

STORMWATER POLLUTION: THE BIG PICTURE

When rain washes over the Puget Sound region, the water that runs off the land is called stormwater. This runoff goes untreated through storm drains to the nearest water body and can overload sewage treatment systems. This creates two big issues: polluted water and too much water.

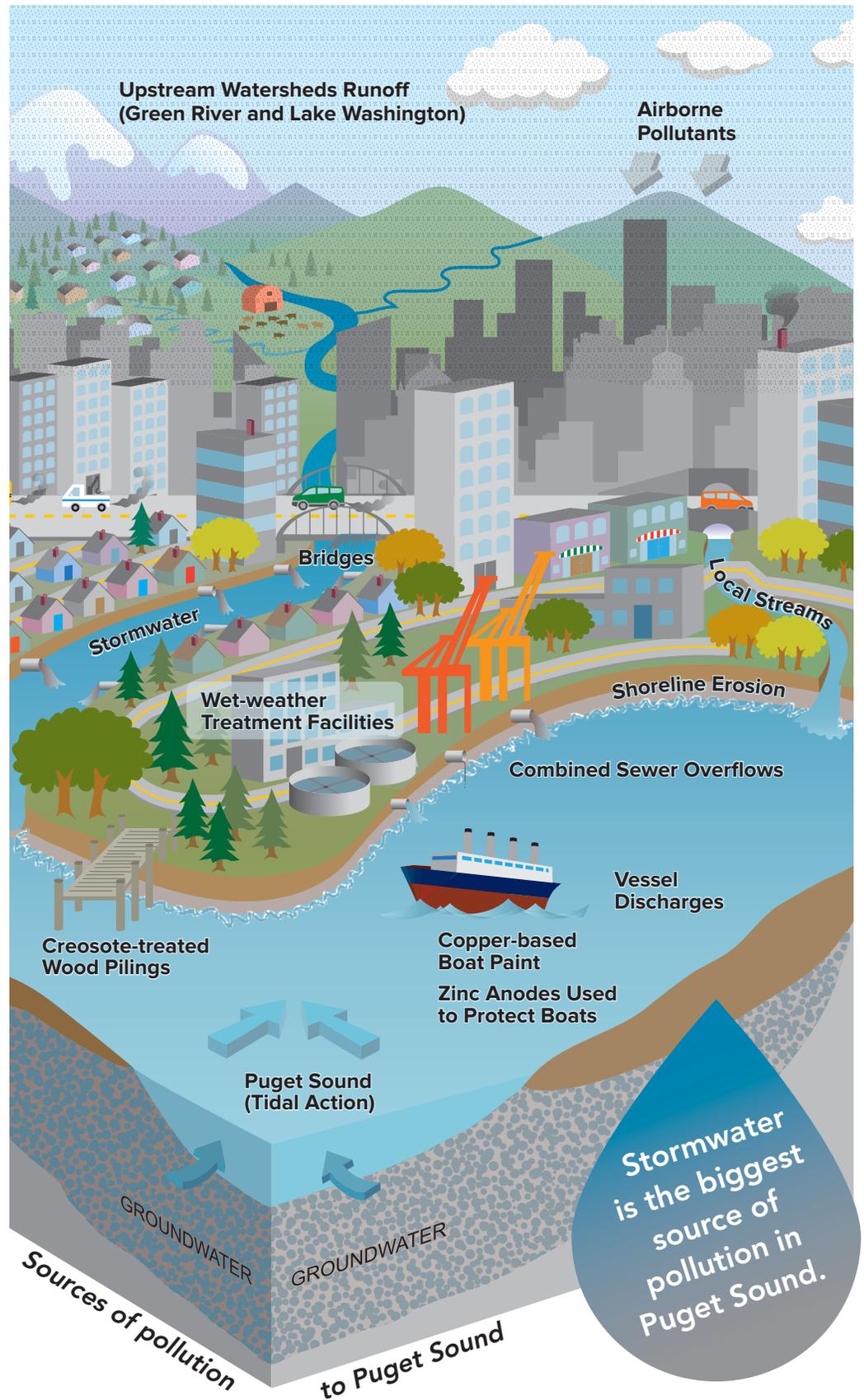
Polluted water

Stormwater runoff carries dirt, vehicle oils, and toxic chemicals like fertilizers, bacteria and waste from pets, livestock, and failing septic systems into our local waters.

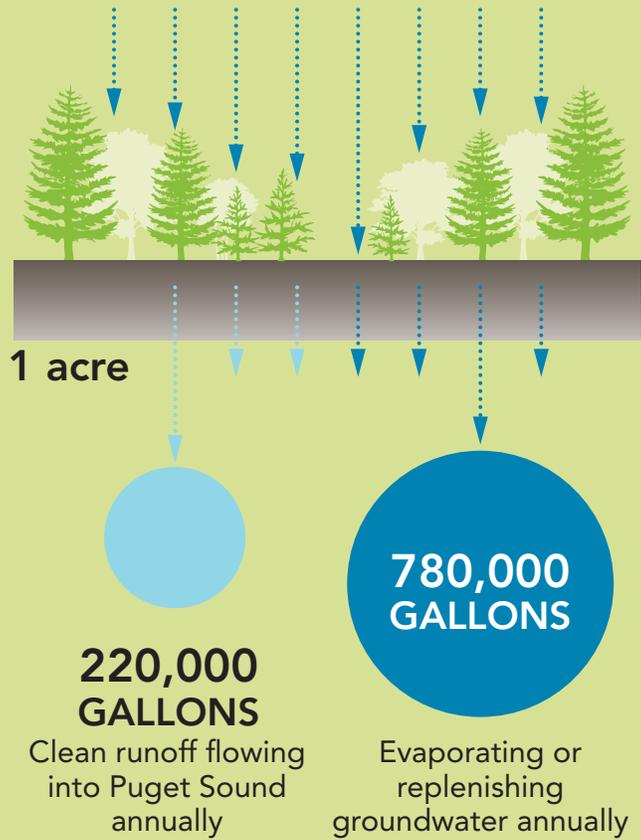
This pollution threatens clean drinking water and harms wildlife, salmon, Orcas, clams and shellfish. It can be a public health problem and close swimming and shellfishing beaches.

Too much water

When lands are developed, hard surfaces like pavement increase stormwater flows as less rain soaks into the ground. Our region is growing, and more stormwater will flow directly into our local waters.



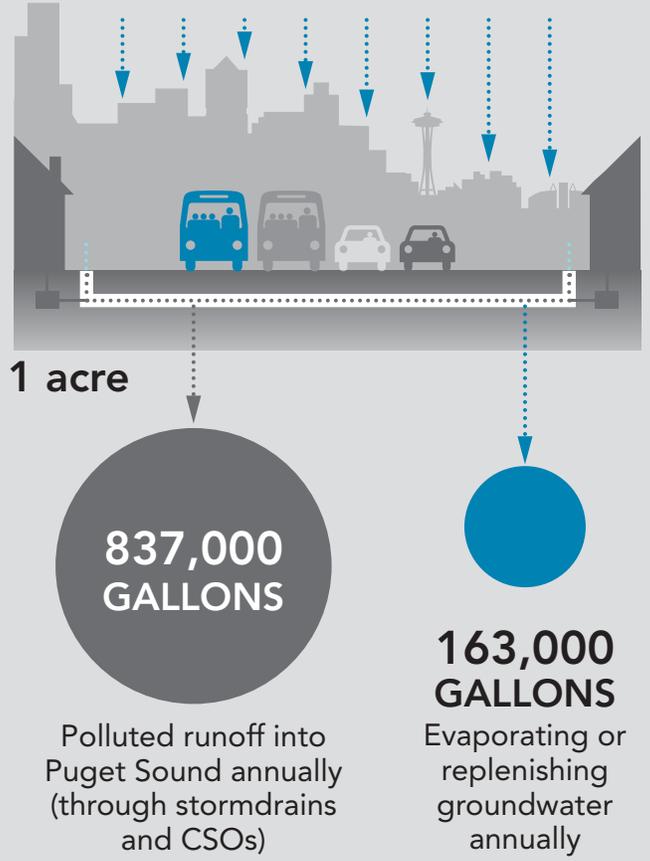
FORESTED LAND COVER in King County



In nature, stormwater is slowed by trees and plants, soaks into soil, and is slowly

filtered back into rivers, lakes and streams. In Washington's forests, needles of evergreen trees can hold up to 40 percent of a gentle rain shower. Plants, roots and good bacteria and fungus work together to break down organic matter and clean the water.

HIGHLY URBAN LAND COVER in King County



Source: King County

The urban environment

is built on hard surfaces. Concrete, glass, steel, asphalt, and even compacted soil don't absorb stormwater. Instead, rain runs off and carries pollution from all those hard surfaces to our local waters. This increases flooding and landslide risks.

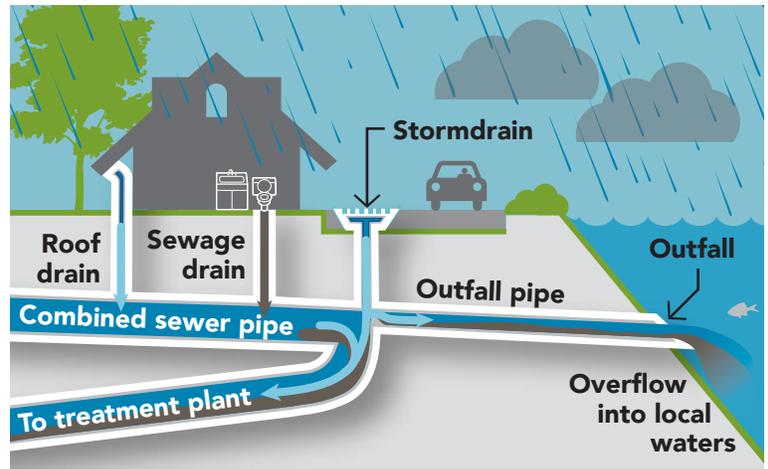


Credit: Graphics based on original concept from The Nature Conservancy, updated with King County data.

Sewage and stormwater treatment

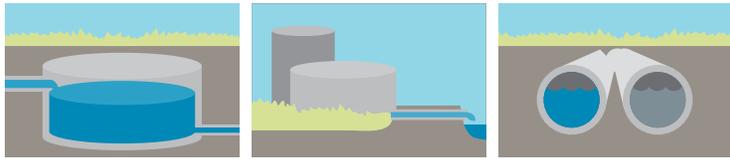
In the oldest parts of Seattle, stormwater runoff flows into the sewer system. During heavy rains, runoff mixed with small amounts of sewage can overflow into our waterways to prevent backups in homes and businesses. These are known as “combined sewer overflows” or “CSOs.”

King County’s West Point Treatment Plant treats stormwater and sewage for the greater Seattle area 24 hours a day, 365 days a year. Four wet weather plants operate during big rain storms.



During heavy rains, combined sewer overflows (CSOs) can enter local waterways.

How do we control CSOs?



Storage

Runoff is stored in large tanks or pipes and sent to a treatment plant when the rain stops.

Treatment

Wet Weather Plants treat stormwater and sewage before it’s released to waterways.

Separation

Stormwater is separated out of the sewer system using either gray or green infrastructure.

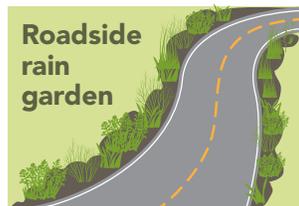
Infrastructure: Green & Gray

King County is among many utilities nationwide turning to natural, or “green,” systems to control polluted runoff.

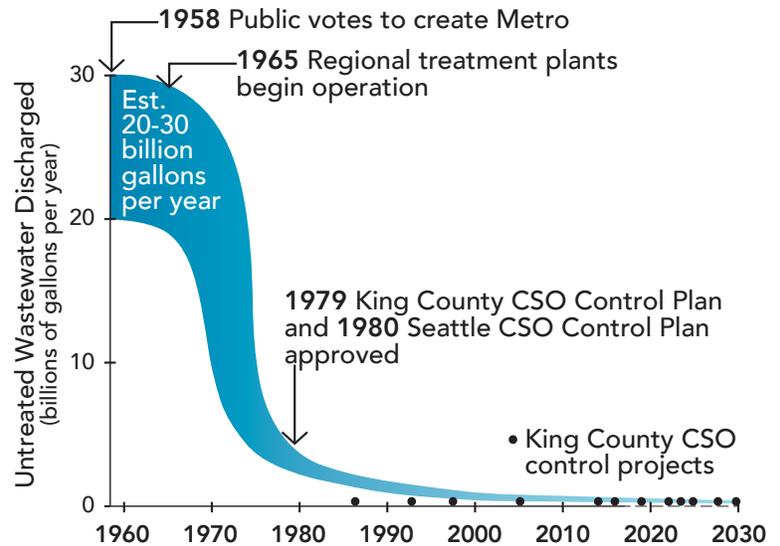
For example, rain gardens

hold and filter stormwater into the ground to keep runoff out of the sewer system and out of our waters.

Gray infrastructure refers to pipes, pumps and water treatment plants. In some areas, this is still the best way to control polluted runoff.



History of stormwater/sewage pollution control



King County is completing **nine projects** to control overflows by 2030 and reduce pollution in the Duwamish River, Lake Washington Ship Canal, and Puget Sound.

King County is tackling the massive need to repair aging infrastructure and prevent pollution, flooding, soil erosion, and drainage problems by implementing programs to assist landowners, restore habitat, and construct new facilities that keep stormwater clean.

STORMWATER POLLUTION: WHAT CAN BE DONE?

What are we doing as a region?

PRIORITIZE
clean water
when making
decisions about
our region's
future.

INVEST
in infrastructure
to reduce
pollution from
development.

PREVENT
pollution,
which is more
cost-effective
than clean up.



*Washington cities and
counties working together.*

Everyone is part of the solution! How you can help:

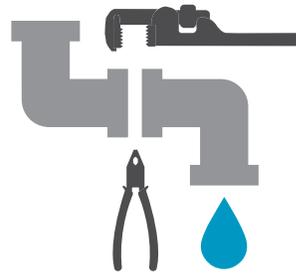
Managing runoff on your property decreases pollution and helps reduce flooding.
Here are some ideas:



Get advice from a professional (landscapers or local public agencies) on how to keep runoff out of the stormwater system.



Reroute a downspout to help rain soak into soil. Install a rain garden, a cistern, or rain barrel for storing water.



Repair leaky side sewers or failing septic systems.



Prevent pollution. Avoid pesticides, clean up pet waste, fix car and truck leaks, and keep soap, paints and cleaners out of storm drains.

Want to learn more? *Check out these websites!*

- ◆ King County Protecting Our Waters (CSO Control) www.kingcounty.gov/csocontrol
- ◆ Be RainWise! See if you can get a rebate for installing a rain garden or cistern www.700milliongallons.org
- ◆ Natural Yard Care, Don't Drip and Drive, Drain Rangers, and Dog Doogity tips and events are at Puget Sound Starts Here www.pugetsoundstartshere.org
- ◆ King County 2016 Water Quality Assessment www.kingcounty.gov/water-quality-assessment
- ◆ King County Stormwater Services www.kingcounty.gov/stormwater

Alternate formats available. Please call 206-477-4800 or TTY: 711.