

Salem District Aquatic and Riparian Habitat Restoration

FINAL REVISED FINDING OF NO SIGNIFICANT IMPACT

Based upon review of the Aquatic and Riparian Habitat Restoration Revised EA and supporting documents, I have determined that the selected action is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. There are no significant impacts not already adequately analyzed, or no significant impacts beyond those already analyzed, in the Salem District RMP/FEIS to which this environmental assessment (Revised EA) is tiered. Therefore, supplemental or additional information to the analysis in the Salem District RMP/FEIS in the form of a new environmental impact statement (EIS) is not needed. This finding is based on the following discussion:

Context [40 CFR 1508.27(a)]: Potential effects resulting from the implementation of the selected action have been analyzed within the context of the project area boundaries. The selected action could occur on and within a number of streams, rivers, and riparian areas on the Salem District. There are limitations, however, on the number of projects that could occur on an annual basis (Revised EA Table 1).

Intensity refers to severity of impact [40 CFR 1508.27(b)]. The following text shows how that the selected action will not have significant impacts with regard to the ten considerations for evaluating intensity, as described in 40 CFR 1508.27(b).

1. [40 CFR 1508.27(b) (1)] – *Impacts that may be both beneficial and adverse*: The selected action is unlikely to have significant adverse impacts on the affected elements of the environment for the following reasons:

- Project design features described in Revised EA sections 2.3.2 and ARBO II Project design criteria in Revised EA sections 8.0, 9.0 and 10.0 will reduce the risk of effects to affected resources. As a result of implementing these design features, any potential effects to the affected resources are anticipated to be site-specific and/or not measurable (i.e. undetectable over the watershed, downstream, and/or outside of the project area).
- Floodplains and Riparian Areas: The selected action will have beneficial effects on floodplain habitat and on the river's ability to access its floodplain (Revised EA section 3.1.2.2).
- Fisheries and Aquatic Habitats: Implementation of project design features/project design criteria cited above will result in minimal effects to fish and aquatic habitat. Effects will be short term and will occur during the in-water work window when fish are less likely to be present in the project area. Long term benefits of aquatic restoration projects include reducing chronic impacts to fish and aquatic species habitats (Revised EA sections 3.1.2.2 and 3.6). See also “*Fish*” under FONSI bullet 9.
- Soils: Effects to soils will be unlikely to result in any reduction in soil productivity or disturb normal soil processes (Revised EA section 3.2).

- **Water Quality and Channel Function:** The planned alteration to channel morphology and hydraulics will directly increase habitat diversity, aquatic community complexity and structure, the diversity of aquatic organisms to the benefit of aquatic species, and improve water quality by stabilizing floodplains. Any increase in turbidity resulting from the project activities is expected to be limited to the location of the disturbance and very short-term (hours) (Revised EA section 3.2).
 - Deeper fill culvert replacement or removal in channels with surface flow requires that the site be isolated from the flowing water during the activity. This practice effectively prevents turbidity and sediment transport as flowing water is routed around the site. In-stream monitoring on Salem District has shown that increases in turbidity are short-term because of the limited area of disturbance, seasonal restrictions, and the application of other PDFs and BMP's.
 - Replacement of culverts requiring more than 20 feet of fill removal is not expected to change the effects to streams or water quality from what was described in the 2012 EA. Removing the 20 foot fill height restriction will reduce the potential for large fill failures by allowing culvert upgrades or removal at additional stream crossing sites where undersized or rusting culverts are buried in deep-fills.
 - In the long term, road improvements including culvert replacement or removal reduce both chronic and episodic erosion and sedimentation. Road improvements such as outsloping the road surface and installing cross drains and rolling dips reduce or eliminate chronic sources of road erosion and fine sediment delivery to stream channels at the replacement sites.
 - Required turbidity monitoring, as described in ARBO II (BO 2013-9664, section 1.3.1, #19) during project activities will maintain water quality during project activities.
- **Botany:** Surveys, as needed, will have occurred during the target species identification seasons and prior to implementation of restoration activities. Should botanical ESA listed species, special status and survey & manage species requiring management occur in habitats which may be affected by the proposed restoration, management actions or protection measures will be followed to prevent or minimize adverse impacts. Project design feature implementation will prevent or reduce direct impacts on the species at the project level.

The selected action will not contribute to the need to list any special status plant species due to the nature, duration and timing of the project (Revised EA section 3.3).

- **Invasive Plant Species:** Project design features to detect infestations on the project site through risk assessments, treat infestations prior to project implementation and implement prevention strategies will minimize the spread of existing invasive plant infestations and the introduction of new ones. Therefore, the selected action is not anticipated to increase the abundance or spread of invasive plants (Revised EA section 3.4).
- **Wildlife:** The selected action will not contribute to the need to list any special status wildlife species due to the nature, duration and timing of the site-specific projects (Revised EA sections 3.5). See also “*Wildlife*” under FONSI bullet 9.
- **Late Successional Stands and Wildlife Habitat Components (snags, CWD):** Late successional habitat will be maintained. Adequate amounts of CWD and snags will be maintained on site to meet or exceed Northwest Forest Plan /Salem District RMP requirements (Revised EA section 3.5).

2. *[40 CFR 1508.27(b) (2)] - The degree to which the proposed action affects public health or safety:* The selected action is unlikely to have significant adverse impacts on public health or safety because the project will implement project design features that include safety measures to prevent or reduce safety hazards (Revised EA section 2.3.2, 8.0, 9.0, 10.0).
3. *[40 CFR 1508.27(b) (3)] - Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:* The selected action is unlikely to have significant adverse impacts on unique characteristics of the geographic area for the following reasons:
 - All site-specific projects will be reviewed by a cultural resources specialist for the need to conduct cultural resource inventories prior to project implementation, resulting in compliance with this direction. The project will have no effect on this element because appropriate steps will be taken to identify, evaluate, mitigate and/or avoid adverse effects to cultural resources within the proposed project areas.
 - No site-specific projects will be located in jurisdictional wetlands, parklands, prime farmlands, or wilderness;
 - Any site-specific projects within ecologically critical areas (area of critical environmental concern - ACEC) or within a Wild and Scenic River corridor will be implemented consistent with the management direction for that designation.
4. *[40 CFR 1508.27(b) (4)] - The degree to which the effects on the quality of the human environment are likely to be highly controversial:* The selected action is not unique or unusual. The BLM has experience implementing aquatic and riparian restoration projects without highly controversial effects (Revised EA section 3.0).
5. *[40 CFR 1508.27(b) (5)] - The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks:* The effects associated as a result of the selected action do not have any uncertain, unique or unknown risks because the BLM has experience implementing similar actions in similar areas without these risks and project design features will minimize the risks associated with the selected action (Revised EA sections 2.3.2, 3.0). See # 4, above.
6. *[40 CFR 1508.27(b) (6)] - The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:* The selected action does not set a precedent for future actions that may have significant effects, nor does it represent a decision in principle about a future consideration. No hazardous materials or solid waste will be created in the project area. There will be no reduction in the amount of late-successional forest habitat on federal forestlands (NWFP p. C-44). The selected action will not retard or prevent the attainment of the ACS objectives (Revised EA section 3.7).
7. *[40 CFR 1508.27(b) (7)] - Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:* The interdisciplinary team evaluated the selected action in context of past, present and reasonably foreseeable actions. Potential cumulative effects are described in the Revised EA, section 3.0. The selected action contributes to cumulative effects to the following resources:

- **Water and Fisheries Resource:** The selected action will stabilize floodplains and facilitate the development of riparian forest stands to shade channels in order to maintain water quality. In addition, spawning and rearing habitat for threatened anadromous salmonids will improve in reaches downstream of the project as a result of improvement in water quality (Revised EA sections 3.1.2.3). The selected action is expected to cumulatively improve fisheries habitat and water quality over the long term.

The proposed habitat restoration actions in conjunction with past and planned future restoration actions will be expected to improve Critical Habitat for T&E fish species, Essential Habitat for coho salmon and Chinook salmon, and water quality (Revised EA sections 3.1.2.2 and 3.2.2.2). No adverse cumulative effects are expected as a result of the restoration actions for the following reasons: 1/ Any sediment increase resulting from in-channel work will be of short duration (hours) and largely restricted to the project area, 2/ the limited magnitude of the likely change in sediment levels resulting from the restoration actions.

Turbidity monitoring required by the 2012 EA has shown that the same methods used for both shallow and deeper fill culvert replacement projects have resulted in the same effects. There has not been a measureable or detectable adverse change to water quality or stream complexity detected (Revised EA p. 41-42). It is reasonable to presume that these types of projects will continue to occur over the next 10 years. Since the past history of these type of projects have shown a net improvement of the complexity and structure of the stream courses, and meet the designated DEQ Water Quality Management Plans and DEQ approved Water Quality Restoration Plans, there is no evidence that the type of projects included in the selected action will result in a cumulative adverse effect to water quality.

These types of projects will contribute to a long term reduction in turbidity and stream temperature.

All of these factors should act to reduce the amount of runoff that is being delivered to the stream courses, reduce the potential for an alteration of the storm runoff stream flow relationship, reduce the sediment enriched road runoff from being delivered to the stream courses and maintain a natural stability of the affected watersheds.

8. *[40 CFR 1508.27(b) (8)] - The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:* The site-specific projects implemented under the selected action will have no effect on historic or cultural resources because appropriate steps will be taken to identify, evaluate, mitigate and/or avoid adverse effects to cultural resources within the proposed project areas including districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (Revised EA section 3.6).
9. *[40 CFR 1508.27(b) (9)] - The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973:* The selected action is not expected to have significant effects to Endangered or Threatened Species or habitat under the Endangered Species Act (ESA) of 1973.

Wildlife: Consultation for aquatic restoration projects covered under this environmental assessment has been completed with the U.S. Fish and Wildlife Service. This consultation is documented in the Programmatic Consultation for Aquatic Habitat Restoration Activities in Oregon and Washington (BO 01EOFW00-2013-F-0090), issued on July 1, 2013.

The Biological Assessment determined that the effect call for these types of projects was “may affect, likely adversely affect” for northern spotted owls and marbled murrelets. This call was based on the region-wide projects’ potential disturbance from helicopters, heavy equipment, and chainsaws to young northern spotted owls during the critical nesting season (March 1- July 15). In addition, use of type 1 helicopters could disrupt nesting pairs within disruption distances during the entire breeding season. This call is also based on the region-wide projects’ potential disturbance to marbled murrelets during critical nesting season (April 5 –August 5) and the late breeding season (August 6 –September 15).

The Salem District proposed aquatic restoration projects will follow the terms and conditions of BO 01EOFW00-2013-F-0090 and the associated project design criteria. Implementation of the BLM project design features (Revised EA section 2.3.2) and the ARBO II project design criteria (Revised EA section 10.0 - p. 84-92, BO 01EOFW00-2013-F-0090, section 1.3.3) should reduce impacts to the point that the aquatic restoration projects proposed on Salem District are not likely to adversely affect spotted owls or marbled murrelets. The design features include avoiding known sites, following seasonal and daily time restrictions, and involving the local wildlife biologist in the design of the site-specific projects to avoid spotted owl and murrelet impacts.

Fish: Consultation for aquatic restoration projects covered under this environmental assessment has been completed with the National Marine Fisheries Service (NMFS), and is covered under the Biological Opinions NMFS:2013/NWP-2013-9664, and NMFS No. 2010/02700 (for fish passage culverts on fish-bearing streams within one mile of natural barriers to anadromy).

The Biological Assessments determined that the effect call for these types of projects was “may affect, likely adversely affect” for Upper Willamette River (UWR) steelhead trout, UWR Chinook salmon, Lower Columbia River (LCR) steelhead trout, LCR Chinook salmon, LCR Coho salmon, and Oregon Coast Coho salmon. This call was based on disturbance, minor increases in sediment, turbidity, and injury or death during work area isolation.

The Salem District proposed aquatic restoration projects will follow the terms and conditions of BOs NMFS: 2013/NWP-2013-9664 and NMFS No. 2010/02700. Implementation of the BLM project design features (Revised EA section 2.3.2) and the ARBO II project design criteria (Revised EA section 8.0 - p. 70-83, BO NMFS: 2013/NWP-2013-9664, sections 1.3.2, 1.3.3; Revised EA section 9.0, BO NMFS No. 2010/02700) should result in no long-term adverse effects of the restoration projects on ESA listed fish or their habitat because turbidity levels will return to background levels soon after cessation of in-water work.

Additionally, no sediment is expected to move from access routes to the river long-term because the routes will be revegetated upon completion of the project (Revised EA sections 2.3.2 and 3.2.2.2). Adult ESA fish will not be impacted because restoration work will be conducted during the in-water work period when adult ESA listed fish are absent from the project reach. Habitat quantity and quality for ESA fish will improve over the short to long term as a result of the restoration actions (Revised EA section 3.1.2). ESA Consultation is described in Revised EA section 6.1.2.

Eulachon: The selected action will have no effect on eulachon or its designated critical habitat due to the timing of eulachon migration and juvenile outmigration and the distance of project activities from their critical habitat (Revised EA sections 3.1 and 6.1.2).

10. [40 CFR 1508.27(b) (10)] - *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment*: The selected action does not violate any known Federal, State, or local law or requirement imposed for the protection of the environment. The selected action is consistent with other Federal agency and State of Oregon land use. Any permit requirements associated with the implementation of this project will be obtained and complied with. Project design features will assure that potential impacts to water quality will be in compliance with the State of Oregon In-stream Water Quality Standards and thus the Clean Water Act (Revised EA sections 1.3, 3.2 and 8.0). Additionally, the selected action is consistent with applicable land management plans, policies, and programs (Revised EA section 1.3).

Approved by: Kim M. Titus
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Salem District Manager

5/13/16
Date