

CHAPTER 2. 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 is shallow rapid landslides. Roads can be associated with shallow rapid landslides and constitute a source of chronic sediment delivery.
- Streams in the watershed exhibit rapid rise and fall in discharge in response to storm events.
- In the past, second-growth stands were managed for stocking levels consistent with maximizing merchantable wood productions. Some stands are currently overstocked.
- Streams on federal land generally have adequate amounts of large wood.
- The Gordon Creek Watershed contains 303(d)-listed streams.
- The watershed contains special status species. Most upland and riparian habitats have been modified by timber harvest and agricultural practices, with potential impacts on special status species.
- People value the watershed and its resources. People earn a living in the watershed by harvesting timber, culturing young stands, managing habitat, and collecting special forest products.

Relevant Programs, Priorities, Needs, and Projects of Importance in this Watershed

- This watershed contains less than 100 acres of Late-Successional Reserves (LSR), all on USFS land.
- This watershed is not a key watershed.
- The District Resource Management Plan (RMP) directs that roads in elk habitat areas that are no longer needed be closed and rehabilitated.
- The Forest Plan direction includes determining the present and future needs for woody debris inside the Riparian Reserve.

Emerging Issues

Within the next 10 years, it is likely that decisions will need to be made regarding the following broad topics. These issues have been used to help guide development of the key questions, the information to answer those questions, and the resulting recommendations. The key emerging issues include:

- Noxious weed control

- Commercial thinning in General Forest Management Area (GFMA) lands
- Regeneration harvest in GFMA lands
- Density management in Riparian Reserves for fish and wildlife objectives
- Aquatic habitat enhancement
- Road rehabilitation and restoration (decommission or improvement candidates)
- Culvert replacement or removal (for fish passage or to reduce high risk of failure)
- Municipal watershed management
- Fire and fuels management

Conditions and Processes in the Watershed Relevant to Describing the Issues, and Useful Indicators

- Road segments with high sediment delivery potential that would best respond to investments in repair, improvements, or decommissioning
- Road density in the watershed
- Slope stability or risk of landsliding
- Transient snow zone
- Stream locations, channel confinement, and channel types
- Locations of stand types and age classes
- Presence of critical stocks or populations
- Presence of threatened or endangered species, and their relative abundance and habitat needs
- Stand development

Key Questions

Forest Vegetation

- What is the current distribution of early, mid, late-mature, and old-growth forest seral stages (acres and percent)?
- Where are the major opportunities within the next 5-10 years for BLM commercial thinning and regeneration harvest activities in Gordon Creek Watershed?
- What are the reference conditions for stream shading?

- How would density management treatments, hardwood conversions, or lack of treatments affect the functions of the Riparian Reserve?
- What is the level of woody debris that we must retain on Riparian Reserve land to meet present and future needs?
- How will the distribution of seral stages change through time under the Forest Plan?

Special Status Plant Species and Noxious Weeds

- What is the occurrence of federally-listed botanical species?
- What is the occurrence of bureau-sensitive, state-listed botanical species?
- What are the relative abundance, distribution, and trends of non-native plants and noxious weeds?
- Where should noxious weed control be concentrated in Gordon Creek Watershed and why?

Wildlife Habitat and Species

- What is the occurrence of federally-listed terrestrial species and their designated core areas under the RMP?
- What is the occurrence of Special Status Species (bureau-sensitive, state-listed) terrestrial species?
- Where can density management be used to help meet wildlife objectives in Riparian Reserves?

Geology, Soils, and Sedimentation

- What erosion processes have been dominant in the watershed and where are the higher risk areas?
- Where are BLM road erosion, drainage network, and stability problems most likely to affect aquatic resources?
- Which BLM roads can be managed to reduce sedimentation effects on fish?
- Where are the areas in the watershed that are prone to mass wasting processes and stream bank erosion?
- Which road segments potentially could prevent attainment of Aquatic Conservation Strategy (ACS) objectives based on road location?

Water Quality and Hydrology

- What is the current list of 303(d) water quality-limited streams?
- Where has monitoring taken place and what data are available?
- How are federal activities and plans affecting 303(d)-listed stream?
- Is this watershed at risk for rain-on-snow events? If so, would a rain-on-snow event be likely to result in a flood that is outside the range of natural variability?
- Have management activities changed the watershed so that hydrologic behavior is outside the range of natural variability?
- What are the impacts of management activities on water quality and quantity for the municipal water supply?

Fish and Aquatic Habitat

- What is the known current distribution of fish species within the watershed (e.g., map of fish distribution by species), including federally-listed and candidate aquatic species?
- What are the known barriers to fish migration and their locations within the watershed?
- What is the total estimated fish habitat for salmonids?
- To what extent are the lower gradient stream reaches properly functioning or degraded, and how have in-stream and off-stream habitats and biological communities been affected by management activities using Oregon Department of Fish and Wildlife (ODFW) aquatic habitat inventory data as an indicator?
- What monitoring data are available, and what additional information is needed and why?
- Where are riparian stand enhancements (silvicultural treatments) and in-stream restoration activities most likely to be most beneficial?