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Comments: Comments on the Draft Environmental Impact Statement for the Northwest Forest Plan Amendment
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Contract the Riparian Reserves in Young Forest in Matrix/AMA from two site-potential tree heights on each side of fish-bearing streams to one site-potential tree height on each side.
The NWFP-mandated Aquatic Conservation Strategy (ACS) to protect and restore habitat for salmon and trout populations contains four components:

1. Riparian buffers along fish- and non-fish bearing streams, which were called Riparian Reserves;
2. Key Watersheds crucial to recovery of at-risk fish populations (Tier 1) and protection of high- quality water (Tier 2);
3. Watershed analysis to tailor aquatic conservation to local conditions; and
4. Watershed restoration to help recover degraded aquatic ecosystems.

These four components operate together to protect the productivity and resilience of riparian and aquatic ecosystems through maintaining and restoring the geomorphic and ecological disturbance processes under which fish and other organisms evolved (Johnson, et al., 2023, p. 185). This section examines modifying the Riparian Reserves in Matrix[mdash]all other components of the ACS would remain as they are now.

The NWFP implemented Riparian Reserves of two site-potential tree heights on fish-bearing streams and one site-potential tree height on non-fish bearing streams, where the height of a site-potential tree in Moist Forest varied from 170-180 feet on the Willamette and Umpqua National Forest to 250 feet on the Siuslaw National Forest. We estimated that implementing that strategy places about 45% of Moist Forests in Riparian Reserves.

Non-fish bearing streams occupy about 2/3 of the stream mileage in Moist Forests of the national forests--most are headwater streams high in the watershed (Reeves, et al. 2016). Thus, fish-bearing and non-fish bearing streams cover approximately the same area (non-fish bearing have twice the milage but half the buffer width of fish bearing). With a total occupancy of 45%, each type of stream occupies about 22% of Moist Forests.

A primary purpose for the extension of the boundary of the riparian reserve of the NWFP from one site- potential tree height to two on fish-bearing streams was to protect and enhance the microclimate of the riparian ecosystem within the ?rst tree height (USDA and USDI 1994). In general, most studies done since FEMAT show that microclimatic changes in temperature and relative humidity seldom extend farther than one site-potential tree height from the clearcut edge into an intact riparian buffer composed of mature forest (Reeves, et al. 2018). Also, the regeneration harvest strategy mandated by the NWFP is not clear cutting, but variable-retention harvest that would leave a signifcant part of the original stand. In addition, such an approach should be limited to the Young Forest under these recommendations; the wider buffer in Old Growth and Mature Forest would be retained.

It is true that the Riparian Reserves are also used and valued for the many other species associated with older forests (Johnson, et al. 2023, Chapter 8). However, this proposal is limited to Young Forest in the Riparian Reserves; the status of Mature and Old-growth Forest within the Riparian Reserves in Matrix is unchanged as it is within LSRs.

Strong consideration should be given to dropping the second site-potential tree height on fish-bearing streams from the Riparian Reserves of Matrix/AMA in Young Forest as Reeves (who helped lead development of the

Aquatic Conservation Strategy in FEMAT) has suggested (Reeves, et al. 2016). Such a change would shift approximately 100,000 acres of Young Forest from Riparian Reserves to Matrix/AMA.1

Make Restoration Thinning in Riparian Reserves an Essential part of Forest Management in Moist Forests

Riparian Reserves are a critical element of the NWFP. They occupy a large proportion of the landscape in moist forests and are important for the persistence and productivity of salmon population segments listed under the Endangered Species Act (ESA) as well as hundreds of terrestrial organisms associated with Mature and Old-growth Forests. These forests have been logged extensively, often to the edge of the stream, prior to the advent of current policies. In many cases, they were subsequently planted with the most commercially valuable conifers, primarily Douglas-fir, resulting in the development of dense, relatively uniform conifer stands and a decrease in hardwoods. As a consequence, riparian areas throughout the NWFP area have been altered and degraded and their ability to provide the necessary ecological functions and benefits compromised.

Thinning in previously managed Riparian Reserves is often overlooked when we talk about restoration thinning; yet it can be argued that it may be the most important restoration work because of the ecological importance and the large proportion of the Moist Forest that Riparian Reserves occupy.

Developers of the NWFP assumed that the thinning rules for LSRs would also generally apply to Riparian Reserves, but it has proven more diffcult to justify thinning Young Forest there because of concerns about efiects on water temperature and wood recruitment along fish-bearing streams. However, harvest methods can be modified to largely overcome these limitations (Reeves, et al. 2016 and Reeves, et al. 2018). As an example, a portion of the trees thinned (perhaps 15-20%) would need to be dedicated to the stream system to overcome loss of wood due to the thinning.

Restoration thinning, based on the principles of Ecological Forestry (Franklin, et al. 2018; Palik, et al. 2021) in previously managed Riparian Reserves along fish and non-fish bearing streams can help restore critical ecological integrity and processes. This will help offset the negative effects of past management by increasing structural diversity, species richness, fowering and fruiting of understory shrubs and

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1 These are gross acres. Adjustments to this total for unstable slopes and other considerations during operational planning would reduce this acreage somewhat.

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herbs, and faster development of mature-forest conditions. It will also provide additional benefits to non-fish bearing streams such as restoring and creating sources of nutrients, energy, wood, sediments, and cool water for fish-bearing streams further downstream. Thinning will be particularly important within the first site potential tree height distance from the stream to gain the maximum benefits.

Literature Cited

Johnson, K. Norman, Jerry F. Franklin, and Gordie H. Reeves. 2023. The Making of the Northwest Forest Plan: The Wild Science of Saving Old Growth Ecosystems. Oregon State University Press.

Franklin Jerry F., K. Norman Johnson, and Debora L. Johnson. 2018. Ecological Forest Management.

Waveland Press.

Palik, B., et al. 2021. Ecological Silviculture. Waveland Press.

Reeves, Gordon H., Brian R. Pickard, and K. Norman Johnson. 2016. An Initial Evaluation of Potential Options for Managing Riparian Reserves of the Aquatic Conservation Strategy of the Northwest Forest Plan. General

Technical Report PNW-GTR-937. Portland, OR: US Forest Service, Pacific Northwest Research Station. https://doi.org/10.2737/PNW-GTR-937.

Reeves, Gordon H., Deanna H. Olson, Steven M. Wondzell, Peter A. Bisson, Sean Gordon, Stephanie A. Miller, Jonathan W. Long, and Michael J. Furniss. 2018. "The Aquatic Conservation Strategy of the Northwest Forest Plan[mdash]A Review of Relevant Science after 23 Years." In Synthesis of Science to Inform Land Management within the Northwest Forest Plan Area, vol. 2, technical coordinators Thomas A. Spies, Peter A. Stine, Rebecca Gravenmier, Jonathan W. Long, Matthew

J. Reilly, and Rhonda Mazza, 461-607. General Technical Report PNW- GTR-966. Portland, OR: US Forest Service, Pacifc Northwest Research Station. https://doi.org/10.2737/PNW-GTR-966.

USDA and USDI. 1994. "Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl." https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3841091.pdf.

Gordie Reeves is retired fish ecologist, Pacific Northwest Research Station, US Forest Service and Norm Johnson is a retired forest planning and policy professor at Oregon State University. They helped develop the scientific underpinning of the Northwest Forest Plan and are co-authors of The Making of the Northwest Forest Plan: The Wild Science of Saving Old Growth Ecosystems (2023, OSU Press). Debbie Johnson is a professional forester with 40 years of experience who assisted in writing the NWFP book.

ATTACHMENT-LETTER TEXT: Comments Reeves Johnson and Johnson.pdf; this is the same content that is coded in text box; it was originally included as an attachment