

Chapter 1 Purpose of and Need for Action

1.1 Purpose and Need

The Bureau of Land Management (BLM), Umpqua Field Office of the Coos Bay District proposes to improve the Dean Creek Elk Viewing Area (DCEVA) water system. DCEVA is located in Douglas County, three miles east of the City of Reedsport, Oregon. It is a developed “Watchable Wildlife” site featuring elk, birds and other animals. Nearly 400,000 people visit the site each year. Reliable flush toilets and safe drinking water systems are necessary. The current well and pumping system at DCEVA is unreliable and unable to meet the demand. There is also a need to upgrade the current system flowing into the East End Ranch House (East End) and to provide the volunteer host with reliable water.

The popularity of this successful, cooperative Watchable Wildlife site reflects on all the agencies involved over the years. Initial construction and a variety of projects at DCEVA have been accomplished with assistance from Dean Creek Wildlife, Inc., The Rocky Mountain Elk Foundation, Oregon Department of Fish and Wildlife, and Ducks Unlimited, Oregon Department of Transportation, Oregon Wildlife Heritage Foundation and the U.S. Fish and Wildlife Service. BLM continues to work with these groups. The DCEVA is strongly supported by the community of Reedsport.

The project would be accomplished through a formal bid and contract administered by BLM.

The objectives of this proposed project are to:

- A. Provide a reliable and safe public water source for DCEVA utilizing existing roads and rights-of-way and avoiding wetlands and natural habitats.
- B. Reduce costly annual maintenance associated with the current system with one-time cost of construction.

1.2 Background and other relevant documents

This EA is a supplement to EA OR 125-96-14, Dean Creek Elk Viewing Area 1997 Draft Amendment to the 1993 Management Plan, p. 35. A water supply upgrade project was proposed, although no specific upgrade was analyzed at that time. The proposed action design and location (described in Chapter 2) was proposed by BLM in cooperation with the City of Reedsport engineers. Project activity would potentially commence on the ground in summer or autumn, 2005, pending funding.

This EA is tiered to and in conformance with the *Coos Bay District Resource Management Plan* (District RMP) and its Record of Decision (USDI BLM 1995) as supplemented and amended; which is in conformance with the *Final Supplemental Environmental Impact Statement (FSEIS) on Management of Habitat for Late Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl (Northwest Forest Plan (NFP))*, and its Record of Decision (Interagency 1994) as supplemented and amended.

The Lower Umpqua Watershed Analysis (September 1997) recognizes that DCEVA provides

high social value for elk viewing opportunities to the public. The proposed project would occur on Public Domain lands. There are Matrix (General Forest Management Area (GFMA) and Riparian Reserve (RR) designations within DCEVA.

These documents are available for review at the Coos Bay and North Bend Public Libraries, the Coos Bay District Office of the BLM, the Coos Bay District's Internet Home Page at <http://www.or.blm.gov/coosbay>, and the Oregon State Office of the BLM in Portland, Oregon.

Other agencies involved in this analysis are the Oregon Department of Fish and Wildlife (ODFW) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries, formerly known as the National Marine Fisheries Service, and City of Reedsport Public Works Department and engineering advisors.

The Analysis File contains additional information that was used by the Interdisciplinary Team (IDT) to examine impacts and alternatives and is hereby incorporated by reference. The April 2003 Source Water Assessment Report for Public Water System ID #4194967, prepared by the State of Oregon, Department of Human Services, Health Services – Drinking Water Program, is an assessment mandated by the 1996 amendments to the Safe Drinking Water Act. These documents are located at the Coos Bay District Office.

1.3 Issues eliminated from further study

- Energy Development
As there are no road closures associated with any of the alternatives, energy development and accessibility would remain unchanged from its current condition
- Air Quality
There is no burning associated with this project and there are no other aspects of the project likely to impact Air Quality
- Wild & Scenic Rivers/Wilderness
The DECVA is neither a Wild & Scenic River nor a designated Wilderness.
- Farmlands, Prime Unique
While it is zoned agricultural, the DCEVA is not considered to be prime nor unique farmland.
- Port-Orford-Cedar
The DCEVA is located north of the range of Port-Orford-Cedar.

1.4 Decision to be made

The Field Manager must decide whether to implement the Proposed Action as described in detail in Chapter 2. The Field Manager must also determine if the Proposed Action would or would not significantly affect the quality of the human environment. If the Field Manager determines

that it would not significantly affect the quality of the human environment, then a FONSI (Finding of No Significant Impact) can be prepared. If it is determined that the alternative would significantly affect the quality of the human environment, then the alternative must either be dropped, modified or have an EIS (Environmental Impact Statement) and a ROD (Record of Decision) prepared and signed before the alternative could be implemented.

1.5 Other government issues

Reedsport city policy precludes the city from serving residents outside the urban growth boundary, but providing service to a government entity outside the city limits is permitted. The BLM would own the water line, and would not be authorized to allow private parties to tap into it. The City of Reedsport would issue a Service Agreement to BLM to provide water at the connection point for a basic monthly charge plus a rate based on the quantity of water used. More information about the planning required for cities and counties in Oregon can be found at: www.lcd.state.or.us/ which is Oregon's Department of Land Conservation and Development. Douglas County Planning information is available at: <http://www.co.douglas.or.us/planning/>

Chapter 2 Alternatives including the Proposed Action

2.1 Background

The decision to upgrade the water system was approved in 1996 with EA #OR125-96-14, therefore, the "No Action" alternative is not utilized here. Only one action is being considered for this very specific project. This chapter describes alternatives identified and eliminated from analysis.

2.2 Alternatives considered but eliminated from study.

- Upgrade or re-build the existing systems.

This alternative was eliminated because the existing systems simply cannot accommodate the use at this popular outdoor site. The east-end system depends on gravity flow from the open creek, and is filtered at the ranch house area. It is subject to failures, particularly during heavy rains. The system which services the existing flush restrooms consists of a well, storage tank, pumps, and filters. Re-constructing the lines or adding filters would not address the ability of the well to supply enough good water year round. The well output decreases to approximately one gallon per minute in the summer when the site has the most visitors.

- Drill one or more new wells and connect them to holding tanks.

This alternative has been discussed over the years yet accessing a sufficient supply of good underground water in this location is doubtful. Aquifer characteristics in the upland areas preclude high-yield flow conditions during the time of year when the demand is highest. The free-draining nature of the subsurface soils (sand and gravels) creates low groundwater conditions in late summer. A Source Water Assessment Report issued in April 2003 by the Oregon Department of Human Services Drinking Water Program (DHS) outlined the sensitive nature of the existing source of water: "*The shallow, unconfined, fractured nature*

of the water table and the highly permeable character of the unsaturated zone make the aquifer highly sensitive to potential contaminant sources at the surface.” The report identifies two important parameters contributing to this unconfined aquifer sensitivity – coliform and nitrate. In October of 2001 the system was shut down due to the detection of source-related total and fecal coliform, indicating that human and/or animal waste contamination from the surface is finding a way into the drinking water source. In November of 2002, the nitrate detection level (4.70 milligrams per liter – moderately sensitive) was reported as being above background levels, although below the 10 mg/l maximum contaminant level defined by DHS for public water systems. Nitrate at 5mg/l would be considered a highly sensitive source criteria but the report warns: “...*the source of nitrate could produce more significant amounts in the future and also indicates that a pathway exists for contamination from the surface to enter the drinking water supply.*” These aquifer characteristics are typical for the other nearby watersheds where additional potential well sites have been considered. Development of lowland sources is not practical due to the risk of saltwater intrusion.

2.3 Proposed Action

The Proposed Action would connect the DCEVA with the City of Reedsport water supply system. The connection would be located at the existing Upper Crestview water tank on the hill west of the DCEVA boundary. The water line would be buried in a trench which would follow Hwy. 38 a short distance eastward, then utilize existing gravel roads and finally, connect with the existing water lines within DCEVA. The length of trench to be dug is estimated to be 23,670 feet, or about 4.5 miles long. The trench would usually be 12 inches wide and would not exceed 18 inches in width. The minimum dirt cover over the pipe, once it’s inside the trench, is 30 inches. Minimum cover within the Oregon Department of Transportation (ODOT) right-of-way (R/W) would be 36 inches. Directional drilling may be used in lieu of excavated trenches parallel to or within ODOT R/W depending on budgetary considerations to be evaluated during the design process. Minimum cover for directional drilling would be 5 feet. See map in Appendix 1.

Excavation of the trench would be accomplished using typical construction equipment such as backhoes, hydraulic excavators, and trenching machines. Where bed rock is encountered, the trench would be dug with a jack hammer mounted onto an excavator if conventional equipment cannot remove the rock in an expeditious manner.

In lieu of conventional trenching, an alternative option for installing the new water line is a method commonly called plowing. It would be the contractor’s option to use this method depending upon availability of the equipment and the presence of existing underground utilities. Plowing is best suited to ground without pavement and where there are few conflicts with other underground utilities. The service road within the DCEVA and the access road to the water storage tank would be ideal locations to install the line by plowing. Plowing disturbs the ground surface less than trenching but entails more risk due to potential damage to unknown underground utilities or the water pipe itself should extremely rocky subsurface conditions be

encountered.

The equipment consists of a plow device mounted on a dozer. One end of the pipe, along with required toning wire, is securely attached to the end of the plow. A hole is excavated where plowing is to begin, to the depth required for specified cover over the water line. The dozer then begins plowing, which pulls the pipe and wire through the ground. Care must be taken to maintain the specified depth throughout the plowing operation. Should a culvert or other existing underground utility be anticipated or encountered in the path of the plow, the operation stops and is restarted on the other side of the obstruction. Another hole needs to be excavated at this point to pull the line under the obstruction. Valves or other appurtenances are installed on the plowed line at a later time, requiring an excavation at each location. A berm remains in the path of the plow, which needs to be compacted to restore a smooth surface. In the case of gravel surfaced roads, plowing usually requires less replacement rock for restoration purposes than conventional trenching. Total length of any one plowing operation is limited by the power of the dozer and the soil conditions.

The water line itself would be 2 and 3-inch diameter high density polyethylene (HDPE). Some water line and miscellaneous items at connection points and appurtenances would consist of PVC and ductile iron materials. The HDPE pipe comes in a roll capable of unreeling 1000-foot long sections in one piece. This reduces the number of joints. Joints would be connected by heat fusion. Valves and other appurtenances would be attached to the water line with mechanical connections.

ODOT requirements within the highway R/W would be incorporated into the construction specifications. Sites for stock piling materials would be located within the project area and would be temporary. Unusable, excess excavated material would be the responsibility of the contractor and would be removed for off-site disposal at an approved site.

The Proposed Action also entails installing eight stream crossing culverts on non-fish bearing tributaries and nine cross drain culverts along the DCEVA service road. The HDPE pipes, ranging in size from 18 to 36 inches in diameter, would be installed at the contractor's discretion either before or after the water line is buried. Following the water line placement and culvert installation, the service road may be rocked, if funding allows.

Approximately 65% of the project would be on public domain lands administered by BLM; 25% would be within ODOT R/W for State Highway 38 and 10% would be on the City of Reedsport roads. BLM would coordinate with all parties to ensure all requirements for regulations and safety apply. Construction time would be approximately 90 days.

2.3.1 Project Design Features:

- If potential cultural resources are encountered during the course of this project, all work in their vicinity shall stop and the District Archeologist must be notified at once.
- Best Management Practices (BMP's) for maintaining water quality and soil productivity

as written in the District RMP will be utilized.

- Construction activity will be limited to the dry season, generally May through October.
- Project will utilize the existing roadway as much as possible.
- The contractor will be responsible for appropriate off-site disposal of left-over material.
- Trenching spoils will be stockpiled on the inboard side of the road if possible.
- Silt fencing and straw bales will be used as necessary to limit substrate movement if subsurface water is encountered during culvert installation.
- A vascular plant survey will be conducted before ground disturbing activity begins.
- The project area will be screened for Recognized Environmental Conditions (REC's) by project personnel, and any concerns documented on the NEPA Level 1 Site Survey, or Hazardous Materials Site Report (Form OR 120 1703-1), and submitted to the district Hazardous Materials Coordinator for investigation or response.

2.4 Impacts overview

The environmental consequences of the Proposed Action include four and a half miles of trench line digging which may cause temporary disturbance to wildlife and fish in the vicinity due to noise and movement of equipment and people in an area normally devoid of both. Traffic control along Hwy. 38 would occur per ODOT regulation.

Chapter 3 Affected Environment

This section describes the current condition of the environmental components that could be affected by the Proposed Action.

3.1 General Description

DCEVA is a developed outdoor visitor area providing paved access, parking, restrooms, and interpretive signs about the natural resources. Elk are visible much of the year, sometimes close to the pavement. Over 400,000 visitors stop for about 30 minutes to see the wildlife and use the restrooms. DCEVA is located within a floodplain adjacent to the lower reaches of the Umpqua River and next to a major road, State highway 38. It is three miles east of the coastal town of Reedsport, OR.

The current conditions of the environmental components of DCEVA have been listed and analyzed several times in the past ten years. Refer to EA OR125-96-14, the Dean Creek Elk Viewing Area – Activity Management Plan, 1993, and DCEVA 1998 Amendment to the 1993 Plan – BLM Coos Bay. These documents are incorporated by reference. There is a current effort to update the options available to manage the DCEVA for elk forage on most of the eastern portion, and to encourage wetlands in the western portion. The hydrology is being studied for details of what is needed in this former salt water marsh.

There are no designations of Areas of Critical Environmental Concern at DCEVA, or throughout the project area. A review of project documentation, records check, and previous site visits, indicates there should be no impacts to cultural resources.

3.2 Stream Channels, Flood Plains, Water Quality & Aquatic Resources

Within the DCEVA, stream channels and floodplain areas at the base of the hillslope have been affected by the existing service road (the route of the new water line) and associated crossing structures. Twenty-six culverts are located along the road between Highway 38 and the western end of the existing 2 inch line. Nineteen culverts (12 to 36 inch diameter) drain perennial and intermittent streams and seeps under the maintained gravel portion of the road, and seven culverts (12 to 24 inch diameter) are located under the unimproved dirt/gravel section of the road to the west. Four of the seven culverts are buried by substrate, and there is evidence of higher flows overtopping the road. Twenty of the twenty-six culverts discharge to wetland areas adjacent to the road.

Five cross drain culverts are located along the gravel road from the water tank to Highway 38. Cross drain culverts along Highway 38, drain to the hillslope above the south bank of the Umpqua River. Outside the DCEVA, large (>50 feet) vegetative buffers exist between the proposed route and surface waters.

Within the DCEVA, the most favorable summer water temperatures for salmonid rearing are found at the base of the hillslope in the project area. The State's stream temperature standard for the 7-day average maximum is 64.4°F (the 7-day average maximum is the average of the daily maximum stream temperatures for the seven warmest consecutive days during the summer). Where Koepke Creek emerges from the forest (at the toe of the slope just west of Koepke Slough), the 7-day average maximum temperature was 59.1°F in 2003. Point water temperature sampling in mid-July 2003 at four sites in the same area also shows relatively low stream temperatures. The average of four measurements was 54.9°F.

Summer water temperatures in the ditches and remnant tidal channels that dissect the pastures and wet meadows of the DCEVA are high relative to the State's temperature standard. Elevated temperatures are primarily due to a lack of shade, a high width to depth ratio, and low summer flows. Bottomland drainages at Dean Creek are subject to all these conditions. Continuous sampling in 2002 and 2003 at 5 sites between Highway 38 and the east-west trending ditches to the north of the project area shows that the 7-day average maximum ranged between 69.8 and 80.9°F.

3.3 Geology

The project area is located within an Anticline/Syncline complex. The bedrock consists of the Siuslaw Member of the Flournoy Formation. This formation consists of very thick-bedded, massive to graded fine-grained sandstone with minor sequences of thin-bedded siltstone and fine- to very fine-grained graded sandstone beds and some very thick-bedded channelized sandstone. The bedrock is exposed in the uplands and underlays Quaternary Alluvium of the floodplain/lowlands. The alluvium is floodplain and stream channel deposits made of clay, silt, sand, and gravel. This project location includes tidal flat sediments deposited prior to the construction of levees. Currently, peat deposits have been accumulating in the lower parts of the land, mixed with sediment delivered from the adjacent uplands.

There appears to be no active faults within one mile of the project. Bedding dip planes are relatively level, being approximately 6° to the north-northeast. The axis of a north-oriented syncline crosses the west end of the project. It should be noted that it is highly probable that not all of the geologic structures, including faults, have been mapped. Associated hazards of these formations include: flooding (the east end of the project appears to lie within the 100-year floodplain), and over-steepened slopes. Additional risks include earthquake induced liquefaction and subsidence. Field observations indicate the presence of debris flow material and chutes.

Groundwater has been recorded in well logs to be approximately 29 feet below ground surface. Investigations have concluded that the current potable water supply is vulnerable to surface contamination, with the water supply being drawn from an unconfined aquifer. Total and fecal Coliform bacteria, Nitrate, and Fluoride have been detected in the current water supply.

3.4 Soil

Four soils units were mapped within the project area. The soils are derived from sedimentary rock, colluvium, and/or alluvium, dependent on the environment. They include:

Coquille silt loam
Svensen-Millicoma-Reedsport Complex
Reedsport-Millicoma Complex
Svensen Loam

Specific soil information can be found in the specialist report and soil surveys from the Natural Resources Conservation Service. It should be noted that the project would be constructed within existing roadbeds as opposed to native material. This material is disturbed and may not have the same characteristics as native material.

3.5 Vegetation

3.5.1 The following report is an abbreviated version of the botany report. The full report is available for review at the Coos Bay District Office of the BLM.

The area of proposed action consists of an overgrown cat road that separates a mixture of hardwoods and coniferous forest from a mosaic of pastures and wetlands of the DCEVA. The eastern portion of the proposed waterline pathway winds through the inside edge of the mixed hardwood and coniferous forest. The dominant tree species of the forest which are encroaching the wetlands are comprised of sitka spruce (*Picea sitchensis*), willow (*Salix sp.*) and some maple (*Acer sp.*) and red alder (*Alnus rubra*) trees. There is an abundance of sedges, rushes, bulrush, cattail and reed canary grass along with some shrubs and hardwoods that contribute to the diverse forest edge. The dominant species of the slough sedge marsh are reed canary grass (*Phalaris arundinacea*) and slough sedge (*Carex obnupta*). Moist habitat which is conducive to an abundance of mosses, liverworts and some lichens is prevalent within the project area. Potential habitat is present for several nonvascular special status lichens and bryophytes.

The proposed project area of the levee is occupied by mainly woody upland vegetation, primarily non-native blackberries (*Rubus discolor* and *Rubus laciniatus*) shrubs such as twinberry (*Lonicera involucrate*), and a few red alder trees (*Alnus rubra*).

Field Results

Previous surveys consisting of both vascular and nonvascular plants have been done in various parts of the DCEVA. No special status or T&E have been located.

Bureau tracking plant species, seaside brookweed, (*Samolus parviflorus*) is located west of the proposed action area. Bureau assessment lichen, *Heterodermia leucomelos*, is located west of the proposed action area. There are several different Bureau sensitive and assessment lichen species that have documented sites in relatively close vicinity due west and due south of the DCEVA that have potential habitat within the project areas.

Also adjacent to the project area on the west end of the DCEVA is potential habitat for Henderson's checker mallow (*Sidalcea hendersonii*). Historical records indicate that Henderson checker mallow had been located within the salt marshes at the mouth of the Umpqua River including other close by tidal river estuaries and estuarine islands. It occurs north of the DCEVA on a salt marsh island near Florence. This is a BLM sensitive species and a species of concern.

3.5.2 Noxious Weeds

Noxious weeds are any plant species designated by federal, state or other regulatory agency as possessing one or more of the characteristics of being aggressive and difficult to manage, parasitic, a carrier or host of serious insects or disease, and being non-native, new to, or not common to the United States. Six primary noxious weeds from the Oregon State noxious weed list are known to be located within the project area. These include Canada thistle (*Cirsium arvense*), Purple loosestrife (*Lythrum salicaria*), bull thistle (*Cirsium vulgare*), Scotch broom (*Cytisus scoparius*), Himalayan blackberry (*Rubus aremeniacus* aka *Rubus discolor*), and Tansy ragwort (*Senecia jacobaea*).

3.5.3 Port-Orford-Cedar

There are no known POC present and the project area is outside the natural range of POC.

3.6 Fisheries

The Dean Creek Elk Viewing Area (DCEVA) is located in the Lower Umpqua River (1710030308) 5th field watershed and within the Upper Lower Umpqua River (171003030801) 6th Field Watershed. The waters that would be affected by the project occur within the Deerhead Point 7th drainage.

The DCEVA is a mosaic of pastures, wet meadows, and uplands that are dissected by several ditches and two major sloughs. After construction of Highway 38 and the installation of six tide gates, the tidally-influenced salt water marsh gradually changed into a fresh water system. Although the DCEVA may once have provided important habitat for juvenile salmonids and

other fish species, the fact is that the lands have been managed extensively for agricultural purposes since Highway 38 was constructed in 1933 and for elk and other wildlife viewing since BLM's acquisition in 1987. Tide gates, extreme summer water temperatures and low dissolved oxygen levels do not make the Dean Creek aquatic system conducive to a salmonid fishery.

The tide gates prevented fish passage into the area. It is theorized that the failure of two of the tide gates allowed salmonid species to reintroduce themselves into the DECVA.

3.6.1 Fish Species Occurrence:

The only salmonid species known to occur within the drainage ditches of the DCEVA are Coho salmon. This species was discovered in the fall of 2002 utilizing the Koepke Creek drainage ditch network. No other salmonid species have been identified. Known non-salmonid species include sculpin, sunfish species, three-spine stickleback, shiner species, surfperch and starry flounder. The list of Special Status Species and their occurrence within the project action area is attached in Appendix 2.

3.6.2 Endangered Species Act:

The Lower Umpqua River watershed is located within the Oregon Coast (OC) Evolutionary Significant Unit (ESU), which extends south from the Columbia River to Cape Blanco. The following summarizes the Endangered Species Act status of salmonids within the ESU.

- OC coho salmon were listed as "threatened" on August 10, 1998. However, in September 2001, the US District Court for the District of Oregon (Judge Hogan) determined that the listing was unlawful and it was set aside as being arbitrary and capricious (*Alsea Valley Alliance v. Evans*). Hogan wrote that the listing by the National Marine Fisheries Service (NMFS) arbitrarily excluded hatchery spawned coho. In review of Judge Hogan's ruling, the Ninth Circuit Court of Appeals issued a stay on December 14, 2001. The listing of OC coho salmon as "threatened" had been reinstated.

On Tuesday, February 24, 2004, The Ninth Circuit Court issued an Opinion returning the case back to Hogan's Court claiming it had no jurisdiction in the case.

In response, on March 24, 2004, the BLM issued an Instruction Memorandum (IM No. OR-2004-058: Approving and Implementing Actions in the Area of the Oregon Coastal Coho Salmon ESU). This memorandum summarized that this action by the Ninth Circuit Court removed the ESA listing status of "threatened" from OC coho salmon.

On May 18, 2004, the Department of Justice issued a clarification regarding this matter. "This is to advise you that it is the position of the United States that the Ninth Circuit's order of February 24, 2004, will become effective when the Ninth Circuit issues a mandate to the district court, pursuant to Federal Rule of Appellate Procedure 41. Thus, for the time being the district court's order remanding and vacating the listing of the Oregon Coast coho salmon ESU remains listed as "threatened" under the ESA."

The BLM responded by rescinding IM No. OR-2004-058 on May 27, 2004.

On June 15, 2004, the Ninth Circuit Court issued this mandate dismissing their consideration of the case and returning it back to Hogan's court. Therefore, the original decision by Hogan stands and OC coho have lost their "threatened" status under ESA.

□ In a related action, NOAA issued an open letter to the United States Congress on May 14th, stating that "after re-evaluating the listing of 26 species of salmon and steelhead, and considering the science on hatcheries, we have preliminarily determined to propose relisting at least 25 of the 26 species." As a result, Oregon Coast coho salmon were also officially proposed for listing under the ESA on June 14, 2004 and are now treated as a "candidate" species.

□ The Oregon Coast Steelhead trout have the same ESU boundary as OC coho salmon. Oregon Coast Steelhead trout were listed as "candidate" species on March 19, 1998. Critical habitat is not designated for candidate species.

□ On April 5, 1999 the Oregon Coast coastal cutthroat ESU was designated as a "candidate" for listing. This species is under the jurisdiction of the U.S Fish and Wildlife Service.

3.6.3 Essential Fish Habitat

Regardless of the listing status under the Endangered Species Act, under section 305 of the Magnuson-Stevens Act, Federal agencies which authorize, fund or undertake any action which may adversely affect Essential Fish Habitat¹ (EFH) are required to consult with NMFS in order to receive recommendations on measures necessary to conserve and enhance EFH where applicable. However, as described in the Environmental Impacts chapter of this EA, the design features incorporated into the proposed actions are expected to prevent any adverse effects to EFH.

3.7 Wildlife

The Lower Umpqua Watershed Analysis September 1997 and the Dean Creek Elk Viewing Area-Activity Management Plan provide a general description of wildlife species and habitat conditions in the watershed and the DCEVA. Site-specific information on wildlife and habitat in the project area is provided below.

3.7.1 Special Status Species

The proposed project area contains suitable habitat for special status species listed in Appendix 3. Surveys have not been conducted for all these species and effects of the proposed project are

¹ Essential Fish Habitat (EFH) is defined to include those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity. Analysis and discussion in this EA concerning fish habitat and water quality pertain to EFH.

based on the assumption that the habitat is occupied. If a Special Status Species is not discussed, it should be assumed that the species does not have habitat in the project area and there are no effects (i.e., Blue whale, Sea otter, black tern, etc.).

- Northern spotted owl (threatened)

There are no known Northern spotted owl (*Strix occidentalis caurina*) locations within a mile of the proposed action area. The nearest known site is located on the Elliot State Forest located to the southeast of DCEVA. Suitable roosting/foraging/nesting habitat for Northern spotted owl is located on Spruce Reach Island (SRI) adjacent to a portion of the proposed waterline. This habitat is located along State Highway 38, a main thoroughfare between the inland valleys and the coast.

- Marbled Murrelet (threatened)

The nearest occupied marbled murrelet (*Brachyramphus marmoratus*) site is located on SRI where approximately 40 acres provide suitable nesting habitat. The site is adjacent to a portion of the proposed waterline and highway 38.

- American Bald Eagle (threatened)

The nearest known American bald eagle (*Haliaeetus leucocephalus*) site is located $\frac{3}{4}$ of a mile north of the action area. Suitable roosting, perching or nesting habitat is located in the proposed action area. Eagles frequently forage for waterfowl at the DCEVA, particularly in the winter.

3.7.2 Big Game (Deer, Bear and Elk)

Evidence of deer, bear and elk use is found throughout the portion of the project area that is located on federally managed land. These animals utilize the existing road as a travel corridor to move from upland habitat to the pasture/wetland habitat.

3.7.3 Other Wildlife Species

Additional species known to utilize the area include large mammals such as the coyote, bobcat and mountain lion. Smaller mammals include porcupines, squirrels, chipmunks, skunks, bats and mountain beaver. Numerous species of waterfowl, shore birds and song birds, including neo-tropical birds are present in the project area. Amphibians known to occur in the project area include three species of frog (Red-legged frog, Pacific tree frog, Bull frog (exotic)) and 7 species of salamanders (Western red-backed, Ensatina, Dunn's, Clouded, Pacific giant, Southern torrent and Rough-skinned newt).

The complete list of wildlife species that may be located in the area can be located in the Final Coos Bay District Resource Management Plan and Environmental Impact Statement (RMP FEIS) Volume II in Appendix T. This list also provides the status of each species.

3.8 Hazardous Materials and Solid Waste

Historical records and current site knowledge will govern the existence of any recognized environmental conditions (REC's) for either hazardous substances or solid wastes on those portions of federally-managed lands covered under this proposal. Discovery of REC's may require the activation of the district Hazardous Materials Contingency Plan depending upon the source and circumstances of the condition(s).

3.9 Environmental Justice

The proposed project area is not known to be used by, or disproportionately used by, Native Americans, and minority or low-income populations for specific cultural activities, or at greater rates than the general population. This includes their relative geographic location and cultural, religious, employment, subsistence, or recreational activities that may bring them to the proposed area. Also, BLM concludes that no disproportionately high or adverse human health or environmental effects will occur to Native Americans, and minority or low-income populations as a result of the proposed action.

The BLM does allow collection of certain plants for Native American cultural activities. This is coordinated with BLM on a case-by-case basis per request. There have been no problems associated with this activity and it is outside the project area.

3.10 Cultural Resources

The east end of DCEVA (near the East-end house) appears to have been the site of Middleton, an early historic town which was created about 1850 near the mouth of Dean's Creek (Beckham 1986:76). The town did not thrive, and records of its history have not been located, nor have any physical remains.

Much of DCEVA is located in an area which was historically low-lying brush and marsh land. It was only after the dike for Highway 38 was constructed in 1926 that tide gates and culverts were constructed to drain the area, and make it possible for O.B. Hinsdale (O.H. Hinsdale's father) to run a dairy ranch. The road remained so difficult that until about 1930 a tug with a barge hauled cars from Scottsburg to Reedsport (Beckham 1996:11).

Several structures are known to have been located in the DCEVA. A house and barn probably associated with the O.B. Hinsdale farm stood in the ravine at the south end of Koepke Slough (at the northern base of the hillside), and a second barn stood at the mouth of Koepke Slough adjacent to Highway 38 (Beckham 1996:10). These structures burned in the 1980s.

Chapter 4 Environmental Consequences

4.1 Introduction

This section provides the scientific basis for analyzing the Proposed Action described in Chapter 2. The potential short- and long-term impacts to the affected resources are discussed. No irreversible or irretrievable commitment of resources has been identified for the proposed action. Following are the *Direct, Indirect and Cumulative Impacts* of the Proposed Action - connecting the Dean Creek Elk Viewing Area facilities to the city of Reedsport water supply system – on the resources:

4.2 Stream Channels, Flood Plains, Water Quality & Aquatic Resources

Direct and Indirect impacts:

Construction related sedimentation and turbidity should be minimal provided that Best Management Practices (BMP's) are followed during project implementation. Sediment delivery to surface waters due to trenching and water line placement outside the DCEVA is unlikely given vegetative buffers and dry season construction.

Short-term, low level, localized sediment delivery to water bodies is more likely within the DCEVA due to trenching and culvert installation on the DCEVA service road parallel to the wetland areas.

The relatively minor amount of sediment deposited in the wetlands as non-fish bearing stream channels adjust to new culverts set low in the fill would be isolated from other surface waters within the EVA that drain to the Umpqua River. Fill erosion should be negligible following road grading, rocking, and seeding.

No direct or indirect effects to stream temperature are anticipated even if construction involves limbing/cutting trees within the right-of-way to safely complete the project.

Cumulative impacts:

Improving drainage within the DCEVA would reduce the potential for culvert plugging and diversion at crossing structures, and rocking and seeding would reduce erosion from the road surface and the ditch.

4.3 Geology

Direct and Indirect impacts:

The proposed action would have minimal direct and indirect impacts on existing geologic conditions. Construction of the project would occur in previously disturbed roadbeds. Stabilization of the road system and enhancement of the culverts would not impact the underlying stratigraphy in the aspects of geologic time. Geologic events, such as earthquakes and the resulting impacts and mass movement would continue. However, the geology may have impacts on the alternative. The project route intersects the terminal run-outs of debris flows. Future impacts of the debris flows on the route can be anticipated. Relatively gradual dip angles (6°) of the bedrock stratigraphy alleviate the probability of block slides of bedrock along bedding

planes due to construction.

Cumulative impacts:

The proposed action would have minimal cumulative impacts on existing geologic conditions. The waterline would be constructed in previously disturbed roadbeds. Stabilization of the road system and enhancement of the culverts would not impact the underlying stratigraphy in the aspects of geologic time.

The geology is not anticipated to have cumulative impacts on the proposed action as it would be constructed in previously disturbed areas and is relatively isolated from other resources. The upland route does not cross surface waters and is separated from the Umpqua River by Highway 38. The lowland areas are separated from the Umpqua River by dike and wetland systems.

4.4 Soils

Direct and Indirect impacts:

The proposed action would have no direct impact on native soils since the entire project would be located within previously disturbed roadbeds. The line placement before reaching the DCEVA does not cross surface watercourses. There is a sufficient vegetative buffer between the line and surface water to prevent any sediment delivery to those waters.

However, waterline placement within the DCEVA would be located adjacent and over surface water. Proper use of Best Management Plans, seasonal construction limits to the dry times of the year, and construction within the existing roadbed should reduce sediment delivery to non-existent or negligible. These surface waters are within previous agricultural lands and controlled by tide gate systems prior to entering the Umpqua River.

Soil disposal and storage sites are at the discretion of the contractor. By implementing Design Features, the soil storage should provide no sediment delivery to surface water systems.

Cumulative impacts:

Through the implementation of project design features and Best Management Practices, there should be no cumulative impacts to native soils or cumulative impact regarding sediment delivery. In the event that sediment is delivered to surface waters within the DCEVA, the waters are isolated from other surface waters by wetlands, dikes, and tide gates, negating cumulative sediment delivery to the Umpqua River.

4.5 Vegetation

Direct and Indirect impacts:

Vascular and Nonvascular plant species

Disturbance along the existing gravel road for the purpose of the waterline installation will increase the vulnerability to infestation by exotics from nearby populations. Some herbaceous species and possibly some nonvascular species may have reduced vigor from the altering of the microclimate, while other herbaceous species may flourish. Eventually, as it is a fairly small area that will be disturbed within an already existing road prism, conditions will come to

approximate the current conditions through time.

Cumulative impacts:

No direct, indirect, or cumulative impacts to special status or T&E plants species are expected.

4.6 Fisheries/ Aquatic Special Status Species

Direct and Indirect impacts:

Through implementation of BMPs and the specific project design features (PDFs), there would be no direct effect to the fisheries resource, critical habitat, EFH, or aquatic Special Status Species. The line will cross under one fish bearing stream culvert. The culvert and stream bed will not be disturbed. Noise from machinery may cause some fish species to temporarily migrate away from the area. However, this would be of short duration, resulting in a minor inconvenience to the adjacent fisheries species. This noise would not affect aquatic invertebrates. Upon construction completion within the immediate stream area, fish will readily return to their previously occupied habitats. Sediment transport from the disturbed road surface is expected to be small in amount and length of duration following first rains. The actual disturbed project area is very small, is located along an existing road, and there is vegetation between the road surface and the adjacent wetlands.

Cumulative impacts:

There would be no net cumulative effect, negative nor beneficial, to aquatic resources. Implementation of BMPs and PDFs would mitigate negative effects from project construction; beneficial effects from restoring the natural flowing water regime are indeterminable.

4.7 Wildlife

Direct and Indirect impacts

- Northern spotted owl

The proposed treatment would not result in the removal of suitable roosting/foraging/nesting habitat for the Northern spotted owl. The increased level of disturbance due to construction activity would not be above the ambient noise of Highway 38. Therefore the proposed action would not affect the Northern spotted owl. Seasonal restrictions would not be required.

- Marbled Murrelet

The proposed project would not result in the removal of any habitat for the Marbled murrelet. The increased level of disturbance due to construction activity would not be above the ambient noise of highway 38. Therefore the proposed action would not affect the Marbled murrelet. Seasonal restrictions would not be required.

- American Bald Eagle

The proposed action would not result in the removal of suitable roosting, perching or nesting habitat. The increased level of disturbance due to construction activity would not be above the ambient noise of Highway 38. Therefore the proposed action would not affect the American bald eagle. Seasonal restrictions would not be required.

- **Big Game (Deer, Bear and Elk)**

Short term negative impacts to big game from construction activities would include noise disturbance and physical disturbance from the presence of machinery and people. These impacts would be considered minimal since the work would be restricted to the dry season to minimize soil disturbance which is after the calving/fawning/cubbing season. Animals would temporarily avoid using these areas when humans are present, but would readily return to the area post construction.

In the long term the project would not limit the movements or travel routes of these species, and any affects to these species would be temporary and minor.

- **Special Status Species**

The proposed project is located in an existing road prism and disturbance to natural habitat is greatly minimized. Potential noise disturbance from construction activities will be short term and occur outside the breeding time frame for most species.

The proposed action would not contribute to the need to list any of the special status species, either under the Endangered Species Act or the BLM Oregon/Washington Special Status Speices Policy, because of the limited nature of the disturbance and anticipated impacts on the habitat.

4.7.1 Other wildlife species

There would be a short term disturbance associated for construction activities for a host of smaller species. These impacts would be considered minimal since they would be restricted to the non-breeding/non-nesting season. Incidental loss of individual animals, such as rough-skinned newts may take place, but the loss of these individuals would not lead to a decline at a population level.

Cumulative impacts

Implementation of the proposed action would not have any appreciable negative impacts to any wildlife species including those listed as threatened or endangered. While the proposed action would lead to temporary disturbance to some wildlife due to construction, the impacts would be short lived and minor.

4.8 Hazardous Materials and Solid Waste

Direct impacts:

There are no direct effects anticipated from the Proposed Action.

Indirect impacts:

The use of heavy equipment in the performance of the work identified under this alternative creates a risk to the environment as a result of any release of petroleum product, particularly near or leading to surface waters. Any such release is governed under provisions of State of Oregon Administrative Rule No. OAR 340-108. A Spill Control and Countermeasures Plan (SPCC) conforming to the standards of OAR 340-108 is required. The SPCC should also correlate to the Coos Bay District Hazardous Materials Contingency Plan and the District Spill Plan for Riparian

Operations (as applicable). Included in the SPCC and District plans is the requirement for an Oil Spill Kit to be onsite during operations. The contents and use of the Spill Kit are to be detailed in any contract provisions resulting from this alternative. Notification and response processes are also detailed in the District plans.

Cumulative impacts:

In the event of a release of hazardous substances or petroleum product, migration of the contaminant to surface waters would create a variety of problems, dependent upon amount and type. Most probable source would be the rupture of hydraulic fluid lines or poor maintenance of equipment, resulting in the leak or discharge of oil. The type of soils impacted would dictate how much of the contaminant could be contained, removed, or allowed to dissipate. A spill confined to dry land would be contained and cleaned up to appropriate levels identified under Oregon State Soil Clean-up Matrix guidelines.

Under Oregon State Law, a Reportable Quantity (RQ) of petroleum product to water is defined as: “...*any quantity of oil that would produce a visible oily slick, oily solids, or coat aquatic life, habitat or property with oil...*” (Reference: Oregon Administrative Rule No. 340-108-010, *Reportable Quantities*). A release to dry land, with no potential for migration to water, is defined as 42 US gallons or greater. Either release would generate a series of reporting, response and monitoring requirements by Federal and State authorities.

4.9 Environmental Justice

There are no known direct, indirect or cumulative impacts to Native, low-income or minority populations. The general population of humans would benefit by having a reliable water supply.

4.10 Cultural Resources

Previous site visits have not confirmed any remaining physical evidence of these historic uses in the vicinity of the project area. Therefore, it is not expected that there will be impacts to cultural resources from any alternative.

4.11 Riparian Reserves

The Proposed Action would not retard or prevent attainment of the Aquatic Conservation Strategy (ACS) objectives at the fifth-field watershed scale. The BLM administers 1,493 acres, or 2.5 percent of the land, in the 60,239 acre Lower Umpqua River Subwatershed #1710030308 (2002 BLM Coos Bay District GIS Database). Therefore, activities on BLM administered lands would be inconsequential at the subwatershed scale. The existing condition of the Dean Creek Elk Viewing Area (DCEVA) is a very hydromodified wetland complex. Consequently the actions would have a neutral affect on the existing conditions as they would neither restore nor degrade aquatic ecosystems, but rather maintain current habitats and water relationships. The Lower Umpqua Watershed Analysis (September 1997) recognizes that DCEVA has limited opportunities for riparian restoration and that the area provides high social value for elk viewing opportunities to the public.

Chapter 5 List of Preparers

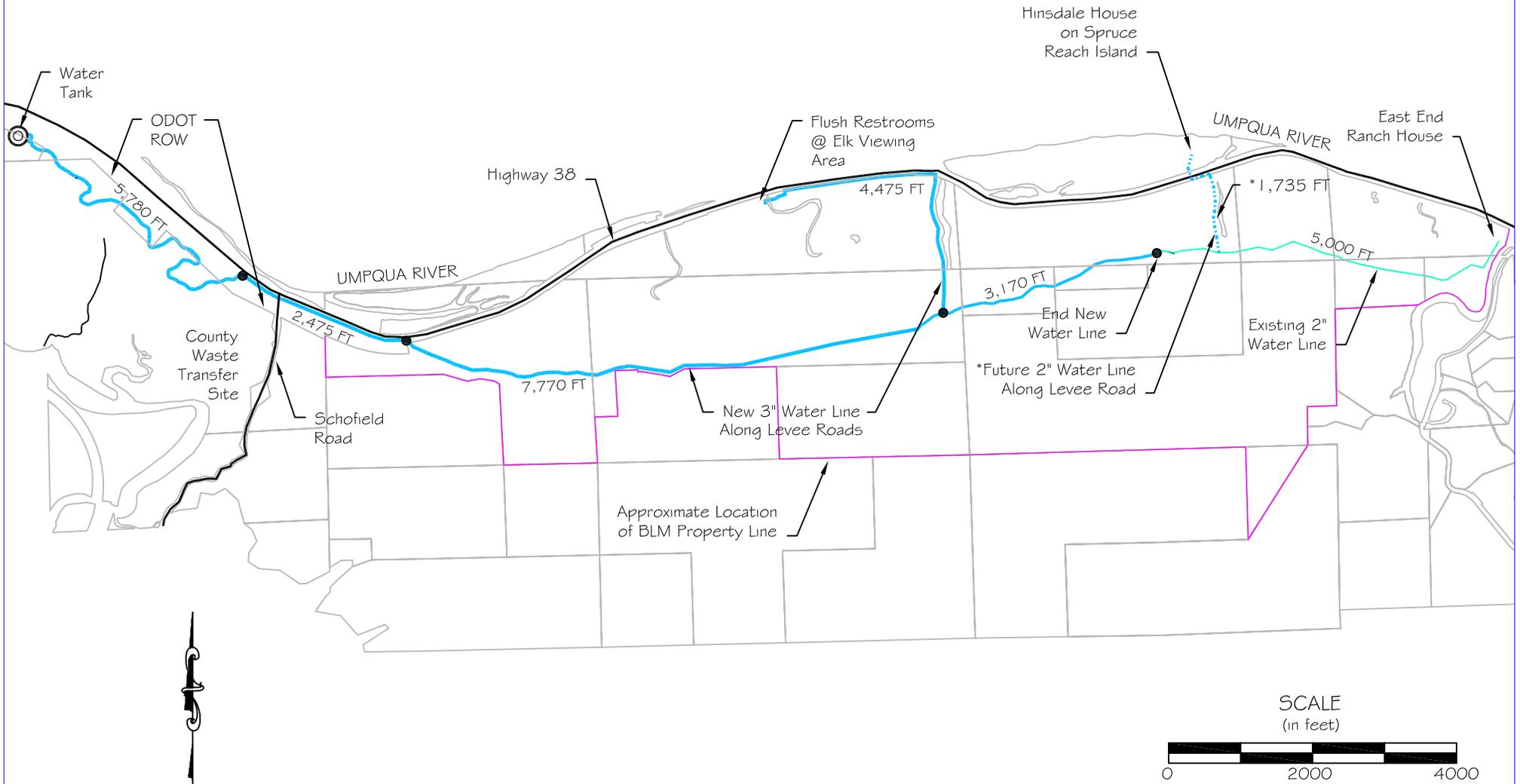
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- Appendix 1. Map
- Appendix 2. Aquatic Special Status Species Table
- Appendix 3. Special Status Wildlife Species Table
- Appendix 4. References

REEDSPORT MUNICIPAL WATER SERVICE TO DEAN CREEK

Coos Bay District, BLM



* The BLM has no immediate plan to provide water service to Spruce Reach Island. However, future service may be considered.

Appendix 2 Aquatic special status species in the Coos Bay District (based on OSO SSS database).					
Scientific Name	Common Name	Status	Presence w/in Action Area	Key habitat features, presence information	Impacts of Proposed Action
Fish					
<i>Onchorhynchus keta</i>	Chum salmon	BS	No	anadromous, spawn in fresh water just above tidal influence, juveniles migrate immediately upon emergence	
<i>Onchorhynchus kisutch</i>	Coho salmon (OC)	FP	Yes	anadromous, spawn and rear (1.5 yr) in smaller freshwater streams before migrating to ocean	No direct effects to water resources, see Chapter 4 discussion
<i>Onchorhynchus kisutch</i>	Coho salmon (SO/NC)	FP	No	anadromous, spawn and rear (1.5 yr) in smaller freshwater streams before migrating to ocean	
<i>Onchorhynchus tshawytscha</i>	Fall Chinook salmon (SO/NC)	BS	No	anadromous, spawn and rear in larger freshwater streams/estuaries (0.5 yr) before migrating to ocean	
<i>Onchorhynchus tshawytscha</i>	Spring Chinook salmon (SO coast/CA coast)	BA	No	anadromous, spawn and rear in medium freshwater streams(0.5 yr+) before migrating to ocean	
<i>Onchorhynchus mykiss ssp.</i>	Klamath Mtns. Province steelhead	FP	No	anadromous, spawn and rear (1-4 yr) in smaller freshwater streams before migrating to ocean	
<i>Onchorhynchus mykiss ssp.</i>	Oregon Coastal steelhead	FC	No	anadromous, spawn and rear (1-4 yr) in smaller freshwater streams before migrating to ocean	
<i>Rhinichthys cataractae ssp.</i>	Millicoma dace	BS	No	Coos River Basin, rubble areas in swifter waters	
<i>Lampetra tridentate</i>	Pacific lamprey	BA	No	Anadromous-spawn and rear (4-6 yr) in smaller freshwater streams before migrating to ocean	
Invertebrates					
<i>Driloleirus macelfreshi</i>	Oregon Giant Earthworm	BS	Possible, but not likely	deep, moist, riparian soils, appear to be endemic to Willamette valley	Habitat not in the immediate area of the project, earthworm habitat would NOT be affected
<i>Farula constricta</i>	None (Caddisfly)	BS	Possible, but not likely	most freshwater habitats including lakes, rivers, marshes, spring seepage areas, temporary pools	No direct effects to water resources, see Chapter 4 discussion
<i>Allomyia scotti</i>	Scott's Apatanian Caddisfly	BS	Possible, but not likely	most freshwater habitats including lakes, rivers, marshes, spring seepage areas, temporary pools	No direct effects to water resources, see Chapter 4 discussion
<i>Lanx subrotundata</i>	Rotund Lanx (snail)	BS	No	Confined to mainstem Rogue and Umpqua Rivers	
<i>Algamorda newcombiana</i>	Newcomb periwinkle	BS	No	If present on District lands, limited to the Dredge Lobe area on North Spit	
<i>Pisidium ultramontanum</i>	Montane Peaclam	BS	No	If present on District lands, limited to the Dredge Lobe area on North Spit	

Status:

- T = Threatened
- BS = Bureau Sensitive
- BA = Bureau Assessment
- BT = Bureau Tracking
- FC = Federal Candidate

Appendix 3 Wildlife special status species in the Coos Bay District (based on OSO SSS database, doesn't include marine or coastal species).

Scientific Name	Common Name	Status	Presence at DCEVA	Key habitat features, presence information	Impacts
Birds					
<i>Melanerpes formicivorus</i>	Acorn Woodpecker	BT	not present	Oak habitats, habitat not present	Not present; no supporting habitat,
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	BS	not present	Cliffs, two documented sites in the watershed	Not present; no supporting habitat
<i>Falco peregrinus tundrius</i>	Arctic Peregrine Falcon	BS	unlikely	Generalist, potentially present as winter migrant	None, habitat generalist that is only an occasional winter migrant
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	present	Late-seral forest, nest site in the watershed	See text
<i>Riparia riparia</i>	Bank Swallow	BT	not present	stream banks, road cuts	None, not present
<i>Branta canadensis occidentalis</i>	Dusky Canada Goose	BT	not present	Winters in Willamete Valley, Breeds in Cooper River Delta Alaska.	None, not present
<i>Branta canadensis leucopareia</i>	Aleutian Canada Goose	BS	not present	Coastal estuarine during winter	Not present; no supporting habitat
<i>Chordeiles minor</i>	Common Nighthawk	BT	supected	forage over wide variety of habitat, nest in open area	None, habitat not affected
<i>Eremophila alpestris strigata</i>	Streaked Horned Lark	FC	not present	Species more associated with Rogue/Willamete Valley and eastern Oregon	None, not present
<i>Columbia fasciata</i>	Band-tailed Pigeon	BT	present	Found in mixed hardwood/conifer forest	Large breeding flocks present in upland habitat, will not be affected by proposed action
<i>Dolichonyx oryzivorus</i>	Bobolink	BT	unlikely	Grassland, presence very unlikely	None, presence very unlikely
<i>Speotyto cunicularia hypugaea</i>	Burrowing Owl	BS	not present	Occasional winter migrant along coast	Not present; no supporting habitat
<i>Melanerpes lewis</i>	Lewis' Woodpecker	BS	not present	Recently burned forest, oak/pine habitats, presence very unlikely	Not present; no supporting habitat
<i>Brachyrhamphus marmoratus</i>	Marbled Murrelet	T	present	Late-seral forest, many known occupied sites in the watershed	See text
<i>Accipiter gentilis</i>	Northern Goshawk	BS	unlikely	Late-seral forest	None, presence very unlikely
<i>Strix occidentalis caurina</i>	Northern Spotted Owl	T	unlikely	Late-seral forest, many known site centers in the watershed	See text
<i>Seiurus noveboracensis</i>	Northern Waterthrush	BA	unlikely	Rare migrant on coast.	None, presence very unlikely
<i>Contopus cooperi</i>	Olive-sided flycatcher	BT	potential (very likely)	Early and mid-seral, open forests	None, habitat not affected
<i>Poocetes gramineus affinis</i>	Oregon Vesper Sparrow	BS	unlikely	Grassland, presence unlikely	None, habitat not affected
<i>Dryocopus pileatus</i>	Pileated woodpecker	BT	present in watershed	Snags, especially large ones, variety of seral stages	None, habitat not affected
<i>Progne subis</i>	Purple Martin	BS	unlikely	Snags in early-seral habitats	None, habitat not affected
<i>Buteo swainsoni</i>	Swainson's hawk	BT	not present	Rare migrant on coast.	None, not present
<i>Sialia mexicana</i>	Western bluebird	BT	potential	Snags in early-seral habitats, potentially present	Snag creation may benefit
<i>Elanus leucurus</i>	White-tailed kite	BA	present	Pastures, open grasslands; bottomlands of the watershed	None, habitat not affected
<i>Empidonax traillii brewsteri</i>	Willow flycatcher	BT	unlikely	Riparian (esp. willow)	None, habitat not affected
Mammals					
<i>Martes americana</i>	American marten	BT	present	Late-seral forests	None, habitat not affected
<i>Martes pennanti</i>	Fisher	BS	potential	Late-seral forest, potentially present	None, habitat not affected
<i>Myotis thysanodes</i>	Fringed myotis	BA	potential	Rock crevices, caves, bridges, buildings	None, habitat not affected
<i>Myotis evotis</i>	Long-eared myotis	BT	potential	Snags, bark, rock crevices, caves; also buildings	None, habitat not affected
<i>Myotis volans</i>	Long-legged myotis	BT	potential	Snags, bark, rock crevices; also buildings, bridges, and caves	None, habitat not affected
<i>Bassariscus astutus</i>	Ringtail	BT	unlikely	Rocky habitats, forest generalist; may be outside the range	None, presence unlikely, rocky habitats not affected
<i>Lasionycteris noctivagans</i>	Silver-haired bat	BT	potential	Snags, bark, rock crevices; also buildings and caves	presence unlikely except during migration,(foliage roosting)

<i>Corynorhinus townsendii</i>	Townsend's Big-Eared Bat	BS	unlikely	Caves, rock crevices, buildings, bridges	None, habitat not affected
<i>Sciurus griseus</i>	Western gray squirrel	BT	unlikely	Oak forest and conifer forest with oak component	None, oak trees not present in analysis area
<i>Phenacomys albipes</i>	White-footed vole	BT	potential	Riparian (esp. alder)	None, habitat not affected
<i>Myotis yumanensis</i>	Yuma myotis	BT	present in watershed	Caves, buildings, bridges, cavities	None, habitat not affected
Amphibians					
<i>Batrachoseps attenuatus</i>	California slender salamander	BA	not present	Late-seral forest, large down logs; outside of range	Not present; out of species range
<i>Plethodon elongatus</i>	Del Norte salamander	BA	not present	Late-seral forests, talus; outside of range	Not present; out of species range
<i>Ascaphus truei</i>	Tailed frog	BA	potential	cold, clear streams and rivers	None, habitat not affected
<i>Aneides ferreus</i>	Clouded salamander	BT	present	Late-seral forests; large, class 3 down logs	None, habitat not affected
<i>Bufo boreas</i>	Western toad	BT	potential	Ponds, marshes	None, habitat not affected
<i>Rana boylei</i>	Foothill yellow-legged frog	BA	unlikely	Rocky rivers/streams	None, habitat not affected
<i>Rana aurora aurora</i>	Red-legged frog	BA	present	Ponds, marshes, slow-moving streams. Upland generalist during non-breeding	None, key breeding habitat not affected
<i>Rhyacotriton variegatus</i>	Southern torrent salamander	BT	potential	seeps and cold, clear, small streams	None, habitat not affected
Reptiles					
<i>Lampropeltis zonata</i>	California mountain kingsnake	BT	not present	Outside of range	Not present; out of species range
<i>Lampropeltis getulus</i>	Common kingsnake	BA	unlikely	Probably outside range	None, presence very unlikely
<i>Sceloporus graciosus</i>	Northern sagebrush lizard	BT	not present	Sagebrush, shrub habitats	Not present; out of species range
<i>Contia tenuis</i>	Sharp-tailed snake	BT	unlikely	Moist forest, meadows, edges	None, habitat not affected
<i>Clemmys marmorata</i>	Western Pond Turtle	BS	present	Ponds and slow moving rivers and creeks	None, habitat not affected
Invertebrates					
<i>Helminthoglypta hertleini</i>	Oregon shoulderband snail	BS	unlikely	Rocky and talus substrates, many surveys but no records in District	None, presence very unlikely, rocky/talus habitats not affected
<i>Monadenia fidelis beryllica</i>	Green sideband snail	BS	unknown	Forest	None, habitat not affected, presence unlikely
<i>Plebejus saepiolus insulanus</i>	Insular blue butterfly	BS	unlikely	Open areas, clover	None, presence unlikely
<i>Incisalia polia maritime</i>	Hoary elfin butterfly	BT	unlikely	Host plants include Huckle berry and Bearberry	None, habitat not affected, presence unlikely
<i>Polites mardon</i>	Mardon skipper butterfly	FC	unlikely	Open grasslands with fescue grasses, nearest populations Jackson/Klamath counties and near Mt. Shasta	None, habitat not affected, presence unlikely

Status:

T = Threatened

BS = Bureau Sensitive

BA = Bureau Assessment

BT = Bureau Tracking