

My Unified Field Theory of Forest Management, Pt. 2 "public good from private forests"

My personal goals as an owner of a small tract of timberland have been to focus on timber as a crop, and manage the stands, roads and ecological systems here in a way that does not diminish the productivity of the sites. In the past, the condition of the stands and associated systems were quite poor, and had fallen into this poor condition over a period of decades. There was no where to go but up. I am very satisfied with the work I have been able to accomplish on this property in terms of the improvements made to the forests, wetland, roads and systems. I consider the finest professional work I have ever accomplished.

Make Erosion Negligible

One of my main goals is that no soil leaves the property through erosion, displacement or disturbance. Accordingly, the first thing I did was put in a large culvert at the front gate, and rebuild the driveway so that these objectives would swiftly become a reality. Inter-Fluve designed and helped install what I call the "burrito" which is a water absorption and slow-release drainage structure along the ditch on the east side of the driveway. This ditch drains a large area of steep topography, and during the floods of 1996, it was obvious that large amounts of erosion had occurred during the storm event. The burrito, and its' associated culverts are designed to ensure that no storm event can deposit large amounts of silt and debris along the road and over the west bank of Fir Mountain Road. The large culvert at the front gate is now in place to ensure that the road itself does not wash out!

All roads have been rebuilt on a narrow running surface, been compacted base courses, surfaced with 1/2 minus crushed rock, and the cut and fill slopes grassed. All necessary culverts have been placed, all with riprap at the inlet.

Improve Water Quality

Realistically, the highest and best use of the steep slopes on the east side of the property is probably as watershed protection. The general poor

quality of a lot of the timber, combined with the high cost of selective cable yarding and the much greater cost of helicopter logging really preclude much harvesting activity on these slopes. I admit I find this quite frustrating, but short of spending a large "insurance premium" to thin the timber to more fire-safe volume levels, I see no alternative to letting these stands alone. However, I have been contemplating some selective logging along the north-west boundary line to make this portion of the line more fire safe.

The pond and wetland enhancement operation was a major undertaking, principally in terms of getting the required permits. It took over three and a half years to get all the paperwork in order. Then we accomplished the actual field work in less than three weeks. The result has been dramatic, and improvement in the entire area in terms of water quality and associated effects on flora and fauna has been very satisfying for all of us.

Improve Animal Habitat

"Build it and they will come" is the general rule I follow. I don't specifically design silvicultural systems for any one species. Rather, I assume that if the timber stands are healthier, more species will come in over time to make more use of the areas. Because of the topography and vegetation cover-types on the property, we have a lot of "edge" and these areas enhance merely through their existence the availability of situations that can be occupied by species across the ecological and temporal spectra. I'm careful in my marking to leave some snags that can be utilized by cavity nesters.

I think my approach to animals in general is that if I give them what they appear to need in terms of habitat, they can take care of themselves, and the shifting "eco-tones" of animal-plant interactions can usually proceed without something getting out of balance.

Develop and Maintain a Viable Economic Opportunity

Again, because my operations are so small, I can't make much of an economic impact. My main worries as a marketer of forest products is that there will be no mills, no markets and no skilled labor that enable me to carry on this work in the first place. Without markets and a skilled labor force, it would

be difficult to have accomplished what I have been able to do. The retention of highly skilled woods workers is crucial to the local and state economy.