

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Environmental Assessment and Statement of Findings for the Above-Referenced Regional General Permit

This document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, as applicable, Public Interest Review, and Statement of Findings for the subject application.

- 1.0 Introduction and Overview:** Information about the proposal subject to one or more of the U.S. Army Corps of Engineers' (Corps) regulatory authorities is provided in Section 1, detailed evaluation of the activity is found in Sections 2 through 11 and findings are documented in Section 12 of this memorandum.
- 1.1 Applicant: U.S. Forest Service (USFS) and Bureau of Land Management (BLM)
- 1.2 Activity location: Project-specific actions authorized under this RGP would occur on USFS and BLM administered lands within the state of Oregon. Projects may also occur on non-federal lands when those projects directly assist USFS and/or BLM in achieving their aquatic restoration goals and are funded in part by USFS and BLM. USFS and BLM are permitted to fund such projects under Wyden Amendment authority (16 U.S.C. 1011(a), as amended by Section 136 of Public Law 105-277).
- 1.3 Description of activity requiring permit: USFS and BLM are requesting a two-year reauthorization of RGP-4 without modifications. This will allow USFS and BLM to continue aquatic habitat restoration activities while a larger proposal to modify RGP-4 is being evaluated by the Corps. The aquatic habitat restoration activities are designed to maintain, enhance, create, and/or restore watershed functions to benefit fish species, other aquatic organisms, water quality, riparian areas, floodplains, and wetlands.

RGP-4 has been designed so that individual actions proposed for authorization under the general permit will need minimal evaluation by the Corps. USFS/BLM must notify the Corps of each individual action prior to construction. Upon receipt of the notification, the Corps conducts a review of the action to determine if it complies with the terms and conditions of RGP-4 and if so, provides a letter verifying the project fits the terms and conditions of RGP-4. The conservation measures, design criteria, and removal/fill limits were added to the RGP up front to ensure all future actions authorized by the permit would have no more than minimal impacts to the aquatic environment. Project-specific determinations of minimal impacts are not made if a project complies with the overall permit criteria.

USFS/BLM propose to implement no more than 170 individual projects each year (total for both agencies) under 11 aquatic restoration activity categories. A general discussion of each activity category is provided below. The program administration requirements and general aquatic conservation measures that apply to all 11 activity categories, as well as the category-specific project design criteria and removal/fill thresholds, are provided in Appendix 2 of the permit instrument. For each individual project proposed to be implemented under this RGP, USFS and BLM would notify the Corps 60 days prior to the proposed start date. Notification would include project location, projected start and completion dates, activity type, and a brief project description.

a. Fish Passage Restoration. This category would include total removal of culverts or bridges; replacing culverts or bridges with properly sized culverts and bridges; replacing a damaged culvert or bridge; resetting an existing culvert that was improperly installed or damaged; and stabilizing and providing passage over headcuts. Such projects would take place where fish passage has been partially or completely eliminated through road construction and stream degradation. Machinery such as excavators, bull dozers, dump trucks, front-end loaders, and similar equipment may be used to implement projects.

b. Large Wood, Boulder, and Gravel Placement. This category would include large wood (LW) and boulder placement, porous boulder weirs and vanes, gravel placement, and tree removal for LW projects. Such activities would occur in areas where complex channel structure is lacking due to past stream cleaning (LW removal), riparian timber harvest, and in areas where natural gravel supplies are low due to anthropogenic disruptions. These projects would occur in stream channels and adjacent floodplains to increase channel stability, rearing habitat, pool formation, spawning gravel deposition, channel complexity, hiding cover, low velocity areas, and floodplain function. Machinery such as helicopters, excavators, dump trucks, front-end loaders, full-suspension yarders, and similar equipment may be used to implement projects.

c. Legacy Structure Removal. This category would include actions to remove large wood, boulders, rock gabions, and other in-channel structures that were constructed to improve fish habitat, but were installed in a manner that was and continues to be inappropriate for the given stream type. Removal of legacy structures would include the use of excavator-type machinery, spiders, backhoes, and dump trucks.

d. Off- and Side-Channel Habitat Restoration. Projects would be implemented to reconnect historic side-channels with floodplains by removing off-channel fill and plugs. New side-channels and alcoves may also be constructed in

geomorphic settings that would accommodate such features. This activity category typically applies to areas where side channels, alcoves, and other backwater habitats have been filled or blocked from the main channel, disconnecting them from most if not all flow events. Machinery such as excavators, bull dozers, dump trucks, front-end loaders, and similar equipment may be used to implement projects.

e. Streambank Restoration. Projects would be implemented through bank shaping and installation of coir logs or other soil reinforcements as necessary to support riparian vegetation; installing large wood; planting trees, shrubs, and herbaceous cover as necessary to restore ecological function in riparian and floodplain habitats; or a combination of the above methods. Such actions are intended to restore banks that have been altered through road construction, improper grazing, invasive plants, and more. Machinery such as excavators, bull dozers, dump trucks, front-end loaders, and similar equipment may be used to implement projects.

f. Set-back or Removal of Existing Berms, Dikes, and Levees. Projects would be conducted to reconnect historic fresh-water deltas to inundation and stream channels with floodplains as a means to increase habitat diversity and complexity, moderate flow disturbances, and provide refuge for fish during high flows. Other restored ecological functions include overland flow during flood events, dissipation of flood energy, increased water storage to augment low flows, sediment and debris deposition, growth of riparian vegetation, nutrient cycling, and development of side channels and alcoves. Such projects would take place where floodplains have been disconnected from adjacent rivers through drain pipes and anthropogenic fill. Machinery such as excavators, bull dozers, dump trucks, front-end loaders, and similar equipment may be used to implement projects.

g. Reduction/Relocation of Recreation Impacts. This activity category would close, better control, or relocate recreation infrastructure and use along streams and within riparian areas. Projects would include removal, improvement, or relocation of infrastructure associated with designated campgrounds, dispersed camp sites, day-use sites, foot trails, and off-road vehicle (ORV) roads/trails in riparian areas. The primary purpose is to eliminate or reduce recreational impacts to restore riparian areas and vegetation, improve bank stability, and reduce sedimentation into adjacent streams. Machinery such as excavators, bull dozers, dump trucks, front-end loaders, and similar equipment may be used to implement projects.

h. Livestock Fencing, Stream Crossings and Off-Channel Livestock Watering Facilities. Projects would be implemented by constructing fences to exclude

riparian grazing, providing controlled access for walkways that livestock use to transit across streams and through riparian areas, and reducing livestock use in riparian areas and stream channels by providing upslope water facilities. Such projects promote a balanced approach to livestock use in riparian areas, reducing livestock impacts to riparian soils and vegetation, streambanks, channel substrates, and water quality. Machinery such as excavators, bull dozers, dump trucks, front-end loaders, and similar equipment may be used to implement projects.

i. Road and Trail Erosion Control and Decommissioning. This category would include hydrologically closing or decommissioning roads and trails by methods such as culvert removal in perennial and intermittent streams; removing, installing or upgrading cross-drainage culverts; upgrading culverts on non-fish-bearing streams; constructing water bars and dips; reshaping road prisms; vegetating fill and cut slopes; removing and stabilizing side-cast materials; grading or resurfacing roads that have been improved for aquatic restoration with gravel, bark chips, or other permeable materials; contour shaping of the road or trail base; removing road fill to native soils; soil stabilization; and tilling compacted surfaces to reestablish native vegetation. Such actions would target priority roads that contribute sediment to streams, block fish passage, and/or disrupt floodplain and riparian functions. Machinery such as excavators, bull dozers, dump trucks, front-end loaders, and similar equipment may be used to implement projects.

j. Juniper Tree Removal. This activity would be implemented in riparian areas and adjoining uplands to help restore plant species composition and structure to that which would occur under natural fire regimes. Juniper tree removal would occur in those areas where juniper have encroached into riparian areas as a result of fire exclusion, thereby replacing more desired riparian plant species such as willow, cottonwood, aspen, alder, sedge, and rush. The work would improve ground cover and water infiltration into the soils. Equipment may include chainsaws, pruning shears, winch machinery, feller-bunchers, and slash-busters.

k. Riparian Vegetation Planting. This activity would include the planting of native riparian species that occur under natural disturbance regimes. Activities may include the following: planting conifers, deciduous trees and shrubs; placement of sedge and or rush mats; gathering and planting willow cuttings. The resulting benefits to the aquatic system can include desired levels of stream shade, bank stability, stream nutrients, large wood inputs, increased grasses, forbs, and shrubs, and reduced soil erosion. Equipment may include excavators, backhoes, dump trucks, power augers, chainsaws, and manual tools.

- 1.3.1 Proposed avoidance and minimization measures: Conservation measures, project design criteria, and removal/fill thresholds have been added to minimize impacts to aquatic resources. These measures, detailed in Appendix 2 Parts C, D, and E, include working during the appropriate in-water work period; adhering to fish passage requirements; and isolating construction areas and removing any trapped fish. Individual activity categories contain specific design criteria, fill/removal thresholds, and project length restrictions if appropriate.
- 1.3.2 Proposed compensatory mitigation: Mitigation was not proposed by USFS and BLM as part of the request for reauthorization of RGP-4 and will not be required. The projects to be authorized under RGP-4 are habitat restoration actions with the intent of providing a net environmental benefit to the aquatic system. Overall, actions authorized by RGP-4 are not expected to result in losses to waters of the United States.
- 1.4 Existing conditions and any applicable project history: Aquatic habitat restoration projects would be located throughout Oregon in the Deschutes, John Day, Klamath, Lower Columbia, Lower Snake, Middle Columbia, Middle Snake/Boise, Middle Snake/Powder, Northern Oregon Coastal, Oregon Closed Basins, Southern Oregon Coastal, and Willamette Basins (3rd Field HUCs). Since projects authorized under this RGP will occur statewide, and in each of Oregon's ten ecoregions, existing conditions are summarized below by ecoregion.

a. Basin and Range. The Basin and Range ecoregion includes a large portion of southeastern Oregon and is the least populated area of the State. This ecoregion is Oregon's high desert, and contains numerous flat basins separated by isolated, generally north-south mountain ranges. Malheur Lake is the major drainage basin in this arid ecoregion. Runoff from precipitation and mountain snowpacks and basins often flows into flat, alkaline playas, where it forms seasonal shallow lakes and marshes. The terrestrial landscape is open and treeless, plants are widely spaced, and soils are exposed to the elements. The Basin and Range ecoregion contains many diverse habitats. The most significant are the sagebrush steppe types, salt desert scrub, and riparian and wetland types, as well as mountain mahogany and aspen woodlands.

b. Blue Mountains. The Blue Mountains ecoregion occupies most of northeastern Oregon and encompasses three major ranges: the Ochoco, Blue, and Wallowa Mountains. Deep, rock-walled canyons, glacially cut gorges, dissected plateaus, and broad alluvial river valleys characterize the landscape. Extreme changes in elevation across the ecoregion result in broad temperature and precipitation ranges, supporting habitat diversity second only to the Klamath Mountains ecoregion. Vegetation in the lowland areas consists of bunchgrasses, sagebrush, and juniper. Ponderosa pine and juniper woodlands are

characteristic of mid-elevation areas; mixed coniferous forests dominating higher altitudes and north-facing slopes at mid-elevations. Extensive grasslands occur in and north of the Wallowa Mountains.

c. Coast Range. The Coast Range ecoregion extends the entire length of the Oregon coastline as a narrow, jumbled mountain range from the edge of the Pacific Ocean to the Willamette Valley and Klamath Mountains. Along the north coast, cliffs and grassy headlands are separated by stretches of flat coastal plain and estuaries. A broad coastal terrace characterizes much of the south coast, punctuated by steep headlands, inland lakes, and rocky offshore islands. The region's marine climate causes the wettest habitats in the State, including temperate rainforests, which are some of the most productive forests in the world.

d. Columbia Basin. The Columbia Basin ecoregion is semi-arid, with cold winters and hot summers. Farther from the Columbia River, annual precipitation decreases and soil changes from sandy deposits to windblown silts. Most of the ecoregion receives less than 15 inches (38 centimeters (cm)) of precipitation per year, mostly in the form of snow. Much of the ecoregion's natural vegetation is native bunchgrass prairie. Sandy deposits along the big bend of the Columbia River have created open dunes and areas of shrub-steppe and western juniper. The rivers were once lined with intermountain riparian vegetation, such as black cottonwood, willows, chokecherry, and aspen, and wetlands were located throughout the plateau. Fire was a natural component of this ecoregion, though the fire recurrence interval is not as clear as in other ecoregions.

e. East Cascades Slope and Foothills. The East Cascades ecoregion is geologically young, with lava flows, volcanic vents, and a mantle of pumice soil. Ponderosa pine forests predominate, with extensive stands of lodgepole pine on deep Mazama ash. The ecoregion is a transition zone that extends from below the crest of the Cascade Range east to where the pine forests intersect with sagebrush juniper steppe. The northern two-thirds of the East Cascades ecoregion is drained by the Deschutes River system, which includes a series of large lakes and reservoirs near its headwaters high in the Cascade Mountains. The southern third is drained by the Klamath River, which rises from a vast interior wetland before it flows south and west into California. Forests, mostly federally owned, cover most of the region's uplands, with privately owned agricultural land in the valleys.

f. Klamath Mountains. Many plant communities (Douglas-fir forests, oak woodlands, and ponderosa pine woodlands) have changed significantly since fire suppression was widely instituted in the early 20th century, although the plant communities of the Klamath Mountains continue to be among the most diverse in

the world. There are pockets of plant communities that occur nowhere else, endemic to a particular condition of the climate or soil type. Of the 4,000 kinds of native plants found in Oregon, about half are found in this ecoregion, and about a quarter of these are found only here.

g. High Lava Plains. The High Lava Plains ecoregion is located in the dry foothills that surround the western perimeter of the Blue Mountains, and separates the north-central Blue Mountains from the southern Blue Mountains and Ochoco Mountains. The drainage basins in this ecoregion are the John Day, the Goose and Summer Lakes, the Malheur Lakes, and the Deschutes. The land use in this ecoregion is primarily irrigated pasture, grazing, and recreation.

h. Owyhee Uplands. The Owyhee Uplands ecoregion is located in the southeastern section of Oregon. This ecoregion is similar to the adjacent Basin and Range ecoregion in vegetation; however, it differs markedly in terrain, as the landscape is basically a broad, undulating plateau cut by deep riverine canyons. The Owyhee River and the lower basin of the Malheur River generally drain north through these canyons and to the Snake River Basin located at the border of Oregon and Idaho.

i. West Cascade Mountains Ecoregion. The West Cascade Mountains ecoregion is a mountainous spine of volcanic peaks and dense forests. Relatively few people live in the area, which is geologically composed of two parts. The older western Cascade Mountains feature long ridges with steep sides and wide, glaciated valleys-remnants of long-extinct volcanoes. The younger high Cascades to the east include more than a dozen major peaks formed from more recent volcanic activity. Most of the rivers draining the northern two-thirds of the ecoregion flow into the Willamette Valley and then to the Columbia River system; the southern third drains to the Pacific Ocean through the Umpqua and Rogue River systems.

j. Willamette Valley. The Willamette Valley ecoregion is defined by the Willamette River and Oregon's largest river valley. The river's upper reaches and much of its watershed lie in the Cascade Mountains and Coast Range beyond the ecoregion borders. The ecoregion itself is characterized by broad alluvial flats and low basalt hills, with soils of deep alluvial silts from river deposits, and dense heavy clays from fluvial deposits in the valley bottom's numerous oxbow lakes and ponds. This ecoregion has 70% of the State's population, the majority of its industry, and almost half of its farmland. The Willamette Valley ecoregion is largely in private ownership; agriculture, urban areas, and forestland dominate the landscape.

1.5 Permit Authority: Section 10 of the Rivers and Harbors Act (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

2.0 Scope of review for National Environmental Policy Act (i.e. scope of analysis), Section 7 of the Endangered Species Act (i.e. action area), and Section 106 of the National Historic Preservation Act (i.e. permit area)

2.1 Determination of scope of analysis for National Environmental Policy Act (NEPA):

The scope of analysis includes the specific activity requiring a Department of the Army permit. Other portions of the entire project are included because the Corps does have sufficient control and responsibility to warrant federal review.

Final description of scope of analysis: During the initial development of RGP-4, the evaluation considered the overall construction of a restoration project, including staging, site preparation, and temporary access, to determine the conservation measures necessary to ensure minimal impacts for project-specific actions. The scope of analysis, therefore, includes all activities necessary to complete the site-specific aquatic habitat restoration activity as all of the pieces are key to the overall project success. Aside from the Corps regulatory authority, USFS and BLM will have control over all projects to be authorized by RGP-4 (including those authorized through the Wyden Amendment) either by way of project design, funding, or oversight. Therefore, all aspects of the project are subject to federal control and responsibility.

2.2 Determination of the “Corps action area” for Section 7 of the Endangered Species Act (ESA): Projects will occur in waters of the U.S., as defined in 33 CFR 328.3, on lands administered by USFS and BLM in the state of Oregon. Work may also occur on non-federal lands under the Wyden Amendment if such projects assist USFS/BLM in meeting their restoration goals. The effects determination and scope of analysis will be made for each project by USFS and BLM. Each project will be evaluated for the potential to affect protected species and/or their habitat including designated critical habitat.

2.3 Determination of permit area for Section 106 of the National Historic Preservation Act (NHPA):

The permit area includes those areas comprising waters of the United States that will be directly affected by the proposed work or structures, as well as activities outside of waters of the U.S. because all three tests identified in 33 CFR 325, Appendix C(g)(1) have been met.

Final description of the permit area: The permit area includes the aquatic restoration activities within waters of the U.S. and any associated work in uplands or adjacent floodplain areas.

3.0 Purpose and Need

- 3.1 Purpose and need for the project as provided by the applicant and reviewed by the Corps: Improve or restore aquatic habitats.
- 3.2 Basic project purpose, as determined by the Corps: Restoration.
- 3.3 Water dependency determination: The activity does not require access or proximity to or siting within a special aquatic site to fulfill its basic purpose. Therefore, the activity is not water dependent.
- 3.4 Overall project purpose, as determined by the Corps: To conduct habitat restoration projects implemented, funded, or overseen by USFS and/or BLM within the state of Oregon.

4.0 Coordination

- 4.1 The results of coordinating the proposal on Public Notice (PN) are identified below, including a summary of issues raised, any applicant response and the Corps' evaluation of concerns.

Were comments received in response to the PN? Yes

Were comments forwarded to the applicant for response? Yes

Was a public meeting and/or hearing requested and, if so, was one conducted?
No, a public hearing or meeting was not requested.

Comments received in response to public notice:

Comment 1: U.S. Fish and Wildlife Services (USFWS); USFWS provided comments by email dated March 16, 2020 which included conservation recommendations for lamprey and native freshwater mussels. USFWS indicated that biological considerations of lamprey should be incorporated into project design criteria, objectives, salvage and best management practices. They cited several guidance documents to assist in this effort. USFWS requested notification of the implementation of any of the suggested conservation recommendations. USFWS also recommended the same considerations be given for native freshwater mussels for all in-stream or near-stream projects.

Applicant's Response: USFS and BLM indicate their biologists and hydrologists have local knowledge of lamprey and mussel presence on federal lands and work to minimize impacts on all fish species for all restoration actions. They point to Appendix 2, Section C (General Aquatic Conservation Measures), Part 4 which states "[to] the extent possible, incorporate lamprey BMPs found in Best Management Practices to Minimize Adverse Effects to Pacific Lamprey, *Entosphenus tridentatus* (USFWS 2010), and other native lamprey species." This was one of the references cited in the USFWS comments.

BLM also indicates that Ms. Emilie Blevins has discussed mussel conservation measures with their staff on several occasions and most restoration practitioners have started incorporating these measures into their projects. Ms. Blevins is an Endangered Species Conservation Biologist with the Xerces Society specializing in freshwater mussels and has co-authored several of the mussel references cited by USFWS.

Corps Evaluation: As noted above, Appendix 2 of the permit requires incorporating USFWS lamprey BMPs to the extent possible. However, additional conditions are not necessary to satisfy legal requirements or to otherwise satisfy the public interest requirement.

Comment 2: The Treated Wood Council (TWC) and Western Wood Preservers Institute (WWPI) TWC and WWPI expressed concern by letter dated March 12, 2020, that RGP-4 restricts or prohibits the use of treated wood as part of the construction of bridges in the Fish Passage Restoration category and in association with the construction of fences within waterways or wetlands in the Livestock Fencing, Stream Crossings and Off-Channel Livestock Watering Facilities category. They note the public notice references both the NMFS and USFWS programmatic biological opinions to support the treated wood prohibitions. TWC/WWPI indicate that both Services cite an April 5, 2001 White Paper by Ted Poston titled *Treated Wood Issues Associated with Overwater Structures in Marine and Freshwater Environments* to ultimately recommend that treated wood should be avoided. TWC/WWPI note that the paper also provides mitigating measures that would allow for the use of treated wood while minimizing adverse effects to the aquatic environment.

TWC/WWPI recommend that the Corps delete language in RGP-4 that prohibits the use of treated wood and instead add language that allows treated wood use provided certain best management practices are used (e.g., following EPA label requirements).

Applicant's Response: USFS and BLM are willing to consider changes in the upcoming proposal to modify RGP-4 that would allow more use of treated wood where appropriate.

Corps Evaluation: The 2015 RGP-4 permit instrument does not contain language directly prohibiting the use of treated wood. Rather, the RGP requires compliance with the General Aquatic Conservation Measures; and Activity Category Project Descriptions, Design Criteria, and Removal and Fill Limits specified in Appendix 2. Appendix 2 contains the limitations on the use of treated wood and guides work ultimately conducted under both RGP-4 and the Oregon Department of State Lands (DSL) comparable general permit (GP-42104). Some of the conservation measures and removal/fill thresholds resulted from the state and federal coordination efforts during the 2015 permit reauthorization process; other measures were included to ensure consistency with the NMFS and USFWS programmatic biological opinions (Aquatic Restoration Biological Opinion (ARBO) II) covering these actions (see Section 10.1).

The opinions from both Services contain similar language regarding the use of treated wood where debris from such wood may come into contact with waters. Both opinions prohibit the use of treated wood for bridge construction or replacement projects. In order to allow the use treated wood per recommendations by TWC/WWPI, changes would need to be made to both the Corps RGP-4 and DSL GP-42104 permit instruments (i.e., Appendix 2) as well as the NMFS/USFWS ARBO II programmatic opinions. See Section 1.3 regarding the overall review process for individual RGP-4 actions.

Due to the time required to make any changes to the NMFS/USFWS ARBO II programmatic opinions, the Corps will consider these proposed modifications to the permit instrument as part of the overall proposal to modify RGP-4, which is an action separate from this current reissuance proposal. The Corps discussed this approach with the TWC and also recommended they provide their comments to DSL. TWC is receptive to coordinating their proposed treated wood language changes as part of the RGP-4/GP-42104 modification effort and has reached out to DSL to start the needed conversations at the state level.

Additional discussion of submitted comments, applicant response and/or Corps' evaluation: N/A

4.1.1 Were additional issues raised by the Corps including any as a result of coordination with other Corps offices? No

If yes, provide discussion including coordination of concerns with the applicant, applicant's response and Corps' evaluation of the response: N/A

- 4.1.2 Were comments raised that do not require further discussion because they address activities and/or effects outside of the Corps' purview? No

If yes, provide discussion: N/A

4.2 Tribal Coordination

No comments were received from any tribes.

- 5.0 Alternatives Analysis** (33 CFR Part 325 Appendix B(7), 40 CFR 230.5(c), 40 CFR 230.10(b)(1), and 40 CFR 1502.14. An evaluation of alternatives is required under NEPA for all jurisdictional activities. An evaluation of alternatives is generally required under the Section 404(b)(1) Guidelines for projects that include the discharge of dredged or fill material. However, the consideration of alternatives under the Section 404(b)(1) Guidelines is not directly applicable to general permits (40 CFR 230.7(b)(1)). NEPA requires discussion of a reasonable range of alternatives, including the no action alternative, and the effects of those alternatives; under the Guidelines, practicability of alternatives is taken into consideration and no alternative may be permitted if there is a less environmentally damaging practicable alternative.

- 5.1 Site selection/screening criteria: In order to be practicable, an alternative must be available, achieve the overall project purpose (as defined by the Corps), and be feasible when considering cost, logistics and existing technology.

Criteria for evaluating alternatives as evaluated and determined by the Corps: Criteria used to evaluate alternatives include 1) conducting specific projects in watersheds determined to have a priority need for aquatic restoration (based on Federal/State fish recovery plans, USFS/BLM aquatic conservation strategies, and a watershed's restoration potential) and 2) conducting actions that provide long-term benefits to the aquatic environment while not considerably impacting other natural resources.

5.2 Description of alternatives.

5.2.1 No action alternative: Under the no action alternative, RGP-4 would not be reauthorized and the Corps would need to rely on existing permitting processes (i.e. nationwide permits, other existing general permits, or standard permits) to evaluate aquatic habitat restoration projects proposed by USFS/BLM. While this option is a viable alternative, it does not meet one of USFS/BLM goals of providing a streamlined approach to the review of these types of projects, which result in project cost savings (in the form of person-hours) that are then directed to other agency priority efforts. Also, without having RGP-4 in place, the Corps may not be able to review projects as quickly, which could result in less restoration projects being implemented.

5.2.2 Off-site alternatives.

Under the Clean Water Act Section 404(b)(1) Guidelines, the consideration of offsite alternatives does not apply to specific projects authorized by general permits. Furthermore, the scope of the RGP is limited to aquatic habitat restoration actions on lands administered by USFS/BLM or on non-federal lands as specifically allowed under the Wyden Amendment Authority such that off-site alternatives are not reasonable alternatives under NEPA.

5.2.3 On-site alternatives.

During the 2015 RGP-4 reauthorization process, other project designs for the RGP were considered that included both larger and smaller projects; however, the RGP was ultimately developed to be as consistent as possible with both the USFWS and NMFS ARBOs for greatest efficiency while still ensuring minimal impacts to the aquatic environment.

In April 2019, USFS and BLM began discussing potential modifications to RGP-4 in anticipation of the permit expiration in April 2020. This current reissuance of the RGP is proposed to occur with no modifications to allow restoration efforts to continue while the Corps evaluates the proposed permit modifications.

5.3 Evaluate alternatives and whether or not each is practicable under the Guidelines or reasonable under NEPA: The no action alternative would not achieve the purpose and need of the RGP. In the absence of this RGP, individual projects would need to be evaluated, which requires substantial additional resources for the USFS, BLM, and the Corps.

5.4 Least environmentally damaging practicable alternative under the 404(b)(1) Guidelines (if applicable) and the environmentally preferable alternative under NEPA: The least environmentally damaging practicable alternative is to issue the RGP as proposed.

6.0 Evaluation for Compliance with the Section 404(b)(1) Guidelines. The following sequence of evaluation is consistent with 40 CFR 230.5.

The 404(b)(1) Guidelines at 40 CFR 230.7(a) state: “A General permit for a category of activities involving the discharge of dredged or fill material complies with the Guidelines if it meets the applicable restrictions on the discharge in § 230.10 and if the permitting authority determines that:

a. The activities in such category are similar in nature and similar in their impact upon water quality and the aquatic environment”.

Corps Evaluation: Impacts of one specific activity type may differ from another (e.g., the placement of wood has different impact considerations than culvert removal). To ensure impacts are minimal, the Corps has identified a specific set of limitations and terms and conditions for each activity type. These criteria specify how individual actions are to be designed so that impacts are predictable, no matter where the action occurs, and result in no more than minimal individual and cumulative adverse effects on the aquatic environment.

The activities authorized by RGP-4 are sufficiently similar in nature and environmental impact to warrant authorization by a general permit. The terms of RGP-4 will authorize a specific category of activities (i.e., discharges of dredged or fill material for aquatic habitat restoration activities conducted on lands administered by USFS/BLM) in a specific category of waters (i.e., waters of the United States). The limitation on the scopes of activities covered, and the restrictions imposed by the terms and conditions of this RGP, will result in the authorization of activities that have similar impacts on the aquatic environment, namely aquatic habitat restoration activities.

If a situation arises in which a specific action requires further review, or is more appropriately reviewed under the individual permit process, provisions of this RGP allows the district engineer to take such action.

b. “The activities in such category will have only minimal adverse effects when performed separately.”

Corps Evaluation: General aquatic conservation measures have been developed that will apply to all activity types to minimize adverse effects to the aquatic

environment. In addition, each specific activity type has project design criteria, maximum removal/fill thresholds, and exclusions for project types that are known to be more complex, could potentially have greater adverse effects, or would be located in environmentally sensitive areas (e.g., estuaries). To further ensure minimal adverse effects, the RGP requires USFS/BLM to notify the Corps prior to project implementation through the submittal of a pre-construction notification (PCN). This PCN provides project-specific information that allows the Corps to verify the project complies with the requirements of the RGP and determine if further review is warranted.

c. "The activities in such category will have only minimal cumulative adverse effects on water quality and the aquatic environment."

Corps Evaluation: On a statewide basis, USFS and BLM propose to conduct no more than 170 projects (total for both agencies) each year under the reauthorization of this RGP. The total number of projects that could be implemented during the construction seasons of the two year authorization (2020 through 2022) is 340. The actual number of projects completed in any given year or during the two-year life of the RGP is, however, entirely subject to funding and may be less than the upper limits stated above. During the construction period of 2015 through 2019 for example, only 414 projects statewide were implemented under the existing RGP-4. The Corps has determined the activities proposed to be authorized by RGP-4 will result in no more than minimal cumulative adverse effects to the aquatic environment given that individual projects (i) are constructed in streams throughout the state, (ii) are conducted in watersheds determined to have a priority need for aquatic restoration (based on Federal/State fish recovery plans, USFS/BLM aquatic conservation strategies, a watershed's restoration potential, and other factors), (iii) include conservation measures, project design criteria, and maximum fill/removal thresholds for all activities, and (iv) will have an overall net environmental benefit. The Oregon Department of Environmental Quality (DEQ) has issued Water Quality Certification (WQC) for RGP-4 (24 July 2020) and determined that implementation of the project will be consistent with applicable provisions of the CWA, state water quality standards (OAR Chapter 340 Division 41), and other appropriate requirements of state law provided the water quality certification conditions are incorporated into RGP-4 and adhered to by USFS/BLM.

If a situation arises in which a specific action requires further review, or is more appropriately reviewed under the individual permit process, provisions of the RGP allow the district engineer to take such action.

Based on the evaluation of the applicable restrictions on the discharge and the activities proposed for authorization under this General permit, as required by 40

CFR 230.7, the Corps has determined the reauthorization of RGP-4 complies with the 404(b)(1) Guidelines' conditions for the issuance of General permits.

- 6.1 Practicable alternatives to the proposed discharge consistent with 40 CFR 230.5(c) are evaluated in Section 5. The statements below summarize the analysis of alternatives.

In summary, based on the analysis in Section 5.0 above, the no-action alternative, which would not involve discharge into waters, is not practicable.

For those projects that would discharge into a special aquatic site and are not water dependent, the applicant has demonstrated there are no practicable alternatives that do not involve special aquatic sites.

It has been determined that there are no alternatives to the proposed discharge that would be less environmentally damaging (Subpart B, 40 CFR 230.10(a)). The proposed discharge in this evaluation is the practicable alternative with the least adverse impact on the aquatic ecosystem, and it does not have other significant environmental consequences.

- 6.2 Candidate disposal site delineation (Subpart B, 40 CFR 230.11(f)). Each disposal site shall be specified through the application of these Guidelines:

Discussion: The proposed project is the LEDPA and demonstrates compliance with the Guidelines as detailed in Sections 6.3 through 6.9 below.

- 6.3 Potential impacts on physical and chemical characteristics of the aquatic ecosystem (Subpart C 40 CFR 230.20). See Table 1:

Table 1 – Potential Impacts on Physical and Chemical Characteristics						
Physical and Chemical Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Substrate				X	X	
Suspended particulates/ turbidity				X		
Water				X		
Current patterns and water circulation				X	X	
Normal water fluctuations			X			

Table 1 – Potential Impacts on Physical and Chemical Characteristics						
Physical and Chemical Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Salinity gradients			X			

Discussion:

a. Substrate: The projects would have both short and long term effects on aquatic resource substrate. Substrate of the streambeds and adjacent floodplains may be altered but the intent is to mimic natural conditions at the project site at project completion. The overall impact of this change to the substrate will result in a net environmental benefit. During construction activities, the native substrate may be temporarily impacted in the project work area. The earth moving equipment may temporarily alter the native substrate; however, restoring the site back to its original conditions will minimize these adverse effects to the substrate. General Conservation Measure 12 (Site Restoration) requires rehabilitating disturbed areas "in a manner that results in similar or better than pre-work conditions..." and also has requirements for revegetation. In the case of some activities, such as removal of floodplain overburden, reduction of recreation impacts, and road and trail decommissioning, the intent is to remove existing structures (roads, camp sites and foot trails, and mine tailings) and restore natural stream and riparian substrate. Activity-specific design criteria are in place to ensure natural or near-natural conditions are in place at the time of project completion.

b. Suspended particulates/turbidity: All projects will result in short-term stream turbidity to varying degrees. Projects under the Fish Passage Restoration activity (specifically culvert removals and replacements) will likely result in the most sediment release into stream channels during project implementation. In these cases, large amounts of sediment may have accumulated above the blockage feature (culvert). The stream will be diverted to allow for in-channel construction activities, and the subsequent reintroduction of stream flow into the channel may lead to the most sediment releases compared to other restoration projects.

c. Water: The projects would have short term impacts on water temperature and quality. Stream temperature may be directly affected by the Juniper Removal activity. Juniper will be removed in riparian areas where that species has displaced more desired riparian plants, such as sedge, rush, willow, alder, aspen, and cottonwood. As a result, stream temperatures may increase slightly after juniper removal from the resulting decrease in shade. However, stream temperatures are expected to return to pre-project values with reestablishment of desired riparian plants and associated shade. To minimize temperature impacts, BLM and USFS will apply conservation measures and practices, as described in

Appendix 2, and through the use of project design criteria and removal/fill limits provided for individual aquatic restoration categories.

Petroleum based fuels or lubricants may leak or spill into stream channels from heavy machinery used to conduct aquatic restoration projects. To minimize such occurrences, each project will be guided by Pollution and Erosion Control Plans, as described in Appendix 2 C.8. This plan will contain procedures to reduce the risk of spills along with containment plans if spills do occur. In addition, staging areas where heavy equipment is stored, fueled, and cleaned are to occur outside of the riparian zone and daily inspection is required before leaving the staging area. The conservation measures and practices described in Appendix 2 provide specific guidance as to ways such impacts will be avoided or minimized.

The water quality performance standards in the 401 Water Quality Certification will avoid and minimize general project effects to water quality during construction.

d. Current patterns and water circulation: The projects would have both short and long term effects on water patterns and circulation. The aquatic restoration projects will be designed and implemented in such a manner as to enhance or restore natural hydrologic regimes or patterns. Projects are not intended to restrict stream flows or increase velocities in such a manner as to result in adverse flood impacts to downstream landowners. This RGP authorizes the removal of culverts, which are currently acting as fish barriers. Removal of these barriers may alter the existing currents, circulation, and drainage patterns of the channel - design criteria require restoring natural drainage patterns. However, removing these barriers will result in a net aquatic environmental benefit by reducing scouring and other detrimental effects these barriers may have on the aquatic environment.

Removal of legacy structures is also expected to have a positive benefit on natural stream functions. During the 1980s and early 1990s, many habitat-forming structures, such as log weirs, boulder weirs, and gabions, were placed in an effort to create pool habitat. Many of these structures were placed in a manner that interfered with natural stream function and have continually degraded stream habitat since their installation (USFWS 2007). These legacy structures typically led to widened stream channels, increased width/depth ratios, decreased sinuosity, and increased stream exposure to solar radiation.

e. Normal water fluctuations: Because this RGP focuses on restoration activities, the Corps anticipates the authorized activities will not adversely affect normal patterns of water level fluctuations due to tides and flooding. Activity categories such as Set-back or Removal of Existing Berms, Dikes, and Levees or Off- and Side-Channel Habitat Restoration can be expected to beneficially effect normal water fluctuations by reconnecting streams with adjacent floodplains and allowing

historic overland flows to occur again. The projects would have a negligible effect on water fluctuations.

f. Salinity gradients: The activities authorized by this RGP are unlikely to adversely affect salinity gradients. The project-specific actions authorized under RGP-4 would have a negligible effect on salinity gradients because they generally would occur in non-tidal waters.

6.4 Potential impacts on the living communities or human uses (Subparts D, E and F):

6.4.1 Potential impacts on the biological characteristics of the aquatic ecosystem (Subpart D 40 CFR 230.30). See Table 2:

Table 2 – Potential Impacts on Biological Characteristics						
Biological characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Threatened and endangered species				X	X	
Fish, crustaceans, mollusk, and other aquatic organisms				X	X	
Other wildlife				X	X	

Discussion:

a. Threatened and endangered species: See Section 10.1.

b. Fish, crustaceans, mollusk, and other aquatic organisms: The projects would cause both short and long term effects to aquatic organisms. The proposed activities may alter habitat characteristics of stream and wetlands, temporarily decreasing quantity and quality of habitat during construction activities. Root wads and boulders may be used to restore the stream channels back to the original contours. Riparian habitat may be impacted during clearing and grubbing activities that remove vegetation. Off and Side-channel Restoration projects are expected to increase habitat diversity and complexity, improve flow heterogeneity, provide long-term nutrient storage and substrate for aquatic macroinvertebrates, moderate flow regimes, increase retention of leaf litter, and provide refuge for fish during high flows.

The overall purpose of this RGP is to improve habitat for fish and other aquatic species by removing fish barriers and other structures near streams, and to conduct other activities that provide stream function where it is currently lacking.

Although there will be negative impacts to the habitat, they will be temporary, and will result in a net aquatic gain of fish habitat.

Conservation measures and project design criteria in place to minimize impacts to fish and other aquatic organisms (as specified in Appendix 2) include revegetating disturbed areas, minimizing direct impacts to streams from heavy construction equipment by working from the top of bank where feasible, incorporating the use of sediment barriers, and working during appropriate in-water work periods.

c. Other wildlife: The projects would cause both short and long term effects to terrestrial wildlife. All projects have the potential to impact riparian vegetation. Large Wood, Boulder and Gravel Placement (when placed with ground-based machinery) and Removal of Legacy Structures projects will likely lead to the most impacts relative to other project types. Within riparian areas, impacts from these projects are expected to be limited to access paths while impacts to stream bank vegetation will be localized and scattered along a project area, wherever structures are placed or removed or at stream crossing sites. The remaining project types will impact riparian vegetation to a lesser degree because project areas will be more limited in scope and/or in areas where riparian vegetation is limited or lacking due to degraded conditions. To minimize such impacts, the BLM and USFS will apply conservation measures and practices, as described in Appendix 2 and through the use of project design criteria and removal/fill limits provided for individual aquatic restoration categories.

Local Oregon Department of Fish and Wildlife (ODFW) biologists will receive PCNs prior to any in-water work and will have the opportunity to provide comments on ways to further minimize impacts to wildlife habitat for each specific proposed project.

6.4.2 Potential impacts on special aquatic sites (Subpart E 40 CFR 230.40). See Table 3:

Special Aquatic Sites	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Sanctuaries and refuges	X					
Wetlands				X	X	
Mud flats				X		
Vegetated shallows				X		
Coral reefs	X					

Table 3 – Potential Impacts on Special Aquatic Sites						
Special Aquatic Sites	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Riffle and pool complexes					X	

Discussion:

a. Sanctuaries and refuges: The proposed discharge in this evaluation would not occur in or affect sanctuaries or refuges.

b. Wetlands: The projects would cause both short and long term effects to wetlands. Wetlands may be encountered during project implementation given the general nature and location of the work. The General Construction Measures in Appendix 2 of the permit instrument require specific measures to be taken if wetlands occur within the project site. In summary, wetlands are to be flagged and avoided by construction equipment. If wetlands cannot be avoided for access, then equipment must cross wetlands only in the dry or over removable mats or pads. Any compaction that does occur will be restored to pre-construction conditions.

Wetland projects can be approved under the RGP in the following scenarios: 1) An aquatic restoration project that converts wetlands to other waters of the state to improve or restore fish habitat lost by past land use activities. This practice applies only to Off and Side Channel Habitat Restoration projects, where disconnected side channels and alcoves contain wetland features that will be converted (upon project completion) to a flowing water regime; 2) As part of Large Wood Placement projects, large wood may be placed in wetlands, which are located in floodplains, as long as wetland values and functions are not diminished; 3) Removal of anthropogenic fill in floodplain/wetland areas under the following aquatic restoration categories: Set-back or Removal of Existing Berms, Dikes, and Levees; and Reduction/Relocation of Recreation Impacts.

Otherwise, the discharge of dredged or fill material into wetlands is not authorized.

c. Mudflats: Any negative impacts to mudflats by activities authorized by this RGP would be short-term and temporary. The applicant will be required to follow general and project specific aquatic conservation measures for all actions. Overall, projects authorized under RGP-4 would have long-term beneficial effects.

d. Vegetated shallows: Any negative impacts to vegetated shallows by activities authorized by this RGP would be short-term and temporary. The applicant will be required to follow general and project specific aquatic conservation measures for all actions. Overall, projects authorized under RGP-4 would have long-term beneficial effects.

e. Coral reefs: The proposed discharge in this evaluation would not occur in or affect coral reefs. No coral reefs are located in Oregon.

f. Riffle and pool complexes: Restoration projects, such as the placement of large wood and boulders, would be designed to mimic natural stream occurrences and may be placed to improve stream complexity as found in riffle and pool complexes. The projects would cause long term effects to riffle and pool complexes.

6.4.3 Potential impacts on human use characteristics (Subpart F 40 CFR 230.50). See Table 4:

Table 4 – Potential Impacts on Human Use Characteristics						
Human Use Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Municipal and private water supplies			X			
Recreational and commercial fisheries				X	X	
Water-related recreation				X	X	
Aesthetics				X		
Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves			X			

Discussion:

a. Municipal and private water supplies: The projects would cause negligible effects to water supplies. Projects are not likely to be located near existing or future water supplies, nor will the projects result in the need for increased water use/supply. USFS/BLM will evaluate each potential restoration site as part of

their NEPA review process and take appropriate steps to avoid municipal/private water supplies that may be in the project vicinity or minimize impacts to these resources where avoidance is not possible.

- b. Recreational and commercial fisheries: The projects would cause both short and long term effects to fisheries. Restoration activities are expected to improve habitat for aquatic species; therefore, the Corps does not anticipate any adverse impacts to recreational or commercial fisheries. Benefits may occur due to fish passage restoration and other activities that could increase the quantity and availability of fish for recreational and commercial fishing. Activities may improve the riparian habitat by blocking direct vehicle access or limiting foot traffic along the stream, but recreational fishing sites are not expected to be closed as a result of these improvements.
- c. Water-related recreation: The projects would cause both short and long term effects to water-based recreation. The majority of streams where the proposed actions will be implemented occur in mid to upper elevation watersheds on USFS/BLM administered lands which are open to public access for multiple uses such as camping, hiking, fishing, swimming, and rafting. USFS and BLM propose to close or better control recreational use along streams and within riparian areas by removing campground fill material or structures such as berms and fences; removing bank armoring and stream confining structures; and removing or relocating foot trails and off-road vehicle roads/trails in riparian areas. Short term effects would include limited public access during construction. Such activities are intended to improve riparian areas and stream habitats, but should not have adverse impacts on water related recreational activities such as boating or swimming in designated recreational areas. All projects will be coordinated with the Oregon State Marine Board to ensure there are no long-term impacts to boater safety.
- d. Aesthetics: The aquatic habitat restoration activities authorized by this RGP may temporarily adversely affect aesthetics to the aquatic ecosystem during construction. However, these impacts are expected to be limited to the construction window and aesthetic effects to neighboring wetland and riparian areas will be offset through on-site restoration. Restoration measures are specified in Appendix 2 (Conservation Measures and Project Design Criteria).
- e. Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves: For any activity that may occur in a component of the National Wild and Scenic River System, or in an officially designated study river, USFS and BLM must coordinate with and obtain a written determination from the Federal agency with direct management responsibility for such river that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. When located in these areas, the projects would cause negligible effects.

6.5 Pre-testing evaluation (Subpart G, 40 CFR 230.60):

The following has been considered in evaluating the biological availability of possible contaminants in dredged or fill material. See Table 5:

Physical characteristics	X
Hydrography in relation to known or anticipated sources of contaminants	X
Results from previous testing of the material or similar material in the vicinity of the project	X
Known, significant sources of persistent pesticides from land runoff or percolation	
Spill records for petroleum products or designated (Section 331 of CWA) hazardous substances	
Other public records or significant introduction of contaminants from industries, municipalities, or other sources	
Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities	

Discussion: Activities described in this RGP are generally not likely to cause the release of contaminants. The General Aquatic Conservation Measures that apply to all 11 aquatic restoration categories contains a requirement for site assessment for contaminants in certain situations. Testing would occur primarily in developed or previously developed sites, such as past dredge mines, or sites with known or suspected contamination, where projects involve the excavation of more than 20 cubic yards of material. In these cases, USFS and BLM will complete a site assessment to identify the type, quantity, and extent of any potential contamination. The level of detail and resources committed to such an assessment will be commensurate with the level and type of past or current development at the site. Additional details on the assessment are contained in Appendix 2 of the permit instrument.

6.6 Evaluation and testing (Subpart G, 40 CFR 230-61):

Discussion: Individual evaluation and testing for the presence of contaminants will normally not be required. However, testing will be conducted where activities are occurring in areas that are developed or have previously been developed, such as past dredge mines, or sites with known or suspected contamination, and where these projects involve the excavation of more than 20 cubic yards of material.

6.7 Actions to minimize adverse impacts (Subpart H). The following actions, as appropriate, have been taken through application of 40 CFR 230.70-230.77 to ensure minimal adverse effects of the proposed discharge. See Table 6:

Actions concerning the location of the discharge	X
Actions concerning the material to be discharged	X
Actions controlling the material after discharge	X
Actions affecting the method of dispersion	X
Actions affecting plant and animal populations	X
Actions affecting human use	X

Discussion: Actions to minimize adverse effects have been thoroughly considered and incorporated into the RGP and its General Conditions. Additionally, USFS and BLM must follow general and project-specific aquatic conservation measures, which are provided in Appendix 2, for each action authorized under RGP-4.

6.8 Factual Determinations (Subpart B, 40 CFR 230.11). The following determinations are made based on the applicable information above, including actions to minimize effects and consideration for contaminants. See Table 7:

Site	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Physical substrate				X	X	
Water circulation, fluctuation and salinity				X	X	
Suspended particulates/turbidity				X		
Contaminants			X			
Aquatic ecosystem and organisms				X	X	
Proposed disposal site					X	
Cumulative effects on the aquatic ecosystem				X		
Secondary effects on the aquatic ecosystem				X		

Discussion:

a. Physical substrate: The projects would cause long term effects to substrate in aquatic resources. Substrate of the streambeds and adjacent floodplains may be altered but the intent is to mimic natural conditions at the project site at project completion. The overall impact of this change to the substrate will result in a net environmental benefit. During construction activities, the native substrate may be temporarily impacted in the project work area. The earth moving equipment may temporarily alter the native substrate; however, restoring the site back to its original conditions will minimize these adverse effects to the substrate. General Conservation Measure 12 (Site Restoration) requires rehabilitating disturbed areas "in a manner that results in similar or better than pre-work conditions..." and also has requirements for revegetation. In the case of some activities, such as removal of floodplain overburden, reduction of recreation impacts, and road and trail decommissioning, the intent is to remove existing structures (roads, camp sites and foot trails, and mine tailings) and restore natural stream and riparian substrate. Activity-specific design criteria are in place to ensure natural or near-natural conditions are in place at the time of project completion.

b. Water circulation, fluctuation and salinity: The projects would have both short and long term effects on circulation and fluctuation, as well as negligible effects on salinity. The aquatic restoration projects would be designed and implemented in such a manner as to enhance or restore natural hydrologic regimes or patterns. Projects are not intended to restrict stream flows or increase velocities in such a manner as to result in adverse flood impacts to downstream landowners. This RGP authorizes the removal of culverts, which are currently acting as fish barriers. Removal of these barriers may alter the existing currents, circulation, and drainage patterns of the channel - design criteria require restoring natural drainage patterns. However, removing these barriers will result in a net aquatic environmental benefit by reducing scouring and other detrimental effects these barriers may have on the aquatic environment.

Removal of legacy structures is also expected to have a positive benefit on natural stream functions. During the 1980s and early 1990s, many habitat-forming structures, such as log weirs, boulder weirs, and gabions, were placed in an effort to create pool habitat. Many of these structures were placed in a manner that interfered with natural stream function and have continually degraded stream habitat since their installation (USFWS 2007). These legacy structures typically led to widened stream channels, increased width/depth ratios, decreased sinuosity, and increased stream exposure to solar radiation.

b. Suspended particulates/turbidity: All projects will result in short-term stream turbidity to varying degrees. Projects under the Fish Passage Restoration activity (specifically culvert removals and replacements) would likely result in the most sediment release into stream channels during project implementation. In

these cases, large amounts of sediment may have accumulated above the blockage feature (culvert). The stream would be diverted to allow for in-channel construction activities, and the subsequent reintroduction of stream flow into the channel may lead to the most sediment releases compared to other restoration projects.

c. Contaminants: No known contaminants. Applicants will have to follow suitable material general condition of the RGP and DEQ WQC requirements and conditions.

d. Aquatic ecosystem and organisms: The proposed activities may alter habitat characteristics of stream and wetlands, temporarily decreasing quantity and quality of habitat during construction activities. Root wads and boulders may be used to restore the stream channels back to the original contours. Riparian habitat may be impacted during clearing and grubbing activities that remove vegetation. Off and Side-channel Restoration projects are expected to increase habitat diversity and complexity, improve flow heterogeneity, provide long-term nutrient storage and substrate for aquatic macroinvertebrates, moderate flow regimes, increase retention of leaf litter, and provide refuge for fish during high flows.

The overall purpose of this RGP is to improve habitat for fish and other aquatic species by removing fish barriers and other structures near streams, and to conduct other activities that provide stream function where it is currently lacking. Although there will be impacts to the habitat, they will be temporary, and will result in a net aquatic gain of habitat for fish and other aquatic organisms.

Conservation measures and project design criteria in place to minimize impacts to fish and other aquatic organisms (as specified in Appendix 2) include revegetating disturbed areas, minimizing direct impacts to streams from heavy construction equipment by working from the top of bank where feasible, incorporating the use of sediment barriers, and working during appropriate in-water work periods.

e. Proposed disposal site: Project-specific discharges would generally occur in non-tidal streams and wetlands, and may also occur in larger river systems farther down in the watershed. Overall, the discharges would result in long-term beneficial effects.

f. Cumulative effects on the aquatic ecosystem: See Section 9.0 for cumulative effects.

g. Secondary effects on the aquatic ecosystem: See Section 9.0 for secondary (i.e., indirect) effects.

6.9 Findings of compliance or non-compliance with the restrictions on discharges (40 CFR 230.10(a-d) and 230.12). Based on the information above, including the factual determinations, the proposed discharge has been evaluated to determine whether any of the restrictions on discharge would occur. See Table 8:

Table 8 – Compliance with Restrictions on Discharge		
Subject	Yes	No
1. Is there a practicable alternative to the proposed discharge that would be less damaging to the environment (any alternative with less aquatic resource effects, or an alternative with more aquatic resource effects that avoids other significant adverse environmental consequences?)		X
2. Will the discharge cause or contribute to violations of any applicable water quality standards?		X
3. Will the discharge violate any toxic effluent standards (under Section 307 of the Act)?		X
4. Will the discharge jeopardize the continued existence of endangered or threatened species or their critical habitat?		X
5. Will the discharge violate standards set by the Department of Commerce to protect marine sanctuaries?		X
6. Will the discharge cause or contribute to significant degradation of waters of the U.S.?		X
7. Have all appropriate and practicable steps (Subpart H, 40 CFR 230.70) been taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem?	X	

Discussion: Discharges of fill or dredged material associated with projects authorized under the RGP would support beneficial effects to the impacted aquatic resources.

7.0 General Public Interest Review (33 CFR 320.4 and RGL 84-09)

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest as stated at 33 CFR 320.4(a). To the extent appropriate, the public interest review below also includes consideration of additional policies as described in 33 CFR 320.4(b) through (r). The benefits which reasonably may be expected to accrue from the proposal are balanced against its reasonably foreseeable detriments.

7.1 All public interest factors have been reviewed and those that are relevant to the proposal are considered and discussed in additional detail. See Table 9 and the discussion that follows.

Table 9: Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
Table 9: Public Interest Factors						
1. Conservation:					X	
2. Economics:					X	
3. Aesthetics:			X		X	
4. General Environmental Concerns:					X	
5. Wetlands:			X		X	
6. Historic Properties:				X		
7. Fish and Wildlife Values:					X	
8. Flood Hazards:					X	
9. Floodplain Values:					X	
10. Land Use:				X		
11. Navigation:				X		
12. Shoreline Erosion and Accretion:					X	
13. Recreation:				X		
14. Water Supply and Conservation:	X					
15. Water Quality:			X			
16. Energy Needs:	X					
17. Safety:			X			
18. Food and Fiber Production:	X					
19. Mineral Needs:	X					
20. Consideration of Property Ownership:				X		

Table 9: Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
Table 9: Public Interest Factors 21. Needs and Welfare of the People:	X					

Discussion of effects on factors above:

Conservation: Because the activities authorized by this RGP are habitat restoration activities, beneficial effects on the natural resource characteristics of the project area are anticipated.

Economics: Projects may provide short-term benefits to local economy by the potential employment of local contractors and consultants and the purchase and/or rental of local construction materials and supplies. USFS/BLM estimate that during the next two years (2020 through 2022) \$6 million will be spent on aquatic habitat restoration projects throughout Oregon.

Aesthetics: The aquatic habitat restoration activities authorized by this RGP may temporarily adversely affect aesthetics to the aquatic ecosystem during construction. However, these impacts are expected to be limited to the construction window and aesthetic effects to neighboring wetland and riparian areas will be offset through on-site restoration. Restoration measures are specified in Appendix 2 (Conservation Measures and Project Design Criteria).

General environmental concerns: The proposed activities may alter habitat characteristics of stream and wetlands, temporarily decreasing quantity and quality of habitat during construction activities. Root wads and boulders may be used to restore the stream channels back to the original contours. Riparian habitat may be impacted during clearing and grubbing activities that remove vegetation, but project sites would be restored to pre-construction conditions. The overall purpose of this RGP is to improve habitat for fish and other aquatic species by removing fish barriers and other structures near streams, and to conduct other activities that provide stream function where it is currently lacking. Although there will be impacts to the habitat, they will be temporary, and will result in a net aquatic gain of fish habitat. Conservation measures include working during appropriate in-water work periods and managing construction sites to avoid impacts to fish and other wildlife. Long-term benefits may also occur from restoration activities by improving habitats for fish and wildlife and other aquatic species.

Wetlands: The projects would have a neutral effect on some wetlands and beneficial effect on others.

Wetlands may be encountered during project implementation given the general nature and location of the work. The General Construction Measures in Appendix 2 of the application require specific measures to be taken if wetlands occur within the project site. In summary, wetlands are to be flagged and avoided by construction equipment. If wetlands cannot be avoided for access, then equipment must cross wetlands only in the dry or over removable mats or pads to minimize potential for compaction where wetlands may still have some standing or subsurface water present. Any compaction that does occur will be restored to pre-construction conditions.

Wetland projects can be approved under the RGP in the following scenarios: 1) An aquatic restoration project that converts wetlands to other waters of the state to improve or restore fish habitat lost by past land use activities. This practice applies only to Off and Side Channel Habitat Restoration projects, where disconnected side channels and alcoves contain wetland features that will be converted (upon project completion) to a flowing water regime; 2) As part of Large Wood Placement projects, large wood may be placed in wetlands, which are located in floodplains, as long as wetland values and functions are not diminished; 3) Removal of anthropogenic fill in floodplain/wetland areas under the following aquatic restoration categories: Set-back or Removal of Existing Berms, Dikes, and Levees; and Reduction/Relocation of Recreation Impacts.

Otherwise, the discharge of dredged or fill material into wetlands is not authorized.

Historic properties: The projects would have a negligible effect on historic properties. USFS and BLM are the lead Federal agencies for compliance under Federal cultural resources and historic preservation laws and regulations. USFS/BLM is responsible for compliance with the National Historic Preservation Act (NHPA). USFS/BLM will individually review projects to determine if activities may be located on property registered or eligible for registration in the latest published version of the National Register of Historic Places (NRHP).

Coordination with the appropriate tribes must occur as part of the planning process to ensure individual projects do not impact such things as cultural resources, treaty fishing access sites, usual and accustomed areas, burial sites, or Traditional Cultural Properties. This process may occur through a locally established protocol between USFS/BLM and a Tribe. Coordination with the

State Historic Preservation Office (SHPO) is required as well. Both agencies have agreements with SHPO regarding cultural resources management.

As part of the pre-construction notification, USFS and BLM will be required to provide to the Corps a list of tribes contacted, the date the coordination occurred, and how issues (if any) were resolved. The agencies will also be required to provide documentation showing compliance with Section 106 of the NHPA.

Fish and wildlife values: All projects have the potential to impact riparian vegetation but the projects would have a beneficial effect for fish and wildlife overall. Large Wood, Boulder and Gravel Placement (when placed with ground-based machinery) and Removal of Legacy Structures projects will likely lead to the most impacts relative to other project types. Within riparian areas, impacts from these projects are expected to be limited to access paths while impacts to stream bank vegetation will be localized and scattered along a project area, wherever structures are placed or removed or at stream crossing sites. The remaining project types will impact riparian vegetation to a lesser degree because project areas will be more limited in scope and/or in areas where riparian vegetation is limited or lacking due to degraded conditions. To minimize such impacts, the BLM and USFS will apply conservation measures and practices, as described in Appendix 2 and through the use of project design criteria and removal/fill limits provided for individual aquatic restoration categories.

Local ODFW biologists would receive pre-construction notifications and would have the opportunity to provide comments on ways to further minimize impacts to wildlife habitat.

The end result of the projects would be creation or restoration of habitat.

Flood hazards: The overall intent of the RGP is to improve/restore the aquatic habitat. Activities include the removal of culverts, with restoration being either replacement with a bridge or complete restoration of the site to conditions found within the watershed. The net result will be an increase in the flood control capability of the tributaries.

Floodplain values: Activities authorized by RGP 4 would have minor effects on the flood-holding capacity of the floodplain, as well as other floodplain values, since it is limited to restoration activities. The Corps anticipates the projects would have a beneficial effect on floodplain values as they improve habitat and restore natural systems.

Land use: No adverse impacts to land use classification are expected. For projects occurring on private lands (under the Wyden Amendment) USFS/BLM would only work with the landowner's permission and contact the appropriate county to request a Land Use Compatibility review. Such reviews are not required on federal lands.

Navigation: The Corps anticipates negligible effects on navigation as a result of projects completed under the authority of this RGP due to limited projects located within navigable waterways. All projects will be coordinated with the Oregon State Marine Board to ensure there are no long-term impacts to boater safety.

Shoreline erosion and accretion: The RGP would authorize projects that promote natural sediment transport patterns for the specific stream reach, provide unaltered fluvial debris movement, and allow for longitudinal continuity and connectivity of the stream-floodplain system. Benefits from Streambank Restoration projects, for example, would include increased amounts of riparian vegetation and associated shading, bank stability, and reduced sedimentation into stream channels and spawning gravels. The Corps anticipates long term improvements to erosion and accretion patterns from existing conditions.

Recreation: The majority of streams where the proposed actions will be implemented occur in mid to upper elevation watersheds on USFS/BLM administered lands which are open to public access for multiple uses such as camping, hiking, fishing, swimming, and rafting. USFS and BLM propose to close or better control recreational use along streams and within riparian areas by removing campground fill material or structures such as berms and fences; removing bank armoring and stream confining structures; and removing or relocating foot trails and off-road vehicle roads/trails in riparian areas. Such activities are intended to improve riparian areas and stream habitats, but should not have adverse impacts on water related recreational activities such as boating or swimming in designated recreational areas. All projects would be coordinated with the Oregon State Marine Board to ensure there are no long-term impacts to boater safety.

Water supply and conservation: No effect. Projects are not likely to be located near existing or future water supplies. USFS/BLM will evaluate each potential restoration site as part of their NEPA review process and take appropriate steps to avoid municipal/private water supplies that may be in the project vicinity or minimize impacts to these resources where avoidance is not possible.

Water quality: Stream temperature may be directly affected by the Juniper Removal activity. Juniper will be removed in riparian areas where that species has displaced more desired riparian plants, such as sedge, rush, willow, alder,

aspen, and cottonwood. As a result, stream temperatures may increase slightly after juniper removal from the resulting decrease in shade. However, stream temperatures are expected to return to pre-project values with reestablishment of desired riparian plants and associated shade. To minimize temperature impacts, BLM and USFS will apply conservation measures and practices, as described in Appendix 2 and through the use of project design criteria and removal/fill limits provided for individual aquatic restoration categories.

Petroleum based fuels or lubricants may leak or spill into stream channels from heavy machinery used to conduct aquatic restoration projects. To minimize such occurrences, each project will be guided by Pollution and Erosion Control Plans, as described in Appendix 2 C.8. This plan will contain procedures to reduce the risk of spills along with containment plans if spills do occur. In addition, staging areas where heavy equipment is stored, fueled, and cleaned are to occur outside of the riparian zone and daily inspection is required before leaving the staging area. The conservation measures and practices described in Appendix 2 provide specific guidance as to ways such impacts will be avoided or minimized.

The water quality performance standards in the 401 water quality certification will ensure avoidance and minimization of general project effects to water quality during construction.

Energy needs: No effect. Projects are not energy related nor will they affect energy related facilities.

Safety: Implementation of the activities authorized by this RGP may temporarily create unsafe conditions during construction; however, USFS and BLM will ensure appropriate safety precautions are in place to ensure safe conditions for construction crews and the traveling public.

Food and fiber production: The Corps does not anticipate any impacts to areas used for food and fiber production.

Mineral needs: The Corps does not anticipate any impacts to areas used for mineral extraction.

Consideration of property ownership: USFS and BLM coordinates with adjoining landowners as part of the NEPA process through a Statement of Proposed Actions (SOPA) by which all proposed actions are made public. Projects resulting in increased stream velocities due to the restoration of natural hydrologic patterns would be designed in such a manner so they will not adversely affect downstream landowners.

Needs and welfare of the people: The Corps does not anticipate impacts to needs and welfare of the people.

7.1.1 Climate Change. The proposed activities within the Corps federal control and responsibility likely will result in a negligible release of greenhouse gases into the atmosphere when compared to global greenhouse gas emissions. Greenhouse gas emissions have been shown to contribute to climate change. Aquatic resources can be sources and/or sinks of greenhouse gases. For instance, some aquatic resources sequester carbon dioxide whereas others release methane; therefore, authorized impacts to aquatic resources can result in either an increase or decrease in atmospheric greenhouse gas. These impacts are considered de minimis. Greenhouse gas emissions associated with the Corps federal action may also occur from the combustion of fossil fuels associated with the operation of construction equipment, increases in traffic, etc. The Corps has no authority to regulate emissions that result from the combustion of fossil fuels. These are subject to federal regulations under the Clean Air Act and/or the Corporate Average Fuel Economy (CAFE) Program. Greenhouse gas emissions from the Corps action have been weighed against national goals of energy independence, national security, and economic development and determined not contrary to the public interest.

7.2 The relative extent of the public and private need for the proposed structure or work: These restoration actions would provide benefits to the public by improving aquatic habitat and in some cases restoring floodplain functions. Some benefits may also be provided during construction periods through increased employment opportunities.

7.3 If there are unresolved conflicts as to resource use, explain how the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work was considered.

Discussion: There were no unresolved conflicts identified as to resource use.

7.4 The extent and permanence of the beneficial and/or detrimental effects that the proposed work is likely to have on the public and private use to which the area is suited:

Detrimental effects are expected to be minimal and temporary.

Beneficial effects are expected to be minimal and permanent.

Any detrimental effects would occur during construction. Benefits from restoration activities will be long-term.

8.0 Mitigation(33 CFR 320.4(r), 33 CFR Part 332, 40 CFR 230.70-77, 40 CFR 1508.20 and 40 CFR 1502.14)

8.1 Avoidance and Minimization: When evaluating a proposal including regulated activities in waters of the United States, consideration must be given to avoiding and minimizing effects to those waters. Avoidance and minimization measures are described above in Sections 1 and 3.

Were any other mitigative actions including project modifications discussed with the applicant implemented to minimize adverse project impacts (see 33 CFR 320.4(r)(1)(i))? Yes

When the RGP was reissued in 2015, general conservation measures and project-specific conservation measures were added to each activity category to minimize impacts to aquatic resources. Additionally, general conditions are included in the RGP. These conditions and measures would remain in this reauthorization of the RGP.

8.2 Is compensatory mitigation required to offset environmental losses resulting from proposed unavoidable impacts to waters of the United States? No

Provide rationale: Mitigation was not proposed by the USFS and BLM as part of the request for reauthorization of RGP-4 and will not be required. The projects to be authorized under RGP-4 are aquatic habitat restoration actions with the intent of providing a net environmental benefit to the aquatic system. Overall, actions authorized by RGP-4 are not expected to result in losses to waters of the United States. However, as described in Section 11.e, an aquatic restoration project done under the Reconnection of Existing Side Channel and Alcove category could result in a change in the use of a waterbody. This would occur if the project site contains wetland features that have become established in a disconnected side channel and these features are converted to another aquatic type once restoration has been completed and water flows through the channel again. Because the intent of conducting such a project is to improve or restore habitat lost by past land use activities, and "[t]he fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States..." (33 CFR 332.3(a)(1)), the Corps will not require mitigation for this type of loss.

9.0 Consideration of Cumulative Impacts

(40 CFR 230.11(g) and 40 CFR 1508.7, RGL 84-9) Cumulative impact is 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. Cumulative impacts can result from individually

minor direct and indirect but collectively significant actions taking place over a period of time. A cumulative effects assessment should consider how the direct and indirect environmental effects caused by the proposed activity requiring DA authorization (i.e., the incremental impact of the action) contribute to cumulative effects, and whether that incremental contribution is significant or not.

- 9.1 Identify/describe the direct and indirect effects caused by the proposed activity: Secondary impacts anticipated from the USFS/BLM aquatic habitat restoration program include increasing stream flows in certain streams with the removal of undersized culverts; reconnecting streams with adjacent floodplains to again allow historic overland flows to occur; and temporarily increasing stream temperatures with the removal of juniper. Junipers have encroached into riparian areas as a result of fire exclusion, thereby limiting habitat complexity by replacing more desired riparian vegetation species such as willow, cottonwood, aspen, alder, sedge, and rush. In the latter example, stream temperatures are expected to lower over time with the reestablishment of riparian vegetation.
- 9.2 The geographic scope for the cumulative effects assessment is: the geographic scope of the RGP which includes USFS/BLM administered lands in the state of Oregon or non-federal lands as allowed under Wyden Amendment Authority.
- 9.3 The temporal scope of this assessment covers: The temporal scope is from the time that humans began making changes to the aquatic environment up through the next two years.
- 9.4 Describe the affected environment: Habitat restoration projects would be located on USFS/BLM administered lands in the state of Oregon or non-federal lands as allowed under Wyden Amendment Authority. Generally, the federally-owned lands are managed forest and agricultural areas, whereas the privately-owned lands are agricultural or developed areas.

9.5 Determine the environmental consequences:

Cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change by itself, the cumulative effect of numerous separate actions can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems. Cumulative effects attributable to the discharge of dredged or fill material in waters of the United States should be predicted to the extent reasonable and practicable. For the issuance of general permits, such as this RGP, the 404(b)(1) Guidelines require the permitting authority to "set forth in writing an evaluation of the potential individual and cumulative impacts of the categories of activities to be regulated under the general permit." [40 CFR 230.7(b)] If a situation arises in which cumulative effects are likely to be more than minimal and the proposed activity requires further review, or is more appropriately reviewed under the individual permit process, provisions of the RGP allow the district engineer to take such action.

On a statewide basis, USFS and BLM propose to conduct up to 170 projects each year (total for both agencies) under the authorization of this RGP. Given that this is a two year authorization, the upper limit of projects to be conducted during the construction seasons of 2020 through 2022 is 340. The actual number of projects may be much less. For example, during the construction period of 2015 through 2019, 414 projects were implemented under the current RGP-4. This trend is expected to continue for the life of this reissuance of RGP-4.

The Corps anticipates cumulative impacts of these projects to result in restored natural areas throughout Oregon, supporting improvement of the overall health of the aquatic environment in the state.

9.6 Discuss any mitigation to avoid, minimize or compensate for cumulative effects: Though the intent of the projects is environmental uplift, the actual work would result in temporary adverse impacts throughout the state. Avoidance and minimization of adverse impacts to aquatic resources would be accomplished through application of the general and activity-specific conditions of the permit instrument. No compensatory mitigation is proposed since the projects will be restoration actions, resulting in net benefits to the aquatic environment.

9.7 Conclusions regarding cumulative impacts:

When considering the overall impacts that will result from the proposed activity, in relation to the overall impacts from past, present, and reasonably foreseeable future activities, the incremental contribution of the proposed activity to cumulative impacts in the area described in section 9.2, are not considered to be significant. Compensatory mitigation will not be required to help offset the impacts to eliminate or minimize the proposed activity's incremental contribution to cumulative effects within the geographic area described in Section 9.2. Mitigation required for the proposed activity is discussed in Section 8.0.

10.0 Compliance with Other Laws, Policies, and Requirements

10.1 Section 7(a)(2) of the Endangered Species Act (ESA): Refer to Section 2.2 for description of the Corps action area for Section 7.

10.1.1 Has another federal agency been identified as the lead agency for complying with Section 7 of the ESA with the Corps designated as a cooperating agency and has that consultation been completed? Yes

If yes, identify that agency, the actions taken to document compliance with Section 7 and whether those actions are sufficient to ensure the activity(s) requiring DA authorization is in compliance with Section 7 of the ESA:

As lead federal agencies for the habitat restoration actions, USFS and BLM have completed consultation with USFWS and NMFS. Biological opinions were issued by both Services as noted below and include the aquatic habitat restoration activities proposed for inclusion within this RGP. Compliance with the terms and conditions of these opinions will be made a condition of the RGP.

(1) National Oceanic and Atmospheric Administration (NOAA) Biological Opinion (BO): Reinitiation of the Endangered Species Act Section 7 Formal Programmatic Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Aquatic Restoration Activities in the States of Oregon and Washington (ARBO II), NMFS Nos. NWP-2013-9664 Issued April 25, 2013.

(2) USFWS BO: Endangered Species Act - Section 7 Consultation and Programmatic Biological Opinion for Aquatic Restoration Activities in the States of Oregon, Washington, and portions of California, Idaho and Nevada (ARBO II) FWS reference: 01EOFW00-2013-F-0090) Issued July 1, 2013.

NMFS concluded the proposed action is not likely to adversely affect southern DPS green sturgeon or Steller sea lion, or their designated critical habitat, or

southern resident killer whale. For their remaining trust species, NMFS determined the proposed restoration activities will not jeopardize their continued existence or result in the destruction or adverse modification of their proposed or designated critical habitats provided the terms and conditions of the opinion are met.

After reviewing the current status of the listed species, the environmental baseline within the action area, the direct and indirect effects of the proposed action, and cumulative effects, USFWS concluded that the proposed action is not likely to jeopardize the continued existence of bull trout, Lost River suckers, shortnose suckers, Modoc suckers, Warner suckers, Foskett speckled dace, Oregon chub, Lahontan cutthroat trout, spotted owls, or marbled murrelets, or result in the destruction or adverse modification of critical habitat that has been designated for any of these species.

10.1.2 Are there listed species or designated critical habitat present or in the vicinity of the Corps' action area? Yes

10.1.3 Consultation with either the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service was initiated and completed as required, for any determinations other than "no effect" (see the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation). Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 7(a) (2) of the ESA. The documentation of the consultation is incorporated by reference.

10.2 Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), Essential Fish Habitat (EFH).

10.2.1 Has another federal agency been identified as the lead agency for complying with the EFH provisions of the Magnuson-Stevens Act with the Corps designated as a cooperating agency and has that consultation been completed? Yes

If yes, identify the agency, the actions taken to document compliance with the Magnuson Stevens Act and whether those actions are sufficient to ensure the activity(s) requiring DA authorization is in compliance the EFH provisions:

USFS/BLM prepared an EFH assessment and consulted on EFH. NMFS anticipates that implementation of the conservation measures contained in the consultation and other considerations outlined previously will avoid, minimize or otherwise offset potential adverse effects to EFH in the proposed action area. All projects conducted under RGP-4 will be required to meet the terms and conditions of the BO (for both ESA and EFH).

10.2.2 Did the proposed project require review under the Magnuson-Stevens Act? Yes.

10.2.3 If yes, EFH species or complexes considered: See above.
Effect(s) determination and basis for that determination(s): See above.

10.2.4 Consultation with the National Marine Fisheries Service was initiated and completed as required (see the attached ORM2 Summary sheet for consultation type, begin date, end date and closure method of the consultation). Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under EFH provisions of the Magnuson-Stevens Act.

10.3 **Section 106 of the National Historic Preservation Act (Section 106):** Refer to Section 2.3 for permit area determination.

10.3.1 Has another federal agency been identified as the lead federal agency for complying with Section 106 of the National Historic Preservation Act with the Corps designated as a cooperating agency and has that consultation been completed? Yes

If yes, identify that agency, and whether the undertaking they consulted on included the Corps undertaking(s). Briefly summarize actions taken by the lead federal agency:

For this RGP, USFS and BLM are the lead Federal agencies for compliance under Federal cultural resources and historic preservation laws and regulations. USFS and BLM are responsible for compliance with the National Historic Preservation Act (NHPA). USFS and BLM will individually review projects to determine if activities may be located on property registered or eligible for registration in the latest published version of the National Register of Historic Places (NRHP).

Coordination with the appropriate tribes must occur as part of the planning process to ensure individual projects do not impact such things as cultural resources, treaty fishing access sites, usual and accustomed areas, burial sites, or Traditional Cultural Properties. This process may occur through a locally established protocol between USFS/BLM and a Tribe. Coordination with the State Historic Preservation Office (SHPO) is required as well. Both agencies have agreements with SHPO regarding cultural resources management.

10.3.2 Known historic properties present? Unknown; individual project reviews will determine the presence of historic properties.

Effect determination and basis for that determination: N/A

10.4 **Tribal Trust Responsibilities**

10.4.1 Was government-to-government consultation conducted with Federally-recognized Tribe(s)? No. However, the RGP requires that no activity or its

operation impairs reserved tribal rights, including but not limited to, reserved water rights and treaty fishing and hunting rights. Therefore, consultation with tribes on an individual project basis may be necessary to ensure compliance with the RGP.

10.4.2 Other Tribal including any discussion of Tribal Treaty rights? See 10.4.1.

10.5 Section 401 of the Clean Water Act – Water Quality Certification (WQC)

10.5.1 Is a Section 401 WQC required, and if so, has the certification been issued, waived or presumed? A general WQC has been issued for this permit.

10.6 Coastal Zone Management Act (CZMA)

10.6.1 Is a CZMA consistency concurrence required, and if so, has the concurrence been issued, waived or presumed? A general CZMA consistency concurrence has been issued for this permit. Original concurrence issued June 9, 2009. On May 5, 2020, the Oregon Department of Land Conservation and Development confirmed the RGP still complies with the original concurrence.

10.7 Wild and Scenic Rivers Act

10.7.1 Is the project located in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system? It is possible that some project-specific actions may occur in rivers designated as wild and scenic. The RGP includes a general condition that no activity may occur in such river unless the appropriate management agency has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

10.8 Effects on Corps Civil Works Projects (33 USC 408)

10.8.1 Does the applicant also require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would alter, occupy or use a Corps Civil Works project? It is unlikely that projects will occur in areas where Corps Civil Works projects are located. However, a condition of the permit requires that an activity which requires a 408 permission must receive permission before the activity will be authorized under RGP-4.

10.9 Corps Wetland Policy (33 CFR 320.4(b))

10.9.1 Does the project propose to impact wetlands? Some actions may impact wetlands, either as part of the restoration work (e.g., reconnection of historic side channels) or as part of the construction activities (e.g., during site access). Appendix 2 contains project design criteria to minimize these wetland impacts.

10.9.2 Based on the public interest review herein, the beneficial effects of the project outweigh the detrimental impacts of the project.

11.0 General Conditions

11.1 Are special conditions required to protect the public interest, ensure effects are not significant and/or ensure compliance of the activity with any of the laws above? General conditions applicable to all restoration activities have been made a part of this permit. Project-specific Special Conditions are not a part of this RGP. It has been designed such that individual actions must either meet the requirements as outlined in the RGP and its associated conservation measures (Appendix 2) or seek DA authorization through another permitting option. The required general conditions are listed below:

A. MAINTENANCE. The USFS and BLM must maintain individual projects authorized by this RGP in good condition, including maintenance to ensure public safety and conformance with the terms and conditions of this RGP. USFS and/or BLM are not relieved of this requirement if they abandon the individual projects, although USFS and/or BLM may make a good faith transfer to a third party in compliance with Condition 2 below. Should USFS and/or BLM wish to cease to maintain individual projects or should USFS and/or BLM desire to abandon them without a good faith transfer, USFS and/or BLM must obtain a modification of the individual authorization from the Corps, which may require restoration of the area.

Rationale: Ensure projects do not become hazards in the future due to neglect.

B. PROPERTY TRANSFER. If USFS and/or BLM sells properties associated with this RGP, USFS and/or BLM must transfer the individual authorization(s) to the new owner(s) and forward evidence (i.e. written documentation of new owner accepting transferred authorization) to the Corps to validate the transfer of the authorization(s).

Rationale: Ensure new property owner is aware of the terms and conditions of the authorized activities.

C. GENERAL CONSERVATION MEASURES, DESIGN CRITERIA. Unless otherwise specified by the terms and conditions of RGP-4, the USFS and BLM shall ensure individual projects implemented under this RGP meet the requirements of the Program Administration elements; General Aquatic Conservation Measures; and Activity Category Project Descriptions, Design Criteria, and Removal and Fill Limits specified in Appendix 2.

Rationale: Maximize potential for compliance with the terms and conditions of a 401 water quality certification, which become conditions of the DA authorization.

D. WATER QUALITY CERTIFICATION. USFS and BLM must comply with the conditions specified in the 401 Water Quality Certification issued by the Oregon Department of Environmental Quality on July 24, 2020 (Appendix 4).

Rationale: Maximize potential for compliance with the terms and conditions of a 401 water quality certification, which become conditions of the DA authorization.

E. COASTAL ZONE CONSISTENCY. USFS and BLM must comply with the conditions of the concurrence letter (dated June 9, 2009) issued by the Oregon Department of Land Conservation and Development (DLCD) ensure RGP-4 is consistent with the Oregon Coastal Management Program. In a letter dated May 5, 2020, the DLCD determined that the work proposed for the two-year reissuance of RGP-4 remains consistent with their June 9, 2009 determination, which will remain in effect because no changes were proposed (Appendix 5).

Rationale: Minimize the potential for adverse impacts to coastal resources in the state of Oregon.

F. ENDANGERED SPECIES ACT & MAGNUSON-STEVENS ACT COMPLIANCE. The USFS and BLM shall comply with the terms and conditions of the biological opinions listed below:

a. **NOAA BO:** Reinitiation of the Endangered Species Act Section 7 Formal Programmatic Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Aquatic Restoration Activities in the States of Oregon and Washington (ARBO II), NMFS Nos. NWP- 2013-9664 Issued April 25, 2013.

b. **USFWS BO:** Endangered Species Act - Section 7 Consultation and Programmatic Biological Opinion for Aquatic Restoration Activities in the States of Oregon, Washington, and portions of California, Idaho and Nevada (ARBO II) **FWS reference:** 01EOW00-2013-F- 0090) Issued July 1, 2013.

Rationale: Ensure compliance with ESA requirements.

G. WYDEN AMENDMENT PROJECTS. USFS and BLM shall ensure projects covered under the authority of the Wyden Amendment undergo the same process and compliance as projects occurring on USFS and/or BLM lands.

Rationale: Ensure USFS/BLM are carrying out their oversight responsibilities for restoration actions authorized by RGP-4 that are being carried out by a third party.

H. CULTURAL RESOURCES AND HISTORIC PROPERTIES.

a. The USFS and BLM are the lead Federal agencies for complying with federal cultural resources and historic preservation laws and regulations, including the National Historic Preservation Act (NHPA). USFS and BLM will individually review projects to determine if activities may be located on property registered or eligible for registration in the latest published version of the National Register of Historic Places (NRHP). No individual project shall proceed under the RGP until requirements under federal cultural resources and historic preservation laws and regulations are met.

b. The USFS and BLM shall take all required actions (including notifying the appropriate tribes) should human burials, cultural resources, or historic properties be discovered during project construction.

Rationale: Ensure compliance with cultural resource requirements.

I. TRIBAL RIGHTS. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

Rationale: Ensure the Corps fulfills its fiduciary responsibilities toward tribes.

J. WILD AND SCENIC RIVERS. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

Rationale: Minimize the potential for adverse impacts to aquatic resources in the Wild and Scenic River program.

K. NAVIGATION.

a. No activity may cause more than a minimal adverse effect on navigation.

b. The permittee understands and agrees that if future operations by the United States require the removal, relocation, or other alteration of the structure of work herein authorized, or if in the opinion of the Secretary of the Army or their authorized representative said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required upon due notice from the Corps of Engineers to remove, relocate, or alter the structural work or obstructions caused thereby without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

Rationale: Notify permittee of requirements associated with actions located in navigable waters of the U.S.

L. COMPLIANCE INSPECTIONS. Compliance inspections may be conducted to ensure that work performed under this general permit is in compliance with its terms and conditions. The District Engineer or their authorized representative will request permission from the property owner for access to the work site. A request for access will be specific as to the date and time of access, and opportunity will be provided for the property owner or his representative to be onsite during the inspection.

Rationale: Notify the permittee of the potential for future compliance inspections.

M. DISCRETIONARY AUTHORITY. The District Engineer reserves the right to assert discretionary authority on a case-by-case basis when it is determined that individual projects may result in more than minimal impacts, individually or cumulatively, or are otherwise not in the public interest.

Rationale: Allows the Corps to take the appropriate course of action if a project results in more than minimal individual or cumulative impacts.

N. ACTIVITIES AFFECTING STRUCTURES OR WORKS BUILT BY THE UNITED STATES. A project may require permission from the Corps pursuant to Section 408 because it may alter or temporarily or permanently occupy or use a Corps federally authorized Civil Works project. An alteration is defined as any action that builds upon, alters, improves, moves, occupies or otherwise affects the usefulness, or the structural or ecological integrity of a Corps federally authorized project. An activity that requires section 408 permission is not authorized by RGP-4 until the Corps issues the section 408 permission to alter, occupy, or use the Corps' project and the Corps issues a written RGP-4 verification. If you suspect a project may require section 408 permission, you may contact the section 408 team directly at section408nwp@usace.army.mil.

Rationale: Ensures that a project would not alter a Corps federally authorized project.

12.0 Findings and Determinations

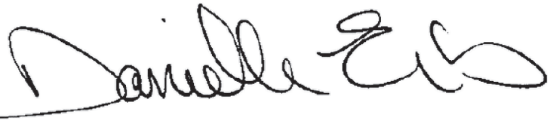
- 12.1 Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility

and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

12.2 Presidential Executive Orders (EO):

- 12.2.1 EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: This action has no substantial effect on one or more Indian tribes, Alaska or Hawaiian natives.
- 12.2.2 EO 11988, Floodplain Management: Alternatives to location within the floodplain, minimization and compensatory mitigation of the effects were considered above.
- 12.2.3 EO 12898, Environmental Justice: The Corps has determined that the proposed project would not use methods or practices that discriminate on the basis of race, color or national origin nor would it have a disproportionate effect on minority or low-income communities.
- 12.2.4 EO 13112, Invasive Species: General conservation measures contained in Appendix 2 of the RGP include provisions to control the introduction and spread of invasive plant species.
- 12.2.5 EO 13212 and EO 13302, Energy Supply and Availability: The proposal is not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety.
- 12.3 Findings of No Significant Impact: Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an environmental impact statement will not be required.
- 12.4 Compliance with the Section 404(b)(1) Guidelines: Having completed the evaluation above, I have determined that the proposed discharge complies with the Guidelines.
- 12.5 Public interest determination: Having reviewed and considered the information above, I find that the proposed project is not contrary to the public interest.

PREPARED BY:



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Danielle Erb
Project Manager

Date

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Jaimee W. Davis
Chief, Portland Permits Section

Date

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William D. Abadie
Chief, Regulatory Branch

Date

APPROVED BY:

Michael D. Helton
Colonel, Corps of Engineers
District Commander

Date