



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Eugene District Office
P.O. Box 10226
Eugene, OR 97440-2226

In Reply Refer To:
1792A
EA-01-27
Lower McKenzie TMR

September 25, 2001

Concerned Citizen,

The McKenzie Resource Area of the Eugene District Bureau of Land Management has completed the Environmental Assessment (EA) and Finding of No Significant (FONSI) for the Implementation of the Lower McKenzie Transportation Management Recommendations. This proposal includes various road decommissioning and improvement projects.

You have expressed an interest in receiving copies of Environmental Assessments (EA's) for district projects. Enclosed is a copy of the EA for your review and any comments. Public notice of this proposed action will be published in the Eugene Register Guard on September 26, 2001. The EA will also be available on the internet at <http://www.edo.or.blm.gov/nepa>. The public comment period will end on October 18, 2001. Please submit comments to me at the district office, by mail or by e-mail at OR090mb@or.blm.gov by close of business (4:15 p.m.) on or prior to October 18, 2001. If you have any questions concerning this proposal, please feel free to call Don Wilbur at 683-6994.

In an effort to reduce costs and cut down on the use of paper, we are proposing to either e-mail future EA's to you or that you review the EA on our internet site rather than receiving paper copies. In order to accomplish this we will need your e-mail address. Please indicate your choice on the next page, fill in your e-mail address and return the attached form to this office to the attention of Sue Kragnes within 10 days, or e-mail your response to skragnes@or.blm.gov. The Eugene District regularly advertises our EA notices in the Wednesday edition of the Eugene Register Guard. The notice would also be posted to our internet site and the e-mail notice would go out on the same Wednesday. We ask that you consider using one of these options, and then provide us with feedback on its usefulness to you.

Comments, including names and street addresses of respondents, will be available for public review at the district office, 2890 Chad Drive, Eugene, Oregon during regular business hours (7:45 a.m. to 4:15 p.m.), Monday through Friday, except holidays, and may be published as part of the EA or other related documents. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Sincerely,

Emily Rice, Field Manager
McKenzie Resource Area

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE

ENVIRONMENTAL ASSESSMENT NO. OR 090-01-27

**Implementation of the Lower McKenzie
Transportation Management Recommendations**

1.0 PURPOSE OF AND NEED FOR ACTION

1.1 Purpose of the Proposed Action

The Bureau of Land Management (BLM) proposes to implement various road decommissioning and improvement projects in the Lower McKenzie Watershed. The Lower McKenzie 5th field watershed (comprises the Vida McKenzie watershed and Camp Creek watershed) starts at the east side of Springfield, Oregon and covers an approximate 3½ mile ribbon of land paralleling the McKenzie River on the north and south side of the river up to the town of Nimrod. The area comprises about 108,288 acres, of which 24% of the acres are managed by the Bureau of Land Management (BLM). A Watershed Analysis and Transportation Management Recommendation (TMR) were prepared to help implement the Northwest Forest Plan (NWFP), but are not decision documents.

Control and prevention of road-related runoff is considered to be one of the most important components for improving watershed conditions and meeting Aquatic Conservation Strategy Objectives. Watershed restoration is a key component of the Aquatic Conservation Strategy of the Northwest Forest Plan ROD/FEIS (NWFP). As stated in the NWFP, road decommissioning functions as watershed restoration by:

- helping to restore the natural water flow pattern of the watershed.
- helping to restore the natural stream side function (for stream side roads) by increasing stream side vegetation, increasing stream shading, and creating future large woody material.
- helping to restore fish passage.
- improving wildlife habitat.
- maintaining or improving water quality.

Implementation of the Transportation Management Recommendation (TMR) is what constitutes the Proposed Action in this environmental analysis. The TMR identifies a system of arterial, collector, and local roads to be maintained for future use, and also describes opportunities to close roads no longer needed for access. This work would be implemented over a 5-year period. See **Appendix A** for project priorities and rationale, and **Appendix B** for maps and road locations.

1.2 Need for the Proposal

Many stream-side and some mid-slope location of roads proposed for treatment are contributing to increased sediment loads into streams. This affects habitat used by fish and other aquatic life as well as threatened or endangered fish species. By intercepting storm runoff, these roads have potential to act as extensions to the stream system.

Some roads in the analysis area have not been routinely maintained and are in an eroded or degraded condition. Some roads will be needed in the future with an appropriate level of maintenance to protect natural resources such as water quality and fish habitat, and to provide safe access to the public. Some existing roads will not be needed for long-term access and could be closed to protect or restore natural resources as well as reduce the cost of BLM road maintenance in the analysis area.

1.3 Objectives of the Proposal

- Develop and maintain Transportation Recommendations that meets ACS strategy (Eugene RMP, p. 98)
- Control and prevent road-related run-off and sediment production. (NWFP-ROD, p.B-31)
- Reduce costs related to road maintenance by reducing the number of roads needing maintenance (Eugene RMP, p.98)
- Reduce public safety concerns due to poor conditions of roads.

1.4 Scope of this Environmental Analysis

1.4.1 History of Planning and Scoping Process

The scoping process identified the agency concerns relating to the proposed projects, and defined the issues and alternatives that would be examined in detail in the EA. The public was informed of the planned EA through a project summary publication called the Eugene BLM “*Eye To The Future.*” This was mailed out to 250 people in July 2001.

The Analysis File contains additional information used by the interdisciplinary team (IDT) to analyze impacts and alternatives and is hereby incorporated by reference.

1.4.2 Conformance with Land Use Plans

This Environmental Analysis (EA) is tiered to the *Record of Decision (ROD) for Amendment to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl*, April 1994, and the Eugene District Record of Decision and Resource Management Plan (RMP), June 1995 (Eugene District ROD/RMP) as amended by the *Record of Decision (ROD) for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, January 2001*. The analysis contained in these

EIS's are incorporated into this document by reference.

The above referenced documents are available for review at the Eugene District Office of the BLM, Eugene, Oregon or on the internet at <http://www.or.blm.gov/nwfp.htm>

The Analysis File contains additional information used by the interdisciplinary team (IDT) to analyze impacts and alternatives and is hereby incorporated by reference.

1.4.3 Issues Studied In Detail

Issue 1 - What are the impacts to terrestrial Threatened and Endangered Species?

Threatened and Endangered Species in this area are bald eagles, and northern spotted owls.

Issue 2 - What will be the impacts to public access on existing roads that will be used on a long-term basis, and closing existing roads not needed on a long-term basis?

Transportation management actions proposed in the Lower McKenzie TMR could change access to public land within the watershed.

Issue 3 - What are the effects of road management activities on water quality of nearby streams, and water quality in these two 5th field watersheds?

Proposed road management activities could impact water turbidity.

Issue 4 - What are the effects of road management activities on the habitats of fish and other aquatic species?

Spring chinook salmon, and bull trout are threatened fish species found in the Lower McKenzie Watershed. Road management activities could impact these fish as well as other fish/aquatic animals and /or their habitats downstream from road/stream intersections.

1.4.4 Issues Eliminated From Detailed Study

What in-stream habitat restoration activities outside of road related work are appropriate?

This issue was not analyzed because the focus of this EA is the implementation of Lower McKenzie Transportation Management Recommendations. This EA will address road related projects and not restoration of in-stream habitat complexity.

1.5 Decisions That Must Be Made

- ▶ The decision maker will decide whether or not to implement an alternative, and if so, which alternative.
- ▶ The decision maker will determine if the selected alternative would have significant environmental impacts not already addressed in the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (1994) and the *Record of Decision and the Eugene Resource Management Plan* (1995).
- ▶ The decision maker will determine if the selected alternative would constitute a major Federal action having a significant effect on the human environment.

1.6 Applicable Regulatory Requirements and Required Coordination

Federal agencies must meet or exceed the following regulatory requirements when selecting an action:

- ▶ The objectives of the Aquatic Conservation Strategy, Standards and Guidelines, and Best Management Practices, as cited in the Eugene District ROD/RMP and the Northwest Forest Plan.
- ▶ The Clean Water Act, as amended in 1987.
- ▶ The Clean Air Act of 1990, as amended.
- ▶ Oregon State Water Quality Standards.
- ▶ Oregon State Forest Practices Act.
- ▶ National Historic Preservation Act of 1966.
- ▶ Endangered Species Act of 1973

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Introduction

This section describes alternatives identified by the interdisciplinary team, alternatives eliminated from detailed study, and a comparison of alternatives.

2.2 Detailed Description of Alternatives

2.2.1 Alternative A - No Action

Existing road improvement levels would continue with approximately 65 roads identified on BLM land where sediment is delivered to the stream system via the existing road prism during wet weather. These situations would remain until road maintenance crews are working in the area to fix the problem. Barriers to fish and aquatic life migration range up to 30 sites that would remain indefinitely. Use of natural surfaced and infrequently maintained roads by vehicles could continue during all times of the year, and erosion of those roads may continue and possibly worsen with time.

2.2.2 Alternative B (Proposed Action) - Implement Lower McKenzie Transportation Management Recommendations.

Road improvement levels and road closures shown in the Transportation Management Recommendations (See **Appendix A** for the Transportation Management Recommendations) would be implemented over a 5-year period. Approximately **169** roads or **82** miles would be maintained and in some cases upgraded or repaired for future long term use (this would be 126 fewer roads, or 30 miles less, for annual improvement).

About **102** road segments, or approximately **25** miles of existing roads fit the criteria in the “Transportation Management Recommendations” (See **Appendix A**) that would be decommissioned and left in an erosion resistant condition. About **24** roads or about **5** miles would be naturally decommissioned and removed from the road inventory. These road closures would be implemented to reduce road maintenance costs and in many cases reduce road surface erosion near stream channels. Existing barriers to fish and aquatic life migration would be removed in conjunction with either road repair work (up to 30 sites) or road closure work (approximately 10 sites).

The rationale for road decommissioning is based on the need to; (1) minimize erosion on seldom used BLM roads; (2) remove culverts adding sediment or have the potential to fail and add sediment, or act as barriers to fish; (3) decommission roads that are not needed for management actions within the next 10 years; (4) reduce access to trespass dumping; (5) address public safety concerns due to poor condition of roads; (6) reduce disturbance to wildlife; and (7) meet all Aquatic Conservation Strategy Objectives.

2.3 Design Features

2.3.1 Design Requirements

1. Site specific surveys for Survey & Manage species would be conducted and management applied consistent with existing survey protocols and management recommendations where required. In most cases the proposed action would not require surveys because they would not affect habitat for these species.
2. Prior to the initiation of project work, notification would be given of potential road delays or closures to adjacent land owners. Appropriate safety procedures would be used to control traffic in project areas involving roadways used by the public.
3. For any proposed project sites within a quarter mile (0.25 mile) of suitable spotted owl habitat or known sites, no operations that modify suitable habitat or cause noise disturbance would occur during the critical nesting season (March 1 - July 15), or during the entire nesting season (March 1 - September 30), depending on site specific conditions.

This seasonal restriction could be waived by a wildlife biologist if current survey information indicates an owl pair is not nesting or occupying a location.

4. For proposed projects within 0.25 mile (0.5 mile line of sight) of known nests, suitable bald eagle nesting habitat or known midwinter roosts (including habitat \geq 80 years old within the Bald Eagle Habitat Areas), no operations that modify suitable habitat or cause noise disturbance would occur during the nesting period (January 1st - August 31st), or the midwinter roost period (November 15 - March 15). This seasonal restriction could be waived by a wildlife biologist if current survey information indicates known nest locations or suitable nesting habitat are not being used for nesting or known midwinter roosting areas are unoccupied.
5. For projects where site specific special status wildlife species information is available, this would be considered and incorporated into project planning.
6. Road improvement and decommissioning activities would meet the project design criteria outline in the biological assessment for programmatic activities for spring chinook and steel head (1999), and bull trout (1998).
7. Prior to habitat disturbing activities, surveys for noxious weeds and invasive plants would be done. Areas identified during surveys would be mitigated prior to the activity using techniques appropriate for the species being treated. Mitigation could include (but not be limited to): cutting or pulling plants, hot water treatment or tilling. Washing of equipment used in weed control may be needed to prevent the spread of weeds by the same equipment used to control it.

8. Some aquatic restoration activities may occur in areas where culverts would be replaced or taken out. This would be done as identified by the fisheries biologist and would include such habitat enhancing features as adding boulders and/or large woody debris into the stream.

2.3.2 Permanent Roads

1. Where the potential for sediment delivery exists, the road(s) would be surfaced with rock aggregate to minimize road surface erosion.
2. Additional relief drainage features would be installed (cross drains, drainage dips, and/or lead-off ditches) to reduce the amount of sediment delivered to streams via the cut slope ditch. Avoid discharging relief drains onto erodible or unstable slopes, or into stream channels to prevent cut slope ditch sediment from entering the stream.
3. Existing road stream crossings would be replaced that are (1) failing and otherwise depositing excess sediment into streams, (2) undersized and located in an area with potential for slope failure, and (3) prevent fish passage.
4. Replacement culvert crossings would be sized to accommodate a 100-year flood event. Keep culverts as wide as the channel if possible, and at the same gradient or slightly greater if possible. Place rip-rap on the fill material next to permanent culvert inlets and outlets. Design for the smallest fill possible and maintain vegetation at the margins of the stream channel.
5. Replacement culvert crossings in the vicinity of wildlife habitat such as ponds, stream-side wetlands, etc. should be designed in order to maintain or enhance the wildlife feature to the extent possible.
6. Existing vegetation in the cut-slope ditches should be maintained unless a new ditch needs to be constructed.

2.3.3 Road Closures

Decommissioned Roads, are roads that would be closed, but could be used again in the future. If garbage dumping has occurred on the road, the material would be disposed of properly following a clearance by the Hazardous Materials Coordinator to ensure no hazardous substances exist on the site. Prior to closure, the road would be prepared to avoid future maintenance needs by: establishing drainage, removing fills in stream channels and potentially unstable fill areas, removing and properly disposing of metal culverts, utilizing native seed to revegetate exposed soils where needed, and using erosion control mats if necessary adjacent to stream crossings. These roads would be adequately blocked using adjacent trees or brush, boulders, or other barricades to prohibit vehicle use, especially where stream channels are exposed. In addition, the road bed may be tilled and the ditch eliminated by recontouring next to the cut slope.

Deferred Decommissioned Roads, are roads that have been tentatively identified for decommissioning, but lack necessary information on potential projects. Roads identified under this category will be analyzed in a future document which will be coordinated with Middle McKenzie Landscape Plan.

Naturally Decommissioned roads would require no further on-site work. They are, in most cases, already revegetated, in an erosion resistant condition, and adequately blocked to vehicle use. These roads would be removed from the road inventory.

Culverts usually will be removed on the decommissioned, and natural decommissioned roads dependent on risk of failure.

2.4 Comparison Summary of the Predicted Environmental Effects of All Alternatives.

Issues	Alternative I No Action	Alternative II Proposed Action
Effects to T & E	<p>Dust could reduce pollination of vascular plants. Roads could limit dispersal of certain species.</p> <p>Disturbance remains at current levels in nesting habitat, possibly negatively affecting reproductive success.</p> <p>Roads would remain unsuitable habitat and serve as gaps in suitable habitat.</p>	<p>Fewer roads would eventually increase habitat for vascular plants and provide for more dispersal.</p> <p>Disturbance would be reduced in nesting habitat, possibly increasing habitat suitability and reproductive success.</p> <p>Roads would provide increased amount of suitable habitat and decrease the gaps in suitable habitat.</p>
Effects to Public Access	None	** Approximately 8 miles of public access would be decommissioned.
Effects to Water Quality	Roads would continue to erode and deliver sediment from roads identified in the TMR.	Repairs would be made on eroding roads that are needed for future use. Roads no longer needed would be closed to minimize future erosion.
Effects to Aquatic Habitat	The perpetuation of a degrading situation (sedimentation being contributed into streams from roads) would continue. This would negatively impact water quality for fish and other aquatic life. Culverts that are currently barriers to the migration of fish and other aquatic life would remain.	Roads proposed to be decommissioned would deliver less sediment, thus resulting in higher water quality for fish and other aquatic life. Roads remaining on the landscape would be upgraded and maintained to minimize sediment inputs. Culverts which are currently barriers to the migration of fish and other aquatic life would be removed or replaced to restore connectivity for these species. Fish and aquatic habitat improvements adjacent to culverts replacement projects would enhance aquatic habitat.

** Access to BLM lands in Lower McKenzie Watershed are through private lands that are gated. BLM's legal access is under Right-of-Way Agreements, which do not provide for public access. There are approximately 40 miles of public access roads in the analysis area. About 8 miles of that public access road would be decommissioned in the Proposed Action (Alternative B).

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

Under the National Environmental Policy Act (NEPA), the analysis of environmental conditions is directly related to the expected environmental consequences of the proposed alternatives. NEPA requires that the analysis address those areas and components of the environment with the potential to be affected by the alternatives analyzed; locations and resources with no potential to be affected need not be analyzed. The environment includes all areas and lands that might be affected, as well as the natural, cultural, and socioeconomic resources they contain or support.

3.2 Description of the Project Area

The Lower McKenzie analysis area are two 6th field watersheds within the Willamette River Basin and the Willamette River physiographic province. The analysis area includes tributaries of the McKenzie River drainage. McKenzie River flows directly into the Middle Fork of the Willamette River near Eugene, Oregon. Bear Creek, Marten Creek, Gale Creek, Gate Creek are a few of the tributaries of McKenzie River. Detailed information describing the area is available in the Lower McKenzie Watershed Analysis (USDI 2001). A location map is in **Appendix B**.

3.2.1 Land Use Allocation

Roads in the analysis area are located on Matrix lands and segments of roads are in Riparian Reserves.

3.2.1 Threatened & Endangered Species

Bull Trout (*Salvelinus confluentus*)- Threatened

Bull trout in the Lower McKenzie 5th Field are present primarily in the mainstem McKenzie and possibly the lower reaches of some of the larger tributary streams. Bull trout use these areas primarily for foraging, winter refuge, and as a migration corridor to reach upstream spawning habitat. Spawning and rearing occurs upstream of the proposed project area in the upper McKenzie watershed.

Spring Chinook Salmon (*Oncorhynchus tshawytscha*)- Threatened

The Lower McKenzie 5th Field is an important spawning and rearing area for spring chinook. Approximately 16% of the Spring Chinook that pass Willamette Falls enter the McKenzie Basin. The reaches of the mainstem McKenzie within the proposed project area are used for spawning and rearing as well as a migration corridor for those spring chinook traveling further upstream. In addition to the mainstem McKenzie, spring chinook also utilize Gate Creek, Deer Creek, and Marten Creek. In addition, juveniles use the lower reaches of other tributary streams in the basin.

Plant (*Aster Vialis*) -Threatened

There is one threatened plant site that was identified, located, and would not be involved with this project.

Bald Eagle (*Haliaeetus leucocephalus*)- Threatened

Approximately 7,672 acres \geq 80 yrs old exist within 1.5 miles of the McKenzie River. Approximately 2691 acres of currently forested habitat exists within designated Bald Eagle Habitat Areas (BEHAs) with 2,123 of these acres currently being \geq 80 yrs old. Forests \geq 80 yrs old have the *potential* to be suitable nesting or midwinter roosting habitat; but not all stands in this age class are actually suitable for nesting or midwinter roosting. Suitability depends on site specific conditions. Midwinter roost and nesting habitats are defined as stands of sufficient area greater than 80 years old with minimum human disturbance and suitable old growth structure for nests or roosting. Additionally, nesting stands are usually located within 1.0 - 1.5 miles of a major water forage resource (the McKenzie River in the planning area).

No known midwinter roost areas and one known eagle nest exist on federal lands that could be affected by the proposed actions. Some surveys and midwinter counts have detected foraging use by eagles along the McKenzie River.

Northern Spotted Owl (*Strix occidentalis caurina*)- Threatened

There are 11 established Northern Spotted Owl (NSO) sites on BLM managed lands in the Lower McKenzie Watershed, including 8 with Unmapped - LSR core areas totaling 772 acres. Information on the recent occupation and productivity of these sites since 1995 is incomplete because survey and monitoring has been partial and inconsistent since 1995.

Roughly 10,879 acres of suitable nesting habitat exists within the planning area (based on age class alone). Not all of these acres are actually suitable for nesting. Suitable nesting habitat is defined as mature or older stands (\geq 80 years) with a complex, multi-tiered canopy, high canopy closure, open understory and high amounts of snags and down logs.

3.2.2 Survey and Manage Species

The red tree vole (*Arborimus longicaudus*) occurs within the planning area. The planning area is within the expected range and habitat (as described in the current survey protocol) of the Crater Lake Tightcoil (*Pristiloma arcticum crateris*). This species has yet to be located in over 3 years of surveys and is not expected to occur. Most of the proposed actions would not require surveys because they would not affect habitat for these species or disturb individual red tree voles. The most likely exception would be a portion of proposed culvert replacement projects. If habitat is affected by a project, it would be minimal and site specific surveys would be conducted and management applied consistent with existing survey protocols and management recommendations.

3.2.3 Public Access

The Lower McKenzie Watershed Analysis Area portrays BLM ownership adjacent to the McKenzie River on the upper slopes. Often times the access to the BLM public lands is through privately controlled lands that is usually behind privately controlled gates.

Physical access to BLM lands is provided by roads with legal public access. Where the BLM has blocked up ownership or easements for access or by roads limited to administrative use only, due to existing road use agreements with neighboring private landowners and the checkerboard ownership pattern of O&C lands. The network of roads on BLM lands ranges in density from 0 to 5.5 miles per section of BLM ownership. There are approximately 40 miles of BLM roads (87 road segments) legally accessible to the public in this analysis area.

3.2.4 Hydrology and Water Quality

Hydrology

The Lower McKenzie 5th Field Watershed has a drainage area of approximately 170 square miles. Gate, Bear, and Marten Creeks are the main tributaries to the McKenzie River in this watershed. Other tributaries include Ritchie, Johnson, Cogswell, Finn, Indian, Trout, Holden, Lane, Toms, Hagen, and Boulder Creeks.

Peak flows have been greatly diminished in the watershed by Cougar and Blue River dams. For the months between July and October, average flows are now 13 to 49 percent higher than average flows before dam construction. Conversely, average flows between March and June are now 8 to 27 percent lower than flows before dam construction. These changes coincide with reservoir filling in the spring and reservoir releases in summer and fall.

Water Quality

The McKenzie River is cold for a large western Oregon river. The 7-day annual maximum values each year (the warmest river water temperature of the year, over a 7-day period) range from 60 to 66 F near Walterville (US Army Corps of Engineers, 2000). Water releases from the two large reservoirs cool down the river in early summer but warm it in late summer and fall. Construction is beginning on a structure at Cougar Dam that will allow dam operators to release water taken from different levels in the reservoir so that released water would have the same temperature as natural river flows. In spite of its unique coolness, the McKenzie River has been placed on the 303(d) list as water quality limited by the Oregon Department of Environmental Quality because data indicates that it exceeds temperature standards for Bull Trout (50 degrees F). Lack of shade can cause streams to be warmer than expected and South Fork Gate and Deer Creeks exceed temperature standards but are not yet on the 303(d) list.

In 1998, turbidity sampling was conducted throughout the watershed during heavy rainfall. The data showed that the tributaries were nearly always more turbid than the main channel of the

McKenzie River. Monitored streams with abnormally high turbidity levels included Cedar Creek, Boulder Creek, Indian Creek, Gate Creek, and Ennis Creek (Runyon 2000). A study was conducted of the erosion occurring after the major storm and flooding in February 1996. This study indicated that road-related landslides and landslides on forest slopes contributed equally to erosion rates. Landslide erosion rates from clearcut and replanted slopes (less than 9 years old) were over 3 times greater than erosion rates from slopes with stands more than 100 years old (Robison et al. 1999). Roads with inadequate drainage features were inventoried on public land in this watershed and those with no rock aggregate or other surfacing are particularly prone to erosion and sediment delivery to nearby streams.

3.2.5 Aquatic Habitat

The McKenzie River and many of its tributaries provides habitat for threatened spring chinook salmon and bull trout, as well as for winter and summer steel head, rainbow trout, cutthroat trout, sculpins, dace and other non-salmonid fish species. Spring chinook, bull trout, steel head trout and rainbow trout are limited to the McKenzie River mainstem and the lower reaches of major tributaries. Cutthroat trout are present in the mainstem as well as most tributary streams.

None of the streams in the lower McKenzie River are listed on the DEQ 303(d) list for fine sedimentation. Gate Creek, Camp Creek and the Lower McKenzie River were listed on the 1996 Waters of Concern list for sediment. Sampling conducted by the DEQ in 1998 indicated that sediment impacted water quality below the confluence with the Mohawk River. Erosion from unmaintained road surfaces, travel of off road vehicles over native surface roads and trails, and culvert and road fill failures are one of many causes of sediment in the Basin. Other likely contributors of fine sediment in the basin are activities such as agricultural use, livestock grazing, and harvesting practices. Coarse sediment in the basin such as gravels and cobbles are important for spawning of fish species. Fine sediments covering these spawning substrates decreases the survival of the eggs and fry. Culverts may also change the distribution of these coarse spawning substrates as many culverts are not designed to pass these materials in the same way as would occur with a natural stream bottom.

Large woody material is currently sparse compared to historic levels throughout much of the McKenzie River and its tributaries. Much of the wood that historically entered the channels was removed during past stream clean-out operations following harvest and storm activities. In the Mainstem McKenzie, large wood entering the channel is typically removed as a boating or erosion hazard. Due to the relatively young age of the riparian areas, the short term future recruitment potential is low. In addition to the low recruitment potential of trees on site falling into the channel, transport of large wood from the head water areas to the lower reaches during high flow events is often blocked by culverts which collect the wood in areas where it might otherwise have been transported downstream to fish bearing reaches.

Many culverts which cross tributary streams are barriers to upstream fish migration thus reducing the connectivity of upstream and downstream populations as well as blocking access to suitable habitat upstream for spawning, rearing, or overwintering.

A variety of species are either associated with or obligated to riparian habitats such as ponds and stream habitats that might be affected by roads. Examples include aquatic invertebrates, amphibians, bats and some mammal and bird species. Very little site specific information on known occurrence of species was available for site specific analysis of the roads examined and their effects to these species.

3.2.5 Soils

Soils of the Lower McKenzie Watershed Area have developed from volcanoclastic rocks, primarily tuffaceous sedimentary rocks and basalt flows. This watershed can be divided into three general geomorphic zones. The western zone is characterized by silty clay loam soils formed on gentle mountains with slopes less than 30%. The central zone soils are cobbly loams, also formed on slopes averaging less than 30%. The mountainous east zone is characterized by stony loam soils on very steep slopes greater than 50%, with portions in excess of 65%.

Abandoned native surface roads and ground based native surface logging roads have the potential to deliver fine sediment to a stream when bare soils are either compacted or in close proximity to stream channels or stream delivery points. These abandoned roads, remnants of the original road system used for the early old-growth harvests, are frequently used by recreational vehicles. Where recreational vehicles use these native surface roads, increases in erosion and fine sediment delivery does occur. Fine sediment is more readily delivered to streams when flows are concentrated in the tread of a road because of compaction and /or slow internal drainage of the silty clay soils.

3.2.6 Solid Waste and Hazardous Materials

Several of the roads reviewed during this analysis have been used for illegal dumping of household trash, vehicles, animal carcasses, and in some cases hazardous waste. Hazardous waste is removed from public lands using protocol established by the Environmental Protection Agency.

Since 1991, there have been seven hazardous materials site investigations conducted within the watershed, with clean-up costs of \$17,200. Most of this pertained to methamphetamine lab waste from illegal dumping on the public lands.

3.2.7 Unaffected Resources

The following resources either are not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concern, prime or unique farm lands, Native American religious concerns, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness, minority populations, and low income populations.

4.0 ENVIRONMENTAL CONSEQUENCES

The Proposed Action and the No Action Alternative would have environmental effects. However, neither of the alternatives would have effects beyond those described in the Eugene District Record of Decision and Resource Management Plan and the Northwest Forest Plan. Impacts based upon analysis of the alternatives are described below.

4.1 Alternative “A” (No Action)

4.1.1 Issue #1 - What are the Effects to Terrestrial Threatened and Endangered Species?

Direct and Indirect Effects

Bald eagles and Northern spotted owls -Threatened

The direct effect of the No Action Alternative is the potential for disturbance from vehicle traffic and other disturbances would remain at current levels. Although current disturbance levels have not been quantified, it is assumed that some disturbance to potentially nesting spotted owls and potentially nesting or midwinter roosting bald eagles currently occurs in some areas.

The indirect effect of disturbance actions is the potential to preclude or interrupt owl or eagle nesting (causing failure or abandonment of nests) or eagle midwinter roosting activities.

4.1.2 Issue #2 - What Will Be The Impacts to Public Access On Existing Roads That Will Be Used On A Long-Term Basis, and Closing Roads Not Needed On A Long Term Basis?

Direct and Indirect Effects

Public access would not be affected by the No Action alternative. Roads on federal land would remain the same except in emergency situations, i.e., such as fire or rescue operations. Access on private land roads would continue to be subject to the decisions of the private landowners.

4.1.3 Issue #3 - What are the Effects of Road Management Activities on Water Quality in These Two 5th Field Watersheds?

Direct and Indirect Effects

The direct effect of this alternative is that erosion would continue at several stream adjacent roads and degrade water quality. Road improvement work would be take place at current levels. The sedimentation would be most noticeable at the localized site, rather than at the 5th field watershed level.

The indirect effect of implementing this alternative is that roads in need of improvement could continue to erode and worsen in condition over time, but negligible changes would be noticed at the 5th field watershed scale. Sediment production from roads would continue at roughly the current rate. If problem culverts fail, mass wasting would impair water quality in the short term.

If exposed soils at washed out stream crossings are over steepened and not revegetated, the impact to water quality could be long term until repairs are made.

No direct or indirect impacts to water chemistry or temperature would be expected as a result of implementing this alternative.

4.1.4 Issue #4 - What are The Effects of Road Management Activities on The Habitats of Fish and Other Aquatics Species?

Direct and Indirect Effects

Under the No Action Alternative, none of the roads would be decommissioned or fully decommissioned. Road improvement activities would not take place and some roads would not be maintained as often as needed due to budget constraints. Roads currently delivering fine sediments to the stream system through lack of maintenance, storm related failures, and off road vehicle use would continue to negatively impact fish and other aquatic life. Connectivity for threatened and endangered fish, resident fish, and other aquatic life as well as sediment and large woody material transport would not be restored to more natural levels.

4.2 Direct and Indirect Effects of Alternative “B” (Proposed Action)

4.2.1 Issue #1 - What are the Effects to Terrestrial Threatened and Endangered Species?

Direct and Indirect Effects

Bald Eagles - Threatened

Disturbance to Habitat: The proposed action would decommission a total of 3.01 miles within BEHA boundaries. The direct effect would be to prevent or reduce known or potential human disturbance to future nesting or midwinter roosting activities.

The proposed actions would decommission 0.97 mile of road within 0.25 mile (0.5 mile line of sight) of the stand containing the one active nest within the planning area. The direct effect would be to decrease the amount of current or future disturbance to this nest stand (would meet ACS Objectives 1,4,7).

No suitable nesting or known midwinter roost habitat would be disturbed during the seasonal restriction dates (see Design Features).

The indirect effects would be increased suitability and likelihood of use of these habitats for nesting or midwinter roosting and increased probability of reproductive success if nesting does occur.

Modification of Habitat: No suitable nesting or midwinter roosting habitat would be modified by the proposed action (except for minimal and infrequent removal of single trees to

accommodate habitat affecting projects such as culvert replacement).

Northern spotted owls - Threatened

The direct effects of this alternative would be to prevent or reduce known or potential human disturbance to future nesting owls or their progeny. The indirect effects would be increased suitability and likelihood of use of these habitats for nesting and increased probability of reproductive success when nesting does occur.

Modification of Habitat: No suitable nesting or dispersal habitat would be modified by the proposed action (except for minimal and infrequent, removal of single trees to accommodate habitat affecting projects such as culvert replacement).

4.2.2 Issue #2 - What will be the impacts to public access on existing roads that will be used on a long-term basis, and closing existing roads not needed on a long-term basis?

Direct and Indirect Effects

Under the Proposed Action, approximately **25** miles of roads, or **102** road segments, would be closed by decommissioning. This would reduce the amount of road physically accessible to vehicles. Impacts would occur in two forms: first, roads **physically** accessible to vehicles may be closed; and second, roads **legally** accessible to the public may be closed.

Regarding physical access, most private timberland in the watershed is controlled by the Weyerhaeuser Company. Private timber companies generally opens its lands to big game hunting in the fall, although there is no legal and perpetual right of public access across their lands. Consequently, some hunters may cross through Weyerhaeuser land only to find that a particular road on public land has been closed or decommissioned. Hunters would still be able to walk along closed or decommissioned roads, but vehicle access would be eliminated. Other hunters who choose to not walk or cannot walk distances because of physical limitations may be displaced to other areas. The actual number of hunters that would be adversely affected is unknown but assumed to be low because there is no legal public access to roads that would be decommissioned or fully decommissioned.

Regarding legal public access, two general conditions must be met for a BLM road to provide legal public access. First, the road must begin from a county road, State highway or federal highway, and its beginning must be on public land. These roads all provide legal public access, and any BLM road stemming from them would provide legal public access onto adjacent public land. Second, if the BLM road crosses private land, BLM must have an easement from the private landowner granting the public the right to use the road.

Currently there is approximately **40** miles of road with legal public access in this analysis area. Under the Proposed Action, approximately **8** miles of legal public access roads were identified for decommissioning. This **8** miles of road is a collection of **27** road segments varying in size

from 0.05 mile to 0.93 mile.

Roads (approximately **25** miles) that would be closed or decommissioned under the Proposed Action are located so that access to them is limited by gated private lands with no right of legal public access granted to the public (except for the **8** miles identified in the above paragraph and included in the **25** miles). Thus, the impact of decommissioning approximately **25** miles of roads, or **102** road segments, within this watershed would be negligible to the issue of public access. (Refer to **Appendix A** for individual road recommendations, and **Appendix B** for location of individual affected roads)

4.2.3 Issue #3 - What are the effects of road management activities on water quality of nearby streams, and water quality in these two 5th field watersheds?

Direct and Indirect Effects

Repairing roads needed for future use would contribute to an improved condition at identified sites. This improvement may not be noticeable at the 5th field watershed level.

Removal of stream crossings and associated fill material would result in short term increases in turbidity during operations and after the first fall rains. By closing roads no longer needed, compacted road surfaces would be left in an erosion resistant condition and less likely to transport sediment to streams. This overall reduction of road generated sediment addition to streams would be a long term impact of implementing this alternative.

Proposed road improvement or road closures would have no direct or indirect impact on water chemistry or temperatures in these watersheds.

Closing roads should lead to a reduction of fine sediment available to be delivered to streams via the ditchline. The ditchline would be filled in and recontoured to blend in with the cutslope of the road. Tilling the compacted road bed would restore infiltration characteristics which would hasten vegetative recovery and prevent overland flow during larger run-off events. Although tilling can restore infiltration characteristics and move these acres toward a more natural sediment regime (this action would meet ACS Objective #5), full productivity may not be restored. Use of erosion control mats at restored stream crossings and planting seedlings would hasten recovery of the excavated or tilled ground.

4.2.3 Issue # 4 - What are the effects of road management activities on the habitats of fish and other aquatic species?

Direct and Indirect Effects

Many of the roads proposed for closure are currently delivering sediment to streams. Closure and hydrologic stabilization of these roads would reduce sediment inputs. Removal of stream crossings would restore connectivity to fish and other aquatic life as well as returning the routing of coarse sediment and large woody material to a more natural regime.

In addition, by closing roads, the remaining miles of road left open could be properly maintained as funding levels would more closely match maintenance costs, thus further reducing road related addition of fine sediment to the aquatic system.

The proposed action could have a short term negative effect on aquatic habitat, particularly during culvert removal/replacement activities. However, over the long term the proposed action would decrease sediment delivery from roads and remove migration barriers. The net effect of this action would be improved conditions for aquatic life in the Lower McKenzie Watershed.

4.3 Cumulative Effects

This analysis incorporates the analysis of cumulative effects in the USDA Forest Service and USDI Bureau of Land Management *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl*, February 1994, (Chapter 3 & 4) and in the Eugene District Proposed RMP/EIS November, 1994 (Chapter 4). Cumulative effects result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. These documents analyze most cumulative effects of road decommissioning, habitat restoration, and other related management activities. None of the alternatives in this Environmental Assessment would have cumulative effects on resources beyond those effects analyzed in the above documents. The following discussion supplements those analyzed, providing site specific information and analysis particular to the alternatives considered here.

Most of the Lower McKenzie Watershed is in forest industry ownership, with a small amount being BLM administered land and other private holdings. Land use in the watershed is primarily forest management in the higher elevations, rural residential and agriculture.

Private forest lands within the watershed would most likely continue to be subject to intensive forest management, including timber harvesting, burning slash piles, and replanting conifer seedlings. Also, some forest stands on private land could be converted to nonforest uses.

Roads constructed to facilitate timber harvests on private lands would likely be permanent, rocked roads.

Private timber companies would probably continue with their present policies regarding public access across their lands, including allowing public use during hunting seasons.

Alternative A (No Action)

There would be a continued downward trend in road conditions, especially on those segments

within Riparian Reserves where stream crossings are currently eroding, undersized, or potentially unstable. An increase in sedimentation to streams from these roads could be expected to incrementally continue into the future. The opportunity to close roads rarely used would be postponed.

Use of the existing network of forest roads for illegal trash and/or hazardous waste would continue most likely at the current rate. If county dump fees are increased, it would be expected that the amount of garbage dumping on public lands may also increase.

Needed road maintenance would not be completed now or in the future because of continuing budget constraints. This is due to the downward trend in timber harvest revenues.

It is likely that suitable spotted owl or eagle nesting habitat or potential eagle midwinter roosting habitat would continue to be disturbed without implementation of the proposed action. Without road decommissioning projects, the current amount of disturbance could continue to incrementally increase above current levels due to additional human access radiating out from currently disturbed areas.

Private lands within the planning area of the proposed actions currently provide very little suitable nesting habitat for owls or eagles and/or midwinter roosting habitat for eagles. It is likely that these habitats will continue to be removed or disturbed by future actions on these lands.

Alternative B (Proposed Action)

There would be no change in the amount of suitable habitat for plants, bryophytes, lichens, and fungi as it would take years for suitable habitat characteristics to develop after disturbance within the project areas.

Long-term effects would be expected to reduce disturbance to wildlife and improve terrestrial and aquatic habitat. With the implementation of Hills Creek / Little Fall Creek TMR, and the implementation of this proposed action, the cumulative effect would be a combined total of over 40 miles of roads decommissioned or fully decommissioned. This cumulative effect would hasten habitat restoration on public land throughout both watersheds. Delivery of fine sediment to streams would be minimized and in-stream migration barriers would be removed.

Legal public access would change from the present situation by closure or decommissioning of approximately 5 miles of public access roads. In addition, there would be approximately 6 miles of deferred decommissioning that would take place sometime in the future. Hunters would have approximately 20 miles less vehicle access to BLM lands during hunting season when private timber companies open their gates; there would however, still be pedestrian access on those closed roads.

Road decommissioning and/or repair would hasten restoration on federal land throughout the watershed. Delivery of fine sediment to streams would be minimized and in-stream migration barriers would be removed. Repair of existing roads would include replacement of log culverts, replacing undersized culverts, installing cross drains, improving ditchline drainage where necessary and surfacing with aggregate. These improvements would reduce sedimentation to streams.

Road closures would reduce opportunities for garbage dumping at those locations, but the problem may shift to other roads nearby as a result. As in Alternative A, if county dump fees are increased, the amount of garbage dumping on public lands may also increase.

Bald eagle surveys would be conducted and seasonal restrictions applied on the proposed action. Disturbance or modification of suitable nesting or midwinter roosting habitat would be infrequent and minimal, if at all, and no adverse cumulative effects are expected as a result of the proposed actions. Over the short and long term eagles and their habitat would benefit from the proposed actions.

Private lands within the Lower McKenzie Watershed currently provide very little suitable nesting habitat for eagles. It is likely that these habitats will continue to be removed or disturbed by future actions on these lands, including some disturbance to habitat on federal lands. The result is no effect to northern bald eagles due to the proposed actions.

Since seasonal restrictions on proposed actions would be applied as necessary, and disturbance or modification of suitable nesting would be infrequent and minimal, if at all, no adverse cumulative effects are expected as a result of the proposed actions. Over the short and long term, owls and their habitat would benefit from the proposed actions.

Private lands within the Lower McKenzie Watershed currently provide very little suitable nesting habitat for owls. It is likely that these habitats will continue to be removed or disturbed by future actions on these lands. The result is no effect to northern spotted owls due to the proposed actions.

4.4 Irreversible and Irretrievable Effects

There are no irreversible or irretrievable effects for threatened & endangered species, special status plants, and Survey and Manage bryophytes, lichens and fungi because no suitable habitat occurs in the roads.

There are no irreversible or irretrievable effects for water quality, fish, or soil productivity.

4.5 Other Environmental Effects - Common To All Action Alternatives

4.5.1 Unaffected Resources

The following either are not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concerns, prime or unique farm lands, floods plains, Native American religious concerns, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness, Minority populations, and low-income populations.

4.5.2 Wetlands

Since no ground disturbing activities would occur in meadows and wetlands, the hydrology in these sensitive areas would be maintained in the current condition, and ACS Objective 7 would be met.

4.5.3 Cultural Resources

No cultural sites have been identified. Therefore, there would be no direct, indirect or cumulative effects to cultural resources.

4.5.4 American Indian Rights

No impacts on American Indian social, economic, or subsistence rights are anticipated. No impacts are anticipated on the American Indian Religious Freedom Act. Management action information was sent to the Confederated Tribes of the Grand Ronde, and Confederated Tribes of the Siletz.

4.5.5 Environmental Justice

To comply with Executive Order 12898 of February 11, 1994, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the Bureau of Land Management, Eugene District, will ensure that the public, including minority communities and low income communities, have adequate access to public information relating to human health or environmental planning, regulations, and enforcement as required by law.

The District has not identified any environmental effects, including human health, economic and social effects of Federal actions, including effects on minority populations, low income populations, and Native American tribes, in this analysis.

5.0 CONSULTATION AND COORDINATION

5.1 EA Review

This Environmental Analysis is being mailed out to the following members of the public and organizations:

John Bianco	Harold Schroeder
Oregon DEQ	Sierra Club - Many Rivers Group
Jim Goodpasture	Swanson Superior Forest Products Inc.
Pam Hewitt	Craig Tupper
Charles & Reida Kimmel	Governor's Forest Planning Team
Lane County Land Management	Jan Wroncy
Carol Logan, Kalapooya Sacred Circle Alliance	Ann Mathews
Oregon Dept of Fish & Wildlife	American Lands Alliance
Oregon Dept of Forestry	Kris and John Ward
Oregon Natural Resources Council	Sondra Zemansky
The Pacific Rivers Council	Robert P Davison
John Poynter	Tom Stave, U of O Library
Leroy Pruitt	John Muir Project
Roseburg Forest Products Co.	James Johnston
Peter Saraceno	Scott Lucas

A summary was sent to those receiving the "Eugene BLM Eye to the Future" in July 2000 (approximately 250 mailings; a complete listing is available at the Eugene District Office).

5.2 Consultation

Effects from the proposed action on spring chinook and bull trout critical habitat and essential fish habitat are covered by the programmatic Biological Opinion issued for Willamette Spring Chinook (June 28, 1999) and Columbia River Bull Trout (July 8, 1998), so no further consultation is required.

The design criteria indicating appropriate work timing and procedures will be followed during implementation of this project.

6.0 LIST OF PREPARERS

The Proposed Action and alternatives were developed and analyzed by the following interdisciplinary team of BLM specialists:

NAME	TITLE	RESOURCE/DISCIPLINE
Rudy Wiedenbeck	Soil Scientist	Soils
Fred Kallien	Silviculturist	Silviculture
Kris Ward	Hydrologist	Water Resources
Mike Sabin	Engineer	Roads/Transportation
Cheshire Mayrsohn	Botanist	Botany
Mike Blow	Wildlife Biologist	Wildlife Habitat
Nikki Swanson	Fisheries Biologist	Fisheries
Don Wilbur	Natural Res. Spec.	Team Lead / Writer

7.0 REFERENCES

USDA Forest Service and USDI Bureau of Land Management. February 1994. Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl. Portland, Oregon.

USDA Forest Service and USDI Bureau of Land Management. April 1994. Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl.

USDI Bureau of Land Management. November 1994. Eugene District Resource Management Plan/Environmental Impact Statement. Eugene, Oregon: Eugene District Office.

USDI Bureau of Land Management. June 1995. Eugene District Record of Decision and Resource Management Plan. Eugene, Oregon: Eugene District Office.

USDI Bureau of Land Management. April 1996. Vida / McKenzie Watershed Analysis. Eugene, Oregon: Eugene District Office

USDI Bureau of Land Management. September 2001. Camp Creek Watershed Analysis (Supplement to Vida / McKenzie Watershed Analysis). Eugene, Oregon: Eugene District Office.

LOWER MCKENZIE RIVER TRANSPORTATION MANAGEMENT RECOMMENDATIONS

(5TH Field Watersheds)

Introduction

These Transportation Management Recommendations (TMR) were developed using information gathered in the office to determine the future need for roads and through a field review of individual road segments, locations of stream crossings, the number of ditch-line relief culverts on each segment, and to map active or potential problem areas. The information was analyzed by an Interdisciplinary Team (IDT) to determine the maintenance level of roads needed for future management actions. This effort also included recommendations for restorative upgrades to roads, or segments of roads to meet management objectives. These recommendations would help in attaining ACS objectives #1 thru 9.

Proposed road decommissioning would reduce road mileage in several areas, thereby helping restore natural hydrologic flows, reducing sedimentation and reducing disturbance to wildlife.

Environmental damage associated with keeping unneeded roads open would gradually increase over time, as well as the road maintenance funding would not be able to keep pace with the needs. Retaining these roads would result in increased costs and erosion.

Objectives:

- Develop and maintain Transportation Recommendations that meets ACS strategy (Eugene RMP, p.98)
- Control and prevent road-related run-off and sediment production. (NWFP-ROD, p.B-31)
- Reduce costs related to road maintenance by reducing the number of roads needing maintenance (Eugene RMP, p.98)
- Reduce public safety concerns due to poor conditions of roads.

Recommendation Process Involved The Following:

- field reviewing areas with a high road density on BLM managed areas.
- using information from the watershed analysis.
- reviewing documents to determine roads that have right-of-way agreements.
- examining planning documents to determine future management needs for roads.

Transportation Management Recommendations include roads located in the Camp Creek and Vida McKenzie Watershed Analysis Area. **Appendix A, Table I** describes recommendations, and are arranged by legal Township / Range / and Section that the roads are located in.

Management Action / Direction

The Eugene Resource Management Plan (1995) provided guidance for developing Transportation Management Recommendations (TMR). One of the main components of a TMR is to identify arterial and major collector roads that form the backbone of the transportation system in the planning area.

This TMR will help resolve problems associated with high road density by emphasizing the reduction of minor collector and

local road densities where those problems exist. It also identifies arterial and major collector roads that will remain the foundation of the transportation system.

Roads will also be managed to meet the needs identified under other resource programs (e.g., seasonal road closures for wildlife). Road management plans would address solutions or mitigation for road/access problems related to the wildlife resource including disturbance, erosion, trash, poaching, or shooting problems.

To implement any proposed road management action in this document (i.e., decommissioning), an environmental analysis would be completed with public review.

The terms “Decommissioning,” “Deferred Decommissioning,” and “Natural Decommissioning” are used throughout this document and are defined below:

Decommissioned Roads, are roads that would be closed, but could be used again in the future. If garbage dumping has occurred on the road, the material would be disposed of properly following a clearance by the Hazardous Materials Coordinator to ensure no hazardous substances exist on the site. Prior to closure, the road would be prepared to avoid future maintenance needs by: establishing drainage, removing fills in stream channels and potentially unstable fill areas, removing and properly disposing of metal culverts, utilizing native seed to revegetate exposed soils where needed, and using erosion control mats if necessary adjacent to stream crossings. These roads would be adequately blocked using adjacent trees or brush, boulders, or other barricades to prohibit vehicle use, especially where stream channels are exposed. In addition, the road bed may be tilled and the ditch eliminated by recontouring next to the cut slope.

Deferred Decommissioned Roads, are roads that will be analyzed in a future document which will be coordinated with Middle McKenzie Landscape Plan.

Natural Decommissioned Roads is where the adjacent vegetation has overgrown the road and has been determined by the interdisciplinary process to have no future need. The road may be closed with some type of barrier if needed. The road would not require future maintenance. Roads receiving this type of treatment would be removed from all road inventories.

Culverts usually will be removed on the decommissioned, deferred decommissioned, and natural decommissioned roads dependent on risk of failure.

METHODS AND CRITERIA:

To accomplish the objectives, BLM staff, including engineers and physical scientists field reviewed all BLM controlled roads to: 1) locate problem areas having high fine sediment delivery situations, and, 2) identify which of these could be effectively managed to reduce sediment delivery from the road network, 3) determine the road maintenance level needed for roads, 4) identify areas with high road density and emphasize the reduction of minor collector and local road densities.

A. Road Maintenance Level

All roads were reviewed in the field and the following information was considered to determine the road maintenance level.

- whether the road was part of a right-of-way agreement
- future timber harvest access needs
- suitability of the road for future use

_____ ***-Level of Road Maintenance Needed for the Future***

Maintenance Level 1: Road would be Decommissioned or Natural Decommissioned.

Maintenance Level 2: Road would be maintained for administrative use.

Maintenance Level 3: These roads are open seasonally or year round for commercial, recreational, or administrative access.

Maintenance Level 4: These roads are open all year and connect major administrative features (recreation sites, local road systems, administrative sites, etc.).

B. Types of Road Action Needed

In some cases, recommendations for certain roads are driven by a combination of reasons. **Table I** lists all roads identified on BLM land in this watershed by legal description. This table gives a code that briefly describes the proposed road action needed, the priority for that work, maintenance level, and comments/rationale. The types of proposed road projects are described below with the associated codes that can be found in **Table I**.

The following describes each “road action” and code, and which ACS Objectives would be met by implementing the work. The action that is applicable to each road segment is listed on **Table I** and form the basis for determining road project priorities.

-Permanent Road Improvements Actions:

Road Action 1: Repair/replace stream crossing culverts that present risk of mass wasting or sediment delivery to streams. Design these culverts to accommodate a 100-year flood event. (ACS Objectives 4, 5).

Road Action 2: Replace culverts that are barriers to fish and aquatic life. The highest priority would be barriers to anadromous fish. Design to accommodate 100-year flood events and fish migration. (ACS Objectives 1, 2, 9).

Road Action 3: Install additional cross drain relief culverts where needed and/or replace damaged cross drain culverts to divert sediment from delivering to streams. (ACS Objectives 4, 5, 6).

Road Action 4: Resurface permanent roads with crushed rock to reduce sedimentation. (ACS Objectives 4, 5).

Road Action 5: Repair ditch system of road. (ACS Objectives 4, 6).

-These Road Actions Pertain To Decommissioned or Fully Decommissioned Roads:

Road Action 6: Remove culverts that are barriers to fish and aquatic life. The highest priority would be barriers to anadromous fish. Natural stream configurations are to be established and the road prism left in an erosion resistant condition. (ACS Objectives 4, 5).

Road Action 7: Close roads that are Maintenance Level 1 with little need in the future. Remove culverts, rehabilitate stream crossings, install drain dips and water bars. Till soil where indicated on Table 1. These roads are either: a) currently eroded and have potential for delivering sediment directly, or via a ditchline to streams, or b) are in the Riparian Reserves and could be rerouted to upland locations. (All ACS Objectives).

Road Action 8: Close roads that are Maintenance Level 1 with little need in the future. Remove galvanized metal pipes, which are typically cross drains but could be live streams. Till roads where indicated on Table 1. These roads usually have no stream crossings or currently have little potential to deliver sediment to streams. They are generally located on or near ridge tops. (All ACS Objectives).

Road Action 9: Close roads that currently cause disturbance to sensitive wildlife areas. Roads with little need in

the future that are within ¼ mile of Bald Eagle Habitat Areas (BEHAs) or Unmapped Late Successional Reserves would be highest priority. Block road (ACS Objectives 1, 9).

Road Action 10: Close roads that are currently problem dumping sites. Trash dumping sites would be cleaned-up, and the road would be blocked to prevent future dumping.

C. Project Priority:

The following describes each “Project Priority” code and rationale used in developing priorities for conducting the road project is described below. They are divided into two groups: **1)** Roads retained for permanent use, and **2)** Roads that would be closed (**See Table 1**).

-Work Priority For Roads That Would Remain Part of Permanent Road System:

Permanent Roads:

0P: No on-the-ground work is needed and no priority is assigned at this time. These roads are generally either (1) part of the permanent road system and are in good condition, or (2) are privately controlled.

1P: Currently there is existing water quality impairment and/or known blockage of anadromous fish. Without corrective measures, resource damage will continue.

2P: Work would consist of routine road maintenance, replacing cross drains, and/or removing barriers to fish migration.

-Implementation Priority For Roads Subject to Closure:

Road Decommissioning Priority:

0C: These roads are “naturally decommissioned” (currently over grown with vegetation) and are in an erosion resistant condition. They are no longer needed, no further work is necessary to meet ACS Objectives, and road records can be updated to reflect closure.

High Priority: These roads can deliver sediment to streams or are in Riparian Reserves and could be relocated to upland locations. Closure would improve riparian and wildlife habitat, water quality, or prevent further trash dumping. Barriers to fish and other aquatic life would be removed.

Medium Priority: Although there is at least one stream crossing, these roads have low potential to deliver sediment to streams. There may be existing stream crossings left in-place at the time of closure because those crossings are not considered to be at risk at this time.

Low Priority: These roads have low potential to deliver sediment to streams due to upland location. There are no stream crossings on these roads. The primary reason for closing would be to reduce road density.

**LOWER MCKENZIE RIVER
TRANSPORTATION MANAGEMENT RECOMMENDATIONS AND CONCERNS**

Adaptive Management Area (AMA) highlighted in *Italic print*.

Decom. = Decommission
PCT = Pre- Commercial Thinning

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
T. 16 S. R. 1 E.														
<i>T. 16 S., R. 1 E., Sec. 13 AMA</i>														
16-1E-13	8	None	1	N	0.05									Natural Decom.
16-1E-13.1	8	None	1	N	0.05									Natural Decom.
16-1E-13.2	8	Low	1	N	0.17									Decom. after PCT/ Pruning
16-1E-13.3	-	0P	2	N	0.5									No Action
16-1E-13.5	-	0P	2	N	0.06									No Action
16-1E-18B	-	0P	3	N	0.72									No Action
T. 16 S., R. 1 E., Sec. 21														
16-1E-30.1D			1	N	0.23									Natural Decom.
T. 16 S., R. 1 E., Sec 23														
16-1E-25.4	-	0P	3	N	0.61									No Action
16-1E-22	-	0P	1	N	0.23				X					
9140	6	High	1	N	0.3									Decom. Log Culverts (one under 20' of fill), very high risk of failure.
T. 16 S., R. 1 E., Sec. 25 AMA														
16-1E-24	8, 9	Medium	1	Y	0.23				X				X	Decom / Block
16-1E-25	8	None	1	Y	0.20								X	Natural Decom.
16-1E-25.1	8, 9	Low	1	Y	0.32				X				X	Decom./ Block
16-1E-25.2	9	Low	2	Y	0.93				X				X	Decom., Block After PCT/ Pruning
16-1E-25.3	-	0P	2	Y	0.60				X				X	
16-1E-25.4A	-	0P	3	Y	0.83								X	No Action Collector
16-1E-25.4B	-	0P	3	Y	0.10								X	No Action Collector
16-1E-25.5	8, 9	Low	1	Y	0.08				X				X	Decom., block
16-1E-25.6	8, 9	Low	1	Y	0.20				X				X	Decom., block
16-1E-25.7	-	0P	2	Y	1.02				X				X	No Action (mainline)
16-1E-25.8	-	0P	2	Y	0.3								X	

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
16-1E-25.9	8, 9	Medium	1	Y	0.37	X			X				X	Decom. After timber harvest, PCT/ Pruning
16-1E-25.10	8, 9	Medium	1	Y	0.34				X				X	Decom. Block
16-1E-25.11	8, 9	Medium	1	Y	0.25				X				X	Decom. Block
16-1E-25.12	8, 9	Low	1	Y	0.06				X				X	Decom. Block
16-1E-35.1 (spur only)	8, 9	Low	1	Y	0.05				X				X	Natural Decom. / Block
16-1E-35.1	-	0P	3	Y	0.64				X				X	Collector
T. 16 S., R. 1 E., Sec. 29														
T. 16 S., R. 1 E., Sec. 30														
16-1E-30.1A Pvt. Control					1.45									
16-1E-30.1B			2	N	0.23					X				
16-1E-30.1C Pvt. Control					0.14									
T. 16 S., R. 1 E., Sec. 31														
16-1E-26F	-	0P	3	N	0.11					X				
17-1E-13	-	0P	3	N						X				
17-1-13D	-	0P	2	N	0.2									Private Rts.
T. 16 S., R. 1 E., Sec. 33														
16-1E-34.1	8	Medium	1	N	0.3				X					Natural Decom. (one 36" CMP)
T. 16 S., R. 1 E., Sec. 35														
16-1E-35	-	0P	3	Y	0.4				X	X				
16-1E-35.2	6, 9	High	1	Y	0.6				X					Decom. Block (Two stream crossings).
16-1E-35.3	7, 9	High	1	Y	0.23		X		X					Decom., Block
17-1E-1	2	2P	3	Y	1.6				X	X				Two CMP's to be upgraded to 100 Yr. storm
T. 16 S., R. 1 E., Sec. 36														
16-1E-35.1	-	0P	3	Y	0.40					X				
T. 16 S., R. 2 E.														
T. 16 S., R. 2 E., Sec. 15 AMA														
16-2E-14.1C Pvt. Control		0P			0.45								X	
16-2E-14.1D		None			0.11								X	Natural Decom.
16-2E-14.1B	-	0P	2	N	0.28					X			X	

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
16-2E-15	8	Low	1	N	0.16								X	Decom., Block
16-2E-15.1	8	Low	1	N	0.13								X	Decom., Block
16-2E-15.2	8	Low	1	N	0.08								X	Natural Decom., Block
16-2E-15.3	8	Medium	1	N	0.15								X	Decom., Block, pull CMP's
16-2E-22	-	0P	2	N	0.65								X	No Action (Easement)
16-2E-22.1	8	Medium	1	N	0.37	X							X	Decom., pull CMP's after PCT / Pruning.
T. 16 S., R. 2 E., Sec. 17 AMA														
16-2E-18.1B	-	0P	1	N	0.57				X					
16-2E-18.2	8	Low	1	N	0.29				X					Decom., Block
16-2E-18.3D	8	None	1	N	0.05				X					Natural Decom.
16-2E-18.5	8	Low	1	N	0.14	X			X					Decom., Block after PCT / Pruning. (Water-bar, no till due to pit run). Part on Weyco. Land.
16-2E-20.1C	8	Low	1	N	0.14				X					Decom., Block, pull CMP's. Clear with Weyco.
T. 16 S., R. 2 E., Sec. 18 AMA														
16-2E-18A Pvt. Control					0.68									
16-2E-18.1B	-	OP	1	N	0.14									BLM Helicopter Landing
16-2E-18.2	8	Low	1	N	0.19									Decom. / Block
16-2E-18.3 A-C Pvt. Control					0.73									
T. 16 S., R. 2 E., Sec. 19 AMA														
16-2E-19.1	1, 2	1P	3	N	1.13		X			X				Rts. Undersized CMP's
16-2E-19.2	8	low	1	N	0.2	X								Decom., Block, Water-bar, pull CMP's After PCT / Pruning.
16-2E-19.3	8	Low	1	N	0.32	X								Decom., Block, waterbar, pull CMP's After PCT / Pruning.
16-2E-19.4	7	High	1	N	0.55	X	X							Decom., pull CMP's, Block, waterbar, after PCT / Pruning. Recycle crush rock onto Rd. 19.1.
16-2E-19.5	7	High	1	N	0.09	X	X							Decom., pull CMP's, Block, waterbar, after PCT / Pruning. Recycle crushed rock onto Rd. 19.1.

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
T. 16 S., R. 2 E., Sec. 20 -----No BLM Controlled Roads----- AMA														
T. 16 S., R. 2 E., Sec. 21 AMA														
16-2E-21	8	Low	1	N	0.12									Decom., Block (Private Rts.)
16-2E-21.1	-	0P	2	N	0.29									No Action
16-2E-21.2	8	Low	1	N	0.13									Decom., Block, pull CMP's.
16-2E-21.3	8	Low	1	N	0.04									Decom., Block, pull CMP's.
16-2E-21.4	-	0P	2	N	0.56									No action
16-2E-23.3F	-	0P	3	N	0.59					X				No Action, joint Control. Non-exclusive easement
T. 16 S., R. 2 E., Sec. 23 AMA														
16-2E-23	-	0P	3	N	0.95					X			X	Collector
16-2E-23.1A	3, 5	2P	2	N	0.45		X			X			X	Access to Sec. 24 by Private landowner.
16-2E-23.1B													X	Private
16-2E-23.2	-	0P	2	N	0.29								X	No Action
16-2E-23.3A Pvt. Control													X	
16-2E-23.4	8	Low	1	N	0.11								X	Decom.: Block No Till.
16-2E-23.5	-	0P	2	N	0.75								X	
16-2E-26B2	1	2P	2	N	0.68		X			X			X	Private Rts.
16-2E-26.1 Pvt. Control													X	
T. 16 S., R. 2 E., Sec. 24 AMA														
16-2E-26.3 Pvt. Control														
16-2E-24B	8	Low	1	N	0.19					X				Decom: Block, pull CMP's. .
T. 16 S., R. 2 E., Sec. 25 AMA														
16-2E-25A before gate	-	0P	2	N	0.17					X				No action
16-2E-25B	8, 9	Medium	1	N	0.31				X					Decom.: Block, pull CMP's, waterbar. After PCT / Pruning.
16-3E-29.2C	-	0P	2	N	0.77				X					No Action
16-3E-29.2D spur	9	Low			0.1				X					Decom.: Block
T. 16 S., R. 2 E., Sec. 27 -----No BLM Controlled Roads----- AMA														
T. 16 S., R. 2 E., Sec. 29 -----No BLM Controlled Roads----- AMA														

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
T. 16 S., R. 2 E., Sec. 30 AMA														
16-1E-25.2	-	0P	2	Y	0.05									No Action
T. 16 S., R. 2 E., Sec. 33 AMA														
16-2E-33 Pvt. Control													X	
16-2E-33sp.A	8	Low	1	N	0.05								X	Decom.: Block
16-2E-33sp.B	8	Low	1	N	0.1								X	Decom.: Block
16-2E-33.1A	-	0P	4	Y	0.17					X			X	No Action Pvt. Rts.
16-2E-33.1B	-	0P	4	N	0.37					X			X	Pvt. Rts.
16-2E-33.1C	3	2P	3	N	0.42		X			X			X	Add cross drain near junction with Rds. 33.1 & 33.4.
16-2E-33.1D	-	0P	3	N	0.17					X			X	
16-2E-33.1E	7	High	1	N	0.24		X						X	Decom. : Block and Pull CMP's after Harvest
16-2E-33.2	-	0P	3	N	0.82					X			X	RAWS Station access
16-2E-33.3	1, 4,5	1P	2	N	0.25		X		X	X			X	Protect Pvt. water Rights. Replace log culverts (high priority). Pond near road.
16-2E-33.4A	-	0P	2	N	0.41					X			X	
16-2E-33.4B	2	0P	3	N	0.35					X			X	Collector
16-2E-33.4C Pvt. Control				N									X	
16-2E-33.5	8	None	1	N	0.09					X			X	Natural Decom., & Block
16-2E-33.6	8	Low	1	N	0.2								X	Decom.: Pull CMP's, waterbar, block, after harvest.
16-2E-33.7	8	Low	1	N	0.09								X	Decom.: Pull CMP's, block, after harvest.
16-2E-33.8A	1	2P	3	N	0.4		X			X			X	Undersized CMP at stream crossing # 2. (special habitat feature)
T. 16 S. R 3 E.														
T. 16 S., R. 3 E., Sec. 21 AMA (Key Watershed)														
16-3E-21 A	-	0P	2	N	0.24	X				X				Ridgetop Road. USFS extension
16-3E-21B					0.08	X								USFS
16-3E-26.3 B	-	0P	3	N	1.65	X								Ridgetop Road.
Fire Road 21					0.03									Natural Decom
T. 16 S., R. 3 E., Sec 26 AMA (Key Watershed)														

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
16-3E-26.3 A	-	OP	3	N	0.4					X				
T. 16 E., R. 3 E., Sec. 27 AMA (Key Watershed)														
16-3E-26.3B	-	OP	3	N	1.5					X				No action
16-3E-27	-	OP	2	N	0.6				X					No action
16-3E-27.1	8	Low	1	N	0.27				X					Deferred Decom.: Block
T. 16 E., R. 3 E., Sec. 28 AMA (Key Watershed)														
Fire Road 21				N	0.20									Natural Decom.
16-3E-26.3B	-	OP	3	N	0.1					X				No action
T. 16 S., R. 3 E., Sec. 29 AMA (Key Watershed)														
16-3E-26.3C	8	Low	1	N	0.1					X				Deferred Decom.: Block
16-3E-26.3B	-	OP	3	N	0.25					X				No action
16-3E-29A	-	OP	3	N	0.50					X				Ridgetop road
16-3E-29B	-	Low	1	N	0.76									Deferred Decom. / Block No till.
16-3E-29.1	-	OP	3	N	0.66									Helipond access
16-3E-29.2A	-	OP	3	N	0.33					X				Collector
16-3E-29.3	8	Low	1	N	0.07									Deferred Decom: Block, Water-bar.
16-3E-29.4	8	Low	1	N	0.06									Deferred Decom.: Block, water-bar
T. 16 S., R. 3 E., Sec. 30 AMA (Key Watershed)														
16-3E-29.2B					0.65									Private
16-3E-29.2C	-	OP	3	N	0.77									
16-3E-30	8	Low	1	N	0.2	X								Deferred Decom.: Block, water-bar. After PCT / Pruning.
T. 16 S., R. 3 E., Sec. 31 -----No BLM Roads -----AMA														
T. 16 S., R. 3 E., Sec. 32 AMA (Key Watershed)														
16-3E-33.1	-	OP	1	N	0.71		X							Pump Chance
T. 16 S., R. 3 E., Sec. 33 AMA (Key Watershed)														
16-3E-33A	-	OP	3	N	1.8					X				Need for timber access
16-3E-33B	-	OP	2	N	0.08	X								Need for timber Access
16-3E-33.2	8	Low	1	N	0.18				X					Deferred Decom. & Block & water-bar.
16-3E-34B	-	OP	3	N	0.69									
Fire Road 33		None			0.85									Natural Decom.

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
T. 16 S., R. 3 E., Sec. 34 AMA (Key Watershed)														
16-3E-34A Pvt. Control	-				0.13									
16-3E-34B	-	0P	3	N	0.55									Widen road @ slide area.
17-3E-4					0.3 in this section.									USFS control
T. 16 S., R. 1 W.														
T. 16 S., R. 1 W., Sec. 25														
16-1-26A Pvt. Control					0.28									
16-1-26B	-	0P	2	N	0.7									Collector
16-1-26D	-	0P	2	N	0.1					X				No Action
17-1-4	8	Low	1	N	0.36									Decom. Block
T. 16 S., R. 1 W., Sec. 29														
16-1-29.3			3	N	0.88					X				Private Rights
16-1-29.5	8	None	1	N	0.32									Block; Natural Decom.
T. 16 S., R. 1 W., Sec. 31														
31 Spur A	8	Low	1	N	0.28								X	Decom. , Block, & Water-bar (OHV use)
31 Spur B	8	Low	1	N	0.19								X	Decom. , Block, & Water-bar (OHV use)
31 Spur D	7, 9	High	1	N	0.1		X		X				X	Decom., remove CMP's, Block, water-bar. Natural Decom beyond last CMP.
31 Spur E	8	OC	1	N	0.1								X	Natural Decom.
31 Spur F	7	High	1	N	0.05		X						X	Decom., Block & till
31 Spur G	8	Medium	1	N	0.05								X	Decom. & Block. (Motorcycle use on the meadow).
16-2-36.1	7	High	1	N	0.28		X						X	Decom.: reestablish stream flow, till, block.
16-1-31.1	1, 2, 3	1P	3	N	1.96		X	X					X	Lots of ditch sediment. Replace 3 undersized stream crossings (2 culverts are fish barriers), add cross drains, replace one cross drain.
16-1-31.2	3	2P	2	N	0.5		X						X	Add cross drains.
16-1-31.3	8	Low	1	N	0.1								X	Decom. : Block, & waterbar

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
16-1-31.4	8	Low	1	N	0.08						X		X	Decom.: Block, waterbar, scotch broom, berries.
16-1-31.6	-	0P	3	N	0.96					X			X	Collector
16-1-31.7	-	OC	1	N	0.21								X	Already decommissioned & Blocked and Tilled.
T. 16 S., R. 1 W., Sec. 33														
33 Spur A	8, 9	Medium	1	N	0.07				X				X	Decom. : Block. Beavers
16-1-33.1	8	OC	1	N	0.04						X		X	Natural decom. (Scotch broom)
16-1-33.2	8	Low	1	N	0.1								X	Decom.: Block, remove CMP
16-1-33.3 A	-	0P	2	N	0.08					X			X	
16-1-33.4	-	0P	3	N	0.25					X			X	
16-1-34A Pvt. Control					0.05								X	
16-1-34	7	Medium	1	N	0.23		X						X	Decom. (Two log Culverts)
17-1-4.3	-	OP	2	N	1.06								X	
T. 16 S., R. 1 W., Sec. 34														
16-1-33.4	-	0P	3	N	0.01					X				
T. 16 S., R. 1 W., Sec. 35														
16-1-35	1, 3, 4, 5	1P	2	N	0.5		X							Access to progeny site. Two log culverts to replace.
17-1-4	8	1P	1	N	0.55		X							Decom.Block: Old railroad grade, failing log culverts with deep fills.
T. 17 S., R. 1 E.														
T. 17 S., R. 1 E., Sec. 3														
17-1E-1	2	2P	3	Y	0.53			X	X					Collector. 3 Fish Barriers-trib to Johnson Cr., Cogswell Cr., trib to Cogswell.
17-1E-3	8, 9	Low	1	Y	0.22				X					Decom., block, remove CMP's.
17-1E-3.1	8, 9	Low	1	Y	0.09				X					Decom., block.
T. 17 S., R. 1 E., Sec. 15 -----No BLM Controlled Roads-----														
T. 17 S., R. 1 E., Sec. 19														
17-1E-19 Pvt. Control	1, 3, 5	2P	2	N	0.53				X	X				Taylor Boat Landing: The first 50' is BLM control.

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
T. 17 S., R. 1 E., Sec. 21 -----No BLM Controlled Roads-----														
T. 17 S., R. 2 E.														
T. 17 S., R. 2 E., Sec. 1 AMA (Key Watershed)														
16-2E-36.1	1, 2, 4, 5	1P	3	Y	1.06		X			X				BPA Rts. Field Review - fish. Needs maintenance and upgrade. 4 major CMP upgrades.
16-2E-36.2	-	0P	4	Y	1.4					X				Private Rts.
17-2E-1	8	Low	1	Y	0.14									Deferred Decom. & Block
17-2E-1.3	8	Low	1	Y	0.25									Deferred Decom. : Block (waste area access)
17-2E-1.2	5	1P	4	Y	0.34		X							Needs annual maintenance due to slides and raveling cut bank. (Hydro mulch)
17-3E-6.0	6, 7	High	1	Y	0.15		X							Deferred Decom. after harvest.
T. 17 S., R. 2 E., Sec 2 AMA (Key Watershed)														
17-2E-2A1	-	0P	3	Y	0.26					X				
17-2E-2A2	-	0P	3	Y	0.39					X				
17-2E-2.1	-	0P	3	Y	0.9					X				BPA Rts.
T. 17 S., R. 2 E., Sec. 3 AMA														
17-2E-2.1	1	2P	3	Y	0.62		X							Replace undersized stream crossing.
17-2E-3	-	0P	2	Y	1.09									Collector
17-2E-3.1	8, 9	Low	2	Y	0.12				X					Decom., & Block
17-2E-3.2	8	Low	2	Y	0.55									Decom. after PCT/ Pruning, and after harvest.
17-2E-3.3	8, 9	Low	1	Y	0.14				X					Decom..
T. 17 S., R. 2 E., Sec. 4 AMA														
16-2E-33.2	-	0P	3	N	0.75				X	X				Future needs by BLM, Weyco., US West
16-2E-33.4C	-	0P	2	N	0.66					X				Private Rights
16-2E-33.8	-	0P	3	N	0.69					X				Private Rts.
17-2E-4B	-	0P	2	N	0.30					X				Private Rts.
17-2E-4C	8	Low	1	N	0.20									Decom. After PCT
17-2E-9.1														Pvt. Control

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
17-2E-9.2B	-	0P	2	N	0.19					X				
17-2E-9.3	-	0P	2	N	0.3				X	X				RAWS Station
T. 17 S., R. 2 E., Sec. 5 AMA														
17-2E-5	8, 9	Medium	1	N	0.1				X					Decom.: Block
16-2E-33 Pvt. Control	1, 5	1P	-	N					X	X				BPA (one undersized culvert on tribe to Trout Ck.), Need low-bridge crossing on Trout Ck.
16-2E-33.2	1	1P	3	N	1.72		X							US West Cable. Stream crossing # 5 high failure risk, and under 40 Feet of fill. Replace CMP, fill with rip-rap.
T. 17 S., R. 2 E., Sec. 7 AMA														
17-2E-7A	-	0P	1	N	0.18				X	X				
17-2E-7B	8	Low	1		0.61		X		X					Decom: Major stream crossing
17-2E-7.1A	-	0P	1	N	0.07									Progeny site access (2-Culverts)
17-2E-7.1B	-	0P	1	N	0.12				X					Progeny site access
17-2E-7.2	8, 9	None	1	N	0.04				X					Natural Decom.
T. 17 S., R. 2 E., Sec. 8 AMA														
17-2E-8.1A Pvt. Control	-								X					
17-2E-8.2	8, 9	Low	1	N	0.25				X					Decom.: Block After PCT / Pruning.
17-1E-10 Pvt. Control										X				
T. 17 S., R. 2 E., Sec. 9 AMA														
17-2E-9	-	0P	2	N	0.08					X				No Action
17-2E-9.1A	-	0P	2	N	0.16				X	X				No Action, Weyco. maintains
17-2E-9 spr A	8	Low	1	N	0.10				X					Decom. Block BEHA
17-2E-9.2	-	0P	2	N	0.19				X	X				No Action
T. 17 S., R. 2 E., Sec. 11 AMA (Key Watershed)														
17-2E-2B	6, 7, 9, 10	High	1	N	1.2	X	X		X	X				Decom . Block
T. 17 S., R. 2 E., Sec. 12 -----No BLM Controlled Roads-----AMA (Key Watershed)														
T. 17 S., R. 3 E.														
T. 17 S., R. 3 E., Sec. 3 -----No BLM Controlled Roads-----AMA														

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
T. 17 S., R. 3 E., Sec. 4 -----No BLM Controlled Roads-----AMA														
T. 17 S., R. 3 E., Sec. 5 AMA (Key Watershed)														
16-2E-36.1	1, 2, 4, 5	1P	3	Y	0.84		X		X		X			Scotch Broom.. Needs maintenance & upgrade.
16-2E-36.2	-	0P	3	Y	0.19				X					
17-3E-5A	-	0P	2	Y	0.44				X					
17-3E-5B	8	Low	2	Y	0.19				X					Deferred Decom. Block in conjunction with future project @ power-line. Helicopter landing.
17-3E-5.1	-	0P	2	Y	0.26				X					No Action. Helicopter Landing.
1094	1,2,4,5	1P		Y	0.86		X	X						Goodpasture County Road (3.2 miles). (17 CMP 's to replace) 3-fish barriers
17-3E-5.2	-	0P	2	Y	0.12				X					Helicopter landing
T. 17 S., R. 3 E., Sec. 6 AMA (Key Watershed)														
16-2E-36.1	1, 2, 4	1P	3	Y	1.56		X	X	X				X	Needs Maintenance. 1 fish barrier
16-2E-36.2	-	0P	4	Y	1.25				X	X			X	Weyco. Rts.
17-2E-1.2	5	2P	4	Y	0.47		X		X				X	Needs annual maintenance due to slides & raveling cutbank. Erosion control near stream #2.
17-3E-6.0	6, 7	High	2	Y	1.2	X	X						X	Deferred Decom. Block in conjunction with future project. Need for Future TS.
17-3E-6.1	6, 7	High	1	Y	0.45		X						X	Deferred Decom (pull CMP's Block) in Conjunction with future project.
17-3E-6.2	8	Low	1	Y	0.5								X	Deferred Decom: pull CMP's, Block in conjunction with future project.
17-3E-6.3	8	Low	1	Y	0.15								X	Deferred Decom. & Block in conjunction with future project.
17-3E-6.4	8, 9	Medium	1	Y	0.40	X			X				X	Deferred Decom. & Block. No till. To be done in conjunction with future project.
17-3E-7	8	Low	1	Y	0.10								X	Deferred Decom. Block in conjunction with future project.
T. 17 S., R. 3 E., Sec. 7 AMA (Key Watershed)														

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
17-2E-1.2	5	2P	4	Y	2.67		X		X					High priority for annual maintenance due to cut bank ravel.
17-3E-7	9	0P	2	Y	0.15				X					Deferred Decom. Block
17-3E-7.1	9	0P	2	Y	0.1				X					Deferred Decom.
T. 17 S., R. 3 E., Sec. 8 AMA (Key Watershed)														
16-2E-36.2	-	0P	4	Y	1.95					X				No action
17-3E-8	-	0P	3	Y	0.05	X			X					No Action
17-3E-8.1	8	Medium	1	Y	0.2									Deferred Decom & Block in conjunction with future project.
17-3E-8.2	-		1	Y	0.25									Already decommissioned. Weyco. Control.
T. 17 S., R. 3 E., Sec. 9 AMA (Key Watershed)														
17-3E-8	2	0P	1	Y	0.34	X			X					No action. Emergency Helicopter landing at the end of road in Sec. 9.
17-3E-9.1	-	0P	OC	N	1.2				X	X				Natural Decom.
17-3E-9A Pvt. Control	-	0P		N	0.1				X					
17-3E-9B	3, 4	1P	3	N	0.51		X		X					
17-3E-16.1 Pvt. Control	-	0C	-	N	0.34				X					
T. 17 S., R. 3 E., Sec. 10 -----No BLM Controlled Roads-----AMA														
T. 17 S., R. 3 E., Sec. 11 -----No BLM Controlled Roads-----AMA														
T. 17 S., R. 3 E., Sec. 17 AMA (Key Watershed)														
16-2E-36.2	-	0P	4	Y	1.15					X				No action
17-3E-17 Pvt. Control	-	0P							X					
17-3E-17.1	8, 9	Low	1	N	0.17				X					Deferred Decom.. Remove rock and haul to stockpile site 09-83. Remove CMP's, till, block. (Road was never used). Do in conjunction with future project.
T. 17 S., R. 3 E., Sec. 18 -----No BLM Controlled Roads-----AMA														
T. 17 S., R. 1 W.														
T. 17 S., R. 1 W., Sec. 1														

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
17-1-1 Spur A	-	0P	1	N	0.25									No Action. May have future needs. Naturally blocked at this time.
17-1-13B	7	Medium	1	N	0.62		X							Decom.: Block for safety purposes. Old railroad grade, deep fills, failing log culverts.
17-1-1	-	0P	3	N	0.39									No action
17-1-6	8	Low	1	N	0.10									Decom.
17-1-13A Pvt Control	-	0P		N	0.54									
T. 17 S., R. 1 W., Sec. 3														
Spur A	-	None	1	N	0.03								X	Natural Decom., but future needs.
16-1-33.4	-	0P	2	N	0.25					X			X	
17-1-3A	2	2P	3	Y	0.19			X		X			X	No action. Oil Surface. 1-fish barrier, trib. to Camp Cr.
17-1-3B	1, 2	1P	3	Y	0.26		X			X			X	Undersized fish bearing CMP. May have to go outside easement to replace. Est. cost = \$100,000.
17-1-3C	1, 3	1P	3	Y	0.22		X			X			X	Sediment delivery from road junction with road 17-1-3.1. Culverts are smashed.
17-1-3D	-	OP	2	Y	0.29					X			X	Replace cross drains.
17-1-3.1	-	0P	2	N	0.33					X			X	Has improvements / BLM control. Private Rts.
17-1-3.3.B	7, 6	High	1	N	0.9		X				X		X	Decom. / Block. Weyco has rights on this road up to junction with 17-1-3.7. Scotch broom problem. Pull CMP's, block, till this road between roads -3.5 and -3.7.
17-1-3.3C	7	High	1	N	0.35		X						X	Decom beyond the jct of 17-1-3.7. Pull CMP's block.
17-1-3.4	8	Low	1	N	0.17								X	Decom & block
17-1-3.5	8	Low	1	N	0.06								X	Decom & block

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
17-1-3.6	3,5	2P	2	N	0.30		X			X			X	Access to Hell's Hill area. Runoff from seasonal wet area adjacent to road needs to be bermed or treated to reduce runoff. Armor ditch and install splash pad below culvert.
17-1-3.7 Pvt. Control	-	0P		N	.25		X						X	
T. 17 S., R. 1 W., Sec. 5														
Spur A	-	0P	2	N	0.19								X	RMOP 2001 project. Add rock, fill gullies, add outflow ditches to provide BPA access.
16-1-31.1	-	0P	3	N	0.43								X	No action
17-1-5.1	8	Low	1	N	0.10								X	Decom. & block, water bar. No till due to rock.
17-1-5.2	8	Low	1	N	0.10								X	Decom., pull pit run rock off and take to Spur A for base course. Till & Block.
17-1-8	2	1P	3	N	1.22		X	X	X				X	No action. Beaver dam will be maintained, while replacing CMP. RMOP 2001. BPA Rts. 2-fish barriers
17-1-8.1	7	High	1	N	0.30		X						X	Decom. Remove failing log culvert, till, and block at both ends.
T. 17 S., R. 1 W., Sec. 7														
17-1-7C	3	2P	2	N	0.83		X			X				Add cross drains. Rosboro has rights.
17-1-7.1	1, 3,46	2P	2	N	0.74		X			X				Rosboro has rights. Add cross drains. Two crossings are undersized and need replacement. Surface blading w/crown is needed. Ditches are excessively wide.
T. 17 S., R. 1 W., Sec. 9														
Spur A	10	High*	1	Y	0.13							X	X	Decom. block, and remove Garbage dump.
Spur B	8, 10	High	1	Y	0.01								X	Decom., block at junction with private road. Work to be done in conjunction with road 17-1-4.2B.

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
Spur C	7, 10	1C	1	Y	0.15		X						X	Decom., and block effectively.
Spur D	7, 10	1C	1	Y	0.15		X						X	Decom., and block effectively.
Spur E	8	3C	1	Y	0.01								X	Decom., and block at East line.
17-1-4.2B2 (upper portion)	7	1C	1	Y	0.3		X						X	Decom., pull CMP's, and block at junction with private road.
17-1-4.2B1 (lower portion)	-	0P	2	Y	0.2					X			X	No action, Private Rts.
17-1-4.2D	8	3C	1	Y	0.27								X	Decom., block, pull CMP's, waterbar.
17-1-9	-	0P	4	Y	2.23					X			X	Cross drains added FY 2000
17-1-9.1	1, 3, 5	1P	3	Y	0.35		X			X			X	Replace short CMPs at stream crossings #2 and #3. Add cross drains if needed.
17-1-9.2	7	1C	1	Y	0.2	X	X				X		X	Decom: block, pull CMPs, check ditch flow to eliminate sediment delivery to stream. Scotch Broom PCT / Pruning.
17-1-9.3	7, 10	1C	1	Y	0.05		X					X	X	Decom: Remove garbage, pull CMPs, block.
17-1-9.4	10	1C	1	Y	0.07						X	X	X	Decom: Remove trash, block. Scotch Broom
17-1-9.5	7, 10	1C	1	Y	0.42		X					X	X	Decom: Remove trash, block. Water quality impaired by oil/garbage.
17-1-9.6	-	0P	1	Y	0.43								X	PCT / Pruning
T. 17 S., R. 1 W., Sec. 11														
17-1-15.2A	-	0P	2	N	0.10									No action. Future Needs
17-1-15.2B	-	0P	2	N	0.60									No action. Future Needs
17-1-22E2	7	1C	1	N	0.60		X							Decom: block, till, remove stream crossing and plant. Under Pothole TS.
T. 17 S., R. 1 W., Sec. 15														
17-1-15	7	2C	1	N	0.15		X						X	Decom. Native surface. Block & till.
17-1-15.1	2	2P	3	N	0.60								X	Replace CMP on Rawhide Creek (log under CMP)
Spur A	7	2C	1	N	0.09		X						X	Decommission (use excavator). Block
Spur B	7	2C	1	N	0.15		X						X	Decommission, block & till

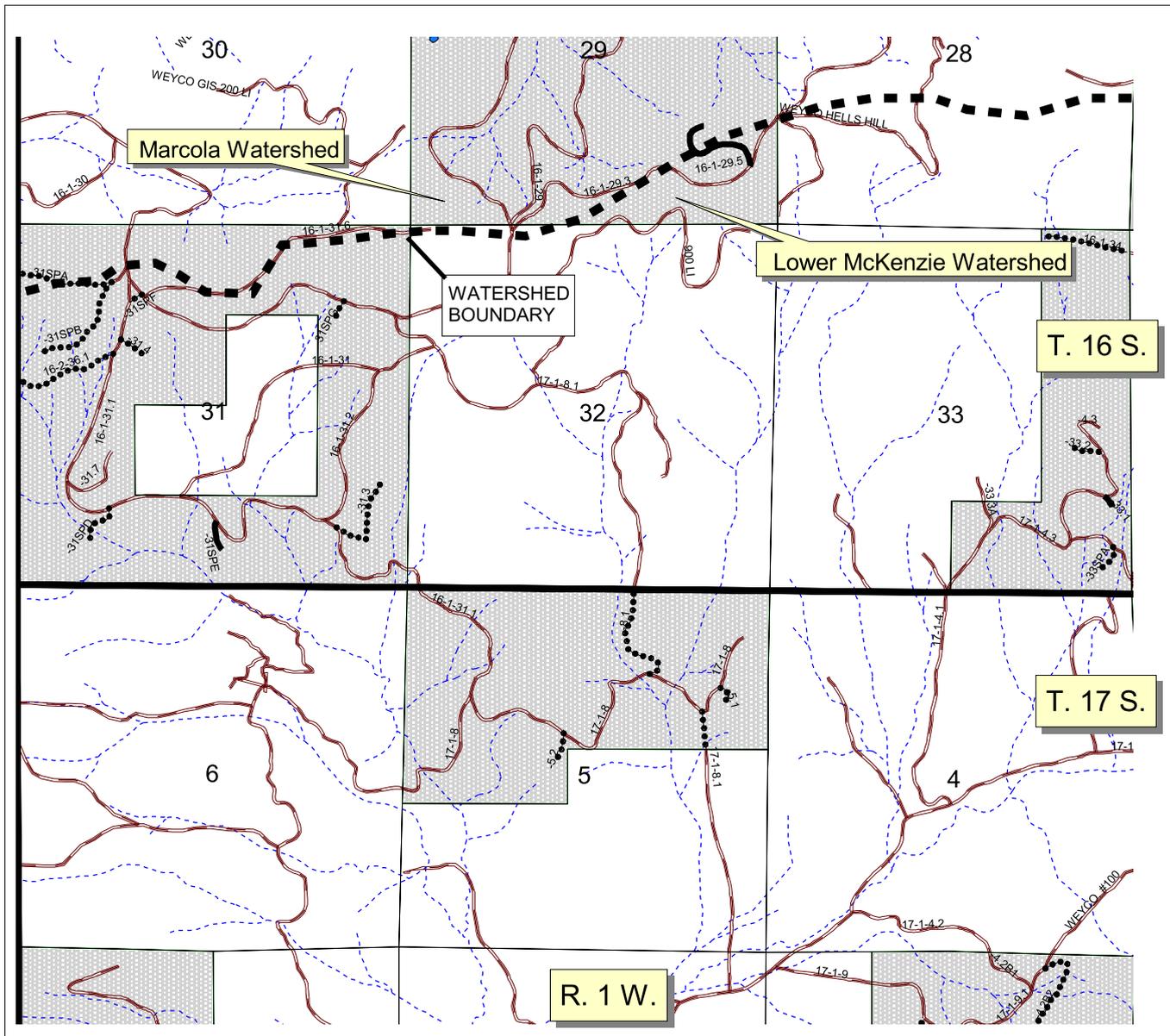
Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
17-1-15.2	1, 3, 4	2P	3	N	1.1		X						X	Downspout needed on Stream #5.
17-1-15.3	8	3C	1	N	0.23								X	Decom & block only. Trash
17-1-15.4	-	0P	3	N	0.91								X	No action. Future Use
17-1-15.5	8	3C	1	N	0.07								X	Decom & Block
17-1-15.6	8	3C	1	N	0.10								X	Decom & Block
17-1-15.7	8	3C	1	N	0.05								X	Decom & Block
17-1-15.9	8	3C	1	N	0.10								X	Increase berm height and add berms to block access.
17-1-15.2 Z	8	3C	1	N	0.10								X	Decom. & Block @ the 15.2 jct (Need creative blocking)
17-1-15.8	8	3C	1	N	0.06								X	Decom & Block @ Jct 15.2 / also block @ section line.
17-1-22B	-	0P	2	N	0.59								X	No action. A portion of this road BPA rerouted. A portion was fully decommissioned.
17-1-22C1	2	2P	3	N	0.40								X	Replace CMP @ Rawhide Creek (54"), replace stream crossing #6.
17-1-22.C2	8	3C	1	N	0.30								X	Decom. drop trees and water bar, use boulders under power line.
T. 17 S., R. 1 W., Sec. 17														
17-1-17.1	3	2P	2	N	0.50		X							Add cross drain, install CMP at seep.
17-1-17.2	-	0C	1	N	0.23									No action. Currently Decommissioned: blocked and waterbarred.
17-1-18C	-	0P	2	N	0.43					X	X			No action. Scotch Broom
17-1-18E	-	0P	2	N	0.06					X	X			No action. Scotch Broom
T. 17 S., R. 1 W., Sec. 19 -----No BLM Controlled Roads-----														
T. 17 S., R. 1 W., Sec. 21														
17-1-18H	8	0C	1	N	0.31						X			Natural Decom. (Scotch broom)
17-1-21	8	0C	1	N	0.12						X			Natural Decom., (Scotch broom)
T. 17 S., R. 1 W., Sec. 25 -----No BLM Controlled Roads-----														
T. 17 S., R. 1 W., Sec. 31														

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
18-2-1C	8, 10	2C	1	Y	0.63							X		Decom. Trash, party site. Decom. after timber sale. Pull CMP's.
T. 17 S., R. 1 W., Sec. 34														
17-1-34A	-	0P	3	Y	0.19									No action. Clements Rd.
T. 17 S., R. 1 W., Sec. 35														
17-1-34A2	1	2P	3	N	0.62		X			X			X	Garbage at gate. Replace stream crossing #2. Check stream crossing #1 and replace if necessary.
17-1-34B	1, 3	2P	3	N	1.28		X		X				X	Add two stream crossings. Pvt. Rts., Add cross drain at #9. Add pipe extension at stream crossing #4.
17-1-35	7	1C	1	N	0.45		X		X				X	Decom. Block at road junction and also on property line to the south. Excavator till to keep OHVs out on each end within sight of the road blocks. Waterbar the middle section of road.
17-1-35.1	8, 9	2C	2	N	0.07				X				X	Decom.
17-1-35.2	8, 9	2C	2	N	0.08				X				X	Decom.
T. 17 S., R. 2 W.														
T. 17 S., R. 2 W., Sec. 13 -----No BLM Controlled Roads-----														
T. 17 S., R. 2 W., Sec. 15 -----No BLM Controlled Roads-----														
T. 17 S., R. 2 W., Sec. 23 -----No BLM Controlled Roads-----														
T. 18 S., R. 1 W.														
T. 18 S., R. 1 W., Sec. 3														
17-1-34.1C	-	0P	3	N	1.71				X					No action.
17-1-35	6, 7	1C	1	N	0.38		X		X					Decom.
T. 18 S., R. 1 W., Sec. 5														
5.4	7	1C	1	N	0.20		X						X	Decom. Block. ATV use adding sedimentation.
5.3	8	0C	1	N	0.13						X		X	Natural decom. (Scotch Broom)
17-1-32B	-	0P	2	N	0.62								X	No action
17-1-32C	7	1C	3	N	0.95								X	Decom. Block / watrebar

Road No.	Road Action Needed	Project Priority	Maint. Level	Public Legal Access	Road Length	<10 yrs	Sediment / Erosion Concerns	Fish Passage Concerns	Wildlife Concerns	Shared Rights	Known Invasive Plants	Garbage Problems	High Road Density	COMMENTS / RATIONALE
18-1-5					0.57								X	Decom. Block. Remove log culvert / waterbar road.
18-1-5.1	-	0P	2	N	0.45								X	No action.
18-1-5.2	8	0C	1	N	0.15								X	Natural decom
18-1-5 SP A	7	1C	1	N	0.30			X					X	Decom. 1-fish barrier
T. 18 S., R. 1 W., Sec. 9														
18-1-9B	8	0P	1	N	0.66									Natural Decom.
T. 18 S., R. 2 W.														
T. 18 S., R. 2 W., Sec. 1														
18-2-1	1, 3	1P	3	N	1.67		X							Trash. Replace stream crossings #3, #10. Add cross drain.
18-2-1.1	3, 4, 5	1P	2	N	0.25		X							BPA Access to Power Lines.
Spur 5A	8	3C	1	N	0.38			X						Decom., After T.S.

MAPS

(INCLUDES ALL PUBLIC LAND IN THE
LOWER MCKENZIE RIVER WATERSHED)



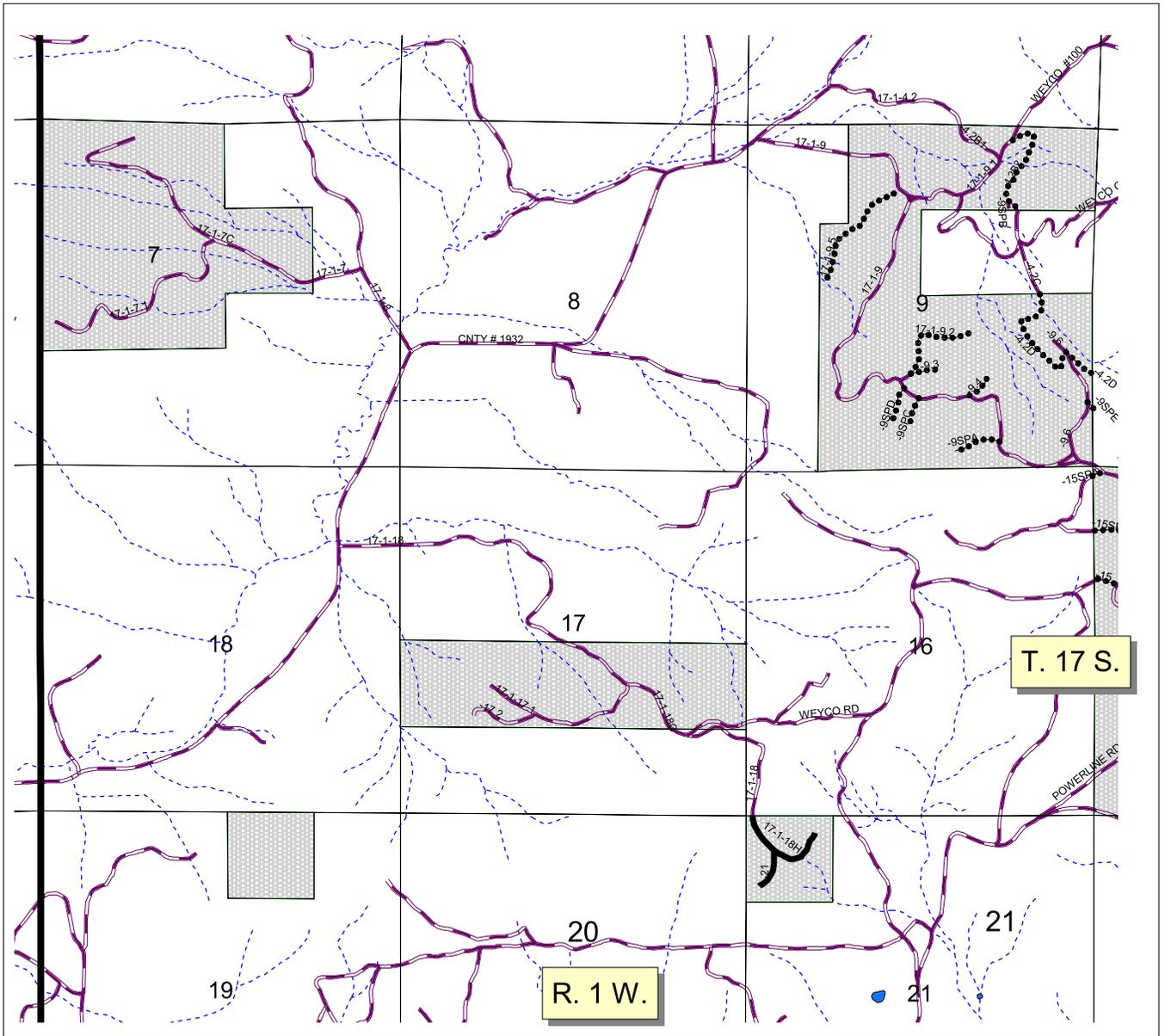
PROPOSED TRANSPORTATION PLAN
 McKENZIE RESOURCE AREA
 T. 16S., R. 1W., SEC. 29, 31, 33
 T. 17S., R. 1W., Sec 5
 Will. Mer. Lane Co., Oregon



SCALE

LEGEND

- Watershed Boundary
- DECOMMISSIONED ROADS
- DEFERRED DECOMMISSION ROADS
- NATURAL DECOMMISSION ROADS
- ROADS TO BE RETAINED
- Streams

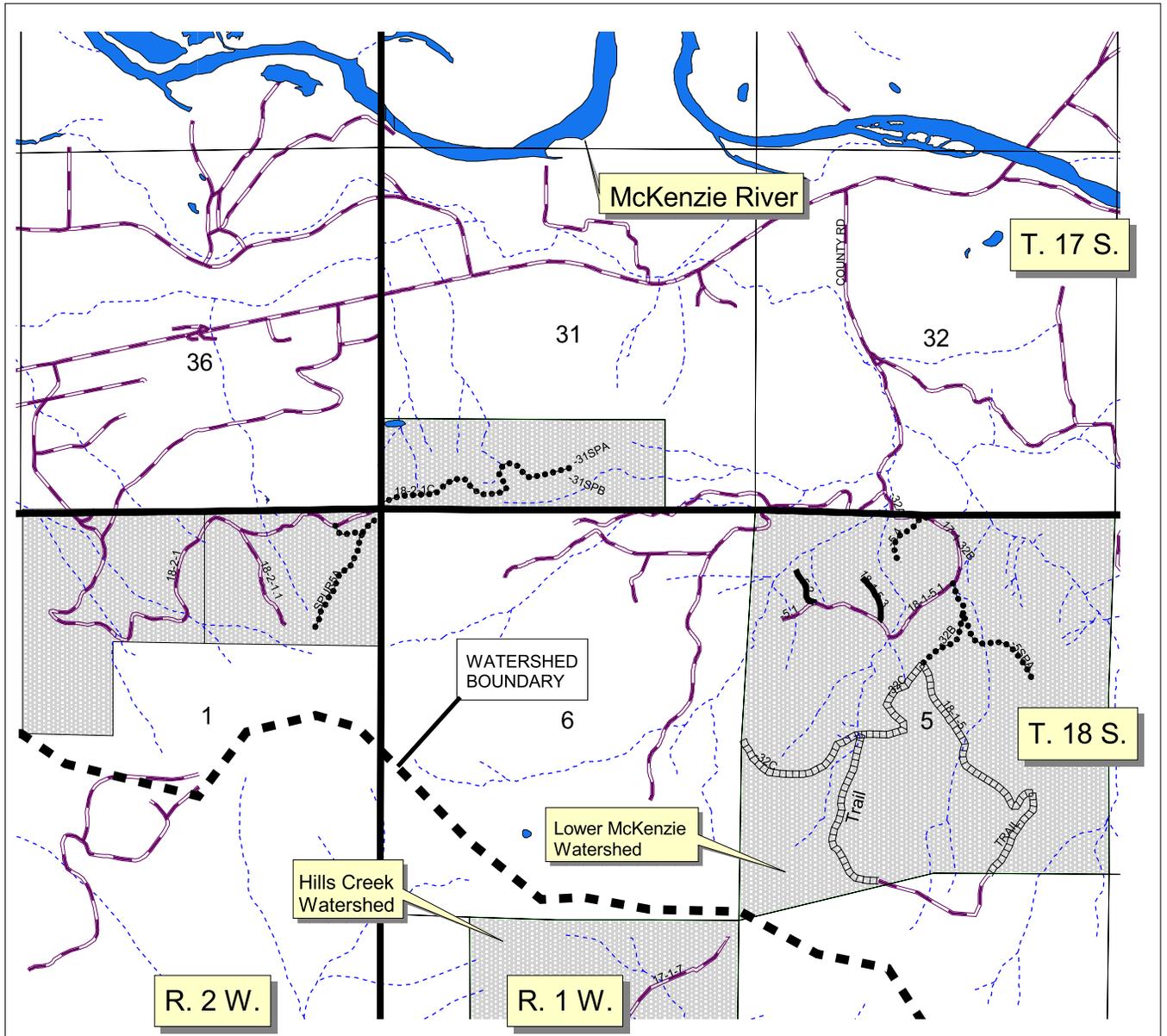


PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 17S., R. 1W., Sec. 9, 21
 Will. Mer. Lane Co., Oregon

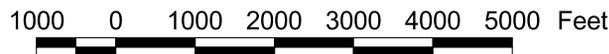


LEGEND

-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



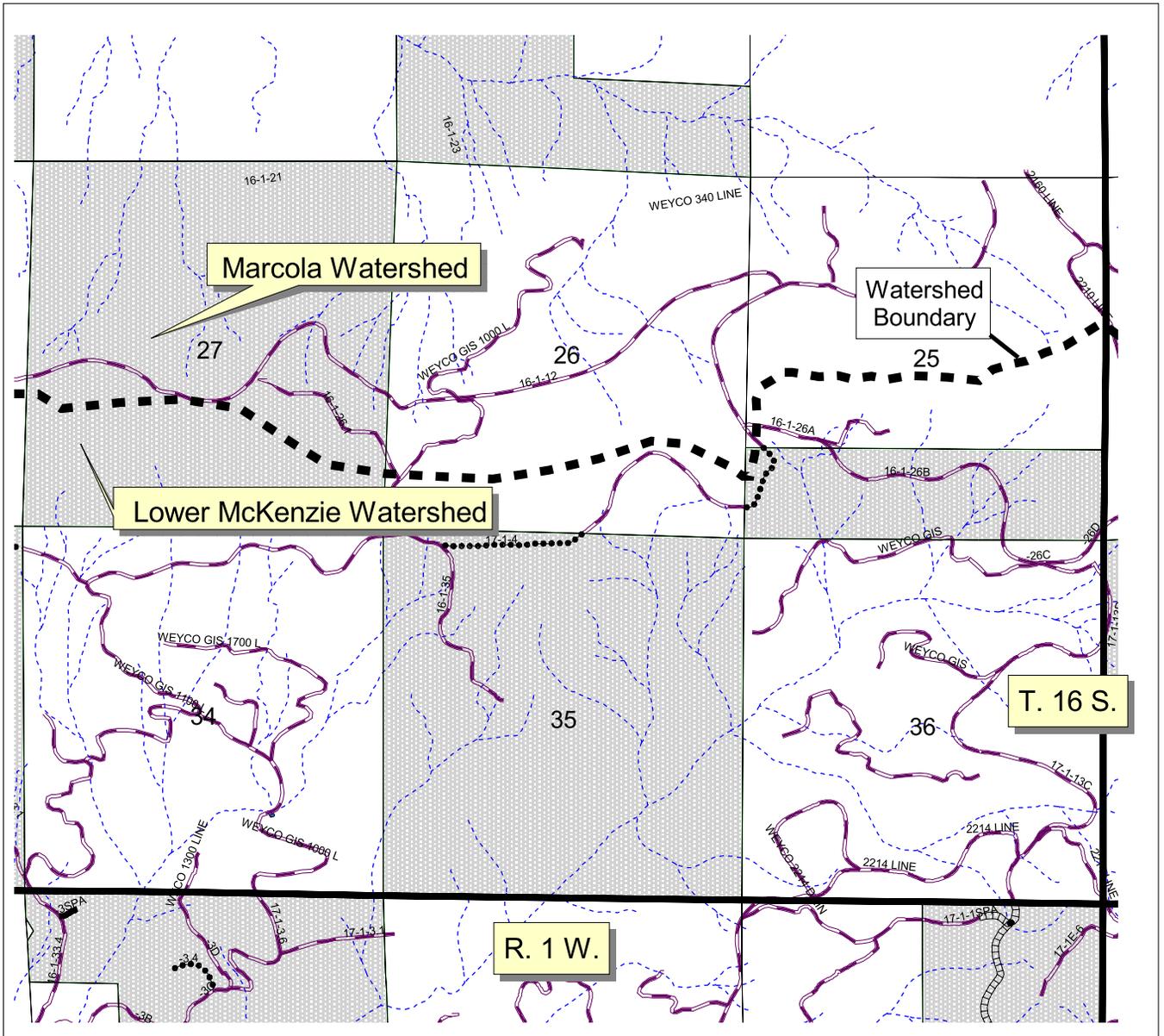
PROPOSED TRANSPORTATION PLAN
 McKENZIE RESOURCE AREA
 T. 17S., R. 1W., Sec. 31
 T. 18S., R. 1W., Sec. 5
 T. 18S., R. 2W., Sec. 1
 Will. Mer. Lane Co., Oregon



SCALE

LEGEND

-  Watershed Boundary
-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 16S., R. 1W., SEC. 25, 35
 Will. Mer. Lane Co., Oregon



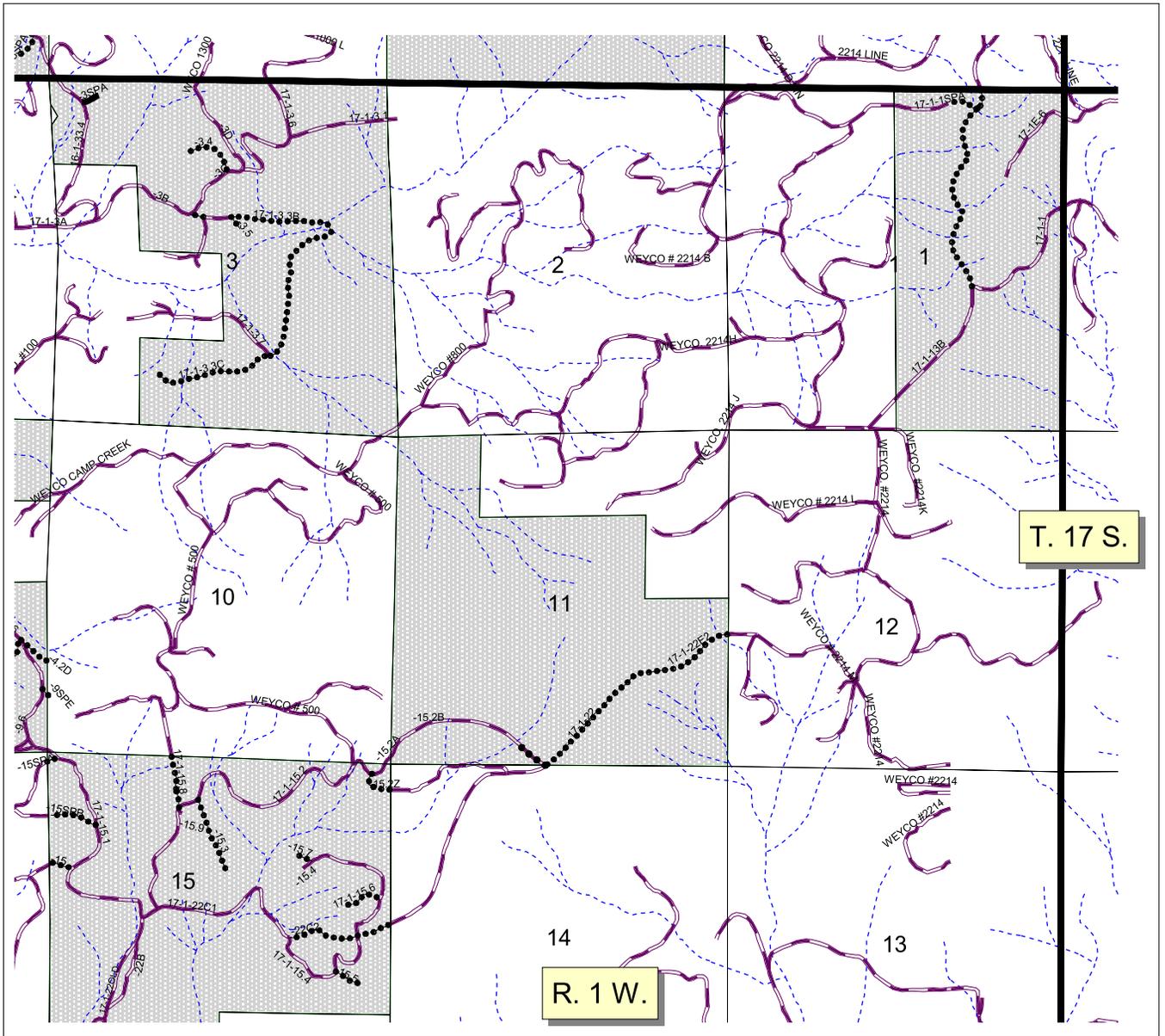
1000 0 1000 2000 3000 4000 5000 Feet



SCALE

LEGEND

-  Watershed Boundary
-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
- Streams



PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 17S., R. 1W., Sec. 1, 3, 11, 15
 Wil. Mer. Lane Co., Oregon

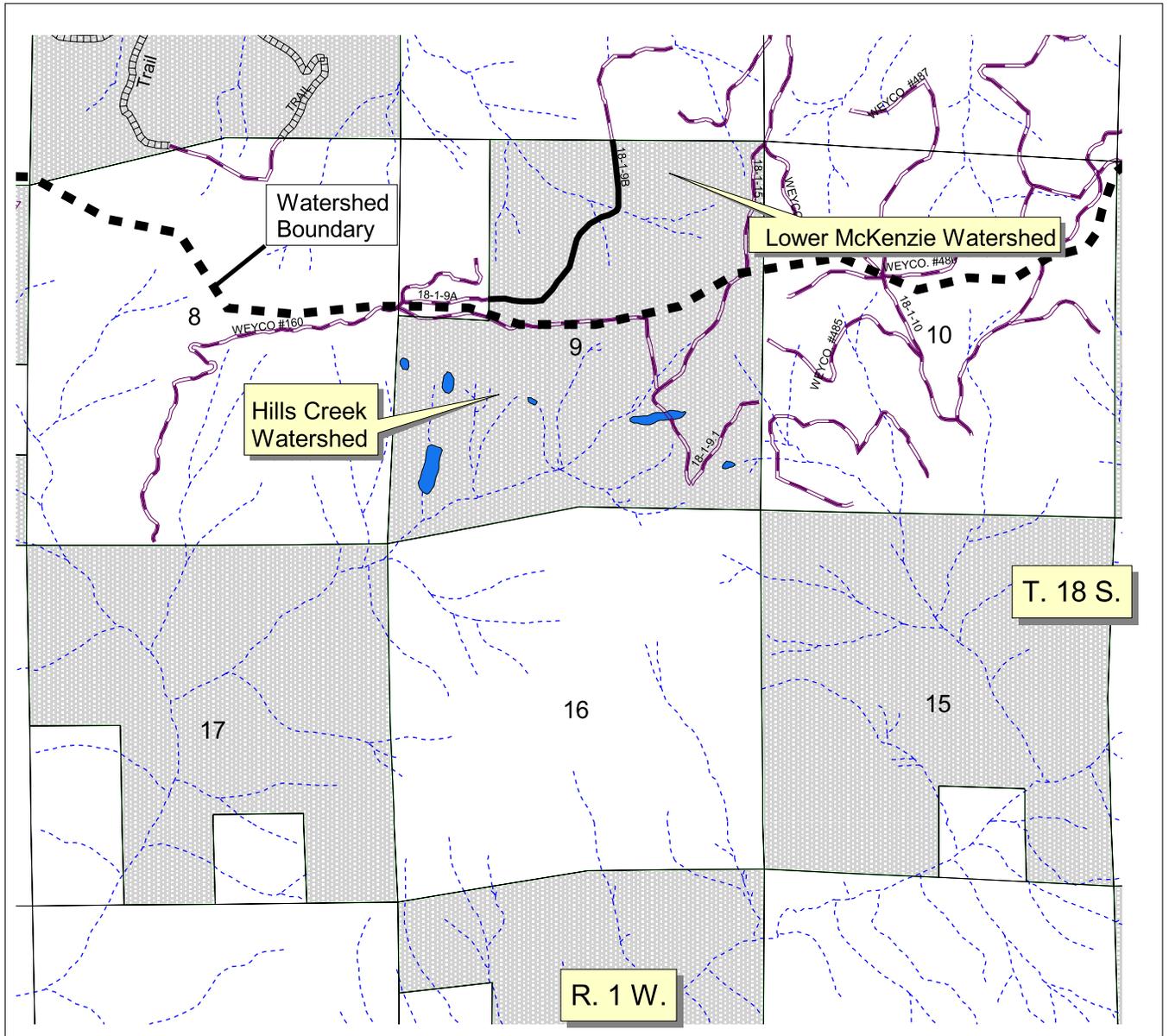
1000 0 1000 2000 3000 4000 5000 Feet



SCALE

LEGEND

-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 18S., R. 1W., SEC. 9
 Will. Mer. Lane Co., Oregon



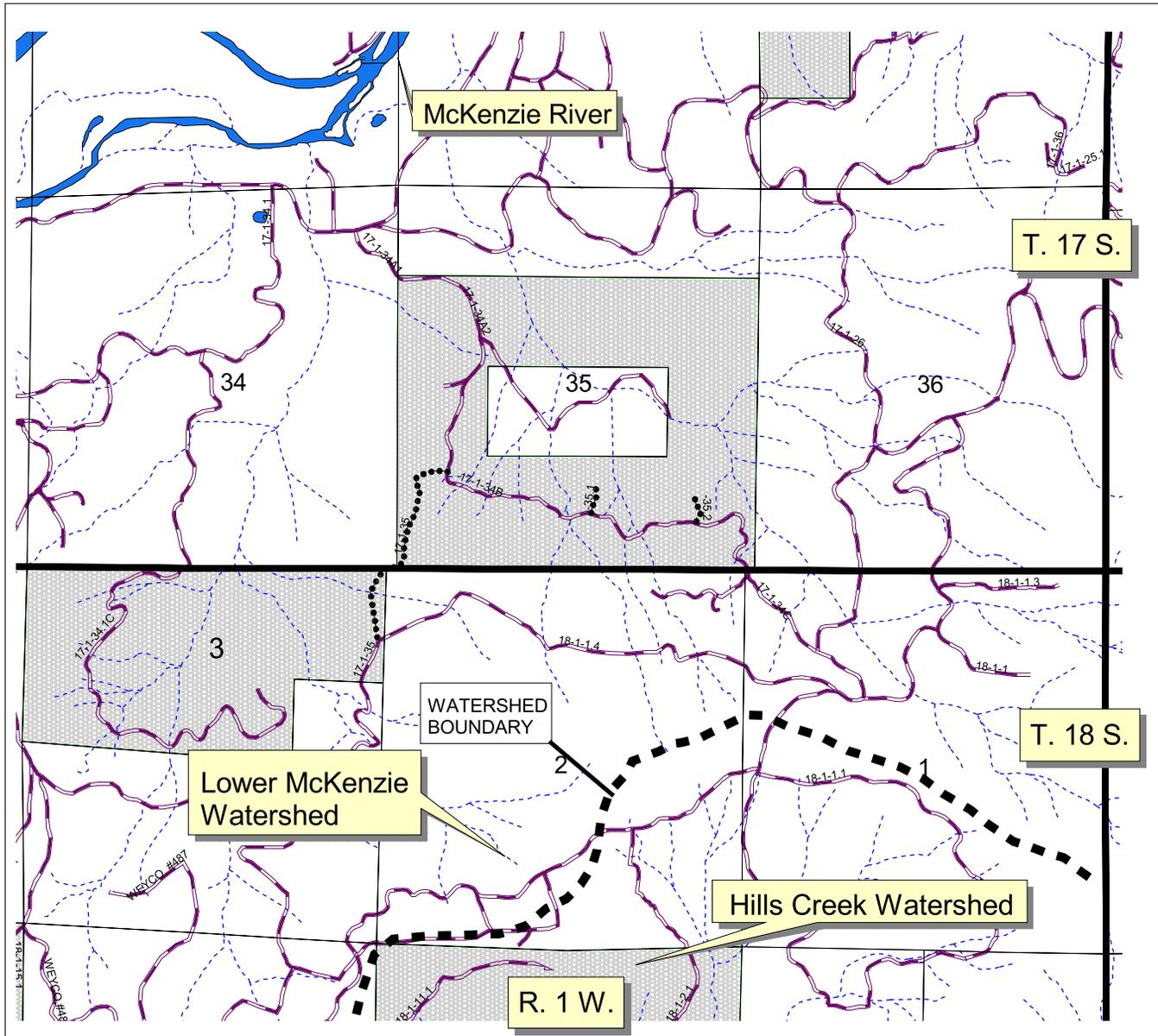
1000 0 1000 2000 3000 4000 5000 Feet



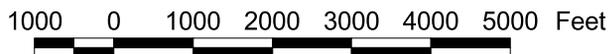
SCALE

LEGEND

-  Watershed Boundary
-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



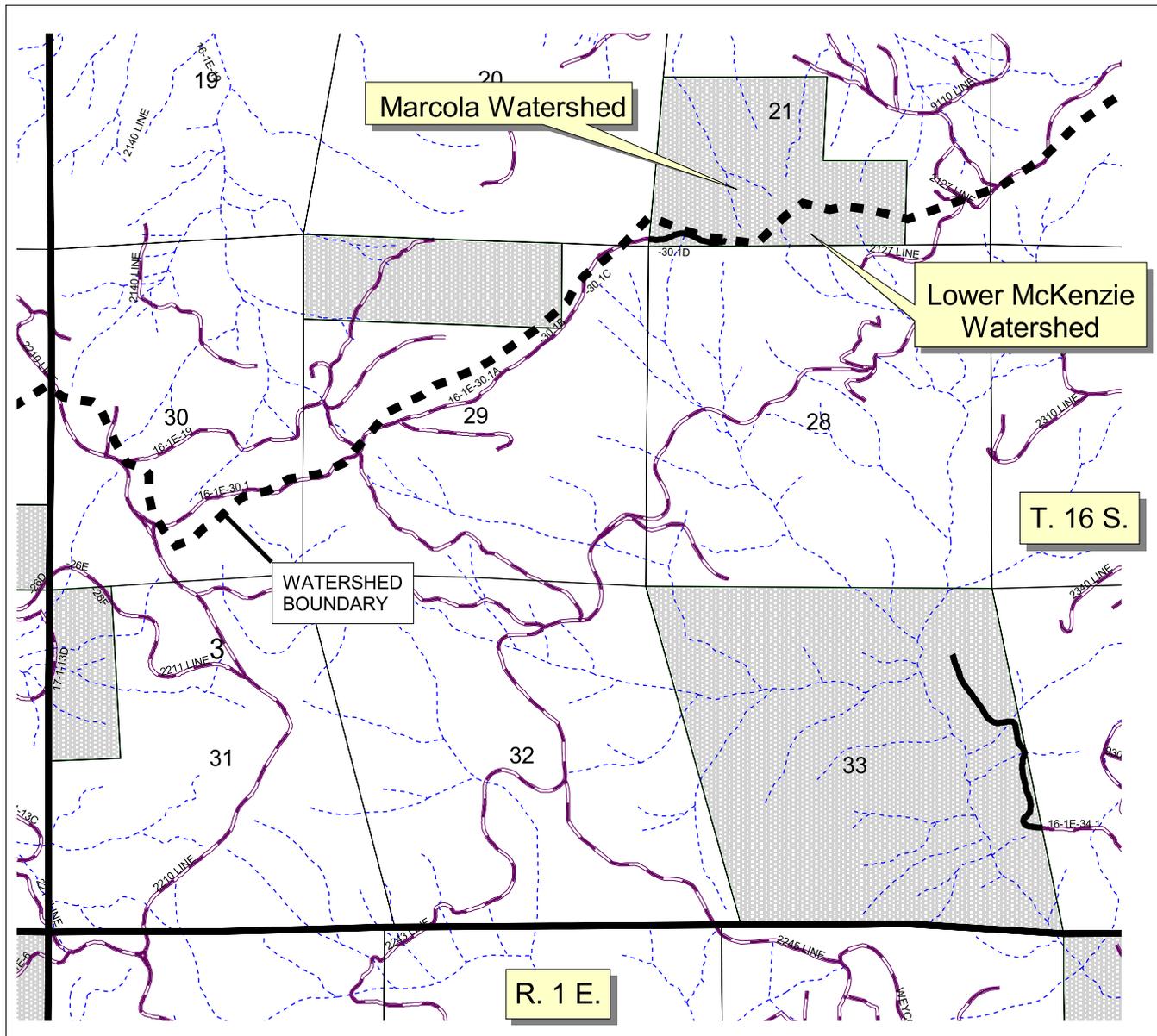
PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 17S., R. 1W., Sec. 35
 T. 18S., R. 1W., Sec. 3
 Will. Mer. Lane Co., Oregon



SCALE

LEGEND

-  Watershed Boundary
-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 16S., R. 1E., Sec. 21, 33
 Will. Mer. Lane Co., Oregon

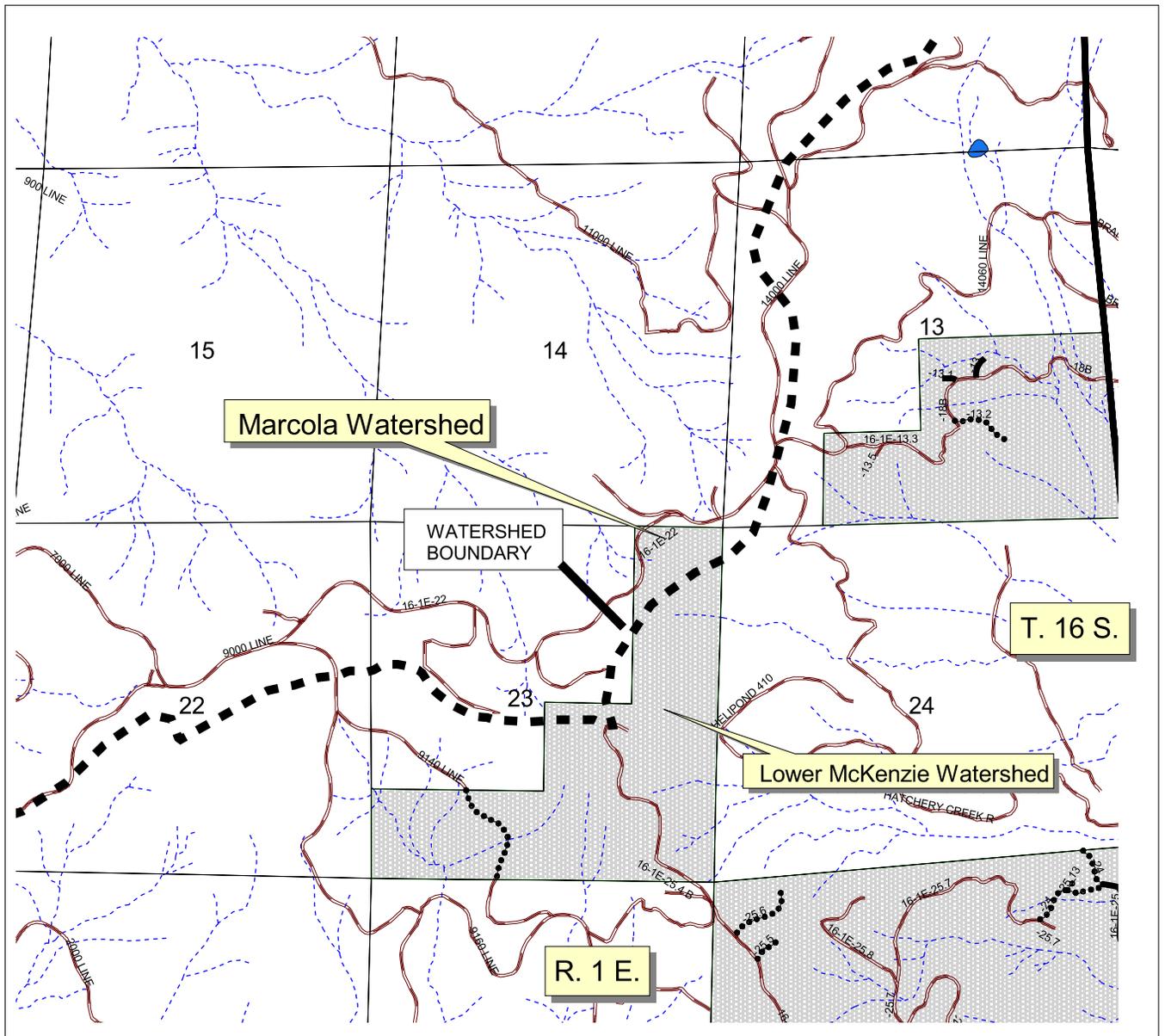
1000 0 1000 2000 3000 4000 5000 Feet



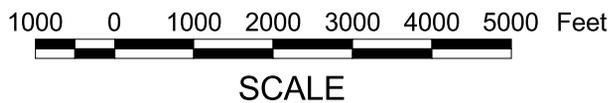
SCALE

LEGEND

-  Watershed Boundary
-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams

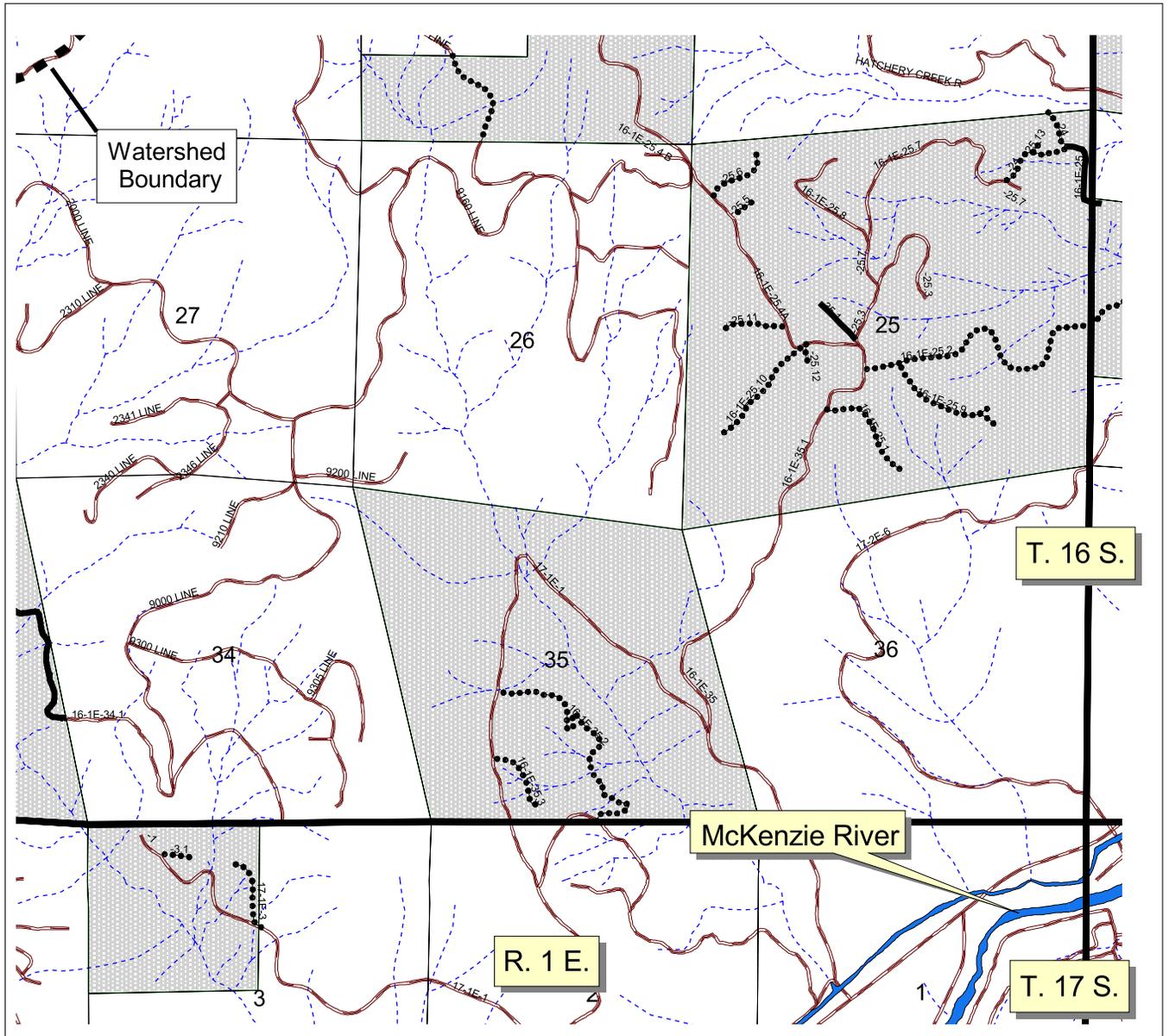


PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 16S., R. 1E., Sec. 13, 23
 Will. Mer. Lane Co., Oregon



LEGEND

-  Watershed Boundary
-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 16S., R. 1E., Sec. 25, 35
 T. 17S., R. 1E., Sec. 3
 Will. Mer. Lane Co., Oregon



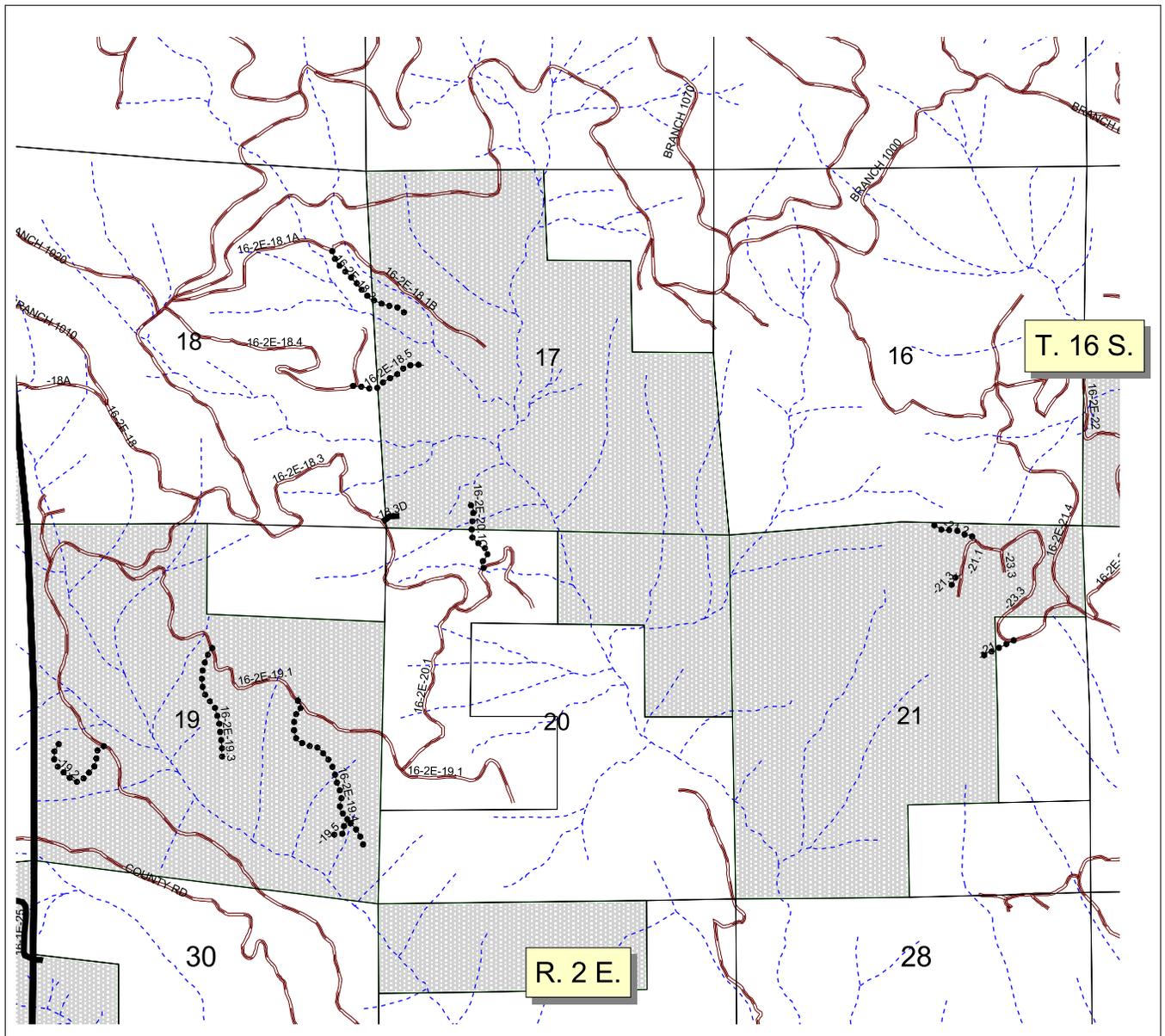
1000 0 1000 2000 3000 4000 5000 Feet



SCALE

LEGEND

-  Watershed Boundary
-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



PROPOSED TRANSPORTATION PLAN
 McKENZIE RESOURCE AREA
 T. 16S., R. 2E., Sec. 17, 19, 21
 Will. Mer. Lane Co., Oregon



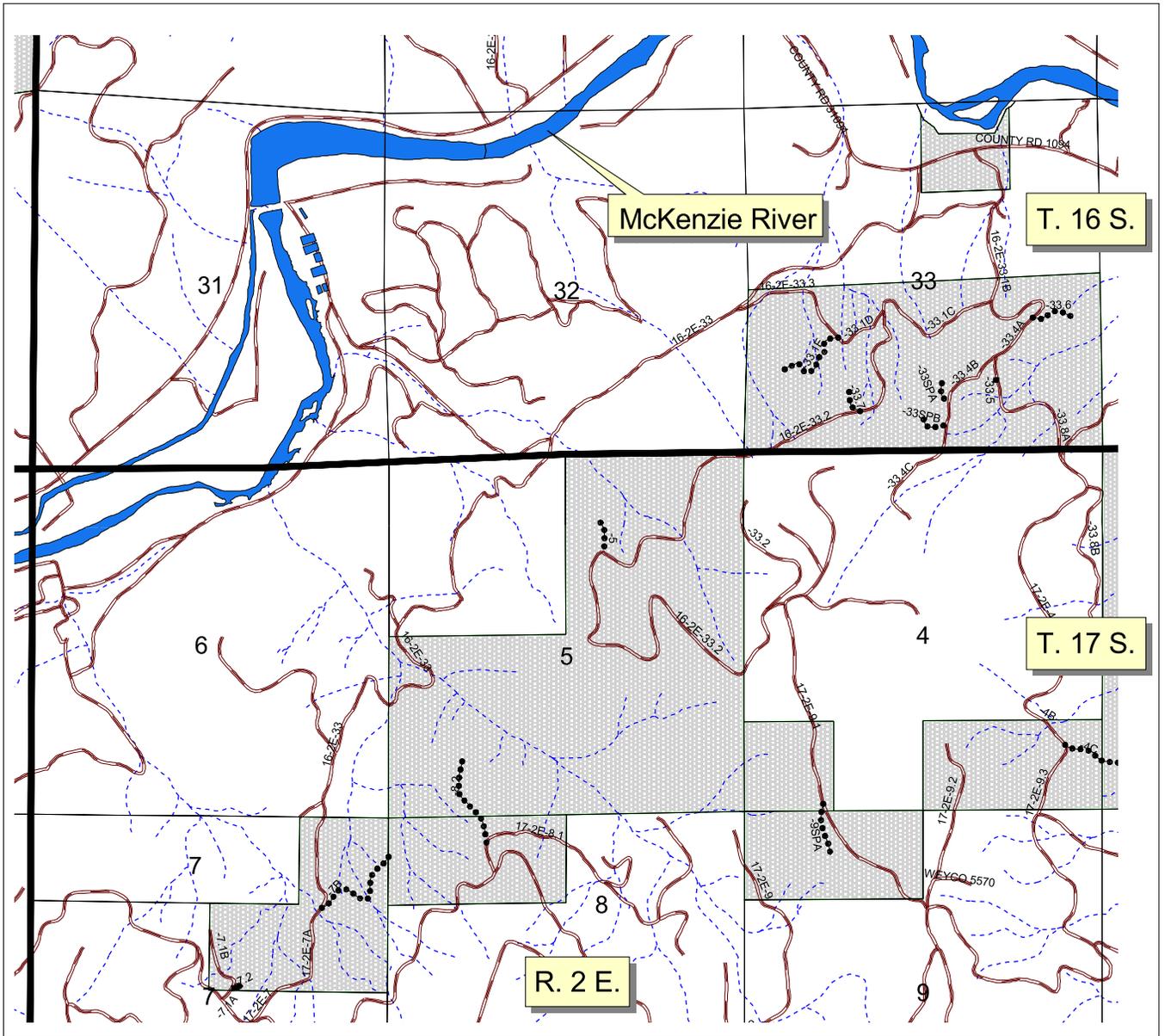
1000 0 1000 2000 3000 4000 5000 Feet



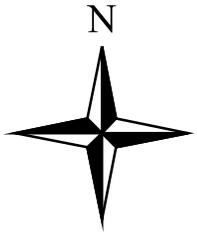
SCALE

LEGEND

-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams

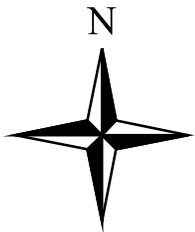
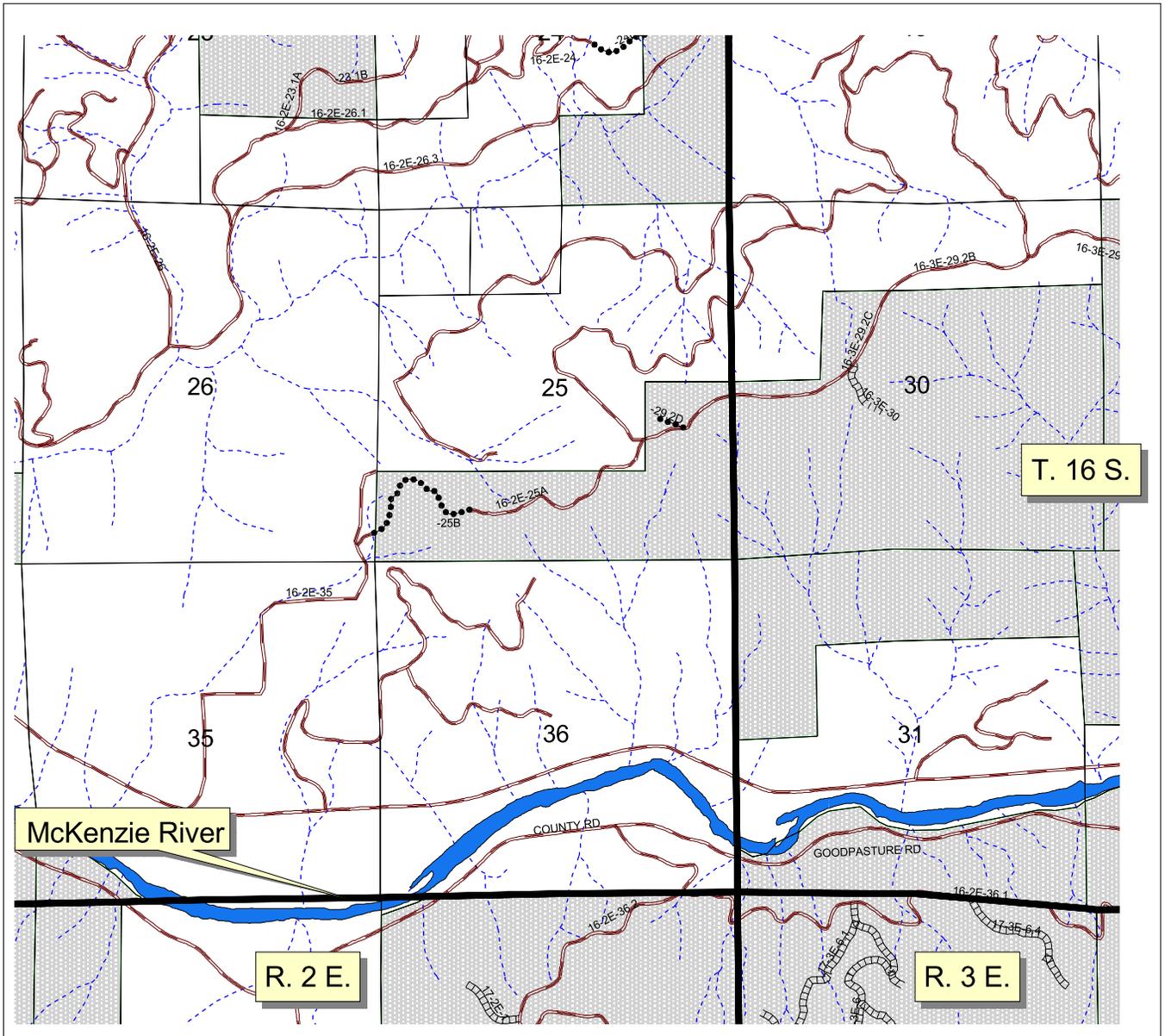


PROPOSED TRANSPORTATION PLAN
McKENZIE RESOURCE AREA
 T. 16S., R. 2E., Sec. 33
 T. 17S., R. 2E., Sec. 4, 5, 7, 8
 Will. Mer. Lane Co., Oregon



LEGEND

-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 16S., R. 2E., Sec. 25
 T. 16S., R. 3E., Sec. 30
 Will. Mer. Lane Co., Oregon

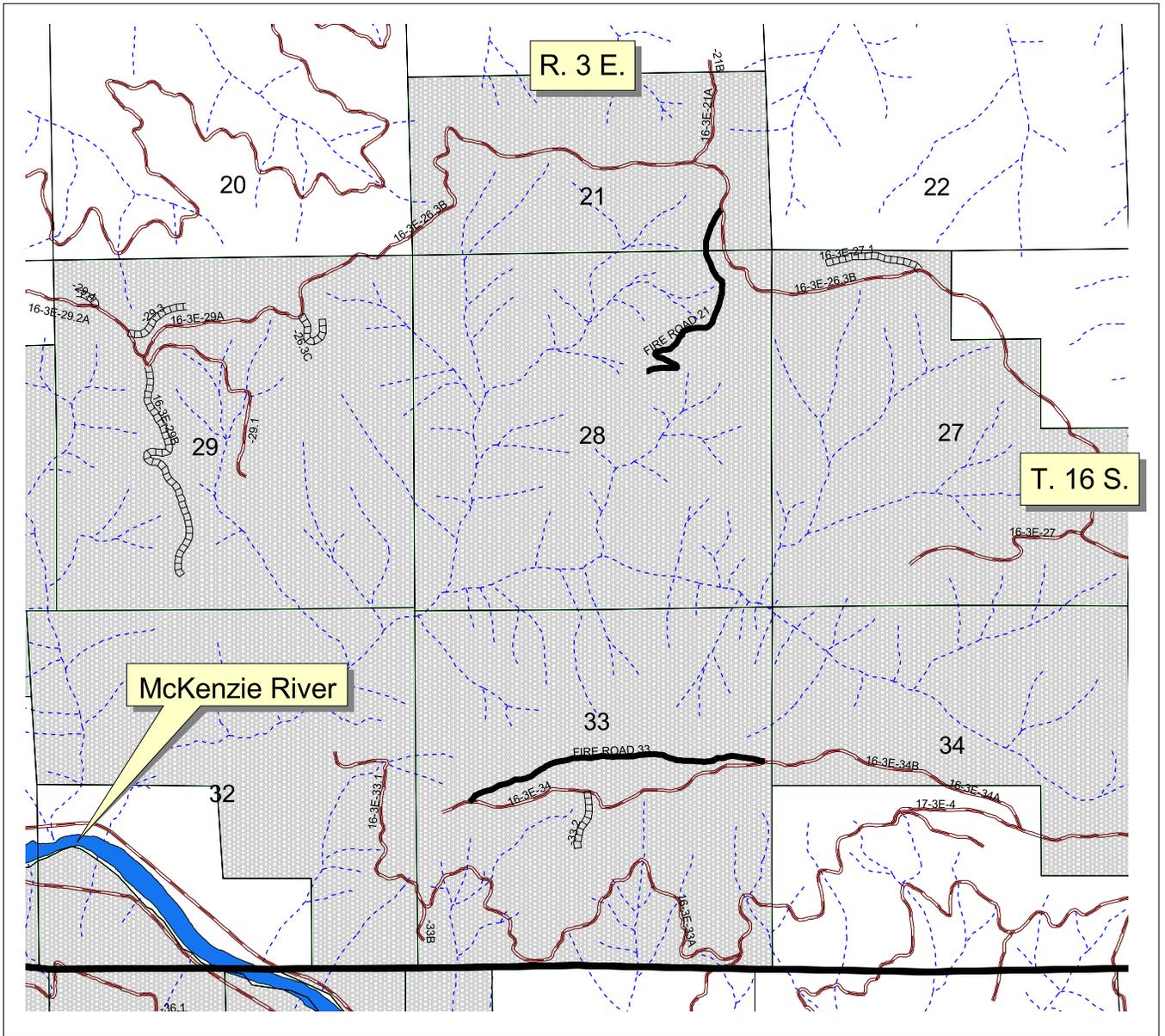
1000 0 1000 2000 3000 4000 5000 Feet



SCALE

LEGEND

-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



McKenzie River

R. 3 E.

T. 16 S.

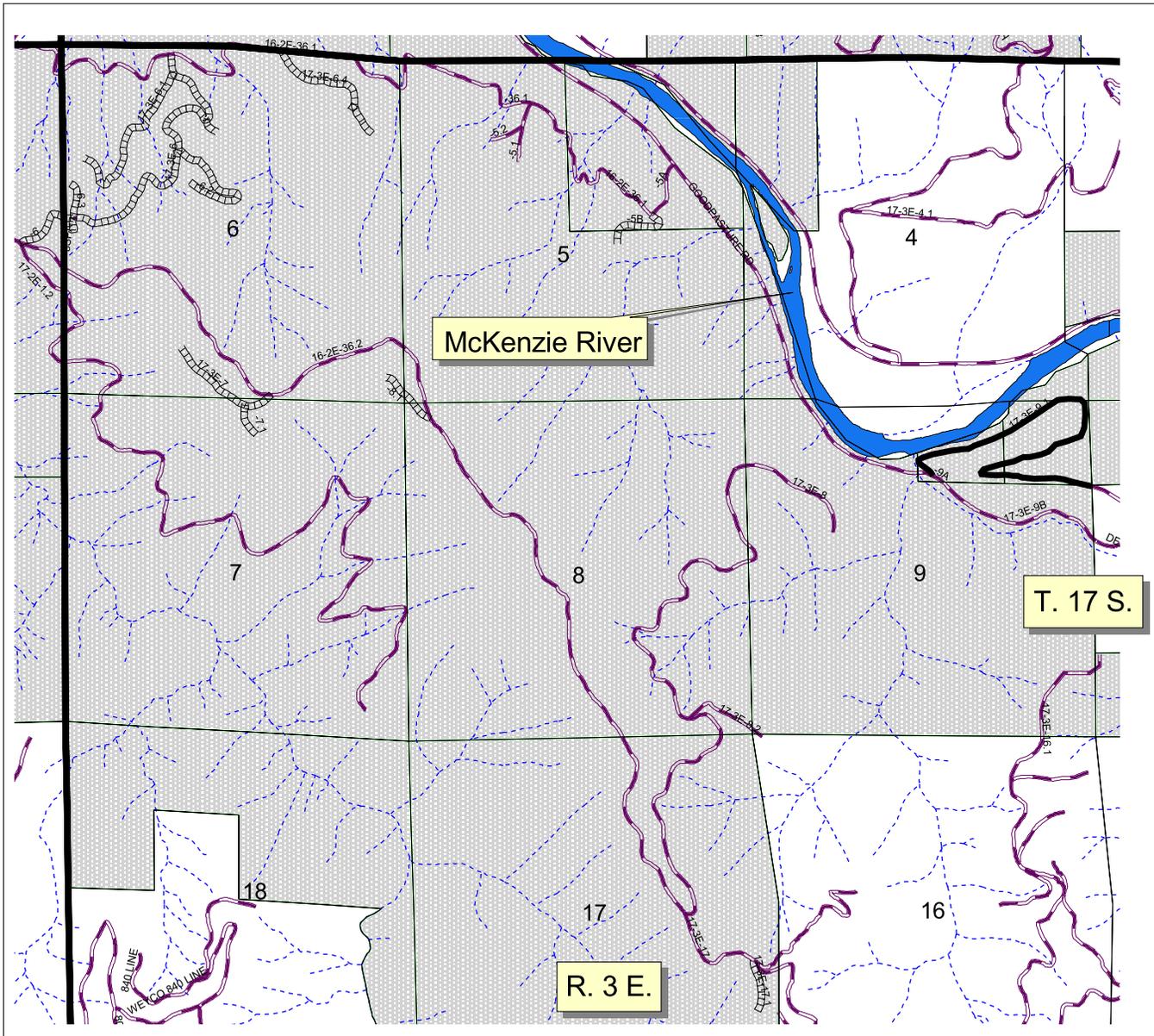


PROPOSED TRANSPORTATION PLAN
 McKENZIE RESOURCE AREA
 T. 16S., R. 3E., Sec. 21, 27, 28, 29, 32, 33
 Will. Mer. Lane Co., Oregon



LEGEND

-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams



PROPOSED TRANSPORTATION PLAN
 MCKENZIE RESOURCE AREA
 T. 17S., R. 3E., Sec. 5, 6, 7, 8, 9, 17
 Will. Mer., Lane Co., Oregon

1000 0 1000 2000 3000 4000 5000 Feet



SCALE

LEGEND

-  DECOMMISSIONED ROADS
-  DEFERRED DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  ROADS TO BE RETAINED
-  Streams

Aquatic Conservation Strategy Objectives

Forest Service and BLM-administered lands within the range of the Northern spotted owl will be managed to:

1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.
2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include flood plains, wetlands, up slope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.
4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.
5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.
6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.
7. Maintain and restore the timing, variability, and duration of flood plain inundation and water table elevation in meadows and wetlands.
8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distribution of coarse woody debris sufficient to sustain physical complexity and stability.
9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.

**UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE**

Finding of No Significant Impact
for
Implementation of the Lower McKenzie
Transportation Management Recommendations
OR090-EA-01-27

Determination:

On the basis of the information contained in the attached Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action or alternative will not have significant environmental impacts not already addressed in the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (April 1994) and the Eugene District Record of Decision and Resource Management Plan (June 1995)*, with which this EA is in conformance, and does not, in and of itself, constitute a major federal action affecting the quality of the human environment. Therefore, a new EIS or supplement to the existing EIS is unnecessary and will not be prepared.

Field Manager, McKenzie Resource Area

Date