

Northwest Fisheries Science Center
Fish Ecology Division
2725 Montlake Boulevard East
Seattle, Washington 98112-2097

June 16, 2008

MEMORANDUM FOR: F/NWR3 - Gary Rule

FROM: F/NWC3 - John W. Ferguson

SUBJECT: Request for Modification of ESA Permit
#1290

We request modification of ESA Section 10 Permit #1290, to collect additional juvenile and adult salmonids (Table 1) as part of the NOAA/BPA-funded "Importance of the Columbia River estuary to baitfish populations and salmonid marine survival." This research program collects salmonids and other fishes in the Columbia River estuary to help scientists and managers better understand the factors controlling estuarine and marine salmonid survival. It also serves to determine the importance of the Columbia River estuary for baitfish populations.

We request additional ESA listed juvenile salmonids under Permit 1290 because of A) expected increased catches of juvenile steelhead (most of which are released immediately), and juvenile chum and coho salmon, based on recent sampling efforts, and B) new updated estimates of percentages of listed fish in the Columbia River estuary since the original permit request was submitted. During our 2007 sampling effort we caught more juvenile steelhead (due largely to a large single haul) than previous surveys. Because we immediately release most steelhead we capture, the primary modification to our permit is addition of "capture, handle and release" categories for listed steelhead, which are absent from the current ESA permit. We also included "capture, handle and release" categories for several Chinook salmon populations which lack such authorization in the current permit. We increased our take of juvenile chum salmon due to increased numbers seen in spring 2008, and increased our "intentional mortality" of listed hatchery coho salmon so that we don't exceed our permit limits when we follow our protocol and retain a total of 50 coho (clipped plus unclipped) per cruise.

We have also added take for listed adult salmon (Chinook, steelhead, and coho) because of catches of these species by our study in both 2007 (3 adults total) and 2008 (3 adults total to date). We immediately release all adults without removing them from the water, but need to include them on our permit to account for such non-targeted take. While we do not estimate that we have impacted listed adult salmon to date, we would like an authorization for minimal numbers of adults to cover the possibility for the adult fish we do catch. We estimated the probable origin of adult fish based on stock composition of juvenile outmigrants in 2007 (see below); this will be modified as necessary once adult-specific stock information is available.

Updated percentages of listed salmonids in our study area came from a memorandum dated 11 November 2007 from John W. Ferguson to James H. Lecky, and titled, "Revised estimation of percentages for listed Pacific salmon and steelhead smolts arriving at various locations in the Columbia River basin in 2007." Our new estimates of ESA listed salmon to be taken (Table 1) were calculated by multiplying the maximum number of salmon species we expect to catch (from past surveys) by the percentage of listed fish expected in the study area for all numbers that are being adjusted. Additional (or reduced) take, for species/stocks, beyond our present ESA Permit is highlighted in Table 1.

If you have any questions concerning this request, please contact Laurie Weitkamp at (541) 867-0504.

cc: F/NWC1 - Weitkamp
F/NWC3 - Casillas
F/NWC3 - Frick
F/NWC3 - Jacobson

Table 1. Take descriptions of ESU listed salmonids on an annual basis during the NOAA/BPA Columbia River estuary baitfish and juvenile salmon study. Entries represent listed runs unless other wise noted. Changes in the number of fish to take are highlighted in yellow.

ESU/Species	Life Stage	Origin	Take Activity	Number of fish currently authorized to take	New requested number of fish to take	New Authorized Unintentional Mortality	Research Location	Research Period
Upper Willamette River Chinook salmon	Juv.	wild	Capture, handle, release	17	17	0/17	Columbia River Estuary	April - November
Upper Willamette River Chinook salmon	Juv.	wild	Intentional mortality	35	35	N/A	Columbia River Estuary	April - November
Upper Willamette River Chinook salmon	Juv.	Listed hatchery, adipose intact	Capture, handle, release	not specified	3	0/3	Columbia River Estuary	April - November
Upper Willamette River Chinook salmon	Juv.	Listed hatchery, adipose intact	Intentional mortality	1	1	N/A	Columbia River Estuary	April - November
Lower Columbia River Fall Chinook salmon	Juv.	wild	Capture, handle, release	81	81	1/81	Columbia River Estuary	April - November
Lower Columbia River Fall Chinook salmon	Juv.	wild	Intentional mortality	76	76	N/A	Columbia River Estuary	April - November
Lower Columbia River Fall Chinook salmon	Juv.	Listed hatchery, adipose intact	Capture, handle, release	53	53	1/53	Columbia River Estuary	April - November
Lower Columbia River Fall Chinook salmon	Juv.	Listed hatchery, adipose intact	Intentional mortality	41	41	N/A	Columbia River Estuary	April - November
Snake River Spring/Summer Chinook salmon	Juv.	wild	Capture, handle, release	5	5	0/5	Columbia River Estuary	April - November

ESU/Species	Life Stage	Origin	Take Activity	Number of fish currently authorized to take	New requested number of fish to take	New Authorized Unintentional Mortality	Research Location	Research Period
Snake River Spring/Summer Chinook salmon	Juv.	wild	Intentional mortality	10	10	N/A	Columbia River Estuary	April - November
Snake River Spring/Summer Chinook salmon	Juv.	Listed hatchery, adipose intact	Capture, handle, release	Not specified	10	0/10	Columbia River Estuary	April - November
Snake River Spring/Summer Chinook salmon	Juv.	Listed hatchery, adipose intact	Intentional mortality	1	5	N/A	Columbia River Estuary	April - November
Snake River Fall Chinook salmon	Juv.	wild	Capture, handle, release	1	5	0/5	Columbia River Estuary	April - November
Snake River Fall Chinook salmon	Juv.	wild	Intentional mortality	1	1	N/A	Columbia River Estuary	April - November
Snake River Fall Chinook salmon	Juv.	Listed hatchery, adipose intact	Capture, handle, release	3	3	0/3	Columbia River Estuary	April - November
Snake River Fall Chinook salmon	Juv.	Listed hatchery, adipose intact	Intentional mortality	3	3	N/A	Columbia River Estuary	April - November
Upper Columbia River Chinook salmon	Juv.	wild	Capture, handle, release	1	1	0/1	Columbia River Estuary	April - November
Upper Columbia River Chinook salmon	Juv.	wild	Intentional mortality	5	5	N/A	Columbia River Estuary	April - November
Upper Columbia River Chinook salmon	Juv.	Listed hatchery, adipose intact	Capture, handle, release	not specified	5	0/5	Columbia River Estuary	April - November

ESU/Species	Life Stage	Origin	Take Activity	Number of fish currently authorized to take	New requested number of fish to take	New Authorized Unintentional Mortality	Research Location	Research Period
Upper Columbia River Chinook salmon	Juv.	Listed hatchery, adipose intact	Intentional mortality	5	5	N/A	Columbia River Estuary	April - November
Snake River sockeye	Juv.	wild	Capture, handle, release	3	3	0/3	Columbia River Estuary	April - November
Upper Columbia River Steelhead	Juv.	wild	Capture, handle, release	not specified	10	0/10	Columbia River Estuary	April - November
Upper Columbia River Steelhead	Juv.	wild	Intentional mortality	5	5	N/A	Columbia River Estuary	April - November
Upper Columbia River Steelhead	Juv.	Listed hatchery, adipose intact	Capture, handle, release	not specified	12	0/12	Columbia River Estuary	April - November
Upper Columbia River Steelhead	Juv.	Listed hatchery, adipose intact	Intentional mortality	12	12	N/A	Columbia River Estuary	April - November
Upper Willamette River Steelhead	Juv.	wild	Capture, handle, release	not specified	15	0/15	Columbia River Estuary	April - November
Upper Willamette River Steelhead	Juv.	wild	Intentional mortality	3	3	N/A	Columbia River Estuary	April - November
Upper Willamette River Steelhead	Juv.	Listed hatchery, adipose intact	Capture, handle, release	not specified	5	0/5	Columbia River Estuary	April - November
Upper Willamette River Steelhead	Juv.	Listed hatchery, adipose intact	Intentional mortality	not specified	5	N/A	Columbia River Estuary	April - November

ESU/Species	Life Stage	Origin	Take Activity	Number of fish currently authorized to take	New requested number of fish to take	New Authorized Unintentional Mortality	Research Location	Research Period
Lower Columbia River Steelhead	Juv.	wild	Capture, handle, release	not specified	50	1/50	Columbia River Estuary	April - November
Lower Columbia River Steelhead	Juv.	wild	Intentional mortality	12	12	N/A	Columbia River Estuary	April - November
Lower Columbia River Steelhead	Juv.	Listed hatchery, adipose intact	Capture, handle, release	not specified	15	0/15	Columbia River Estuary	April - November
Lower Columbia River Steelhead	Juv.	Listed hatchery, adipose intact	Intentional mortality	3	3	N/A	Columbia River Estuary	April - November
Snake River Basin Steelhead	Juv.	wild	Capture, handle, release	not specified	60	1/60	Columbia River Estuary	April - November
Snake River Basin Steelhead	Juv.	wild	Intentional mortality	17	17	N/A	Columbia River Estuary	April - November
Snake River Basin Steelhead	Juv.	Listed hatchery, adipose intact	Capture, handle, release	not specified	40	0/40	Columbia River Estuary	April - November
Snake River Basin Steelhead	Juv.	Listed hatchery, adipose intact	Intentional mortality	10	10	N/A	Columbia River Estuary	April - November
Middle Columbia River Steelhead	Juv.	wild	Capture, handle, release	not specified	65	1/65	Columbia River Estuary	April - November
Middle Columbia River Steelhead	Juv.	wild	Intentional mortality	84	84	N/A	Columbia River Estuary	April - November

ESU/Species	Life Stage	Origin	Take Activity	Number of fish currently authorized to take	New requested number of fish to take	New Authorized Unintentional Mortality	Research Location	Research Period
Middle Columbia River Steelhead	Juv.	Listed hatchery, adipose intact	Capture, handle, release	not specified	6	0/6	Columbia River Estuary	April - November
Middle Columbia River Steelhead	Juv.	Listed hatchery, adipose intact	Intentional mortality	3	3	N/A	Columbia River Estuary	April - November
Columbia River Chum salmon	Juv.	wild	Capture, handle, release	200	300	4/300	Columbia River Estuary	April - November
Columbia River Chum salmon	Juv.	wild	Intentional mortality	not specified	3	N/A	Columbia River Estuary	April - November
Lower Columbia River Coho salmon	Juv.	wild	Capture, handle, release	12	12	0/12	Columbia River Estuary	April - November
Lower Columbia River Coho salmon	Juv.	wild	Intentional mortality	15	15	N/A	Columbia River Estuary	April - November
Lower Columbia River Coho salmon	Juv.	Listed hatchery, adipose intact	Capture, handle, release	15	15	0/15	Columbia River Estuary	April - November
Lower Columbia River Coho salmon	Juv.	Listed hatchery, adipose intact	intentional mortality	15	30	N/A	Columbia River Estuary	April - November
Upper Willamette Chinook salmon	adult	wild	Capture, handle, release	Not specified	3	0/3	Columbia River Estuary	April - November
Lower Columbia spring Chinook salmon	adult	wild	Capture, handle, release	Not specified	2	0/2	Columbia River Estuary	April - November

ESU/Species	Life Stage	Origin	Take Activity	Number of fish currently authorized to take	New requested number of fish to take	New Authorized Unintentional Mortality	Research Location	Research Period
Snake River Basin Steelhead	adult	wild	Capture, handle, release	Not specified	3	0/3	Columbia River Estuary	April - November
Middle Columbia River Steelhead	adult	wild	Capture, handle, release	Not specified	3	0/3	Columbia River Estuary	April - November
Lower Columbia River Coho salmon	adult	Listed hatchery, adipose intact	Capture, handle, release	Not specified	3	0/3	Columbia River Estuary	April - November
Lower Columbia River Coho salmon	adult	wild	Capture, handle, release	Not specified	3	0/3	Columbia River Estuary	April - November