Environmental Assessment

for

Oregon State University Right-of-Way
DOI-BLM-OR-S060-2009-014-EA

August 26, 2009

United States
Department of the Interior
Bureau of Land Management
Salem District
Tillamook Resource Area

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SALEM DISTRICT
TILLAMOOK RESOURCE AREA

Environmental Assessment
DOI-BLM-OR-S060-2009-014-EA
Oregon State University Right-of-Way

1.0 INTRODUCTION

This Environmental Assessment will address a right-of-way request by Oregon State University to install and maintain a flume for the purpose of measuring streamflow. The project area is on a tributary to the East Fork Trask River on BLM lands in Township 2 South, Range 6 West, section 19, Willamette Meridian, Tillamook County, Oregon, within the Riparian Reserve (RR) Land Use Allocation.

1.1 BACKGROUND

The Trask River Watershed Study is intended to assess onsite and downstream effects on aquatic ecosystems from forest management actions. Participating in the study are Oregon State University (OSU), the Oregon Department of Forestry, BLM, Weyerhaeuser Company, and others. The study requires, among other things, measurement of streamflow on several small headwater streams in the study area. One of the sites selected for measuring streamflow is located on BLM land in section 19, as described above. To that end, OSU has submitted a request for a right-of-way to construct and maintain a flume on BLM land.

1.2 PURPOSE OF AND NEED FOR THE ACTION

The purpose of the action is to provide OSU with legal access to BLM lands in T. 2 S., R. 6 W., section 19 to install, maintain and collect data from a flume in conjunction with the Trask River Watershed Study.

The need for the action is to respond to a request for a Right-of-Way permit for legal access to BLM land.

1.3 CONFORMANCE WITH LAND USE PLAN

This EA is in conformance with the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement,* dated 1994 (PRMP/FEIS) and the *Salem District Record of Decision and Resource Management Plan,* dated 1995 (ROD/RMP) because it also meets the objectives listed above. The analysis supporting this EA is also tiered to the *Final Supplemental Environmental Impact Statement (EIS) on Management*

of Habitat for Late Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl (Northwest Forest Plan,) dated 1994 and its *Record of Decision*, dated 1994 as supplemented and amended by *The Final Supplement to the 2004 Environmental Impact Statement to Remove or Modify The Survey and Manage Mitigation Measure Standards and* Guidelines, dated 2007 and its *Record of Decision*, dated 2007.

2.0 ALTERNATIVES

2.1 Proposed Action

The proposed action is to issue a right-of-way permit to Oregon State University for the purpose of installing, maintaining and collecting data from a stream discharge flume. The flume would be located on a small tributary of the East Fork of South Fork Trask River on BLM lands in T. 2 S., R. 6 W., section 19 (WM). Installation of the flume would involve dewatering the site by diverting the stream into a pipe around the area of the flume, anchoring the flume into the stream channel with concrete, and reinforcing the flume inlet and sides with sand bags. The flume is approximately eight feet in length and five feet in width. A small instrument shed (approximately four feet by three feet footprint on concrete piers) would be located above high water within 50 feet of the flume. All work is expected to be done by hand. Data is expected to be collected through the life of the Trask River Watershed Study, which is expected to be completed in 2016. Sensors would be removed and the flume left in place after it is no longer needed for this study.

Design Features for the Proposed Action

Flume installation would occur during the summer low flow period (ODFW instream work window).

No power tools (i.e. chainsaws or other tools that would generate noise above the ambient level) would be used.

Existing CWD (both snags and down wood) would be protected to the extent possible.

2.2 No Action

The No Action Alternative provides a baseline for the comparison of the alternatives. No right-of-way permit would be issued and installation, maintenance and data collection from the flume would not occur. This alternative describes the existing condition and continuing trends.

3.0 Affected Environment and Environmental Effects

This Chapter combines the affected environment (typically EA Chapter 3) and effects analysis discussion (usually Chapter 4) and has been arranged by specific resource values that may be

affected. It identifies the direct, indirect, and cumulative environmental affects that may result from implementation of either alternative described in Chapter 2. It also addresses the interaction between the effects of the proposed right-of-way issuance with the current environmental baseline, describing effects that might be expected, how they would occur, and the incremental effects that could result. The description of the current conditions inherently includes and represents the cumulative effects of past and current land management activities undertaken by the BLM and private entities.

Reasonably Foreseeable Actions

The BLM Cruiserhorn timber sale is located in the section that includes this project area. This timber sale involves density management thinning of approximately 100 acres by helicopter logging (*Elkhorn Creek Density Management Thinning, Wildlife Habitat Enhancement, and Fish Habitat Enhancement Projects, Environmental Assessment Number OR-086-05-01,* November 2004). The sale is planned to be harvested in 2012, in conjunction with the study plan for the Trask River Watershed Study. Additional State of Oregon and Weyerhaeuser Company timber sales in the local area are also planned as part of the Watershed Study. These sales are also expected to be harvested in 2012.

Annual recurring activities are likely to occur within the general area. These include, but are not limited to, fire suppression activities, construction of roads across BLM and State or private lands under existing right-of-way agreements, routine road maintenance, control of noxious weeds, and silvicultural activities in young stands.

3.1 Hydrology

Affected Environment

The proposed ROW location is within the East Fork of South Fork Trask River drainage of the Trask River watershed. The most important beneficial uses of water in the Trask River watershed are fisheries, cold water aquatic life, and water contact recreation. There are no municipal or domestic use for over 10 miles. The project area is drained by a small, high-gradient, second order headwater stream. Streamflow is classified as perennial at the flume site, with low flows during the summer months at approximately 0.1 cubic feet per second. The stream is well-shaded by predominately alder and brush, but some streamside conifers are present in the area.

Environmental Effects - Proposed Action

The proposed issuance of a ROW and subsequent installation of a flume at this site is expected to have no affect on water quality or quantity, either at the time of the flume installation or afterwards. The small amount of water in the stream would be easily diverted around the installation site, and any sediment that may enter the stream would travel a very short distance because of the low streamflow.

Environmental Effects - No Action

Under the No Action alternative, there would be no flume installation at this time. Stream channel characteristics and water quality would be dependent upon processes that are in place now.

3.2 Fisheries

Affected Environment

The project location is approximately 2.3 miles above known Oregon Coast coho salmon (OC coho) spawning and rearing habitat. Snorkel survey data collected in 2006 to determine the upstream distribution of OC coho in the Trask Watershed provided some additional information on this stream. There is a series of beaver ponds and a 12 foot high bedrock slide downstream, and the slide appears to end coho distribution in this tributary.

Environmental Effects - Proposed Action

The environmental effects of this action are anticipated to be very localized and limited to water quality within a few hundred feet of the project site. As all construction will be conducted by hand during low flow conditions (ODFW instream work window) and this stream is very small no downstream effects to water quality or quantity will occur where fish are reached. There are no anticipated changes to stream substrate, large woody debris, or channel geometry (flume excepted). In addition, there are no needs for fish passage; these streams were surveyed for fish in 2004 to BLM/ODFW protocol. This stream was described as a high gradient step/cascade reach and fish absence was confirmed with the use of electro-fishing equipment.

OC coho are listed under both the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Due to the small scale of this project, the distance to OC coho and the lack of changes to this streams physical properties there will be no effects to OC coho or their designated critical habitat under the ESA. Both OC coho and Chinook are listed under the MSA. As described above, no changes to habitat where these fish are located will occur, therefore there would be no effect to MSA.

Environmental Effects - No Action

Under the No Action alternative, there would be no flume installation at this time. Fish habitat characteristics and fish distribution would be dependent upon the processes that are now in place.

3.3 Wildlife

Affected Environment

The OSU Right-of-Way project area is located within a riparian area forested predominately by 60-year-old red alder. The adjacent upland stands are dominated by densely stocked 50 to 60-year-old Douglas firs.

Other Special Status Species (Wildlife): Based upon the scope of the proposed action (i.e. a small footprint of roughly 50 square feet), limited habitat for Bureau 6840 Special Status Species Policy species is present within the project area.

Suitable habitat for several SSS mollusk species is located within and near the project area; the area was surveyed for mollusks in 2002 in support of the Elkhorn Creek Density Management Project. While the surveys conducted for the Elkhorn project located several Special Status Mollusk Species, most notably the Tillamook Westernslug (*Hesperarion mariae)*, which was found regularly during surveys, no species of mollusks covered by the Bureau 6840 Special Status Species Policy in 2002 were located within the OSU Right-of-Way project area.

Threatened/Endangered (T/E) Wildlife: The project area is not located within or near spotted owl or marbled murrelet Designated Critical Habitat. There are no known spotted owl or marbled murrelet nest sites within the vicinity of the proposed action and there is no suitable nesting habitat for these or any other ESA listed wildlife species within 0.25 miles of the project area. The project is located within spotted owl dispersal habitat.

Environmental Effects - Proposed Action

Other Special Status Species (Wildlife): Based upon the scope and nature of the proposed action, no Bureau 6840 Special Status Species Policy species are expected to be appreciably impacted by the project. Therefore, the project would not result in elevating their status to any higher level of concern including the need to list under the Endangered Species Act.

Threatened/Endangered (T/E) Wildlife: The project is located within spotted owl dispersal habitat. Based upon the scope and nature of the proposed action there would be No Effect upon spotted owl dispersal habitat.

Based upon the facts that the proposed action is not located within or near Designated Critical Habitat for the northern spotted owl or marbled murrelet; there are no known spotted owl or marbled murrelet known occupied or historic sites within the vicinity of the proposed action; and there is no suitable habitat for the marbled murrelet and spotted owl within 0.25 miles of the project area, the proposed action would have No Effect on the northern spotted owl or marbled murrelet or their critical habitats.

Environmental Effects - No Action

Other Special Status Species (Wildlife): Under the No Action Alternative, no Bureau 6840 Special Status Species Policy species would be expected to be impacted therefore the alternative would not result in elevating their status to any higher level of concern including the need to list under the Endangered Species Act.

Threatened/Endangered (T/E) Wildlife: The No Action Alternative would have No Effect on ESA listed wildlife species or their critical habitats.

3.4 Botany

Affected Environment

The OSU Right-of-Way project area is located within a riparian area forested predominately by 60-year-old red alder. The adjacent upland stands are dominated by densely stocked 50 to 60-year-old Douglas firs.

Environmental Effects - Proposed Action

Based upon the scope of the proposed action (i.e. a small footprint of roughly 50 square feet), limited habitat for Bureau 6840 Special Status Species Policy species is present within the project area. There are many invasive species that grow in the vicinity or the project area, including *Cirsium vulgare*, *Cytisus scoparius*, *Senecio jacobaea*, *Rubus discolor*, and *Hypericum perforatum*, with established populations most commonly located along existing roads. Within undisturbed timber stands, established native plant associations typically prevent the establishment of invasive, non-native populations. Most non-native weed species are not shade tolerant and will not persist in a forest setting as they compete for light when tree canopies close and light to the under-story is reduced. It is anticipated that there would be no effect to Special Status Species or non-native invasive species under this alternative.

Environmental Effects - No Action

The plant communities within the project area would continue to be dependant on ecological processes currently in place if no action is taken. No appreciable increase in the noxious weed populations identified during the field surveys is expected to occur.

3.5 Aquatic Conservation Strategy

Components of the Aquatic Conservation Strategy

There are four main components to the Aquatic Conservation Strategy (ACS): Riparian Reserves, Key Watersheds, Watershed Analysis and Watershed Restoration.

1) Riparian Reserves:
The proposed action would occur within a Riparian Reserve, but because of the very small area that would be disturbed and its location on a headwater stream, there would be no effect on the Riparian Reserve.

2) Key Watersheds:
The proposed action is not located within a Key Watershed.

3) Watershed Analysis:

The Trask River Watershed Analysis was completed in 2003. The proposed action is consistent with the Watershed Analysis.

4) Watershed Restoration:
The purpose of proposed action is not a watershed restoration activity.

Aquatic Conservation Strategy Objectives

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.

Issuing a permit to install a flume on a small headwater stream would maintain the distribution, diversity, and complexity of watershed and landscape-scale features because it would have no effect on water quality or fish habitat or distribution.

2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope 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.

The Proposed Action would have no effect on connectivity within or between watersheds.

3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.

Installing a flume in this stream would have a temporary effect on the physical integrity of the streambank and channel bottom on an area roughly 50 square feet in size. Because of the small size and location of the disturbed area, this objective would be met.

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.

This objective would be met because water quality would not be affected by the Proposed Action.

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.

The sediment regime would be maintained under the Proposed Action. Installation of a flume would have no effect on water quality, including sediment.

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.

The Proposed Action would have no effect on in-stream flows. This objective would be met.

7. Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.

The timing, variability and duration of floodplain inundation and water table elevation would be maintained. The flume would be installed in a headwater stream with no floodplain development and there are no meadows or wetlands in the project area.

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 distributions of down wood sufficient to sustain physical complexity and stability.

The flume installation would occur with the stream channel and would not affect riparian plant communities.

9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.

The Proposed Action would have no effect on riparian-dependent plant or animal species. This objective would be met.

4.0 Consultation and Coordination

4.1 List of Preparers

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

Name	Title	Discipline
Dennis Worrel	Soil Scientist/Hydrologist	Hydrology
Steve Bahe	Wildlife Biologist	Wildlife
Matt Walker	Fish Biologist	Fisheries
Kurt Heckeroth	Botanist	Botany

Bob McDonald	Environmental Coordinator	Team Leader

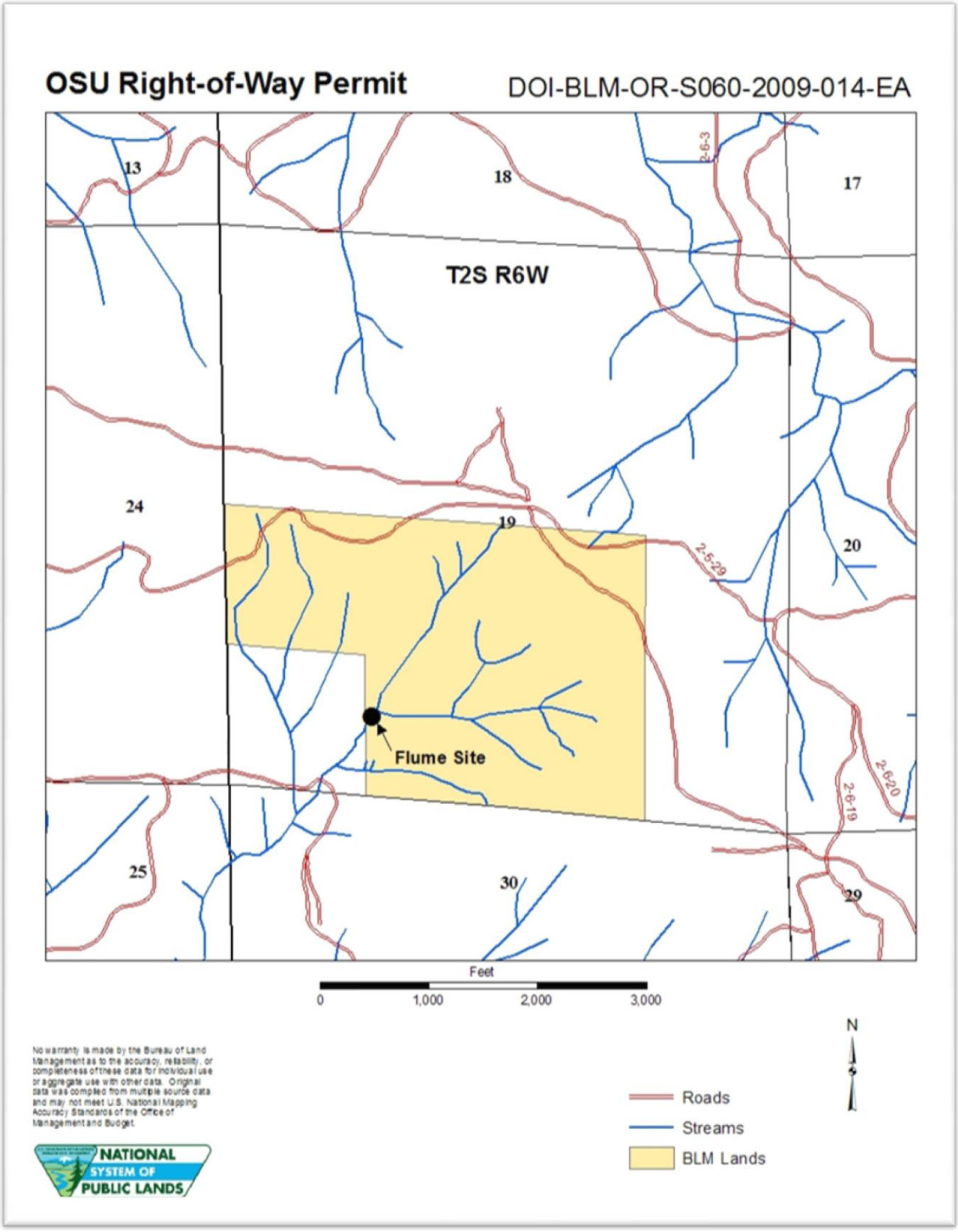
4.2 Consultation

Wildlife

The proposed action would have No Effect on ESA listed wildlife species or their critical habitats. Consultation with USFWS would not be required.

Fish

The proposed action would have no effect on ESA listed fish or Essential Fish Habitat under the Magnuson-Stevens Fisheries Conservation and Management Act.


OSU Right-of-Way Permit
DOI-BLM-OR-S060-2009-014-EA
13
18
17
T2S R6W
24
19
20
25
30
29
2-6-3
2-5-29
2-6-20
2-6-19
Flume Site
Feet
0
1,000
2,000
3,000
N
Roads
Streams
BLM Lands
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data was compiled from multiple source data and may not meet U.S. National Mapping Accuracy Standards of the Office of Management and Budget.
NATIONAL SYSTEM OF PUBLIC LANDS