Washington State's regional monitoring approach for the MS4 permits

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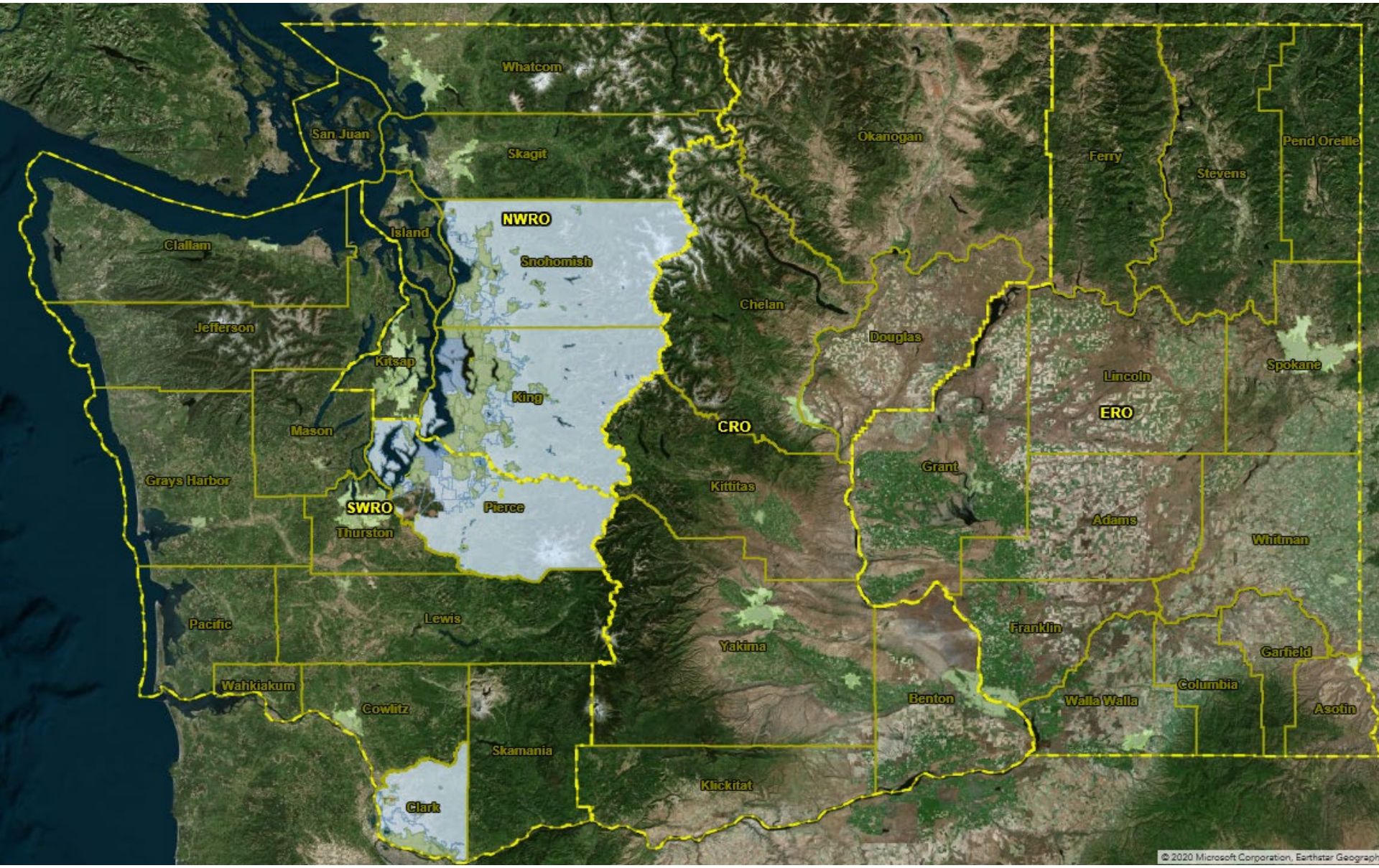
DEPARTMENT OF ECOLOGY
State of Washington

Municipal Stormwater Permits

Phase I (Issued 1995, reissued 2007, 2012, 2019)	King, Snohomish, Pierce & Clark counties; Seattle & Tacoma
Western WA Phase II (Issued 2007, reissued 2012, 2019)	81 cities and parts of 6 counties
Eastern WA Phase II (Issued 2007, reissued 2012, 2019)	19 cities and parts of 6 counties
All three permits include Secondary Permittees	47 Secondaries – Ports, Schools, Irrigation Districts, etc.


Whatcom
San Juan
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Stevens
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Clallam
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Lincoln
Spokane
King
ERO
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Grant
Grays Harbor
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SWRO
Pierce
Adams
Whitman
Thurston
Pacific
Lewis
Franklin
Yakima
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Wahkiakum
Columbia
Benton
Walla Walla
Asotin
Cowlitz
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Clark
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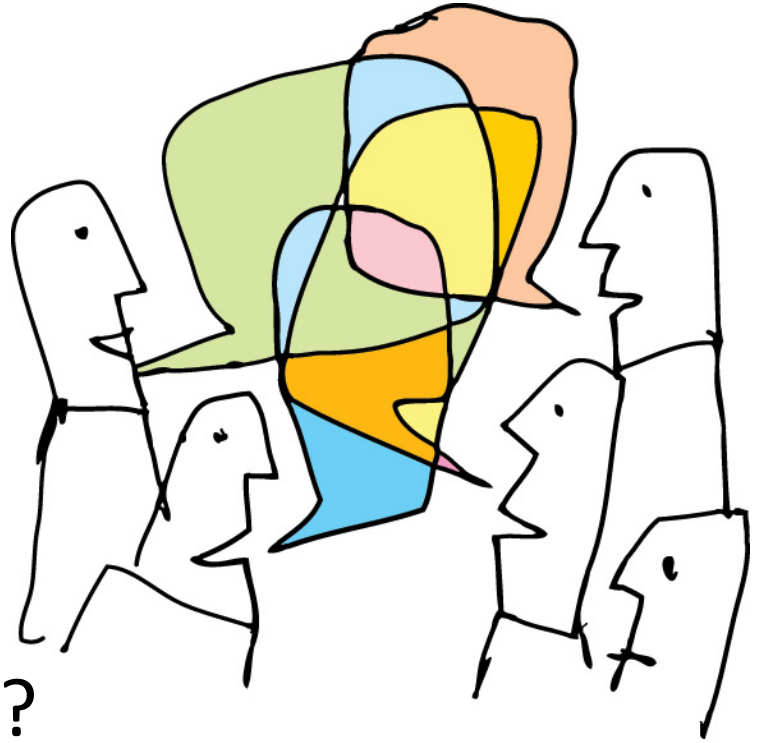
Traditional NPDES Monitoring

- Conducted by individual permittees:
  - Compliance focused
  - Expensive
  - No regional story
- MS4 permittees asked for a different approach

Today's topics

- Why regional monitoring?
- How does the permit work?
- What are we learning?
- How are we sharing findings?
- Benefits of this approach!
- Some lessons shared…



SAM
Stormwater Action Monitoring

What it took to change the paradigm

- Regulator's commitment
- Stakeholder recommendations and buy-in
- New permit requirements and staff
- Regional monitoring program

Blood, sweat, and tears!

We have BIG questions

So hard to answer!

Receiving waters:

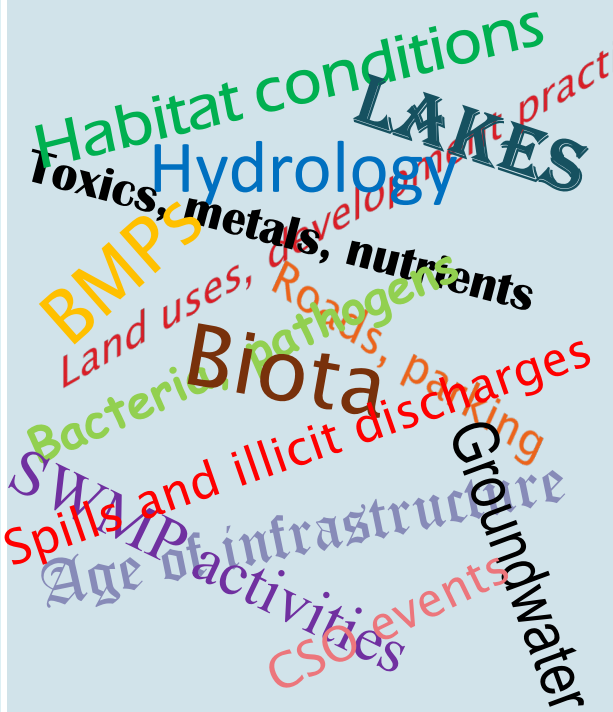
- Are things getting better or worse?
- Are we protecting key resources?

Effectiveness:

- What is/isn't working?
- What works better or is more cost-effective?

So many things we might monitor

Who gets to decide?



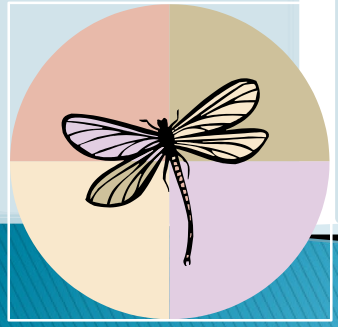
Everyone has an opinion

- Process with sideboards
- Build relationships
- Leverage ongoing regional monitoring efforts
- Determine the level of effort
- Set priorities
- Select projects
- Provide oversight
- Keep making recommendations

Stormwater Action Monitoring

Status and trends

- Are receiving waters getting better or worse?



Effectiveness studies

Are required actions working?

Source identification

Any regional solutions to common problems?

… and **research** to better understand impacts and develop new ways to treat and prevent problems

Keep the mess out of the permit

- S8: Permittee chooses to either
  - Pay into the cost-share fund, or
  - Conduct individual monitoring
- Payments fulfill the permit monitoring requirements
- SAM and process are described in the permit Fact Sheet
- All Western Washington MS4 permittees are participating, plus WSDOT
  - Three did some individual monitoring

Freedom from the shackles!

- Diversity of topics
- Mix of short and long-term projects
- No timeframes or ceilings
- Many longer, larger than typical grant projects
- Multi-year studies can be done in phases
- Interim findings

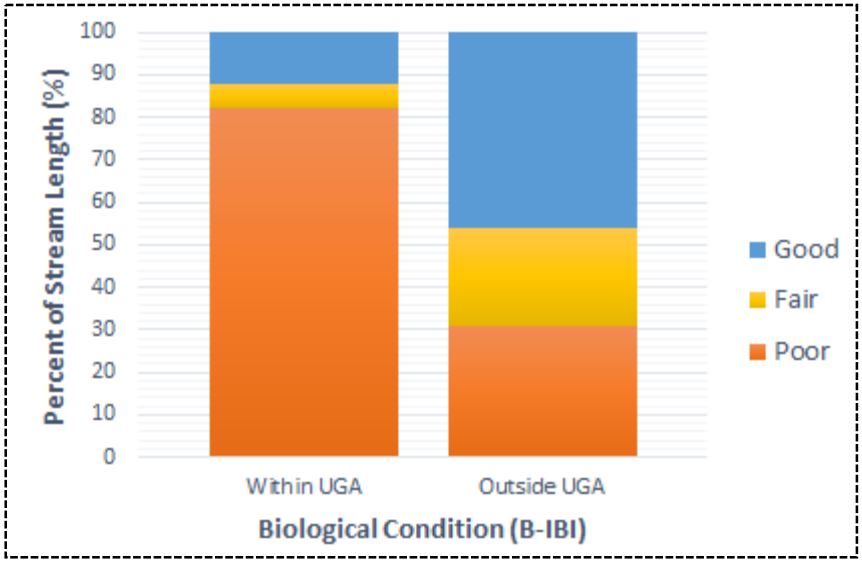
Iconic species in trouble

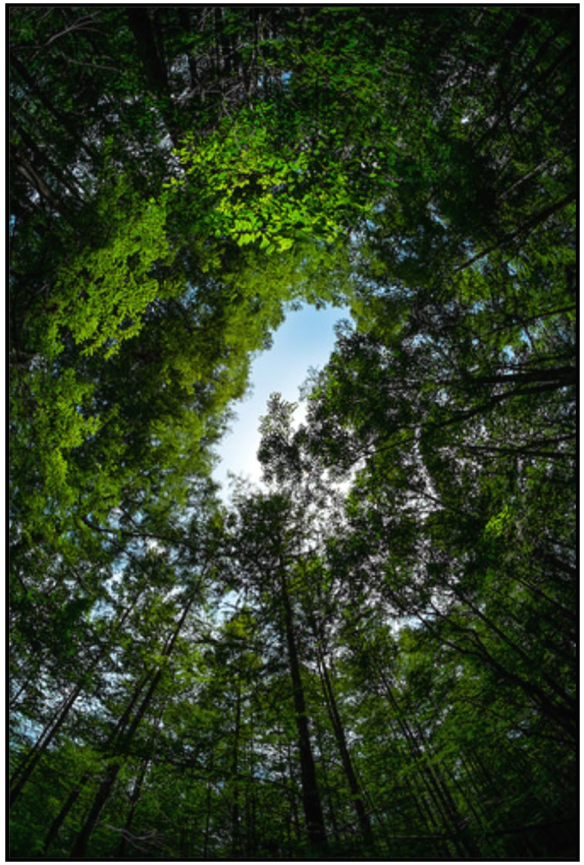
We are answering our BIG questions!

Finding solutions

Finding causes

We are answering our BIG questions!





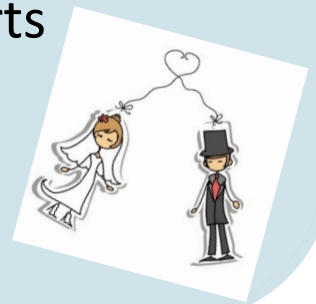
Stream biota condition

Risk factor

Ecology is the service provider

SAM Coordinator duties

- Invoice permittees annually
- Execute contracts
- Approve deliverables
- Procure state spending authority
- Manage cash flow
- Provide quarterly budget reports
- Maintain webpage
- Communicate findings



Sharing findings with stormwater managers

- Annual reports
- Fact sheets
- E-Newsletters
- Permit coordinators' meetings
- MuniCon, SAM Symposium
- Videos

FRESH IDEA

Pool Party

Battle Ground combines resources with others to fund large-scale projects.

term projects with the help of cities, counties, and agencies throughout the state.

Much of the activity owes impetus and funding to the Stormwater Action Monitoring (SAM) program, composed of 93 entities (cities and counties throughout the state, as well as the ports of Seattle and Tacoma) that are collectively pooling their money to monitor stormwater. With pooled resources, they can do regionally relevant work and bigger and longer studies than could be accomplished through a single grant program.

The city's return on the investment was huge—it essentially cost Battle Ground $31,000 to get the results of a $500,000 project.

"Some of the projects in the first round investigated different types of soil mixes and how they can inform stormwater treatment methods," says Kelly Uhazz, associate stormwater engineer for the City of Battle Ground. "One project related to with soil that can work for stormwater and fish."

A project investigating stormwater treatment at this scale could easily cost $400,000 or $500,000, making it cost-prohibitive for a city of Battle Ground's size to implement. The pooled resources allow both large and small cities and counties—Phase I and Phase II—to reap the benefits of these large-scale projects. "Even though all of the first-round projects were in the Puget Sound area, the recommendations and effects of these projects are relevant, useful, and felt throughout the state," says Uhazz, whose city was initially skeptical of SAM's efficacy because of the projects' location. "Whether you're in Puget Sound or down here in Battle Ground, if they come up with a good bioretention mix that treats storm runoff, that's going to work for us down here and for Puget Sound."

The financial impact of the SAM program can be profound: Battle Ground contributed $7,736 a year for four years, totaling about $31,000; the total fund was about $10 million over 10 years. The city's return on the investment was thus huge—it essentially cost Battle Ground $31,000 to get the results of a $500,000 project.

"It's a really innovative idea that Ecology proposed, to pool money and try to fund projects," says Uhazz. "You can do projects on a scale that cities individually wouldn't be able to do." —*Rachel Sandstrom Morrison*

We've learned a lot

- Keep details outside the permit
- Huge effort to launch
- Permittees are OK with Ecology hosting SAM
- Few findings in time to inform the next permit
- Continually educate new people
- Communication takes tons of effort
- It was worth it

You can have a program like SAM

Stormwater Action Monitoring

Payment = permit compliance

Stakeholders make decisions

One entity takes charge

Region gets answers to BIG questions!

The blood, sweat, tears, and time are worth it!

Questions?
Discussion!

ecy.wa.gov/SAM

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