State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: 600 Capitol Way N - Olympia, Washington 98501-1091 - (360) 902-2200, TDD (360) 902-2207
Main Office location: Natural Resources Building - 1111 Washington Street SE - Olympia, WA

ADDENDUM TO DETERMINATION OF NONSIGNIFICANCE
DATED: July 03, 2006

Name of DNS: SOUTH FORK CHINOOK SUPPLEMENTATION WEIR PROJECT

Description of DNS: The proposed project will construct a temporary picket weir to divert migrating South Fork Nooksack early Chinook into the Skookum Creek Hatchery for use as a brood stock for a conservation supplementation program to preserve this population consistent with the draft recovery plan. This permit addresses only the seasonal installation and operation of the temporary weir. The catch, handling, and removal of the listed species is being covered under a Hatchery and Genetic Management Plan (HGMP) submitted to NOAA Fisheries January 4, 2006 for consultation on a programmatic approval under ESA Section 7 and Section 4d limit 6 provisions.

Proponent/Applicant: Lummi Natural Resources Department, 2616 Kwina Road, Bellingham, WA 98226- Contact: Alan Chapman (360) 384-2202

Location of DNS, including street, if any: South Fork Nooksack River, Washington, Whatcom County; Section 27, Township 37 North, Range 05 EastWM

Lead Agency: Washington Department of Fish and Wildlife (WDFW)

WDFW is providing updated information on this project that may be of interest to other agencies or the public. The updated information provided below does not substantially change the analysis of significant impacts in the existing environmental checklist.

The original environmental checklist dated June 6, 2006, should be modified to reflect the following modifications: see attached project JARPA project description and Plan View Figure 2.

During the operations of the weir system, the supplementation steering group made minor changes in the project. They found an area that would involve no fill, and less weir length, they changed the weir set up to be a single weir above the forested island.

Based on the original environmental checklist and the updated information provided in this addendum, we have determined that a new threshold determination is not warranted. There is no comment period associated with this SEPA environmental checklist addendum.

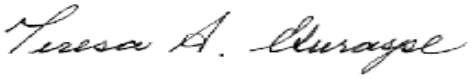
Responsible Official: Teresa A. Eturaspe

Position/Title: SEPA/NEPA Coordinator, Regulatory Services Section

Address: 600 Capitol Way North, Olympia, WA 98501

If you have questions about this action, please contact:

Teresa A. Eturaspe **Phone:** (360) 902-2575 **Fax:** (360) 902-2946 or
email: SEPAdesk@dfw.wa.gov

DATE OF ISSUE: May 2, 2007 **SIGNATURE:** 

SEPA Log Number: 07 –041. ADDdns (Addendum to 06-041)

Distribution of Environmental Document:

Department of Ecology, Environmental Review Section, Olympia
Department of Natural Resources, SEPA Center, Olympia
U.S. Fish and Wildlife Service, Western Washington Office, Lacey
U. S. Army Corps of Engineers, Seattle
NOAA - Fisheries, Seattle
Whatcom County Planning and Development Services, Bellingham
Northwest Indian Fisheries Commission, Olympia
Lummi Indian Natural Resources, Bellingham
Nooksack Tribe, Deming
Swinomish Tribe, La Conner
Suquamish tribe, Suquamish
Todd Rightmire, Whatcom Trout Unlimited, Deming
WDFW, Habitat Program, Region 4, Mill Creek
WDFW, Fish Program, Region 4, Mill Creek
WDFW, Wildlife Program, Region 4, Mill Creek

7a. The proposed project will construct a temporary picket weir and trap migrating South Fork Nooksack early chinook for use as a brood stock for a conservation supplementation program in the Skookum Creek Hatchery to preserve this population consistent with the draft recovery plan. This permit addresses only the seasonal installation and operation of the temporary weir. The catch, handling, and removal of the listed species is being covered under a Hatchery and Genetic Management Plan (HGMP) submitted to NOAA Fisheries January 4, 2006 for consultation on a programmatic approval under ESA Section 7 and Section 4d limit 6 provisions.

The picket weir will be placed across the river just above the split of the river into two channels around a forested island. Refer to the Plan View, Figure 2, indicating the proposed location of the weir.

All work will be within the ordinary high water mark, and the weir will be assembled by hand in place from components fabricated off site and delivered to the site. All work will be through manual labor. No machinery will be used in the stream channel. There will be no bank armoring.

The weir, and the trap, will be installed annually as early as conditions permit (likely June) and will be fished as long as conditions permit or until the brood stock objective is met (likely removal by September 30$^{th)}$.

The weir consist of wooden three legged "tripod" horses spaced at 10' intervals, and tethered with a cable through the apex of the horse to aid in recovery in case of a high flow washout (see Construction Drawing 2). One leg of the horse will face upstream, and two will face downstream (See Construction Drawing 1). On the one-legged portion of the horse, angled at 40 degrees from the bottom in the upstream direction, fixed angle brackets will hold the picket panels(see Construction Drawing 2). The picket panels are formed by 3" x 6" x 10' steel I beams with holes drilled in the long section of the I beam to receive individual pickets on 2 " centers (see Construction Drawing 10). Five foot long, 3/4 inch (.92 inch O.D.) EMT pickets will be placed through the holes in the top and bottom I beams so that they will each settle on top of the existing channel substrate. This arrangement will create very minimal changes in flow turbulence, and minimize any potential disturbance of the stream substrate. Should any substrate (most likely sand) shift during the course over operation, the pickets simply slip lower to again lie on top of the substrate. The spacing of the pickets will provide a 7/8 inch gap to pass the flow of water and to allow unrestricted movement in both directions for small fish. The horse will stand 3 feet vertical and the 5 foot pickets will provide an effective weir height of 4 feet.

A single 8 foot square aluminum trap, with 1” vexar mesh net bottom, and a similar side picket construction with a v entrance, will be located in the right bank channel section near the bank to collect and retain migrating fish (see Construction Drawings 1, 6, 7 and 9). A single v section, with a downstream orientation will also be placed in each weir to enable downstream moving, larger fish, to continue downstream. Up to two bags, filled with substrate of similar size and composition to the channel bed in that location, can be attached to the horse to secure the trap in place. The trap will be locked, and the weir and trap will be checked each morning until salmonids are observed in the trap. Once salmonids of any species are noted at the weir and in the trap, personnel will checked the trap and weir regularly during the day to minimize trap

residence time.

Please refer to the attached Construction Drawings for additional details on the weirs and trap. All work will be conducted by hand labor and wading. No equipment will enter the river either for installation or removal. The only possible minor channel bed disturbance would consist of manually shifting rocks by hand to make sure the area under the 8 foot square trap is flat, and possible manually shifting large rocks so that the horse legs rest evenly on the bottom. There will be no bank armoring or riparian disturbance.

7b. This project is essential to implementing the highest priority short-term actions for chinook recovery of the South Fork Nooksack chinook population, which is considered one of the highest risk populations in the Puget Sound ESU. The temporary weir offer the greatest certainty of broodstock collection, and least stressful way to collect them. The weir design and placement may provide effective diversion of the upstream migrants into the hatchery collection ponds with little to no impact on the channel, water quality, and the movement of other juvenile and adult fish.

Fish collected at distant locations in the watershed are subjected to greater stress in capture and transport and create a risk that is best avoided when taking a brood stock from a population of less than 200 potential spawners.

7c. The temporary weir is intended to collect chinook salmon for a conservation hatchery program to save a high risk population from extinction in the short term. In the absence of a program, abundances are diminishing due to low population productivity due to habitat impairment, despite diminished harvest rates. The design and operation of the weir and trap provide for uninterrupted downstream (and upstream) migration of fry and smolts through the pickets, and allows downstream migration of adult steelhead and any other species through the V sections installed in each weir at appropriate locations. Disruptions to upstream migration of all other adult or sub-adult salmonids, including bull trout and summer-run steelhead are minimized to the maximum extent possible. The handling, treatment and removel of chinook and these other species is addressed under ESA Section 7 and Section 4d limit 6 consideration by NOAA Fisheries and U.S. Fish and Wildlife Service in their review of the HGMP of January 4, 2006. All fish not required for the supplementation program will be released at the mouth of Skooklum Creek, upstream of the weir, where water is cooler than in the South Fork.

The weir design and placement procedures ensure that any water quality impacts are avoided entirely, or are absolutely minimized. A major consideration was a weir design that could be manually implemented rather than require the use of heavy equipment in the stream channel, and that avoids channel and riparian disturbances. There will be no impact on the fishing opportunity because sport fishing is prohibited in the reach. Floating watercraft devises are also stressfull for migrating and holding the early chinook and have already been prohibited in the reach (from Edfro Creek downstream to Acme) by Whatcom County to protect the chinook.

The weir will be monitored regularly by on site personnel at the hatchery to discourage any interferrence by the general public with the chinook and bull trout collecting in the areas immediately downstream of the weirs. If anything, the aesthetics of the site would be improved with the possible directed movement of the fish from the river into the hatchery and those fish that might collect in the areas below the weir prior to entering the hatchery or the trap. The trap design allows it to be secured for access only by authorized personnel. All weir components will

be removed from the channels as soon as the brood stock requirements are met, with consideration for collecting chinook from the full range of the migration. As there will be no riparian disturbance, virtually no channel disturbance or water quality degredation, and installation is entirely by hand, and the entire purpose of the program is to save a population essential for recovery of Puget Sound chinook, no mitigation is proposed.

An additional benefit of the temporary weir and trap is enumeration and tissue collection for genetic analysis for larger upstream migrating ESA listed bull trout (threatened), and summer-run steelhead (proposed as threatened). This will enable population and genetic data to be collected that would otherwise be impossible to collect for these species for which we have no population estimates in the South Fork.