

**U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT  
EUGENE DISTRICT  
WHITTAKER CREEK AQUATIC HABITAT IMPROVEMENT PROJECT  
ENVIRONMENTAL ASSESSMENT No. OR090-EA-01-13**

March 14, 2001

**ORIGINAL PLANS**

The purpose of this Aquatic Habitat Improvement Project is to provide site specific project detail pertaining to the improvement of the quality and quantity of suitable habitat in Whittaker Creek (and tributaries) and other benefits to anadromous and resident fish and other aquatic species in the Siuslaw River drainage.

The proposed action and alternatives are in conformance with the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl, April 1994 (ROD)*, and the *Eugene District Record of Decision and Resource Management Plan, June 1995 (Eugene District ROD/RMP)* as amended by the *Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, USDA Forest Service and USDI Bureau of Land Management January 2001*. The analysis contained in these EIS's are incorporated by reference.

The above referenced documents are available for review at the Eugene District Office or on the internet at <http://www.or.blm.gov/nwfp.htm>. Additional site-specific information is available for review in the Whittaker Creek Aquatic Habitat Improvement Project analysis file at the Eugene District Office.

Information and analysis is tiered to the Whittaker Creek Aquatic Habitat Improvement Project OR090-EA-96-11 and OR090-EA-00-13. Information summarized in this plan is from the Eugene District Siuslaw Watershed Analysis (February 1996) and the Esmo-Whitt Subwatershed Analysis (Addendum to the Siuslaw Watershed Analysis - June 1998). This EA provides project site specifics and an additional ID team review prior to project implementation. The proposed action and alternatives are also in conformance with the Aquatic Conservation Strategy in the Northwest Forest Plan.

The proposed action will follow general conditions related to fill removal activities as required by the Oregon Department of State Lands and the Army Corps of Engineers.

**PROPOSED ACTION**

An alternative proposed action, addressed as an Objective in OR090-EA-96-11 and delineated in

OR090-EA-00-13, will address low water crossings as an option to culvert replacements (see segment two following).

The proposed action is to remove five existing culverts and replace one with new, three with two low water crossings and leave one as a removal only (end of road) in four separate locations within the Whittaker Creek Drainage for FY2001. Two of the five culverts are located in the same tributary, in parallel and are 15 feet apart. The proposed culvert replacement sites are located in T.18 S., R.8 W., Sections 28, 31, 32. The purposes of this action are to improve passage for aquatic organisms down to macroinvertebrate size and meet Federal 100 year flood flow standards for culverts. Project objectives include: improve hydraulic function and aquatic animal migration (at all flows) and open access to aquatic refuge for threatened coho salmon fry-juveniles during critical summer months.

One segment of the proposed action would remove an undersized, all flow barrier culvert (culvert number 1) in Section 31, SE of SW quarter. The specific location is adjacent to North Fork Whittaker Creek (a tributary of Mainstem Whittaker) at stream feet 1500. At this location, a third order stream flows into the North Fork from the north and flows through the “target” culvert under road 18-8-21. Culvert one would be removed, the banks contoured, and the channel augmented with rock and woody material to add complexity and prevent unwanted erosion. In addition, a berm would be constructed to prevent further access by vehicular traffic (on the remaining 900 feet of a dead end road). Access to approximately 0.5 miles of habitat above the existing culvert will be available to aquatic species after project completion in the summer of FY2001.

Segment two of this project would involve the removal of three undersized culverts (culverts 2-4) in Section 32, (Road 18-8-21) and replacement with two “all species” passage low water crossings in two separate locations. Note: culvert 4 is an over-flow pipe that was installed approximately 15 feet to the east of culvert 3, both of which drain the same tributary. It should be noted that salmonid fish species have been found above these barrier culverts.

The third segment of the proposal is to remove an undersized culvert (culvert 5) that drains a non fish bearing tributary from the South into the mainstem. Annually, this pipe plugs with debris and causes flow to be diverted laterally (to the East) along the paved road. Often times the plugged pipe causes gravels (destined for the mainstem) to end up on the oiled road or in the ditch on the opposite side of the road from Whittaker Creek. This undersized culvert would be replaced with a larger pipe that can handle debris and gravel pulses that cause plugging here and would be followed by excavation of the depositional “berm” that blocks the original channel on the effluent end of the existing culvert. Repaving the road surface will complete the action. This pipe is located under Road 18-8-21, and is approximately 100 feet West of the junction of Road 18-8-28 (Bounds Creek Road).

## **ALTERNATIVE TO THE PROPOSED ACTION**

No Action - Under a No Action Alternative, no additional actions would be taken to replace culverts or stabilize roads. Culvert and road work already occur as part of the district road maintenance program. However, the emphasis would be on road stability and not on assisting with recovery of the aquatic system and its associated fauna. Culvert 1 in segment one would remain a barrier at all flows to all aquatic organisms. The culverts (2-4) in segment two would likely function during small hydrologic events without consequence. During larger hydrologic events the segment two culverts could easily plug if trees, that are now hanging over the bank and associated sediment were to wash into these culverts and cause damming. The dammed water could then flow over the adjacent ditch lines and damage the road. Culvert 5 in segment three would remain plugged and continue to deposit gravels on the road or in the opposite roadside ditch away from Whittaker Creek.

### **EXISTING VEGETATION**

The Whittaker Creek riparian area is dominated by red alder (*Alnus rubra*), big-leaf maple (*Acer macrophyllum*), vine maple (*Acer circinatum*) and salmonberry (*Rubus spectabilis*), with some mature Douglas-fir (*Pseudotsuga menziesii*). Douglas-fir trees at the project sites are generally young, except at the project site in Section 31.

The project areas are not high priority problem weed areas. St. John's wort (*Hypericum perforatum*) was found at project sites in T.18 S., R.8 W., Sections 28 and 32. Tansy ragwort (*Senecio jacobaea*) was found at the project site in T.18 S., R.8 W., Section 32. *Geranium robertianum*, an invasive non-native species was found in Section 32.

### **EXPECTED IMPACTS**

All proposed actions will require some short-term disturbance to the road right of way, riparian zone, or stream channel. All actions are in areas that have previously been disturbed by management activities. No new roads would be created as a result of the proposed actions. As described in EA-96-11 primary impacts of the proposed action are a short term reduction in riparian vegetation, the transitory increase in sediment production, and potential disturbance of aquatic communities.

At the segment two (culverts 2-4) project sites, future flood events and associated woody debris from upslope areas of the drainage are expected to move down through the project site. During these events, debris passing over the proposed low water crossings would likely deposit on the large alluvial fan in the riparian below and mainstem Whittaker Creek. Should a debris jam set up within the tributary's current channel, the current channel could avulse around the jam and create a new stream channel or reoccupy one of several existing abandoned channels on the fan. This type of hydraulic action would lead to a more naturally functioning system and would help achieve Aquatic Conservation Strategy Objectives.

The proposed actions would result in soil disturbance and would increase the likelihood of non-native and potentially noxious species entering and/or increasing in the project area. Suggested botanical mitigation measures under the *Additional Mitigation* paragraph below should help alleviate the

potential for the increase or spread of non-native species.

### **ADDITIONAL MITIGATION**

Project areas would be surveyed for Special Status and Survey and Manage species (categories A and C) using current protocols. These pre-disturbance surveys would be completed prior to the Decision Notice. In the event a Special Status or Survey and Manage species is present, the appropriate mitigation or project modifications would occur.

The “individual tree” survey method was conducted for the presence of red tree voles. No nest structures were observed in the project area during this survey.

Project sites were surveyed for Survey and Manage mollusks in October 1999. Six Oregon Megomphix (terrestrial snail) sites were identified. These sites would be protected according to current guidelines.

In addition to mitigating measures identified in EA-96-11 and EA-00-13 the design features below would be followed:

- 1) If necessary, use of relief drains or bypass measures should be installed in a way that will not erode unprotected slopes or banks below.
- 2) Provide adequate stream bank protection with riprap or wood where scouring could occur.
- 3) Use washed rock and gravel in the low water crossing area when possible.
- 4) Consider the use of native straw bales and/or silt fences to contain sediment generated during the project phase.
- 5) Keep soil disturbance to a minimum, to reduce available seed beds for noxious and non-native plants and seeds.
- 6) To help maintain the existing native plant communities, seed roadsides with native species mixtures. If native seed is not available and seeding is necessary for erosion control, use an annual (70%) and perennial (30%) rye mixture with strict guidelines on seed purity (little crop content and no noxious weed content)
- 7) Require cleaning of heavy equipment prior to arrival at the project site to prevent the further spread of noxious weeds;
- 8) Retain and leave undisturbed as much existing coarse woody debris as possible on the site (including tall stumps).

- 9) Minimize removal of native vegetation, including hardwood and conifer trees and shrubs.

Installation of the crossings will be conducted between July 1 and September 15 (Oregon Department of Fish and Wildlife restrictions) to minimize the adverse impacts to aquatic species.

### **CRITICAL ELEMENTS**

There would be no adverse impacts from the proposed action concerning regional or local air quality, prime or unique farmlands, cultural resources, floodplains, areas of critical environmental concern, environmental justice, native American religious concerns, threatened or endangered species, invasive nonnative species, hazardous or solid waste, wild and scenic rivers or wilderness. Water quality, riparian zones, and the habitat of the threatened coho salmon are expected to benefit from the proposed actions.

### **CONSULTATION**

The proposed actions are consistent with the description and terms and conditions under the *Programmatic Biological Assessment and Biological Opinion for Ongoing USDA Forest Service and USDI Bureau of Land Management Activities Affecting Oregon Coast Range Province, Oregon* for the Oregon Coast coho salmon issued by the National Marine Fisheries Service (NMFS) - September 1998 and extended on July 5, 2000.

The Programmatic Biological Assessment addressing this proposal related to Federally listed or proposed terrestrial animals was submitted to U.S. Fish and Wildlife Service (USFWS) on December 15, 2000. Because of the potential for audio disturbance to spotted owls and marbled murrelets during the critical nesting period, this proposed action for spotted owls would have a "May Affect, but is Not Likely to Adversely Affect" and for marbled murrelets a "May Affect, Likely to Adversely Affect" call. The USFWS response, in the form of a Biological Opinion, is expected prior to on ground work. This action would not take place prior to the issuance of this Opinion. Activities associated with projects within 0.25 miles of suitable murrelet habitat will not begin until 2 hours after sunrise and shall end 2 hours before sunset.

### **CRITICAL HABITAT**

Whittaker Creek is critical habitat for the Oregon Coast coho salmon. Determination of effects for critical habitat are the same as the determination of effects for restoration activities under the Programmatic Biological Assessment and Biological Opinion, and are covered by the same biological assessment and biological opinion as extended in the NMFS letter of July 5, 2000.

### **ESSENTIAL FISH HABITAT**

Both coho salmon and chinook salmon use adjoining Whittaker Creek for migration, spawning and rearing. The proposed project is in the ESU for the federally-listed threatened Coastal coho salmon. Coho salmon have been found in the project tributaries below the culverts to be replaced but the culverts act as barriers to potential upstream migration of the coho into the tributaries. The tributaries

are too small for use by chinook salmon. No direct affect would occur to chinook salmon which would not be present in Whittaker Creek at the time project work is undertaken. Proposed culvert replacement involves excavating around and removal of the existing culverts followed by work in the channel to create the replacement. Appropriate measures would be taken to limit potential impacts, but some downstream coho may experience disturbance from sediment production and operation of equipment in the stream channel. The disruption would be short term, and would occur during periods when no eggs or fry are present and low flows would limit impacts. Because of the potential short-term disturbance, the project would be considered likely to adversely affect Essential Fish Habitat for the coho salmon, but is not likely to adversely affect Essential Fish Habitat for chinook salmon. The proposed restoration activities are in accordance with the description and terms and conditions in the NMFS Oregon Coastal Coho Programmatic Biological Opinion. The overall impact of the proposed activity would be to increase the habitat available for use by coho salmon.

## **REFERENCE**

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

USDI, Bureau of Land Management. February 1996. Siuslaw Watershed Analysis. Eugene District Office, Eugene, Oregon.

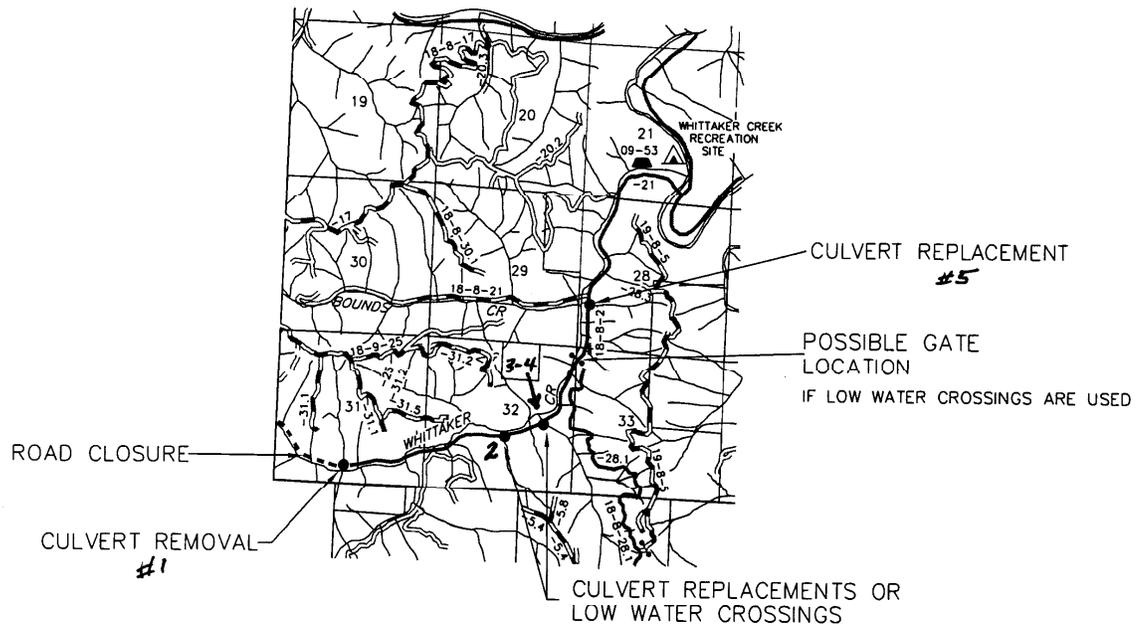
USDI, Bureau of Land Management. June 1998. Esmo-Whitt Subwatershed Analysis. Eugene District Office, Eugene, Oregon.

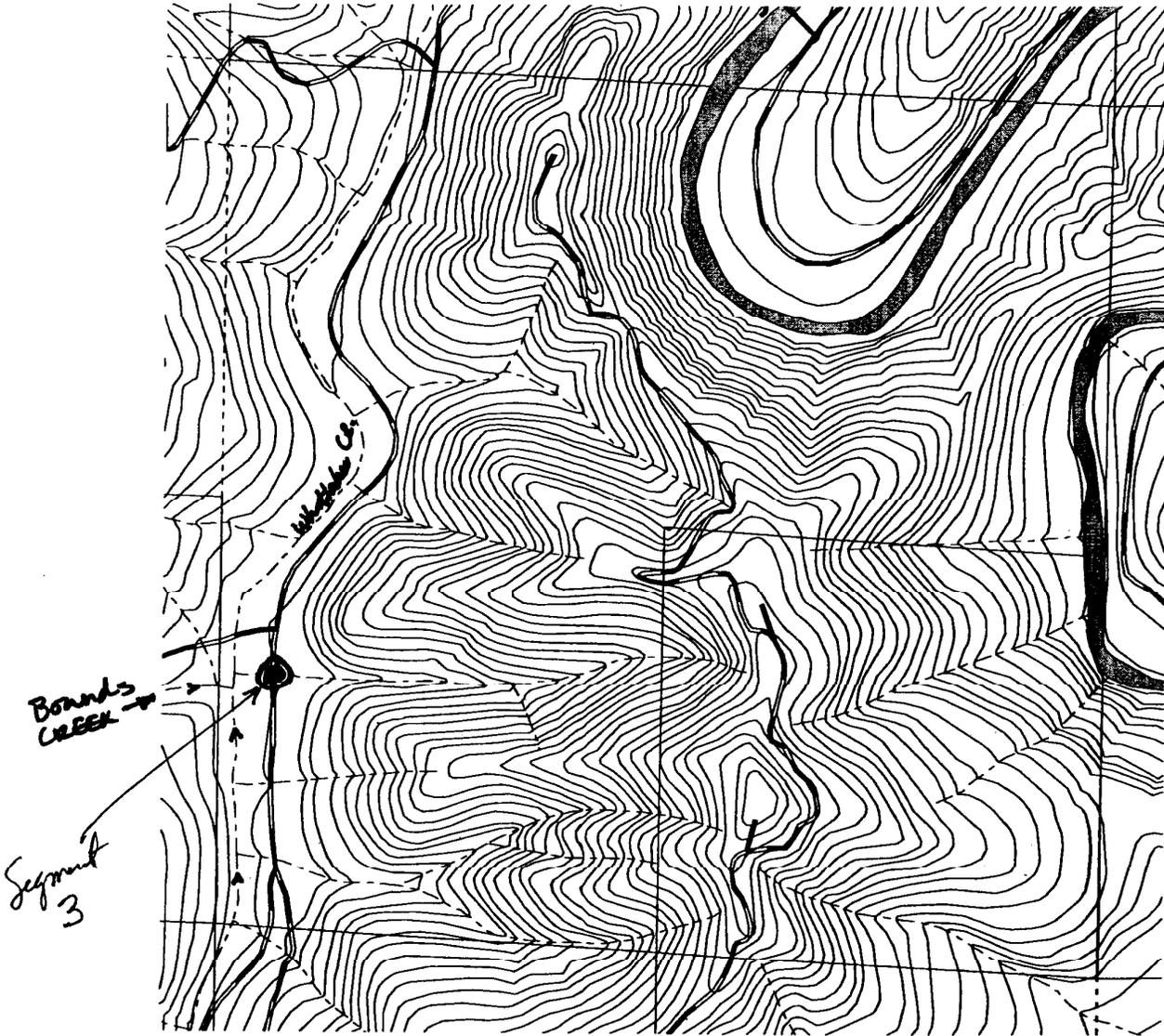
USDA, Forest Service and USDI, Bureau of Land Management. February 1994. Final supplemental environmental impact statement on management of habitat for late successional and old-growth forest related species within the range of the northern spotted owl (Northwest Forest Plan).

USDA Forest Service and USDI Bureau of Land Management January 2001. Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines.

Responsible Agency: USDI Bureau of Land management, Eugene District, Coast Range Resource Area, Lane County, Oregon

# WHITTAKER CREEK CULVERT AND ROAD CLOSURE PROJECTS



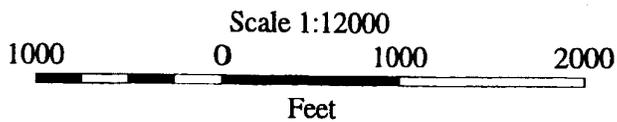


- BLM
- - - - - Streams
- Roads
- +++++ Railroads

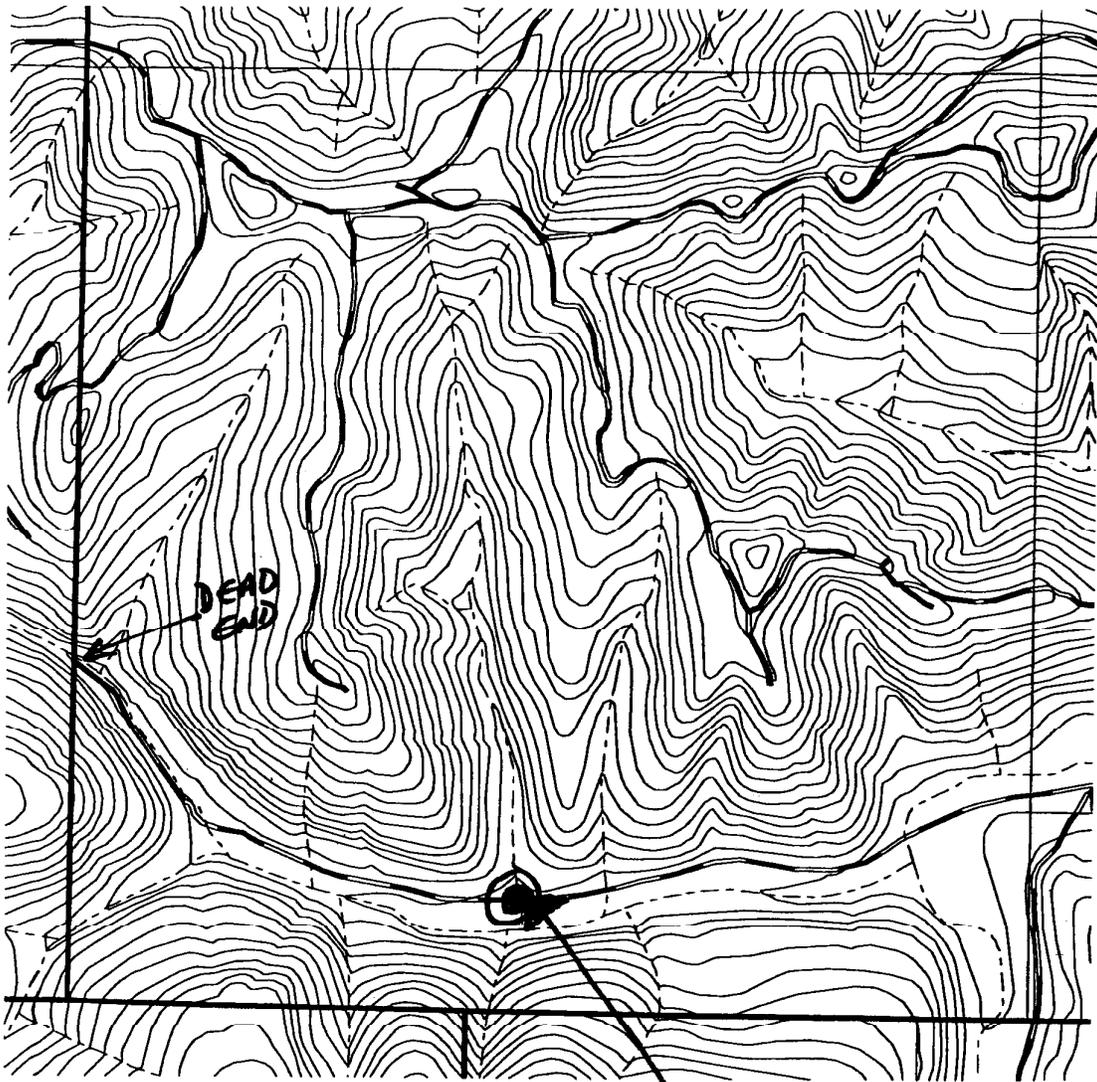
**N.F. WHITTAKER CR. CULVERT**  
*CULVERT # 5*

**T.18S, R.08W. Sec. 28**

Contour Interval: 40 Ft



2001



REMOVE CULVERT, RESHAPE  
 TRIBUTARY CHANNEL, BLOCK  
 ROAD ON EAST SIDE (Segment 1)

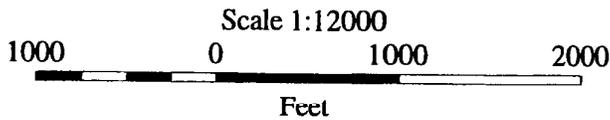
- BLM
- - - - Streams
- Roads
- +++++ Railroads

## N.F. WHITTAKER CR. CULVERT

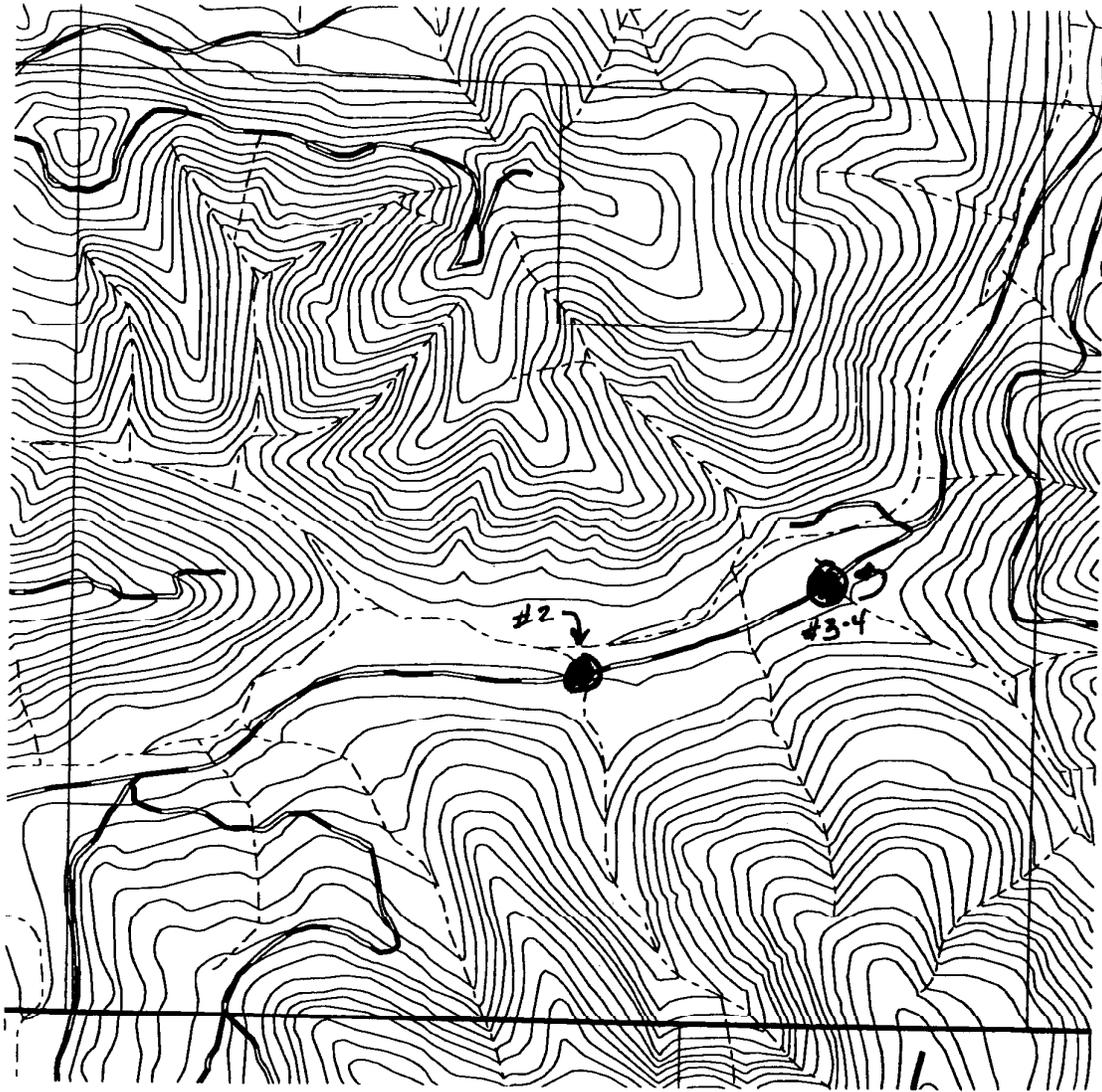
REMOVAL (CULVERT #1)

T.18S, R.08W. Sec. 31

Contour Interval: 40 Ft



2001



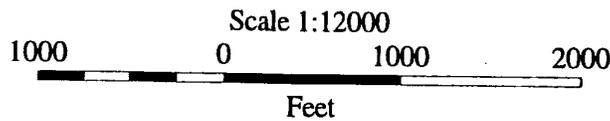
- BLM
- - - - Streams
- Roads
- ++++ Railroads

# N.F. WHITTAKER CR. CULVERT

REMOVAL/REPLACEMENT (Segment 2)

T.18S, R.08W. Sec. 32

Contour Interval: 40 Ft





- Non Fish Bearing Stream
- Culvert Near Road 18-8-28 under Road 18-8-21
- Influent View
- Remove culvert/Replace with new
- Whittaker Creek – Project Segment 3
- *Colson 5*

- Non Fish Bearing Stream
- Culvert Near Road 18-8-28 under Road 18-8-21
- Effluent View
- Remove culvert/Replace with new
- Whittaker Creek Project - Segment 3
- Culvert 4





•Fish Bearing Stream – Tributary of  
Whittaker Creek (Section 32)  
•Road 18-8-21  
•Upstream View  
•Whittaker Creek Project – Segment 2  
• *Culverts 3 and 4*

•Fish Bearing Stream – Tributary of  
Whittaker Creek (Section 32)

•Road 18-8-21

•Influent View

•Remove both barrier culverts and replace  
with low water crossing (*advised by*)

•Whittaker Creek Project – Segment 2



•Fish Bearing Stream – Tributary of  
Whittaker Creek (Section 32)

•Road 18-8-21

•Effluent View

•Remove both barrier culverts and replace  
with low water crossing

•Whittaker Creek Project – Segment 2

• *Culvert 3*



•Fish Bearing Stream – Tributary of  
Whittaker Creek (Section 32)

•Road 18-8-21

•Effluent View of over flow culvert

•Remove culvert and replace with low  
water crossing

•Whittaker Creek Project – Segment 2

- Culvert 4





- Fish Bearing Stream –  
Tributary of Whittaker Creek  
(Section 32)
- Single Culvert (#2)
- Influent View
- Remove barrier culvert and  
replace with low water crossing
- Whittaker Creek Project –  
Segment 2



- Fish Bearing Stream – Tributary of Whittaker Creek (Section 32)
- Single Culvert ( # 2 )
- Effluent View
- Remove barrier culvert and replace with low water crossing
- Whittaker Creek Project – Segment 2

•Fish Bearing Stream – Tributary of  
North Fork Whittaker Creek

•Road 18-8-21

•Effluent View *(continued)*

•Remove culvert and barricade road  
below

•Whittaker Creek Project – Segment 1

