

Executive Summary: Oregon Small Woodlands Association's Riparian Management Area Positions

January 7, 2015

Best Available Science

- The Protecting Cold Water standard, adopted by the Environmental Quality Commission, is a policy call. The 0.3 degree Celsius threshold in the PCW standard lacks any scientific justification.
- The RipStream study did demonstrate stream temperatures can temporarily increase by a minor amount following a clear-cut harvest when the maximum number of trees are removed in compliance with the Forest Practices Act.
- Statistically, on RipStream private forest harvests, stream temperatures increased from the top of a clear-cut unit to the bottom of the unit, on average 0.7 degree Celsius, 40% of the time.
- Temperatures decrease downstream from the bottom of the harvest units. The greater the increase in the unit, the quicker the temperature reduces downstream from the unit.
- No RipStream sites were on family woodland ownerships.
- All private RipStream sites were in second growth forests.
- There is no evidence that the temperature increases documented in RipStream are harmful to fish or aquatic organisms:
 - Temperature diversity is not threatened by small, temporary increases;
 - Increases are within the range of variability; and
 - Heat does not accumulate downstream, except in theory.
- Paired watershed studies demonstrate that:
 - Small increases in temperature when below the biological numerical criteria do not negatively affect anadromous or resident salmonids; and
 - More fish biomass is produced in 'no shade' areas.
- Gaps in riparian canopies are expected as stands develop into desired future conditions.

Rules to mitigate non-compliance with PCW standard

- Balance competing benefits where more shade creates cooler water, versus less shade that enhances the complex food chain of organisms where fish are the top predator.
- Amend the Desired Future Conditions rule (see Appendix) to recognize that RMAs historically contained a mixture of hardwoods and conifers and canopy gaps.
 - Amend basal area rule to include hardwoods.
- Adopt voluntary rules for RMAs along small and medium fish bearing streams with a clear goal and purpose to complement current rules by leaving more shade where applicable.
 - Goal: maximize shading from solar radiation during 7DayMax period
 - Allow basal area to be shifted from the 'north side' of RMA to the 'sun-side' to block incoming solar radiation
 - Count hardwoods in basal area
 - Encourage leaving all hardwoods that provide shade to streams

Monitoring and Partners

- Monitor harvests under the voluntary measures and report to the Board.
 - Cooperative effort by landowner and ODF
- Encourage Board to complete analysis of downstream temperature recovery in RipStream sites from 1 to 5 years and 5 years to 10 years.
- Emphasize voluntary strategies in a re-vitalized Oregon Plan.

Appendix: Current Rule

VEGETATION RETENTION GOALS FOR STREAMS; DESIRED FUTURE CONDITIONS

OAR 629-640-000

- (1) *The purpose of this rule is to describe how the vegetation retention measures for streams were determined, their purpose and how the measures are implemented. The vegetation retention requirements for streams described in OAR 629-640-100 through OAR 629-640-400 are designed to produce desired future conditions for the wide range of stand types, channel conditions, and disturbance regimes that exist throughout forestlands in Oregon.*
- (2) *The desired future condition for streamside areas along fish use streams is to grow and retain vegetation so that, over time, average conditions across the landscape become similar to those of mature streamside stands. Oregon has a tremendous diversity of forest tree species growing along waters of the state and the age of mature streamside stands varies by species. Mature streamside stands are often dominated by conifer trees. For many conifer stands, mature stands occur between 80 and 200 years of stand age. Hardwood stands and some conifer stands may become mature at an earlier age. Mature stands provide ample shade over the channel, an abundance of large woody debris in the channel, channel-influencing root masses along the edge of the high water level, snags, and regular inputs of nutrients through litter fall.*

Recommended Change:

- (2) *The desired future condition for streamside areas along fish use streams is to grow and retain vegetation so that, over time, average conditions across the landscape become similar to those of mature streamside stands. Oregon has a tremendous diversity of forest tree species growing along waters of the state and the age of mature streamside stands varies by species. Mature streamside stands are often dominated by conifer trees, **but may have many hardwood species.** For many conifer stands, mature stands occur between 80 and 200 years of stand age. Hardwood stands and some conifer stands may become mature at an earlier age. Mature stands provide ample shade over the channel, an abundance of large woody debris in the channel, channel-influencing root masses along the edge of the high water level, snags, and regular inputs of nutrients through litter fall.*