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# HAYES RIDGE WATER SOURCE ENVIRONMENTAL ASSESSMENT

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EA Number OR118-08-011

March 2009

United States Department of the Interior  
Bureau of Land Management  
Medford District  
Glendale Resource Area

**Lead Agency:** Bureau of Land Management

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**Abstract:**

The Glendale Resource Area proposes to develop a new water source for use by fire suppression resources in the event of a wildland fire. Associated activities would include expanding and fortifying a spring; installing a spring box; clearing brush for a water pipeline; constructing a trench to bury a water pipeline; excavating a pad to install two water storage tanks; and cutting and removing 18 trees for a helicopter flight path around the water storage tanks.

Grant funding for this project was obtained by the Douglas Soil and Water Conservation District through Title II (Special Projects on Federal Lands) of the Secure Rural Schools and Community Self-Determination Act of 2000 (Public Law 106–393 passed by the 106th Congress).

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## FINDING OF NO SIGNIFICANT IMPACT

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The planning, design, and analysis for the Hayes Ridge Water Source Project was initiated under the 1995 *Medford District Record of Decision and Resource Management Plan* (1995 ROD/RMP) and completed after the 2008 *Medford District Record of Decision and Resource Management Plan* (2008 ROD/RMP) became effective December 30, 2008.

The 2008 ROD allowed for transition projects meeting specific criteria to be implemented consistent with the management direction of either the 1995 RMP or the 2008 RMP, at the discretion of the decision maker (2008 ROD/RMP, pp. 3-4). The effects analysis will incorporate 1995 RMP language such as “matrix” and “riparian reserve” land allocations rather than interchange new 2008 RMP terms such as “Timber Management Areas” and “Riparian Management Areas.” This transition from the old resource management plan to the new resource management plan avoids disruption of the management of BLM-administered lands and allows the BLM to utilize work already begun on the planning and analysis of the Hayes Ridge Water Source Project.

The Hayes Ridge Water Source Project (OR-118-08-011) analyzes for effects of project elements that incorporates the management direction found in the 1995 RMP. Based upon review of the EA and supporting project record, I conclude that Alternative 2 (Proposed Action) would result in less change or the same effect to the affected environment as the project implemented consistent with management direction in the 2008 RMP. Therefore the project would result in no significant effects beyond those disclosed in the 1994 PRMP/EIS or the 2008 FEIS.

Alternative 2 is not a major federal action and would not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. Therefore, an environmental impact statement is not needed. This finding is based on the following discussion:

Based upon review of the EA (Environmental Assessment #OR-118-08-011) and supporting project record, I have determined that Alternative 2 (Proposed Action) is not a major federal action and would not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. Therefore, an environmental impact statement is not needed. This finding is based on the following discussion:

**Context.** Alternative 2 is a site-specific action directly involving approximately a half acre of BLM (Bureau of Land Management) administered land that by itself does not have international, national, region-wide, or state-wide importance. The Proposed Action is located within the Matrix and Riparian Reserve Management Area land use allocations (formerly known as Matrix and Riparian Reserves under the Northwest Forest Plan) and within the boundaries of the 6<sup>th</sup> field Hydrologic Unit Condition (HUC 6) boundaries of

the West Fork Cow/Elk Valley Creek sub-watershed. The project area is located outside designated Critical Habitat for both the spotted owl and marbled murrelet.

The discussion of the significance criteria that follows applies to the intended actions and is within the context of local importance. Appendix 2 of the EA describes the effects of the Alternatives. None of the effects identified, including direct, indirect and cumulative effects, are considered to be significant and do not exceed those effects described in the 1994 Medford District Proposed Resource Management Plan/Environmental Impact Statement (1994 PRMP/EIS) or the 2008 Final Environmental Impact Statement for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management (2008 FEIS).

**Intensity.** The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27.

**1. Impacts may be both beneficial and adverse.** The predicted environmental effects of the Proposed Action, most noteworthy, include:

a) Alternative 2 (Proposed Action) would result in less than half an acre of disturbance from expanding and fortifying a spring, installing a spring box, constructing a trench to bury a water pipeline, excavating a 50 ft x 75 ft pad to install two water storage tanks, and cutting and removing 18 trees (8-14 inches diameter at breast height) to clear a helicopter flight path around the water storage tanks. This project would not affect stream temperatures, large woody debris recruitment, or any measurable changes in sediment load to streams or fish habitat because canopy cover would not be removed and this stream is hydrologically disconnected, goes subsurface below the project area. There are no streams present where 18 trees would be removed along road 31-8-31.2 to clear a helicopter flight path.

The Proposed Action is located approximately 730 feet from the ridgetop (on the south side) and 100 feet upslope of road number 31-8-31.2. There are a few stream crossings and no headwalls within the proposed project area. Small quantities of onsite erosion in the immediate surrounding areas (trench building and storage tank site installation/excavation) could also occur. Slopes on the south side of the ridge are 40% and have sufficient course ground cover, in the form of ground vegetation and/or downed woody debris and fine overstory litter, to keep erosion primarily on site.

The topographical location and Project Design Features (PDFs) would prevent ample subsurface flow concentrations to form. The proposed project would contain minimal soil excavation, the majority of which would occur on an existing right-of-way (ROW).

PDFs have been established to minimize the rate at which sediment might be generated and allowed to move downstream. As such, there are no apparent mechanisms for additional sediment to be transported to other streams as a result of the expansion and fortification of a spring and construction of a trench to bury a water pipeline.

The canopy removal of 18 trees within less than a ½ acre would not result in an increase in the magnitude of current peak flow events or an increase in annual water yields within

the Elk Valley Creek HUC 7 drainage. The surrounding area below the Project Area is heavily forested and would absorb snow melt. For a project of this scale, wind patterns would also not be altered.

b) There would not be any increased risk for individual noxious weed site occurrences and densities within the Project Area as a result of the Proposed Action with application of the PDF to wash equipment prior to it moving on-site. The mixed ownership pattern of private adjacent to BLM, existing use of reciprocal ROWs, and the cumulative effects from factors affecting weed spread (private logging, motor vehicles, recreation, rural and urban development, and natural air/water/wildlife processes) effecting the Project Area, and the implementation of PDFs, the presence or absence, or weed density would not be altered to any detectable degree at the 6<sup>th</sup> field watershed level by the Proposed Action.

c) See effects to Endangered Species Act (ESA) threatened and endangered species in criteria # 9 below.

There would be “no effect” to threatened and endangered fish species (Oregon Coast Coho (*Oncorhynchus kisutch*)) because there is no critical habitat within the proposed Project Area. The nearest critical habitat is located in West Fork Cow Creek, 1.2 miles downstream of the proposed Project Area. There would also be a “will not adversely affect” for Coho and Chinook Salmon Essential Fish Habitat under the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

None of the environmental effects disclosed above and discussed in Appendix 2 of the EA are considered significant.

**2. The degree to which the selected alternative will affect public health or safety.** Public health and safety would not be affected. The Proposed Action is comparable to other water source projects which have occurred within the Glendale Resource Area with no unusual health or safety concerns.

**3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas.** There are no park lands, prime farm lands, wetlands, wild and scenic rivers or ecologically critical areas within the proposed water source project location across BLM land. There are no developed recreation sites that would be affected by the Proposed Action. The area is open to dispersed recreation use, as it most of the Glendale Resource Area. The Proposed Action would have a neutral effect on dispersed recreation within the resource area. While there could be increased helicopter or fire engine traffic in the event of a nearby wildland fire, this type of activity would be for an infrequent event and for very limited durations. Cultural surveys were completed for the Hayes Ridge Water Source Project Area and no sites were found. If cultural resources are located during the implementation of an action, the project would be redesigned to protect the values present.

**4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.** The effects of the Proposed Action on the quality of the human environment are adequately understood by the interdisciplinary team to

provide analysis for the decision. There are no highly controversial effects from the Proposed Action. A complete disclosure of the predicted effects is contained in Appendix 2 of the EA.

**5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The effect of the Proposed Action is not unique or unusual. The BLM has experience with creating water sources for wildland fire suppression use with similar topographical features and have found the effects to be reasonably predictable. There are no predicted effects on the human environment which are considered to be highly uncertain or involve unique or unknown risks.

**6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The Proposed Action does not set a precedent for future actions that might have significant effects nor does it represent a decision in principle about future consideration. The Proposed Action would meet the Medford District Resource Management Plan (RMP) to provide appropriate wildfire suppression responses that will help meet resource management objectives. Any future projects would be evaluated through the National Environmental Policy Act (NEPA) process and would stand on their own as to environmental effects.

**7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.** The interdisciplinary team evaluated the Proposed Action in context of past, present and reasonably foreseeable actions. Significant cumulative effects outside those already disclosed in the 1994 PRMP/EIS or the 2008 FEIS are not predicted. A complete disclosure of the effects of the Proposed Action is contained in Appendix 2 of the EA. The elements are either “Not Present” or “Not Affected” by the Proposed Action; therefore, there are no cumulative effects anticipated from the Proposed Action.

**8. The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** Cultural surveys were completed within the proposed ground disturbing activity location for the Hayes Ridge Water Source Project Area and no sites were found. The Proposed Action would not adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor would the Proposed Action cause loss or destruction of significant scientific, cultural, or historical resources.

**9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.** The Proposed Action would not affect Endangered Species Act (ESA) listed Oregon Coast (OC) coho salmon (Threatened). OC coho salmon are located 1.2 miles downstream of the Project Area, within West Fork Cow Creek.

### **Marbled murrelet – Threatened**

The project area is over 7 miles from the accepted known range of marbled murrelets as described in the currently accepted survey protocol (Pacific Seabird Group 2003), outside designated Critical Habitat for the species, and the area is also beyond (east of) the area in which marbled murrelet surveys are required to avoid disturbance to adjacent potential murrelet nesting habitat. Therefore, the proposed project would have no effects on marbled murrelets or their Critical Habitat.

### **Spotted owl – Threatened**

There would be no effect to the spotted owl or the dispersal habitat within the Project Area. Eighteen trees (8-14" dbh) would be cut, removed, and hauled to clear a helicopter flight path at the two proposed water storage tanks along the 31-8-31.2 road. These trees are within 100 feet of the permanent opening of the road. The area affected would be approximately half an acre. The trees proposed for removal are at the top end of a 25 year old regenerating BLM plantation. This action would slightly widen the gap that the road forms whether the adjacent stands are dispersal habitat in the next few decades or nesting/roosting/foraging habitat in the longer term. Increasing the size of the gap created by the road by such a small distance and forming a half acre opening would not affect the stand's ability to function as dispersal habitat for the spotted owl immediately following the project's completion.

The site is approximately 1 mile southwest of the closest known spotted owl nest. This is well beyond the distance for disturbance caused by chain saws or heavy equipment. Therefore, there is also no disturbance effect expected to this species from the Proposed Action.

No consultation is needed to comply with Section 7 of the Endangered Species Act for the northern spotted owl as the proposed project would have no effect on the species and is not located in designated critical habitat.

**Plants** - There would be no anticipated effect from the Proposed Action on any federally listed plant.

**10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.** The Proposed Action does not violate any known federal, state, or local law or requirement imposed for the protection of the environment. Furthermore, the Proposed Action is consistent with applicable land management plans, policies, and programs (EA, Chapter 1.5).

# Chapter 1.0 Purpose and Need

## 1.1 Introduction

This Environmental Assessment (EA) will analyze the impacts of proposed forest management activities on the human environment in the Hayes Ridge Water Source Project Area (PA). The EA will provide the decision maker, the Glendale Field Manager, with current information to aid in the decision making process. It will also determine if there are significant impacts not already analyzed in the 1994 Medford District Proposed Resource Management Plan/Environmental Impact Statement (1994 PRMP/EIS) or the 2008 Final Environmental Impact Statement for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management (2008 FEIS) and whether a supplement Environmental Impact Statement is needed or if a Finding of No Significant Impact is appropriate.

Chapter 1 discloses to the reader:

- what the BLM proposes to do (Proposed Action),
- the location and description of the Project Area,
- describes why the BLM is proposing these forest management activities (Purpose and Need),
- identifies what factors the decision maker will use for choosing the action or no action alternative (Chapter 2) that will best meet the purpose and need for this proposal
- how the public has been involved in this project
- the method for alternative development consideration
- what the decision maker will decide upon

### Transition from the 1995 Plan to the 2008 Plan

The planning, design, and analysis for the Hayes Ridge Water Source Project started at the beginning of 2008 under the 1995 *Medford District Record of Decision and Resource Management Plan* (1995 ROD/RMP), and was completed after the 2008 ROD/RMP became effective December 30, 2008. The 2008 ROD allowed for transition projects, such as the Hayes Ridge Water Source Project, to be implemented consistent with the management direction of either the 1995 RMP or the 2008 RMP, at the discretion of the decisionmaker (2008 Medford ROD/RMP, p. 5). A transition from the old resource management plan to the new resource management plan avoids disruption of the management of BLM-administered lands and allows the BLM to utilize work already begun on the planning and analysis of projects.

The Hayes Ridge Water Source Project incorporates the management direction found in the 1995 Medford District RMP. Much of the EA analysis was completed prior to signing of the 2008 ROD/RMP. Therefore, the effects analysis below will incorporate 1995 RMP language such as “matrix” and “riparian reserve” land allocations rather than interchange new 2008 RMP terms such as “Timber Management Areas” and “Riparian Management Areas.” This allows the previous analysis to be used rather than modifying

this work to use new terminology and discuss compliance with the 2008 RMP. The analysis remains relevant because, as explained in the 2008 ROD, projects consistent with the 1995 RMP in almost all cases will “result in less change to the current condition of the affected environment than if the . . . projects were implemented consistent with the management direction” in the 2008 RMP (2008 ROD/RMP, p. 6). See Plan Conformance (Section 1.5) for further clarification.

The Hayes Ridge Water Source Project meets the requirements designated in the 2008 ROD for such transition projects:

1. A decision was not signed prior to the effective date of the 2008 ROD.
2. Preparation of the National Environmental Policy Act documentation began prior to the effective date of the 2008 ROD. The Scoping Report for the Hayes Ridge Water Source Project was made available to the public in November 2008.
3. A decision on the project will be signed within two years of the effective date of the 2008 ROD.
4. Regeneration harvest would not occur in a late-successional management area or any harvest would not occur in deferred timber management area.
5. There would be no destruction or adverse modification of critical habitat designated for species listed as endangered or threatened under the Endangered Species Act.

## **1.2 Purpose and Need for the Proposal**

This environmental assessment analyzes the environmental effects associated with development of a new water source for use by fire engines, water tenders, and helicopters during wildland fire suppression activities. The site is strategically located in an area currently lacking water sources and is located near a ridgeline to facilitate helicopter use. The location of the site would enhance the effectiveness of wildland fire suppression resources by decreasing initial attack response time in the event of a wildfire in the vicinity.

The purpose of this project is consistent with the Medford District Resource Management Plan (RMP).

Those objectives include:

Provide appropriate wildfire suppression responses that will help meet resource management objectives.

Decrease response time during the initial attack phase of fire suppression, critical in containing wildfires at minimal acreages required by the Fire Detection Services contract between the Medford District BLM and the Oregon Department of Forestry (ODF). The contract states: “The State shall control 94% of all fires before they exceed 10 acres in size...” (Section C; Specifications Applicable to Fire Protection C.5.4.2).

## 1.3 Project Location

The Project Area is located within Douglas county, Oregon approximately 15 miles west of the town of Glendale, Oregon. Project activities are proposed on federal land managed by the Glendale Resource Area, Medford District BLM. The proposed treatments are within the West Fork Cow Creek fifth-field watershed. The site is situated at approximately 2,850 feet in elevation above sea level. The legal description of the Project Area is Township (T) 31S, Range (R) 8W, Section 31 (see attached Project Area Map). The Project Area includes the land allocations of Matrix and Riparian Reserves as described in the *Final Environmental Impact Statement for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management* (2008 FEIS);.

## 1.4 Plan Conformance

This Proposed Action conforms to the:

- *Medford Record of Decision and Resource Management Plan* (FEIS, 2008 and ROD/RMP, 2008);
- *Medford District Integrated Weed Management Plan (1998)* and tiered to the *Northwest Area Noxious Weed Control Program* (EIS, 1985).

The Proposed Action is consistent with management direction in the:

- *Final-Medford District Resource Management Plan/Environmental Impact Statement and Record of Decision* (FEIS, 1994 and RMP/ROD, 1995);
- *Record of Decision and Resource Management Plan Amendment for Management of Port-Orford-Cedar in Southwest Oregon, Coos Bay, Medford, and Roseburg Districts (May 2004);Final Supplement to the 2004 Supplemental Environmental Impact Statement To Remove The Survey And Manage Mitigation Measure Standards And Guidelines* (FSEIS, 2007 and ROD, 2007).

Since the planning and design for this project was initiated prior to the 2008 ROD, it contains features consistent with the 1995 RMP but not consistent with the management direction in the 2008 Resource Management Plan. These features include:

- Project Design Features (PDFs)
  - Refueling of chainsaws and pumps would be done no closer than 150 feet of any stream or wet area. Spilled fuel and oil would be cleaned-up and would be disposed of at an approved disposal site.

## **1.5 Public Scoping and Identification of Alternative Use of Resources**

### **1.5.1 Public Scoping**

The Glendale Resource Area accepts public comment of proposed forest management activities through the quarterly BLM Medford Messenger publication. A brief description of proposed projects, such as the Hayes Ridge Water Source Project, a legal location and general vicinity map are provided along with a comment sheet for public responses. This project was included in the quarterly publication in the fall of 2008, and no public comments were received.

### **1.5.2 Alternative Use of Resources**

The Hayes Ridge Water Source interdisciplinary team (IDT) considered conflicts of alternative uses of available resources through the IDT process. Project Design Features (PDFs) were developed by the interdisciplinary team in Chapter 2 to eliminate potential conflicts of alternative uses of available resources. Since there were no unresolved conflicts concerning alternative uses of available resources identified by the interdisciplinary team, there was no procedural requirement to develop additional action alternatives (**Appendix 2**).

## **1.6 Decisions to be Made**

The Glendale Field Manager is the official responsible for deciding whether a supplemental Environmental Impact Statement (EIS) should be prepared based on whether the Proposed Action would result in significant impacts to the human environment not already analyzed in the 1994 Medford District Proposed Resource Management Plan/Environmental Impact Statement (1994 PRMP/EIS) or the 2008 Final Environmental Impact Statement for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management (2008 FEIS). If there are any such additional impacts that are significant, project proposals could be modified to mitigate the impacts so a Supplemental FEIS (SFEIS) would not be necessary. If it is determined that there is no need to prepare a SFEIS, a Finding of No Significant Impact (FONSI) would be prepared.

An additional decision to be made is whether to approve or deny the construction of the Hayes Ridge Water Source.

In selecting an alternative, the Glendale Field Manager would evaluate each alternative's ability to meet the objectives of the purpose and need identified in Section 1.2 of this EA.

# **Chapter 2.0 Alternative Ways of Accomplishing the Objectives**

## **2.1 Introduction**

This chapter presents alternative proposals that meet the project objectives identified in Chapter 1 and describes and compares the no action alternative (Alternative 1) with the action alternative, Alternative 2 (Proposed Action) as specified in 40 CFR (Code of Federal Regulations) § 1502.14. Descriptions summarize potential environmental consequences and focus on potential actions and outputs. Project Design Features were identified and are included here to ensure project compliance with higher-level National Environmental Policy Act (NEPA) documents, laws and BLM guidelines.

Chapter 2 provides the reader:

- a brief description of the types of forest management activities proposed
- specific measures incorporated in the design of Alternative 2 to eliminate or minimize adverse impacts on the human environment (Project Design Features)
- description of the No Action and Proposed Action alternatives

## **2.2 Description of the Alternatives**

### **2.2.1 Alternative 1 (No Action)**

Under this alternative, the federal management actions described under the action alternative would not take place at this time. However, the opportunity to construct a water source at this location would continue to be a viable option for the future but would be analyzed through a separate environmental analysis.

### **2.2.2 Alternative 2 (Proposed Action)**

The Proposed Action emphasizes fully meeting the project objectives to decrease response time during the initial attack phase of fire suppression to contain wildfires at minimal acreages required by the Fire Detection Services contract between the Medford District BLM and the Oregon Department of Forestry (ODF).

The new water source would be used by fire engines, water tenders, and helicopters during wildland fire suppression activities. A spring box would be installed and a trench would be created to bury the water line from the spring box to a water holding source, consisting of two installed water storage tanks on a wide spot along existing BLM road (#31-8-31.2). All construction activities to expand, deepen, and fortify the spring would be completed with hand tools. A spring box would be installed at the spring with a plastic liner, clay, or other material along the bottom of the spring box to prevent seepage. A buried water pipeline would be constructed by digging an 18 to 24 inch deep by 12 to 24 inch wide trench with hand tools from the spring box to two 10,000 gallon water storage tanks (set on end and open at the top for access by helicopter buckets). A 3

foot wide by 600 foot long trench would be brushed for the underground pipeline construction. Brushed vegetation would be lopped and scattered or chipped.

Overflow from the tanks would flow through a buried pipeline running down the ditchline along the road and through the existing non-fish bearing culvert to be discharged into the original stream channel. The pipeline would be buried a minimum of 24 inches deep. The existing culvert would be replaced with one of similar size. The pipeline installed in the ditchline would be identified using signage to indicate its location. In the event that the dip tanks are depleted during fire season, they would be replenished manually using a water source that is not infected with *Phytophthora lateralis*.

Along BLM road #31-8-31.2, 18 trees (8 to 14 inches dbh) within a half acre would be cut and removed to accommodate a helicopter flight path to and from the water storage tanks. The trees proposed for removal are at the top end of a 25 year old regenerating BLM plantation. The trees may be hauled. The hauling route would then be on BLM roads #31-8-31.2, #31-8-31.1, and #32-8-1.1, on a third of a logging truck load.

A pad site for the dip tanks would be created within a 75 feet by 50 feet wide spot along the existing BLM road #31-8-31.2. Brush and one tree currently growing within the proposed pad site would be cut and chipped or scattered on site to accommodate the water storage tanks. The pad would be graded and graveled to establish a level, stable space for the water storage tanks. To firmly install the dip tanks, a third of their height would be buried into the pad. The storage tanks' overflow system would direct excess water flow to the road's ditchline via a buried pipeline to the original stream channel. Excavated material would be graded over the created pad site.

Construction work is planned to be completed before fire season (July 2009).

## **2.3 Project Design Features**

Project Design Features (PDFs) are specific measures included in the site specific design of the Proposed Action to eliminate or minimize adverse impacts on the human environment. These PDFs were developed by the Hayes Ridge Water Source interdisciplinary team from management guidance of the Medford District, and other regulatory laws for resource protection measures specific to the Planning Area. The following project design features were developed prior to the 2008 ROD and are consistent with the 2008 Best Management Practices (2008 FEIS, Appendix I, pp. 268-322).

### **2.3.1 Cultural Sites**

- If cultural resources are found during project implementation; the project may be redesigned to protect the cultural resource values present, or evaluation and mitigation procedures would be implemented based on recommendations from the

resource area archaeologist and concurrence by the Glendale Field Manager and State Historic Preservation Office.

### **2.3.2 Noxious Weeds.**

- In order to prevent the potential spread of noxious weeds, the operator would be required to clean all transportation equipment prior to entry on BLM lands. Cleaning would be defined as removal of dirt, grease, plant parts and material that may carry noxious weed seeds and parts onto BLM lands. Cleaning prior to entry onto BLM lands may be accomplished by use of a pressure hose.

### **2.3.3 Streams and Riparian Zones**

- During culvert replacement, diverted water would be returned to the channel immediately downstream of the work site. Effective erosion control measures would be in place at all times during installation or removal, and stored sediment behind erosion control devices would be removed from channel and disposed of in a stable location outside the Riparian Reserves.
- Refueling of chainsaws and pumps would be done no closer than 150 feet of any stream or wet area. Spilled fuel and oil would be cleaned-up and would be disposed of at an approved disposal site.
- Light vehicular traffic associated with construction/water tank installation and removal of logs during the off season would be scheduled in such a way that road damage would not occur, offsite erosion from road surfaces would be minimized, and any sediment entering the streams from stream crossings or ditchlines would not be measurable.

## Chapter 3.0 Affected Environment and Environmental Consequences

### 3.1 Introduction

In accordance with law, regulation, executive order and policy, the Hayes Ridge Water Source interdisciplinary team reviewed the elements of the environment to determine if they would be affected by the Proposed Action (Alternative 2) as described in Chapter 2.0 of this EA. Those elements of the human environment determined to be affected define the scope of environmental concern (see **Environmental Elements in Appendix 2** for a discussion of the potentially affected resources and site-specific environmental impacts of the proposed action). The elements are either “Not Present” or “Not Affected” from the Proposed Action; therefore, additional discussion of the elements in Chapter 3 is deemed unnecessary as it would not contribute to further understanding of the potential environmental consequences and thus the decision making process.

The Council of Environmental Quality (CEQ) (40 CFR Parts 1500-1508) states that “Ultimately, of course, it is not better documents but better decisions that count. NEPA’s process is not to generate paperwork-even excellent paperwork-but to foster excellent action” (40 CFR 1500.1(c)).

As explained in the FONSI, and Sections 1.1 and 1.5 of this EA, the 2008 ROD provides options for transitional projects. The Proposed Action for this EA include elements that are consistent with the management direction of the 1995 RMP. Much of the analysis and drafting of this EA was completed prior to the time the 2008 ROD was signed. Therefore, the effects analysis below will use the 1995 RMP terms such as “matrix” and “riparian reserve” land allocations rather than the 2008 ROD/RMP terms such as “Timber Management Areas” and “Riparian Management Areas.” This allows the previous analysis to be used rather than modifying the Proposed Action and performing a redundant analysis of effects using 2008 ROD/RMP language and terms. The previous analysis remains relevant because, as explained in the 2008 ROD, projects consistent with the 1995 RMP in almost all cases will “result in less change to the current condition of the affected environment than if the . . . projects were implemented consistent with the management direction” in the 2008 ROD/RMP” (2008 ROD/RMP, p. 4)

## Chapter 4.0 List of Preparers

The following individuals participated on the interdisciplinary team or were consulted in the preparation of this EA:

<u>Name</u>	<u>Title</u>	<u>Primary Responsibility</u>
Donni Vogel	Fire and Fuels Specialist	Team Lead Fire Hazard and Fire Risk
Michelle Calvert	Planning and Environmental Coordinator	NEPA
Mike Crawford	Fish Biologist	Fisheries, Soils, Watershed, Riparian
Marylou Schnoes	Wildlife Biologist	Wildlife
Del Longbrake	Engineer	Transportation
Dustin Wharton	Engineer Lead	Engineering
Rachel Showalter	Botanist	Botany & Noxious weeds
Amy Sobiech	Archaeologist	Cultural Resources

## Chapter 5.0 Public Involvement and Consultation

### 5.1 Public Notification

#### 5.1.1 15-day Public Comment Period

The Glendale Resource Area accepts public comment of proposed forest management activities through the quarterly BLM Medford Messenger publication. A brief description of proposed projects, such as the Hayes Ridge Water Source Project, a legal location and general vicinity map are provided along with a comment sheet for public responses. This project was included in the quarterly publication in the fall of 2008, and no public comments were received.

The Environmental Assessment will be made available for a 15-day public review period. Notification of the comment period will include: the publication of a legal notice in the Daily Courier, newspaper of Grants Pass, Oregon and on the Medford District Bureau of Land Management website at <http://www.blm.gov/or/districts/medford/index.php>; and a letter to be mailed to those individuals, organizations, and agencies that have requested to be involved in the environmental planning and decision making processes for forest management activities. Comments received in the Glendale Resource Area Office, 2164 NE Spalding Avenue, Grants Pass, Oregon 97526 on or before the end of the 15-day comment period will be considered in making the final decision for this project.

## 5.2 Consultation

### 5.2.1 United States Fish and Wildlife Service (USFWS)

Consultation for the Endangered Species Act with the USFWS is not necessary. The Proposed Action would have no effect on listed species or their habitat.

### 5.2.2 National Marine Fisheries Service (NMFS)

Consultation for the Endangered Species Act or the Magnuson-Stevens Act with NMFS is not needed as the Proposed Action would not affect listed species or their habitat.

### 5.2.3 State Historical Preservation Office

Required cultural surveys were completed for the proposed water source project activities, and no known cultural resource sites were located within the Project Area. The State Historical Preservation Office approved the clearance/tracking form for the Hayes Ridge Water Source Project. The form is contained within the environmental assessment case file.

## ACRONYMS AND GLOSSARY

### Abbreviations:

ACEC	Area of Critical Environmental Concern
ACS	Aquatic Conservation Strategy
BLM	Bureau of Land Management
BSO	Bureau Sensitive
CCH	coho critical habitat
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CHU	Critical Habitat Unit
dbh	diameter at breast height
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FEIS	Final Environmental Impact Statement
FONSI	Finding of No Significant Impact
HUC	Hydrologic Unit Condition
NEPA	National Environmental Policy Act
NWFP	Northwest Forest Plan
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic & Atmospheric Administration

O&C	Oregon & California
ODEQ	Oregon Department Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODF	Oregon Department of Forestry
PDFs	Project Design Features
RMP	Resource Management Plan
ROD	Record of Decision
RTV	Red Tree Vole
SFEIS	Supplemental Final Environmental Impact Statement
SHPO	State Historic Preservation Office
S&M	Survey and Manage
SONC	Southern Oregon/Northern California
SSS	Special Status Species
T/E	Threatened/Endangered
TSZ	Transient Snow Zone
USDA	United States Department of Agriculture
USDI	United States Department of Interior
USFWS	United States Fish and Wildlife Service
VRM	Visual Resource Management

**Air Quality.** Refers to standards for various classes of land as designated by the Clean Air Act, P.L. 88-206, Jan. 1978.

**Canopy.** The more or less continuous cover of branches and foliage formed collectively by adjacent trees and other woody species in a forest stand.

**Coarse Woody Debris.** Portion of trees that have fallen or been cut and left in the woods. Usually refers to pieces at least 20 inches in diameter.

**Cover.** Vegetation used by wildlife for protection from predators, or to mitigate weather conditions, or to reproduce. May also refer to the protection of the soil and the shading provided to herbs and forbs by vegetation.

**Cultural resources.** The physical remains of human activity (artifacts, ruins, burial mounds, petroglyphs, etc.) having scientific, prehistoric or social values.

**Cumulative effect.** The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can also result from individually minor, but collectively significant actions taking place over a period of time.

**Diameter at Breast Height (dbh).** The diameter of a tree 4.5 feet above the ground on the uphill side of the tree.

**Dispersal habitat (northern spotted owl).** Dispersal habitat for the northern spotted owl consists of forest lands generally greater than 40 years of age with canopy closures of 40 percent or greater and an average diameter at breast height of 11 inches or greater. Spotted owls use dispersal habitat to move between blocks of suitable habitat; juveniles use it to disperse from natal territories. Dispersal habitat may have roosting and foraging components, enabling spotted owls to survive, but lack structure suitable for nesting.

**Effects (or Impacts).** Environmental consequences as a result of a Proposed Action. Effects provide the scientific and analytical basis for comparison of alternatives. Effects might be either direct (caused by the action and occur at the same time and place) or indirect (occurring later in time or at a different location, but are reasonably foreseeable or cumulative results of the action).

Effects and impacts as used in this EA are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic quality, historic, cultural, economic, social, or healthy effects, whether direct, indirect, or cumulative. Effects might also include those resulting from actions that might have both beneficial and detrimental effects, even if on the balance it appears that the effects would be beneficial.

**Environmental Assessment (EA).** A statement of the environmental effects of a proposed action and alternatives to it. It is required for major federal actions under Section 102 of NEPA and is released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, CEQ guidelines, and directives of the agency responsible for the project proposal.

**Environmental Impact Statement (EIS).** A detailed document under the National Environmental Policy Act (NEPA) of 1969, of a federal project's environmental consequences, including adverse environmental effects that cannot be avoided, alternatives to the proposed action, the relationship between local short-term uses and long-term productivity, and any irreversibly or irretrievable commitment of resource.

**Erosion.** Detachment or movement of soil or rock fragments by water, wind, ice, or gravity. Accelerated erosion is more rapid than normal, natural, or geologic erosion, primarily resulting from the activities of people, animals, or natural catastrophes.

**Fire Hazard.** The ability of a fire to spread once ignition has occurred (NIFC-B 2006). It is contingent upon the fire behavior that a stand has the potential to produce. Fire behavior is determined by three factors: weather conditions like temperature, wind speed, and relative humidity; topographical characteristics such as slope, aspect, and elevation; and the type and arrangement of fuels available such as surface, ladder, or aerial.

**Fire Risk.** The probability of a fire starting, as determined by the presence of ignition sources (NIFC-B 2006). Ignition sources include natural causes such as lightning, and human causes such as improperly discarded cigarettes and unattended camp fires. Fire risk generally increases as human presence increases because these types of activities become more frequent. Recreational areas and areas along travel routes like trails and roads are usually at a higher risk of a fire ignition than areas that experience less frequent human activity.

**Floodplain.** The lowland and relatively flat area adjoining inland and coastal waters, including, at a minimum, areas that are subject to a one percent or greater chance of flooding in any given year.

**Forage.** Food available to animals for feeding. Habitat containing forage for predators is a source and hiding cover and/or shelter for prey species.

**Fuels.** Combustible wildland vegetative materials present in the forest which potentially influence fire behavior.

**Impacts.** A spatial or temporal change in the environment caused by human activity. See effects.

**Indirect effects.** Secondary effects which occur in locations other than the initial action or significantly later in time.

**Intermittent stream.** Any nonpermanent flowing drainage feature having a definable channel and evidence of scour or deposition. This includes what are sometimes referred to as ephemeral streams if they meet these two criteria.

**Matrix.** Designated under the *Final-Medford District Proposed Resource Management Plan/Environmental Impact Statement and Record of Decision* (EIS, 1994 and RMP/ROD, 1995), these federal lands are outside of reserves and special management areas that are available for timber harvest at varying levels.

**Mitigation.** Mitigation includes (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (5) compensating for the impact by replacing or providing substitute resources or environments.

**National Environmental Policy Act of 1969 (NEPA).** This law requires the preparation of environmental impact statements for every major Federal Action which causes a significant effect on the quality of the human environment.

**No-Action alternative.** The No-Action Alternative is required by regulations implementing the National Environmental Policy Act (NEPA) (40 CFR 1502.14). The No-Action Alternative provides a baseline for estimating the effects of other alternatives. When a proposed activity is being evaluated, the No-Action Alternative discusses conditions under which current management direction would continue unchanged.

**Non-attainment.** Failure of a geographical area to attain or maintain compliance with ambient air quality standards.

**Noxious weeds.** Rapidly spreading plants that can cause a variety of major ecological or economic impacts to both agriculture and wildland.

**Overstory.** That portion of trees which form the uppermost layer in a forest stand which consists of more than one distinct layer (canopy).

**Peak flow.** The highest stream flow that occurs during a storm event.

**Perennial streams.** Streams that flow continuously throughout the year.

**Project Design Features (PDFs).** Practices determined by the resource professional to be the most effective and practicable means of preventing or reducing the amount of water pollution generated by non-point sources; used to meet water quality goals (See Appendix D in RMP (USDI BLM 1995)).

**Riparian Area.** A geographic area containing an aquatic ecosystem and adjacent upland areas the directly affect it. This includes floodplains, woodlands, and all areas within a horizontal

distance of approximately 100 feet from the normal line of high water of a stream channel or from the shoreline of a standing body of water.

**Riparian Management Areas (RMAs).** Designated under the *Final Environmental Impact Statement for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management* (2008 FEIS) and *Medford District's 2008 Western Oregon Plan Revision Record of Decision* (2008 ROD) and *Resource Management Plan* (2008 RMP), these riparian areas are outside Late Successional Management Areas.

**Riparian Reserves.** Designated under the *Final Supplemental Environmental Impact Statement and Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (Northwest Forest Plan FSEIS, 1994 and ROD, 1994), these riparian areas are outside Late-Successional Reserves.

**Stand.** A community of trees or other vegetation uniform in composition, physiognomy, spatial arrangement, or condition to be distinguishable from adjacent communities.

**Sub-watershed.** In this document the term refers to the entire area that contributes water to a drainage system or stream at the sixth-field watershed scale (HUC 6). The sixth field watershed within the Hayes Ridge Water Source Project is Elk Valley Creek.

**Timber Management Area (TMA).** Designated under the *Final Environmental Impact Statement for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management* (2008 FEIS) and *Medford District's 2008 Western Oregon Plan Revision Record of Decision* (2008 ROD) and *Resource Management Plan* (2008 RMP), these lands would be managed by the BLM for continuous timber production sustained through a balance of growth and harvest.

**Transient Snow Zone (TSZ).** The area in which the winter snow pack is short-lived and transitory in nature (these areas normally do not have a substantial covering of snow for an entire winter season). Within our region this zone generally exists above 2,500 feet in elevation.

**Threatened Species.** Any species of plant or animal which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range, and which has been designated in the Federal Register as such. In addition, some states have declared certain species in their jurisdiction as threatened or endangered.

**Understory.** Vegetation (trees or shrubs) growing under the canopy formed by taller trees.

**Water Quality.** The chemical, physical and biological characteristics of water.

**Watershed.** Entire area that contributes water to a drainage system or stream. The fifth- field watershed within the Hayes Ridge Water Source Project Area is West Fork Cow Creek.

**Water yield.** The total volume of surface runoff, measured as stream discharge that leaves a sub-watershed area. Increased water yield is primarily a result of reduced evapotranspiration and interception within the watershed, and can persist for one to two decades following harvest activity depending on the rate of vegetative recovery. As forests regenerate, water yields generally decrease to pre-treatment levels within two to three decades.

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## **APPENDIX 1 - ALTERNATIVE DEVELOPMENT SUMMARY**

Environmental Assessment Number OR-118-08-011

Pursuant to Section 102 (2) (E) of NEPA (National Environmental Policy Act of 1969, as amended), Federal agencies shall “Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.” The CEQ (Council on Environmental Quality) regulations for implementing the procedural provisions of NEPA states, alternatives should be “reasonable” and “provide a clear basis for choice” (40 CFR 1502.14).

In light of the direction contained in both NEPA and the CEQ Regulations, the following questions were used to 1/ identify the alternatives to be analyzed in detail in this environmental assessment that are in addition to the “Proposed Action” and “No Action” alternatives, and 2/ document the rationale for eliminating alternatives from detailed study.

- 1. Are there any unresolved conflicts concerning alternative uses of available resources? If yes, document and go to Question #2. If no, document rationale and stop evaluation.** No. Alternative 2 meets the objectives of the purpose and need and the Project Design Features would eliminate any potential resource conflicts.
- 2. What alternatives should be considered that would lessen or eliminate the “unresolved conflicts concerning alternative uses of available resources”?** *List alternatives and go to Question #3. If no alternative is identified other than the “no action” alternative, document and stop evaluation.*
- 3. Of those alternatives identified in Question #2, are there reasonable alternatives for wholly or partially satisfying the need for the Proposed Action? If so, briefly describe alternatives and go to question #4. If no, document rationale and stop evaluation.**
- 4. Of those alternatives identified in Question #3, will such alternatives have meaningful differences in environmental effects? If so, seek line officer approval to carry alternatives forward for detailed analysis in the environmental assessment. If no, document rationale and stop evaluation.**

## **APPENDIX 2 - ENVIRONMENTAL ELEMENTS**

Environmental Assessment Number OR-118-08-011

In accordance with law, regulation, executive order and policy, the Hayes Ridge Water Source interdisciplinary team reviewed the elements of the environment to determine if they would be affected by the Proposed Action (Alternative 2) as described in Environmental Assessment Number OR-118-08-011. The following **two tables** summarize the results of that review.

<b>Table 1. Supplemental Authorities to be Considered (BLM Handbook 1790-1 Appendix 1).</b> This table lists some of the other authorities that may apply if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.		
<b>Supplemental Authorities</b>	<b>Status</b> 1/ Not Present 2/ Not Affected 3/ Affected	<b>Interdisciplinary Team Remarks</b> 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Air Quality (Clean Air Act as amended [42 USC 7401 et seq.])	Not Affected	The temporal and spatial small scale of the project would not involve enough traffic or ground disturbance to generate road dust.
Areas of Critical Environmental Concern	Not Present	There are no Areas of Critical Environmental Concern located within the project area.
Cultural Resources (National Historic Preservation Act)	Not Present	There are no known cultural resource sites located within the Project Area. A cultural resource survey was conducted in August 2008 and no cultural resources were found. If cultural resources are found during the implementation of the Proposed Action, the project may be redesigned to protect the cultural resource values present, or evaluation and mitigation procedures would be implemented based on recommendations from the Resource Area Archaeologist and concurrence from the Field Manager and SHPO.
Energy (Executive Order 13212)	Not Present	There are no known energy resources located in the Project Area. The Proposed Action would have no effect on energy development, production, supply and/or distribution.
Environmental Justice (Executive Order 12898)	Not Affected	The Proposed Action is not anticipated to have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.
Prime or Unique Farm Lands	Not Present	There are no Prime or Unique farmlands in or adjacent to the project area.
Flood Plains (Executive Order 11988)	Not Affected	The Proposed Action is located near a ridgetop, and does not involve occupancy and modification of floodplains, and would not increase the risk of flood loss. As such, the Proposed Action is consistent with Executive Order 11988.
Hazardous or Solid Wastes (Resource Conservation and Recovery Act of 1976)	Not Present	There are no known hazardous or solid wastes within or adjacent to the Project Area.

**Table 1. Supplemental Authorities to be Considered (BLM Handbook 1790-1 Appendix 1).** This table lists some of the other authorities that may apply if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

Supplemental Authorities	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Invasive, Nonnative Species (Executive Order 13112)	Not Affected	<p>The existing roadside and proposed water pipeline was surveyed for noxious weeds in the spring of 2008. The Planning Area contains Tansy Ragwort. Locations of these populations support the theory that openings and disturbance provide the greatest opportunity for the establishment of noxious weeds. In an effort to address the potential for project activities to increase the rate of spread of noxious weeds, the Project Design Features (PDFs) to wash equipment prior to moving it on-site is included in the project to decrease the potential spread of weeds associated with the Proposed Action. This PDF is widely accepted and utilized in noxious weed control strategies across the nation (Thompson, 2006).</p> <p>There would not be any increased risk for individual noxious weed site occurrences and densities within the Project Area as a result of the Proposed Action with application of the above stated PDF. The mixed ownership pattern of private adjacent to BLM, existing use of reciprocal ROWs, and the cumulative effects from factors affecting weed spread (private logging, motor vehicles, recreation, rural and urban development, and natural air/water/wildlife processes) effecting the project area, and the implementation of PDFs, the presence or absence, or weed density would not be altered to any detectable degree at the 6<sup>th</sup> field watershed level by the Proposed Action.</p>
Native American Religious Concerns (American Indian Religious Freedom Act)	Not Present	No pre-European settlement cultural sites were found within the Project Area. If such sites are found during the implementation of the Proposed Action, the project may be redesigned to protect the site values present, or evaluation and mitigation procedures would be implemented.
Threatened or Endangered Fish Species or Habitat (Endangered Species Act)	Not Present	Oregon Coast coho ( <i>O. kisutch</i> ) are not located within the Project Area. OC coho and their critical habitat are located 1.2 miles downstream of the Project Area, within West Fork Cow Creek.
Threatened or Endangered Plant Species or Habitat (Endangered Species Act)	Not Present	<p>Of the four federally listed plants on the Medford District (<i>Fritillaria gentneri</i>, <i>Limnanthes floccosa</i> ssp. <i>grandiflora</i>, <i>Arabis macdonaldiana</i>, and <i>Lomatium cookii</i>), only <i>Fritillaria gentneri</i> has a range and habitat which extends into the Glendale Resource Area.</p> <p>However, the project area is outside of the range and habitat of <i>F. gentnei</i>; therefore, the Proposed Action would not affect this species.</p>

**Table 1. Supplemental Authorities to be Considered (BLM Handbook 1790-1 Appendix 1).** This table lists some of the other authorities that may apply if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

Supplemental Authorities	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Threatened or Endangered Wildlife Species, Habitat and/or Designated Critical Habitat (Endangered Species Act)	Not Present Marbled murrelet & critical habitat	The project area is over 7 miles from the accepted known range of marbled murrelets as described in the currently accepted survey protocol (Pacific Seabird Group 2003), outside designated Critical Habitat for the species, and the area is also beyond (east of) the area in which marbled murrelet surveys are required to avoid disturbance to adjacent potential murrelet nesting habitat. Therefore, the proposed project would have no effects on marbled murrelets or their Critical Habitat.
	Not Affected Spotted owl	For the helicopter flight path and dip site, 18 trees (8-14 inches dbh) would be removed. The Project Area is approximately a half acre. The gap would be contiguous with the road gap & less than 50 ft in width. Increasing the size of the gap created by the road by such a small distance would not affect the ability of the species to successfully disperse in this area or in the future to nest in the adjacent stand. Creating an opening that is less than a half acre would not change the ability of the stand to serve as dispersal habitat or future nesting habitat.  The closest nesting spotted owls that have been found by repeated efforts over the last 2 decades are approximately 1 mile from the project area. This is well beyond the distance for disturbance caused by chain saws or heavy equipment. Therefore, there is also no disturbance effect expected to this species from the Proposed Action.
	Not Present Spotted Owl critical habitat	The Proposed Action is outside designated Critical Habitat for the Northern Spotted Owl.

**Table 1. Supplemental Authorities to be Considered (BLM Handbook 1790-1 Appendix 1).** This table lists some of the other authorities that may apply if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

Supplemental Authorities	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Water Quality Drinking-Ground (Safe Drinking Water Act)	<p>Not Affected (Temperature, Large Woody Debris, Chemical/Nutrient Contamination)</p> <p>Not Affected Sedimentation/ Water Quality</p>	<p>The proposed project, i.e. expanding and fortifying a spring, and constructing a trench to bury a water pipeline, would temporarily remove understory plants in the Riparian Reserves. The spring is located 1.2 miles from West Fork Cow Creek (listed 303d for temperature) and has no surface water connection, where the removal of understory plants could otherwise affect stream shading and stream temperature. There are no streams present where the removal of 18 trees (8-14" dbh) would occur, along road 31-8-31.2, for a helicopter flight path.</p> <p>No herbicides or pesticides would be used in conjunction with this project. This action would not be expected to result in any chemical or nutrient contamination.</p> <p>The Proposed Action would disturb less than half an acre from expanding and fortifying a spring, constructing a trench to bury a water pipeline 100 feet upslope of the 31-8-31.2 road from a spring, installing two dip tanks, grading the dip tank pad, and cutting and removing 18 trees to clear a helicopter flight path around the water storage tanks. The spring flows 100 feet, intersects a culvert and flows another 100 feet and travels subsurface on the hillslope. Slopes on the south side of the ridge, where all of the construction activities would occur, are generally 40%. Slopes throughout this Project Area have sufficient course ground cover, in the form of ground vegetation and/or downed woody debris and fine overstory litter, to keep erosion primarily on site. The trees may be hauled. The hauling route would then be on BLM roads #31-8-31.2, #31-8-31.1, and #32-8-1.1. Project Design Features (PDFs) have been established to minimize the rate at which sediment might be generated and allowed to move downstream. As such, there are no apparent mechanisms for additional sediment to be transported to other streams as a result of the expansion and fortification of a spring and construction of a trench to bury a water pipeline.</p> <p>The overall effects of the Proposed Action on water quality would be within State of Oregon water quality standards and would not result in any measurable effects on macroinvertebrates or aquatic habitat. Sedimentation from proposed work and possible roads usage during the hauling of excavated material from the culvert inlet would not result in a visible increase in stream turbidity, or a measurable increase in stream sediment deposition.</p>
Wetlands (Executive Order 11990)	Not Present	The Proposed Action would not result in the destruction, loss or degradation of any wetland. As such, the Proposed Action is consistent with Executive Order 11990.
Wild and Scenic Rivers (Wild and Scenic Rivers Act)	Not Present	There are no designated or eligible Wild and Scenic Rivers present within the Project Area.

**Table 1. Supplemental Authorities to be Considered (BLM Handbook 1790-1 Appendix 1).** This table lists some of the other authorities that may apply if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

<b>Supplemental Authorities</b>	<b>Status</b> 1/ Not Present 2/ Not Affected 3/ Affected	<b>Interdisciplinary Team Remarks</b> 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Wilderness (Federal Land Policy Management Act 1976)	Not Present	

**Table 2. Other Elements of the Environment.** This table lists other elements of the environment which are subject to requirements specified in law, regulation, policy, or management direction and the interdisciplinary team’s predicted environmental impact per element if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

<b>Other Elements of the Environment</b>	<b>Status</b> 1/ Not Present 2/ Not Affected 3/ Affected	<b>Interdisciplinary Team Remarks</b> 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Essential Fish Habitat (EFH) (Magnuson-Stevens Fisheries Conservation and Management Act)	Not Present	Essential Fish Habitat (EHF) would not be affected since no EFH exists within the planning area. EFH is located 1.2 miles downstream of the project area, in West Fork Cow Creek.
Fire Hazard	Not affected	The amount of slash created from the proposed activities is not expected to cause a change in the current fire behavior fuel model. Piles of slash would be treated by lop-and-scatter or on-site chipping.
Fire Risk	Not Affected	Fire risk generally increases as human presence increases, from activities such as improperly discarding cigarettes and unattended camp fires. This project is not expected to increase human presence; therefore, it is not expected to affect fire risk.
Recreation	Not Affected	There are no developed recreation sites that would be affected by the Proposed Action. The Proposed Action would have a neutral effect on dispersed recreation within the resource area.
Research Natural Areas (not including ACEC, FEIS 2008, p. 42-46)	Not Present	There are no designated special area land allocations within the Project Area.

**Table 2. Other Elements of the Environment.** This table lists other elements of the environment which are subject to requirements specified in law, regulation, policy, or management direction and the interdisciplinary team’s predicted environmental impact per element if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

Other Elements of the Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Bureau Strategic Species: Fish Species/Habitat	Not Present (Oregon Coast Steelhead, Southern Oregon & Northern California Coastal Chinook Salmon, Umpqua Chub)	<b><u>Bureau Strategic Species:</u></b> Strategic Species located within the vicinity of the Planning Area include the Oregon Coast Steelhead ( <i>Oncorhynchus mykiss</i> ), Southern Oregon & Northern California Coastal Chinook Salmon ( <i>O. tshawytscha</i> ), and Umpqua Chub ( <i>Oregonichthys kalawatseti</i> ) are not present within the Project Area.

**Table 2. Other Elements of the Environment.** This table lists other elements of the environment which are subject to requirements specified in law, regulation, policy, or management direction and the interdisciplinary team’s predicted environmental impact per element if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

Other Elements of the Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Special Status Species (not including T/E): Plant Species/Habitat	Not Present	<p><b>Bureau Special Status Vascular plants</b> Vascular plant surveys were conducted in the spring of 2008 by a professional botanist. Surveys revealed no new plant sites.</p>
	Not Present	<p><b>Bureau Special Status Non-Vascular plants</b> Nonvascular surveys, completed in spring 2008, resulted in no new Bureau Special Status nonvascular plant sites.</p>
	Not Affected	<p><b>Bureau Special Status Fungi</b> The Project Area was not surveyed for fungi, as pre-disturbance surveys for Special Status fungi are not practical, nor required per BLM – Information Bulletin No. OR 2004-121, which states “If project surveys for a species were not practical under the Survey and Manage standards and guidelines (most Category B and D species), or a species’ status is undetermined (Category E and F species), then surveys will not be practical or expected to occur under the Special Status/Sensitive Species policies either (USDA/USDI 2004a, p.3).” Current special status fungi were formerly in the aforementioned Survey &amp; Management categories which did not consider surveys practical, and are therefore exempt from survey requirements. With the recent instatement the new Bureau Special Status Species policy, 18 species of fungi were designated as Sensitive, 9 of which have been documented on Medford District. As mentioned above, none of these species require surveys.</p> <p>District wide, the Medford BLM has 18 Bureau Sensitive (BSO) fungi species; 9 are suspected to occur here, while the remaining 9 have been documented. Of the 9 documented species, only one, <i>Phaeocollybia olivacea</i>, has been found in the Glendale Resource Area, approximately 15 air miles away from the Project Area. While it is possible that this project is occurring within potential habitat for some species, there is very little information available describing the <i>exact</i> habitat requirements or population biology of these species (USDA,USDI 2004 (2004 Final SEIS vol.1) p. 148).</p> <p>Based on the above information, the likelihood of a Bureau Sensitive fungi species in this project area is very low; the likelihood of a sensitive fungi occurring within the project area is even lower since the area impacted by the water source construction is a half acre. The likelihood of contributing toward the need to list is not probable.</p>

**Table 2. Other Elements of the Environment.** This table lists other elements of the environment which are subject to requirements specified in law, regulation, policy, or management direction and the interdisciplinary team's predicted environmental impact per element if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

Other Elements of the Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Special Status Species (not including T/E): Wildlife Species/Habitat	Not Affected  Not Affected	<p><b>Bureau Sensitive</b> - American peregrine falcon, Townsend's big-eared bat, fringed Myotis (bat) and pallid bat. These species may fly through the project area in search of prey and the Proposed Action would not decrease their ability to do so.</p> <p><b>Bureau Sensitive</b> - Fisher. The Proposed Action would not affect any fisher habitat components such as large wood and snags. For the helicopter flight path and dip site, 18 trees (8-14 inches dbh) would be removed. The Project Area is approximately a half acre. The gap would be contiguous with the road gap &amp; less than 50 ft in width. Increasing the size of the gap created by the road by such a small distance would not affect the ability of the species to successfully disperse in this area.</p> <p>The Proposed Action is unlikely to impact fishers because they have not been found in the Glendale Resource Area for successive years by peer-reviewed survey methods. Approximately seventy remote camera surveys were conducted to protocol (Zielinski and Kucera 1995) from 2002-2005 in the Glendale Resource Area, with no fisher detections. Fishers have not been observed by BLM field personnel over many successive years of field work within the Resource Area. Although it is possible that fisher may disperse through the project area, the absence of detections from surveys indicates use is minimal at best.</p>
Migratory Birds (EO 131186)	Not Affected	Olive-sided flycatcher, rufous hummingbird, USFWS identified species of conservation concern (Federal Register July 10, 2003 Vol. 68, No. 25, 6179). Some migratory bird individuals other than USFWS species of concern may be temporarily displaced during project activities because of the limited duration of noise or the presence of humans, but there would be no perceptible shift in species composition because of the immeasurably small scale of habitat modifications.
Soil (erodibility)	Not Affected (Erosion)	<p><b>Erosion</b></p> <p>The Proposed Action is located approximately 730 feet from the ridgetop (on the south side) and 100 feet upslope of 31-8-31.2. There are a few stream crossings but no headwalls within the proposed Project Area. Small quantities of onsite erosion in the immediate surrounding areas (trench building and water storage tank site installation and construction) could also occur. Slopes on the south side of the ridge are 40% and have sufficient course ground cover, in the form of ground vegetation and/or downed woody debris and fine overstory litter, to keep erosion primarily on site.</p>
Visual Resources	Not Affected	The proposed Project Area is located within the Class 4 VRM (Visual Resource Management) category which allows for major modification of the existing character of the landscape. The Proposed Action is consistent with these visual resource management objectives.

**Table 2. Other Elements of the Environment.** This table lists other elements of the environment which are subject to requirements specified in law, regulation, policy, or management direction and the interdisciplinary team’s predicted environmental impact per element if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

Other Elements of the Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure, and if applicable, Project Design Features not already identified in the Medford District Resource Management Plan (RMP) to reduce or avoid environmental harm.
Water Resources (not including water quality)	Not Affected	<p>Alternative 2 (Proposed Action) would result in less than half an acre of disturbance from expanding and fortifying a spring, installing a spring box, constructing a trench to bury a water pipeline, installing two water storage tanks, grading a pad site, and cutting and removing 18 trees (8-14 inches diameter at breast height) to clear a helicopter flight path around the water storage tanks. No additional soil compaction would occur from installing two water storage tanks on the existing road right-of-way footprint</p> <p>The near ridgetop location would not intercept subsurface flow. The removal of 18 trees would result in less than half an acre of ground disturbance and less than 0.35 acres of potential soil compaction from cable yarding. This minimal increase would not result in a measurable increase in base flows or water yield over the existing condition. No additional soil compaction would occur from installing two water storage tanks on the existing road right-of-way footprint. Therefore it would not be expected that the activities on BLM land would measurably contribute to an increase in flows or runoff timing. The canopy removal of 18 trees within less than a ½ acre would not result in an increase in the magnitude of current peak flow events or an increase in annual water yields within the Elk Valley Creek HUC 7 drainage. The surrounding area below the project area is heavily forested and would absorb snow melt. For a project of this scale, wind patterns would also not be altered.</p> <p>Timing and volume of surface or subsurface flow would not be affected by this project since the flow would be returned to its original streambed and low probability of removing water for fire suppression activities. The Proposed Action is not anticipated to have measurable effects on watershed hydrology and would not affect municipal and domestic water use. The Proposed Action is exempt from the requirement to obtain a water right permit from the Water Master of Douglas County as the project would “utilize a portion of a natural spring under natural conditions” and “the spring does not flow off the property [BLM managed land] where it originates at any time of the year.” (<a href="http://www.wrd.state.or.us/">http://www.wrd.state.or.us/</a>).</p>
Port-Orford cedar	Not Present	Project is within natural range of Port-Orford-cedar (POC). A POC Risk Key Analysis was completed and no trees were found with <i>Phytophthora lateralis</i> within the Project Area. The Proposed Action is consistent with management direction in the Port-Orford-cedar EIS (See POC Risk Key in Appendix 4).

## ***APPENDIX 3 – AQUATIC CONSERVATION STRATEGY CONSISTENCY ANALYSIS***

Environmental Assessment Number OR-118-08-0011

“The Aquatic Conservation Strategy was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands. The strategy would protect salmon and steelhead habitat on Federal lands managed by the Forest Service and Bureau of Land Management within the range of the Pacific Ocean anadromy,” (1995 Medford District RMP p. 22).

There are four components of the ACS which are riparian reserves, key watersheds, watershed analysis, and watershed restoration. The ACS was designed to meet the nine objectives discussed below.

This ACS consistency analysis evaluates the Proposed Action (Alternative 2) in the Hayes Ridge Water Source Project EA.

### **Analysis of the Four Components of the ACS:**

1. **Riparian Reserves:** Approximately less than a quarter of an acre of this project is within Riparian Reserves. . A small spring would be developed within the Riparian Reserve and a portion of flow would be diverted to two storage tanks. Since the riparian is fed by two springs, diverting a portion of the water from one spring would not impede the riparian to supply water. Once the storage tanks are full, flow would be routed down a ditchline back to the original streambed. This project would not affect stream temperatures, large woody debris recruitment, or any measurable changes in sediment load to streams or fish habitat because canopy cover would not be removed and this stream is hydrologically disconnected, goes subsurface below the project area. There are no streams present where 18 trees would be removed along road 31-8-31.2 to clear a helicopter flight path. The trees may be hauled. The hauling route would then be on BLM roads #31-8-31.2, #31-8-31.1, and #32-8-1.1 on a third of a logging truck load.
2. **Key Watershed:** The Proposed Action is located in a Key Watershed, West Fork Cow Creek. This project is hydrologically disconnected from anadromous habitat and thus cannot alter sediment, stream temperature, or wood routing or key watershed characteristics.
3. **Watershed Analysis:** The Glendale Resource Area completed the West Fork Cow Creek Watershed Analysis in 1997. The action alternative is consistent with the watershed analysis and would maintain the existing condition of the watershed.

According to the West Fork Cow Creek Watershed Analysis, there are many high risk fire sites (page 99) which could be mitigated with the proposed project. While the

WA focuses on treatments of stands (page 89), the proposed project would aid in suppression activities and lowering the risk of stand replacing fires.

The proposed water source construction would not affect stream temperatures, large woody debris recruitment, or any measurable changes in sediment load to streams or fish habitat because canopy cover would not be removed and this stream is hydrologically disconnected, goes subsurface below the project area. The proposed project is consistent with management direction in the RMP and the Watershed Analysis.

The Watershed Analysis found that management directions in the Northwest Forest Plan and the RMP including the Aquatic Conservation Strategy, Project Design Features, and riparian reserve management would be adequate at protecting, maintaining and improving fish habitat.

4. Watershed Restoration: The Hayes Ridge Water Source Project EA is not a watershed restoration project. The Proposed Action would not reverse any restoration efforts which have been accomplished or are planned in the West Fork Cow Creek Watershed. There is sufficient course ground cover, in the form of ground vegetation and/or downed woody debris and fine overstory litter, to keep erosion from proposed activities primarily on site.

**Table A3-1. Consistency Analysis with the Record of Decision Northwest Forest Plan (1994)**

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
	<p><u>Scale Description</u>: This project is located in one seventh-field drainage totaling 802 acres in size. The BLM manages approximately 463 acres in this drainage (57%). The project represents 0.03% of the total drainage area, and 0.05% of the BLM-managed lands in the drainages.</p>	<p><u>Scale Description</u>: This project is located in the West Fork Cow Creek Fifth Field Watershed. This watershed is roughly 55,914 acres in size. The BLM manages approximately 29,935 acres in this watershed (53%).</p>
<p><b>1.</b> 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.</p>	<p>This project would maintain the distribution, diversity, and complexity of landscape-scale features. This project is located along a ridgetop, hydrologically disconnected to other streams and fish habitat.</p>	<p>This project would maintain the distribution, diversity, and complexity of watershed scale features. This project is located along a ridgetop, hydrologically disconnected to other streams and fish habitat.</p>
<p><b>2.</b> Maintain and restore spatial and temporal connectivity within and between watersheds</p>	<p>Within the drainage, the proposed project would have no influence on hydrologic connectivity. Therefore this treatment would maintain the existing connectivity condition at the site scale. The proposed project would not affect timing and volume of surface or subsurface flow because the flow would be returned to its original streambed and low</p>	<p>Within the watershed, the proposed project would have no influence on hydrologic connectivity. Therefore this treatment would maintain the existing connectivity condition at the watershed scale.</p>

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
	probability of removing water for fire suppression activities.	
<b>3.</b> Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations	This project would include disturbance to the stream channel, i.e. digging activity for placement of spring box and pipe but would not degrade the stream banks.	This treatment would also maintain the physical integrity of the aquatic system at the watershed scale.
<b>4.</b> 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.	The overall effects of the proposed action on water quality would be within State of Oregon water quality standards and would not result in any measurable effects on the aquatic habitat and communities. No herbicides or pesticides would be used in conjunction with this project. This action would not be expected to result in any chemical or nutrient contamination. The proposed activities would result in soil disturbance on approximately a half acre but would not affect survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.	Based on the information discussed at the site scale, this project would also maintain water quality at the watershed scale.
<b>5.</b> Maintain and restore the sediment regime under which aquatic ecosystems evolved.	The proposed activities would result in soil disturbance on approximately a half acre with a majority of the disturbance on an existing ROW. Any sediment created would remain on site and local due to sufficient course ground cover, in the form of ground vegetation and/or downed woody debris and fine overstory litter, to keep erosion primarily on site. Therefore, this project would maintain the existing sediment regime.	This project would maintain the existing sediment regime at the watershed scale as well.
<b>6.</b> 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 size of the spring would be impacted but not reduce or impair its function. The proposed project would not affect timing and volume of surface or subsurface flow because the flow would be returned to its original streambed and low probability of removing water for fire suppression activities. Wood routing in this part of the watershed is not an issue due to the stream going subsurface.	At the larger watershed scale, this treatment would also maintain stream flows within the range of natural variability.
<b>7.</b> Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and woodlands.	As discussed in #6 above, this project would maintain stream flows within the range of natural variability at the site scale. Therefore, it would also maintain stream interactions with the floodplain and respective water tables at the site scale.	At the watershed scale, this project would also maintain stream interactions with the floodplain and respective water tables within the range of natural variability.

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
<p><b>8.</b> 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 coarse woody debris sufficient to sustain physical complexity and stability.</p>	<p>The project would maintain species composition and structural diversity of plant communities in riparian areas. Nutrient filtering would be impacted at this level as a portion of the flow is rerouted down slope and thus not filtering through the soil and riparian vegetation. Coarse woody debris routing in this part of the watershed is not an issue due to the stream going subsurface.</p>	<p>This project would maintain the distribution, diversity, and complexity of watershed scale features.</p>
<p><b>9.</b> Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.</p>	<p>The proposed activities would maintain habitat to support populations of native plant, invertebrate and vertebrate riparian-dependent species. The proposed project would not affect timing and volume of surface or subsurface flow because the flow would be returned to its original streambed and low probability of removing water for fire suppression activities.</p>	<p>This project would maintain habitat to support populations of native plant, invertebrate and vertebrate riparian-dependent species at the watershed scale.</p>

**CONCLUSION:**

No cumulative adverse effects are anticipated from the Proposed Action because the proposed water source construction would not affect stream temperatures, large woody debris recruitment, or any measurable changes in sediment load to streams or fish habitat because canopy cover over a stream would not be removed and the stream is hydrologically disconnected, since it travels subsurface below the project area. Since the riparian is fed by two springs, diverting a portion of the water from one spring would not impede the riparian to supply water.

Small quantities of onsite erosion in the immediate surrounding areas (trench building and storage tank site installation/excavation) could occur. Project Design Features (PDFs) have been established to minimize the rate at which sediment might be generated and allowed to move downstream. As such, there are no apparent mechanisms for additional sediment to be transported to other streams as a result of the expansion and fortification of a spring and construction of a trench to bury a water pipeline. Slopes on the south side of the ridge are 40% and have sufficient coarse ground cover, in the form of ground vegetation and/or downed woody debris and fine overstory litter, to keep erosion primarily on site.

The Hayes Ridge Water Source Project EA would not retard or prevent the attainment of the nine objectives or the four components of the ACS. The action alternative would not result in measurable adverse effects to water quality. There would be no measurable

change to stream shade, water nutrient levels, flow regime, or chemical contamination of streams, or springs as a result of this action. This determination was based on the small spatial and temporal disturbances associated with the water source construction. Therefore, the proposed actions are consistent with the ACS of the Northwest Forest Plan Record of Decision (1994).

## **APPENDIX 4 – PORT ORFORD CEDAR RISK KEY ANALYSIS FOR HAYES RIDGE WATER SOURCE**

Risk Key is from Alternative 2 of the FSEIS for Management of Port Orford Cedar in Southwest Oregon 1/2004

QUESTION		Proposed Action Area	
		Hayes Escapement #2 131759	OI unit 136955
1a.	Are there uninfected POC within, near <sup>1</sup> , or downstream of the activity area whose ecological, Tribal, or product use or function measurably contributes to meeting land and resource management plan objectives?	no	no
1b.	Are there uninfected POC within, near <sup>1</sup> , or downstream of the activity area that, were they to become infected, would likely spread infections to trees whose ecological, Tribal, or product use or function measurable contributes to meeting land and resource management plan objectives?	no	no
1c.	Is the activity area within an uninfested 7 <sup>th</sup> field watershed <sup>2</sup> as defined in Alternative 6	no	no
		<i>If the answer to all three questions, 1a, 1b, and 1c, is no, then risk is low and no POC management practices would be required.</i>	
<i>If the answer to any of the three questions is yes, continue.</i>			
2.	Will the proposed project introduce appreciable additional risk <sup>3</sup> of infection to these uninfested POC?	n/a	n/a
		<i>If no, then risk is low and no POC management practices are required.</i>	
<i>If yes, apply management practices from the list below [within FSEIS] to reduce the risk to the point it is no longer appreciable, or meet the disease control objectives by other means, such as redesigning the project so that uninfested POC are no longer near or downstream of the activity area. If the risk cannot be reduced to the point it is no longer appreciable through practicable and cost-effective treatments or design changes, the project may proceed if the analysis supports a finding that the value or need for the proposed activity outweighs the additional risk to POC created by the project.</i>		n/a	n/a

1 - In questions 1a and 1b, "near" generally means within 25 to 50 feet downslope or 25 feet upslope from management activity areas, access roads, or haul routes; farther for drainage features; 100 to 200 feet in streams.

2 - Uninfested 7th field watersheds are listed on Table A12-2 [of FSEIS] as those with at least 100 acres of POC stands, are at least 50% federal ownership, and are free of PL except within the lowermost 2 acres of the drainage.

3 - Appreciable additional risk does not mean "any risk." It means that a reasonable person would recognize risk, additional to existing uncontrollable risk, to believe mitigation is warranted and would make a cost-effective or important difference (see Risk Key Definitions and Examples for further discussion.)

QUESTION		Access Route to Proposed Action								
		County Road #27	33-7-2	32-8-1	30-8-32	32-8-1.1	31-8-31.1	31-8-31.2	31-8-31.6	31-8-30.3
1a.	Are there uninfected POC within, near <sup>1</sup> , or downstream of the activity area whose ecological, Tribal, or product use or function measurably contributes to meeting land and resource management plan objectives?	no	no	no	no	no	no	no	no	no
1b.	Are there uninfected POC within, near <sup>1</sup> , or downstream of the activity area that, were they to become infected, would likely spread infections to trees whose ecological, Tribal, or product use or function measurable contributes to meeting land and resource management plan objectives?	no	no	no	no	no	no	no	no	no
1c.	Is the activity area within an uninfested 7 <sup>th</sup> field watershed <sup>2</sup> as defined in Alternative 6	no	no	no	no	no	no	no	no	no
		<i>If the answer to all three questions, 1a, 1b, and 1c, is no, then risk is low and no POC management practices would be required.</i>								
		<i>If the answer to any of the three questions is yes, continue.</i>								
2.	Will the proposed project introduce appreciable additional risk <sup>3</sup> of infection to these uninfected POC?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
		<i>If no, then risk is low and no POC management practices are required.</i>								
		<i>If yes, apply management practices from the list below [within FSEIS] to reduce the risk to the point it is no longer appreciable, or meet the disease control objectives by other means, such as redesigning the project so that uninfected POC are no longer near or downstream of the activity area. If the risk cannot be reduced to the point it is no longer appreciable through practicable and cost-effective treatments or design changes, the project may proceed if the analysis supports a finding that the value or need for the proposed activity outweighs the additional risk to POC created by the project.</i>								

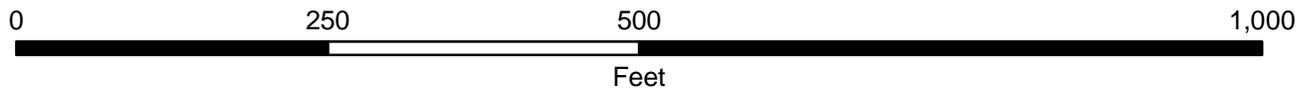
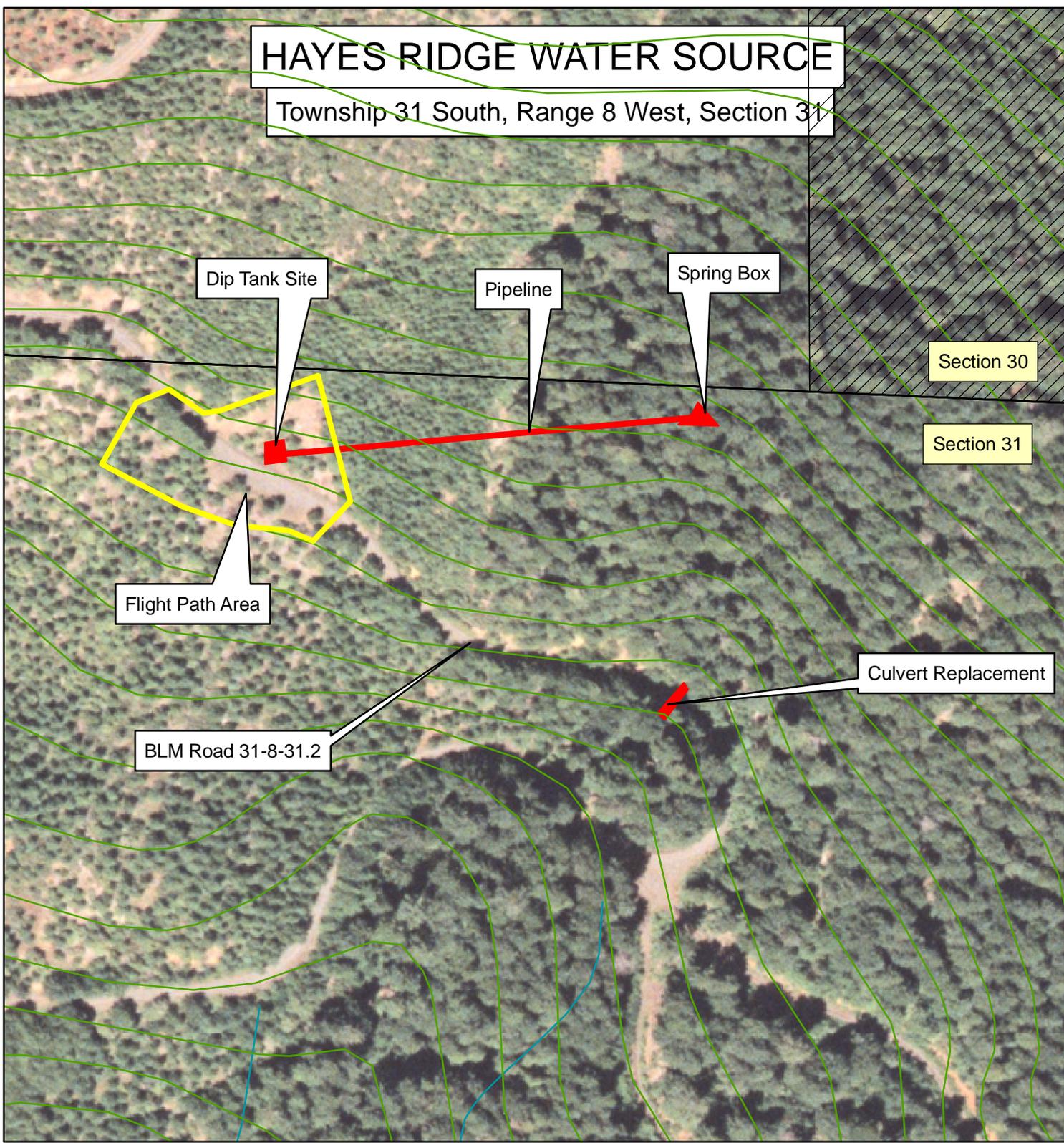
1 - In questions 1a and 1b, "near" generally means within 25 to 50 feet downslope or 25 feet upslope from management activity areas, access roads, or haul routes; farther for drainage features; 100 to 200 feet in streams.

2 - Uninfested 7th field watersheds are listed on Table A12-2 [of FSEIS] as those with at least 100 acres of POC stands, are at least 50% federal ownership, and are free of PL except within the lowermost 2 acres of the drainage.

3 - Appreciable additional risk does not mean "any risk." It means that a reasonable person would recognize risk, additional to existing uncontrollable risk, to believe mitigation is warranted and would make a cost-effective or important difference (see Risk Key Definitions and Examples for further discussion.)

# HAYES RIDGE WATER SOURCE

Township 31 South, Range 8 West, Section 31



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Prepared by: dvogel  
Date: 12/10/2008