Large Wood Recruitment: Effects of Different Regulatory Approaches on Outcomes in Riparian Areas

Western Forest Economist Meeting
May 9, 2007

Mike Cafferata, Oregon
Department of Forestry

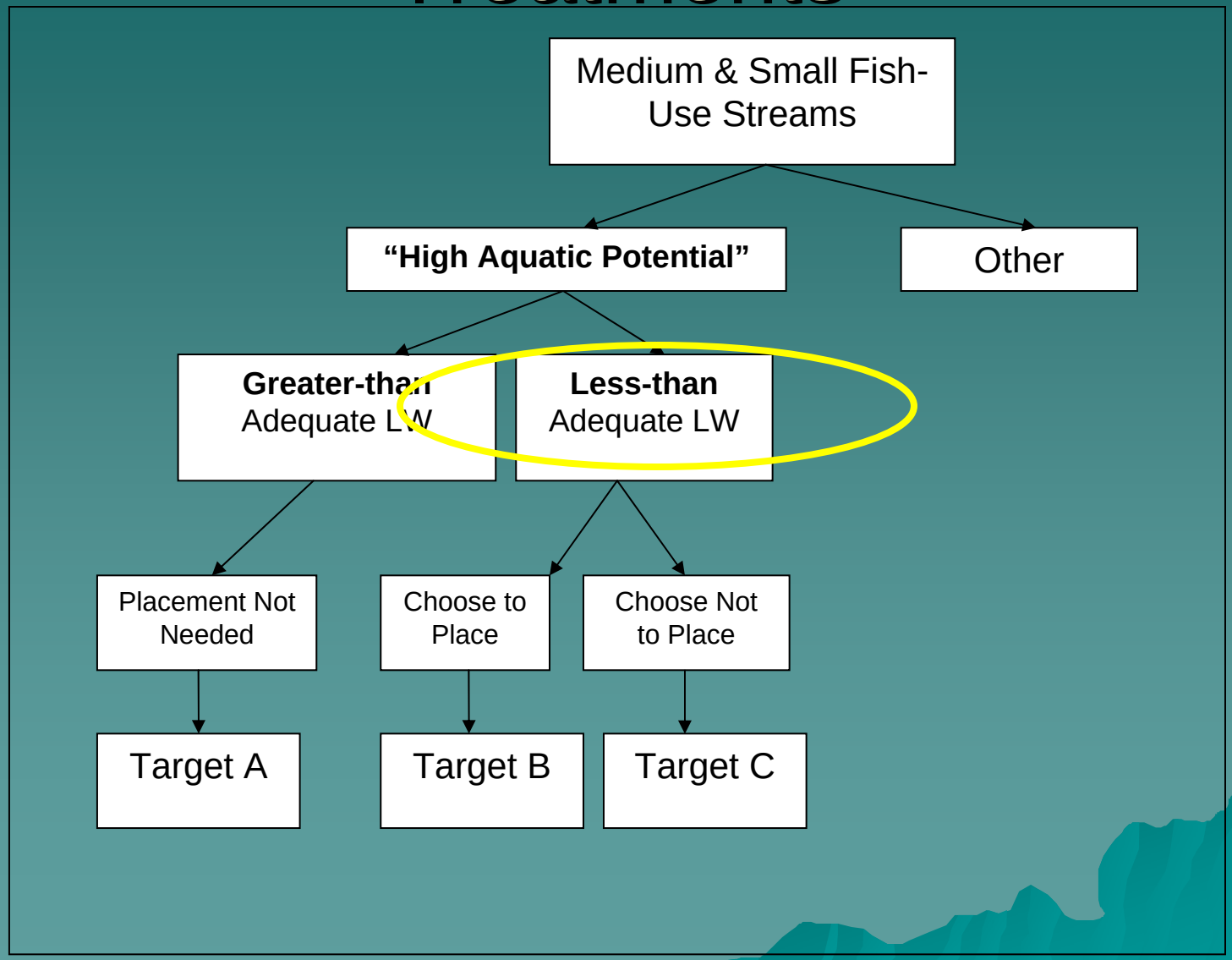
Goals of Oregon's (forest) Water Protection Rules

- Provide resource protection during operations
- Improve the functions of streams, wetlands, lakes, and RMAs including:
  - water quality
  - hydrologic functions
  - F&W resources.
- Desired Future Condition

Current retention requirements have a low likelihood of meeting the desired future condition goal (OAR 629-640-0000)

- Forest Practices Advisory Committee on Salmon and Watersheds
- Sufficiency Analysis
- Monitoring
  - 59% reduction in key pieces on small fishbearing, 35% on medium fish bearing

Overview of Potential Stream Treatments



Today – Have a discussion about landowner choices under different scenarios – So we can predict outcomes in RMAs.

Hypothesis:

- We can predict the likely outcomes in RMAs based on the difference between Target B and Target C.

- Retention in Target C – Retention in Target B = Placement Costs

Target B could be:
(if a landowner chooses to place)

- Menu of possibilities
  - 1. Fixed width?
  - 2. Fixed width plus basal area (Old Rule Standards?)
  - 3. Hardwood conversion?
  - 4. Compensation?

Target C:
(stream needs wood, but landowner chooses not to place)

- Target C
  - Wider fixed width than Target B
  - Fixed width + a higher basal area than B and than current rules.
  - Existing fixed width RMA but no active management in RMA
  - No compensation?

- Can we predict the likely outcomes on RMAs depending on retention requirements ???

- Assumption: Difference in retention value available for removal must be greater than the costs...

- Value based on:

  (Volume and Value of Wood less Harvesting costs)

Placement Costs

- Cost of RMA survey
- Value of large wood for placement
- Cost of placement
- Cost of permitting/admin
- Cost of reforestation

Does this work?

Today's Rules – Basal Area Credit:

- For each log in a small stream, receive 1X the basal area credit.
- S/F Maximum 20 ft^2 basal area/1000'
  - Assumes conifer basal area is available

Small F Stream - Value

- Retention in C = 20’ + 40 ft^2
- Retention in B = 20’ + 20 ft^2
- Difference of 20 ft^2 of basal area
- Value is approximately $2,000

Small F Stream - Costs

- Survey
- Material approximately $1,300 +/-
- Placement costs = approx $500 +/-
- Administration time
- Additional reforestation
- Total = ? (Close to removal value)

Current Rules

- 60% LO not actively managing RMA
- 33% Harvesting to standard target basal area
- 7% Site specific written plans

Today’s rules: few landowners are taking advantage of basal area credit (<7%)

Why are <7% of landowners taking advantage of this incentive?

- Time?
- Complexity?
- Risk/Return?
- Knowledge?
- Corps of Engineers Permitting?

- We need to understand this before we change the rules.

LW Input Potential vs. Riparian Buffer Width