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Date: June 15, 1999

File Code:

Route To:

Subject: Mortality at Lor O Ranch Area (FPM Rept. No. N99-4)

To: District Ranger, Salmon River RD

The caretaker of the Lor O Ranch property was concerned about tree mortality on the ranch, as well as the adjacent stand on the National Forest. District Ranger John Schuyler requested that FPM examine the situation. On June 10, 1999, the following people visited the area: John Schuyler, District Ranger, Bill Wais, District Silviculture, Dave Schultz, Entomologist, and Pete Angwin, Plant Pathologist.

The Lor O Ranch is one of several historic properties near the end of the road on the South Fork of the Salmon River. The area is near the former site of the town of Summerville, and has a long history of mining, and other human use. The location of water ditches, fence lines, building debris and stumps would seem to indicate a history of confusion over the location of property lines. The area is extremely close to the boundary of the Trinity Alps Wilderness.

Observations:

- There has been recent logging on the ranch property, which made it difficult to quickly assess the amount and pattern of recent tree mortality on that property.
- There is both recent and older ponderosa pine mortality on the adjacent NF land.
- Most of the ponderosa pine mortality on NF land appeared to be western pine beetle group kills which probably occurred during successive drought periods.
- There is also at least one recently dead white fir and a dying alder adjacent to a non-functional ditch on the adjacent NF land.
- There was one dying ponderosa pine on NF land which had black stain root disease.
- There were several recently windthrown ponderosa pine on NF land.

Conclusions:

- The known history of the use of the area, as well as the spacing of the living trees and stumps, and the branch retention of some of the dominant trees all indicate that the area was very open about 100-150 years ago and then seeded in with a dense stand of ponderosa pine.
- There has been a lot of tree cutting and other land-disturbing activities on both the ranch property and adjacent NF lands, but there has not been much coherent stand management.
- It would not be surprising to find black stain root disease in a ponderosa pine stand which had very dense stocking and/or a lot of disturbance. Black stain root disease is apparently not playing much of a role in the current mortality.
- Many of the largest live and dead ponderosa pines are adjacent to the irrigation ditches.
- A number of the recently dead ponderosa pines are adjacent to an irrigation ditch which is no longer functional.
- The primary cause of the current mortality is too many trees, and not enough water.
- There is only a minimal and very limited effect of any type of stand management on either the ranch or the NF land on the adjacent property.



- Thinning the ponderosa pine stands would reduce mortality for a period of 10 to 20 years, depending on the residual stocking level. The effect would be largely limited to the area thinned, so this treatment would have some benefit, even if undertaken by only one property manager.
- Prescribed burning could be used to achieve some thinning if it were acceptable to kill some of the trees and shrubs with fire.

Dave Schultz

Entomologist