UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
BIN C15700
Seattle, WA 98115-0070

Refer to:
OSB98-0108-FEC-RI

June 25, 2001

Mr. Dave Reilly
Federal Highway Administration
The Equitable Center, Suite 100
530 Center Street NE
Salem, OR 97301

Re: Reinitiation of Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Essential Fish Habitat Consultation for the Sunnybrook Interchange Project, Lower Willamette River Basin, Clackamas County, Oregon

Dear Mr. Reilly:

On May 14, 2001, the National Marine Fisheries Service (NMFS) received a letter from the Federal Highway Administration (FHWA) requesting reinitiation of consultation on the Sunnybrook Interchange Project (OSB1998-0108), a major transportation construction project funded by the FHWA and the Oregon Department of Transportation (ODOT). The FHWA determined that the proposed project modifications were not likely to adversely affect LCR steelhead or LCR chinook.

In a biological opinion (Opinion) issued for the Sunnyside Interchange Project on October 5, 1999, the NMFS concluded that the Sunnybrook Interchange Project was not likely to jeopardize the continued existence of Lower Columbia River (LCR) steelhead (*Oncorhynchus mykiss*), a species listed as threatened under the Endangered Species Act (ESA). Reinitiation of that consultation is necessary now for these reasons: 1) The FHWA retains discretionary involvement or control over funding of the action; 2) the proposed action and related conservation measures have been modified in ways that may affect listed species; 3) critical habitats have been designated within the action area; and 4) new information suggests that LCR chinook salmon (*O. tshawytscha*), a species listed as threatened under the ESA, also occurs in the action area.

For reasons set forth in the attached revised Opinion (OSB 1998-0108-FEC-RI), NMFS concludes that proposed modifications of the Sunnyside Interchange Project are not likely to jeopardize the subject species or destroy or adversely modify critical habitat. Nonetheless, changes in the proposed action since the 1999 Opinion was issued require that the reasonable and prudent measure and terms and conditions in the October 5, 1999 Opinion be revised based on updated information, as described in the revised Opinion.

Section 3 of the Magnuson-Stevens Act (MSA) also requires consultation on activities that may adversely affect essential fish habitats (EFH) designated in Federal fishery management plans. The FHWA did not refer to EFH when it reinitiated this consultation under section 7(a)(2) of the ESA. Nonetheless, NMFS has used this opportunity to complete a separate EFH consultation for the Sunnyside Interchange Project under the MSA and its implementing regulations at 50 CFR Part 600. The EFH consultation is included in the revised Opinion.

Questions regarding this letter should be directed to Art Martin of my staff in the Oregon State Branch Office at (503) 231-6892.

Sincerely,

for Michael R Course

Donna Darm
Acting Regional Administrator

cc: Margie Willis, ODOT
Rose Owens, ODOT
Richard Beck, ODOT
Art Martin, ODFW
Ray Bosch, USFWS

Endangered Species Act - Section 7 Consultation Reinitiation
&
Magnuson-Stevens Act
Essential Fish Habitat Consultation

REVISED
BIOLOGICAL OPINION

Sunnybrook Interchange Project, Clackamas County, Oregon

Agency: Federal Highway Administration

Consultation Conducted By: National Marine Fisheries Service,
Northwest Region

Date Issued: June 25, 2001

Refer to: OSB1998-0108-FEC-RI

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1. ENDANGERED SPECIES ACT

1.1 Background

LCR steelhead and LCR chinook salmon were listed as threatened on March 19, 1998 (63 FR 13347) and March 24, 1999 (64 FR 14308) respectively. Critical habitat was designated for both species on February 16, 2000 (65 FR 7764) and protective regulations were issued on July 10, 2000 (65 FR 42422). Designated critical habitat for these species consists of, among other things, Dean Creek within the action area.

In the October 5, 1999, biological opinion (Opinion), NMFS applied the jeopardy standards set forth in Section 7(a)(2) of the ESA as defined by 50 CFR Part 402 (the consultation regulations) to determine whether the Sunnybrook Interchange Project, as proposed at that time, was likely to jeopardize the continued existence of LCR steelhead. Although critical habitat had not been designated for LCR steelhead at that time, NMFS nonetheless considered habitat conditions when it defined the biological requirements and status of the species, the environmental baseline within the action area, and the effects of the proposed action.

In particular, NMFS assessed habitat functions using 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 evaluates the current condition of instream, riparian, and watershed factors that collectively provide for properly functioning aquatic habitat essential for the survival and recovery of the species, and may act as a template for assessing the essential elements of critical habitat for LCR steelhead and LCR chinook salmon critical habitat.

NMFS now applies that analysis again to determine whether the proposed action, with modifications, is likely to jeopardize the continued existence of LCR steelhead or LCR chinook, or destroy or adversely modify designated critical habitats. New information for the analysis includes the confirmation of LCR chinook salmon in the action area, designation of critical habitats, and a description of proposed project modifications. NMFS is unaware of any new or different information in addition to that considered in the October 5, 1999, Opinion relevant to this reinitiation that pertains to the biological requirements and status of these listed species, the environmental baseline, or cumulative effects.

Of the project modifications described in the May 14, 2001, reinitiation letter, the following all have effects that are within the scope of the effects analysis completed in the October 5, 1999, consultation: 1) The 15 day in-water work extension; 2) new impervious surface and stormwater runoff; 3) bridge false work; 4) all of the changes to proposed mitigation except the loss of sinuosity within the Dean Creek channel reconstruction reach; 5) detention basin maintenance access way; 6) storm water outfall in Dean Creek; 7) mitigation monitoring; and 8) findings included in the summary of effects to fish and critical habitat. New effects not previously

considered are the loss of sinuosity within the Dean Creek channel reconstruction and the need for additional riprap.

1.2 Proposed Project Modifications (Proposed Action)

Removal of a 180-meter long box culvert along Dean Creek under the I-205 bridge and reconstruction of a meandered channel were originally proposed as mitigation for the adverse effects of extending the Mt. Scott Creek I-205 culvert an additional 22- meters, and for loss of wetland habitats associated with the Dean Creek riparian area. Proposed modifications to this plan now call for a straight trapezoidal channel reconstruction due to the lack of space for inclusion of channel meanders, removal of an additional 0.47-acres of asphalt along the lower Dean Creek, and riparian plantings along the entire 425-meter riparian section. Moreover, it will be necessary to place an additional 479-square meters of riprap along the reconstructed channel to prevent erosion and slumping of existing dirt fill slopes under the Dean Creek I-205 structure. Alternatives for bioengineering the reach to be reconstructed using live vegetation were considered but found to be infeasible because of low ambient light levels caused by shade from the existing I-205 overpass. Another 9.7-square meters of riprap will be placed at the outfall from the stormwater water detention facility into Mt. Scott Creek to minimize erosion up to the point of the 100-year event.

1.3 Analysis of Effects

1.3.1 Effects of the Proposed Action

The FHWA has proposed the following conservation measures to avoid or minimize the adverse effects of these activities on LCR steelhead and LCR chinook salmon.

1) All in-water work will be done during the low-water season between July 1 and October 15. Exceptions to this work timing will be carried out only after consultation with NMFS. The stream temperatures are anticipated to exceed lethal limits for listed salmonids in Dean Creek during the in-water work period. Thus work isolation should not be necessary.

2) Fish salvage will occur from within the isolated work area if listed salmonids are found to be present during construction.

3) An extensive riparian revegetation effort along the entire 425 meter reconstruction reach will facilitate beneficial effects to water quality, infiltration, the annual hydrograph, channel complexity, and future input of large woody debris to the Dean Creek channel.

These changes in the proposed action and the mitigation package may cause short-term impacts to the LCR steelhead and LCR chinook salmon. During construction and any in-water work, turbidity and sedimentation are likely to increase due to streambank erosion and channel

disturbance. At moderate levels, turbidity can adversely affect primary and secondary productivity and, at high levels, can injure and kill adult and juvenile fish and may interfere with feeding (Spence *et al.* 1996). Behavioral effects on fish, such as gill flaring and feeding changes, have been observed in response to pulses of suspended sediment. Localized increases of erosion/turbidity during in-water work could displace fish in the project area and disrupt normal behavior. These effects are expected to be temporary and localized until these areas are stabilized. Impacts should be minimal because the work will be timed to occur when listed fish are least likely to be present. Over the long term, listed fish will benefit from improved hydraulic conditions at the project site due to removal of the box culvert. The amount of impervious surface will decrease by 0.47 acres and riparian revegetation efforts will improve streambank condition, and improve water quality and instream habitat complexity.

1.3.2 Effects on Critical Habitat

Changes to the proposed action and mitigation package will affect critical habitat. In the short-term, a temporary increase of sediments and turbidity and disturbance of riparian habitat is expected. Reduced sinuosity in the restored channel and additional riprap placements will limit the channel's capacity to develop further habitat complexity in the future, thus making water depth more uniform and reducing habitat heterogeneity. Compared to the existing box culvert, riprap incorporating revegetation of the bankline with native vegetation will result in a small improvement in stream channel characteristics and riparian processes.

1.4 Conclusion

Thus, NMFS finds when the effects of the modifications of the proposed action are added to the environmental baseline and cumulative effects, and considered in the context of the species-level requirements, the proposed action is not likely to jeopardize the continued existence of the LCR steelhead or LCR chinook, nor is it likely to cause adverse modification or destruction of designated critical habitats. In making these determinations, NMFS relied on the best scientific and commercial information available.

This concludes formal consultation for the Sunnybrook Interchange Project. Consultation must again be reinitiated if: 1) New information reveals that effects of the action may affect listed species in a way not previously considered; 2) the action is modified in a way that causes an effect on listed species that was not previously considered; or 3) a new species is listed or critical habitat is designated that may be affected by the action (50 CFR 402.16).

2. INCIDENTAL TAKE STATEMENT

Sections 4 (d) and 9 of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. Harm is further defined to include significant habitat modification

or degradation that results in death or injury to listed species by significantly impairing behavioral patters such as breeding, feeding, and sheltering. Harass is defined as actions that create the likelihood of injuring listed species to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. Incidental take is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

An incidental take statement specifies the impact of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

2.1 Amount and Extent of Incidental Take

The NMFS anticipates that the action covered by this Opinion has more than a negligible likelihood of resulting in incidental take of LCR steelhead or LCR chinook salmon because of detrimental effects from increased sediment levels and the potential for incidental take during in-water work along Mt. Scott Creek. Effects of actions compromising water quality are largely unquantifiable in the short term, and are not expected to be measurable as long term effects on the species' habitat or population levels. The unquantifiable incidental take is specific to the temporary increase of turbidity, incidental discharge of sediment, temporary diversion or rechanneling of the stream during construction of the stream crossings, culvert placement and modifications, and construction of new roadway within the action area. Effects of actions such as the isolation of the work area from the flowing waters of Mt. Scott Creek and Dean Creek could result in minor incidental lethal take of LCR steelhead and LCR chinook salmon. NMFS anticipates that incidental take of up to 20 juvenile LCR steelhead and 20 juvenile LCR chinook salmon could occur as a result of the actions covered by this Opinion. The extent of the take is limited to LCR steelhead and LCR chinook salmon in Mt. Scott and Dean Creek.

2.2 Reasonable and Prudent Measures

The NMFS believes that the following reasonable and prudent measures are necessary and appropriate to minimize take of the above species:

1. To minimize the likelihood of incidental take, in-water work shall be isolated from the flowing water and/or conducted during selected time periods to reduce the potential of direct impacts to steelhead and chinook salmon.

2. To minimize the likelihood of incidental take, fish passage at all stream crossings and throughout the action area shall be maintained to maximize fish access to upstream spawning and rearing habitat where upstream fish passage currently exists.

3. To minimize the likelihood of incidental take, erosion protection plans shall be developed and implemented for the project to reduce sediment and chemical pollutant discharges into the streams. Storm water runoff from the road surface and road ditches shall be managed to reduce physical and chemical pollutants from entering the streams.

4. A comprehensive monitoring and reporting program shall be conducted to ensure this Opinion is meeting its objective of minimizing the likelihood of take from permitted activities and that the proposed mitigation actions are performing adequately.

2.3 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, FHWA must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary:

1. To implement Reasonable and Prudent Measure #1 (In-water Timing) above, the FHWA shall ensure that:

    a. All work within the active channel that could potentially contribute sediment or pollutants to downstream fish-bearing systems will be completed within the ODFW approved in-water work period (ODFW 2000).

    b. Extensions of the in-water work period, including those for work outside the wetted perimeter of the stream but below the ordinary high water mark must be approved by biologists from NMFS.

    c. If the fish salvaging aspect of this project requires the use of seine equipment to capture fish, it must be accomplished as follows:

        i. Before and intermittently during pumping, attempts will be made to seine and release fish from the work isolation area as is prudent to minimize risk of injury.

        ii. Seining will be conducted by, or under the supervision of a fishery biologist experienced in such efforts. Staff working with the seining operation must have the necessary knowledge, skills, and abilities to ensure the safe handling of all ESA-listed fish.

iii. ESA-listed fish must be handled with extreme care and kept in water to the maximum extent possible during seining and transfer procedures. The transfer of ESA-listed fish must be conducted using a sanctuary net that holds water during transfer, whenever necessary to prevent the added stress of an out-of-water transfer.

iv. Seined fish must be released as near as possible to capture sites.

v. If a dead, injured, or sick listed species specimen is found, initial notification must be made to the National Marine Fisheries Service Law Enforcement Office, in the Vancouver Field Office, 600 Maritime, Suite 130, Vancouver, Washington 98661; phone: 360/418-4246. Care should be taken in handling sick or injured specimens to ensure effective treatment and care. Dead specimens should be handled so as to preserve biological material in the best possible state for later analysis of cause of death. With the care of sick or injured listed 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 disturbed.

vi. The transfer of any ESA-listed fish from the ODOT to third parties other than NMFS personnel requires written approval from the NMFS.

vii. The ODOT must obtain any other Federal, state, and local permits and authorizations necessary for the conduct of the seining activities.

viii. The ODOT must allow the NMFS or its designated representative to accompany field personnel during the seining activity, and allow such representative to inspect the ODOT's seining records and facilities.

ix. A description of any seine and release effort will be included in a post project report, including the name and address of the supervisory fish biologist, methods used to isolate the work area and minimize disturbances to ESA-listed species, stream conditions before and following placement and removal of barriers; the means of fish removal; the number of fish removed by species; the condition of all fish released, and any incidence of observed injury or mortality.

d. If the fish salvaging aspect of this project requires the use of electrofishing equipment to capture fish, it must be accomplished as follows (NMFS 1998):

i. Electrofishing may not occur in the vicinity of listed adults in spawning condition or in the vicinity of redds containing eggs.

ii. Equipment must be in good working condition. Operators must go through the manufacturer's preseason checks, adhere to all provisions, and record major maintenance work in a log.

iii. A crew leader having at least 100 hours of electrofishing experience in the field using similar equipment must train the crew. The crew leader's experience must be documented and available for confirmation; such documentation may be in the form of a logbook. The training must occur before an inexperienced crew begins any electrofishing; it must also be conducted in waters that do not contain listed fish.

iv. Measure conductivity and set voltage as follows:

Conductivity (umhos/cm)	Voltage
Less than 100	900 to 1100
100 to 300	500 to 800
Greater than 300	150 to 400

v. Direct current (DC) must be used at all times.

vi. Each session must begin with pulse width and rate set to the minimum needed to capture fish. These settings should be gradually increased only to the point where fish are immobilized and captured. Start with pulse width of 500us and do not exceed 5 milliseconds. Pulse rate should start at 30Hz and work carefully upwards. *In general*, pulse rate should not exceed 40 Hz, to avoid unnecessary injury to the fish.

vii. The zone of potential fish injury is 0.5m from the anode. Care should be taken in shallow waters, undercut banks, or where fish can be concentrated because in such areas the fish are more likely to come into close contact with the anode.

viii. The monitoring area must be worked systematically, moving the anode continuously in a herringbone pattern through the water. Do not electrofish one area for an extended period.

ix. Crew must carefully observe the condition of the sampled fish. Dark bands on the body and longer recovery times are signs of injury or handling stress. When such signs are noted, the settings for the electrofishing unit may need adjusting. Sampling must be terminated if injuries occur or abnormally long recovery times persist.

x. Whenever possible, a block net must be placed below the area being sampled to capture stunned fish that may drift downstream.

xi. The electrofishing settings must be recorded in a logbook along with conductivity, temperature, and other variables affecting efficiency. These notes, together with observations on fish condition, will improve technique and form the basis for training new operators.

2. To implement Reasonable and Prudent Measure #2 (Fish Passage), above, the FHWA shall ensure that:

a. All instream flow diversions shall maintain downstream fish passage during work isolation periods.

b. All construction debris shall be prevented from entering the flowing waters or shall be removed to minimize the potential obstructions to fish passage.

c. All stream crossings shall meet ODFW fish passage criteria. Restored stream beds shall incorporate native stream bed materials or instream structures designed to collect or maintain native substrate.

d. Within the first year after completion of culvert modification, the culverts shall be inspected once during low water and once during high water and evaluated against objectives for fish passage relative to ODFW fish passage criteria.

e. Monitoring of the culvert modification at the I-205 crossing shall be conducted for three years following the completion of the work to ensure fish passage conditions have been achieved. The ODOT will submit an annual monitoring report to NMFS describing the ODOT's success meeting fish passage conditions.

f. Improvements to the fishway at the mouth of Kellogg Creek at the Kellogg Creek Dam shall be designed and reviewed by NMFS, and actions initiated within 2 years of the conclusion of this reinitiated consultation unless otherwise agreed to by NMFS.

3. To implement Reasonable and Prudent Measure #3 (Water Quality) above, the FHWA shall ensure that:

a. Pollution Control and Erosion and Sediment Control Plans will be developed, maintained and adapted as need to protect water quality within, and leaving, the project site.

b. Any water pumped from the work isolation area must be filtered or treated in such a manner as to ensure that discharge to the stream channel or wetlands does not adversely effect water quality.

c. All work within the active channel that could potentially contribute sediment or pollutants to downstream fish-bearing systems will be completed within the ODFW approved in-water work period.

d. Modification of wetland mitigation and riparian restoration actions as appropriate and needed to maintain water quality, water retention, and riparian area functional conditions shall occur within three years after completion of the work and as directed by NMFS and consistent with guidance or requirements of ODFW, Division of State Lands, and the United States Army Corps of Engineers.

4. To implement Reasonable and Prudent Measure #4 (Monitoring and Reporting) above, the FHWA shall ensure that:

a. Within 30 days of completing the project, the ODOT will submit a monitoring report to NMFS describing the ODOT's success meeting their permit conditions. This report will consist of the following information.

b. Project identification.

i. Project name;

ii. starting and ending dates of work completed for this project; and

iii. the FHWA contact person.

iv. monitoring reports shall be submitted to:

National Marine Fisheries Service
Oregon Habitat Branch, Habitat Conservation Division
Attn: OSB1998-0108
525 NE Oregon Street, Suite 500
Portland, Oregon 97232-2778

v. Isolation of in-water work area. A report of any seine or electrofishing activity including:

(1) The name and address of the supervisory fish biologist;

(2) methods used to isolate the work area and minimize disturbances to ESA-listed species;

(3) stream conditions before and following placement and removal of barriers;

(4) the means of fish removal;

(5) the number of fish removed by species;

(6) the location and condition of all fish released; and

(7) any incidence of observed injury or mortality.

vi. Pollution and erosion control. Copies of all pollution and erosion control inspection reports, including descriptions of any failures experienced with erosion control measures, efforts made to correct them and a description of any accidental spills of hazardous materials shall be provided upon request.

vii. Site restoration. Documentation of the following conditions:

(1) Finished grade slopes and elevations.

(2) Planting composition and density.

(3) A plan to inspect and, if necessary, replace failed plantings for three years.

viii. A narrative assessment of the project's effects on natural stream function.

ix. Photographic documentation of environmental conditions at the project site and compensatory mitigation site(s) (if any) 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.

(3) 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 of the project.

3. MAGNUSON-STEVENS ACT

3.1 Background

The objective of the Essential Fish Habitat (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.

3.2 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires the inclusion of EFH descriptions in Federal fishery management plans. In addition, the MSA requires Federal agencies to consult with NMFS on activities that may adversely affect EFH.

EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (MSA §3). For the purpose of interpreting the definition of essential fish habitat: Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and ``spawning, breeding, feeding, or growth to maturity'' covers a species' full life cycle (50CFR600.110).

The consultation requirements of section 305(b) of the MSA (16 U.S.C. 1855(b)) provide that:

- Federal agencies must consult with NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH;
- NMFS shall provide conservation recommendations for any Federal or State activity that may adversely affect EFH;
- Federal agencies shall, within 30 days after receiving conservation recommendations from NMFS, provide a detailed response in writing to NMFS regarding the conservation recommendations. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations of NMFS,

the Federal agency shall explain its reasons for not following the recommendations no less than 10 days prior to granting final authorization for the subject action.

The MSA requires consultation for all actions that may adversely affect EFH, and does not distinguish between actions within EFH and actions outside EFH. Any reasonable attempt to encourage the conservation of EFH must take into account actions that occur outside EFH, such as upstream and upslope activities, that may have an adverse effect on EFH. Therefore, EFH consultation with NMFS is required by Federal agencies undertaking, permitting or funding activities that may adversely affect EFH, regardless of its location.

3.3 Identification of EFH

The Pacific Fisheries Management Council (PFMC) has designated EFH for three species of Pacific salmon: chinook (*Oncorhynchus tshawytscha*); coho (*O. kisutch*); and Puget Sound pink salmon (*O. gorbuscha*)(PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PFMC), and longstanding, naturally-impassable barriers (i.e., natural waterfalls in existence for several hundred years). Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of potential adverse effects to these species' EFH from the proposed action is based on this information.

3.4 Proposed Actions

The proposed actions are detailed above. The action area includes Mt. Scott and Dean Creeks extending upstream and downstream to the edges of disturbance. This area has been designated as EFH for various life stages of chinook and coho salmon.

3.5 Effects of Proposed Action

NMFS expects that the effects of this project on chinook and coho salmon EFH are likely to be within the range of effects to listed LCR steelhead and chinook salmon considered in the ESA portion of this consultation. Based on that analysis, NMFS finds that the proposed project may adversely affect EFH for chinook and coho salmon.

3.6 Conclusion

NMFS believes that the proposed action may adversely affect the EFH for coho and chinook salmon.

3.7 EFH Conservation Recommendations

Pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide EFH conservation recommendations for any Federal or state agency action that would adversely affect EFH. The conservation measures proposed for the project by the FHWA, all Conservation Recommendations outlined above in Section 1.2 and all of the Reasonable and Prudent Measures and the Terms and Conditions contained in Sections 2.2 and 2.3 are applicable to salmon EFH. Therefore, NMFS incorporates each of those measures here as EFH recommendations.

3.8 Statutory Response Requirement

Please note that the Magnuson-Stevens Act (section 305(b)) and 50 CFR 600.920(j) requires the FHWA to provide a written response to NMFS' EFH conservation recommendations within 30 days of its receipt of this letter. The response must include a description of measures proposed to avoid, mitigate, or offset the adverse impacts of the activity on EFH. If the response is inconsistent with NMFS' conservation recommendations, the reasons for not implementing the FHWA shall explain its reasons for not following the recommendations.

3.9 Consultation Renewal

The FHWA must reinitiate EFH consultation with NMFS if either action is substantially revised or new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600.920).

4. LITERATURE CITED

PFMC (Pacific Fishery Management Council). 1999. Amendment 14 to the Pacific Coast Salmon Plan. Appendix A: Description and Identification of Essential Fish Habitat, Adverse Impacts and Recommended Conservation Measures for Salmon. Portland, Oregon.

NMFS (National Marine Fisheries Service). 1998. See, NMFS, Northwest Region, Electrofishing Guidelines (1998).

ODFW (Oregon Department of Fish and Wildlife). 2000. *Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources*, 12 pp (June 2000)(identifying work periods with the least impact on fish) (http://www.dfw.state.or.us/ODFWhtml/InfoCntrHbt/0600_inwtrguide.pdf).