

Stormwater Work Session: Understanding the Problem

Metropolitan Water Pollution
Abatement Advisory
Committee General Meeting

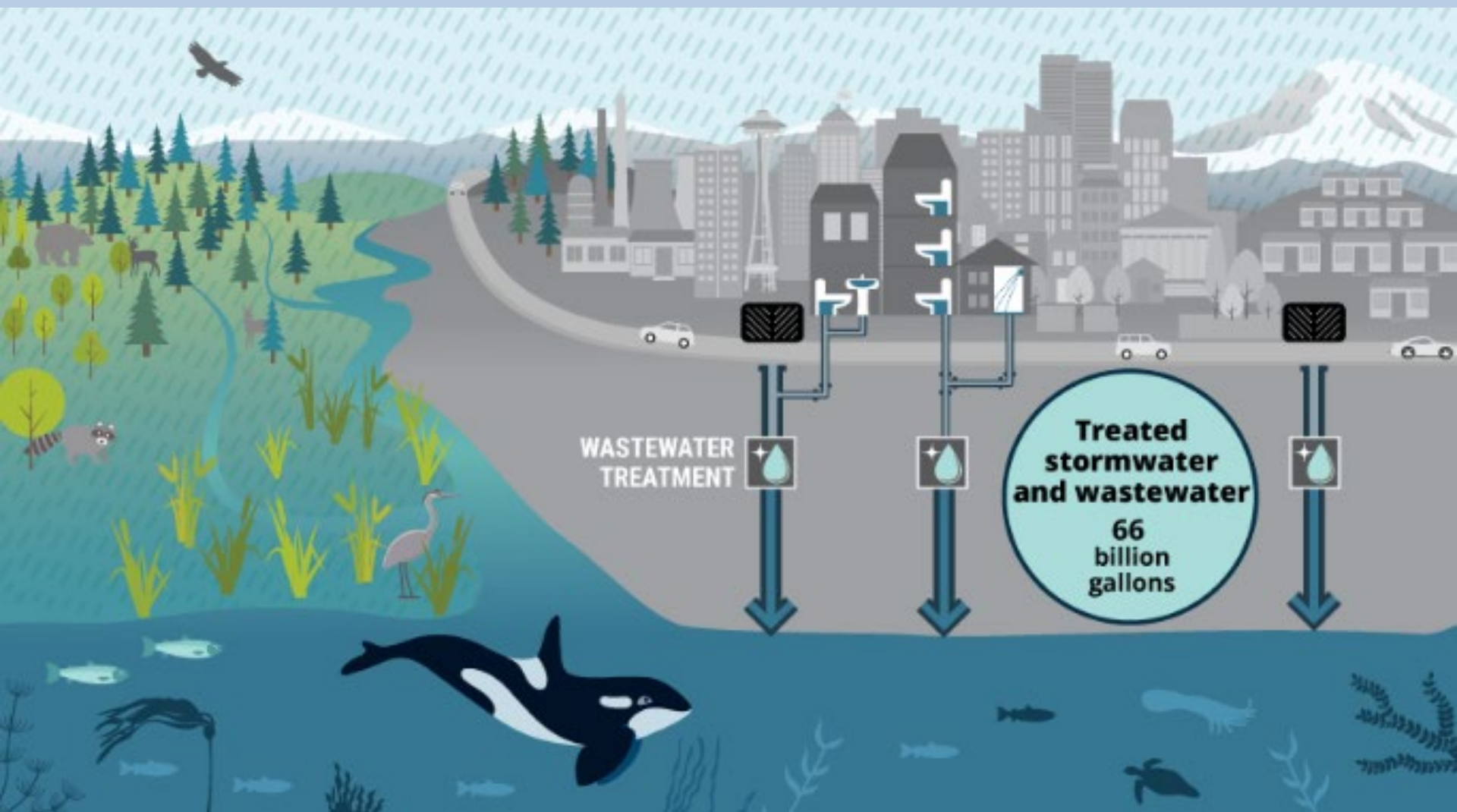
October 2, 2024

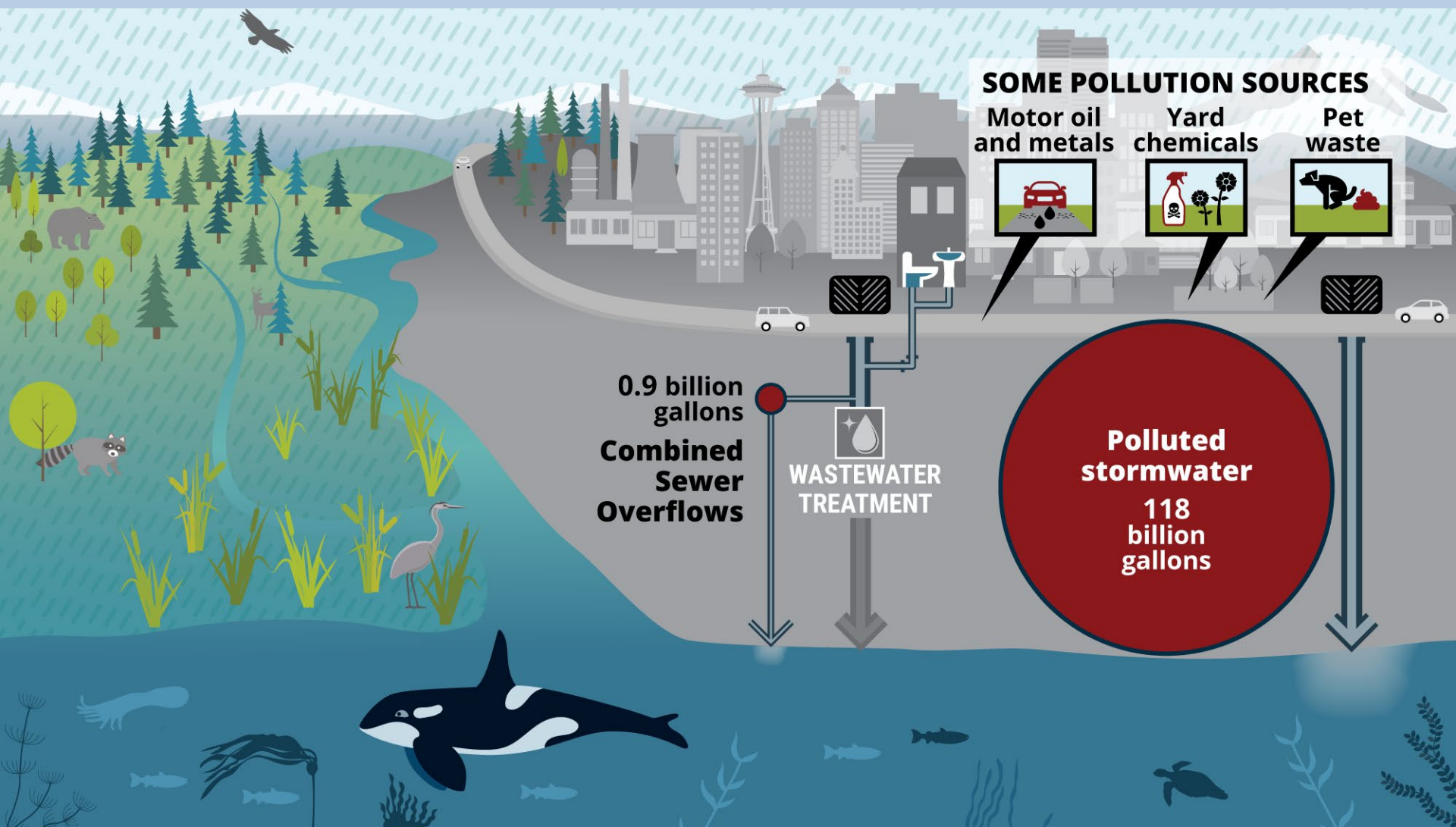


King County



**Clean Water
Healthy Habitat**







Stormwater Management: Relationship to Wastewater Treatment

**Source Control
Flow Control
Climate Impacts
Footprint for Capital Projects
Same Communities**

Stormwater Management: Key Piece of the Puzzle

Stormwater regulations and land use are making a difference.

Twenty years of data indicates widespread improvements in stream health even as the population grew by over a half-million.

25% of streams monitored by King County have improved while just 3% have declined.



Stormwater Management: Key Piece of the Puzzle

Modern stormwater regulations address both flow control and water quality treatment

But. . .

- More than 3/4s of development came before water quality treatment requirements
- New threat: Toxic Tire Dust
- Regulations and funding siloed
- Changing climate and precipitation patterns

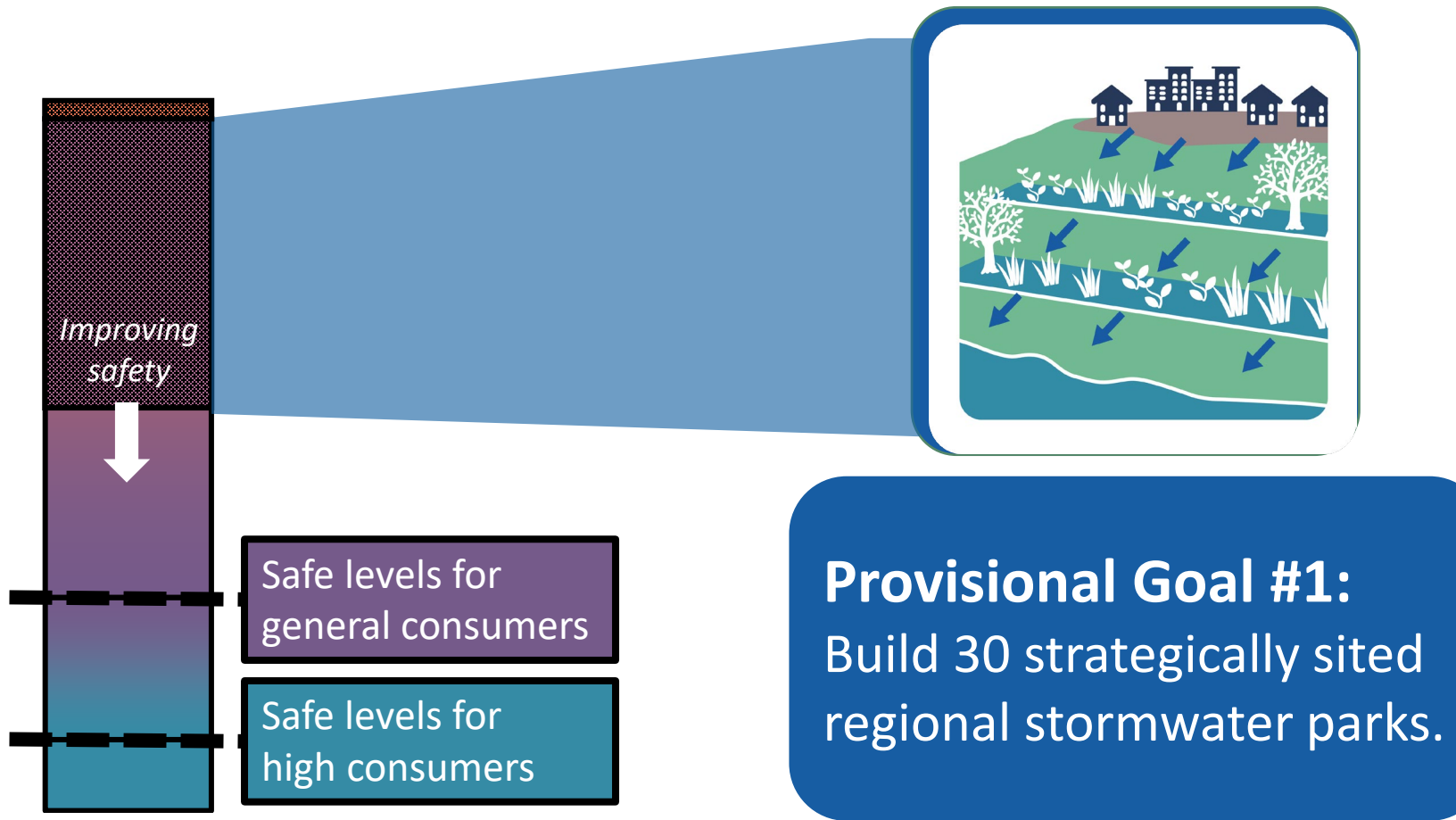


Regional Stormwater Goals

- **Create** regional stormwater parks
- **Treat** polluted runoff from *roadways*
- **Restore** natural stream flows
- **Control** upstream sources of toxic pollutants



PCB Example







Provisional Goal #2:
Treat runoff from 100
miles of roadways through
best management
practices (BMPs) that
remove 6PPD-q and more.

Provisional Goal #3:

Provide flow control to 5,000 acres through a mix of green stormwater infrastructure (GSI) and new or retrofitted detention ponds.





Provisional Goal #4:
Reduce sources of
pollutants.

Stormwater Regulatory Framework

The Clean Water Act is the basis for stormwater regulations

Washington State Department of Ecology has delegated authority to regulate stormwater

Cities and counties are regulated by National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater General Permits

- Phase 1 permit holders (Large counties, cities, and secondary dischargers)
- Phase 2 permit holders (Smaller counties, cities, and secondary dischargers)

Accountability is at the individual jurisdiction and permit level



Updated Municipal General Stormwater Permit

Key changes include:

- Additional requirements for retrofitting older areas of development to include water quality treatment
- Incentives for regional collaboration
- Pledge to add new types facilities for treatment of toxic tire dust runoff (a.k.a., 6 PPDQ)
- Updated requirements for watershed scale planning (a.k.a., SMAP)
- Street sweeping
- Tree canopy goals and policies

Stormwater Funding

Stormwater funding: also very localized

Local stormwater rates and charges vary by jurisdiction

Scale and sources of funding create challenges for larger, multi-benefit projects

Investments that would bring greatest impact may be in a neighboring jurisdiction

- Uncertainty about “credit” toward regulatory compliance

State Floodplains-by-Design Grant program provide potential model for multi-benefit, large-scale grant funding.





Regional Collaboration Next Steps

- Build on approach and partnerships: Climate change and salmon recovery
- Understand challenges faced by neighboring cities and counties
- Learn from innovations of our neighbors
- Understand scope of actions needed and pace to accomplish regional goals

Examples of Progress: 4 Stormwater Goal Areas

Stormwater Parks

- Projects in White Center and East Renton areas
- National Estuary Program Grant: Stormwater Parks Feasibility Analysis
- Conservation Futures Program policy change
- King County Comprehensive Plan updates
- State engagement: “Stormwater-by-Design”
- Our Green Duwamish: Regional Retrofit Collaboration

Flow Control

- Identifying opportunities to retrofit existing county infrastructure, including parks
- Completion of community co-led GSI strategy for White Center
- Up next: Stormwater Action Plan for Skyway
- Strong community interest in Green Stormwater Infrastructure

Roadway Treatment

- Testing of high-performance soil mix – highly effective in filtering tire dust
- Now updating King County Surface Water Design Manual
- Heat mapping for toxic tire dust runoff
- Water quality treatment as part of fish passage projects

Source Control

- PFAS actions
- Sustainable Purchasing Policy Update
- State policy and funding
- Contaminants of Emerging Concern framework in development