UNITED STATES OF AMERICA
DEPARTMENT OF INTERIEOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT OFFICE

Categorical Exclusion Determination and Decision Record
for
Oregon Department of Fish and Wildlife (ODFW) / Gold Hill Irrigation District (GHID) Fish Screen Structure and Bypass pipe Replacement

DOI-BLM-OR-M050-2014-0005-CX

Description of Proposed Action

The Oregon Department of Fish and Wildlife (ODFW) proposes to replace an existing fish screen structure and bypass pipe located at the Gold Hill Irrigation District (GHID) diversion off the Rogue River near Gold Hill, Oregon. The project is partially on BLM managed land in Township 36 South, Range 3 West, Section 11, SE ¼ of the NW ¼, approximately 1,150 ft down a diversion canal on the Rogue River at river mile 122.5 just upstream of Gold Nugget rapid. The fish screen reduces the chance of fish entering the canal. The canal delivers water to downstream irrigators.

The existing fish screen structure and bypass pipe is composed of:

- A concrete box housing three rotary drum screens (fish screen box) placed at 60 degrees to the water flow;
- An embedded 6 inch diameter poly vinyl chloride (PVC) which serves as the bypass entrance into a buried 10 inch PVC pipe;
- A buried 10 inch diameter PVC pipe that extends approximately 120 ft from the fish screen box, in the irrigation canal, back through the bank of the Rogue River. The last 20 ft of the pipe is perched and braced over the south river bank and bed.

The current pipe can have a vertical drop in excess of 7 ft depending on river flows. Fish returning to the river through the pipe may, at times, be exiting the pipe into a shallow or nonexistent plunge pool (see the attached photo and diagrams).

The Proposed Action would modify the existing trash rack located at the fish screen box, replace the existing fish screens to improve self-cleaning capability, and improve hydraulic and vertical drop conditions of the bypass pipe by providing a safe transitional drop through the bypass system.

The proposed improvements would include:

- excavating an area behind the existing bypass entrance and replacing the existing section of wall that houses the 6 inch diameter embedded pipe with a new section of wall that would house a 10 inch diameter embedded pipe, connecting back to the existing 10 inch diameter PVC pipe. The existing section of the screen box concrete wall is 8 inches thick by 54 inches tall and 40 inches long, and would be replaced with a 10 inch thick wall of the same height and length. An 8 inch removable orifice would be installed on the fish screen box side of the wall to aid in debris management;
- excavating and removing the existing 10 inch PVC pipe beginning at a point approximately 75 feet from the fish screen box
- forming and pouring a new 6 ft by 12 ft by 9 ft high concrete drop-well structure;
- reconnecting the 10 inch PVC pipe into the drop box structure;
- excavating and reinstalling the 10 inch diameter PVC pipe from the new drop well to the south bank of the river; and
- backfilling the new structure(s) and bypass pipe

The drop box structure would be approximately 6 ft wide by 12 ft long and 9 ft deep. It would be installed almost completely underground with hinged, lockable, metal access covers overtop to prevent unauthorized access, but would allow for interior maintenance.

The bypass pipe improvement would require the excavation and removal of approximately 30 ft of buried pipe to make room for the new drop-well and pipe, and the excavation and replacement of the pipe imbed wall section.

Access to the fish bypass site, for construction purposes, would be by crossing over the irrigation canal, just upstream from the existing fish screen structure by either sloping the ditch banks to create a temporary crossing point, or the temporary installation of buried pipes within the canal. An excavator would be used to perform the earth moving portion of the project and a concrete pump would be used to transfer the ready mix concrete into the drop box structure and new screen box wall forms. The ground disturbance would result in two disturbance areas. The first area would be approximately 45 ft by 50 ft located from the existing screen box to the new connection with the existing 10 inch diameter PVC bypass pipe. The second area would be approximately 60 ft by 50 ft located from the new drop well to the river. These areas would be planted with native vegetation.

Project Design Features

- All operations will be in compliance with fire season restrictions and regulations identified by the Oregon Department of Forestry.
- The BLM shall be notified at least 14 days before ground disturbing activities begin and upon completion of ground-disturbing activities.

- Project timing would be dependent on weather, coordination with GHID on water withdrawals, and the receipt of all the necessary permits and approvals. Work occurring outside the ODFW In-Water Work period (June 15 to September 15) would have to be authorized with a waiver from ODFW.
- Only equipment visually inspected for weeds by a qualified BLM specialist will be allowed to operate within the project area, or in the immediate vicinity of the project area. All subsequent move-ins of equipment will be treated the same as the initial move-in.
- All heavy equipment will be pressured wash, including undercarriages, before initial move-in and prior to all subsequent move-ins into the project area to remove soil and plant parts to prevent the spread of invasive and noxious weeds. Cleaning shall be defined as removal of dirt, grease, plant parts, and material that may carry noxious weed seeds and parts onto BLM lands.
- Mulch and seed all areas where in the course of the project, soil is exposed. The type, quality and quantity of materials used shall be approved by the BLM Authorized Officer.
- Refuel and maintain equipment outside of riparian reserves and locate fueling areas so accidental spills will be contained and will not drain into the stream system.
- Use temporary sediment control measures (e.g., check dams, silt fencing, bark bags, filter strips and mulch) along ordinary high water line to contain sediment from construction areas. Remove any accumulated sediment and control measures, when work is complete.
- Material excavated will be placed back into the trench. Excess material will be removed to a BLM approved location.
- Notify the Medford District Archaeologist 14 days before trenching begins to allow for cultural monitoring during the ground-disturbing activity. At this time the project may be redesigned or evaluation and mitigation measures implemented to protect cultural resource values based on District archaeologist recommendations and concurrence from the Butte Falls Field Manager and State Historic Preservation Office.
- Stop work and notify the Medford District Manager within 12 hours if an archaeological site is discovered during the project.

Plan Conformance Review

The Bureau of Land Management did not scope this proposal and the public was not involved in its development. This proposal is in conformance with objectives, land use allocations, and management direction of the 1995 *Medford District Record of Decision and Resource Management Plan* (ROD/RMP) and any plan amendments in effect at the time this document is published.

This project also conforms with the 1994 *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (Northwest Forest Plan).

The Proposed Action is consistent with the direction given for the management of public lands in the Medford District by the Oregon and California Lands Act of 1937, Federal Land Policy and Management Act of 1976, Endangered Species Act of 1973, Clean Water Act of 1987, Safe Drinking Water Act of 1974 (as amended 1986 and 1996), Clean Air Act of 1990 (as amended), and Archaeological Resources Protection Act of 1979.

This proposal is consistent with management direction in the Medford District 1995 ROD/RMP (p. 49) that directs the BLM to "Design and implement fish habitat restoration and enhancement activities in a manner that contributes to attainment of Aquatic Conservation Strategy and riparian reserve objectives."

Categorical Exclusion Determination

This Proposed Action qualifies as a categorical exclusion as provided in United States Department of the Interior Departmental Manual 516 DM 11.9 A (7). This section allows for "installation of devices on existing facilities to protect animal life…".

Before any action described in the list of categorical exclusions may be used, the "extraordinary circumstances," included in the Code of Federal Regulations (CFR) at 43 CFR 46.205(c) must be reviewed for applicability. After review, the BLM determined no extraordinary circumstances exist that would cause the proposed action to have a significant environmental effect. The action will not require additional analysis.

NEPA Categorical Exclusion Review

The Code of Federal Regulations at 43 CFR 46.205(c) requires that "any action that is normally categorically excluded must be evaluated to determine whether it meets any of the extraordinary circumstances in section 46.215" (listed below). Additional analysis and environmental documents must be completed for any normally categorically excluded action which may:

Butte Falls Resource Area CX Extraordinary Circumstances Documentation

1. *Have significant impacts on public health or safety.*
   ☐ Yes ☒ No
   Initial MJC Remarks:

2. *Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.*
   ☐ Yes ☒ No
   Initial MJC Remarks:

3. *Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)].*
   ☐ Yes ☒ No
   Initial MJC Remarks:

4. *Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.*
   ☐ Yes ☒ No
   Initial MJC Remarks:

5. *Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.*
   ☐ Yes ☒ No
   Initial MJC Remarks:

6. *Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.*
   ☐ Yes ☒ No
   Initial MJC Remarks:

7. *Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau.*
   ☐ Yes ☒ No
   Initial JK Remarks:

8. *Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.*
   Plants ☐ Yes ☒ No Initial MW Remarks:
   Animals ☐ Yes ☒ No Initial DGR Remarks:
   Fish ☐ Yes ☑ No Initial BHJ Remarks:

9. *Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.*
   ☐ Yes ☒ No
   Initial _____ Remarks:

10. *Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).*
    ☐ Yes ☒ No
    Initial MJC Remarks:

11. *Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).*
    ☐ Yes ☒ No
    Initial _____ Remarks:

12. *Contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).*
    ☐ Yes ☒ No
    Initial MW Remarks:

Categorical Exclusion Reviewers:

Name	Title	Date	Initials
Michelle Calvert	NEPA Coordinator	2/20/14	MJC
Marcia Wineteer	Botanist	2/25/14	mw
Dave Roelofs	Wildlife Biologist	2-7-14	D. R.
Baker Holden	Fisheries Biologist	2-7-14	BH3
Shawn Simpson	Hydrologist	2-12-14	SLS
Amy Meredith	Soil Scientist	2-7-14	ACM
Al Mason	Fire/Fuels Specialist	2/10/14	APM
Lisa Rice	Archaeologist	2/18/14	LR
Jeff Brown	Engineer	2/11/14	AB
Trish Lindaman	Outdoor Recreation Planner	2/18/14	TL

Decision

It is my decision to authorize replacement of a fish screen structure on the Gold Hill Irrigation Ditch as described in the Proposed Action and including the Project Design Features.

Decision and Rationale

The Proposed Action has been reviewed by Butte Falls Resource Area staff and appropriate Project Design Features, as specified above, will be incorporated into the proposal. Based on the attached NEPA (National Environmental Policy Act) Categorical Exclusion Review, I have determined the Proposed Action involves no significant impact to the human environment and no further environmental analysis is required.

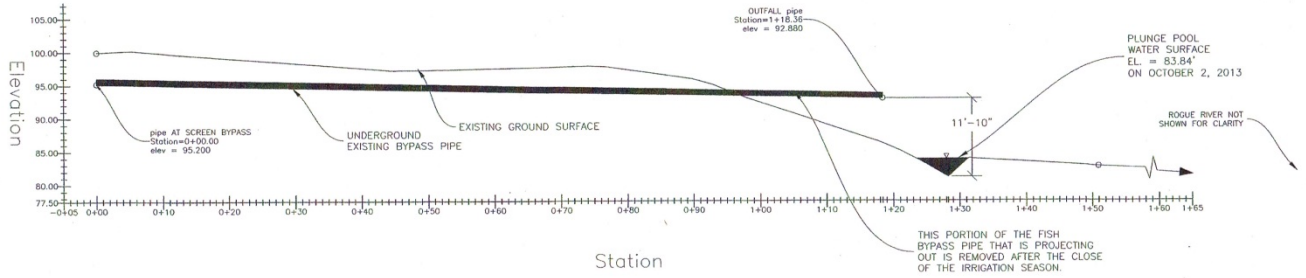
Karla Norris 2/26/14

Karla Norris
Acting Field Manager
Butte Falls Resource Area

Date

Administrative Review or Appeal Opportunities

Notice of the forest management decision to be made on the action described in this categorical exclusion will be posted on the Medford District Web site. The action is subject to protest under 43 CFR 4.450-2. A decision in response to a protest is subject to appeal to the Interior Board of Land Appeals under 43 CFR part 4.



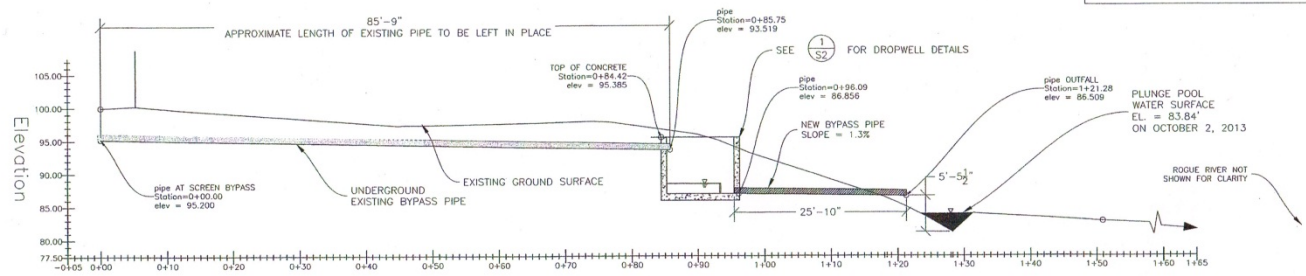
PROFILE VIEW
1 / C3 **EXISTING BYPASS PIPE** SCALE: ⅛"=1'-0"

NMFS CRITERIA:

- BYPASS PIPE SLOPE = 1.3%
- VELOCITY IN PIPE IS BETWEEN 6-12 FT/S
- IMPACT VELOCITY AT BYPASS OUTFALL IS LESS THAN 25 FT/SEC
- MINIMUM POOL VOLUME IN BYPASS DOWNWELL IS FOUND BY THE FOLLOWING FORMULA:

$$Volume = \frac{(\gamma)(Q)(H)}{10\,ft \bullet lbs/\sec}$$

γ = UNIT WEIGHT OF WATER, 62.4 POUNDS (LB) PER CUBIC FOOT
Q = FLOW IN CUBIC FOOT / SEC
H = ENERGY HEAD (WATER SURFACE TO WATER SURFACE, IN FEET



PROFILE VIEW
2 / C3 **BYPASS PIPE MODIFICATION AND NEW DROPWELL** SCALE: ⅛"=1'-0"

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 31, 2002
JEAN M. CASTILLO
EXPIRES:12/31/2015

Oregon
DEPARTMENT OF FISH AND WILDLIFE
FISH DIVISION
FISH SCREENING AND PASSAGE PROGRAM
4034 FAIRVIEW INDUSTRIAL DR. S.E.
SALEM, OREGON 97302-1142
PHONE: (503) 947-6234 FAX: (503) 947-6203

OREGON Fish & Wildlife

REV.	DATE	DESCRIPTION

GHID BYPASS PIPE MODIFICATIONS
ROGUE RIVER
JACKSON COUNTY
BYPASS PIPE PROFILES

DATE: 1-27-2014
DESIGN BY: JMC
DRAWN BY: JMC
CHECKED BY:
NOTES:

FILE NO. S-15-0071
SHEET C3
OF

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Gold Hill Irrigation District Fish Screen Bypass Project

1-14-14