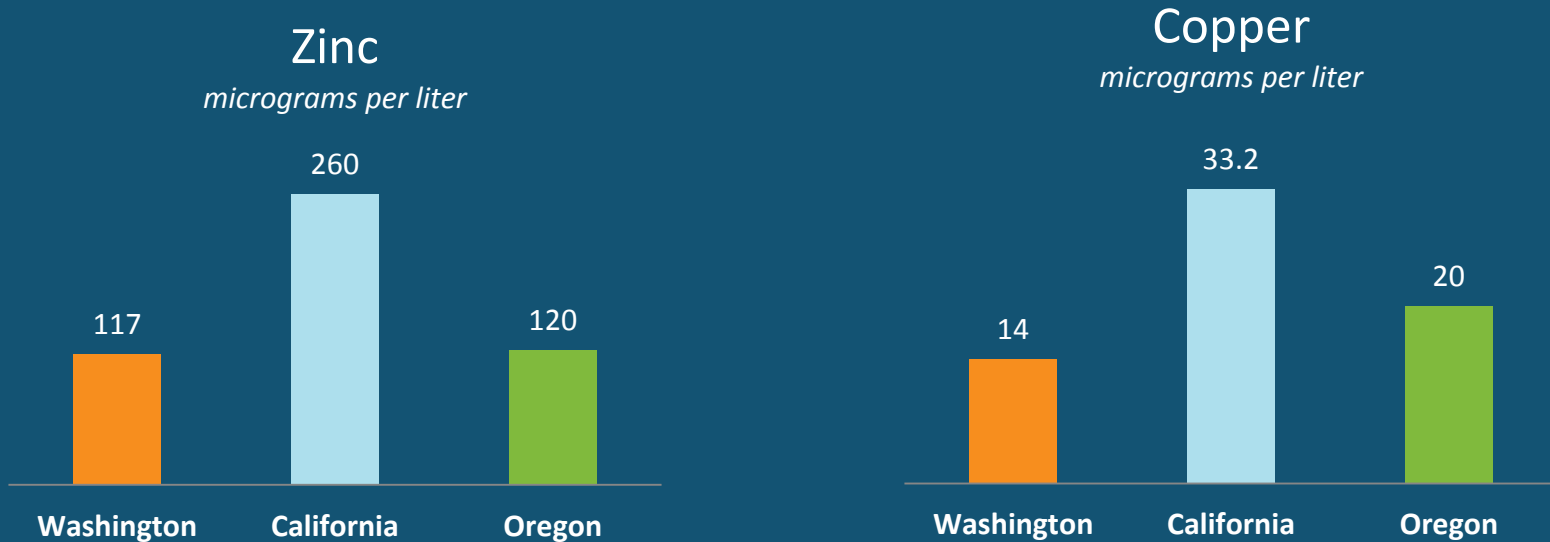
Splash Boxx at T91



ISGP Thresholds

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




Corrective Action Threshold Limits



ISGP Cycle Time

WA State Standards: most stringent in the country AND fastest to comply.

- If baseline requirements are exceeded in Washington State, action must be taken within 1 Quarter.

		Year 1				Year 2				Year 3				Year 4				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
 Washington	Operational		CORRECTIVE ACTION LEVEL 1															
	Structural			CORRECTIVE ACTION LEVEL 2														
	Treatment				CORRECTIVE ACTION LEVEL 3													
 California	Operational				CORRECTIVE ACTION LEVEL 1													
	Structural & Treatment												CORRECTIVE ACTION LEVEL 2					
 Oregon	Operational		CORRECTIVE ACTION LEVEL 1															
	Structural & Treatment																CORRECTIVE ACTION LEVEL 2	



ISGP – Tenants



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

- Applying structural and operational BMPS throughout the site.

T-18: Due to high number of outfalls (20) / ~200 acres:

- Installing Modular Wetland System and roof down spout treatment at source locations
- Applying structural and operational BMPS throughout the site

T-5: Unknown treatments needed ~160 acres

- 14 Outfalls

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

- Applying structural and operational BMPs throughout the site.

Also Treatment needed at:

- T104, T106, T108, T25 & T30

Joint AKART Study

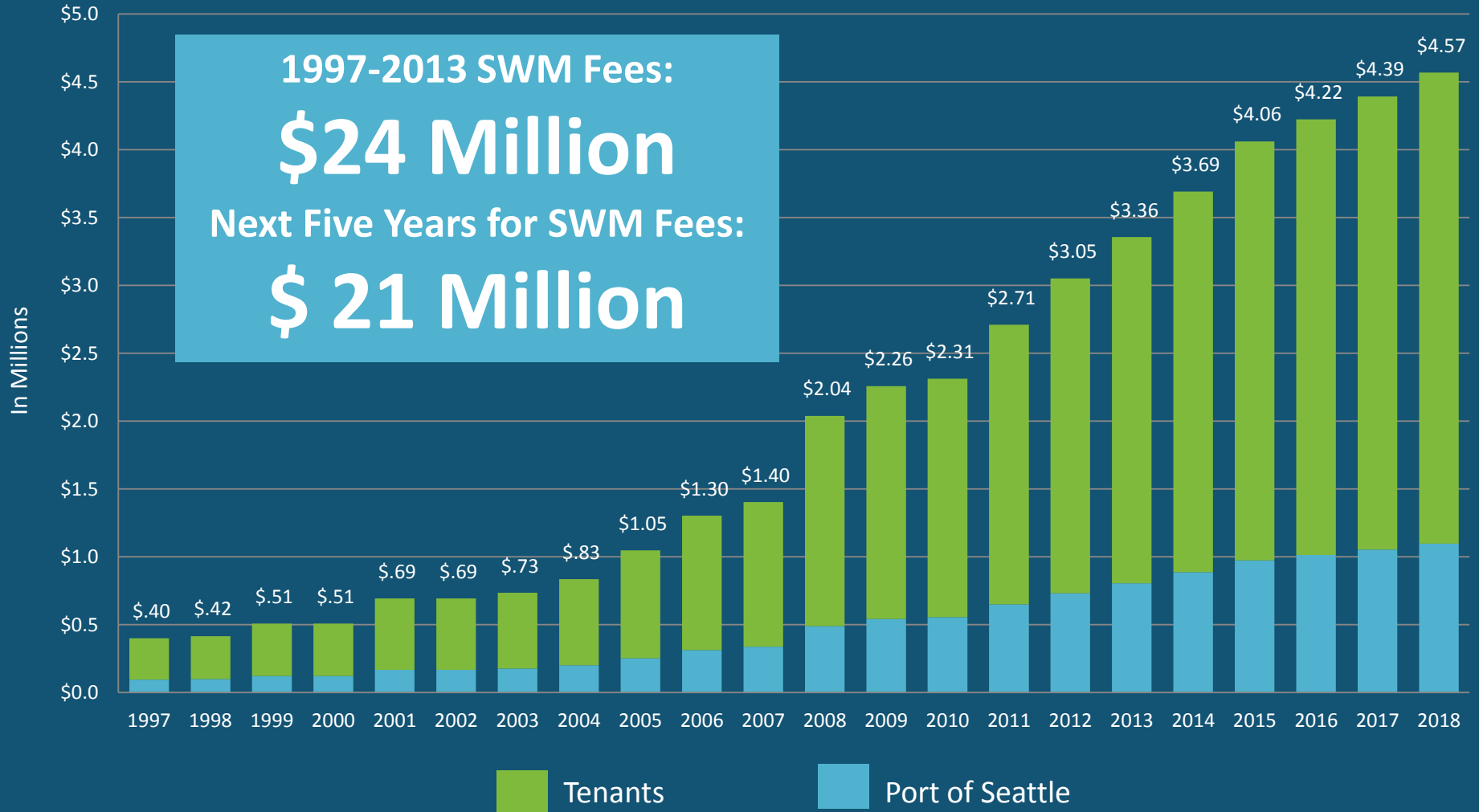
- A roadmap for:
 - Predictable ISGP compliance
 - reasonable required stormwater treatment actions.
- Tied to larger permit update
 - Issued on May 7th with New ISGP for public comment.

Partners



City Stormwater Fees

SWM Fees: 1997 - 2018



Port has the same obligations and authority as the City.

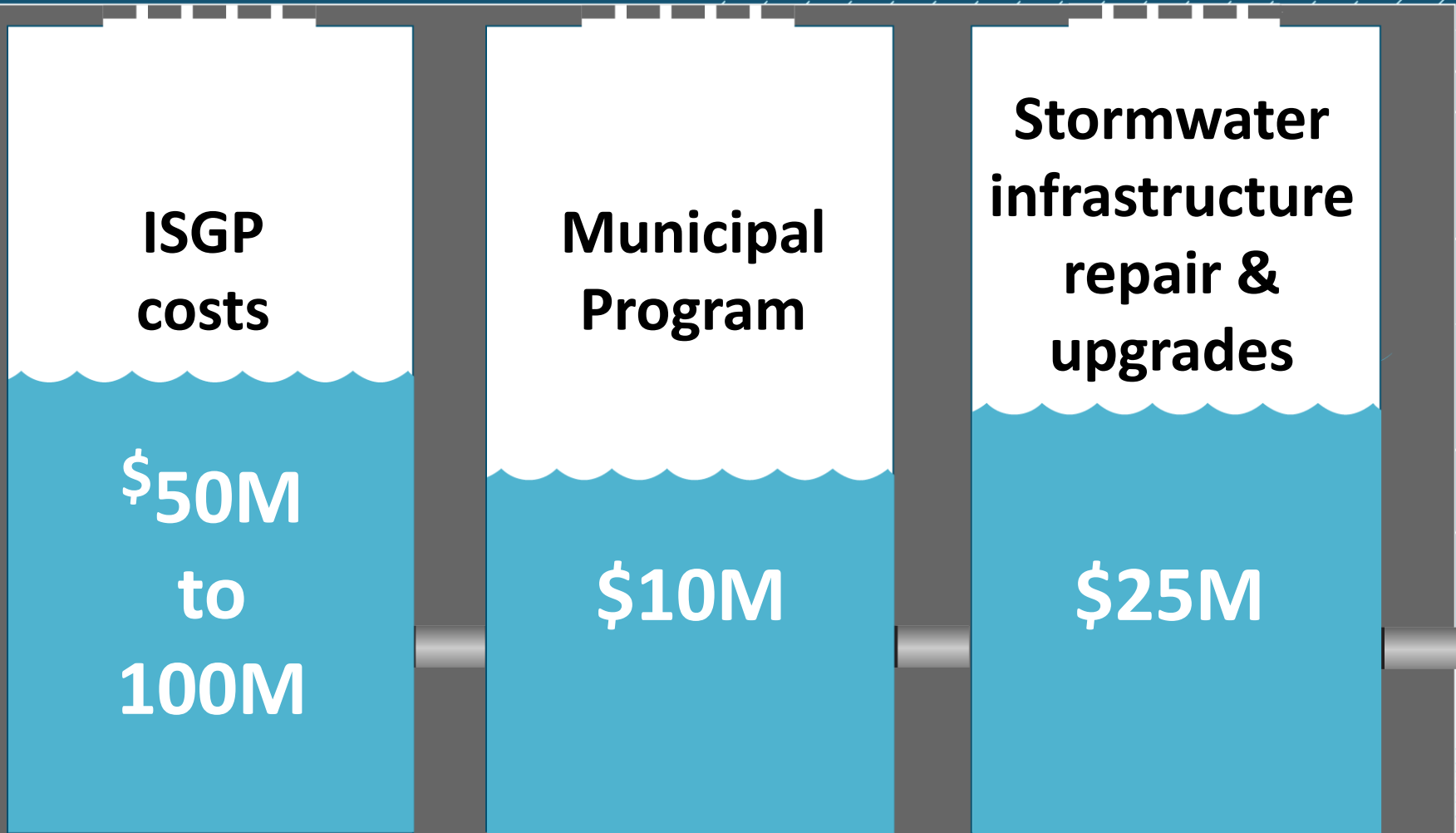
Obligations:

- Both the City and Port have a Phase 1 municipal permits that governs our Stormwater programs.

Authority

- **RCW 53.08.043** expressly grants port districts "all of the powers relating to systems of sewerage authorized by RCW 35.67.010 and 35.67.020 [utility statutes for Cities]."

Stormwater costs



Total Stormwater requirements Next 5 years

\$85 to \$135 Million
in SW Requirements

Plus

\$21 Million in SWM fees



\$21 million could be used repair and replaced **16 miles** of Port owned stormwater pipes.

Next Steps

- Discuss Stormwater Fees with City of Seattle
 - Return to Commission in late summer with options
- Continue implementation of our Phase I municipal permit
- Work with WPPA and others on the next ISGP (out for public comment now) and the AKART
- Continue to look for innovative and cost effective solutions, like the Splash Boxx