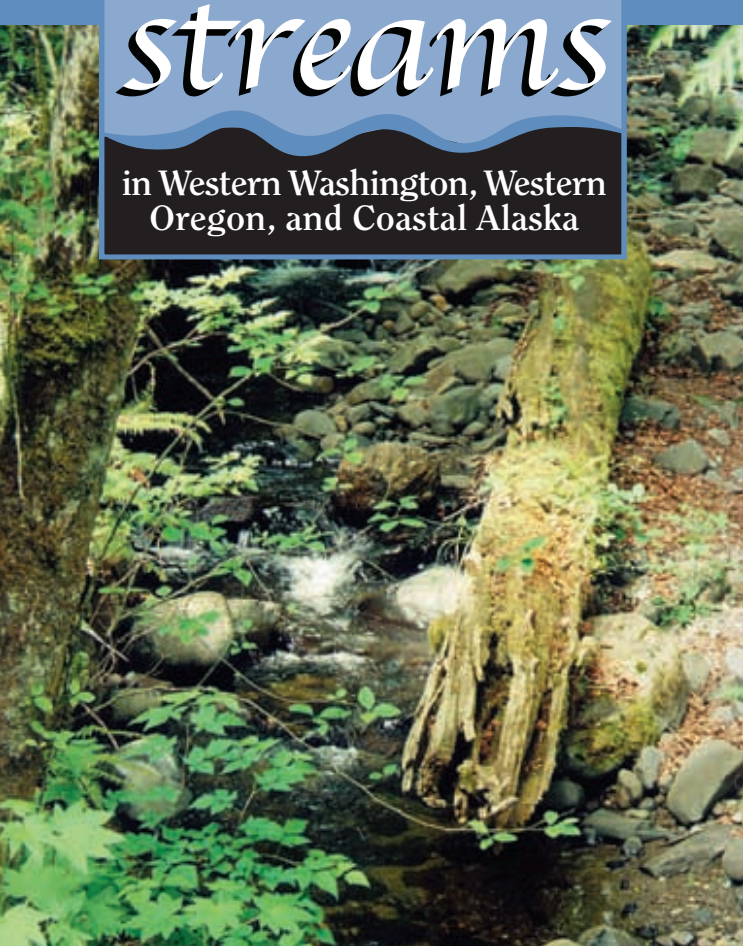




Taking Care of

streams

in Western Washington, Western Oregon, and Coastal Alaska



A Homeowner's Guide to Riparian Areas

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Oregon State University • University of Idaho • Washington State University
in cooperation with the University of Alaska

As a homeowner in the Pacific Northwest, you have a unique opportunity to help maintain or improve the health of streams and riparian areas.

A riparian area is the area of land adjacent to a stream, lake, or wetland. Most healthy, natural riparian areas have moist, fertile soils that support many different types of moisture-loving plants. These plants provide food and shelter to numerous fish and wildlife.

Healthy riparian areas:

- Reduce the chance of flooding
- Improve water quality
- Provide habitat for wildlife, including salmon

Why do riparian areas matter?

Plants in healthy riparian areas:

- Provide wood to streams, creating fish habitat and slowing the stream current after a storm.
- Shade streams in summer. Cool water is healthier for many native fish species.
- Help prevent erosion by holding soil in place with their roots.
- Filter sediment out of muddy runoff, keeping it from smothering fish habitat.
- Allow heavy winter rains to soak into the soil instead of running into the stream. This allows water to be slowly released to the stream during the dry season.
- Filter out pollutants, such as fertilizers, pesticides, and animal wastes.
- Provide important food, homes, shelter, and travel corridors for wildlife.

The bottom line is:

- Less winter flooding
- More water in the stream during summer
- Cleaner water
- Homes and food for wildlife, including many species of fish, insects, amphibians, reptiles, birds, and mammals



It's all about plants

Healthy riparian areas include a variety of types and ages of plants, including trees, shrubs, grasses, and groundcovers. Plants adapted to the local rainfall, climate, insects, and soil conditions tend to be easier to care for because they need less water and pesticides.

Most native plants are well adapted to their region. In the Pacific Northwest, a few of the common native riparian plants are:

- Swamp rose
- Ocean spray
- Elderberry
- Salmonberry
- Snowberry
- Willows
- Pacific ninebark
- Black cottonwood
- Oregon ash
- Red-osier dogwood
- Alders
- Western redcedar
- Western hemlock
- Douglas-fir

Elderberry



Red osier dogwood



Red flowering currant





Lawn and garden chemicals from this backyard can run directly into the stream.

How do people change riparian areas?

Removing plants through construction and landscaping, especially in the riparian area, can harm streams. Plants, particularly trees and shrubs, catch rainfall and allow it to slowly soak into the ground instead of quickly running into streams. When water runoff from storms reaches streams too quickly, more erosion and flooding occur downstream. More rainwater, pesticides, fertilizers, and sediment reach the stream in areas without riparian plants to slow and filter them.

When streams and riparian areas are not healthy, people feel the consequences:

- We lose recreational areas.
- Fish and wildlife decline, reducing opportunities for hunting, fishing, and wildlife viewing.
- Increased flooding may cause property damage.
- The region may lose economic opportunities because people avoid unattractive and unhealthy areas.

Always be aware of ways you can reduce the amount of water flowing downhill from your property.

What Can You Do?

Take care of plants and the streamside

- Promote dense vegetation to reduce runoff and trap contaminants.
- Learn about native plants and use them where appropriate.
- Restore eroded streambanks with help from a professional.
- Leave wood and other natural materials in streams.
- Don't straighten channels or place rubble or rip-rap on stream banks.
- Use a small switchback trail to cut down on erosion in steep areas.

Grow and maintain a stream-friendly garden and lawn

- Leave as many native plants as possible near streams and everywhere!
- Plant native plants—their care can be easier because they often are more tolerant of insects and low summer rainfall.
- Minimize the use of pesticides and chemical fertilizers. Consider using natural, slow-release fertilizers.
- Locate compost piles on flat surfaces away from streams or drainage areas, and keep them covered during the wet winter months. Keep grass clippings away from streams.



Be careful when you build

- Leave as many native plants as possible near streams and everywhere!
- Plan new construction away from existing streams and wetlands instead of modifying them.
- Minimize paved areas. Keep the roof area, walkways, and driveways as small as possible.
- Use gravel or bark instead of pavement for paths and driveways.
- Always observe local ordinances and get proper permits.
- Leave as wide of a vegetation buffer as possible next to the stream.

There's more you can do around the house

- Don't pour soapy water, automobile oil, paint, household chemicals, or pesticides down storm drains. Drains are often connected directly to streams.
- Direct gutters away from streams, pavement, and septic drain fields, and into areas where water can seep slowly into the soil.
- Inspect your septic system annually and pump as necessary.
- Keep pet waste away from streams, riparian areas, and paved areas. Put pet waste in a bag and place it in the trash.
- Use less toxic or nontoxic household cleaners.



**Make caring for the stream
a family project.**



Install a bark path instead of pavement.



Plant native species—they can be easier to care for.



Don't dump waste. Drains often connect to streams.



Oregon grape



*Bunchberry dogwood
and lady fern*

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For more information

Stream Corridor Restoration—Principles, Processes, and Practices

(The Federal Interagency Stream Restoration Working Group,
1998, revised August 2000)

http://www.usda.gov/stream_restoration

Life on the Edge: Improving Riparian Function

(D. Godwin, 2000, Oregon State University Extension Service, EM 8738)

<http://eesc.orst.edu/agcomwebfile/edmat/EM8738.pdf>

EPA literature review on low-impact development techniques

<http://www.epa.gov/owow/nps/lidlit.html>

Grow Your Own Native Landscape

(M. Leigh, revised 1999, Washington State University Cooperative Extension, Misc.0273)

<http://gardening.wsu.edu/nwnative/>

EPA Region 10

Seattle, WA

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800-424-4372 (toll free within AK, ID, OR, WA)

<http://www.epa.gov/r10earth/>

Oregon

Oregon State University Extension Service

Contact your local office or call:

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<http://oregonstate.edu/extension/>

Alaska

Alaska Cooperative Extension

Contact your local office or call:

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<http://www.uaf.edu/coop-ext/>

Washington

WSU Cooperative Extension

Contact your local office or call:

509-335-2885

<http://wawater.wsu.edu>

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