



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

NOAA Fisheries No:
2004/00598

August 16, 2004

Mr. Ken Hale
District Conservationist
Natural Resources Conservation Service
2200 West 2nd Street
McMinnville, Oregon 97128

Mr. Chris Bonsignore
Ducks Unlimited, Inc.
Pacific Northwest Field Office
1101 S.E. Tech Center Drive
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Re: Endangered Species Act Interagency Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Johansen Restoration Project, Lower South Yamhill River 5th field (HUC:1709000804), Yamhill County, Oregon

Dear Mssrs. Hale and Bonsignore:

The enclosed document contains a biological opinion (Opinion) prepared by NOAA's National Marine Fisheries Service (NOAA Fisheries) pursuant to section 7(a)(2) of the Endangered Species Act (ESA) on the effects of the Johansen Restoration Project. In this Opinion, NOAA Fisheries concludes that the proposed action is not likely to jeopardize the continued existence of Upper Willamette River (UWR) steelhead (*Oncorhynchus mykiss*) or UWR Chinook salmon (*O. tshawytscha*). The Opinion also includes an incidental take statement with terms and conditions necessary to minimize the impact of taking that is reasonably likely to be caused by this action. Take from actions by the action agency and applicant, if any, that meet these terms and conditions will be exempt from the ESA take prohibition.

This document also includes the results of our consultation on the action's likely effects on essential fish habitats (EFH) for Chinook and coho salmon (*O. kisutch*) pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and includes conservation recommendations to avoid, minimize, or otherwise offset potential adverse effects to EFH. Section 305(b)(4)(B) of the MSA requires Federal agencies to provide a detailed written response to NOAA Fisheries within 30 days after receiving these recommendations. If the response is inconsistent with the recommendations, the Natural Resources Conservation Service must explain why the recommendations will not be followed, including the justification for any disagreements over the effects of the action and the recommendations.



If you have questions regarding this consultation, please contact Ron Lindland, Oregon State Habitat Office, at 503.231.2315.

Sincerely,

Michael R. Course
for

D. Robert Lohn
Regional Administrator

Endangered Species Act – Section 7 Consultation
Biological Opinion

&

Magnuson-Stevens Fishery Conservation and
Management Act
Essential Fish Habitat Consultation

Johansen Restoration Project,
Lower South Yamhill River 5th Field Watershed (HUC#1709000804),
Yamhill County, Oregon

Lead Action Agency: Natural Resources Conservation Service

Consultation
Conducted By: NOAA's National Marine Fisheries Service,
Northwest Region

Date Issued: August 16, 2004

Michael R. Course
f.s.

Issued by: _____
D. Robert Lohn
Regional Administrator

NOAA Fisheries No.: 2004/00598

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INTRODUCTION

The biological opinion (Opinion) and incidental take statement of this consultation were prepared by NOAA's National Marine Fisheries Service (NOAA Fisheries) in accordance with section 7(a)(2) the Endangered Species Act (ESA) of 1973, as amended (16 USC 1531 *et seq.*), and implementing regulations at 50 CFR 402. The essential fish habitat (EFH) part of this consultation was prepared in accordance with section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 USC 1801 *et seq.*) and implementing regulations at 50 CFR 600. The administrative record for this consultation is on file at the Oregon State Habitat Office of NOAA Fisheries at 525 NE Oregon Street, Portland, Oregon 97232.

Background and Consultation History

On May 21, 2004, NOAA Fisheries received a letter dated May 18, 2004, and an accompanying May 12, 2004, biological assessment (BA) from Ducks Unlimited, Inc. (DU) requesting formal ESA consultation on the effects of the proposed Johansen Restoration Project near River Mile (RM) 5.5 of the South Yamhill River on Upper Willamette River (UWR) steelhead (*Oncorhynchus mykiss*). In requesting consultation, DU is acting as the non-Federal representative for the Natural Resources Conservation Service (NRCS). The proposed project would be funded through the NRCS Wetland Reserve Program, North American Wetlands Conservation Act, and DU. NRCS is the lead agency for this consultation. In the BA, the NRCS determined that the proposed project is "likely to adversely affect" (LAA) UWR steelhead. UWR Chinook salmon (*O. tshawytscha*) also use this reach of the South Yamhill River as juvenile rearing and migratory habitat, and will be addressed in this Opinion.

NOAA Fisheries listed UWR steelhead as threatened under the ESA on March 25, 1999 (64 FR 14517) and UWR chinook salmon as threatened on March 24, 1999 (64 FR14308). NOAA Fisheries issued protective regulations for UWR steelhead and UWR Chinook salmon under section 4(d) of the ESA on July 10, 2000 (65 FR 42422).

The objective of this Opinion is to determine whether the activities associated with the Johansen Restoration Project are likely to jeopardize the continued existence of UWR steelhead or UWR Chinook salmon.

The objective of the EFH consultation is to determine whether the proposed action may adversely affect designated EFH for relevant species, and to recommend conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH resulting from the proposed action.

Proposed Action

The proposed action is the funding and implementation of the Johansen Restoration Project by NRCS and DU. The proposed project would be along the south bank of the South Yamhill River south of McMinnville, Oregon, near River Mile (RM) 5.5 (T4S, R4W, Sections 21 and 22). According to the BA, the purpose of the project is the enhancement of shallow seasonal wetlands

and riparian forest beside the South Yamhill River. All construction activities associated with the proposed project would be completed on dry land (no in-water work). The proposed action would fund and implement the following activities:

- Construction of three earthen berms to collect and store water in the created wetland area.
- Installation of a concrete spillway in each of the berms to provide egress for juvenile salmonids which may become stranded in the wetland area when high flow events on the South Yamhill River recede.
- Excavation of shallow (1 foot deep) swale areas to direct surface water flows toward the spillway in each berm.
- Decommissioning of existing tile drainage lines (if they are present).
- Removal of existing exotic vegetation and replanting with native grasses, forbs, shrubs, and trees.

The three earthen berms would be arranged in a linear sequence, and each berm would be approximately 2.5 feet high with gentle 10:1 side slopes. Berm #1 (elevation 104.0 feet) would be 400 feet long and consist of approximately 1,000 cubic yards of material. Berm #2 (elevation 105.0 feet) would be 600 feet long and consist of approximately 2,300 cubic yards of material. Berm #3 would be 600 feet long and consist of approximately 1,500 cubic yards of material. Material for construction of the berms would be obtained from areas within the project site where swales are excavated. According to the BA, the berms are expected to maintain an average of approximately 18 inches of water in the created wetlands through the spring months.

A concrete spillway would be installed in the center of each earthen berm to allow for an extended period of flow over the berm following flood events from the South Yamhill River in the project area. Each spillway will be approximately 10 feet wide. A low flow channel would be incorporated in the center of each spillway to further extend the duration of detectable flows out of the wetland area. The concrete spillway structures would be reinforced by including rebar in the structures. An 8-inch diameter HDPE plastic outlet pipe with a valve would also be buried in each berm.

Excavated, shallow (approximately 1 foot deep) swale areas within the created wetland area would be designed to direct surface flows toward the spillway in each berm. According to the BA, the spillway and swale designs are expected to improve opportunities for egress of fish from the wetlands to the South Fork Yamhill River.

It is uncertain as to whether there are existing drainage tile lines in the project area. A trench would be excavated upstream of each berm to explore for any existing tile drainage lines that may run under the berms. If a tile line is found, it will be excavated for a distance of 50 feet, the tile removed, and the trench refilled.

Existing exotic vegetation (*e.g.*, reed canary grass) would be mechanically removed from the project site. The site would then be planted with native grasses (*e.g.*, annual rye grass, perennial rye grass, and tufted hairgrass), forbs, shrubs, and trees. Disturbed areas would also be mulched with straw and irrigated, if necessary, until plantings are established.

Since the project site would be within the 10-year floodplain of the South Yamhill River, it is likely that flooding of the area will occur periodically. In the event the floodwater from the river inundates the project site, fisheries personnel from DU would set passive trap nets (2 box traps, 2 fyke nets, and 1 Oneida Lake trap) overnight to monitor for presence of juvenile UWR steelhead and/or UWR Chinook salmon. Traps will be checked the following morning, and all fish released back to the river after sampling.

Action Area

‘Action area’ means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). For purposes of this consultation, the action area is the south streambank of the South Yamhill River beside the work area and downstream to the limit of visible turbidity increases resulting from construction activities associated with the project.

The South Yamhill River in the project area provides rearing and migratory habitat for juvenile life stages of UWR steelhead and UWR Chinook salmon. No spawning habitat is available in the project area. Juvenile UWR steelhead and UWR Chinook salmon may be rearing in the action area at the time of project implementation. Adult steelhead would not be present, nor would eggs or alevins be present in the stream substrate. The South Yamhill River has been designated as EFH for Chinook and coho salmon (PFMC 1999).

ENDANGERED SPECIES ACT

The ESA establishes a national program for conserving threatened and endangered species of fish, wildlife, plants, and the habitat on which they depend. Section 7(a)(2) of the ESA requires Federal agencies to consult with U.S. Fish and Wildlife Service and NOAA’s National Marine Fisheries Service (NOAA Fisheries), as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their critical habitats.

Section 9(a)(1) and protective regulations adopted pursuant to section 4(d) of the ESA prohibit the ‘taking’ of listed species without a specific permit or exemption. Among other things, an action that harasses, wounds, or kills an individual of a listed species or harms a species by altering habitat in a way that significantly impairs its essential behavioral patterns is a taking (50 CFR 222.102). ‘Incidental take’ refers to takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or

applicant (50 CFR 402.02). Section 7(o)(2) exempts any taking in compliance with the terms and conditions of a written incidental take statement from the taking prohibition.

Biological Opinion

This Opinion presents NOAA Fisheries' review of the status of each evolutionarily significant unit (ESU)¹ considered in this consultation, the environmental baseline for the action area, all the effects of the action as proposed, and cumulative effects. NOAA Fisheries analyzes those combined factors to conclude whether the proposed action is likely to appreciably reduce the likelihood of both the survival and recovery of the affected ESU. (50 CFR 402.14(g)). If the action under consultation is likely to jeopardize an ESU, NOAA Fisheries must identify any reasonable and prudent alternatives for the action that avoid jeopardy and meet other regulatory requirements (50 CFR 402.02).

Status of the UWR Steelhead and UWR Chinook Salmon ESUs

This section defines range-wide biological requirements of each ESU, and reviews the status of the ESUs relative to those requirements. The present risk faced by each ESU informs NOAA Fisheries' determination of whether additional risk will 'appreciably reduce' the likelihood that an ESU will survive and recover in the wild. The greater the present risk, the more likely any additional risk resulting from the proposed action's effects on the population size, productivity (growth rate), distribution, or genetic diversity of the ESU will be an appreciable reduction (McElhaney *et al.* 2000).

UWR Steelhead ESU

The status of UWR steelhead was initially reviewed by NMFS in 1996 (Busby et al. 1996) and a more recent review occurred in 1999 (NMFS 1999a). In the 1999 review, the Biological Review Team (BRT) noted several concerns for this ESU, including the relatively low abundance and steep declines since 1988. The previous BRT was also concerned about the potential negative interaction between non-native summer steelhead and wild winter steelhead. The previous BRT considered the loss of access to historical spawning grounds because of dams a major risk factor. The 1999 BRT reached a unanimous decision that the UWR steelhead ESU was at risk of becoming endangered in the foreseeable future.

New data for UWR steelhead include redd counts and dam/weir counts through 2000, 2001, and 2002 and estimates of hatchery fraction and harvest rates through 2000. New analyses for this update include the designation of demographically independent populations, and estimates of current and historically available kilometers of stream.

¹ 'ESU' means an anadromous salmon or steelhead population that is either listed or being considered for listing under the ESA, is substantially isolated reproductively from conspecific populations, and represents an important component of the evolutionary legacy of the species (Waples 1991). An ESU may include portions or combinations of populations more commonly defined as stocks within or across regions.

As part of its effort to develop viability criteria for UWR steelhead, the Willamette/Lower Columbia Technical Recovery Team has identified historically demographically independent populations (Myers et al. 2003). Population boundaries are based on an application of Viable Salmonid Populations (VSP) definition (McElhany *et al.* 2000). Myers *et al.* hypothesized that the ESU historically consisted of at least four populations (Molalla, North Santiam, South Santiam and Calapooia) and possibly a fifth (Coast Range). The historical existence of a population in the coast range is uncertain. The populations identified in Myers *et al.* (2003) are used as the units for the new analyses in the BRT (2003) report.

Based on the updated information provided in the BRT (2003) report, the information contained in previous UWR steelhead ESU status reviews, and preliminary analyses by the Willamette Lower Columbia Technical Review Team, NOAA Fisheries could not conclusively identify a single population that is naturally self-sustaining. All populations are relatively small, with the recent mean abundance of the entire ESU at less than 6,000. Over the period of the available time series, most of the populations are in decline. The recent elimination of the winter-run hatchery production will allow estimation of the natural productivity of the populations in the future, but the available time series are confounded by the presence of hatchery-origin spawners. On a positive note, the counts all indicate an increase in abundance in 2001, likely due in part to improved marine conditions.

Because coastal cutthroat trout is a dominant species in the Willamette River basin, resident steelhead are not as widespread here as in areas east of the Cascades. Resident fish below barriers are found in the Pudding/Molalla, Lower Santiam, Calapooia, and Tualatin drainages, and these would be considered part of the steelhead ESU based on the provisional framework discussed in the general introduction (BRT 2003). Resident fish above Big Cliff and Detroit Dams on the North Fork Santiam and above Green Peter Dam on the South Fork Santiam are of uncertain ESU affinity. Although no obvious physical barrier separates populations upstream of the Calapooia from those lower in the basin, resident steelhead in these upper reaches of the Willamette River basin are quite distinctive both phenotypically and genetically and are not considered part of the steelhead ESU.

The majority (over 76%) of the 2003 BRT votes for this ESU fell in the 'likely to become endangered' category, with small minorities falling in the 'danger of extinction' and 'not likely to become endangered' categories. The BRT did not identify any extreme risks for this ESU but found moderate risks in all the VSP categories, ranging from moderately low for diversity to moderate spatial structure and growth rate/productivity. On a positive note, after a decade in which overall abundance (Willamette Falls count) hovered around the lowest levels on record, adult returns for 2001 and 2002 were up significantly, on par with levels seen in the 1980s. Still, the total abundance is small for an entire ESU, resulting in a number of populations that are each at relatively low abundance. The recent increases are encouraging but it is uncertain whether they can be sustained. The 2003 BRT considered it a positive sign that releases of the 'early' winter-run hatchery population have been discontinued, but remained concerned that releases of non-native summer-run steelhead continue.

UWR Chinook salmon ESU

The status of UWR Chinook was initially reviewed by NOAA Fisheries in 1998 (Myers *et al.* 1998) and updated in that same year (NMFS 1998). In the 1998 update, the BRT noted several concerns for this ESU. The previous BRT was concerned about the few remaining populations of spring chinook salmon in the UWR ESU, and the high proportion of hatchery fish in the remaining runs. The BRT noted with concern that the Oregon Department of Fish and Wildlife was able to identify only one remaining naturally-reproducing population in this ESU—the spring Chinook salmon in the McKenzie River. The previous BRT was concerned about severe declines in short-term abundance that occurred throughout the ESU, and the McKenzie River population had declined precipitously, indicating that it may not be self-sustaining. The 1998 BRT also noted the potential for interactions between native spring-run and introduced fall-run Chinook salmon had increased relative to historical times due to fall-run Chinook salmon hatchery programs and the laddering of Willamette Falls. The previous BRT partially attributed the declines in spring chinook salmon in the UWR ESU to the extensive habitat blockages caused by dam construction. The previous BRT was encouraged by efforts to reduce harvest pressure on naturally-produced spring Chinook salmon in Upper Willamette River tributaries, and the increased focus on selective marking of hatchery fish should help managers targeting specific populations of wild or hatchery Chinook salmon.

New data for this update include spawner abundance through 2002 in Clackamas, 2001 in McKenzie, and 2001 at Willamette Falls. In addition, new data include updated redd surveys in the basin, new estimates of the fraction of hatchery-origin spawners in McKenzie and North Santiam from an otolith marking study, the first estimate of hatchery fraction in the Clackamas (2002 data), and information on recent hatchery releases. New analyses for this update include: the designation of relatively demographically independent populations, recalculation of previous BRT metrics in the McKenzie with additional years of data, estimates of current and historically available kilometers of stream, and updates on current hatchery releases.

The updated information provided in the BRT (2003) report, the information contained in previous UWR Chinook status reviews, and preliminary analysis by the Willamette Lower Columbia Technical Review Team, indicate that most natural spring Chinook populations are likely extirpated or nearly so. The only population considered potentially self-sustaining is the McKenzie. However, its abundance has been relatively low (low thousands) with a substantial number of these fish being of hatchery origin. The population has shown a substantial increase in the last couple of years, hypothesized to be a result of increase ocean survival. It is unknown what ocean survivals will be in the future and the long-term sustainability of this population is uncertain.

Although the number of adult spring-run Chinook salmon crossing Willamette Falls is in the same range (about 20,000 to 70,000) it has been for the last 50 years, a large fraction of these are hatchery produced. The score for spatial structure reflects concern by the BRT that perhaps a third of the historic habitat used by fish in this ESU is currently inaccessible behind dams, and the BRT remained concerned that natural production in this ESU is restricted to a very few areas. Increases in the last 3 to 4 years in natural production in the largest remaining population (the

McKenzie) were considered encouraging by the BRT. With the relatively large incidence of hatchery fish, it is difficult to determine trends in natural production.

A majority (70%) of the BRT votes for this ESU fell in the ‘likely to become endangered’ category, with minorities falling in the ‘danger of extinction’ and ‘not likely to become endangered’ categories. The BRT found moderately high risks in all VSP elements, with risk estimates ranging from moderate for growth rate/productivity to moderately high for spatial structure.

Environmental Baseline

The ‘environmental baseline’ includes the past and present impacts of all Federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process (50 CFR 402.02). For projects that are ongoing actions, the effects of future actions over which the Federal agency has discretionary involvement or control will be analyzed as ‘effects of the action.’

NOAA Fisheries describes the environmental baseline in terms of the biological requirements for habitat features and processes necessary to support life stages of the subject ESU within the action area. When the environmental baseline departs from those biological requirements, the adverse effects of a proposed action on the ESU or its habitat are more likely to jeopardize the listed species or result in destruction or adverse modification of critical habitat (NMFS 1999b). The biological requirements of salmon and steelhead in the action area vary depending on the life history stage present and the natural range of variation present within that system (Groot and Margolis 1991, NRC 1996, Spence *et al.* 1996).

Generally, during spawning migrations, adult steelhead and salmon require clean water with cool temperatures and access to thermal refugia, dissolved oxygen near 100% saturation, low turbidity, adequate flows and depths to allow passage over barriers to reach spawning sites, and sufficient holding and resting sites. Anadromous fish select spawning areas based on species-specific requirements of flow, water quality, substrate size, and groundwater upwelling. Embryo survival and fry emergence depend on substrate conditions (*e.g.*, gravel size, porosity, permeability, oxygen concentrations), substrate stability during high flows, and, for most species, water temperatures of 13°C or less. Habitat requirements for juvenile rearing include seasonally suitable microhabitats for holding, feeding, and resting. Migration of juveniles to rearing areas, whether the ocean, lakes, or other stream reaches, requires unobstructed access to these habitats. Physical, chemical, and thermal conditions may all impede migrations of adult or juvenile fish.

The UWR steelhead and UWR Chinook salmon ESUs considered in this Opinion reside in or migrate through the action area. Thus, for this action area, the biological requirements for

salmon and steelhead are the habitat characteristics that would support successful juvenile rearing and adult and juvenile migration for UWR steelhead and UWR Chinook salmon.

Environmental baseline conditions within the action area were evaluated for the subject action at the project level and watershed scales. This evaluation was based on the “matrix of pathways and indicators (MPI) described in “Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale” (NMFS 1996). This method assesses the current condition of instream, riparian, and watershed factors that collectively provide properly functioning aquatic habitat essential for the survival and recovery of the species.

In general, the South Yamhill River watershed has experienced considerable past disturbance in all areas of the watershed including wetlands, floodplain, riparian habitats, and aquatic refugia. None of the 18 habitat indicators for which data were available in the MPI were rated as properly functioning by NRCS. Four of the 18 indicators were rated as functioning “at risk.” These were physical barriers, substrate, drainage network increase, and road density and location. The other 14 indicators (temperature, sediment, chemical contamination/nutrients, LWM, pool frequency, pool quality, off-channel habitat, refugia, width/depth ratio, streambank condition, floodplain connectivity, peak/base flows, disturbance history, and riparian reserves) were rated as not properly functioning. The environmental baseline conditions for each habitat indicator in the MPI are described in the BA and incorporated herein by reference.

The South Yamhill River, inclusive of the project site, is currently listed on the Oregon Department of Environmental Quality (DEQ) 303(d) List of Water Quality Limited Waterbodies (ODEQ 2002). The South Yamhill River is listed for bacteria (fecal coliform), temperature, and flow modifications.

The project site is on an area that has been used for agriculture for many years. Domestic berries were grown on the farmland before its present use which is producing hay and pasture. There are scattered trees and shrubs remaining in a narrow strip along the river; however, much of the riparian vegetation has been removed over the years of farming activities.

Effects of the Action

‘Effects of the action’ means the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline (50 CFR 402.02). If the proposed action includes offsite measures to reduce net adverse impacts by improving habitat conditions and survival, NOAA Fisheries will evaluate the net combined effects of the proposed action and the offsite measures.

‘Indirect effects’ are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur (50 CFR 402.02). Indirect effects may occur outside the area directly affected by the action, and may include other Federal actions that have not undergone section 7 consultation but will result from the action under consideration. To be considered

indirect effects, such actions must be reasonably certain to occur, as evidenced by appropriations, work plans, permits issued, or budgeting; follow a pattern of activity undertaken by the agency in the action area; or be a logical extension of the proposed action.

‘Interrelated actions’ are those that are part of a larger action and depend on the larger action for their justification; ‘interdependent actions’ are those that have no independent utility apart from the action under consideration (50 CFR 402.02). Future Federal actions that are not a direct effect of the action under consideration, and not included in the environmental baseline or treated as indirect effects, are not considered in this Opinion.

For the proposed Johansen Restoration Project, indirect effects are likely to include death or injury of juvenile UWR steelhead and UWR Chinook salmon resulting from stranding in created wetland areas following periodic flood events in the South Yamhill River, and from handling of fish associated with the fish trapping efforts used to determine whether fish are indeed being stranded in the created wetland areas. Other indirect effects that are likely to occur include behavioral changes of UWR steelhead and UWR Chinook salmon resulting from increased stream turbidity in the river if the project area is flooded before vegetation is well established on areas disturbed by construction activities, and long-term improvement in aquatic habitat at the site resulting from the increased riparian vegetation. There are no interrelated or interdependent effects from the proposed project.

Because all construction work will occur on dry land, sediment transport and turbidity increases in the South Yamhill River downstream from the project site are expected to be minimal.

Effects on Listed Species

The primary effect of the proposed project on listed species would be stranding of juvenile UWR steelhead and/or UWR Chinook salmon in the created wetland areas following flood events on the South Yamhill River. Some stranding of juvenile salmonids following flood events occurs naturally under existing conditions. The project would be within the 10-year flood plain of the river. It is unlikely that river flows of sufficient magnitude to flood the project area will occur every year. However, depending on the water year, it is also possible that the area may be flooded more than once in a given year (winter and spring). When water levels recede following a flood event which covers the project area, juvenile UWR steelhead and/or UWR Chinook salmon are likely to become stranded in the created wetland areas. Since the excavated swales and berm spillways would be designed to facilitate migration of juvenile salmonids out of the wetland areas and back to the river once flood flows recede, the stranding of juvenile salmonids in the created wetland areas is expected to be avoided or minimized over what is naturally occurring under existing conditions.

To determine if stranding of juvenile UWR steelhead and/or UWR Chinook salmon is happening in the created wetlands, fish traps and fyke nets would be set periodically in the flooded area when high flow events occur. If any juvenile salmonids are caught in the sampling traps, removal and relocation of these trapped fish could result in mortality and/or injury to the fish during handling. Estimating that up to 50 each of ESA-listed juvenile UWR steelhead and UWR

Chinook salmon may be captured in the traps and released during sampling, and assuming a 5% direct or delayed mortality rate for those fish that are captured and relocated, the fish trapping and removal operation associated with the proposed project could result in lethal take of up to three of each species of ESA-listed salmonids.

If the first flood event to inundate the project area on the South Yamhill River following project completion occurs before establishment of vegetation on areas disturbed by construction activities, there is potential for some sediment to be transported from the project site to the river. At moderate levels, turbidity can reduce primary and secondary productivity and, at high levels, turbidity can interfere with feeding and can injure and kill both adult and juvenile fish (Spence *et al.* 1996, Bjornn and Reiser 1991). Other behavioral effects on fish, such as gill flaring and feeding changes, have been observed in response to pulses of suspended sediment (Berg and Northcote 1985). Fine, redeposited sediments can also reduce primary and secondary productivity (Spence *et al.* 1996), and reduce incubation success and interstitial rearing space for juvenile salmonids (Bjornn and Reiser 1991). Salmonid fishes have been observed to move laterally and downstream to avoid turbid plumes (Sigler *et al.* 1984, Lloyd 1987, Servizi and Martens 1991). Juvenile salmonid fishes tend to avoid streams that are chronically turbid, such as glacial streams or those disturbed by human activities, except when the fish must traverse these streams along migration routes (Lloyd *et al.* 1987). In contrast, turbid water can provide cover and refuge from predation from piscivorous fish and birds (Gregory and Levings 1998). In habitats with intense predation pressure, this provides a beneficial trade-off of enhanced survival in exchange for physical effects such as reduced growth.

Exposure duration is a critical determinant of whether turbidity causes physical or behavioral effects and the extent of those effects (Newcombe and MacDonald 1991). Salmonids have evolved in waters that periodically experience short-term pulses (days to weeks) of high suspended sediment loads, often associated with floods, and are adapted to such high pulse exposures. Adult and larger juvenile salmonids appear to be little affected by the high concentrations of suspended sediments that occur during storm and snowmelt runoff episodes (Bjornn and Reiser 1991). However, chronic exposure can cause physiological stress that can increase maintenance energy and reduce feeding and growth (Redding *et al.* 1987, Lloyd 1987, Servizi and Martens 1991).

Behavioral avoidance of turbid waters by juvenile salmonids may be one of the most important effects of suspended sediments (DeVore *et al.* 1980, Birtwell *et al.* 1984, Scannell 1988). Salmonids have been observed to move laterally and downstream to avoid turbid plumes (McLeay *et al.* 1984, 1987, Sigler *et al.* 1984, Lloyd 1987, Scannell 1988, Servizi and Martens 1991). Juvenile salmonids tend to avoid streams that are chronically turbid, such as glacial streams or those disturbed by human activities, except when the fish need to traverse these streams along migration routes (Lloyd *et al.* 1987).

The extent of turbidity increases in the South Yamhill River resulting from activities associated with this project is not expected to be significant. Flood flow events usually result in increased

turbidity within this river system. The amount of sediment and resultant turbidity increases resulting from this project are expected to be minimal.

As with all construction activities, accidental release of fuel, oil, and other contaminants may occur. Operation of heavy equipment requires the use of fuels and lubricants which, if spilled in the stream channel or riparian area can injure or kill aquatic organisms. Petroleum-based contaminants, such as fuel, oil, and some hydraulic fluids, contain poly-cyclic aromatic hydrocarbons (PAHs) which can be acutely toxic to salmonids at high levels of exposure and can also cause chronic lethal and acute and chronic sublethal effects to aquatic organisms (Neff 1985). The potential for pollutants to enter the stream will be minimized since no in-water work would occur. In addition, staging fuels and equipment in approved areas, by having a spill-control plan, and by having spill-control materials on site will further minimize the potential for contaminants to enter the river.

All areas that are disturbed by construction activities associated with the proposed project will be planted with native varieties of vegetation. As the vegetation matures over time, it will contribute to the improvement of habitat functions. No existing large trees will be removed in the action area.

The proposed project is expected to result in some beneficial effects to habitat for ESA-listed salmonids at the project site over time. These are: (1) Restoration of riparian vegetation by planting native trees and shrubs; (2) improvement of water quality by restoring wetland functions such as ground water recharge; and (3) restoration of wetland vegetation communities while reducing or eliminating exotic plant species.

Cumulative Effects

‘Cumulative effects’ are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02). Cumulative effects that reduce the capacity of listed ESUs to meet their biological requirements in the action area increase the risk to the ESU that the effects of the proposed action on the ESU or its habitat will result in jeopardy (NMFS 1999b). NOAA Fisheries is not aware of any specific future non-Federal activities within the action area that would cause greater impacts to listed species or their habitat than presently occurs.

Between 1990 and 2000, the population of Yamhill County, Oregon increased by 29.7%.² Thus, NOAA Fisheries assumes that future private and state actions will continue within the action area, increasing as population density rises. As the human population in the action area continues to grow, demand for agricultural, commercial, or residential development is also likely to grow. The effects that new development that are caused by that demand are likely to further reduce the conservation value of habitat within the action area.

² U.S. Census Bureau, State and County Quickfacts, Washington County, Oregon. any county Available at <http://quickfacts.census.gov/qfd/>

Although quantifying an incremental change in survival for the ESUs considered in this consultation due to the cumulative effects is not possible, it is reasonably likely that human population growth will have a negative effect on the likelihood of the survival and recovery of UWR steelhead and UWR Chinook salmon.

Conclusion

After reviewing the best available scientific and commercial information regarding the biological requirements and the status of the UWR steelhead and UWR Chinook salmon considered in this Opinion, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, NOAA Fisheries' concludes that the action, as proposed, is not likely to jeopardize the continued existence of this species.

This conclusion is based on the following considerations: (1) The potential for stranding of juvenile UWR steelhead or UWR Chinook salmon in created wetland areas following some flood events in the South Yamhill River will be minimized by spillway and swale design to improve opportunities for egress of stranded fish from the wetlands back to the river; (2) no in-water work would occur; (3) any turbidity increases which do occur are expected to be of short duration; (4) implementation of the project will help restore riparian vegetation and improve wetland function at the project site; and (5) the proposed action is not likely to impair properly functioning habitat, or retard the long-term progress of impaired habitat toward proper functioning condition essential to the long-term survival and recovery of UWR steelhead and UWR Chinook salmon at the population or ESU scales.

Reinitiation of Consultation

Reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If the amount or extent of taking specified in the incidental take statement is exceeded; (b) If new information reveals effects of the action that may affect listed species in a manner or to an extent not previously considered; (c) If the identified action is subsequently modified in a manner that has an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) If a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16).

To reinitiate consultation, contact the Oregon State Habitat Office of NOAA Fisheries and refer to the NOAA Fisheries number assigned to this consultation: 2004/00598.

Incidental Take Statement

Section 9(a)(1) and protective regulations adopted pursuant to section 4(d) of the ESA prohibit the taking of listed species without a specific permit or exemption. Among other things, an action that harasses, wounds, or kills an individual of a listed species or harms a species by altering habitat in a way that significantly impairs its essential behavioral patterns is a taking (50

CFR 222.102). Incidental take refers to takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(o)(2) exempts any taking that meets the terms and conditions of a written incidental take statement from the taking prohibition.

Amount or Extent of Take

NOAA Fisheries expects incidental take to occur as a result of proposed action that will injure or kill juvenile UWR steelhead and/or UWR Chinook salmon by stranding them in created wetland areas following some periodic flood events on the South Yamhill River. There is also the potential for a short-term increase in stream turbidity at the project site and for some distance downstream, if vegetation is not well established at the site when the first flood event to cover the project area occurs. In addition, trapping to monitor for the presence of juvenile ESA-listed salmonids in the created wetland areas when they are flooded could result in harm or death of those fish. If any juvenile salmonids are caught in the sampling traps, removal and relocation of these trapped fish could result in mortality and/or injury to the fish during handling. Estimating that up to 50 each of ESA-listed juvenile UWR steelhead and UWR Chinook salmon may be captured in the traps and released during each sampling period, and assuming a 5% direct or delayed mortality rate for those fish that are captured and relocated, the fish trapping and removal operation associated with the proposed project could result in lethal take of up to three of each species of ESA-listed salmonids. The amount of the incidental take is limited to the capture of no more than 50 each UWR steelhead and UWR Chinook per sampling period, and no more than 5% mortality offish trapped during monitoring.

Reasonable and Prudent Measures

Reasonable and prudent measures are non-discretionary measures to avoid or minimize take that must be carried out by cooperators for the exemption in section 7(o)(2) to apply. The NRCS has the continuing duty to regulate the activities covered in this incidental take statement where discretionary Federal involvement or control over the action has been retained or is authorized by law. The protective coverage of section 7(o)(2) may lapse if the NRCS fails to exercise its discretion to require adherence to terms and conditions of the incidental take statement, or to exercise that discretion as necessary to retain the oversight to ensure compliance with these terms and conditions. Similarly, if any applicant fails to act in accordance with the terms and conditions of the incidental take statement, protective coverage may lapse.

The following reasonable and prudent measures are necessary and appropriate to minimize take of listed species resulting from completion of the proposed action. These reasonable and prudent measures would also minimize adverse effects to critical habitat, if any.

The NRCS shall:

1. Minimize incidental take from construction activities by applying conditions to avoid or minimize disturbance to riparian and aquatic systems.

2. Ensure completion of a comprehensive monitoring and reporting program to confirm this Opinion is meeting its objective of minimizing take from permitted activities.

Terms and Conditions

To be exempt from the prohibitions of section 9 of the ESA, the NRCS and its cooperators must comply with the following terms and conditions, that implement the reasonable and prudent measures described above. Partial compliance with these terms and conditions may invalidate this take exemption or lead NOAA Fisheries to a different conclusion regarding whether the proposed action will result in jeopardy.

1. To implement reasonable and prudent measure #1 (general conditions for construction, operation, and maintenance), the NRCS shall ensure that:
 - a. Minimum area. Confine construction impacts to the minimum area necessary to complete the project.
 - b. Cessation of work. Cease project operations under high flow conditions that may result in inundation of the project area, except for efforts to avoid or minimize resource damage.
 - c. Pollution and Erosion Control Plan. Prepare and carry out a pollution and erosion control plan to prevent pollution caused by surveying or construction operations. The plan must be available for inspection on request by the NRCS or NOAA Fisheries.
 - i. Plan Contents. The pollution and erosion control plan will contain the pertinent elements listed below, and meet requirements of all applicable laws and regulations.
 - (1) The name and address of the party(s) responsible for accomplishment of the pollution and erosion control plan.
 - (2) Practices to prevent erosion and sedimentation associated with access roads, construction sites, equipment and material storage sites, fueling operations, and staging areas.
 - (3) A description of any regulated or hazardous products or materials that will be used for the project, including procedures for inventory, storage, handling, and monitoring.
 - (4) A spill containment and control plan with notification procedures, specific cleanup and disposal instructions for different products, quick response containment and cleanup measures that will be available on the site, proposed methods for disposal of spilled materials, and employee training for spill containment.
 - (5) Practices to prevent construction debris from dropping into any stream or water body, and to remove any material that does drop with a minimum disturbance to the streambed and water quality.
 - ii. Inspection of erosion controls. During construction, monitor instream turbidity and inspect all erosion controls daily during the rainy season and

weekly during the dry season, or more often as necessary, to ensure the erosion controls are working adequately.³

- (1) If monitoring or inspection shows that the erosion controls are ineffective, mobilize work crews immediately to make repairs, install replacements, or install additional controls as necessary.
 - (2) Remove sediment from erosion controls once it has reached 1/3 of the exposed height of the control.
- g. Construction discharge water. Treat all discharge water created by construction (e.g., concrete washout, vehicle wash water) as follows.
- i. Water quality. Design, build and maintain facilities to collect and treat all construction discharge water using the best available technology applicable to site conditions. Provide treatment to remove debris, nutrients, sediment, petroleum hydrocarbons, metals and other pollutants likely to be present.
 - ii. Pollutants. Do not allow pollutants including contaminated water or silt to contact any wetland or the 2-year floodplain.
- h. Preconstruction activity. Complete the following actions before significant⁴ alteration of the project area.
- i. Marking. Flag the boundaries of clearing limits associated with site access and construction to prevent ground disturbance of critical riparian vegetation, wetlands and other sensitive sites beyond the flagged boundary.
 - ii. Emergency erosion controls. Ensure that the following materials for emergency erosion control are onsite.
 - (1) A supply of sediment control materials (e.g., silt fence, straw bales⁵).
 - (2) An oil-absorbing, floating boom whenever surface water is present.
 - iii. Temporary erosion controls. All temporary erosion controls will be in-place and appropriately installed downslope of project activity within the riparian area until site restoration is complete.
- i. Temporary access roads. All temporary access roads will be constructed as follows.
- i. Existing ways. Use existing roadways and travel paths whenever possible, unless construction of a new way would result in less habitat take. When

³ 'Working adequately' means that project activities do not increase ambient stream turbidity by more than 10% above background 100 feet below the discharge, when measured relative to a control point immediately upstream of the turbidity causing activity.

⁴ 'Significant' means an effect can be meaningfully measured, detected or evaluated.

⁵ When available, certified weed-free straw or hay bales will be used to prevent introduction of noxious weeds.

- feasible, eliminate the need for an access road by walking a tracked drill or spider hoe to a survey site.
- ii. Steep slopes. Temporary roads built mid-slope or on slopes steeper than 30% are not authorized.
 - iii. Minimizing soil disturbance and compaction. Minimize soil disturbance and compaction whenever a new temporary road is necessary within 150 feet⁶ of a stream, water body or wetland by clearing vegetation to ground level and placing clean gravel over geotextile fabric, unless otherwise approved in writing by NOAA Fisheries.
 - iv. Obliteration. When the project is complete, obliterate all temporary access roads that will not be in footprint of a new bridge or other permanent structure, stabilize the soil, and revegetate the site. Abandon and restore temporary roads in wet or flooded areas by the end of the in-water work period.
- j. Heavy Equipment. Restrict use of heavy equipment as follows:
- i. Choice of equipment. When heavy equipment will be used, the equipment selected will have the least adverse effects on the environment (*e.g.*, minimally sized, low ground pressure equipment).
 - ii. Vehicle and material staging. Store construction materials, and fuel, operate, maintain and store vehicles as follows.
 - (1) To reduce the staging area and potential for contamination, ensure that only enough supplies and equipment to complete a specific job will be stored on-site.
 - (2) Complete vehicle staging, cleaning, maintenance, refueling, and fuel storage in a vehicle staging area placed 150 feet or more from any stream, water body or wetland, unless otherwise approved in writing by NOAA Fisheries.
 - (3) Inspect all vehicles operated within 150 feet of any stream, water body or wetland daily for fluid leaks before leaving the vehicle staging area. Repair any leaks detected in the vehicle staging area before the vehicle resumes operation. Document inspections in a record that is available for review on request by the NRCS or NOAA Fisheries.
 - (4) Before operations begin and as often as necessary during operation, steam clean all equipment that will be used below bankfull elevation until all visible external oil, grease, mud, and other visible contaminants are removed.

⁶ Distances from a stream or water body are measured horizontally from, and perpendicular to, the bankfull elevation, the edge of the channel migration zone, or the edge of any associated wetland, whichever is greater. ‘Channel migration zone’ means the area defined by the lateral extent of likely movement along a stream reach as shown by evidence of active stream channel movement over the past 100 years (*e.g.*, alluvial fans or floodplains formed where the channel gradient decreases, the valley abruptly widens, or at the confluence of larger streams).

- (5) Diaper all stationary power equipment (e.g., generators, cranes, stationary drilling equipment) operated within 150 feet of any stream, waterbody or wetland to prevent leaks, unless suitable containment is provided to prevent potential spills from entering any stream or waterbody.
- k. Site preparation. Conserve native materials for site restoration.
- i. If possible, leave native materials where they are found.
 - ii. If materials are moved, damaged or destroyed, replace them with a functional equivalent during site restoration.
 - iii. Stockpile any large wood⁷, native vegetation, weed-free topsoil, and native channel material displaced by construction for use during site restoration.
- m. Capture and release. Capture and release of any ESA-listed fish trapped during sampling of flooded created wetland areas at the project site shall be conducted as follows:
- i. The entire capture and release operation must be conducted or supervised by a fishery biologist experienced with work area isolation and competent to ensure the safe handling of all ESA-listed fish.
 - ii. Handle ESA-listed fish with extreme care, keeping fish in water to the maximum extent possible during seining and transfer procedures to prevent the added stress of out-of-water handling.
 - iii. Transport fish in aerated buckets or tanks.
 - iv. Release fish into a safe release site as quickly as possible, and as near as possible to capture sites.
 - v. Do not transfer ESA-listed fish to anyone except NOAA Fisheries personnel, unless otherwise approved in writing by NOAA Fisheries.
 - vi. Obtain all other Federal, state, and local permits necessary to conduct the capture and release activity.
 - vii. Allow NOAA Fisheries or its designated representative to accompany the capture team during the capture and release activity, and to inspect the team's capture and release records and facilities.
- n. Earthwork. Complete earthwork (including drilling, excavation, dredging, filling and compacting) as quickly as possible.
- i. Site stabilization. Stabilize all disturbed areas, including obliteration of temporary roads, following any break in work unless construction will resume within four days.

⁷ For purposes of this Opinion only, 'large wood' means a tree, log, or rootwad big enough to dissipate stream energy associated with high flows, capture bedload, stabilize streambanks, influence channel characteristics, and otherwise support aquatic habitat function, given the slope and bankfull channel width of the stream in which the wood occurs. See, Oregon Department of Forestry and Oregon Department of Fish and Wildlife, *A Guide to Placing Large Wood in Streams*, May 1995 (www.odf.state.or.us/FP/RefLibrary/LargeWoodPlacemntGuide5-95.doc).

- ii. Source of materials. Obtain boulders, rock, woody materials and other natural construction materials used for the project outside the riparian area.
- o. Site restoration. Prepare and carry out a site restoration plan as necessary to ensure that all streambanks, soils and vegetation disturbed by the project are cleaned up and restored as follows. Make the written plan available for inspection on request by the NRCS or NOAA Fisheries.
 - i. General considerations.
 - (1) Restoration goal. The goal of site restoration is renewal of habitat access, water quality, production of habitat elements (*e.g.*, large woody debris), channel conditions, flows, watershed conditions and other ecosystem processes that form and maintain productive fish habitats.
 - (2) Streambank shaping. Restore damaged streambanks to a natural slope, pattern and profile suitable for establishment of permanent woody vegetation, unless precluded by pre-project conditions (*e.g.*, a natural rock wall).
 - (3) Revegetation. Replant each area requiring revegetation before the first April 15 following construction. Use a diverse assemblage of species native to the project area or region, including grasses, forbs, shrubs and trees. Noxious or invasive species may not be used.
 - (4) Pesticides. Take of ESA-listed species caused by any aspect of pesticide use is not included in the exemption to the ESA take prohibitions provided by this incidental take statement. Pesticide use must be evaluated in an individual consultation, although mechanical or other methods may be used to control weeds and unwanted vegetation.
 - (5) Fencing. Install fencing as necessary to prevent access to revegetated sites by livestock or unauthorized persons.
 - ii. Plan contents. Include each of the following elements.
 - (1) Responsible party. The name and address of the party(s) responsible for meeting each component of the site restoration requirements, including providing and managing any financial assurances and monitoring necessary to ensure restoration success.
 - (2) Baseline information. This information may be obtained from existing sources (*e.g.*, land use plans, watershed analyses, subbasin plans), where available.
 - (a) A functional assessment of adverse effects, *i.e.*, the location, extent and function of the riparian and aquatic resources that will be adversely affected by construction and operation of the project.
 - (b) The location and extent of resources surrounding the restoration site, including historic and existing conditions.

- (3) Goals and objectives. Restoration goals and objectives that describe the extent of site restoration necessary to offset adverse effects of the project, by aquatic resource type.
- (4) Performance standards. Use these standards to help design the plan and to assess whether the restoration goal is met. While no single criterion is sufficient to measure success, the intent is that these features should be present within reasonable limits of natural and management variation.
 - (a) Bare soil spaces are small and well dispersed.
 - (b) Soil movement, such as active rills or gullies and soil deposition around plants or in small basins, is absent or slight and local.
 - (c) If areas with past erosion are present, they are completely stabilized and healed.
 - (d) Plant litter is well distributed and effective in protecting the soil with few or no litter dams present.
 - (e) Native woody and herbaceous vegetation, and germination microsites, are present and well distributed across the site.
 - (f) Vegetation structure is resulting in rooting throughout the available soil profile.
 - (g) Plants have normal, vigorous growth form, and a high probability of remaining vigorous, healthy and dominant over undesired competing vegetation.
 - (h) High impact conditions confined to small areas necessary access or other special management situations.
 - (i) Streambanks have less than 5% exposed soils with margins anchored by deeply rooted vegetation or coarse-grained alluvial debris.
 - (j) Few upland plants are in valley bottom locations, and a continuous corridor of shrubs and trees provide shade for the entire streambank.
- (5) Work plan. Develop a work plan with sufficient detail to include a description of the following elements, as applicable.
 - (a) Boundaries for the restoration area.
 - (b) Restoration methods, timing, and sequence.
 - (c) Water supply source, if necessary.
 - (d) Woody native vegetation appropriate to the restoration site⁸. This must be a diverse assemblage of species that are native to the project area or region, including grasses, forbs, shrubs and trees. This may include allowances for natural regeneration from an existing seed bank or planting.

⁸ Use references sites to select vegetation for the mitigation site whenever feasible. Historic reconstruction, vegetation models, or other ecologically-based methods may also be used as appropriate.

- (e) A plan to control exotic invasive vegetation.
- (f) Elevation(s) and slope(s) of the restoration area to ensure they conform with required elevation and hydrologic requirements of target plant species.
- (g) Geomorphology and habitat features of stream or other open water.
- (h) Site management and maintenance requirements.
- (6) Five-year monitoring and maintenance plan.
 - (a) A schedule to visit the restoration site annually for 5 years or longer as necessary to confirm that the performance standards are achieved. Despite the initial 5-year planning period, site visits and monitoring will continue from year-to-year until the NRCS certifies that site restoration performance standards have been met.
 - (b) During each visit, inspect for and correct any factors that may prevent attainment of performance standards (*e.g.*, low plant survival, invasive species, wildlife damage, drought).
 - (c) Keep a written record to document the date of each visit, site conditions and any corrective actions taken.

2. To implement reasonable and prudent measure #2 (monitoring), the NRCS shall:

- a. Monitoring. Within 120 days of completing the project, the NRCS will submit a monitoring report to NOAA Fisheries describing the NRCS' success meeting these terms and conditions. This report will consist of the following information.
 - i. Project identification.
 - (1) Project name;
 - (2) Starting and ending dates of work completed for this project; and
 - (3) Name and address of the construction supervisor.
 - ii. Photographic documentation of environmental conditions at the project site before, during and after project completion.
 - (1) Photographs will include general project location views and close-ups showing details of the project area and project, including pre and post construction.
 - (2) Each photograph will be labeled with the date, time, photo point, project name, the name of the photographer, and a comment describing the photograph's subject.
 - iii. Relevant habitat conditions include characteristics of channels, streambanks, riparian vegetation, flows, water quality, and other visually discernable environmental conditions at the project area, and upstream and downstream from the project.
- b. Annual monitoring report. An annual monitoring report with the following information must be submitted to the Oregon State Habitat Office of NOAA

Fisheries by February 15 each year that describes the NRCS efforts to monitor the presence of listed species whenever flood water inundates the created wetland.

- i. Project name
 - ii. NOAA Fisheries consultation number
 - iii. Name, address and telephone number for the person responsible for monitoring
 - iv. Dates during which the project was inundated
 - v. Dates during which fish trapping was completed, including all hours of trap operation
 - vi. A description of wetland conditions during trapping
 - vii. A description of stream conditions at the release site
 - viii. The number of fish handled, condition at release, number injured, number killed by species.
 - ix. Any other information the NRCS deems necessary or helpful to assess stranding trends as a result of actions authorized by this Opinion.
- c. If a dead, injured, or sick endangered or threatened species specimen is located, initial notification must be made to the National Marine Fishery Service Law Enforcement Office, located at Vancouver Field Office, 600 Maritime, Suite 130, Vancouver, Washington 98661; telephone: 360/418-4246. Care should be taken in handling sick or injured specimens to ensure effective treatment and care or the handling of dead specimens to preserve biological material in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered and threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.
- d. Monitoring reports will be submitted to:

NOAA Fisheries
Oregon Habitat Branch
Attn: 2004/00598
525 NE Oregon Street
Portland, OR 97232

MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT

The consultation requirements of section 305(b) of the MSA direct Federal agencies to consult with NOAA Fisheries on all actions, or proposed actions, that may adversely affect EFH. Adverse effects include the direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside EFH, and may

include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) also requires NOAA Fisheries to recommend measures that may be taken by the action agency to conserve EFH.

The Pacific Fishery Management Council designated EFH for groundfish (PFMC 1998a), coastal pelagic species (PFMC 1998b), and Chinook salmon, coho salmon, and Puget Sound pink salmon (PFMC 1999). The proposed action and action area for this consultation are described in the Introduction to this document. The action area includes areas designated as EFH for various life-history stages of Chinook salmon and coho salmon (PFMC 1999). The effects of the proposed action on EFH are discussed above in the ESA portion of this document.

EFH Conservation Recommendations

NOAA Fisheries believes that the conservation measures proposed by the NRCS in the BA, along with the terms and conditions listed in the ESA portion of this Opinion, are applicable to salmon EFH. Therefore, NOAA Fisheries incorporates each of those measures here as EFH conservation recommendations.

Statutory Response Requirement

Federal agencies are required to provide a detailed written response to NOAA Fisheries' EFH conservation recommendations within 30 days of receipt of these recommendations. The response must include a description of measures proposed to avoid, mitigate, or offset the adverse effects that the activity has on EFH. In the response is inconsistent with the EFH conservation recommendations, the response must explain the reasons for not following the recommendations, including the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

Supplemental Consultation

The NRCS must reinitiate EFH consultation with NOAA Fisheries if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NOAA Fisheries' EFH conservation recommendations [50 CFR 600.920(1)].

DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVIEW

Section 515 of the Treasury and General Government Appropriations Act of 2001 (Public Law 106-554) ("Data Quality Act") specifies three components contributing to the quality of a document. They are utility, integrity, and objectivity. This section of the Opinion addresses

these DQA components, documents compliance with the Data Quality Act, and certifies that this Opinion has undergone pre-dissemination review.

Utility: This ESA section 7 consultation on the Johansen Restoration Project in Yamhill County, Oregon, concluded that the action will not jeopardize the continued existence of UWR Chinook salmon or UWR steelhead. Therefore, the NRCS may fund that action. Pursuant to the MSA, NOAA Fisheries provided the NRCS with conservation recommendations to conserve EFH.

The intended users of these consultations are the NRCS and the applicant. Clients of the applicant and the American public will benefit from the consultation.

Individual copies were provided to the above listed entities. This consultation will be posted on the NOAA Fisheries NW Region web site (<http://www.nwr.noaa.gov>). The format and naming adheres to conventional standards for style.

Integrity: This consultation was completed on a computer system managed by NOAA Fisheries in accordance with relevant information technology security policies and standards set out in Appendix III, "Security of Automated Information Resources," Office of Management and Budget Circular A-130; the Computer Security Act; and the Government Information Security Reform Act.

Objectivity:

Information Product Category: Natural Resource Plan.

Standards: This consultation and supporting documents are clear, concise, complete, and unbiased; and were developed using commonly accepted scientific research methods. They adhere to published standards including the NOAA Fisheries ESA Consultation Handbook, ESA Regulations, 50 CFR 402.01 et seq., and the MSA implementing regulations regarding EFH, 50 CFR 600.920(j).

Best Available Information: This consultation and supporting documents use the best available information, as referenced in the literature cited section. The analyses in this biological opinion/EFH consultation contain more background on information sources and quality.

Referencing: All supporting materials, information, data and analyses are properly referenced, consistent with standard scientific referencing style.

Review Process: This consultation was drafted by NOAA Fisheries staff with training in ESA and MSA implementation, and reviewed in accordance with Northwest Region ESA quality control and assurance processes.

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