



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

Refer to NMFS No:

2009/04465

October 20, 2009

Phillip Ditzler
FHWA Division Administrator
Federal Highway Administration, Oregon Division
530 Center Street NE
Salem, Oregon 97301

Re: Endangered Species Act Section 7 Informal Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Port of Siuslaw Interpretive Wayside, Siuslaw River (HUC: 171002060804 Bernhardt Creek), Lane County, Oregon

Dear Mr. Ditzler:

On August 17, 2009, the National Marine Fisheries Service (NMFS) received your request for written concurrence that the effects of the Federal Highway Administration's funding of the Port of Siuslaw Interpretive Wayside, as proposed, are not likely to adversely affect (NLAA) species listed as threatened or endangered under the Endangered Species Act (ESA) or their critical habitat. The request included the information necessary to complete an essential fish habitat (EFH) assessment under the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

This response to your letter was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence,¹ and concludes that the action, as proposed, is NLAA Oregon Coast (OC) coho salmon (*Oncorhynchus kisutch*) and their designated critical habitat. The NMFS also concludes the proposed action is NLAA the southern distinct population segment (SDPS) of green sturgeon (*Acipenser medirostris*) (Table 1).

This letter also transmits the results of our analysis of the effects of the proposed action on EFH pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation,² and concludes that the action, as proposed, will not adversely affect EFH designated for Chinook salmon (*O. tshawytscha*), coho salmon, and coastal pelagic species. Therefore, no conservation measures are provided at this time and no further response is necessary.

¹ Memorandum from D. Robert Lohn, Regional Administrator, to ESA Consultation Biologists (guidance on informal consultation and preparation of letters of concurrence) (January 30, 2006).

² Memorandum from William T. Hogarth, Acting Administrator for Fisheries, to Regional Administrators (national finding for use of Endangered Species Act Section 7 consultation process to complete essential fish habitat consultations) (February 28, 2001).



Table 1. Federal Register notices for final rules that list threatened and endangered species, designate critical habitats, or apply protective regulations to listed species considered in this consultation. Listing status: ‘T’ means listed as threatened under the ESA; ‘E’ means listed as endangered.

Species	Listing Status	Critical Habitat	Protective Regulations
Coho salmon (<i>O. kisutch</i>)			
Oregon Coast	T 2/11/08; 73 FR 7816	2/11/08; 73 FR 7816	2/11/08; 73 FR 7816
Green sturgeon (<i>A. medirostris</i>)			
Southern	T 4/07/06; 71 FR 17757	10/09/09; 74 FR 52300	Not applicable

DESCRIPTION OF THE PROPOSED ACTION

The Siuslaw River Bridge Interpretive Wayside will develop two sites along the Siuslaw River Estuary near the Siuslaw River Bridge. One site will be an interpretive wayside and the other will be a parking area. The parking area site is approximately 0.14 acre and is under the north end of the Siuslaw River Bridge. The parking area will lie primarily between two bridge bents that are south of Bay Street. At the wayside site, an observation deck and paver walkway will be constructed on the east side of the site. To improve the water quality of runoff currently entering the site from Bay Street, the project will retrofit the existing catch basins along Bay Street and will construct a stormwater treatment swale and a constructed wetland. A winding bark pathway will be constructed on site north of the existing tidal wetland. Project activities proposed at the wayside site will include: (1) Clearing; (2) grading; (3) pile driving for the observation deck and pathway bridge; (4) construction of the paver walkway, observation deck, pathway, pathway bridge, and picnic area; (6) installation of a double-chambered water quality curb inlet along Bay Street; (7) construction of the stormwater swale and constructed wetland; (8) railing and signage installation; and (9) planting and seeding.

The parking area will be constructed under the north end of the Siuslaw River Bridge to support access to the wayside site and the Old Town District. The parking area will include two overlooks with interpretive signage. Construction at the parking area will involve the following activities: (1) Clearing and grading to prepare the site; (2) installation of a retaining wall; (3) placement of fill behind the retaining wall to elevate the parking area; (4) installation of a two-chamber catch basin with associated piping and outfall to the Siuslaw River; (5) sidewalk construction; and (6) paving, railing and signage installation. At the parking area, utilities will be relocated as part of construction. The community access television lines and the overhead power lines will be reconfigured to support the parking area site design.

Construction Access and Staging

A single upland staging area at the wayside site will be created and used during construction. If necessary, the staging area will be restored after construction is completed. At the parking area, staging will occur in the upland portion within the parking area and will be paved as part of construction. Best management practices (BMPs) (identified below) will be installed around the staging areas at both sites to minimize any risk of contamination in the event of a fuel or oil leak.

Clearing and Grubbing

All clearing and grubbing activities will be restricted to areas above mean high water (MHW). This work will likely be done with a trackhoe.

At the wayside site, herbaceous and woody upland vegetation will be cleared, where needed, to allow for construction. Areas not within the footprint of the paths and picnic area will be replanted with native species following construction. As part of the Corps of Engineers' (Corps) permit, this native vegetation will be protected and maintained until it is established. All invasive species will be removed from the site.

At the parking area, herbaceous and woody vegetation will be cleared for construction of the parking area and associated structures. Vegetation in the area to be cleared is dominated by non-native species. All invasive species will be removed from the site.

Grading

After clearing and grubbing are completed at the wayside site, grading will occur. The eastern edge of the project area will be graded for construction of the walkway. The northern half of the project area will be graded for construction of the stormwater treatment swale, the constructed wetland area, and the interpretive path. Grading will be accomplished using a trackhoe and compactor, and may include the use of fill to reach the desired final elevation and design.

Grading will occur at the parking area after clearing and grubbing is completed and the retaining wall has been installed. To reach final grade, fill will be placed on 0.024 acres of the project area below highest measured tide (HMT). Equipment to perform the work may include a trackhoe, bulldozer, skid steer loader, compactor, and dump truck.

Pile Driving

Pile driving will occur at the wayside site only. Pile driving will be limited to three days in November or December. Approximately six to eight hollow steel piles, each 12 inches in diameter, will be installed for construction of the observation deck. Two additional piles may be installed to support the path bridge over the stormwater swale. Each pile will be driven to a depth of 30 feet. Pile driving will be done with a vibratory hammer mounted on a crane operating from land. The piles will not need to be proofed with an impact hammer. All piles will be located above the elevation of MHHW but below HMT. Piles will be driven only when the work area is dry.

Observation Deck and Walkway

An observation deck will be constructed on piles on the southeast corner of the wayside site. The observation deck platform will be elevated above the HMT elevation. The observation deck will be constructed out of a wood/polymer lumber and will be supported by concrete, steel girders, and/or cedar, as necessary. No pressure-treated or chemically-treated wood will be used. A walkway will be installed along the eastern edge of the site, connecting the observation deck

to an existing sidewalk along Bay Street. Construction of the walkway will include minor grading, so that the walkway can be installed at an acceptable slope. A trackhoe, skid steer, and roller or plate compactor will likely be used for this work.

Interpretive Path

At the wayside site, an interpretive path will be constructed along the western side of the stormwater treatment swale that will wind east across the site to the paver walkway. The path will be constructed with either bark or gravel. A small bridge will carry the path over the stormwater treatment swale. A trackhoe and skid steer will likely be used for this work.

In-Water Work

No work at the parking area will occur below this MHHW elevation. At the wayside site, only the removal of metal debris in the intertidal area will occur below the MHHW elevation.

At the parking area, the retaining wall, two overlooks, and a portion of the parking lot will all be installed below the HMT elevation. The concrete retaining wall will be constructed at the southern and eastern edge of the parking area. It will elevate the completed parking area above the HMT. The work area at the parking area is above the normal tidal range, and there are no high tides predicted in 2009 to reach the lower limit of the work area according to the NOAA 2009 tide predictions for Florence, Oregon. Therefore, it is expected that this portion of the project will be constructed in dry conditions. Following construction, water will not contact the retaining wall on a regular basis.

At the wayside site, construction of the observation deck, interpretive pathway, constructed wetland, and stormwater treatment swale will all occur in the area between the MHHW elevation and the HMT elevation. Based on the 2009 NOAA tide predictions for Florence, Oregon, the highest tide of the year will reach only 8.2 feet (2.36 vertical feet below the HMT). The work area for the constructed wetland and the observation deck may be inundated on a few occasions during the in-water work window. There are only five days during November and December 2009 with a high tide predicted to exceed 8 feet. During construction, as well as in the final design, care will be taken to grade areas to slope to the water so that no depressions will be created where fish could become stranded if they access the construction area during the highest tides or flood flows.

Following construction, inundation of the constructed wetland and stormwater treatment swale will occur very infrequently.

Metal debris found at the sites will be removed as part of the project. This metal is below MHW and will be removed by hand or by trackhoe during low water conditions.

All work below HMT will be conducted during the in-water work window (November 1, 2009 – February 15, 2010) for the Siuslaw River Estuary.

New Impervious Surface

No new impervious surface area will be added at the wayside site. At the parking area, 0.14 acre of impervious surface will be created (the total area of the site). After grading is complete at the parking area, the concrete sidewalks and overlooks, pavers, and asphalt will be installed.

Stormwater Treatment

Wayside Site. At the wayside site, the project will construct a stormwater treatment train to improve the water quality of runoff from Bay Street that currently enters the estuary untreated. This treatment train will filter out pollutants, attenuate flows, cool runoff, and increase stormwater infiltration over existing conditions. Currently, runoff from 0.9 acre of Bay Street flows untreated through the wayside site to the river. Following construction, that runoff will be treated to reduce pollutants (including removal of suspended solids and total and dissolved copper and zinc) prior to being discharged to the estuary.

The project proposes to capture the currently untreated stormwater runoff from Bay Street in two, double-chambered, oil/water separating, water quality curb inlets. This partially treated stormwater will discharge to a constructed stormwater treatment swale, then travel through a constructed wetland before flowing through a natural wetland and tidal mudflat to the river.

The project will replace an existing 6-inch-diameter stormwater pipe that crosses under Bay Street north of the wayside site with a 12-inch-diameter pipe. This new pipe will be connected to two, double-chambered, water quality curb inlets replacing the existing catch basins along Bay Street above the northwestern corner of the site. The curb inlets will serve to settle out oil and grease and particulates from the roadway runoff. The outfall from the catch basin may be enhanced with a rock or concrete drop structure. This construction activity will require cutting the asphalt with a concrete saw, and then using a backhoe to dig up and remove the existing pipe. Once the new pipe is laid, a backhoe, asphalt truck, and plate compactor will be used to replace the subgrade and asphalt. As necessary, debris will be swept by hand or machine to prevent material from washing off-site into the river.

A stormwater treatment swale will be installed downgrade from the outfall. The swale will have a flat bottom, will be 4 feet wide, with 4:1 sloping sides a minimum of 2 feet wide. The swale will meander for a length of approximately 100 feet. It will slope from north to south and will have a maximum depth of 3 feet. The design will include soil amendments or compost, to enhance pollutant removal (particularly dissolved copper). Following construction, the swale will be seeded and planted with native vegetation. Soils will be reinforced using coir fabric. Once the native plants become established, they will serve to cool and filter the stormwater before it is discharged.

Downgrade of the stormwater treatment swale, a wetland area will be constructed just north of the existing tidal wetland. Wetland construction will include minor grading and installation of native wetland emergent plant species that can tolerate periodic inundation. Stormwater will be pretreated prior to reaching this wetland. The constructed wetland area will be graded so that treated stormwater can flow into the existing wetland at an appropriate rate to sustain its existing

hydrologic conditions. It will be graded so that it does not include depressions where fish could become stranded during high tides.

Parking Area Site. Stormwater generated from new impervious surfaces at the parking area will be collected and treated on-site. The project will install a two-cartridge StormFilter® catch basin with filter media (a mixture of zeolite, perlite, and granular-activated carbon) to treat the runoff. The StormFilter® is designed to remove sediments, metals (including dissolved copper), and other roadway pollutants from stormwater. The proposed StormFilter® was designed to treat stormwater with a maximum flow of 0.067 cubic feet per second (cfs). Stormwater will exit the catch basin through a 10-inch-diameter pipe that will connect to the existing 15-inch stormwater pipe that outfalls to the Siuslaw River below the proposed parking area. The expected reductions in concentration from pre-project conditions to post-project conditions is as follows: total suspended solids 87 mg/L, zinc 134 mg/L, dissolved zinc 35 mg/L, copper 24 mg/L, dissolved copper 2.6 mg/L.

Project Elements Resulting in Beneficial Effects

As a whole, the project will retrofit an area 6.4 times the size of the new impervious area created; thereby reducing the loads and concentrations of harmful pollutants (including TSS and total and dissolved copper and zinc) relative to existing conditions. The area that will be treated is the contributing impervious area. The annual TSS load will be reduced from pre-project conditions by approximately 460 pounds, while annual dissolved copper and zinc loads will be reduced by 0.01 and 0.15 pounds, respectively. Concentrations of TSS, dissolved copper, and dissolved zinc will be reduced by approximately 86.6 mg/L, 35.0 µg/L, and 2.6 µg/L, respectively. Following construction of the project, there will be a net improvement to the water quality of stormwater discharged to the Siuslaw River Estuary. A complete analysis of the expected efficacy and pollutant reduction for each of the proposed stormwater BMPs is provided in Section 5.2 of the biological assessment.

BMPs for the Project

1. No work will occur below the MHW elevation.
2. No impervious surface will be created at the wayside site. Pavers allowing infiltration will be used for the walkway and bark or gravel will be used for the interpretive path.
3. Work below the Highest Measured Tide elevation will occur during the ODFW-recommended in-water work window (November 1 to February 15).
4. There will be no impacts to existing wetlands.
5. Existing invasive plants on both sites will be removed; desirable native plants will be preserved to the greatest extent practicable; and site restoration will include the installation of a variety of suitable native vegetation (including wetland emergent, forb, grass, tree, and shrub species).

6. Erosion and sediment control BMPs will be designed for the project area and installed before ground disturbance commences. During construction, BMPs will be maintained and adjusted to site conditions to ensure that there are no sediment releases during construction activities.
7. Construction impacts will be confined to the minimum area necessary to complete the project.
8. All excavated materials will be removed to an upland location where they cannot enter any waterbody, unless designated as fill or directed by the Engineer.
9. All fueling and maintenance of equipment will occur more than 150 feet from the nearest wetland, waterbody, or unprotected catchbasin, except cranes, pile drivers, drill rigs, large trackhoes, and stationary equipment (*e.g.*, generators and pumps) will be excluded from this requirement. If fueling of equipment is not possible more than 150 feet from the river, then fueling shall be done within a spill containment area, approved by the Engineer. Stationary equipment shall include full-time containment systems. Containment measures shall be implemented when fueling and maintaining cranes, pile drivers, drill rigs, and other large less-mobile equipment.
10. Vehicles and equipment stored within 150 feet of the river and associated wetlands shall be located within an area designated to prevent fuel and other potentially hazardous materials from entering any waterway, wetland, or restricted work area.
11. All equipment to be used for construction activities shall be cleaned and inspected prior to arriving at the project site, to ensure no potentially hazardous materials are exposed, no leaks are present, and the equipment is functioning properly.
12. Construction equipment will be inspected daily to ensure there are no leaks of hydraulic fluids, fuel, lubricants, or other petroleum products.
13. Project operations shall cease under high-flow conditions that may result in inundation of the project area, except for efforts to avoid or minimize resource damage. The contractor shall evacuate any areas used for staging or storage and all materials (including any temporary road materials), equipment and fuel shall be removed if flooding of the area is expected to occur within 24 hours.
14. Two existing catch basins along Bay Street will be replaced with double-chambered water quality curb inlets, which will remove particulates, oil, and grease before the stormwater is discharged onto the wayside site.
15. A stormwater treatment swale and wetland area will be constructed at the wayside site below the stormwater pipe outfall to filter and cool the water before it is discharged into the existing tidal wetlands. The stormwater treatment swale will meander for a length of 100 feet.

16. Stormwater generated from new impervious surfaces at the parking area will be captured and treated with a StormFilter®.
17. All disturbed soils at the project areas will be stabilized by seeding, planting, or paving.
18. Project structures will be designed to deter piscivorous birds from perching on them.
19. The observation deck will be constructed of “Trex” decking and steel piles to reduce chemical contamination of the waterway and sediment.
20. Washing of concrete-mixer trucks will not be permitted on-site, and concrete will not be spilled or dumped on the site.
21. The staging area for the parking area site will be created in the upland construction area to prevent additional disturbance of habitat.
22. Interpretive signage will be installed at the wayside site to educate the public on the ecological value of the estuarine habitat to aquatic and terrestrial organisms as well as the value of stormwater treatment. Signage will be provided at the parking area site that educates the public on the history of the area, including information about the cannery and bridge. Signage will also be installed to deter littering and to encourage visitors to stay on trails, in order to prevent future impacts to the site.

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). The action area is defined as the physical work area at the wayside location within a tidally-influenced area beginning 1,000 feet upstream from the project site and extending downstream approximately 2,000 feet.

The project is on the north bank of the Siuslaw River near Bay Street in Old Town, Florence, Oregon, in the NE/NE 1/4, of Section 34, Township 18S, Range 12W.

The NMFS listed OC coho salmon as threatened under the ESA, protective regulations were issued and critical habitat was designated on February 4, 2008 (70 FR 7816). The OC coho salmon occur within the affected section of the Siuslaw River, which is designated OC coho salmon critical habitat. This portion of the river is also designated as EFH for Chinook salmon, (*O. tshawytscha*), coho salmon, and coastal pelagic species and is in an area where environmental effects of the proposed action may affect EFH for those species.

The NMFS defined two distinct population segments of green sturgeon: a northern DPS (NDPS) with spawning populations in the Klamath and Rogue rivers and a SDPS that spawns in the Sacramento River. The SDPS was listed as threatened in 2006 (71 FR 17757), and includes all spawning populations south of the Eel River in California. The NDPS remains a species of

concern. The Siuslaw River is outside of designated critical habitat for the SDPS of green sturgeon (50 CFR part 226).

ENDANGERED SPECIES ACT

In the request for concurrence, the FHWA determined that the action, as proposed, is “not likely to adversely affect” OC coho salmon, OC coho salmon designated critical habitat, and the SDPS of green sturgeon.

For purposes of the ESA, “effects of the action” means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is NLAA ESA-listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant or completely beneficial. Discountable effects cannot be reasonably expected to occur. Insignificant effects are so mild that the effect cannot be meaningfully measured, detected or evaluated as take. Beneficial effects are contemporaneous positive effects without any adverse effect to the listed species or critical habitat, even if the long-term effects are beneficial.

The NMFS concludes that all effects of the action, as proposed, are discountable and insignificant and are therefore NLAA the SDPS of green sturgeon or OC coho salmon and their designated critical habitat. There will be no impact hammer pile driving (vibratory hammer will be used) or riparian impacts associated with this project. The effects of the action, as proposed, may include potential sediment disturbance and turbidity generation. This would be due to small, short-term pulses of turbidity as the tide inundates the work area. The effects of these small pulses will be discountable due to quick dispersal and the low likelihood of ESA-listed fish in the vicinity of the site restoration. Also, after pile driving with the vibratory hammer, there may be a small amount of sediment disturbed as the pile is entering the mud and sand. The effects of the sediment disturbance will be insignificant due to the minimal amount of disturbance directly around the piles. This pile driving will also be completed in the dry. Construction will take place during the in-water work window, when the majority of the adults have migrated upstream and most of the juvenile OC coho salmon are still rearing in tributaries upstream of the estuary. The likelihood that green sturgeon will be present within the action area is extremely low.

The Oregon Department of Fish and Wildlife in-water work period is November 1 to February 15. This time period also coincides with the time of year that we expect the fewest OC coho salmon to be in the action area. The construction period for the proposed action is November 15, 2009 through February 1, 2010, and green sturgeon are present in estuaries only during the summer and early fall. The use and activity associated with this interpretive wayside will not increase as a result of this project. Effects will be insignificant to ESA-listed fish species and their critical habitat due to: (1) Full containment of all construction debris; (2) pile driving accomplished with the use of a vibratory hammer; (3) stormwater will be fully treated for the contributing impervious area; and (3) OC coho salmon and the SDPS of green sturgeon are not likely to be in the action area and exposed to the pulses of sediment.

The specific critical habitat that will be affected by the proposed action is the designated critical habitat for OC coho salmon within the Lower Siuslaw River 5th field watershed (HUC #1710020608). OC coho salmon adults and juveniles migrate through the action area and juveniles use it for rearing. Thus, the affected primary constituent elements (PCEs) in the action area are those that are essential for conservation of adult and juvenile coho salmon for migration and juveniles for rearing (Table 2).

Table 2. PCEs of critical habitat designated for OC coho salmon and corresponding species life history events.

Primary Constituent Elements		Species Life History Event
Site	Site Attribute	
Estuarine Areas	Free of obstruction with water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh and salt water; natural cover ^a ; and forage ^b .	Juvenile and adult mobility and survival

^a Natural cover includes submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels.

^b Forage includes aquatic invertebrate fish species that support growth and maturation.

The potential negative effects to water quality and habitat will be small, localized, and short term. None of the effects to PCEs are likely to disrupt normal behavioral patterns of OC coho salmon, nor will they result in functional changes to the affected PCEs. Because all effects are small, localized and short-term, the proposed action is not likely to meaningfully change the conservation value of the PCEs and is NLAA designated OC coho salmon critical habitat.

Reinitiation of consultation is required and shall be requested by the FHWA, or by the NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law if (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or if (3) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA portion of this consultation.

MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT

As part of the information provided in the request for ESA concurrence, the FHWA determined that the action, as proposed, will not have adverse effects on EFH designated for coho salmon, Chinook salmon, or coastal pelagic species.³

For purposes of MSA, “adverse effect” means any impact which reduces quality and/or quantity of EFH. Adverse effects may include direct (*e.g.*, contamination, physical disruption), indirect (*e.g.*, loss of prey, reduction in species’ fecundity), site-specific or habitat-wide impacts, including individual, cumulative or synergistic consequences of actions [50 CFR 600.910(a)]. Avoidance and minimization measures are analyzed by NMFS as part of the action, as proposed.

The effects of the action, as proposed, on EFH are the same as those described above in the ESA portion of this document and NMFS concurs with the findings in the EFH assessment.

EFH Conservation Recommendations

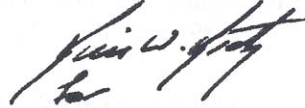
Because the properties of EFH that are necessary for the spawning, breeding, feeding or growth to maturity of managed species in the action area are the same or similar to the biological requirements of ESA-listed species as analyzed above, and because the conservation measures on pages 29 through 31 of the biological assessment that the FHWA included as part of the proposed action are adequate to avoid, minimize or otherwise offset those adverse effects to designated EFH, NMFS has no conservation recommendations to make at this time and no reporting is necessary. This concludes the EFH portion of this consultation.

The FHWA is required to complete a supplemental EFH consultation with NMFS if it substantially revises its plans for this action in a manner that may adversely affect EFH or if new information becomes available that affects the basis for NMFS’ EFH conservation recommendations [50 CFR 600.920(k)].

³ 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. Pacific Fishery Management Council, Portland, Oregon (March 1999). <http://www.pcouncil.org/salmon/salfmp/a14.html>.

Please direct questions regarding this letter to Tom Loynes, fisheries biologist in the Oregon Coast/Lower Columbia River Habitat Branch of the Oregon State Habitat Office, at 541.957.3380.

Sincerely,

A handwritten signature in black ink, appearing to read "Barry A. Thom". The signature is stylized and cursive.

Barry A. Thom
Acting Regional Administrator

cc: Frannie Brindle – ODOT
Ken Cannon – ODOT
Molly Cary - ODOT
Michelle Eraut – FHWA
Steve Gisler – ODOT
Donna Hinze – ODOT