

# Forest Landowners

Working together, Oregonians have the opportunity to help restore clean water and wild salmon for the benefit of us all and for future generations. The suggestions in this guide are practical changes we can consider making in our daily land management, work and lives to support this statewide restoration effort. These suggestions do not substitute for any local, state or federal legal regulations.

For more information on these and other ways we can modify our activities to help restore clean water and salmon, please contact the Oregon Department of Forestry at (503) 945-7200.

This guide for forest landowners is part of a series of lists targeting a wide variety of groups in Oregon. For information on other guides in this series, please contact the Governor's Natural Resources Office at (503) 378-3589.



**THE OREGON PLAN**  
*for salmon & watersheds*

# Ten ways forest landowners can help restore clean water and salmon

## streamside trees

- Grow and retain large conifers along streams. Streamside trees provide habitat, shade the waterway, stabilize streambanks, and provide a source of future large wood in the stream channel. Naturally fallen large wood can create the complex instream habitat essential for many fish and other aquatic organisms.

## native plants

- Plant native plants on cutbanks, ditches and exposed soils. Vegetation can help stabilize banks and reduce the amount of sediment that erodes into streams. Excess sediment runoff into streams can carry pollutants, cover gravel spawning and rearing beds needed by salmon, and reduce the amount of oxygen available to fish and other aquatic life.

## relief culverts and water bars

- Install cross-drain relief culverts and water bars on roads and skidroads. These help to reduce waters flowing directly down roads, which can cause erosion and carry sediments to streams. By diverting water from road surfaces and drainage ditches onto the forest floor, sediment can be filtered out of the water before it enters streams.

## debris and road-side material

- Pull debris and road-side material away from steep forest slopes. Material left on slopes can send mass slides into the stream, blocking fish passage and increasing sediment loads.

## road degradation

- Block dirt roads during wet weather. Preventing use during periods of high rain or snowmelt protects roads from degradation and reduces erosion.

## log hauling

- Haul logs only on rocked roads in wet weather. It is best to limit harvest activity during extremely wet periods. However, hauling on roads surfaced with high-quality, clean rock can significantly reduce the amount of sediment that reaches streams.

## culverts

- Replace culverts that block fish passage.\* Poor design and sizing, improper installation, or lack of maintenance can cause culverts to block juvenile and adult fish from successfully reaching critical upstream or downstream habitat.

## instream wood and rocks

- Place large wood and rocks in scoured or previously disturbed streams.\* Artificial placement of rocks and logs can help recreate complex in-stream the structure needed to trap gravel and create pools; essential elements for salmon spawning and rearing habitat.

## off-channel fish habitat

- Restore or create off-channel fish habitat (side channels).\* Off-channel habitat is important to salmon, steelhead, and trout for feeding, resting and avoiding predators.

## your watershed council

- Become an active member of your local watershed council. Watershed councils give the many landowners in a basin a place to share ideas and plans.

\*Before beginning any type of instream or streamside restoration projects, consult the Oregon Aquatic Habitat Restoration and Enhancement Guide-1998, or your local Oregon Department of Fish and Wildlife fisheries biologist.