RTI FACT SHEET #3

Rural forest community issues

Case studies examining the impacts of the Forest and Fish Rules on NIPF landowners in Eastern Washington

In June 2001, the Washington State Forest Practices Board adopted changes to its forest practices regulations to meet the requirements of the Endangered Species Act and the Clean Water Act concerning salmon habitat. The new regulations, known as the "Forests and Fish" rules, include significant restrictions on timber harvest in riparian areas in all areas of the state. These restrictions may produce unintended economic and ecological consequences, especially on small, non-industrial private forest (NIPF) ownerships. An examination of the potential economic impacts of these new regulations on NIPF landowners using ten case studies in Western Washington is available at www.ruraltech.org. To compare, contrast, and augment information obtained from the Western Washington studies, a complementary study is underway in Eastern Washington.

Rather than evaluating broad trends, case studies look at specific impacts on an individual basis; a method that demonstrates the significant variability in impacts across small ownerships. The Eastern Washington case studies will include an evaluation and comparison of riparian management options between the new legislative requirements and the previous rules, as well as an examination of alternative plans as provided for within the revised regulation package. The examination of alternative plans will help reveal potential unintended ecological consequences of the new rules.

In Eastern Washington, the Forests and Fish rules restrict timber harvest in a three-zone riparian buffer along any potentially fish-bearing streams. No harvesting is allowed in zone closest to the stream. Harvest may be allowed in the middle zone as long as certain minimum basal area, tree count, and tree size requirements are met. Harvesting is generally allowed in the outermost zone subject to specific leave trees requirements. Riparian management requirements vary by timber habitat type. Within the legislation, timber habitat type is defined by elevation, not by existing tree species or land capability.

The case studies use the latest technological tools, such as Geographic Information Systems (GIS), forest growth models, and stand visualization technology, integrated through the Landscape Management System (LMS), a computer program developed at the University of Washington. LMS is designed to utilize output from forest growth models, such as the North Idaho version of FVS (Forest Vegetation Simulator) which has been calibrated to eastside conditions, and link it effectively with mapping, analysis, and visualization technology.

Study Area

Six case studies are currently in progress in Eastern Washington. Three study sites are situated in Pend Oreille County, and three are in Stevens County. The case studies range in size from 20 acres to 800 acres, and they fall in two timber habitat types. Two fall in the mixed conifer habitat type (2501-5000' elevation), and four are found in the ponderosa pine timber habitat type (below 2500' elevation). Three case studies fall within areas subject to previous harvest limitations to meet temperature requirements for bull trout. Stream sizes within these case studies range from Class 2 rivers to Class 4 non-fish bearing streams. A significant number of wetlands and lakes are present in one case study. Thus, the case studies include a wide variety of site characteristics to capture a broad snapshot of potential economic and ecological impacts.

Preliminary Evaluation

Key elements emerging from this evaluation of the impacts of the new regulation include significantly greater landowner limitations to manage for risks associated with insects, disease, and fire. These risks are currently prevalent in Eastern Washington forests even more so than in earlier history. In contrast to the Western Washington requirements to aim for a desired future condition that can be projected with existing growth models, Eastern Washington riparian management is intended to provide for conditions that vary over time. Modeling of forest stand development through time, given present conditions, indicates that it may not be possible to develop a healthy, resilient seral species mix within the framework of the current riparian requirements. Alternative planning strategies, which are permitted under the forest and fish rules, provide a possible method to meet both riparian functional requirements and establish healthy, resilient eastside forests.

Economic analysis on the six case studies is in progress. Specific elements emerging from the analysis include a change in the relative components of sawlog, hew saw, and pulp wood that can be removed from riparian forests. This change in the ratio of products combined with their respective price differentials may render future treatments uneconomical under the forest and fish rules. Alternate plans that provide equivalent environmental protection through more selective management are being developed and may be able to reduce negative economic impacts.

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