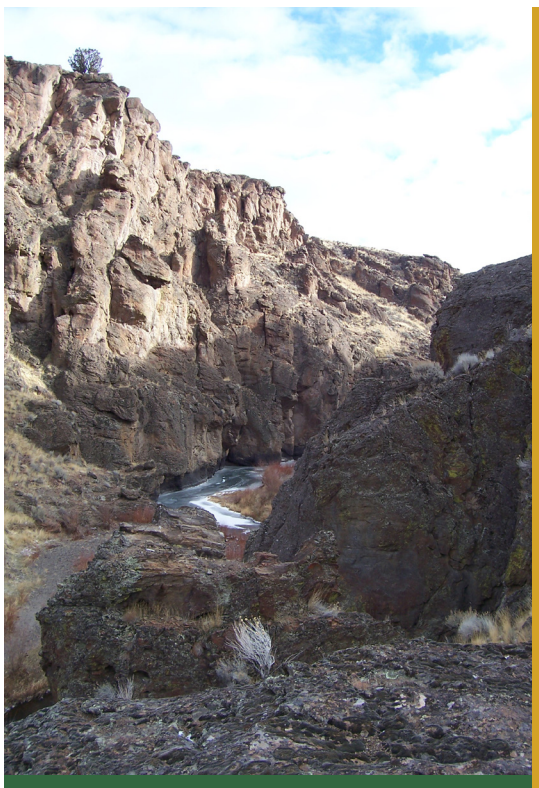

North Fork Owyhee River
(Fenwick Ranch Road)
Bridge Replacement

ENVIRONMENTAL ASSESSMENT

Malheur County, Oregon

(OR-030-07-006)
ROW Serial Case #OR-64639

December 2007

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CHAPTER 1 - INTRODUCTION

1.0 Introduction

The North Fork Owyhee (Fenwick Ranch Road) Bridge at Three Forks, Oregon is programmed for replacement under the Federal Highway Administration (FHWA) Highway Bridge Rehabilitation and Replacement (HBRR) Program. The bridge is unsafe and needs to be replaced. Malheur County has made application to the BLM for a Right-of-Way/Temporary Use Permit for the construction equipment staging area and the actual bridge project. BLM has issued a serial register case file number of OR-64639 to the Right-of-Way application.

This Environmental Assessment (EA), No. OR-030-07-006, considers the environmental effects of the replacement of the North Fork Owyhee (Fenwick Ranch Road) Bridge at Three Forks, Oregon, and has been written to comply with the National Environmental Policy Act (NEPA) 1969, as amended.

1.1 Purpose and Need for Proposed Action

The purpose of the project is to maintain the crossing over the North Fork Owyhee River on Fenwick Ranch Road. This will maintain public access to recreation areas and private ranches and maintain access for fire suppression efforts. In addition, there is a need to maintain the scenic nature of the area, minimize environmental impacts, and meet the American Association of State Highway and Transportation Officials (AASHTO) design standards for a safer bridge.

1.2 Background

The existing two-span bridge, constructed in 1953, consists of a 48-foot main span supported by steel girders and a 17-foot approach span on the south end of the bridge supported by timber stringers. The bridge deck consists of transverse timber planking. The project prospectus and bridge inspection reports indicate the bridge is load rated, posted with an 8-ton limit, with multiple structural deficiencies including deck wear, visible girder rot, and severely twisted caps with poor weight bearing capacity (Oregon Department of Transportation [ODOT] 2003). The poor condition of the existing bridge is a safety hazard.

Fenwick Ranch Road is an important route for ranching, fire protection, and recreational traffic. This road provides access to remote private ranches, the Middle Fork Owyhee River, and southwest Idaho. Not replacing the failing bridge would eventually lead to road closure. According to BLM traffic count data from a recorder near the cattle guard at the canyon rim, a maximum total of 1,872 vehicles used the road in 2005 (United States Department of the Interior, Bureau of Land Management [USDI/BLM] 2005). The data show increased vehicle use in the spring and fall months, presumably related to rafting and hunting. The area is used for deer hunting, chukar hunting, rafting, and outdoor gatherings such as Boy Scout Jamborees and the Sierra Club meeting.

Funding for the bridge replacement is currently available through the Federal Highway Administration's Highway Bridge Rehabilitation and Replacement Program (HBP). If the project does not use the available federal funds, Malheur County would be responsible for 100 percent financing of the bridge replacement cost in the future. Given the limited County budget, the likelihood of replacing the bridge without federal funding would be substantially reduced.

1.3 Decision to be Made

It is the Jordan Field Manager's decision whether or not to approve an Application for Transportation and Utility Systems and Facilities on Federal Lands to allow the replacement of the bridge, approve a Temporary Use Permit for construction activities, and determine if the action complies with the Interim Management Policy for Lands under Wilderness Review.

1.4 Public Notification

A notice of the availability of this EA will be published in local newspapers and copies will be sent to interested parties upon request. The EA will also be available on the BLM Vale District's website. There will be a minimum 30-day comment period for public review and input.

1.5 Issues Identified

This EA will analyze the impact of the bridge replacement on resources identified in the checklist of resources in BLM's Washington Office Instruction Memorandum 90-95: Compliance with the National Environmental Policy Act for Right-of-Way and Land Actions (Appendix A). Other issues identified by BLM staff during various meetings include potential impacts to the Wild and Scenic Owyhee River, visual resources, upland areas, and riparian vegetation.

1.6 Conformance with BLM Land Use Plans

The bridge lies within the area covered by the Southeastern Oregon Resource Management Plan (SEORMP) and Record of Decision approved in September 2002 (USDI/BLM 2002). It is located within the Jordan Resource Area and within Land Tenure Zone 1 – Retention/Acquisition, as designated in the SEORMP. Zone 1 land in general has been identified for retention in public ownership due to the significant visual, wildlife, watershed, vegetative, cultural, and other resource values it may contain. The following management criteria are to be applied to land tenure adjustments involving Zone 1 land within the planning area:

- Land within Special Management Areas such as NW1/4SR boundaries, wilderness areas, Wild and Scenic Areas, Areas of Critical Environmental Concern (ACEC), Outstanding Natural Areas, and Research Natural Areas will be retained in public ownership. Private land within these

designated areas represents potential acquisition priorities.

- Land Sale Exception in Zone 1 – Small parcels of public land adjacent to private land holdings in a Retention Zone 1 area that are difficult or uneconomical to manage may be considered for exchange or sale under Disposal Zone 3 criteria. Also, parcels of land identified by state, local, or other federal entities for public purpose or community needs may be considered for exchange or sale under Disposal Zone 3 criteria.

The proposed project is in compliance with Land Tenure Adjustment Criteria Zone 1, as the project area will remain in public ownership.

The right-of-way guidance in the SEORMP is to meet public needs for use authorizations such as rights-of-way, leases, and permits consistent with other resource objectives. Authorizing the proposed easements for the bridge replacement conforms to this guidance.

1.7 Relationship to Other Plans

The project area is also governed by the Main, West Little, and North Fork Owyhee National Wild and Scenic Rivers (NWSR) Management Plan approved in September 1993 (USDI/BLM 1993). The proposed action is compatible with the Plan.

The project area lies in the Owyhee River Complex Special Recreation Management Area (SRMA). Management for the SRMA will include continuing to implement the management plans and court orders for the Main, West Little, and North Fork Owyhee National Wild and Scenic Rivers. The SRMA will be managed for primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural recreation opportunities and experiences. Recreation sites within the SRMA will include Three Forks. The proposed action is compatible with these management objectives as it ensures continued access to the SRMA while preserving the natural environment. The proposed action is also compatible with the direction and decision identified in the 2002 SEORMP (page iv).

This project conforms to ODOT's Transportation Planning Rule, Statewide Planning Goals, and is consistent with the Malheur County Traffic System Plan.

1.8 Statutes, Laws, and Regulations Affecting the Proposal

This environmental assessment is being prepared in accordance with the requirements of the National Environmental Policy Act of 1969 (NEPA) and other statutes relevant to the proposal. Authority for the proposal and alternatives is contained in section 501 of the Federal Land Policy and Management Act of 1976, as amended, and regulations found in 43 CFR 2800. The Federal Land Policy and Management Act (FLPMA) of 1976, as amended, is the Bureau of Land Management "organic act" that establishes the agency's multiple use mandate to serve present and future generations.

1.9 General Setting and Background Information

The North Fork Owyhee River (Fenwick Ranch Road) Bridge is remotely located approximately 30 miles south of Jordan Valley, Oregon, near the confluence of the North Fork, Middle Fork, and mainstem of the Owyhee River at a recreation area known as Three Forks.

The legal location of the Fenwick Ranch Road Bridge is Township 34S, Range 45E, Section 35 (SW 1/4 of SE 1/4), W.M. Figure 1 in Appendix B provides location and vicinity maps. The entire North Fork Owyhee River is designated as a Wild and Scenic River. The area immediately to the west, downstream, of the bridge is designated as a Wilderness Study Area (WSA).

On December 12, 2005, representatives from Malheur County, ODOT, BLM, and Anderson·Perry & Associates, Inc., attended a meeting at the BLM office in Vale, Oregon. The purpose of this meeting was to discuss the bridge replacement project, the design, and overall environmental processes involved with the bridge replacement.

An on-site meeting was held on December 13, 2005. The meeting was attended by representatives from Malheur County, Foundation Engineering, Inc., WEST Consultants, Inc., and Anderson·Perry & Associates, Inc. The purpose of the meeting was to discuss conceptual design of the replacement bridge, the detour bridge, and to address potential environmental issues and impacts at the site.

Three additional meetings, two at the Vale BLM office (February 8, 2006, and March 15, 2006) and one at the bridge site (May 23, 2006), were held to review and determine an alignment for the replacement bridge and to decide whether a detour structure or a detour route would be utilized for the project. The three meetings were attended by representatives of Malheur County, ODOT, BLM, and Anderson·Perry & Associates, Inc.

CHAPTER 2 - PROPOSED ACTION AND ALTERNATIVES

2.0 Proposed Action and Alternatives

2.1 Proposed Action

The Proposed Action is replacement of the North Fork Owyhee River (Fenwick Ranch Road) Bridge with a new single-span bridge to be located adjacent to the existing bridge on the downstream side. In Appendix B, Figure 1 shows the location and vicinity maps, Figure 2 (Bridge Plan) shows the location of the existing and proposed bridge, Figures 3 and 4 identify the existing and proposed bridge locations on an aerial and surface photo, and Figures 5 and 6 include the project area photographs. Figures 7 and 8 show the planting plans.

The existing bridge would remain in place during construction and would serve as a detour bridge. The new single-span bridge would span the entire river. The only in-water work would be removal of the existing bridge pier after construction of the new bridge. The new bridge would meet AASHTO design standards for truck turning radius, has the fewest environmental impacts, is the most feasible, and is the least costly.

Construction of the new bridge is scheduled for summer 2008 and is expected to last two to four months. In mid-March, and if necessary, bird netting would be installed by Malheur County underneath the existing bridge to prevent swallows from nesting under the bridge. Erosion control measures would be maintained throughout the construction period for sediment control. The proposed new Fenwick Ranch Road Bridge would span the North Fork Owyhee River as a 64-foot single-span steel girder bridge with timber plank decking. The overall bridge width would be 20 feet. Bridge rail would consist of weathering steel two-tube side-mount rail on weathering steel posts. The bridge abutments would consist of drilled steel piles socketed into the underlying andesite bedrock and grouted in place. Steel pile caps would be welded to the tops of the steel pile.

Fenwick Ranch Road would be improved from approximately 150 feet north of the new bridge to 150 feet south of the new bridge, and the roadway surface elevation of the new bridge would be approximately the same elevation as the existing roadway surface.

The existing bridge would be removed once the new bridge is completed and open to traffic. Construction equipment and materials would be staged at least 150 feet away from any waterway or wetland.

Two areas have been designated as construction staging areas for this project. One is the corral on the rim of the canyon (NE 1/4 of NE 1/4 of Section 35, T34S, R45E), which has an area of approximately 20,000 square feet. The other has an area of roughly 15,000 square feet and is at the corral near the outhouse west of the project site (SE 1/4 of SW 1/4 of Section 35, T34S, R45E). The staging area locations are shown in Figure 1, Location and Vicinity Maps, in Appendix B.

The proposed project design and construction activities would comply with the Best Manage Practices (BMPs) identified in Appendix D of the SEORMP (USDI/BLM 2002).

Construction of the North Fork Owyhee River (Fenwick Ranch Road) Bridge project is scheduled to begin approximately July 2008. The anticipated construction sequence for the bridge replacement project is listed below. The construction contractor would perform all work unless otherwise noted. Removal of the existing pier, below the ordinary high water line, would take place during the designated in-stream work window of October 1 through March 31.

1. Install bird netting or other nesting deterrent device by March 15 (performed by the County) if the existing bridge would be removed before August 1.

2. Erect construction traffic control signs and barricades, etc.

3. Install and maintain erosion control measures throughout the construction period.

4. Maintain existing roadway and bridge for public and contractor use during construction of the new bridge.

5. Construct widening of existing bridge approach, including placement of stacked rock erosion protection.

6. Isolate Bent 1 and 2 work areas with sand bags and plastic sheeting. Perform all bent construction work above the ordinary high water elevation.

7. Drill and grout steel pipe piling for Bents 1 and 2.

8. Deliver and install steel pile caps and sheet pile back walls.

9. Deliver and set steel girders.

10. Place and compact backfill material behind back walls and wingwalls.

11. Install timber plank decking.

12. Install bridge rail posts and railing.

13. Prepare existing roadway subgrade, complete roadway widening, and place and compact aggregate base.

14. Install roadway guardrail.

15. Remove traffic control devices and open the new bridge to traffic by September 30, 2008.

16. Install a containment diaper under the existing bridge deck.

17. Remove existing bridge superstructure.

18. No sooner than October 1, 2008, remove the existing in-water pier from the river (unless an in-water work extension is granted for September 2008).

19. Complete ground restoration and permanent seeding and mulching by October 31, 2008. Species that would be seeded include basin wildrye (*Leymus cinereus*), bluebunch wheatgrass (*Pseudoroegneria spicata*), and Western wheatgrass (*Pascopyrum smithii*). Seeded areas would be covered with biodegradable erosion control matting after planting. In addition, the riparian area around the existing bridge and on the toe of slope around the new bridge would be planted with willow cuttings. These would be cut from on-site plants and would consist of 80 coyote willow cuttings (*Salix melanompsis var exigua*) and 80 cuttings from other willow species. The planted and seeded area would be fenced off to keep cattle and recreationists from impacting the area until plants are established.

2.2 Alternatives to the Proposed Action

Several alternatives to the proposed action were considered. The criteria used to choose the proposed action included safety, cost, environmental impacts, and whether or not the alternative met the project purpose and need, which is to maintain public access to recreation areas, private ranches, and for fire suppression efforts, while maintaining the area's scenic nature, minimizing environmental impacts, and meeting AASHTO design standards. The following alternatives were considered but not analyzed in detail because they do not meet the stated purpose and need or are cost prohibitive.

1) No Action

   With this alternative, the bridge would eventually be closed. The alternative route, if closure occurs, would involve a four-hour drive and would require rough travel through private property on undeveloped dirt roads. Fire suppression activities would be severely hampered if the bridge were closed.

2) Rehabilitation of Existing Bridge

   This alternative evaluated repairing the existing bridge. Due to the deteriorated condition of the existing bridge, abutments, and superstructure, and because of structural deficiencies including sagging

girders, deficient alignment, and narrow bridge width, it is not feasible to rehabilitate this bridge to current AASHTO and County standards for alignment and width. ODOT requires compliance with AASHTO standards.

3) New Single-Span Bridge at Current Location

This alternative evaluated constructing a new single-span bridge in the same location as the existing bridge. This alternative does not meet AASHTO design standards for turning radius, and replacing the bridge on the current alignment would require the installation of a temporary detour bridge to maintain traffic during construction. Because no feasible alternate routes are available, the road cannot be closed during construction. A detour bridge would be more costly, have a more significant environmental impact on the Wilderness Study Area, and would require more in-water work.

4) New Multi-Span Bridge

This alternative evaluated constructing a new multi-span bridge, either at the existing bridge location or on a new alignment. A multi-span bridge would require concrete piers in the river. To construct the in-stream piers, cofferdams and work area isolation would be needed. Temporary access roads from the riverbank to the cofferdams would be needed and would increase the construction footprint and environmental impacts. The piers would cause an adverse permanent impact to the waterway. This alternative did not minimize environmental impacts and would have visual impacts on a Wild and Scenic River.

CHAPTER 3 - ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

3.0 Environmental Consequences of the Proposed Action

This section identifies the potential impacts of the Proposed Action on resources listed in the checklist in Appendix A.

3.1 Critical Elements

The following Critical Elements are not present or would not be affected by the Proposed Action and are not discussed: Areas of Critical Environmental Concern, Drinking/Groundwater Quality, Environmental Justice, Prime/Unique Farmlands, and Forest Resources/Timber Management.

The following Critical Elements would be affected or otherwise merit additional comment:

3.1.1 Air Quality

Air quality at the site is very good. The project is located in an attainment area as defined in the Clean Air Act.

Impacts on air quality would include short-term temporary dust raised during construction and some exhaust smoke from construction equipment. These impacts would be minimized in accordance with Oregon Standard Specifications for Construction, Section 00290.30(b) and (c). The impact would be minor, highly localized, and short-term. As soon as the construction is completed, the impacts would no longer exist.

3.1.2 Cultural/Historic Resources

An archaeological survey of the project area was completed by Heritage Research Associates, Inc., on December 16, 2005. The survey included a records search of the recorded archaeological sites at the State Historic Preservation Office (SHPO) in Salem, a pedestrian survey of the area surrounding the bridge, covering an area of about 7 acres, and surveying transects at intervals of two meters or less. The survey resulted in discovery of a small archaeological site that has been recorded with SHPO (Site No. 35ML1377). A copy of the survey report is on file at the Vale District BLM office.

Recent inadvertent site disturbance by recreationists indicates that the potential for continued impacts exists. Parking and access restrictions have been proposed by the BLM. Protection measures during construction would be implemented to protect the site from further disturbance. No historical cultural resources were discovered in the area, and the report concluded that the project would not adversely affect

archaeological resources. The BLM initiated Section 106 consultation and SHPO concurred with a no effect determination on November 5, 2007. The SHPO concurrence letter is in Appendix C.

Every effort has been made to identify all sensitive cultural sites in the project area, but should any previously undiscovered sensitive cultural resources be found, all activity at the site would immediately cease and the project engineer and appropriate cultural resources staff would be notified. Steps would be taken to protect the site, according to Section 00290.50 (Protection of Cultural Resources) of the Oregon Standard Specifications for Construction.

Because the existing bridge is more than 50 years old (constructed in 1953), it was considered potentially eligible for listing on the National Register of Historic Places. ODOT Cultural Resources staff has determined that the bridge is not eligible due to lack of distinction. This determination is documented in the Programmatic Agreement Memo in Appendix C.

3.1.3 Floodplains

A Federal Emergency Management Agency (FEMA) floodplain map is not available for this area; however, field indications suggest that nearly the entire project area is within the floodplain of the North Fork Owyhee River. According to the hydraulic analysis performed for this project, the new bridge is not likely to cause an increase in backwater flood elevations.

3.1.4 Threatened/Endangered Species

AP received a list of threatened and endangered species for Malheur County from the U.S. Fish and Wildlife Service (USFWS) on April 16, 2007.

The USFWS response identified the following endangered species in Malheur County (USFWS 2007):

Bald Eagle (*Haliaeetus leucocephalus*)
Lahontan Cutthroat Trout (*Oncorhynchus clarki henshawi*)
Columbia River DPS Bull Trout (*Salvelinus confluentus*)

Since receiving this response, the bald eagle has been de-listed and is no longer considered threatened.

Results from a search of the Oregon Natural Heritage Information Center (ORNHIC) database did not identify any documented sightings of threatened or endangered species within a two-mile radius of the project area (ODOT 2004). Comments regarding potentially threatened and/or endangered species from Jean Findley, BLM Botanist - Vale District

(Findley 2005) confirmed that there are no listed plant species at the site. There is no suitable habitat in the project area for the listed species in Malheur County. The proposed action would have no effect on any threatened or endangered species or habitat.

3.1.5 Wetlands/Riparian Areas

Anderson·Perry & Associates, Inc., and the Department of State Lands (DSL) conducted a wetland investigation in May 2006; no wetlands were identified above the ordinary high water line of the river. The project area is dominated by riparian vegetation that showed signs of moderate cattle grazing. The most common species observed were smooth brome (*Bromus inermis ssp. inermis*) and coyote willow (*Salix melanompsis var exigua*).

The riparian plant community immediately downstream of the existing bridge was proposed to be an ACEC research natural area. It is described by the BLM as a low elevation riparian area dominated by coyote willow, bittercherry (*Prunus sp*.), and rose (*Rosacea sp*.). It was not designated as an ACEC because protection, in the form of the Wild and Scenic River and WSA designations, was already in place. The boundary of the WSA is at the west edge of the existing bridge (see Figure 2). However, at one of the site visits it was determined that the high quality riparian habitat was actually located downstream of the bridge site and that the main riparian species affected would be coyote willow.

Mitigation for the loss of a small amount of riparian vegetation would include placing large rocks to restrict parking in order to minimize riparian impacts. Disturbed upland areas would be reseeded with native grasses and riparian areas would be planted with willow cuttings.

3.1.6 Water Resources

Water resources within the project area consist of the North Fork Owyhee River. The river drains in a westerly direction from its headwaters in western Idaho to its confluence with the mainstem of the Owyhee River approximately 0.75 mile downstream of the bridge. The drainage area of the river at the bridge is approximately 220 square miles. The Oregon Department of Environmental Quality (DEQ) indicates that the river from its mouth to the Idaho border is water quality limited under the following parameters: habitat modification, temperature/rearing 64˚F (summer), sedimentation, and flow modification (DEQ 1998, 2002).

The only work necessary below the ordinary high water line of the river would be removal of the existing in-water pier. The new bridge support structures would be above the ordinary high water line. Stormwater would filter through the gravel approaches and vegetated areas adjacent to the

bridge. The terrain near the bridge site would facilitate dispersal and infiltration through the surrounding vegetation.

As detailed in the Wild and Scenic River Report (Appendix D), the project would not adversely affect any of the outstandingly remarkable values of the river.

3.1.7 Recreation Resources and Activities

The project area lies in the Owyhee River Complex Special Recreation Management Area. The SRMA's primary values include outstanding river canyon scenery, unique cultural sites, high quality fishery, whitewater boating, hiking, camping, outstanding opportunities for solitude and primitive and unconfined outdoor recreation activities, and sightseeing opportunities. Overall management objectives for the area are to preserve outstandingly remarkable and high-quality scenic, recreational, geologic, wildlife, botanic, and cultural values and to enhance opportunities for high quality outdoor recreation experiences, environmental education, and scientific studies while maintaining the integrity of the area's natural systems and cultural resources. The Three Forks recreation site within the SRMA is adjacent to the project area.

The effect of the proposed action on recreational resources and activities is expected to be minor, short-term, and temporary. The existing bridge would remain in place during construction of the new bridge. Access for recreational activities would not be interrupted, though there may be times when short-term road closures are unavoidable due to site constraints. The values of solitude and high quality scenic views may be temporarily impaired by the proposed action for the two to four months of construction. The project would have a long-term beneficial effect on recreational resources and activities, allowing continued access to recreation areas beyond the bridge.

3.1.8 Visual Resources

The bridge is located in a Class I (High) Visual Resource Management Area. Appendix J of the SEORMP provides the following definition of a Class 1 visual resource management area (USDI/BLM 2002):

> "Class I — The objective of this classification is to preserve the existing character of the landscape. This class provides for natural ecological changes, and it allows limited management activity. The level of change should be very low and must not attract attention. Class I is assigned to those areas where a management decision has been made to preserve a natural landscape. This includes areas such as wilderness study areas, the wild sections of NWSR's, and other congressionally and administratively designated areas."

The effect of this project on visual resources would be minor. Short-term impacts during construction would be visible from the road and immediate area, but only at close range because of curves in the road and the proximity to the canyon walls. In the long-term, the new bridge would be wider but similar to the existing bridge. The new bridge has been designed to fit into the landscape and is not expected to adversely affect the outstanding visual resources.

3.1.9 Access

During construction, Fenwick Ranch Road traffic would utilize the existing bridge. The contractor would control traffic through the construction site in order to minimize risks to the traveling public and construction crews. In addition, the contractor would install and maintain the required temporary traffic signs and barricades for the project as detailed in the project plans. Due to site constraints, there may be times when the roadway must be closed for short periods to complete construction activities (e.g., drilling for foundation, placing girders, etc.). The contractor would be responsible for providing advance notification, installing advance signs, and notifying bridge traffic of pending short-term road closures.

3.1.10 Wild and Scenic Rivers

In 1988, the North Fork Owyhee River was designated as a Wild and Scenic River from the Oregon-Idaho border to its confluence with the Owyhee River. It is classified as Wild, which provides for the highest level of protection. The BLM management objective is to protect and enhance Outstandingly Remarkable Values of congressionally designated NWSR. Removal of the piles may enhance the free-flowing nature of the river as identified in the evaluation of the project on these values (See Appendix D). Recreation opportunities (primarily expert kayaking and hiking) are not likely to be diminished by this project. Scenic qualities, including canyon bottoms overshadowed by steep, rugged walls and side canyons laced with juniper providing exceptional visual settings, are not likely to be diminished by this project. Wildlife use of the North Fork Owyhee NWSR, including bighorn sheep (*Ovis canadensis*), sage grouse (*Centrocercus urophlasianus*), mule deer (*Odocoileus hemionus*), and raptors, would not likely be diminished by this project.

3.1.11 Wilderness Study Area

The project area lies in Wilderness Study Area No. 3-195 (Owyhee River Canyon). This area is managed by the BLM according to “Interim Management Policy for Lands under Wilderness Review” (IMPLWR) and encompasses approximately 152,040 acres (USDI/BLM 1995). The proposed project would require the use of 0.3 acre of WSA land for the right-of-way. The IMPLWR allows for approval of new, permanent right-of-way when access to non-federal lands is in question (USDI/BLM 1995,

Chapter III.A.3c). In the case of the proposed project, the bridge in question allows access to private ranches. A road closure would require a four-hour drive on undeveloped dirt roads to access these areas.

The proposed project would not impact the suitability of the WSA to qualify as a wilderness area. Section 2(c) of the Wilderness Act defines a wilderness according to these four factors: “1) generally appears to have been affected primarily by the forces of nature; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and 4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” Factors 1, 2, and 4 would not be impacted. The WSA would have over 152,000 acres with only 0.3 acre being impacted.

In addition, Section 603 of the FLPMA (USDI/BLM 2001) identifies that the wilderness values of each WSA must be protected until such time that Congress makes a recommendation of suitable/nonsuitable. The proposed project would not significantly impact ecological, geological, scientific, education, scenic, or historical values of the Owyhee River Canyon WSA (No. 3-195).

The suitability of the WSA would not be compromised by the proposed project.

Chapter III of the IMPLWR allows for the renewal of existing rights-of-way. In Chapter III, Section A (3); the Policies for Specific Activities identify that “emergency maintenance or emergency repairs may be made to protect human health and safety or to protect wilderness values even if the activity impairs the wilderness suitability (USDI/BLM, 1995). New rights-of-way may be approved for permanent use that do not satisfy the nonimpairment criteria only under any of the following conditions:

> "c. In cases of access to non-Federal lands where the BLM has determined that application of the nonimpairment standard would unreasonably interfere with the enjoyment of the landowner’s rights. The BLM is required by law to provide such access as is adequate to secure to the landowner the reasonable use and enjoyment of non-Federally owned land which is completely surrounded or isolated by public lands administered under FLPMA."

The proposed project, as identified in the purpose and need, would not only provide access for private landowners, but would also provide access to the WSA for the general public.

In 2004, the Oregon Natural Desert Association (ONDA) proposed additional areas to be included as Wilderness Study Areas. The proposed project area is outside of any additional WSA included in ONDA's proposal.

In summary, the proposed project would not compromise the suitability of the Owyhee River Canyon WSA and is allowed under the access activity criteria.

3.1.12 Upland Areas

Upland areas that would be impacted by the proposed project are limited primarily to the staging areas (Figures 1 and 6). These consist of parking and corral areas and do not support extensive vegetation. The BLM botanist has indicated that no sensitive species occur in the project area. Areas disturbed by construction activities would be reseeded using a mix of native grass species.

3.2 Other Environmental Components

3.2.1 Solid/Hazardous Waste

No hazardous waste was identified at the project site. The existing bridge contains creosote treated timbers. Demolition of the bridge would be done in a manner that would prevent treated wood from coming into contact with any waterway. Treated wood is considered to be a “product” rather than “waste.” Therefore, it is not subject to hazardous waste management rules. It would likely be classified as a solid waste and would either be recycled or disposed of at a Resource Conservation and Recovery Act (RCRA) Subtitle D landfill.

3.2.2 Soils

The project area is not included in the Soil Survey of Malheur County, so soil types are unknown. Preliminary geotechnical investigations report deep alluvium and dense gravel with cobbles and possibly boulders at the project site. Rock outcrops are present near the south abutment location.

The bridge construction would cause some localized disturbance and dislocation of soils.

3.2.3 Wildlife Habitat

The project is located in a very remote, undisturbed area of the Owyhee desert. Mule deer (*Odocoileus hemionus*), antelope (*Antilocapra americana*), coyote (*Canus latrans*), and ground squirrels (*Spermophilus sp.)* are common. The ORNHIC database report for this project indicates ferruginous hawk (*Buteo regalis*) and greater sage grouse (*Centrocercus*

urophasianus) occur in the general area (ODOT 2004). Habitat at the bridge site has been disturbed by past road and bridge construction, cattle grazing, and a parking area adjacent to the river. The proposed action would cause a small amount of riparian habitat to be disturbed. The increased human activity and noise during the two to four months of construction activities may temporarily displace wildlife from the immediate vicinity. No long-term impacts to wildlife habitat are expected.

3.2.4 Fisheries

Fish in the project area include redband trout (*Oncorhynchus mykiss ssp*.), rainbow trout (*Oncorhynchus mykiss*), and smallmouth bass (*Micropterus dolomieu*). The redband/rainbow trout is an important native trout species that is not listed under the Endangered Species Act. However, the Oregon Department of Fish and Wildlife (ODFW) has listed it as a "species of concern" because populations have diminished from historic levels.

Effects on fish species could occur with activities associated with in-water work. For the proposed project, the only in-water work would be removal of the existing pier within the river. The piles would be cut off at the channel substrate to minimize substrate disturbance. The contractor would be required to adhere to the following contract specifications:

- For this project, the Regulated Work Area (also referred to as the in-water work area, ordinary high water mark [OHM], two-year flood elevation, two-year floodplain, active channel, in-water work area, jurisdictional waterways, beds, and banks of the State of Oregon) is defined as the area at or below 3966.1 feet elevation.

- The contractor shall perform all work above the ordinary high water elevation. No work is permitted within the Regulated Work Area (except removal of the existing piers). The in-water work window for this project is October 1 to March 31. Pier removal must take place during the in-water work window.

- Do not discharge contaminated or sediment-laden water, or water contained within a cofferdam, directly into any waters of the State until it has been satisfactorily treated (e.g., by bioswale, filter, settlement pond, pumping to vegetated upland location, bio-bag, or dirt-bag).

- The engineer retains the authority to temporarily halt or modify the project in case of excessive turbidity or damage to natural resources.

- Limit turbidity increase to 10 percent above background reading, as measured 100 feet below the project.

- Do not use treated timbers within the Regulated Work Area.

- Minimize alteration or disturbance of stream banks and existing riparian vegetation.

- Place "diapers" on equipment operating within 30 feet of the Regulated Work Area.

- Inspect and clean all equipment prior to operating it within 150 feet of the Regulated Work Area. Check all equipment for fluid leaks. Remove external oil, grease, dirt, and caked mud. Do not discharge untreated wash and rinse water into the Regulated Work Area. Establish temporary impoundments to catch water from equipment cleansing, at least 150 feet from the Regulated Work Area and in locations so as not to contribute untreated wastewater to any flowing stream.

- Locate areas for non-workshift storage of equipment and vehicles, other than track-mounted vehicles, at least 150 feet away from the Regulated Work Area.

- Locate areas for storing fuels and other potentially hazardous materials and areas for refueling and servicing equipment and vehicles at least 150 feet away from the Regulated Work Area.

- For track-mounted equipment, large cranes, and other equipment whose limited mobility makes it impractical to move it for refueling, take precautions to minimize the risk of fuel reaching the Regulated Work Area. Implement spill prevention measures and provide fuel containment systems designed to completely contain a potential spill, as well as other pollution control devices and measures adequate to provide containment of hazardous material. Perform refueling operations to minimize the amount of fuel remaining in vehicles stored during non-work times.

- Do not refuel equipment or vehicles after 1 p.m. without the engineer’s approval.

- Maintain hazardous material containment kits and spill containment kits on-site to facilitate the cleanup of hazardous material spills for both dry-land spills and spills that could reach nearby waterways. Install hazardous material containment kits in instances where there is a potential for release of petroleum or other toxicants.

- Use bridge removal techniques conforming to the requirements of Section 00501 of the Oregon Standard Specifications for Construction.

- Implement containment measures adequate to prevent pollutants or construction and demolition materials, such as waste spoils, petroleum products, concrete cured less than 24 hours, concrete cure water, silt, welding slag and grindings, concrete saw cutting by-products, and sandblasting abrasives from entering the Regulated Work Area or any waterway.

- If flooding of the project site is expected to occur within 24 hours, evacuate areas used for staging, access roads, or storage and remove materials, equipment, and fuel.

- No entry would be allowed below the Regulated Work Area.

- No equipment would be allowed to enter or work in or on the water.

- Place riprap from above the bank line. Riprap would not be installed in the Regulated Work Area.

- No grading of existing ground would be allowed.

Potential impacts would be temporary and short-term, and in-water work activities would be conducted during the ODFW preferred in-water work window, when impacts to fish are less likely.

3.2.5 Noxious Weeds

Weeds observed in the project area include Dalmatian toadflax *(Linaria genistifolia ssp. dalmatica)*, scotch thistle *(Onopordum acanthium)*, medusa head *(Taeniatherum caput-medusae),* and whitetop *(Cardaria draba)*. Project specifications would include requirements regarding weed control including cleaning all equipment before entering the job site and allowing only weed-free mulch and straw wattles. By implementing these BMPs, impacts from noxious weeds would be reduced.

3.2.6 Socioeconomic

The bridge replacement project is not expected to have any impact on the local economy or area residents. There are no residences or businesses within many miles of the project site. There would be no displacements or disruption of established communities because access would be maintained throughout the project.

3.2.7 Livestock/Range

The proposed project is not expected to have an adverse impact on ranching and livestock trailing activities. The proposed bridge would be wider than the existing bridge, and the replacement bridge would have two-tube side-mount rails. This should be sufficient to prevent calves from falling off the bridge during livestock crossings and, in any case, would be a stronger side barrier than the existing timber and wire rails.

3.2.8 Tribal Coordination

ODOT Cultural Resources staff met with the Burns-Paiute Tribe at the ODOT/Burns-Paiute quarterly coordination meeting in November 2007 and discussed the proposed project. The Tribe is also listed as an interested party on the BLM mailing list and would receive a copy of this Environmental Assessment.

3.3 Cumulative Effects

The Council on Environmental Quality (CEQ) defines cumulative effects as 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 (40 CFR 1508.7). A June 2005 CEQ memorandum states:

> The environmental analysis required under NEPA is forward-looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that this review informs agency decision making regarding the proposed action. This can occur in two ways:
>
> First, the effects of past actions may warrant consideration in the analysis of the cumulative effects of a proposal for agency action. CEQ interprets NEPA and CEQ's NEPA regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects. In determining what information is necessary for a cumulative effects analysis, agencies should use scoping to focus on the extent to which information is "relevant to reasonably foreseeable significant adverse impacts," is "essential to a reasoned choice among alternatives," and can be obtained without exorbitant cost (40 CFR 1502.22). Based on scoping, agencies have discretion to determine whether, and to what extent, information about the specific nature, design, or present effects of a past action is useful for the agency's analysis of the effects of a proposal for agency action and its reasonable alternatives. Agencies are not required to list or analyze the effects of individual past

actions unless such information is necessary to describe the cumulative effect of all past actions combined. Agencies retain substantial discretion as to the extent of such inquiry and the appropriate level of explanation (*Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 376-77 [1989]). Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.

Second, experience with and information about past direct and indirect effects of individual past actions may also be useful in illuminating or predicting the direct and indirect effects of a proposed action. However, these effects of past actions may have no cumulative relationship to the effects of the proposed action. Therefore, agencies should clearly distinguish analysis of direct and indirect effects based on information about past actions from a cumulative effects analysis of past actions.

The geographic scope of this analysis considers that this proposed action is a site-specific action where potential impacts to resources are confined to the area near the bridge site and to the west, downstream, into the WSA. All activities, including those at two temporary construction staging areas, would occur within approximately one mile of the bridge site.

3.3.1 Past Actions

One staging area would be placed at an existing parking area outside of the boundary of the Owyhee River Canyon WSA. The other staging area would be located on top of the canyon rim near an existing corral. This EA acknowledges that soil compaction and vegetation disturbance would occur at these two staging areas. Livestock management activity has occurred periodically at the corral, and effects have been similar to impacts that would occur from this proposed action. It is assumed that livestock management activity would continue at this same location after the effects of bridge construction staging have dissipated. This past livestock activity has not been found to impair the Visual Resource objectives for this area.

Visual Resource Classification 1 limits management activity to preserve the existing characteristic of the landscape and management effects must not attract attention. As stated in this EA (Section 3.1.8), impacts during bridge construction would be visible from the road and immediate area. Because of curves in the road and the proximity to the canyon walls, the action would be visible from short distances during the estimated two to four months of construction. The new bridge construction would incorporate quickly weathering steel (Appendix D, page 5) that would turn rusty brown, the intent being for the bridge to blend in to the natural surroundings and maintain the existing visual environment. The most visible past action with enduring effects in this area is the existing bridge. Under the proposed action, this structure would be removed. The additive,

enduring visual effects from the old structure would, therefore, be alleviated.

Removal of the old bridge would eliminate the in-stream support piling. The new bridge would have no in-stream structure. According to the evaluation pursuant to Section 7(a) of the Wild and Scenic Rivers Act (Appendix D, page 4), removal of the existing in-stream structure would improve the channel hydrology by allowing natural stream channel processes to resume, thereby reducing present effects from past actions.

No projects have been built within this same one-mile radius of the proposed project site within the last five years.

3.3.2 Present Actions

Within the geographic scope of this analysis, no known present actions were in progress at the time this EA was written. No known actions would be occurring during the period of bridge replacement. For this reason, there are no effects from present actions that have a cumulative relationship with the effects of this proposed action.

3.3.3 Reasonably Foreseeable Future Actions

At the time this EA was written, no road maintenance was scheduled by Malheur County within the geographic scope of this analysis. It would be reasonable to assume that road maintenance would occur at some unknown time in the future on portions of Fenwick Ranch Road, but when, where, and to what extent would be speculative and would depend on unknown road condition changes in the future.

The BLM has no planned or proposed projects within the geographic scope of this analysis.

CHAPTER 4 - ENVIRONMENTAL CONSEQUENCES OF NO ACTION

4.0 Environmental Consequences of No Action

Under this alternative, the Proposed Action would not be implemented. The existing bridge would not be replaced and, eventually, the bridge would have to be closed due to deterioration beyond safe traveling levels. This would eliminate access to private ranches and recreation areas and would have a negative impact on fire suppression activities.

Environmental consequences of no action would include retaining a bent in the river and the potential of the existing bridge falling into the river as it deteriorates. This would create a severe blockage of the river and impede water flow and wildlife movement.

In addition, since it is likely that recreational and ranching use of the area beyond the existing bridge will continue and more likely expand as time goes on, river crossings at the project area would continue even if the existing bridge is closed. Access to ranching and recreational areas in the absence of a bridge would result in uncontrolled fording of the river by vehicles and livestock, which will have negative impacts to water and fishery quality. Increased sedimentation, stream bank erosion, riverbed disturbance, and destruction of vegetation will result, leading to long-term habitat degradation at the immediate bridge site as well as downstream.

CHAPTER 5- CONSERVATION MEASURES

5.0 Conservation Measures (Stipulations)

The contractor would be required to adhere to the following contract specifications to reduce the potential for adverse effects:

- All soil disturbing equipment would be washed prior to entering the project site.

- All machines would be inspected for oil leaks before work begins on a daily basis. Machines would carry oil absorbent blankets to ensure that, if a leak develops or a hydraulic line breaks, containment can occur immediately.

- Establish and implement a Spill Prevention Plan to respond to a major leak or spill near the North Fork Owyhee River. Absorbent booms should be stored on-site for this type of emergency.

- In the event of a hazardous materials spill, the contractor would follow the procedure outlined in the Oregon Standard Specifications for Construction (Section 00290.20(h) and (i), including implementing the Pollution Control Plan, Spill Prevention, Control, Countermeasures, and/or Contingency Plan). In addition, the contractor would notify the engineer and DEQ (via the Oregon Emergency Response System), as well as the Environmental Protection Agency if the spill threatens a surface water body or exceeds the threshold quantity.

- Refueling areas would be located at least 150 feet away from the river.

- Non-hazardous construction materials may be stored within 150 feet of the river.

- During bridge construction and other work near the river, care should be taken to avoid disturbance to riparian vegetation as much as possible. Disturbed areas would be replanted and reseeded with BLM approved species (see Figures 7 and 8 in Appendix B). Activities would be consistent with the Best Management Practices and standard implementation features and procedures listed in the SEORMP, Appendices O and S, respectively.

- A Sediment and Pollution Prevention and Control Plan would be designed and implemented with erosion control fence and/or weed-free straw wattles placed along the riverbank to prevent sediment from entering the stream. They should be left in place until vegetation is restored and the banks are stabilized.

CHAPTER 6 - CONTACTS AND CONSULTATIONS

6.0 Contacts and Consultations

The following individuals were contacted for information included in this EA:

- Susie Manezes, BLM Realty Specialist
- Joe O'Neil, BLM Recreation Planner
- Jean Findley, BLM Botanist
- Dave Draheim, BLM Recreation Planner
- Eric Mayes, BLM Planning and Environmental Coordinator
- Diane Pritchard, BLM Archaeologist
- Bob Alward, Retired BLM Recreation Planner
- Jack Wenderoth, BLM Hydrologist
- Garth Ross, BLM Fish Biologist
- Lynne Silva, BLM Weeds
- Bill Lutjens, BLM Range Conservationist
- Vern Pritchard, BLM Engineer
- Carolyn Freeburn, Jordan Field Office Manager
- Ray Perkins, ODFW Fish Biologist
- Rick Jerofke, ODOT Regional Environmental Coordinator
- Robert R. Musil, Heritage Research Associates, Inc.

CHAPTER 7 - AUTHORS

7.0 Authors

Anderson·Perry & Associates, Inc.
Allen Rieke – Project Manager
Maria Shepherd – Environmental Coordinator/Biologist
Shelly Schmidt – Environmental Coordinator/Biologist
Sue Brady – Environmental Coordinator/Biologist

CHAPTER 8 - REFERENCES

8.0 References

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CHAPTER 9 - SUPPORTING INFORMATION

9.0 Supporting Information

9.1 Appendices

9.1.1 Appendix A – Checklist of Critical Elements of the Human Environment from BLM's Washington Office Instruction Memorandum 90-95: Compliance with the National Environmental Policy Act for Right-of-Way and Land Actions

9.1.2 Appendix B - Figures

9.1.3 Appendix C - Programmatic Agreement Memo - North Fork Owyhee (Fenwick) Bridge No. 45C615, Three Forks Road, Malheur County, Key No. 12583, and SHPO Concurrence Letter

9.1.4 Appendix D - Evaluation of Proposed Water Resources Project Pursuant to Section 7(a) of the Wild and Scenic Rivers Act

9.1.1 Appendix A – Checklist of Critical Elements of the Human Environment from BLM's Washington Office Instruction Memorandum 90-95: Compliance with the National Environmental Policy Act for Right-of-Way and Land Actions

CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EA's and EIS's. If the resource or value is not present or is not affected by the proposed action or alternatives, this may be documented in the EA or EIS as a negative declaration. Consult program-specific guidance to determine if a negative declaration is required for certain actions.

Element	Relevant Authority	BLM Manual
Air Quality	The Clean Air Act as amended (42 USC 7401 et seq.)	MS 7300
Areas of Critical Environmental Concern	Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.)	MS 1617
Cultural Resources	National Historic Preservation Act as amended (16 USC 470)	MS 8100
Farm Lands (prime or unique)	Surface Mining Control and Reclamation Act of 1977 (30 USC 1201 et seq.)	
Floodplains	E.O. 11988, as amended, Floodplain Management, 5/24/77	MS 7260
Native American Religious Concerns	American Indian Religious Freedom Act of 1978 (42 USC 1996)	MS 8100
Threatened or Endangered Species	Endangered Species Act of 1973 as amended (16 USC 1531)	MS 6840
Wastes, Hazardous or Solid	Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended (42 USC 9615)	MS 9180 MS 9183
Water Quality Drinking/Ground	Safe Drinking Water Act as amended (42 USC 300f et seq.) Clean Water Act of 1977 (33 USC 1251 et seq.)	MS 7240 MS 9184
Wetlands/Riparian Zones	E.O. 11990, Protection of Wetlands, 5/24/77	MS 6740
Wild and Scenic Rivers	Wild and Scenic Rivers Act as amended (16 USC 1271)	MS 8014
Wilderness	Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.) Wilderness Act of 1964 (16 USC 1131 et seq.)	MS 8500

9.1.2 Appendix B - Figures

T.34 S., R.45 E., SEC. 35, W.M.
1"= 2000'

CONSTRUCTION STAGING AREAS

NORTH FORK OWYHEE RIVER BRIDGE LOCATION

To Jordan Valley/U.S. Hwy. 95

FENWICK RANCH ROAD

Three Forks Rim Reservoir

Three Forks Res.

Lone Tree Reservoir

Three Forks

Three Forks Dome

Warm Springs Canyon

Porcupine Canyon

Owyhee River

North Fork Owyhee River

Rapids

Springs

MILITARY GRADE

JEEP TRAIL

Res No 2

Res No 1

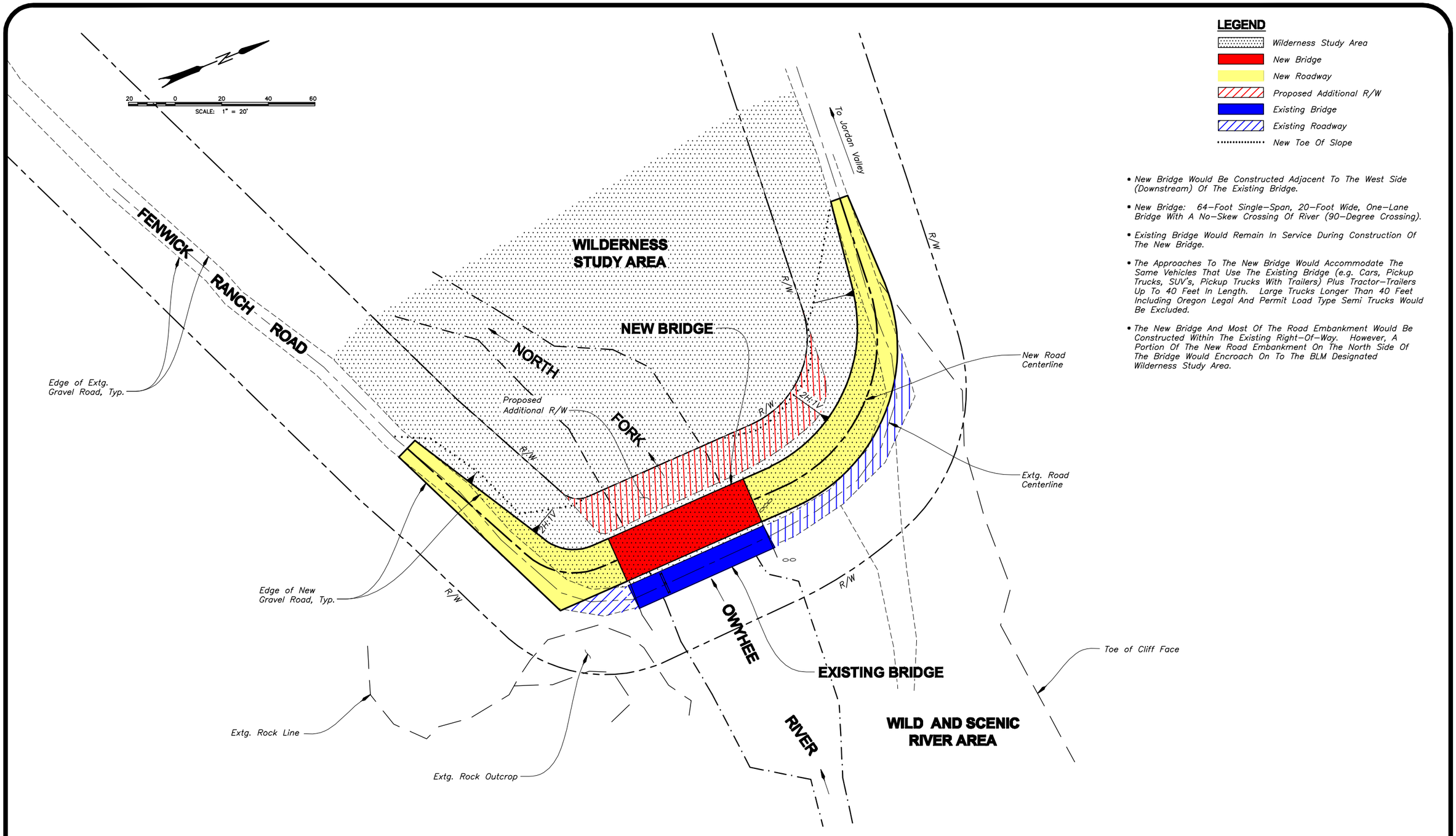
PROJECT LOCATION

VICINITY MAP

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH ROAD - MALHEUR COUNTY, OREGON
ENVIRONMENTAL ASSESSMENT

LOCATION AND VICINITY MAPS

FIGURE 1



LEGEND

- Wilderness Study Area
- New Bridge
- New Roadway
- Proposed Additional R/W
- Existing Bridge
- Existing Roadway
- New Toe Of Slope

- New Bridge Would Be Constructed Adjacent To The West Side (Downstream) Of The Existing Bridge.
- New Bridge: 64–Foot Single–Span, 20–Foot Wide, One–Lane Bridge With A No–Skew Crossing Of River (90–Degree Crossing).
- Existing Bridge Would Remain In Service During Construction Of The New Bridge.
- The Approaches To The New Bridge Would Accommodate The Same Vehicles That Use The Existing Bridge (e.g. Cars, Pickup Trucks, SUV's, Pickup Trucks With Trailers) Plus Tractor–Trailers Up To 40 Feet In Length. Large Trucks Longer Than 40 Feet Including Oregon Legal And Permit Load Type Semi Trucks Would Be Excluded.
- The New Bridge And Most Of The Road Embankment Would Be Constructed Within The Existing Right–Of–Way. However, A Portion Of The New Road Embankment On The North Side Of The Bridge Would Encroach On To The BLM Designated Wilderness Study Area.

anderson perry & associates, inc.

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH ROAD - MALHEUR COUNTY, OREGON
ENVIRONMENTAL ASSESSMENT

BRIDGE PLAN

FIGURE 2

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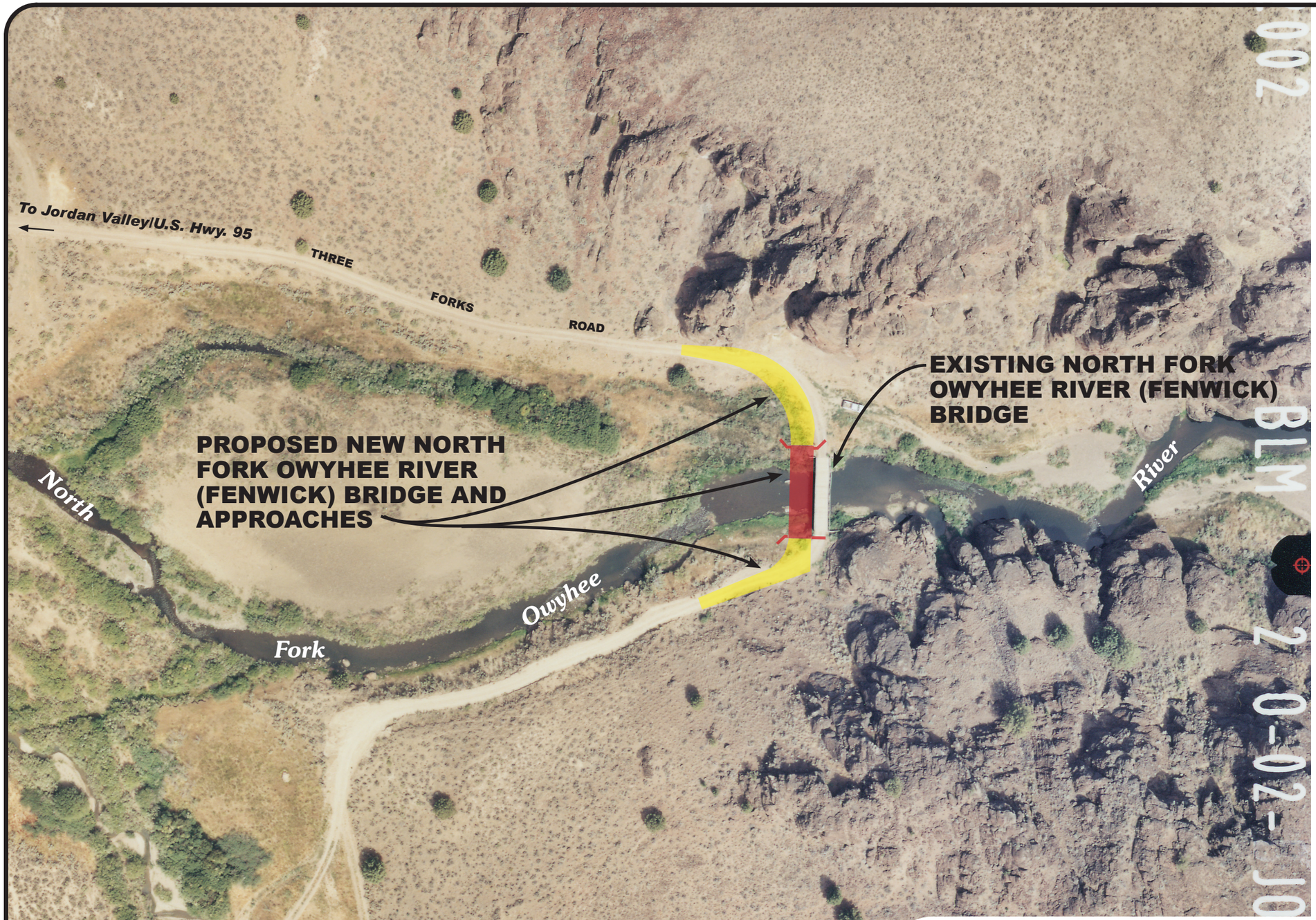


T.34 S., R.45 E., SEC. 35, W.M.
N.T.S.

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH RD - MALHEUR COUNTY, OREGON
ENVIRONMENTAL ASSESSMENT

EXISTING AND PROPOSED BRIDGE LOCATIONS

FIGURE
3

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH RD - MALHEUR COUNTY, OREGON
ENVIRONMENTAL ASSESSMENT

PROPOSED BRIDGE LOCATION

FIGURE

4

PHOTO 1 - Mid-stream pier to be removed. Photo taken from the southern bank at the SW corner of the existing bridge.

PHOTO 2 - Photo of a similar work area isolation structure on the Umatilla River.

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH RD - MALHEUR COUNTY, OREGON
ENVIRONMENTAL ASSESSMENT

PHOTOS

FIGURE

5

PHOTO 1 - Upper staging area.

PHOTO 2 - Upper staging area.

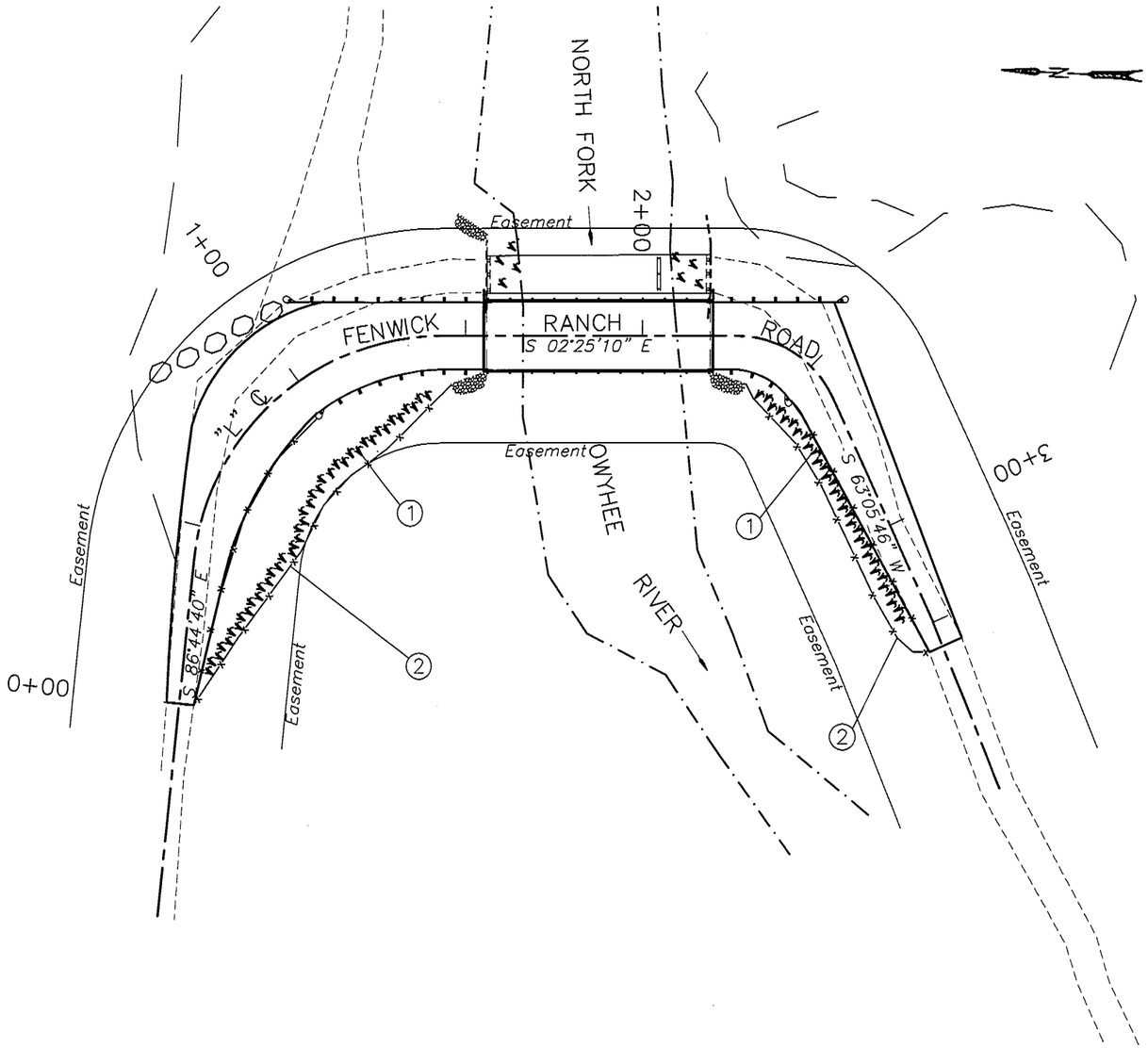
PHOTO 3 - Lower staging area near corral.

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH RD - MALHEUR COUNTY, OREGON
ENVIRONMENTAL ASSESSMENT

STAGING AREA PHOTOS

FIGURE

6



① *Install Willow Planting–160 See Details Sheet GN–2 And Special Provision 01040.*

② *Construct Type 1 Fence To Protect New Seeding And Plantings. Fence To Remain In Place Until Permanent Vegetation Is Established To The Satisfaction Of The Engineer.*

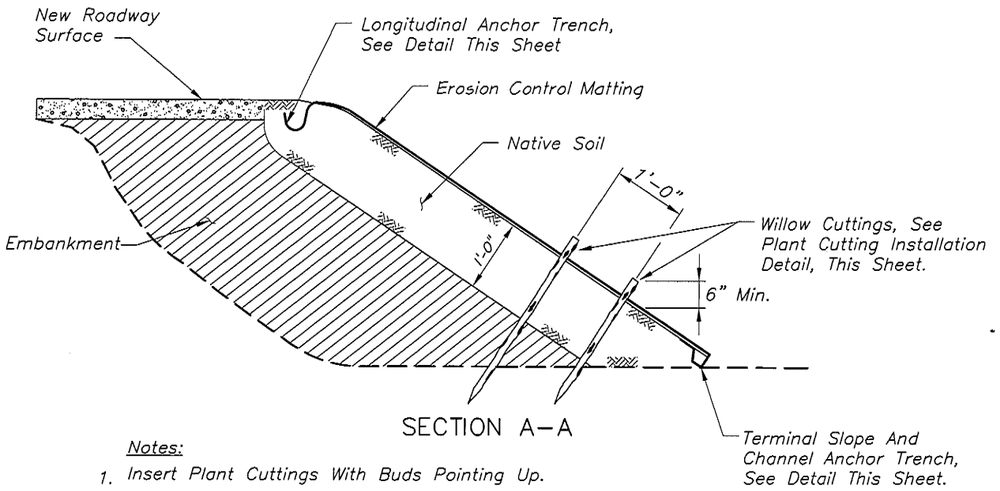
NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH ROAD - MALHEUR COUNTY, OREGON
ENVIRONMENTAL ASSESSMENT

PLANTING PLAN

FIGURE

7

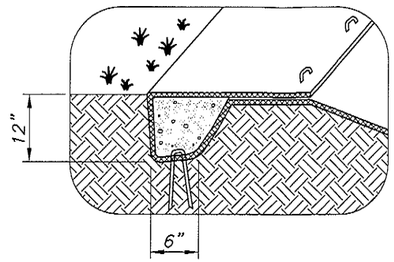
R:\CCOT\BRIDGES_2007\NFORK_FENWICK\dwg\EN\R-FIG.dwg, FIG7, 1/18/2008 11:07:35 AM, rrasmussen



SECTION A–A

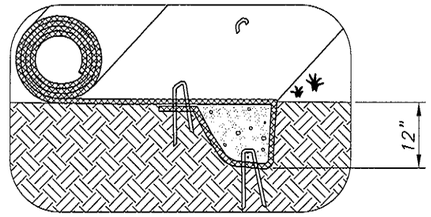
Notes:

1. Insert Plant Cuttings With Buds Pointing Up.
2. The Bottom 7" Of The Cutting Shall Be Treated With Root Enhance Solution To Stimulate Root Growth.
3. Cuttings Shall Have A 2.5' Spacing, Stagger Rows, See Planting Plan View, This Sheet.
4. Use Biodegradable Erosion Control Matting From The QPL.
5. Erosion Control Matting Staking Or Stapling Layout Per Manufacturer's Specifications.
6. Check Slots To Be Constructed Per Manufacturer's Specifications.
7. For Embankment Widening Details, See Sheet 2B.



TERMINAL SLOPE AND CHANNEL ANCHOR TRENCH

No Scale



INITIAL CHANNEL ANCHOR TRENCH

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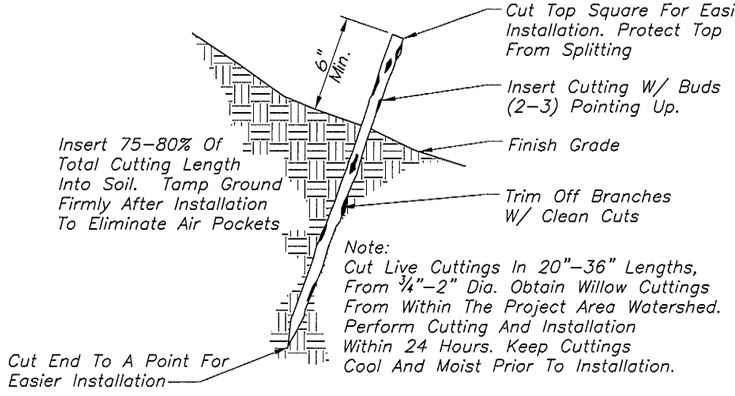

PLANT CUTTING INSTALLATION

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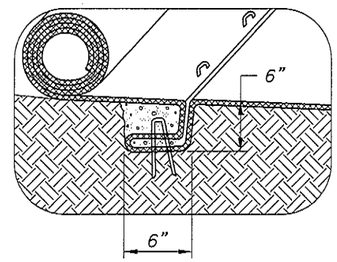

CHECK SLOT

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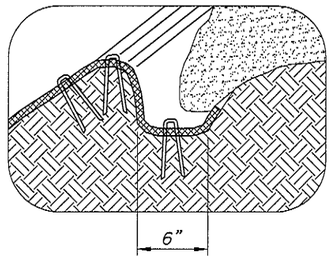

LONGITUDINAL ANCHOR TRENCH

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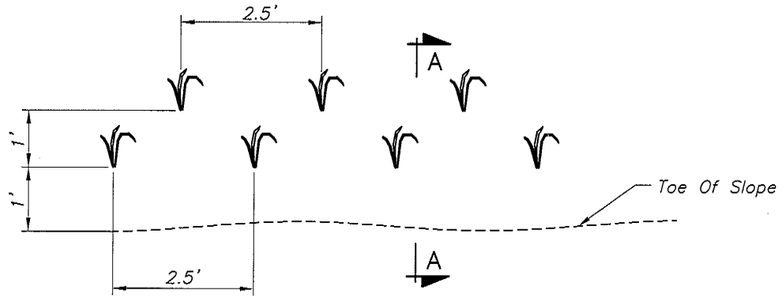


PLANTING PLAN VIEW

No Scale

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH ROAD - MALHEUR COUNTY, OREGON
ENVIRONMENTAL ASSESSMENT

PLANTING DETAILS

FIGURE

8

9.1.3 Appendix C - Programmatic Agreement Memo - North Fork Owyhee (Fenwick) Bridge No. 45C615, Three Forks Road, Malheur County, Key No. 12583, and SHPO Concurrence Letter

Oregon

DEPARTMENT OF TRANSPORTATION

TECHNICAL SERVICES BRANCH
Environmental Services Section

DATE: May 7, 2004

TO: Interdepartmental Memo to File

FROM: Donna Hinze
Cultural Resources Specialist

SUBJECT: **Programmatic Agreement Memo**
North Fork Owyhee River (Fenwick) Bridge No. 45C615
Three Forks Road
Malheur County
Key No. 12583

The proposed local agency project will replace the North Fork Owyhee River Bridge No. 45C615, Fenwick Bridge. The 1953 bridge located at MP 14.40 on Three Forks Road C-927 was constructed to serve several ranches and a large tract of BLM land. Fenwick Bridge has a sufficiency rating of 34.0 and is functionally obsolete and load limited. The replacement bridge will be a single span, 70-foot long by 16-foot wide, concrete slab bridge with guardrail that meets standards.

A survey of the project area was conducted on April 12, 2004 to identify properties in or directly adjacent to the project APE that may meet National Register criteria. The only resource present in the APE is Bridge No. 45C615, a 1953 timber and steel beam, single lane structure. Photograph of this resource is in Table 1 attached.

According to the Programmatic Agreement among the Federal Highway Administration, the Oregon Department of Transportation, the Oregon State Historic Preservation Office, and the Advisory Council on Historic Preservation Regarding the Implementation of Minor Transportation Projects, signed October 15, 2001, the proposed project does not require SHPO review. The ODOT Environmental Services Cultural Resources Staff, who meet the qualifications of 36 CFR Part 61 Appendix A in the fields of history and architectural history, internally reviewed the project using the standards set forth in Section 106 of the National Historic Preservation Act (16 U.S.C. 470f).

1158 Chemeketa Street NE
Salem, OR 97301-2528
(503) 986-3477
Fax: (503) 986-3524

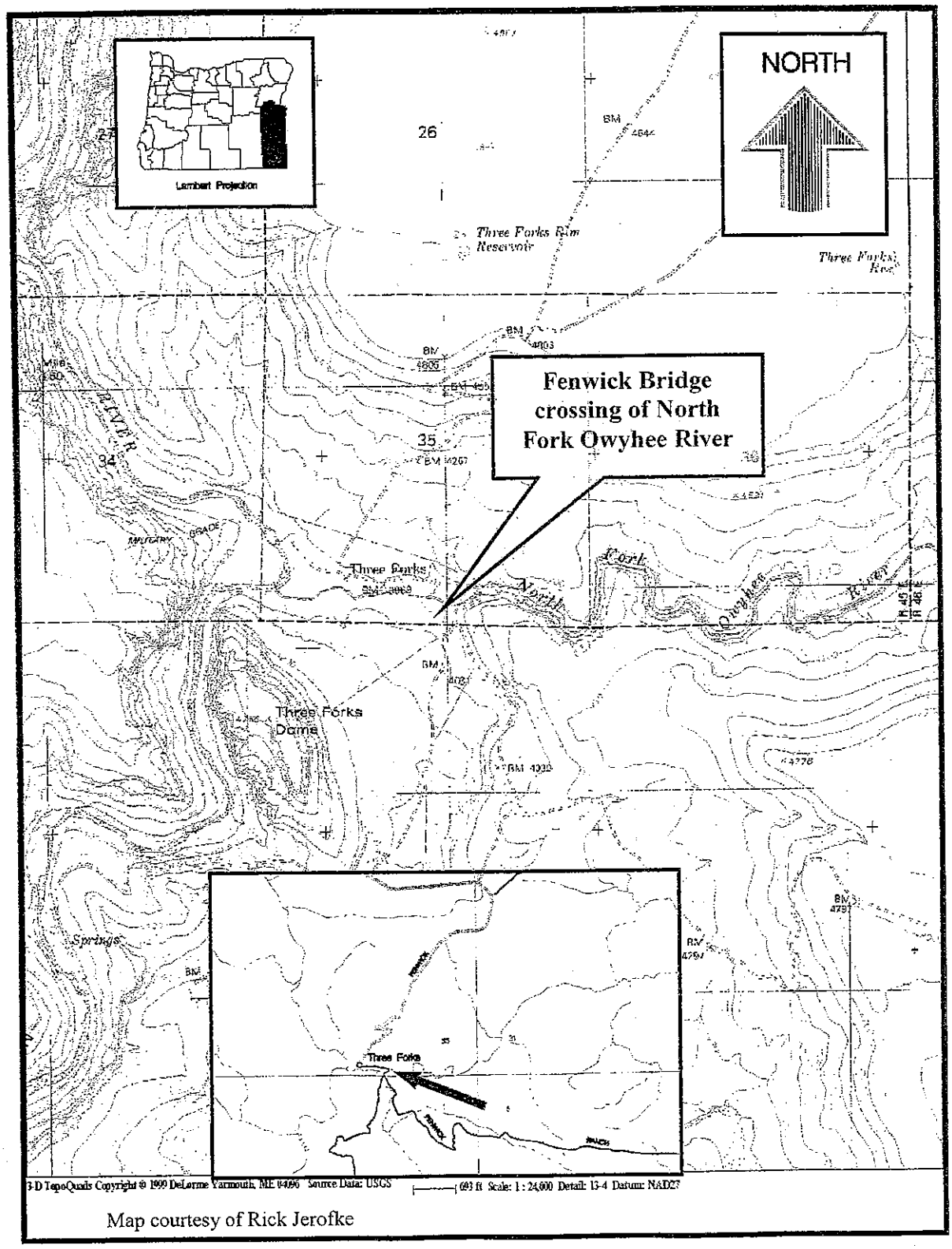
Internal review by the ODOT Cultural Resources Staff resulted in the determination that the bridge to be replaced is not eligible for listing on the National Register because it lacks distinction. This project is exempt from formal review under Stipulation E-9 of the Programmatic Agreement.

Donna Hinze is the lead ODOT Cultural Resources reviewer for this project, and is currently coordinating with the project team. For further information, contact her at (503)986-3799.

Copies to:

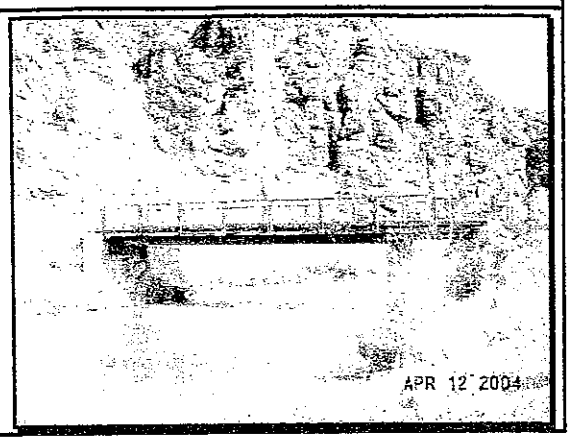
Tom Carman, ODOT Federal Aid Specialist
Donna Hinze, ODOT Cultural Resources Specialist
Rick Jerofke, ODOT Environmental Coordinator
Rosalind Keeney, ODOT Cultural Resources Team Leader
Marg Nickerson, ODOT Local Program Liaison
Wayne Wetzel, BLM Vale District, Planning and Environmental Coordinator
Key No. 12583, File Type E: Cultural Resources
SHPO Tracking File

North Fork Owyhee River (Fenwick) Bridge No. 45C615 (Key 12583)
Three Forks Road, Malheur County
T. 34 S., R. 45 E., section 35 W.M. (Three Forks quad)



Map courtesy of Rick Jerofke

Table 1: Historic Resources Identified

Map ID	Property Name/ Address	Associated Bridge APE	Construction Date/Resource Type	National Register Status	Photograph of Resource
1	MP 14.40, Three Forks Road, Bridge #45C615	12583	1953 timber bridge, with steel beams.	**Not eligible, lacks distinction**	

Copy

Oregon

Theodore R. Kulongoski, Governor

Parks and Recreation Department
State Historic Preservation Office
725 Summer St. NE, Suite C
Salem, OR 97301-1266
(503) 986-0707
FAX (503) 986-0793
www.hcd.state.or.us

Nature HISTORY Discovery

11/5/2007

Ms. Diane Pritchard
BLM Vale District
100 Oregon St
Vale, OR 97918

RE: SHPO Case No. 07-1142
North Fork Owyhee River (Fenwick) Bridge No. 45C615
34S 45E 35, Malheur County

Dear Diane:

Our office recently received your report about the project referenced above. I have reviewed your report and agree that the project will have no affect on any known cultural resources if a no work zone is established around 35ML1377. No further archaeological research is needed with this project.

Please be aware, however, that if during development activities you or your staff encounters any cultural material (i.e., historic or prehistoric), all activities should cease immediately and an archaeologist should be contacted to evaluate the discovery. Under state law (ORS 358.905-955) it is a Class B misdemeanor to impact an archaeological site on public or private land in Oregon. Impacts to Native American graves and cultural items are considered a Class C felony (ORS 97.740-760). If you have any questions regarding any future discovery or my letter, feel free to contact our office at your convenience.

Mollie Manion

Mollie ManionM.A., RPA
SHPO Archaeologist
(503) 986-0683
Mollie.Manion@state.or.us

9.1.4 Appendix D - Evaluation of Proposed Water Resources Project Pursuant to Section 7(a) of the Wild and Scenic Rivers Act

EVALUATIONS OF PROPOSED WATER RESOURCES PROJECT

Pursuant to
Section 7(a) of the Wild and Scenic Rivers Act

For the
North Fork Owyhee River (Fenwick Ranch Road) Bridge Replacement

North Fork Owyhee Wild and Scenic River
Vale District Bureau of Land Management

August 2007

INTRODUCTION

The Malheur County Public Works Department and the Oregon Department of Transportation, in cooperation with the Federal Highway Administration have proposed to replace the functionally obsolete bridge over the North Fork Owyhee River on the Fenwick Ranch Road. The applicant has requested a 404 permit from the U.S. Army Corps of Engineers. Permit requests that involve activities in the North Fork Owyhee Wild and Scenic River (WSR) are subject to the provisions of Section 7 of the Wild and Scenic Rivers Act. In 1988, Congress designated the North Fork Owyhee River from the Oregon-Idaho border to its confluence with the Owyhee River as a Wild and Scenic River and included it in the National Wild and Scenic Rivers System.

The North Fork Owyhee River is designated as Wild, which provides the highest level of protection. The purpose of this report is to evaluate the potential effects of this proposed project on the North Fork Owyhee WSR under Section 7(a) of the Wild and Scenic Rivers Act. The Bureau of Land Management is the federal agency responsible for the NEPA documentation for this project.

This report begins by describing the purpose and need for the bridge replacement and the activities associated with the project. It then presents an analysis of the project's potential effects on river conditions. The analysis documents the potential effects of the proposal on the channel and water quality conditions, riparian and floodplain conditions, upland and off-site conditions, hydrologic and biologic processes, free-flowing conditions, time scale of effects, outstandingly remarkable values, and management goals of the river. The procedure used for this analysis is described in Bureau of Land Management Manual 8351. The report concludes with a determination of the effects of the proposed activities on the free-flowing condition, the water quality and quantity, and the outstandingly remarkable values of the North Fork Owyhee WSR.

EVALUATIONS OF PROPOSED WATER RESOURCES PROJECT

Pursuant to
Section 7(a) of the Wild and Scenic Rivers Act

For the
North Fork Owyhee River (Fenwick Ranch Road) Bridge Replacement

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NEED FOR THE PROPOSED ACTIVITY

The existing two-span bridge, originally constructed in 1953, consists of steel girders and timber stringers with a timber planking deck. This bridge provides access for ranching and recreation to the Three Forks and Upper Owyhee Canyon areas. According to the Oregon Department of Transportation (ODOT) Bridge Inspection Report (ODOT, 2005), the bridge is posted with a load limit of 8 tons and is functionally obsolete. Furthermore, there are multiple structural deficiencies including deck wear, visible girder rot, severely twisted cap with poor bearing, and rotting timbers. The bridge rails do not meet ODOT standards, and there is currently no approach rail or rail ends. These conditions make the bridge undesirable and unsafe for vehicular traffic. Due to these conditions, the bridge is listed in the Oregon State Transportation Improvement Program (STIP) for replacement under the Federal Highway Administration (FHWA) Highway Bridge Rehabilitation and Replacement (HBRR) Program.

DESCRIPTION OF PROPOSED ACTIVITY

The proposed bridge replacement is located 3/4-mile upstream of the confluence of the North Fork Owyhee River and the main stem of the Owyhee River. The North Fork Owyhee River (Fenwick Ranch Road) Bridge Replacement project area is located in the SW 1/4 of the SE 1/4, Section 35, Township 34 South, Range 45 East, Willamette Meridian. See Figure 1 - Location and Vicinity Map. The bridge crosses the North Fork Owyhee River at latitude 42° 32' 38" N and longitude 117° 09' 26" W.

Construction of the new bridge is scheduled for the summer/fall of 2008. Prior to construction, erosion control measures will be installed. The erosion control measures will be maintained throughout the construction period. The proposed new bridge will span the North Fork Owyhee River with a 64-foot single-span steel girder bridge with a timber plank deck. The overall bridge width will be 20 feet. Bridge rail will consist of weathering steel 3-tube side mount rail. The resulting bridge roadway width will be 19 feet, 6 inches. The bridge super structure will consist of weathering steel girders and timber plank decking. The bridge foundation will consist of drilled steel pipe piles socketed into the underlying bedrock. The existing bridge will remain in place during construction of the new bridge. The existing bridge superstructure will be removed once the new bridge is completed and opened to traffic. Construction equipment and materials will be staged at least 150 feet away from any waterway or wetland. The two staging areas available for this project are the site near the cattle guard at the canyon rim (NE 1/4 of NE 1/4 of Sec. 35, T 34 S, R 45 E) and the corral area near the outdoor privy west of the project site (SE 1/4 of SW 1/4 of Sec. 35, T 34 S, R 45 E). Two to four months will be required to complete this project, with construction beginning in July.

The only work below the ordinary high water (OHW) elevation of the river will be the removal of the existing steel pier located in the main channel (see Figure 2). This work will occur during the Oregon Department of Fish and Wildlife (ODFW) preferred in-water work period of October 1 though March 31 (unless an extension for September is approved by ODFW).

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The only work below the ordinary high water (OHW) elevation of the river will be the removal of the existing steel pier located in the main channel (see Figure 2). This work will occur during the Oregon Department of Fish and Wildlife (ODFW) preferred in-water work period of October 1 though March 31 (unless an extension for September is approved by ODFW).

Removal of Existing Bridge. The construction contractor will be required to remove the existing bridge, including the timber deck, steel girders, and steel pier. The mid-stream steel pier will be removed to an elevation below the streambed. The contractor will be required to contain all debris during removal and construction (see Figure 2). The bridge and all other demolition debris will be disposed of by the contractor at an approved site.

Alternatives Considered. The criteria used in choosing the preferred alternative included safety, cost, environmental impacts, and whether or not the alternative meets the project purpose and need (to keep Fenwick Ranch Road open for public use), and complies with the BLM management goals for the North Fork Owyhee River.

(1) No Action Alternative

Fenwick Ranch Road is an important route for ranching, fire protection, and recreational traffic. This road provides access to remote private ranches, the Middle Fork Owyhee River, and SW Idaho. Not replacing this bridge would eventually lead to road closure.

(2) Rehabilitation of Existing Bridge

Due to the condition of the existing bridge, abutments, and superstructure, structural deficiencies including sagging girders, deficient alignment, and narrow bridge width, it is not feasible to rehabilitate this bridge to current American Association of State Highway and Traffic Transportation Officials (AASHTO) and County standards for alignment and width. Compliance with AASHTO standards is required by ODOT and the Federal Highway Administration.

(3) New Single-Span Bridge at Current Location

This alternative is not viable, because the existing location and alignment of the bridge does not meet AASHTO design standards. Additionally, replacing the bridge on the current alignment would require the installation of a temporary detour bridge to maintain traffic during construction. Because no feasible alternate routes are available, the road cannot be closed during construction. A detour bridge would be more costly, require more in-water work, and cause more impacts to the river than the proposed action.

(4) New Multi-Span Bridge

A multi-span bridge would involve the construction of concrete piers in the river. This would require construction of temporary cofferdams in the river and also temporary access roads from the riverbank to the cofferdams. The piers would cause a permanent adverse impact to the waterway and impede fish passage. This alternative is more costly, has more environmental impacts, and is not appropriate for a Wild and Scenic River.

(5) New Single-Span Bridge on Improved Alignment

This is the proposed action. Leaving the existing bridge in place during construction of the new bridge will allow traffic to be maintained so a temporary detour bridge is not necessary. A single-span bridge will allow spanning of the river without in-stream piers. The only work below the OHW elevation will be the removal of the existing bridge pier. The new location, coupled with increased width, will meet AASHTO design standards for truck turning. This alternative has few environmental impacts and is the most feasible and least costly. This is the preferred alternative.

ANALYSIS OF THE EFFECTS OF THE PROPOSED ACTIVITY

Within-Channel Conditions. The new bridge has a 64-foot long span. The proposed bridge abutments will not constrict the width of the North Fork Owyhee River at the OHWE. The bridge opening will remain 64 feet wide at the OHWE. The new bridge abutments will span the same distance as the original structure. No in-stream obstruction will be present due to the removal of the mid-stream bent. Removal of the existing in-stream pier will improve the channel hydrology by allowing natural stream processes within the stream channel to occur.

This project is not expected to adversely affect the water quality in the North Fork Owyhee River. Water quality will be protected by work area isolation methods during the removal of the existing steel pier. Erosion control measures will contain construction sediment from project components located above OHWE. The ODFW has been consulted regarding the bridge replacements and has prescribed an in-stream work period of October 1 through March 31 (an extension for September has been requested from ODFW). This work window minimizes the effect that in-water work could have on fish species.

Riparian and Floodplain Conditions. This project involves constructing a new bridge and removing an existing bridge within the riparian area and floodplain of the North Fork Owyhee WSR. The existing site vegetation consists of native and non-native grasses, sedge, willow *(Salix spp.)*, rose (*Rosa, spp.)*, sagebrush *(Artemisia spp.)*, rabbitbrush *(Chrysotahmnus spp.)*, bittercherry *(Prunus spp.)*, mullein *(Verbascum thapsus)*, and bull thistle *(Cirsium vulare)*. The new bridge will have the same size footprint as the existing bridge, just located immediately downstream.

Upland and Off-site Conditions. Staging of construction equipment will temporarily impact upland and off-site conditions. During the four months of construction, the sites may experience some surface soil and vegetation disturbance and compaction. The staging sites will be allowed to return to their previous condition after project completion.

Hydrologic and Biologic Processes. This project is expected to improve the hydrologic processes. With removal of the existing in-water pier and clearspanning the channel with the new bridge, river flow will be less restricted and no in-stream obstacles for fish movement will exist.

The limited amounts of existing stormwater runoff will flow directly into the river through the bridge deck. The new bridge will not change the existing stormwater conditions, as no new impervious surface will be constructed. The proposed project will not affect existing flow patterns with respect to timing or the amount of flow. Neither surface/subsurface flows nor flood storage characteristics of the channel will be altered by the proposal. No aggradations or degradation of the channel will occur.

The project is expected to have beneficial effects on biological processes. With the new bridge spanning the active channel and removing the existing in-water pier, there will be less disruption of natural biological processes. Maintaining a riparian corridor will protect nutrient cycling, fish rearing success, and provide for riparian-dependent avian species' needs. There are no known threatened or endangered species in the project area.

Free-Flowing Conditions. The free-flowing condition of the river will be improved by removal of the existing steel pier. Removing the pier to an elevation below the streambed will restore the natural unimpeded flow of the river.

Time Scale of Effects. Construction of the new bridge and removal of the existing bridge is expected to take four months, beginning in July 2008. The potential effect identified in this analysis consists of potential increased short-term sedimentation from the removal of the existing bridge pier. Short-term sedimentation will be minimized by placement of work area isolation structures around the pier and will be limited to the in-water work period prescribed by ODFW. This work period has been identified to minimize impacts to fish species within the North Fork Owyhee River.

Eliminating the direct flow of stormwater into the river is a long-term, beneficial effect.

Outstandingly Remarkable Values. The outstandingly remarkable values of the North Fork Owyhee River are recreation, scenic, fisheries, wildlife, vegetation/botanical, historic/prehistoric, and traditional value/lifestyle adaptation (BLM, 1993).

Recreation values will not be affected by the proposed activity because the bridge will be high enough to allow rafting to continue along this reach of the river. Public fishing access will remain the same as existing conditions.

Scenic values will remain consistent with values described in the *Southeastern Oregon Resource Management Plan and Record of Decision September 2002* (page 67 of the *Plan*), which states that the "North Fork Owyhee NWSR ... will be managed as VRM Class I." Replacement of the bridge will be consistent with the setting. The new bridge has been designed with the following color scheme to blend in with the surroundings and maintain the existing visual environment: all approach guardrail will be weathering steel which weathers quickly to a rusty brown, the bridge rails, posts and girders will also be weathering steel. The deck will be wood. The steel sheet piles for the abutment backwalls will be plain steel, not galvanized, and will be allowed to rust

naturally. Figure 3 is a photo demonstrating the location of the new bridge in the actual setting. Removing the existing bridge will improve scenic values because an unnatural feature that is no longer functional would be removed.

Fisheries and wildlife values will be improved by the proposed activity. Fish passage will improve with the removal of the existing pier.

Historic/prehistoric values will not be affected by the proposed activity because a Heritage Research Associates, Inc. Cultural Resources Report (Musil 2006) concluded that the project would have no effect on cultural resources.

Traditional value/lifestyle adaptation would be positively affected since the project's purpose is to assure continued access to the area for local residents, ranchers, farmers, and for recreational use.

DETERMINATION OF THE EFFECTS OF THE PROPOSED ACTIVITY

North Fork Owyhee WSR values will be unaffected or improved by the proposed activity. By replacing the bridge that currently has a pier in the existing channel with a single-span bridge that does not require any structures within the river's ordinary high water mark, the project will allow more natural flow of the river. Removing the existing pier from within the streambed will also improve the recreation and scenic values by eliminating bridge support intrusion into the recreational setting and view. Traditional value/lifestyle adaptations will benefit since the purpose of the project is to ensure continued access to the area for local ranchers, recreationists, and farmers. Other outstandingly remarkable values of the river would remain unchanged. The proposed activity replaces the bridge that existed prior to the designation of the North Fork Owyhee River as Wild and Scenic.

It is my determination, therefore, that the proposed activity will not have a direct and adverse effect on the free-flow character of the river, the water quality and quantity of the river, or the values for which the North Fork Owyhee was designated a Wild and Scenic River.

Although not a condition of my determination, implementation of all control measures of the proposed project to protect water quality during construction and removal of the existing bridge pier are critical to the success of the project. I encourage the County to continue working with Bureau of Land Management staff to ensure successful implementation of these control measures.

_____ _____

Vale District Bureau of Land Management Date
US Dept. of the Interior

EVALUATIONS OF PROPOSED WATER RESOURCES PROJECT

Pursuant to
Section 7(a) of the Wild and Scenic Rivers Act

For the
North Fork Owyhee River (Fenwick Ranch Road) Bridge Replacement

North Fork Owyhee Wild and Scenic River
Vale District Bureau of Land Management

August 2007

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The Malheur County Public Works Department and the Oregon Department of Transportation, in cooperation with the Federal Highway Administration have proposed to replace the functionally obsolete bridge over the North Fork Owyhee River on the Fenwick Ranch Road. The applicant has requested a 404 permit from the U.S. Army Corps of Engineers. Permit requests that involve activities in the North Fork Owyhee Wild and Scenic River (WSR) are subject to the provisions of Section 7 of the Wild and Scenic Rivers Act. In 1988, Congress designated the North Fork Owyhee River from the Oregon-Idaho border to its confluence with the Owyhee River as a Wild and Scenic River and included it in the National Wild and Scenic Rivers System.

The North Fork Owyhee River is designated as Wild, which provides the highest level of protection. The purpose of this report is to evaluate the potential effects of this proposed project on the North Fork Owyhee WSR under Section 7(a) of the Wild and Scenic Rivers Act. The Bureau of Land Management is the federal agency responsible for the NEPA documentation for this project.

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DESCRIPTION OF PROPOSED ACTIVITY

The proposed bridge replacement is located 3/4-mile upstream of the confluence of the North Fork Owyhee River and the main stem of the Owyhee River. The North Fork Owyhee River (Fenwick Ranch Road) Bridge Replacement project area is located in the SW 1/4 of the SE 1/4, Section 35, Township 34 South, Range 45 East, Willamette Meridian. See Figure 1 - Location and Vicinity Map. The bridge crosses the North Fork Owyhee River at latitude 42° 32' 38" N and longitude 117° 09' 26" W.

Construction of the new bridge is scheduled for the summer/fall of 2008. Prior to construction, erosion control measures will be installed. The erosion control measures will be maintained throughout the construction period. The proposed new bridge will span the North Fork Owyhee River with a 64-foot single-span steel girder bridge with a timber plank deck. The overall bridge width will be 20 feet. Bridge rail will consist of weathering steel 3-tube side mount rail. The resulting bridge roadway width will be 19 feet, 6 inches. The bridge super structure will consist of weathering steel girders and timber plank decking. The bridge foundation will consist of drilled steel pipe piles socketed into the underlying bedrock. The existing bridge will remain in place during construction of the new bridge. The existing bridge superstructure will be removed once the new bridge is completed and opened to traffic. Construction equipment and materials will be staged at least 150 feet away from any waterway or wetland. The two staging areas available for this project are the site near the cattle guard at the canyon rim (NE 1/4 of NE 1/4 of Sec. 35, T 34 S, R 45 E) and the corral area near the outdoor privy west of the project site (SE 1/4 of SW 1/4 of Sec. 35, T 34 S, R 45 E). Two to four months will be required to complete this project, with construction beginning in July.

The only work below the ordinary high water (OHW) elevation of the river will be the removal of the existing steel pier located in the main channel (see Figure 2). This work will occur during the Oregon Department of Fish and Wildlife (ODFW) preferred in-water work period of October 1 though March 31 (unless an extension for September is approved by ODFW).

Removal of Existing Bridge. The construction contractor will be required to remove the existing bridge, including the timber deck, steel girders, and steel pier. The mid-stream steel pier will be removed to an elevation below the streambed. The contractor will be required to contain all debris during removal and construction (see Figure 2). The bridge and all other demolition debris will be disposed of by the contractor at an approved site.

Alternatives Considered. The criteria used in choosing the preferred alternative included safety, cost, environmental impacts, and whether or not the alternative meets the project purpose and need (to keep Fenwick Ranch Road open for public use), and complies with the BLM management goals for the North Fork Owyhee River.

(1) No Action Alternative

Fenwick Ranch Road is an important route for ranching, fire protection, and recreational traffic. This road provides access to remote private ranches, the Middle Fork Owyhee River, and SW Idaho. Not replacing this bridge would eventually lead to road closure.

(2) Rehabilitation of Existing Bridge

Due to the condition of the existing bridge, abutments, and superstructure, structural deficiencies including sagging girders, deficient alignment, and narrow bridge width, it is not feasible to rehabilitate this bridge to current American Association of State Highway and Traffic Transportation Officials (AASHTO) and County standards for alignment and width. Compliance with AASHTO standards is required by ODOT and the Federal Highway Administration.

(3) New Single-Span Bridge at Current Location

This alternative is not viable, because the existing location and alignment of the bridge does not meet AASHTO design standards. Additionally, replacing the bridge on the current alignment would require the installation of a temporary detour bridge to maintain traffic during construction. Because no feasible alternate routes are available, the road cannot be closed during construction. A detour bridge would be more costly, require more in-water work, and cause more impacts to the river than the proposed action.

(4) New Multi-Span Bridge

A multi-span bridge would involve the construction of concrete piers in the river. This would require construction of temporary cofferdams in the river and also temporary access roads from the riverbank to the cofferdams. The piers would cause a permanent adverse impact to the waterway and impede fish passage. This alternative is more costly, has more environmental impacts, and is not appropriate for a Wild and Scenic River.

(5) New Single-Span Bridge on Improved Alignment

This is the proposed action. Leaving the existing bridge in place during construction of the new bridge will allow traffic to be maintained so a temporary detour bridge is not necessary. A single-span bridge will allow spanning of the river without in-stream piers. The only work below the OHW elevation will be the removal of the existing bridge pier. The new location, coupled with increased width, will meet AASHTO design standards for truck turning. This alternative has few environmental impacts and is the most feasible and least costly. This is the preferred alternative.

ANALYSIS OF THE EFFECTS OF THE PROPOSED ACTIVITY

Within-Channel Conditions. The new bridge has a 64-foot long span. The proposed bridge abutments will not constrict the width of the North Fork Owyhee River at the OHWE. The bridge opening will remain 64 feet wide at the OHWE. The new bridge abutments will span the same distance as the original structure. No in-stream obstruction will be present due to the removal of the mid-stream bent. Removal of the existing in-stream pier will improve the channel hydrology by allowing natural stream processes within the stream channel to occur.

This project is not expected to adversely affect the water quality in the North Fork Owyhee River. Water quality will be protected by work area isolation methods during the removal of the existing steel pier. Erosion control measures will contain construction sediment from project components located above OHWE. The ODFW has been consulted regarding the bridge replacements and has prescribed an in-stream work period of October 1 through March 31 (an extension for September has been requested from ODFW). This work window minimizes the effect that in-water work could have on fish species.

Riparian and Floodplain Conditions. This project involves constructing a new bridge and removing an existing bridge within the riparian area and floodplain of the North Fork Owyhee WSR. The existing site vegetation consists of native and non-native grasses, sedge, willow *(Salix spp.)*, rose (*Rosa, spp.)*, sagebrush *(Artemisia spp.)*, rabbitbrush *(Chrysotahmnus spp.)*, bittercherry *(Prunus spp.)*, mullein *(Verbascum thapsus)*, and bull thistle *(Cirsium vulare)*. The new bridge will have the same size footprint as the existing bridge, just located immediately downstream.

Upland and Off-site Conditions. Staging of construction equipment will temporarily impact upland and off-site conditions. During the four months of construction, the sites may experience some surface soil and vegetation disturbance and compaction. The staging sites will be allowed to return to their previous condition after project completion.

Hydrologic and Biologic Processes. This project is expected to improve the hydrologic processes. With removal of the existing in-water pier and clearspanning the channel with the new bridge, river flow will be less restricted and no in-stream obstacles for fish movement will exist.

The limited amounts of existing stormwater runoff will flow directly into the river through the bridge deck. The new bridge will not change the existing stormwater conditions, as no new impervious surface will be constructed. The proposed project will not affect existing flow patterns with respect to timing or the amount of flow. Neither surface/subsurface flows nor flood storage characteristics of the channel will be altered by the proposal. No aggradations or degradation of the channel will occur.

The project is expected to have beneficial effects on biological processes. With the new bridge spanning the active channel and removing the existing in-water pier, there will be less disruption of natural biological processes. Maintaining a riparian corridor will protect nutrient cycling, fish rearing success, and provide for riparian-dependent avian species' needs. There are no known threatened or endangered species in the project area.

Free-Flowing Conditions. The free-flowing condition of the river will be improved by removal of the existing steel pier. Removing the pier to an elevation below the streambed will restore the natural unimpeded flow of the river.

Time Scale of Effects. Construction of the new bridge and removal of the existing bridge is expected to take four months, beginning in July 2008. The potential effect identified in this analysis consists of potential increased short-term sedimentation from the removal of the existing bridge pier. Short-term sedimentation will be minimized by placement of work area isolation structures around the pier and will be limited to the in-water work period prescribed by ODFW. This work period has been identified to minimize impacts to fish species within the North Fork Owyhee River.

Eliminating the direct flow of stormwater into the river is a long-term, beneficial effect.

Outstandingly Remarkable Values. The outstandingly remarkable values of the North Fork Owyhee River are recreation, scenic, fisheries, wildlife, vegetation/botanical, historic/prehistoric, and traditional value/lifestyle adaptation (BLM, 1993).

Recreation values will not be affected by the proposed activity because the bridge will be high enough to allow rafting to continue along this reach of the river. Public fishing access will remain the same as existing conditions.

Scenic values will remain consistent with values described in the *Southeastern Oregon Resource Management Plan and Record of Decision September 2002* (page 67 of the *Plan*), which states that the "North Fork Owyhee NWSR ... will be managed as VRM Class I." Replacement of the bridge will be consistent with the setting. The new bridge has been designed with the following color scheme to blend in with the surroundings and maintain the existing visual environment: all approach guardrail will be weathering steel which weathers quickly to a rusty brown, the bridge rails, posts and girders will also be weathering steel. The deck will be wood. The steel sheet piles for the abutment backwalls will be plain steel, not galvanized, and will be allowed to rust

naturally. Figure 3 is a photo demonstrating the location of the new bridge in the actual setting. Removing the existing bridge will improve scenic values because an unnatural feature that is no longer functional would be removed.

Fisheries and wildlife values will be improved by the proposed activity. Fish passage will improve with the removal of the existing pier.

Historic/prehistoric values will not be affected by the proposed activity because a Heritage Research Associates, Inc. Cultural Resources Report (Musil 2006) concluded that the project would have no effect on cultural resources.

Traditional value/lifestyle adaptation would be positively affected since the project's purpose is to assure continued access to the area for local residents, ranchers, farmers, and for recreational use.

DETERMINATION OF THE EFFECTS OF THE PROPOSED ACTIVITY

North Fork Owyhee WSR values will be unaffected or improved by the proposed activity. By replacing the bridge that currently has a pier in the existing channel with a single-span bridge that does not require any structures within the river's ordinary high water mark, the project will allow more natural flow of the river. Removing the existing pier from within the streambed will also improve the recreation and scenic values by eliminating bridge support intrusion into the recreational setting and view. Traditional value/lifestyle adaptations will benefit since the purpose of the project is to ensure continued access to the area for local ranchers, recreationists, and farmers. Other outstandingly remarkable values of the river would remain unchanged. The proposed activity replaces the bridge that existed prior to the designation of the North Fork Owyhee River as Wild and Scenic.

It is my determination, therefore, that the proposed activity will not have a direct and adverse effect on the free-flow character of the river, the water quality and quantity of the river, or the values for which the North Fork Owyhee was designated a Wild and Scenic River.

Although not a condition of my determination, implementation of all control measures of the proposed project to protect water quality during construction and removal of the existing bridge pier are critical to the success of the project. I encourage the County to continue working with Bureau of Land Management staff to ensure successful implementation of these control measures.

_____ _____

Vale District Bureau of Land Management Date
US Dept. of the Interior

REFERENCES

Bureau of Land Management. 12/22/93. *Manual 8351 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, and Management.*

Wild and Scenic Rivers Act. 1988. Public Law No. 90-542. Accessed via the Internet on June 19, 2006. http://www.rivers.gov/wsract.html

Bureau of Land Management Vale Field Office. September 2002.*Southeastern Oregon Resource Management Plan and Record of Decision September 2002.*

Bureau of Land Management Vale Field Office. September 1993. *Main, West Little and North Fork Owyhee National Wild and Scenic Rivers Management Plan and Environmental Assessment.*

Musil, Robert R. March 1, 2006. *HRA Letter Report 06-17: Archaeological Survey of the North Fork Owyhee River (Fenwick) Bridge No. 45C615, Malheur County, Oregon.* Heritage Research Associates, Inc. Eugene, Oregon.

Oregon Department of Transportation. October 24, 2005. *Bridge Inspection Report- Bridge Identification Number 45C615.*

Oregon Department of Fish and Wildlife. June 2000. *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources.*

REFERENCES

Bureau of Land Management. 12/22/93. *Manual 8351 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, and Management.*

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Musil, Robert R. March 1, 2006. *HRA Letter Report 06-17: Archaeological Survey of the North Fork Owyhee River (Fenwick) Bridge No. 45C615, Malheur County, Oregon.* Heritage Research Associates, Inc. Eugene, Oregon.

Oregon Department of Transportation. October 24, 2005. *Bridge Inspection Report- Bridge Identification Number 45C615.*

Oregon Department of Fish and Wildlife. June 2000. *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources.*

Appendix A – FIGURES

T.34 S., R.45 E., SEC. 35, W.M.
1"= 2000'

CONSTRUCTION STAGING AREAS

NORTH FORK OWYHEE RIVER BRIDGE LOCATION

To Jordan Valley/U.S. Hwy. 95

FENWICK RANCH ROAD

Three Forks Rim Reservoir

Lone Tree Reservoir

Three Forks

Three Forks Dome

Three Forks Res.

Porcupine Canyon

Rapids

Warm Springs Canyon

Springs

Owyhee River

North Fork Owyhee River

Res No 1

Res No 2

JEEP TRAIL

(PACK) TRAIL

MILITARY GRADE

Mile 160

BM 4844

BM 4806

BM 4805

BM 4557

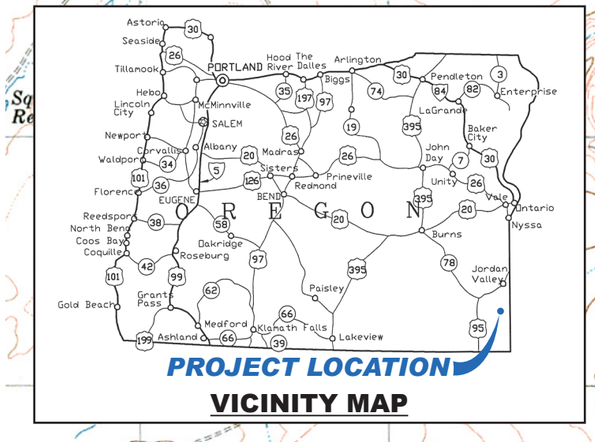
BM 4257

BM 4031

BM 4039

BM 4171

BM 4797



PROJECT LOCATION

VICINITY MAP

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH ROAD - MALHEUR COUNTY, OREGON
WILD AND SCENIC RIVER REPORT

LOCATION AND VICINITY MAPS

FIGURE 1

PHOTO 1 - Mid-stream pier to be removed. Photo taken from the southern bank at the SW corner of the existing bridge.

anderson perry & associates, inc.

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH RD - MALHEUR COUNTY, OREGON
WILD AND SCENIC RIVER REPORT

PHOTO

FIGURE

2

anderson perry & associates, inc.

NORTH FORK OWYHEE RIVER BRIDGE
FENWICK RANCH RD - MALHEUR COUNTY, OREGON
WILD AND SCENIC RIVER REPORT

PROPOSED BRIDGE LOCATION

FIGURE

3