Purpose of Study:

To evaluate the effectiveness, and operational and economic feasibility, of using hardwood conversion treatments to reestablish conifers in hardwood-dominated riparian stands.
Study Frame:

• Before-After Case Study Design

• Eight riparian study sites selected from a pool of twenty.
Eligible Sites:

- Hardwoods dominated conifers.
- The sites historically grew conifers.
- Landowners willing to share information about the sites and silvicultural practices.
Harvest Prescriptions:

• No harvest 25’ feet from BF edge or CMZ.
• Retain all conifers in core and inner zones.
• Successfully re-establish a conifer stand.

Harvest and regeneration prescriptions were otherwise left to landowners discretion.
• Hardwood conversion treatments were implemented on a total of 20.5 acres across the eight study.

• 1.1 – 3.6 acres were converted at each of the sites.

• Recovery monitoring occurred at four and ten years post-harvest.
Results

Silvicultural Results:

• Seedling survival higher when shade and moisture-tolerant species planted.

• Survival and growth higher with less competing veg., and larger seedlings.

• Height-growth greater with leaders of trees above competing vegetation.

• After 10 years, conversion areas do not meet restocking standard of 150 trees per acre greater than 8 inches dbh (WAC 222-30-021(1)(b)(i)(D)).

• All sites >150 conifer trees per acre, but no tree had reached 8 inches dbh.

• Competing vegetation is biggest challenge to conifer regeneration.
Economic Results:

• **Average stumpage values** were higher in the conversion areas, because of generally greater volumes of high-value red alder.

• **Per-acre stumpage values** were higher in upland areas, because more total volume could be harvested from each upland acre.

• All conversion areas were profitable after deducting regeneration and administrative costs from stumpage values.
The study does not tell us several things:

• Effect hardwood conversion treatments on shade, stream temperature, and LWD recruitment.

• When or if conversions will meet the regeneration criteria.

• If the case study findings are broadly representative of other hardwood conversion sites.
TFW Policy Recommendations:

No Action by the Board is recommended.

Policy recognized the study:

- Is a collection of case studies with limited ability to assess cause and effect or to identify BMPs.
- Did not examine the effectiveness of the HWC rules, or the effects of the harvests on riparian functions.
- Cannot be confidently extrapolated to other sites.
Policy is currently planning to consider:

• Resampling the eight sites to verify if and when they meet the approval standard.
• If a larger experimental study should be developed.
Questions?