



Washington Stormwater Center

The Washington Stormwater Center provides stormwater leadership through research, training and education.

Stormwater runoff is the number one source of pollution affecting Washington’s rivers, streams, and the Puget Sound. Stormwater picks up harmful bacteria, excess nutrients, and toxic chemicals that, when left untreated, make the Puget Sound unfit for swimming, recreation, shellfish harvesting, and tribal, recreational, and commercial fisheries. Stormwater also impacts our neighborhoods. When stormwater flows into streams and/or overwhelms storm sewers, the result is scouring of fish habitat, and flooding of sewer systems that can then damage homes, roads, utilities, and negatively impact groundwater. The pollutants carried in stormwater have now been shown to cause damage to our salmon species.

In 2009, the Washington State Legislature passed legislation (RCW 90.48.545) to create the Washington Stormwater Center (WSC) as a partnership among business, government, and academics. WSC was charged to protect Washington’s waters through improvements in integrated NPDES education, permit technical assistance, stormwater management, evaluation of new stormwater technologies, and stormwater research. The WSC was established in 2010 as a joint center between the Washington State University Puyallup Research and Extension Center and the University of Washington-Tacoma (UW-T) Center for Urban Waters.

Select Current Research

- Effects of stormwater pollutants on Pacific Salmon species
- Effects of pesticide mixtures on aquatic invertebrate communities
- Effects of stormwater pollutants on Zebra fish
- Modeling the effects of pollutants on endangered species

Meet Our Team

Program Leads

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Lead Investigator

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Goals, Progress & Contributions



WHAT WE DO.

- Research innovative and cost-effective technical solutions for removing pollutants from runoff and reducing stormwater discharge.
- Assist jurisdictions and businesses to comply with their stormwater permits through technical support, education, and training.
- Evaluate emerging stormwater treatment technologies.
- Provide a clearinghouse for stormwater resources.
- Coordinate with agencies and private organizations in administering programs related to stormwater control measures.
- Stormwater Strategic Initiative Lead Team (SIL). A partnership between the Washington State Department of Ecology, the Washington Stormwater Center at WSU and the Washington State Department of Commerce that works on stormwater strategies to support Puget Sound recovery.

RESEARCH PROGRAMS.

Since its inception, the WSC has secured over \$10 million in public and private grant funding. We are presently conducting approximately 20 research projects (see *Select Current Research* on opposite for an excerpt of current projects). These projects address the different sources and types of pollutants found in stormwater, toxicity of stormwater to aquatic organisms, with particular emphasis on endangered salmon, and techniques to reduce or remove pollutants in stormwater in a cost-effective manner. Furthermore, we educate our stakeholders on the newest scientific discoveries in the stormwater area, help business and municipal stormwater permittees successfully meet their permit requirements, and evaluate new stormwater technologies.

TECHNICAL ASSISTANCE FOR STORMWATER MANAGEMENT.

The Washington Department of Ecology issues permits to municipalities, industrial businesses, construction projects, and others. Our Technical Assistance Program assists these permittees with resources, tools, training, and technical guidance to maintain compliance with the permits that protect our waters from stormwater pollution.

EMERGING TECHNOLOGY PROGRAM.

Also known as Technology Assessment Protocol, Ecology (TAPE), this program provides a peer-reviewed regulatory certification process for manufactured treatment devices (MTDs) for stormwater treatment use in Washington State. WSC staff serve as the technical lead for TAPE and manage the operation and development of the program in partnership with Ecology.



PUGET SOUND RECOVERY.

This program is currently funded by \$5 million over five years from the EPA National Estuary Program. The Stormwater Team funds diverse projects—research, green infrastructure, decision support tools, and collaborative approach pilots, among others, and uses its water quality Implementation Strategies—the Benthic Index of Biotic Integrity, Toxics in Fish and Marine Water Quality—to identify opportunities, strategic intervention points and communities of practice for implementation.

LOW IMPACT DEVELOPMENT TRAINING

WSC offers two tracks for our LID Training Certificate program—*Green Infrastructure Design*, and *Operations & Maintenance*. These self-paced online courses include the theoretical basis for designing and maintaining LID systems.



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