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## ISSUES AND KEY QUESTIONS

### Issues

#### Resource concerns and problems:

- The dominant erosion process in the parts of the Watershed managed for timber production and forest habitats are shallow rapid landslides. Roads can be a source of chronic sediment delivery.
- The watershed exhibits rapid rise and falls in stream flows in response to storm events, little water is stored as either snow or ground water.
- Early and mid-seral stage stands dominate the landscape outside the LSR. Most of the stands were managed for stocking levels consistent with maximizing merchantable wood productions. Some stands are overstocked. Past actions on other sites were unintentionally converted from conifer to hardwood stands.
- Removal of large woody debris from streams has resulting in a lost of structural complexity and subsequent lost of ability to retain sediments. Loss of large riparian trees along many streams will delay attainment of new large wood that can be recruited to the channels and flood plains.
- The 303(d) list includes six reaches listed for temperature and one for unacceptably high fecal coliform counts. Several stream reaches are on ODEQ's Water Quality Limited Streams Database for other water quality limiting concerns, however data is not sufficient to either list or classify as meeting standards.
- The watershed contains Federal and State listed fish and wildlife. Many of these species use habitats commonly associated with late-successional forests. Most upland and riparian habitats, outside the LSR, have been modified by timber harvest and agricultural practices.
- People value the watershed and its resources. People earn a living in the watershed by harvesting timber, culturing young stands, habitat management, collecting special forest products and agriculture. Many people live in the watershed and many more visit the watershed to recreate. The watershed contains several recreation sites used for camping and day trips. All Federal recreation sites are inside the Riparian Reserve. Several main roads are also inside the Riparian Reserve.

#### Relevant programs, priorities, needs and projects of importance in this watershed:

- A portion of this watershed is inside LSR 261, which is classified as a high priority LSR for restoration according to the LSR Assessment (USDI; USDA 1998). Density management efforts will shift to this part of the watershed once we complete the density management planning for Tioga Creek Subwatershed.
- This watershed contains two key watersheds. Key watersheds are to receive the highest priority of restoration activities (USDA; USDI 1994).
- The Forest Plan direction includes reducing roads miles inside key watersheds and if that is not possible then the Plan directs no net increase of road miles.
- The District RMP direction is to close and rehabilitate roads unneeded for continued management in elk habitat areas.
- The Middle Creek Subwatershed is next in line for subwatershed scale timber management planning for Matrix projects. The District RMP direction is to "Develop plans for the locations and specific designs of timber harvest and other silvicultural treatments within the framework of watershed analysis." (USDI 1995 pg. 53)
  - The Matrix lands in this watershed support many acres of young conifer stands that would benefit from commercial thinning with respect to attaining larger average stem diameters and meeting timber management objectives.
  - Several Matrix sites that supported conifer stands before timber harvesting now support

hardwood.

- The Forest Plan direction includes determining the present and future needs for woody debris inside the Riparian Reserve.
- The Forest Plan direction includes assessing recreation sites with respect to attaining ACS objectives.

Relevant programs, priorities, needs and projects of importance in this watershed that are or will be addressed by means other than Watershed Analysis:

- Road density, as it relates to elk management, is addressed as part of the TMO process.
- A water quality management plan will be prepared concurrent with this watershed analysis. Some analyses for the water quality management will be included in the watershed analysis.
- The District completed a Late-Successional Reserve Assessment in 1998. That assessment addresses managing for species that require of benefit from late-successional habitat inside the LSR.
- The District Program Summary and the Jobs-in-the-Woods annual report list restoration accomplishments for the district. Accomplishments listed in those documents for this watershed are summarized here.

Issues and objectives that will be addressed in this iteration:

- Update and consolidate the contents of the four first iteration subwatershed scale analyses into a single watershed scale document.
- Insure the second iteration watershed analysis tracks logically from, and is consistent with the current decision documents (the 1995 Record of Decision for the Forest Plan, and the District Resource Management Plan and with the Late Successional Reserve Assessment completed in 1998.)
- Provide information that will help the fish biologists do biological assessments. This includes
  - Assessing compatibility of forest management practices with attainment of ACS objectives.
  - Document restoration work to date including the passive restoration associated with land use allocations, and the Forest Plan.
- Assess the affects of roads, recreation sites, and thinning on meeting Riparian Reserve objectives.

Emerging issues:

Roseburg Level 1 consultation meeting notes for 12/31/99 identified several items of information needed for timber sale consultation. The following are items that could be included in a watershed analysis document, at the watershed scale, in order to help in future consultation on our Resource Area.:

- Map of the transient snow zone
- general discussion on the hydrologic affects of thinning (and other management treatments) inside the transient snow zone.
- general discussion on how hydrologic function and stream channel processes would be affected by the array of management treatments we would do.
- general discussion on how erosion and landslide processes would be affected by the array of management treatments we would do.
- General discussion on if any of the likely treatments may keep us from attaining a NLAA determination with respect to hydrologic and sediment effects and what sort of design features would we should incorporate to insure attainment of a NLAA determination. Make recommendations if following Best Management Practices would be insufficient to attain a NLAA determination.

Conditions and processes in the watershed relevant to in describing the issues, and useful indicators:

- Slope stability/ risk of landsliding
- Transient snow zone
- Miles of road by road locations, conditions and control

- Stream locations, junction angles, percent slope, and channel types
- locations of stand types and age classes
- Presence of critical stocks or populations, and presence of threatened or endangered species, their relative abundance and habitat needs
- Stand development
- Snag and down log recruitment and abundance (current condition and bench mark levels)
- Ownership, tier 1 watershed locations, and land use allocations
- Recreation site locations
- Locations of passive and active restoration
- Locations of possible future management activities

### **Key Questions**

- Where are the areas in the watershed that are prone to mass waste processes and streambank erosion?
- What management practices have disrupted the natural sediment delivery to streams?
- Where are the source areas for stream bed gravel and landslide transported large woody debris?
- Is this watershed at risk for rain on snow events? If so, would a rain on a snow event result in a flood that is outside the range of natural variability?
- Have management activities changed the watershed to where its hydrologic behavior is outside the range of natural variability?
- What are the reference conditions for stream shading?
- Which road segments potentially could prevent attainment of ACS objectives based on road location?
- How would density management treatments, hardwood conversions, or lack of treatments, affect the functions of the Riparian Reserve and the attainment of ACS objectives?
- What is the level of woody debris that we must retain to meet present and future needs, and that will insure that ACS objectives are not adversely affected?
- What active restoration has occurred in the watershed? Where are these projects?
- What passive restoration has occurred in this watershed as a result of the Forest Plan and other policy changes?
- How much time is required to obtain watershed restoration through active and passage restorations?
  - How will the distribution of seral stages change through time under the Forest Plan?
- Are there dispersed or developed recreation practices that retard or prevent attainment of ACS objectives? If so how can we mitigate conditions on recreation sites so that these do not prevent, and to the extent practicable contribute to, attainment of ACS objectives?
- Where are the potential regeneration cut and commercial thinning units on the Matrix?
- Where are the candidate stands for density management in the LSR? Riparian Reserve?

### **References**

- USDA; USDI. 1994. *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl - Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl*. FS; BLM, Portland OR.
- USDI. 1995. *Coos Bay District Record of Decision and Resource Management Plan, May 1995*. Coos Bay Dist.-BLM, North Bend, OR. 99 pp. plus appendices and maps.
- USDI, USDA. 1998. *South Coast-Northern Klamath Late-Successional Reserve Assessment*. Coos Bay Dist -BLM, North Bend, OR. 109 pp.