Snohomish Conservation District

STREAMBANK EROSION

If you have spent time near a stream or river, you know that the channel doesn't stay put. Rivers and streams are dynamic. They are rarely naturally straight; rather, they wind their way through the landscape, meandering back and forth. Bank erosion—where the soil along a stream or river is washed away—is a natural process and is important for creating and maintaining habitat for salmon and other fish and wildlife.

EROSION: How It Happens

Erosion naturally happens at the outside of river bends where water is moving quickly. At the inside of stream bends, where water is moving slowly, sediment builds up. The result is a stream channel that is always slowly migrating in the direction of the outside of the bend.

While erosion will happen naturally, certain factors can speed up the process and cause problems. One of the most common issues is a lack of a soil-stabilizing root system. Grass or sparse vegetation doesn't have the same effect as larger plants. Without a tree or shrub root system to hold soil in place, both surface water and the current can work together to erode the bank.

Removing large pieces of wood from the stream channel can also lead to increased erosion. Wood in the channel slows water down, lessening the impact of high velocity water on some banks.

In contrast, structures installed within a stream channel can actually accelerate stream bank erosion. Whether its large rocks or rubble, a bridge or culvert, or other kinds of structures, anything that restricts the water flow can increase water velocity and may create problems for downstream properties.

WHAT CAN I DO TO REDUCE PROPERTY EROSION?

Plants are your first line of defense. Trees and shrubs slow surface water and increase water infiltration into soil, thereby reducing erosive energy. Native streamside plants also "drink" a lot of water—some species of native trees can absorb over 20 gallons of water per day during the growing season.

LEARN MORE

Contact the Habitat Team at 425-335-5634 or email assistance@snohomishcd.org.

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BEST NATIVE PLANTS FOR EROSION

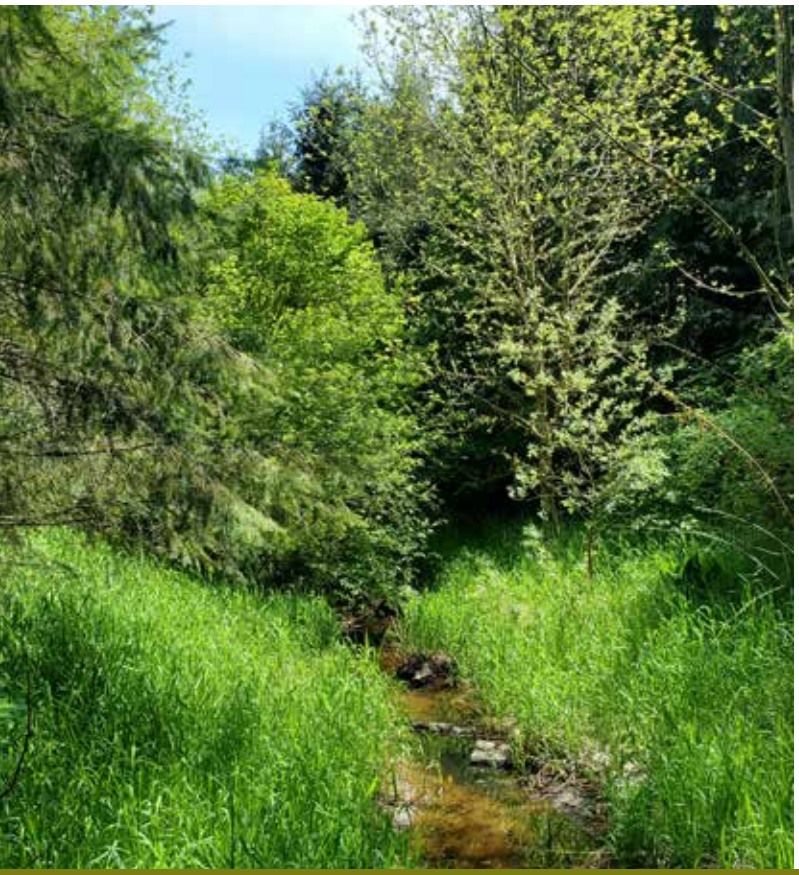
You'll want to consider plant species that grow fast and have strong root systems. The plantings will also need to be wide and dense enough in order to be effective. Don't plant invasive plants or noxious weeds! Often, these plants hide or accelerate erosion problems. They also compete with native streamside species, crowding out habitat for our local species and working against your goal to establish native vegetation.

DEVELOP A PLANTING PLAN

Consider plant requirements and plant characteristics before breaking ground.

- Soil
- Light
- Moisture
- Ability to spread
- Tolerance to flooding
- Susceptibility to wildlife
- Wildlife habitat benefits

To find low-cost plant materials, look for wholesale nurseries and check out conservation district plant sales or Washington Native Plant Society plant sales.



FOR SHORT-TERM HELP

If you have rapid, active erosion happening on your property, you might need a more immediate response. Many soil stabilization techniques require technical or engineered design work, and all work in a stream channel requires permits. These techniques vary from low-cost, low-complexity willow fascines (willow cuttings bundled and planted along a streambank) to high-cost and highly-technical bank stabilization projects that incorporate planting and in-channel structures including large wood.

If you have an eroding stream bank, contact Snohomish County Surface Water Management Cooperative Bank Stabilization Program, Washington Department of Fish and Wildlife, or contact us to schedule a visit to your property.

MEET YOUR CONSERVATION DISTRICT

Conservation districts partner with residents to steward land, water, forests, wildlife and related natural resources. To learn more about how your local conservation district can work with you, visit our website at **snohomishcd.org.**