Final Environmental Assessment

Determination that the Tribal Resource Management Plan submitted by the Shoshone-Bannock Tribes satisfies the Tribal 4(d) Rule and Does Not Appreciably Reduce the Likelihood of Survival and Recovery of Snake River Spring/Summer-run Chinook Salmon Evolutionarily Significant Unit under the Endangered Species Act

National Marine Fisheries Service
Northwest Region

December 2012

Cover Sheet
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Title of Environmental Review:	Final Environmental Assessment to Analyze Impacts of a NOAA's National Marine Fisheries Service Proposed Determination that the Tribal Resource Management Plan submitted by the Shoshone-Bannock Tribes satisfies the Tribal 4(d) Rule and Does Not Appreciably Reduce the Likelihood of Survival and Recovery of Snake River Spring/Summer-run Chinook Salmon Evolutionarily Significant Unit under the Endangered Species Act
Evolutionarily Significant Units:	Snake River Spring/Summer-run Chinook salmon Snake River Sockeye Salmon
Distinct Population Segments:	Snake River Basin Steelhead
Responsible Agency and Official:	Barry A. Thom Deputy Regional Administrator National Marine Fisheries Service Northwest Region 7600 Sand Point Way N.E., Building 1 Seattle, WA 98115
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Legal Mandate:	Endangered Species Act (ESA) of 1973, as amended and implemented – 50 CFR Part 223
Location of Proposed Activities:	Salmon River Basin, Idaho
Activity Considered:	ESA determination regarding one Tribal Resource Management Plans through part of the range of the ESA-listed Evolutionarily Significant Unit pursuant to the ESA Tribal 4(d) Rule

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1

Executive Summary

A Draft Environmental Assessment (Draft EA) on the effects of a Tribal Resource Management Plan prepared by the Shoshone-Bannock Tribes (SBT) was released by the National Marine Fisheries Service (NMFS) for a 30-day public comment period on May 30, 2012 (77 FR 31835). The comment period for review of the Draft EA on this Proposed Action expired on June 29, 2012. NMFS received comments from the NPT. The Final Environmental Assessment (Final EA) reflects changes from the Draft EA based on comments received. To assist the reader with identification of changes to the Final EA, all new text is indicated in redline/strikeout format to show changes from the Draft EA, or is indicated with a new subsection title and/or an indication of new text. Comment letters and corresponding responses are located in Appendix A of this Final EA.

1.0 Purpose of and Need for the Proposed Action

1.1 Background

NOAA's National Marine Fisheries Service (NMFS) is the lead agency responsible for administering the Endangered Species Act (ESA) as it relates to listed salmon and steelhead. Actions that may affect listed species are reviewed by NMFS under section 7 or section 10 of the ESA or under section 4(d), which can be used to limit the application of take prohibitions described in section 9. NMFS issued a final rule pursuant to ESA section 4(d) (4(d) Rule), adopting regulations necessary and advisable to conserve threatened species (50 CFR 223.203). Similarly, NMFS issued a final Tribal 4(d) Rule (50 CFR 223.204). These 4(d) Rules apply the take prohibitions in section 9(a)(1) of the ESA to salmon and steelhead listed as threatened, and also set forth specific circumstances when the prohibitions would not apply, known as 4(d) Limits. With regard to fisheries management described in Tribal Resource Management Plans (TRMPs), NMFS declared in the Tribal 4(d) Rule that section 9 take prohibitions would not apply to activities carried out under those TRMPs deemed by the Secretary of Commerce to not appreciably reduce the likelihood of survival and recovery of a listed species.

The Shoshone-Bannock Tribes (SBT) have worked for over a decade with NMFS and coordinated with other parties in the Idaho portion of the Snake River Basin to develop a Snake River spring/summer Chinook salmon TRMP in a manner that is consistent with the requirements of the Endangered Species Act (ESA). After several earlier iterations, on January 6, 2011, NMFS received a revised and final TRMP for Snake River Spring/Summer Chinook Salmon Fisheries within the Salmon River subbasin from the SBT for ESA consultation (SBT 2011). The SBT have been fishing ~~in accordance~~ at levels consistent with those contained in the proposed TRMP in the Salmon River Basin since 2006[1]. On January 5, 2011, NMFS received a request from the Idaho Department of Fish and Game (IDFG) to approve three Fishery Management and Evaluation Plans (FMEPs) covering various fisheries in Idaho. NMFS responded with comments to improve or clarify the FMEPs. Of the three FMEPs submitted by IDFG, the discussion below is limited to IDFG's spring/summer Chinook salmon fisheries FMEP because this FMEP is linked to the SBT's TRMP fisheries management framework. ~~Under joint management of the fisheries, SBT and IDFG are referred to as parties.~~

On February 3, 2011, the IDFG provided NMFS with an updated FMEP describing recreational fisheries for Snake River spring/summer Chinook salmon in the Snake River Basin (IDFG 2011). The IDFG and SBT propose to manage Snake River spring/summer Chinook salmon fisheries in the Snake River Basin using slightly different, but compatible frameworks, without precluding each other from implementing their respective fisheries as proposed. The population-specific ESA limit for Snake River spring/summer Chinook salmon populations proposed by the SBT is responsive to a combined harvest under the SBT's TRMP and IDFG's spring/summer Chinook salmon fisheries FMEP simultaneously. The harvest framework construct is designed to encompass the impacts of fisheries implemented by all entities fishing in the action area; at the present time, IDFG and the SBT are the only entities with proposed fisheries being evaluated under the ESA. The Nez Perce Tribe is developing its own TRMP, which will be analyzed separately under the ESA. Consequently, the internal NEPA scoping process for the SBT action

[1] See Footnote 4

included a review of the respective relationships and the potential effects of the implementation of the TRMP along with the IDFG FMEP spring/summer Chinook salmon fisheries ~~currently being~~ reviewed under Limit 4 of the 4(d) Rule on Snake River spring/summer and fall Chinook salmon, Snake River steelhead, and Snake River sockeye salmon (NMFS 2011b).

The TRMP was submitted by the SBT for consideration under the Tribal 4(d) Rule of the ESA; IDFG's FMEP was submitted for consideration under limit 4 of the 4(d) Rule of the ESA and is being evaluated separately.

In 2005 NMFS prepared an Environmental Assessment (EA) with a Finding of No Significant Impact on NMFS' action of issuing an ESA Section 10 permit to IDFG for the incidental take of ESA-listed anadromous fish under the jurisdiction of NMFS associated with proposed recreational fisheries that target unlisted, hatchery-produced anadromous salmon and steelhead and resident game fish species in the Snake River Basin of Idaho (NMFS 2005a, NMFS 2005b). IDFG's permit was in effect until May 31, 2010. When IDFG submitted its January 5, 2011, FMEP for spring/summer Chinook salmon fisheries, NMFS concluded that no additional NEPA analysis was warranted for consideration of the Snake River spring/summer Chinook salmon FMEPs from IDFG in 2011 because the components of the Proposed Action are within the range of actions analyzed in the most recent NEPA review (NMFS 2005a) and in supporting, related analyses (NMFS 2011a).

Although the 2011 IDFG spring/summer Chinook salmon fisheries FMEP does not, itself, require additional NEPA review, the SBT's TRMP has not been reviewed under NEPA, and, therefore, must be evaluated in the context of its potential interaction with IDFG's FMEP relative to the prescribed combined and concurrent population-specific ESA limits on Snake River spring/summer Chinook salmon, including the effects that fishing by one ~~party~~ entity can have on the other ~~party~~ entity. Because the two actions – implementation of IDFG's spring/summer Chinook salmon fisheries FMEP and implementation of the SBT's TRMP – are related actions, NMFS's ESA approval of the SBT's TRMP, the Proposed Action that is here evaluated under NEPA, includes consideration of the effects on the fisheries when combining the actions of IDFG's spring/summer Chinook salmon fisheries FMEP and the TRMP from the SBT.

NMFS seeks to consider, through NEPA analysis, how its pending action may affect the natural and physical environment and the relationship of people with that environment. NMFS is also required to review compliance of ESA actions with other applicable laws and regulations. The NEPA analysis provides an opportunity to consider, for example, how the action may affect conservation of non-listed species, and socioeconomic objectives that seek to balance conservation with wise use of affected resources and other legal and policy mandates.[2]

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[2] ~~This EA does not seek to resolve any disputes among tribes regarding treaty fishing rights. The United States' treaties with Indian tribes are the supreme law of the land, and thus NMFS cannot make judicially binding determinations regarding the nature and extent of tribal treaty rights. Such determinations are the province of Federal courts. NMFS's role is solely limited to making a determination as to whether a fishery would be likely to appreciably reduce the survival and recovery of ESA-listed fish. For the purposes of this review, the analysis is based on the assumption that the Proposed Action would take place as described.~~
See Footnote 4

1.2 Description of the Proposed Action

The Federal action evaluated here is the proposed determination by the Secretary that the SBT's TRMP would not appreciably reduce the likelihood of survival and recovery of the ESA-listed Snake River Spring/Summer-run Chinook Salmon Evolutionarily Significant Unit (ESU), Snake River Sockeye Salmon ESU, and Snake River Basin Steelhead Distinct Population Segment (DPS)[3]. The Proposed Action would result in ESA coverage for the ~~implementation of~~ fisheries as described in the TRMP[4].

Two alternatives are considered in this EA: (1) Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule, (i.e., No-action), and (2) Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule (i.e., Proposed Action). No other alternatives that would meet the purpose and need were identified that were appreciably different from the two alternatives analyzed below (Section 2.0, Alternatives Including the Proposed Action).

Pursuant to the Proposed Action, SBT harvest of Chinook salmon may not be curtailed while Snake River sockeye are present in the action area. The SBT's TRMP expects the only place where sockeye salmon may be incidentally taken within the action area is in the Salmon River Upper Main (Upstream of the town of Stanley on Figure 1). The ~~Tribes will~~ SBT would use the estimated runsize for the returning adult sockeye salmon each year and will conduct the proposed fisheries under an incidental impact rate limit of one percent of the expected return on any given year. The SBT TRMP estimates that fewer than 10 steelhead adult mortalities per year for the Salmon River Major Population Group (MPG) would result from the implementation of proposed fisheries in Yankee Fork Salmon River, East Fork Salmon River, and Salmon River Upper mainstem (Figure 1). The SBT TRMP proposes the implementation of a new creel census and reporting system to estimate incidental impacts to steelhead. Incidental impacts on steelhead will be included in the SBT's annual report to NMFS.

The proposed fisheries would take place in specific stream reaches in a number of tributary subbasins areas designated as critical habitat for Snake River Spring/Summer Chinook Salmon, Snake River Sockeye Salmon, and Snake River steelhead. Key statistics associated with the current status of Snake River Basin steelhead are summarized in the Supplemental Comprehensive Analysis (SCA) (NMFS 2008a).

[3] An 'evolutionarily significant unit' (ESU) of Pacific salmon (Waples 1991) and a 'distinct population segment' (DPS) of steelhead (71 FR 834, January 5, 2006) are considered to be 'species,' as defined in Section 3 of the ESA. Unless otherwise stated, this document uses the term 'species' to refer to both ESUs and DPSs.

[4] NMFS's ESA review of Tribal Resource Management Plans does not itself permit the operation of the described fishery. The Unites States' treaties with Indian tribes are the supreme law of the land, and thus, NMFS cannot make judicially binding determinations regarding the nature and extent of tribal treaty rights. Such determinations are the province of Federal courts. NMFS's role is solely limited to making a determination as to whether a fishery would be likely to appreciably reduce the survival and recovery of ESA-listed fish.

1.3 Purpose of and Need for the Action

The purpose of and need for the Proposed Action is, for the SBT, to obtain ESA coverage for ~~are to implement SBT'~~ fisheries as described in the TRMP, and for NMFS, to protect and enhance natural-origin populations of the listed species through ESA compliance ~~in 2012 and beyond, consistent with the government's tribal trust obligations, and to comply with the requirements of the ESA, specifically with criteria of the Tribal 4(d) Rule~~. The TRMP includes Federally-required adaptive management measures to limit ESA impacts and propose conservative harvest regimes on the affected listed species. In applying measures to the implementation of the proposed fisheries, the SBT's TRMP includes consideration of other approved fisheries occurring in the action area that operate under the same overall ESA impact limit. The SBT's spring/summer Chinook salmon fisheries considered in this environmental assessment was developed in coordination with the IDFG's spring/summer Chinook salmon fisheries FMEP. The SBT's TRMP and the IDFG's FMEP do not use exactly the same management framework, but were designed to be compatible and responsive to the same overall ESA take limit. ~~The Nez Perce Tribe is developing its own TRMP, which will be analyzed under a separate process.~~ The TRMP describes monitoring programs that would be in place to ensure that the implementation of the fisheries is as intended, and that assumptions regarding the effects of the fisheries, particularly in application of the proposed ESA take limits, continue to remain valid such that the action would not reduce the likelihood of survival and recovery of the Snake River Spring/Summer Chinook Salmon and Snake River Sockeye salmon ESUs and Snake River Basin Steelhead DPS listed under the ESA.

1.4 Action Area

The TRMP describes proposed fisheries that would occur throughout the portion of the Salmon River Basin in Idaho that is accessible to anadromous fish (Figure 1). Note that while the Salmon River Basin covers a large area, the fisheries proposed in the SBT's TRMP would only occur at certain access points, but potentially include fishing in portions of all major tributaries of three MPGs – Middle Fork Salmon River MPG, South Fork Salmon River MPG, and Upper Salmon River MPG – together representing 22 populations.

1.5 Scope

The scope of the action considered here includes ESA coverage for SBT's fisheries proposed for Snake River spring/summer Chinook salmon in the Salmon River of Idaho (see footnote 2). The NEPA review addresses potential effects in the entire action area, although fishing would occur in localized areas only. The term of the TRMP is open-ended and would be in effect after the associated 4(d) determination is made by NMFS. There would be periodic ESA reviews of the TRMP every 5 years, and the TRMP would be modified as warranted. Again, the action considered here – ESA coverage for fisheries – does not grant any party the right to conduct a fishery (see footnote 2). ~~The ESA impact limits proposed by the SBT under the TRMP and being analyzed here are to be shared between all parties fishing in the action area.~~ The scope of this analysis is solely for the fishing-related impacts ~~resulting from~~ described in the SBT's TRMP.

1.6 Relationship to Other Plans and Policies

This environmental assessment (EA) was prepared pursuant to regulations implementing NEPA (42 USC 4321), in compliance with Federal regulations for preparing an EA (40 CFR 1502), and consistent with recovery plans being developed pursuant to section 4 of the ESA by NMFS in conjunction with interested stakeholder groups. The Proposed Action analyzed in this EA relates to other plans and policies regarding the management and restoration of anadromous fish resources in the Pacific Northwest and ESA recovery planning. Recovery plans are in place or being developed for most parts of the Columbia River system in which anadromous fish occur (for example, see NMFS 2005c; NMFS 2009; Snake River Salmon Recovery Board 2006; also, a recovery plan for the Snake River Basin is currently under development by NMFS' Northwest Regional Office). Typically, development and on-going implementation of these plans includes participation by multiple Federal, tribal, state, and local agencies and stakeholder groups. These recovery plans contain (1) measurable goals for delisting, (2) a comprehensive list of the actions necessary to achieve delisting goals, and (3) an estimate of the cost and time required to carry out those actions.

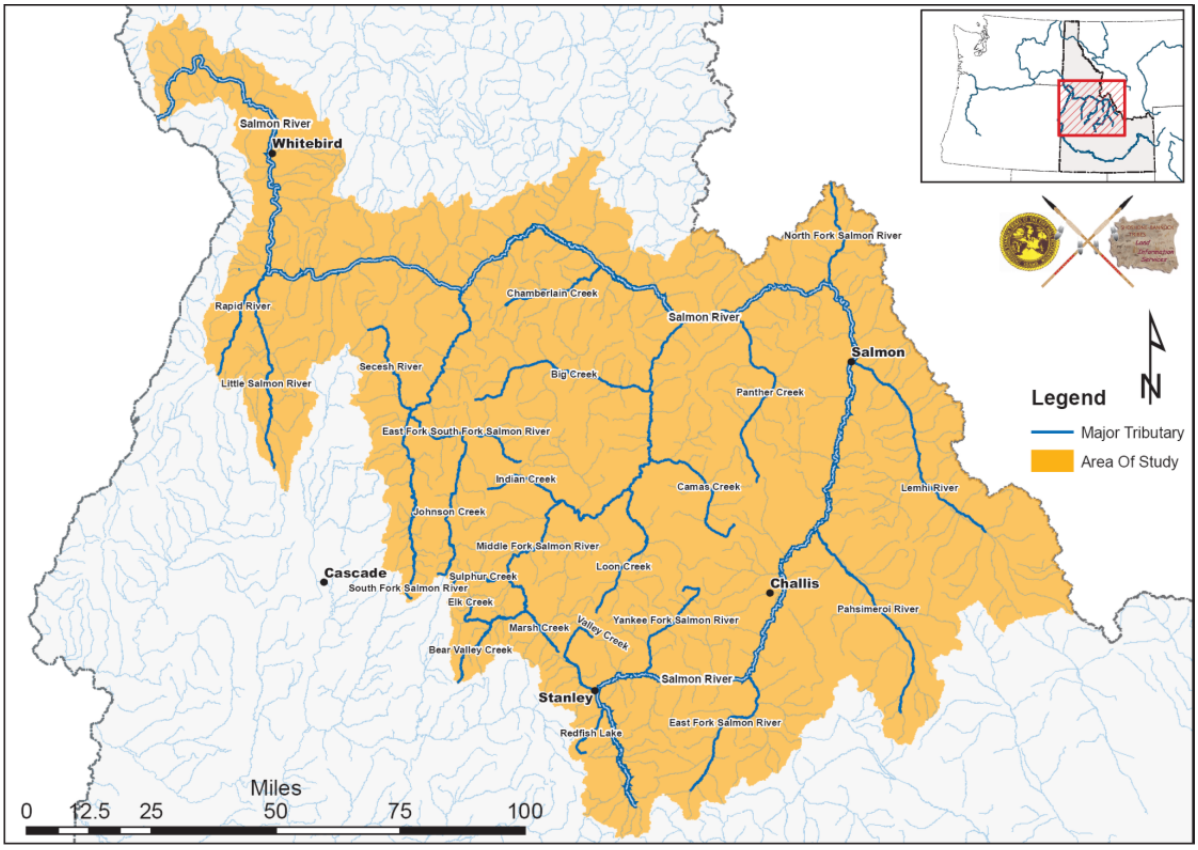

Figure 1. The Salmon River Basin in Idaho, including major tributaries.

After listing 27 Pacific salmon ESUs as threatened or endangered under the ESA, NMFS initiated a coast-wide process to develop recovery plans for these species. An important part of this process was the creation of geographically based Technical Recovery Teams (TRTs). The

TRTs are multi-disciplinary science teams chaired by Northwest Fisheries Science Center or Southwest Fisheries Science Center staff. The TRTs were tasked with providing science support to recovery planners by developing biologically based viability criteria, analyzing alternative recovery strategies, and providing scientific review of draft plans.

With the imminent publication of recovery plans for most ESA-listed salmon and steelhead in the Pacific Northwest, the Pacific Northwest TRTs either have completed or are close to completing their initial tasks of developing viability criteria and providing science support for recovery plan development. Most of the original TRTs have, therefore, been phased out as the TRTs completed their final tasks in late 2007 and early 2008.

A draft recovery plan is being developed by NMFS in coordination with staff from tribes and relevant agencies and organizations. The recovery plan constitutes a comprehensive multi-species plan for the entire Snake River Basin, with appendices that include "management unit" plans and additional subject-matter modules. The SBT participate on several Technical Teams in various roles. The management unit plans will each meet ESA requirements and will use consistent scientific principles, and will be based on local initiatives developed by appropriate stakeholders. All factors that have been identified as leading to the decline of ESA-listed salmon and steelhead are being addressed in these draft recovery plans. For ESA-listed spring/summer Chinook salmon, sockeye salmon, and steelhead, these factors include hydroelectric operations, harvest, habitat use, and artificial propagation. Snake River fall Chinook salmon will be addressed in its own management unit plan as part of the larger recovery plan.

In 2008, NMFS concluded multiple ESA consultations for several Federal actions that occur simultaneously affecting the same listed species of Columbia River salmon and steelhead (NMFS 2008a; NMFS 2008b; NMFS 2008c). The analysis for these actions was based on a common Comprehensive Analysis of the Federal Columbia River Power System and Mainstem Effects of Upper Snake and Other Tributary Actions (~~U.S. Army~~ Corps ~~of Engineers~~ et al. 2007~~a~~). NMFS later prepared its own Supplemental Comprehensive Analysis (SCA) to capture the best available data and analysis contemporaneous with its issuance of its biological opinions in 2008 (NMFS 2008a). NMFS' SCA builds on the FCRPS Action Agencies' Comprehensive Analysis, incorporating by reference the information relevant to NMFS' analysis on the FCRPS; that analysis includes information relevant to the consideration of fishery harvest in the Columbia and Snake Basins (NMFS 2008a).

2.0 Alternatives Including the Proposed Action

Alternatives considered in this EA are: (1) Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule (the No-action Alternative); or (2) Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule (the Proposed Action).

2.1 Alternative 1 (No-action) – Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

Under this alternative, the Secretary would determine that the SBT's TRMP (and its relationship to IDFG's FMEP) does not meet the criteria of the Tribal 4(d) Rule, in which case no activities conducted under this TRMP would qualify for the limitations on application of section 9 take prohibitions. Consequently, the TRMP would not have ESA coverage. Although some of these fisheries have been ongoing, for the purpose of this analysis, NMFS treats the No-action Alternative as resulting in no fishing by the SBT in the action area in 2012 and into the future. There are a number of other potential outcomes that might occur under this No-action Alternative – the SBT could pursue other mechanisms for executing fisheries without ESA coverage, for example. However, because the closure of SBT' fisheries is one possible outcome, and because it represents one end of the spectrum of potential effects, NMFS has defined the No-action Alternative as resulting in no fishing by the SBT to provide the broadest possible range of effects to evaluate. The rationale for this is to provide a wide range of alternative analyses for comparisons of effects on the human environment.

2.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

Under this alternative, the Secretary would determine that the SBT's TRMP (and its relationship to IDFG's FMEP) does meet the criteria of the Tribal 4(d) Rule, in which case all activities conducted under this TRMP would qualify for the limitations on application of section 9 take prohibitions. For the purpose of this analysis, NMFS treats the Proposed Action Alternative as resulting in the level of fishing impacts as described in the TRMP in 2012 and into the future, with a mandatory 5-year review. [5]

Alternative 2 would result in ESA coverage for proposed fisheries in the action area as set forth in the SBT TRMP. While the action area described above is a large geographic area, fishing under the Proposed Action would only occur in a limited portion of this area at specific fishery access points. However, fishing could potentially take place in all 22 populations included in the action area. Furthermore, fishing would only occur for a short period of time each year because the fishery would be limited by potential effects under ESA requirements and by the amount of available fish to harvest.

A harvest report would be submitted annually to NMFS post-season each year under the SBT's TRMP~~, evaluating~~ for NMFS to evaluate its ESA compliance. Fishing methods and gears proposed by the SBT include spear, hoop-net, hook and line, or other traditional and contemporary methods.

[5] See Footnote 4

2.2.1 Escapement Goals

The SBT's TRMP proposes to utilize the Viable Population Thresholds (VPT) identified by the Interior Columbia Technical Recovery Team (ICTRT) as escapement goals for 22 natural-origin Chinook salmon populations (Table 1). The TRMP further uses the VPT to develop abundance-based sliding-scale harvest management frameworks for basic, intermediate, and large populations. The SBT adopted a Critical Population Threshold (CAT) level at 30 percent of VPT levels, recognizing the extreme risks associated with extinction.

Table 1. List of the Fisheries Management Areas (FMA), name, critical level, viable population thresholds, and associated hatchery stocks included in the TRMP.

FMA Code	Name	Critical Level	Viable Population Threshold	Associated Hatchery Stock(s)
SRLSR	Little Salmon River	225	750	Rapid River Fish Hatchery
SFMAI	South Fork Salmon River	300	1,000	McCall Fish Hatchery
SFSEC	Secesh River	225	750	
SFEFS	East Fork South Fork Salmon River	300	1,000	JCAPE
SRCHA	Chamberlain Creek	225	750	
MFLMA	Middle Fork Lower Main	150	500	
MFBIG	Big Creek	300	1,000	
MFCAM	Camas Creek	150	500	
MFLOO	Loon Creek	150	500	
MFUMA	Middle Fork Upper Main	225	750	
MFSUL	Sulphur Creek	150	500	
MFBEA	Bear Valley Creek	225	750	
MFMAR	Marsh Creek	150	500	
SRPAN	Panther Creek [1]	150	500	
SRNFS	North Fork Salmon River	150	500	
SRLEM	Lemhi River [2]	300	1,000	
SRLMA	Salmon River Lower Main	300	2,000	
SRPAH	Pahsimeroi River[1]	300	500	Pahsimeroi Fish Hatchery
SREFS	East Fork Salmon River	300	1,000	Captive Rearing
SRYFS	Yankee Fork Salmon River	150	500	Captive Rearing, YFCSS
SRVAL	Valley Creek	150	500	
SRUMA	Salmon River Upper Main	300	1,000	Sawtooth Fish Hatchery

[1] The SBT define this Fishery Management Area as basic populations.
[2] The SBT define these Fishery Management Areas as large populations.

One of the 22 populations, the Lemhi population, is classified by the ICTRT as a very large population; similarly the ICTRT classifies Panther Creek (population belonging to the Upper Salmon MPG) as an intermediate population. In coordination with IDFG and NMFS, the SBT reclassified these populations for fishery management purposes because the populations do not function at a level representative of their ICTRT population classification. If supporting information becomes available that demonstrates these populations are behaving according to ICTRT population classification (i.e., if habitat/carrying capacity can sustain abundance, productivity, spatial distribution, and genetic diversity), the SBT would reconsider use of the ICTRT population classification thresholds for fisheries management purposes in consultation with IDFG and NMFS.

2.2.2 Natural-origin Framework

The SBT ~~would~~ proposes to manage all Snake River spring/summer Chinook salmon fisheries to achieve escapement objectives. The basis of the natural-origin management framework is the application of population-specific abundance-based harvest rate schedules. The harvest rate schedule would be used to determine the total allowable mortality of ESA-listed fish for any given natural-origin population. With the use of population-specific abundance-based harvest rate schedules, as the number of predicted returns of adult spawners increases towards the VPT, the number of fish escaping to the spawning grounds would also increase, even with implementation of the proposed fisheries. Harvest opportunities would increase as the expected returns increase. Under the proposal, the SBT would coordinate with all fishery parties in the Salmon River subbasin to identify equitable harvest allocation.

Table 2 describes the natural-origin harvest rate schedule, or sliding scale. The allowable harvest of natural-origin ESA-listed fish would be no lower than one percent for the SBT and no higher than a total combined 35 percent of runsize in any given year for any natural-origin population. When population abundance is between 30.1 and 50 percent of the VPT, the proposed escapement objective would be 97 percent and the harvest rate of natural-origin fish to be shared amongst all fishery parties would be 3 percent of the expected returns for any affected population. When population abundance is between 50.1 and 75 percent of the VPT, the proposed escapement objective would be 95 percent and the harvest rate of natural-origin fish to be shared amongst all fishery parties would be 5 percent of the expected returns for any affected population. At population abundance between 75.1 and 108 percent of the VPT, the proposed escapement objective would be 92 percent and the harvest rate of natural-origin fish to be shared amongst all fishery parties would be 8 percent of the expected returns for any affected population. When abundance exceeds 108 percent of the VPT, the proposed escapement objective would range from 65 to 92 percent and the harvest rate of natural-origin fish to be shared amongst all fishery parties would be based on an 8 percent harvest rate plus 35 percent harvest of that portion of the return above 108 percent of the VPT level. The expected returns for all affected population would be determined pre-season and adjusted in-season in coordination with other parties, as appropriate.

Table 2. Percent escapement objective and harvest rate for natural-origin populations of Snake River spring/summer Chinook salmon.

Percent of Viable Population Threshold (%)	Percent Escapement Objective (%)	Harvest Rate (%)
0 – 30	99	3 fish
30.1 – 50	97	3
50.1 – 75	95	5
75.1 – 108	92	8
> 108.1	65 – 92	35 of the margin

> = greater than
% = percent

The SBT would utilize the harvest management framework in Table 2 to develop annual harvest guidelines. The SBT would provide the harvest guidelines to NMFS and other parties in the form of a Fisheries Implementation Plan (FIP) each year prior to commencement of fisheries. The SBT proposed to apply the same natural-origin framework for basic, intermediate, large, and

very large Chinook salmon populations (Table 3). Basic populations include the Middle Fork Lower Main, Camas, Loon, Marsh, Sulphur, Panther, North Fork, Pahsimeroi, Yankee Fork, and Valley Creek. Intermediate populations include the Little Salmon, Secesh, Chamberlain, Middle Fork Upper Main, and Bear Valley. Large populations include South Fork, East Fork South Fork, Big, Lemhi, East Fork, and Salmon River Upper Main. The only very large population is Salmon River Lower Main.

Any ESA take resulting from fisheries that affect an aggregate of more than one natural-origin population, whether implemented by the SBT, IDFG, or any other party, would be apportioned proportionally to each population's contribution to the aggregate abundance at that particular Fishery Management Area (FMA) and accounted for in the population-specific harvest rate schedule proposed by the SBT. To accurately report SBT harvest impacts by population, the SBT propose to develop a protocol to apportion SBT harvest accordingly in FMAs where multiple populations are likely to be harvested (Table 4). The protocol for apportioning SBT catch to individual population would be included in the yearly FIP. This is designed to account for the fact that populations can be subjected to interception harvest in fisheries downstream of the terminal areas, often when mixed with fish of other populations. For example, fish from the Salmon River Upper Main population can be harvested in any of the lower FMAs that contain mainstem river reaches. The Tribes' mainstem Salmon River, Middle Fork, and lower South Fork (below the confluence with the East Fork South Fork) harvest is minimal at best, until the river's flow approaches levels conducive to SBT gear and techniques. However, any FMA harvest that affects multiple populations would be proportioned based on expected escapement.

Table 3. Examples of application of Table 2 for populations size categories for Snake River spring/summer Chinook salmon.

Population Category	Viable Population Threshold	Percent of VPT (%)	Forecast	Harvest Rate (%)	Harvest
Basic [1]	500	0 - 30	<150		3
		30.1 - 50	151 - 250	3	5 - 8
		50.1 - 75	251 - 375	5	13 - 19
		75.1 -108	376 - 540	8	30 - 43
		≥ 108.1	≥ 541	35[5]	≥ 44
Intermediate [2]	750	0 - 30	<225		3
		30.1 - 50	226 - 375	3	7 - 11
		50.1 - 75	376 - 563	5	19 - 28
		75.1 -108	564 - 810	8	45 - 65
		≥ 108.1	≥ 811	35 [5]	≥ 66
Large [3]	1000	0 - 30	< 300		3
		30.1% - 50	301 - 500	3	9 - 15
		50.1 - 75	501 - 750	5	25 - 38
		75.1 -108	751 - 1080	8	60 - 86
		≥ 108.1	≥ 1081	35 [5]	≥ 87
Very Large[4]	2000	0 – 30	< 600		3
		30.1 - 50	601 - 1000	3	18 - 30
		50.1 - 75	1001 - 1500	5	50 - 75
		75.1 - 108	1501 - 2160	8	120 - 173
		≥ 108.1	≥ 2161	35 [5]	≥ 174

[1] Basic areas include Middle Fork Lower Main, Camas, Loon, Marsh, Sulphur, Panther, North Fork, Pahsimeroi, Yankee Fork, Valley
[2] Intermediate areas include Little Salmon, Secesh, Chamberlain, Middle Fork Upper Main, Bear Valley
[3] Large areas include South Fork, East Fork South Fork, Big, Lemhi, East Fork, Salmon River Upper Main
[4] Very Large areas include Salmon River Lower Main
[5] The 35 percent harvest rate applies only to the portion of the return greater than 108 percent of viability abundance objective. If R = return and E = viability population threshold, then catch = 0.08(1.08 E) + (0.35(R-1.08 E)).
< = Less than
≥ = Greater or equal than

2.2.3 Supplementation Framework

The Supplementation framework would be applied in a similar fashion as the natural-origin framework describes above. However, the SBT would adjust the natural-origin harvest framework in natural-origin populations that also include an active supplementation program (Table 5). The supplemented population framework would be used under the following circumstances: (1) there has been a juvenile or adult release program designed to supplement natural production, (2) returns from the supplementation program include 4- and 5-year-old fish, and (3) parties have the ability to forecast the returning number of fish from the supplementation program. The supplementation management framework would be used to determine the total allowable mortality of ESA-listed fish for any given supplemented population to be shared by all fishing parties. Under the proposal the SBT would coordinate with all fishing parties in the Salmon River subbasin ~~to negotiate~~ regarding equitable harvest allocation.

Table 4. List of populations intercepted in downstream Salmon River fisheries.

Fishery Management Area	Number of Additional Populations Intercepted in this Fishery Management Area	Number of Fishery Management Areas this Population is Intercepted in
Little Salmon River	22	0
South Fork Salmon River	21	1
Secesh River	0	2
East Fork South Fork	0	2
Chamberlain Creek	18	2
Middle Fork Lower Main	17	3
Big Creek	0	4
Camas Creek	0	4
Loon Creek	0	4
Middle Fork Upper Main	3	4
Sulphur Creek	0	5
Bear Valley Creek	0	5
Marsh Creek	0	5
Panther Creek	8	4
North Fork Salmon River	7	5
Lemhi River	6	6
Salmon River Lower Main	5	7
Pahsimeroi River	0	8
East Fork Salmon River	0	8
Yankee Fork Salmon River	0	8
Valley Creek	1	8
Salmon River Upper Main	0	9

2.2.4 Hatchery-origin Framework

The majority of the SBT's harvest is anticipated to come from hatchery-origin stocks, as these populations are generally in higher abundance than natural-origin populations. The harvest management framework proposed by the SBT for hatchery-origin stock or populations is designed to achieve hatchery broodstock goals. The hatchery-origin harvest management framework would be used to determine the total allowable harvest for any given hatchery program. Under the proposal the SBT would coordinate with all fishery parties in the Salmon River subbasin ~~to determine~~ regarding equitable harvest allocation.

The SBTs recognize hatchery broodstock goals are necessary to keep programs operating. Harvest would be no lower than one percent and no higher than 50 percent in any given year. If forecasts are less than 29.9 percent of the broodstock goal, the SBT would implement a fishery for three fish. When hatchery returns are between 30 and 49.9 percent of the broodstock goal, the SBT harvest rate would be 3 percent. When hatchery returns are between 50 and 74.9 percent of the broodstock goal, the SBT harvest rate would be 5 percent. When hatchery returns are between 75 and 107.9 percent of the broodstock goal, the SBT harvest rate would be 8 percent. When abundance exceeds 108 percent of the broodstock goal, the SBT would harvest 8 percent of the run up to 108 percent of the broodstock goal and an additional 35 percent of that portion of the run between 108 and 139.9 percent of the broodstock goal. When hatchery returns are above 140 percent of the broodstock goal, the SBT would harvest 8 percent of the portion of

the run up to 108 percent of the broodstock goal, and 50 percent of the portion of the run above that goal (Table 6).

Hatchery-origin adult Chinook salmon can be intercepted in FMAs located downstream from hatchery facilities. Understanding that hatchery fish will migrate through multiple FMAs, the Tribes would account for harvest of hatchery-origin fish accordingly, depending upon location of take. Apportioning of hatchery-origin fish harvested at different FMAs would be done in a similar manner than that explained in Table 4 for Natural-origin fish. The protocol for this apportioning of harvest would be included in the yearly FIP.

Table 5. Modified abundance-based sliding-scale harvest management framework for supplemented populations of Snake River spring/summer Chinook salmon.

Percent of Viable Population Threshold (%)	Percent Escapement Objective (%)	Harvest Rate (%)
0 – 30	99	1
30.1 – 50	96	4
50.1 – 75	91	9
75.1 – 108	88	12
> 108.1	65 – 92	42 of the margin

2.2.5 Harvest Provisions

The SBT's TRMP includes a series of provisions to ensure that yearly FIP are developed according to the proposed framework and in coordination with others ~~parties~~, and that ESA limits are not exceeded on any given year. The SBT ~~would~~ propose to coordinate with NMFS and ~~parties~~ others to develop and implement:

1. A process to come up with pre-season forecasts by population that all ~~parties~~ entities agree on each year (all ~~parties~~ entities would use the same numbers each year).
2. A process to calculate allowable ESA impacts and develop year-specific fishery plans.
    a. A process by which ~~the parties~~ all entities agree on the year-specific allowable ESA take limit by population using the appropriate Harvest Rate schedules.
    b. A process ~~to share with parties and~~ for sharing with NMFS year-specific FIP prior to implementation of fisheries each year.
    c. A process to strive to resolve foreseeable inconsistencies before adopting year-specific FIPs.
3. A process to develop and implement in-season forecast and FIP updates
    a. A process for updating population-specific forecasts in-season each year (as needed).
    b. A process for adjusting FIPs each year as needed based on in-season forecasts updates.
4. A process by which all ~~parties~~ entities report periodically ESA impacts to each other and to NMFS.
5. A process to curtail fisheries when total population-specific ESA-impacts are achieved.
6. A process to develop post-season ~~summary~~ summaries and ~~implement partie consultation~~ share with NMFS and others.
    a. A process to share harvest and ESA impact information

b. A process to share trapping data
c. A process to share redd count data
d. A process to develop methodologies for coming up with agreed escapement estimates
e. A process to share other data as determined necessary

7. A process to develop and submit post-season report to NMFS.

Table 6. Harvest management framework for hatchery programs in Salmon River Basin.

Hatchery Program	Broodstock Goal [1]	Percent of Goal (%)	Forecast	Harvest Rate (%)	Harvest
Rapid River	2500	0 - 29.9	< 748		3
		30 - 49.9	749 - 1248	3	22 - 37
		50 - 74.9	1249 - 1873	5	62 - 94
		75 -107.9	1874 - 2698	8	150 - 216
		108 - 139.9	2699 - 3498	35 [2]	217 - 496
		≥ 140	≥ 3499	50 [3]	≥ 497
South Fork/ McCall	1360	0 - 29.9	< 407		3
		30 - 49.9	408 - 679	3	12 - 20
		50 - 74.9	680 - 1019	5	34 - 51
		75 -107.9	1020 - 1467	8	82 - 117
		108 - 139.9	1468 - 1903	35 [2]	118 - 270
		≥ 140	≥ 1904	50 [3]	≥ 271
Pahsimeroi	600	0 - 29.9	< 179		3
		30 - 49.9	180 - 299	3	5 - 9
		50 - 74.9	300 - 449	5	15 - 22
		75 -107.9	450 - 647	8	36 - 52
		108 - 139.9	648 - 839	35 [2]	53 - 119
		≥ 140	≥ 840	50 [3]	≥ 120
Sawtooth	700	0 - 29.9	< 209		3
		30 - 49.9	210 - 349	3	6 - 10
		50 - 74.9	350 - 524	5	18 - 26
		75 -107.9	525 - 755	8	42 - 60
		108 - 139.9	756 - 979	35 [2]	61 - 139
		≥ 140	≥ 980	50 [3]	≥ 140

[1] Broodstock goals were developed by the Salmon River parties and incorporated in the 2008 Salmon River Annual Operating Plan.
[2] The 35percent harvest rate applies only to portion of return greater than 108 percent of broodstock goal. If R = return and E = viability abundance objective, then harvestable catch = 0.08(1.08 E) + (0.35(R-1.08 E)).
[3] When abundance reaches ≥ 140 percent of the broodstock goal, the Tribes elect to harvest 50percent of the available surplus. Available surplus is defined by the number of adults not necessary to meet broodstock goals.
< = Less than
≥ = Greater or equal than

2.3 Alternatives Considered but Not Analyzed in Detail

Alternatives that would consider not relating the SBT TRMP to IDFG's FMEP to a common fishery management framework, SBT fishing without an exemption of prohibition of take under

the ESA, larger fisheries than proposed, or more restrictive fisheries, were considered, but determined to be less likely to provide the intended benefit of providing fishing opportunities while conserving and enhancing the natural-origin populations.

- Not relating the SBT TRMP to IDFG's FMEP to a common fishery management framework: NMFS could have considered the SBT's TRMP in isolation and without its relationship to a compatible fisheries management framework included on IDFG's FMEP. However, this alternative would likely result in exceeding ESA take limits because, without specifically acknowledging this relationship , the ESA limit prescribed by the proposed combined abundance-based harvest rate schedule could be exceeded by either party. Exceeding the combined prescribed ESA limit would not allow NMFS to reach a no-jeopardy conclusion during the ESA analysis, would not meet the criteria of the Tribal 4(d) Rule, and, thus, would not meet the purpose and need.

- Tribal fishing without an exemption of prohibition of take under the ESA: NMFS could have considered SBT fisheries without ESA authorization. However, the effect of this alternative on the human environment would be the same as that analyzed under Alternative 2, Proposed Action, because fishing by the SBT with or without ESA coverage would result in the same impacts. The only distinction between this possible alternative and the action alternative is a regulatory difference.

- ~~Larger fishery than that proposed~~ Higher ESA take limit: NMFS could have considered approval of larger fisheries than those proposed by the SBT. However, because the fisheries currently considered are designed to fit within take levels already described under Alternative 2, larger fisheries would result in incidental take levels that would, by definition, exceed the appropriate ESA limits for the affected species and, thus, would not meet the purpose and need.

- ~~More restrictive fishery~~ Lower ESA take limit: NMFS could have considered approval of a more restrictive fishery than that proposed by the SBT. However, the proposed fisheries are based on a population-specific, abundance-based management framework that already considers a range of restrictive measures from almost no fishing (when population-specific abundance is low) to fishing at levels of 8 percent and greater (when population-specific abundance is near what is considered viable numbers). Therefore, Alternative 2, Proposed Action, considers a wide range of allowable harvest, consistent with expected abundance and ESA requirements. A more restrictive fishery would be consistent with conservation objectives/requirements of the ESA, but the Proposed Action is intended to do the same. Furthermore, this alternative would meet conservation goals while at the same time be overly restrictive, would not likely harmonize with NMFS' tribal trust obligations, and, therefore, would not meet the purpose and need.

3.0 Affected Environment

The two alternatives considered in this EA can potentially affect the physical, biological, social, and economic resources within the action area. Below is the current baseline description of the environmental resources that NMFS has determined would be affected by these alternatives.

3.1 Water Quality

Stream flow is an important determinant of water quality and aquatic habitat conditions. Stream flow, or discharge, is the volume of water flowing in a stream channel expressed as unit per time (cfs, or cubic feet per second). Instream flows are addressed under the water quality-affected environment conditions and corresponding analysis because decreasing the overall volume of water generally increases the contaminant concentration or ability of contaminants to impair water quality. High water temperature, low levels of dissolved oxygen, and deleterious levels of toxins can all be exacerbated by low stream flow. Moreover, the quantity, quality, and connectivity (e.g., suitability for fish migration) of aquatic habitats are also influenced by flow.

The mean annual flow of the Salmon River at White Bird, the U.S. Geological Survey gauging station closest to the mouth, is 11,300 cubic feet per second (cfs). In general, stream flows peak in spring and recede to considerably lower levels in summer, fall, and winter (Figure 2). High flows are strongly dependent on snowmelt in most areas, and peaks are generally reached earliest in lower elevation catchments. Spring-time flows in the lower river reaches of the Lemhi and Pahsimeroi Rivers are different from those found in the other major tributaries, and reflect a high rate of water diversion for irrigation purposes as well as differences in geology and levels of precipitation at the eastern edge of the subbasin. Flows in the lower Lemhi River reach particularly low levels in the summer and fall.

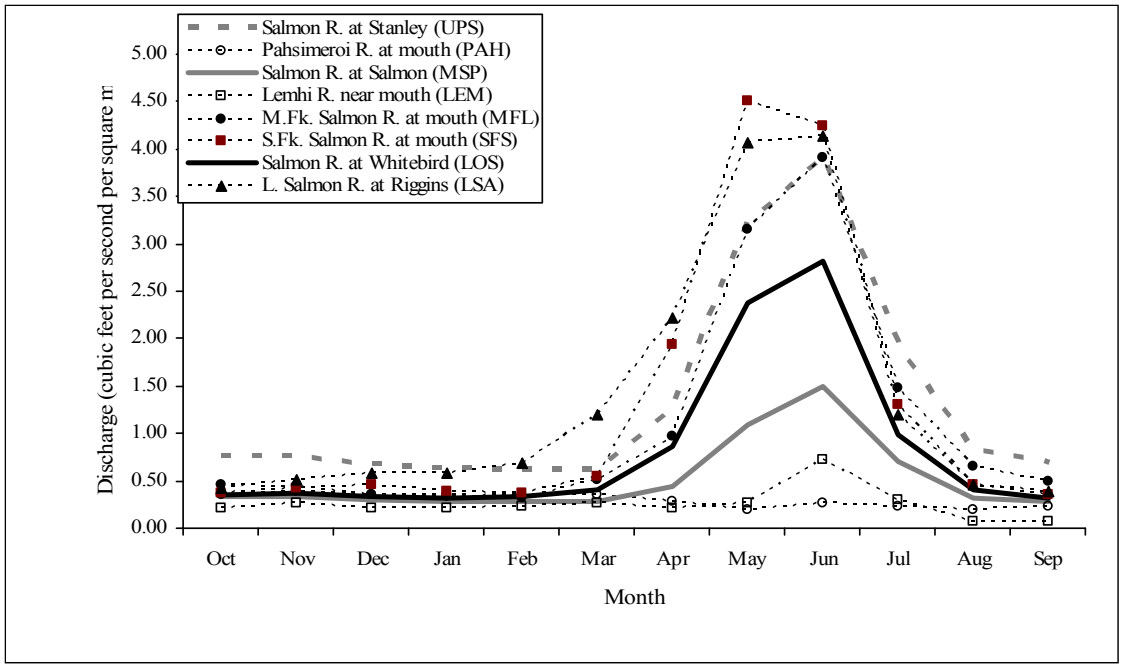

Figure 2. Seasonal patterns in streamflows for the periods of record at eight gauging stations on rivers within the Salmon River Basin, Idaho (data source: USGS). Flows at gauge sites have been normalized to drainage area for comparative purposes.

Agricultural and domestic water diversions are common sources of impacts on aquatic resources. Diversions and associated diking, damming, and dredging are a large contributing factor to the loss of salmon and steelhead habitat in some river basins (Beechie et al. 1994; McBain and Trush 1997). Stream flow is also a powerful determinant of aquatic habitat conditions through the effects of peak or flood events. It is during these flood flows that banks are either built or eroded, pools are deepened or filled, and large woody debris is contributed and redistributed. It is also during these flood flows that very high rates of mortality occur for salmonids in the egg or alevin life stage (McHenry et al. 1994).

Changes in vegetation, such as extensive clear cutting, can increase the frequency and intensity of flood flows due to accelerated runoff. Zeimer (1998) found a 35 percent increase in mean peak flows after logging of the North Fork of Caspar Creek. While this effect disappears with forest stand recovery, urbanization has a more profound effect on peak flows because impervious surfaces increase speed of runoff (May et al. 1996). Both removal of vegetation and urbanization decrease the lowest flows by reducing the water storage capacity of watershed soils.

Mortality as a result of fisheries can reduce the transport of marine-derived nutrients to freshwater spawning and rearing areas. Gresh et al. (2000) estimated that only 6 to 7 percent of the marine-derived nitrogen and phosphorus that was delivered to the rivers of the Pacific Northwest by spawning salmon 140 years ago is currently returning to those streams. He attributed the loss to habitat destruction due to beaver trapping, logging, irrigation, grazing, pollution, dams, urban and industrial development, and commercial and sport fishing. Bilby et al. (2002) found a positive linear relationship between the biomass of juvenile anadromous

salmonids and the abundance of carcass material at sites in the Salmon and John Day Rivers, suggesting that spawning salmon may be influencing aquatic productivity and the availability of food for rearing fishes, but mechanisms were not postulated.

Salmon carcasses also appear to promote the growth of riparian forests, a source of large woody debris and stream shading. Helfield and Naiman (2001) hypothesized that there were several pathways for the transfer of marine-derived nutrients from streams to riparian vegetation, including the transfer of dissolved nutrients from decomposing carcasses into shallow subsurface flow paths and the dissemination in feces, urine, and partially-eaten carcasses by bears and other salmon-eating fauna. In studies with juvenile coho salmon, Quinn and Peterson (1996) correlated increased body size with higher rates of overwinter survival, although this study was not designed to determine whether the effect was related to carcass density. In summary, there is an increasing body of work suggesting that the biomass of carcasses affects the productivity of salmonid rearing habitat, but functional and quantitative relationships are poorly understood and difficult to generalize from the specific conditions studied. Limiting factors, and thus the ecological importance of marine-derived nutrients, differ among streams. Marine-derived nutrients in the action area are currently provided by returning natural-origin and hatchery-origin adults spawning and dying in the wild. IDFG does not currently have accurate estimates of hatchery-origin fish spawning in the wild (Pat Kennedy, pers. comm., Idaho Department of Fish and Game, April 10, 2012). However, all Snake River spring/summer Chinook salmon hatchery programs have weirs, and hatchery-origin fish are not allowed to spawn beyond these weirs. The only potential marine-derived nutrient contribution of hatchery-origin fish would be from fish dying below hatchery weirs.

Human activity such as beaver trapping, logging, irrigation, grazing, pollution, dams, urban and industrial development have all contributed to a decline in water quality parameters in the action area. Other human activities that are unrelated to the proposed fisheries under the SBT TRMP that could affect water quality in the action area, such as boating, agricultural practices, logging, irrigation, pollution, dams, urban and industrial development, would continue for the duration of the proposed SBT TRMP.

3.2 Anadromous Fish Listed Under the ESA

Since 1991, NMFS has identified 12 ESUs and DPSs of Columbia River Basin salmon and Columbia River Basin steelhead as requiring protection under the ESA. Four of the listed anadromous salmonid species originate in the Snake River Basin. Only two ESUs (Snake River Spring/Summer Chinook Salmon and Snake River Sockeye Salmon) and two DPSs (Snake River Basin Steelhead and Bull Trout) are expected to be impacted by the fisheries evaluated in this EA, based on location of the fisheries and the run timing of the ESA-listed fish in the Snake River Basin. Incidental impacts on bull trout are being evaluated under a separate process with the United States Fish and Wildlife Service. The current status of three species under NMFS's jurisdiction is described below.

3.2.1 Snake River Spring/Summer Chinook Salmon ESU

Snake River spring/summer Chinook salmon were listed under the ESA as threatened in 1992 and reaffirmed in 2005 (70 FR 37160, June 28, 2005). The Snake River Spring/Summer

Chinook Salmon ESU consists of 28 extant populations, grouped into five MPGs, which spawn and rear in the tributaries of the Snake River between the confluence of the Snake and Columbia Rivers and the Hells Canyon Dam. The factors that contributed to their decline include intensive harvest and habitat degradation in the early and mid-1900s, high fishery harvest in the 1960s and early 1970s, and Federal and private hydropower development, as well as poor ocean productivity in the late 1970s through the late 1990s (ICTRT 2007).

Key statistics associated with the current status of Snake River Basin steelhead are summarized in Tables 8.3.2-1 through 8.3.2-4 of the SCA (NMFS 2008a). Three MPGs – South Fork Salmon River, East Fork Salmon River, and Upper Salmon River – are expected to be affected by the proposed fisheries, and so are the focus of the discussion below.

The proposed fisheries would take place in areas designated as critical habitat for Snake River spring/summer Chinook salmon. Designated critical habitat for Snake River spring/summer Chinook salmon includes all Columbia River estuarine areas and river reaches proceeding upstream to the confluence of the Columbia and Snake Rivers as well as specific stream reaches in a number of tributary subbasins.

3.2.1.1 Status and Trends

Historically, the Snake River drainage is thought to have produced more than 1.5 million adult spring/summer Chinook salmon in some years during the late 1800s (Matthews and Waples 1991). By the 1950s, the abundance of spring/summer Chinook salmon had declined to an annual average of 125,000 adults, and continued to decline through the 1970s. Returns were variable through the 1980s, but declined further in the 1990s. In 1995, only 1,797 spring/summer adults returned. Returns at Lower Granite Dam (hatchery and wild fish combined) dramatically increased after 2000, with 185,693 adults returning in 2001. The large increase in 2001 was due primarily to hatchery returns, with only 10 percent of the returns from fish of natural-origin. Large returns in recent years may be a result of cyclic ocean and climatic conditions favorable to anadromous fish and improved operation of the FCRPS. The 2001-2010 average abundance for spring/summer Chinook salmon adults over Lower Granite Dam is 80,195 and 21,026 for total combined and natural-origin fish, respectively (Patino 2011). However, the overall viability ratings for all populations in the Snake River Spring/Summer Chinook Salmon ESU remain at high risk after the addition of more recent-year abundance and productivity data (Ford. 2011).

Table 7 illustrates the recent and current abundance of the populations of spring/summer Chinook salmon in three MPGs of the Snake River spring/summer Chinook salmon ESU (South Fork Salmon River MPG, East Fork Salmon River MPG, and Upper Salmon River MPG), as well as the corresponding prescribed ESA limit using data from Table 2 and assuming current abundances continue for the duration of the SBT TRMP under consideration. Recent abundance trends for several populations of Snake River spring/summer Chinook salmon incorporate the fishery framework proposed in the SBT TRMP under consideration in this EA, because the proposed levels of fishery impacts for the affected populations have been ongoing in a manner similar to that proposed.

Table 7. Current (2005-2009) number of natural-origin spawners for populations of Chinook salmon for the 3 MPGs of the Snake River spring/summer Chinook salmon ESU in the Salmon River Basin, and the allowed ESA take that would be prescribed if these abundances were to continue for the duration of the SBT TRMP.

Populations	Natural-Origin Spawners (5-year geometric mean)*, est. (range)			Prescribed ESA Limit for Current Abundance as per Table 2	Prescribed ESA Limit as Percent of Current Population Abundance as per Table 2
	1992-1996	1997-2001	2005-2009 (current)		
Little Salmon River					
South Fork Salmon River	689	1,399 (926-2,529)	1,046 (901-1,231)	84	8
Secesh River	171	341 (101-1,395)	428 (191-956)	21	5
East Fork South Fork Salmon River/Johnson Creek	87	186 (55-1,297)	266 (141-589)	3	1
Chamberlain Creek	150	184 (23-1,329)	471 (360-558)	24	5
Middle Fork Lower Main					
Big Creek	29	121 (49-690)	109 (44-248)	3	1
Camas Creek	7	34 (9-294)	89 (41-291)	3	1
Loon Creek	7	67 (15-635)	37 (19-100)	3	1
Middle Fork Upper Main					
Sulphur Creek	9	20 (0-102)	45 (15-126)	3	1
Bear Valley Creek	86	285 (78-739)	295 (158-440)	9	3
Marsh Creek	27	67 (1-507)	115 (67-182)	3	1
Panther Creek					
North Fork Salmon River					
Lemhi River	25	141 (69-607)	53 (38-74)	3	1
Salmon River Lower Main	32	97 (44-231)	118 (94-221)	3	1
Pahsimeroi River	49	126 (72-306)	266 (139-633)	13	5
East Fork Salmon River	43	137 (79-402)	214 (77-385)	3	1
Yankee Fork Salmon River	6	15 (2-95)	24 (4-341)	3	1
Valley Creek	12	43 (14-177)	81 (54-163)	3	1
Salmon Upper Main	82	214 (83-1,108)	380 (187-638)	11	3

*Data from Ford (2011).

3.2.1.2 Limiting Factors and Threats

Limiting factors and threats for the Snake River Spring/Summer Chinook salmon ESU include Federal and private hydropower projects, predation, Columbia River mainstem harvest, other harvest in the ESU, hatchery program effects, and poor tributary habitat. Ocean conditions have also affected the status of this ESU. These conditions have been generally poor for this ESU over at least the last four brood cycles, improving only in the last few years. Although hatchery program management is not identified as a limiting factor for the ESU as a whole, the ICTRT has indicated potential hatchery program effects for a few individual populations.

3.2.2 Snake River Sockeye Salmon ESU

The Snake River Sockeye Salmon (*O. nerka*) ESU is listed as endangered under the ESA. The Snake River Sockeye Salmon ESU includes all anadromous and residual sockeye salmon from the Snake River Basin, Idaho, as well as artificially propagated sockeye salmon from the Redfish Lake Captive Broodstock Program. The Snake River Sockeye Salmon ESU comprises a single MPG and a single aggregate population that spawns and rears in Redfish, Pettit, and Alturas Lakes in the Sawtooth Valley. This population aggregate is the last remaining in a group of what were likely to have been independent populations occupying the Sawtooth Valley Lakes. The Snake River Sockeye Salmon ESU was listed as endangered in 1991, and reaffirmed as endangered in 2005.

Adult sockeye salmon normally pass Lower Granite Dam from June 25 to August 30, on their 900-mile migration to their spawning grounds of the Upper Salmon River near Stanley, Idaho.

Juvenile sockeye salmon migrate from the Sawtooth Valley Lakes during late April through May, and generally pass Lower Granite Dam during mid-May to mid-July. The designated critical habitat for Snake River sockeye salmon includes: all Columbia River estuarine areas and river reaches upstream to the confluence of the Columbia and Snake Rivers; all Snake River reaches from the confluence of the Columbia River upstream to the confluence of the Salmon River; all Salmon River reaches from the confluence of the Snake River upstream to Alturas Lake Creek; Stanley, Redfish, Yellow Belly, Pettit, and Alturas Lakes (including their inlet and outlet creeks); Alturas Lake Creek; and that portion of Valley Creek between Stanley Lake Creek and the Salmon River.

3.2.2.1 Status and Trends

Sockeye salmon were historically numerous in many areas of the Snake River Basin. However, intense commercial harvest of sockeye salmon along with other salmon species beginning in the mid-1880s, the existence of Sunbeam Dam as a migration barrier between 1910 and the early 1930s, the eradication of sockeye salmon from Sawtooth Valley Lakes in the 1950s and 1960s, the development of mainstem hydropower projects on the Lower Snake and Columbia Rivers in the 1970s and 1980s, and poor ocean conditions in 1977 through the late 1990s probably combined to reduce the stock to a very small remnant population.

By the time Snake River sockeye salmon were listed in 1991, the species had declined to the point that there was no longer a self-sustaining, naturally-spawning anadromous sockeye salmon population. The ICTRT has designated this species as at very high risk. The extremely low number of natural spawners and reliance on the captive broodstock program illustrates the high degree of risk faced by this population.

Sockeye salmon returned in comparatively large numbers in 2008, 2009, and 2010. Figure 3 shows the number of sockeye salmon crossing Lower Granite Dam from 1975 to 2010. The count over Lower Granite Dam for 2010 was 2,201, which is the largest return in the last 25 years (Patino 2011). Sockeye salmon do not spawn or rear in the action area. Approximately 100,000 juvenile sockeye salmon outmigrate in the spring, passing downstream through the lower Snake River between April and June.

3.2.2.2 Limiting Factors and Threats

NMFS is currently drafting a recovery plan for Snake River sockeye salmon. However, this draft is not completed. Identification of limiting factors for the Snake River sockeye salmon is based on a substantial body of research on salmonids, local field data and field observations, and the considered opinions of regional experts. Many human activities have contributed to the near extinction of Snake River sockeye salmon in the Snake River Basin. The NMFS status review (Waples et al. 1991) that led to the original listing decision attributed the decline of this ESU to "overfishing, irrigation diversions, obstacles to migrating fish, and eradication through poisoning." The NMFS 1991 listing decision noted that such factors as hydropower development, water withdrawal and diversions, water storage, commercial harvest, and inadequate regulatory mechanisms represented a continued threat to the ESU's existence (56 FR 14055).

Currently, it is believed that irrigation withdrawals, toxic pollutants, unfavorable changes in lake ecology, competition with kokanee for food resources, predation by rainbow trout, hydropower projects and dam operations, dikes, and other agricultural uses of the estuary are some of the limiting factors and threats to this ESU.

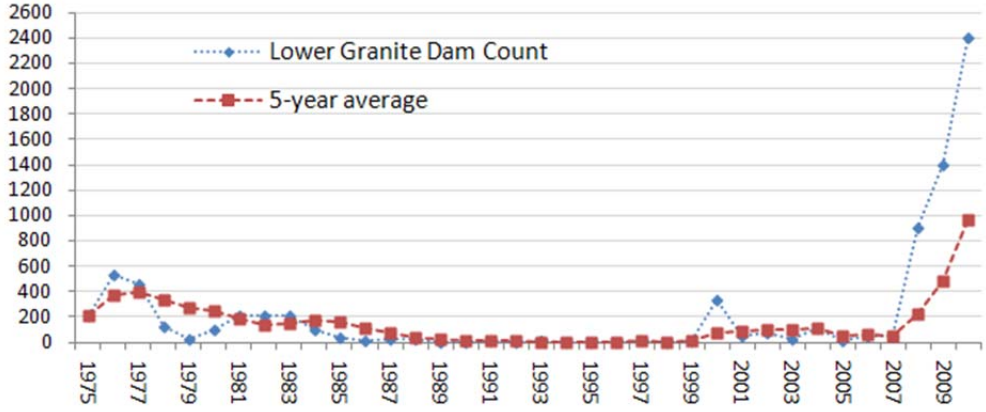

Figure 3. Numbers of sockeye salmon crossing Lower Granite Dam from 1975 to 2010.

3.2.3 Snake River Basin Steelhead DPS

The Snake River Basin Steelhead DPS was listed as threatened on August 18, 1997 (62 FR 43937). The listing was revised on January 5, 2006 (71 FR 834), after a review of the relationship of wild steelhead to hatchery fish and resident *O. mykiss*. The revised Snake River Basin Steelhead DPS includes all naturally spawned anadromous steelhead populations below natural and manmade impassable barriers in streams in the Snake River Basin of southeast Washington, northeast Oregon, and Idaho as well as six artificial production programs: the Tucannon River, Dworshak NFH, Lolo Creek, North Fork Clearwater River, East Fork Salmon River, and the Little Sheep Creek/Imnaha River Hatchery steelhead hatchery programs.

Snake River steelhead are classified as summer-run, based on their adult run-timing patterns. Fisheries managers classify Columbia River summer-run steelhead into two aggregate groups, A-run and B-run, based on ocean age at return, adult size at return, and migration timing. A-run steelhead predominantly spend 1 year at sea and are assumed to be associated with low- to mid-elevation streams throughout the interior Columbia Basin. B-run steelhead are larger, with most individuals returning after 2 years in the ocean.

The ICTRT identified 24 extant populations within this DPS, organized into 5 major population groups (ICTRT 2003). The five MPGs with extant populations are: the Lower Snake River MPG (2 populations); the Grande Ronde MPG (4 populations); the Imnaha River population/MPG; the Clearwater River MPG (5 extant populations, 1 extirpated); and the Salmon River MPG (12 populations). Only the Salmon River MPG would be affected by the proposed fisheries.

Key statistics associated with the current status of Snake River Basin steelhead are summarized in Tables 8.5.2-1 through 8.5.2-4 of the SCA (NMFS 2008a). One MPG – South Fork Salmon River– is expected to be affected by the proposed fisheries, and so is the focus of the discussion below.

The proposed fisheries would take place in areas designated as critical habitat for Snake River steelhead. Designated critical habitat for Snake River steelhead includes all Columbia River estuarine areas and river reaches proceeding upstream to the confluence of the Columbia and Snake Rivers as well as specific stream reaches in a number of tributary subbasins.

3.2.3.1 Status and Trends

Information on the range-wide status of Snake River Basin steelhead is described in the steelhead status review (Busby et al. 1996), the status review update (BRT 2003), the DPS listing (71 FR 834, January 5, 2006), the *U.S. v. Oregon* biological opinion (NMFS 2008d) and its Supplemental Comprehensive Analysis (SCA) (NMFS 2008a), and the most recent status review update by Ford (2011).

Adult abundance data series for the Snake River Basin Steelhead DPS are limited to a set of aggregate estimates (total, A-run, and B-run counted at Lower Granite Dam), estimates for two Grande Ronde populations (Joseph Creek and Upper Grande Ronde River), and index area or

weir counts for subsections of several other populations. A series of juvenile counts based on snorkel transects representative of production within several population aggregates are also available going back to the mid-1980s. The ICTRT used aggregate estimates of abundance at Lower Granite Dam, along with juvenile indices of abundance available for some areas, to infer abundance and productivity ratings for populations without specific adult abundance time series (Ford. 2011). The overall viability ratings for populations in the Snake River steelhead DPS range from moderate to high risk (Ford. 2011). Population-level natural-origin abundance and productivity inferred from aggregate data and juvenile indices indicate that many populations are likely below the minimum levels defined by the ICTRT viability criteria (Ford. 2011).

3.2.3.2 Limiting Factors and Threats

Limiting factors and threats identify the most important biological requirements of the species. Historically, the key limiting factors for the Snake River Basin steelhead include Federal and private hydropower projects, predation, Columbia River mainstem harvest, other harvest in the DPS, hatchery program effects, and poor tributary habitat. Ocean conditions have also affected the status of this DPS. These ocean conditions generally have been poor over at least the last 20 years, improving only in the last few years.

3.2.4. Bull Trout

Bull trout occur in the action area. The bull trout is listed under the ESA by the USFWS in the lower 48 states as a single DPS (USFWS 1998~~USFWS 1999; 63 FR 31647;~~ 64 FR 17110, April 8, 1999; 64 FR 58910, November 1, 1999).

3.2.4.1 Status and Trends

Bull trout are a cold-water fish of relatively pristine stream and lake habitats in western North America. They have very specific habitat requirements. Bull trout were once found in about 60 percent of the Columbia River Basin, but, today, they occur in less than half of their historic range, with scattered populations in portions of Oregon, Washington, Nevada, Idaho, and Montana. In the Klamath River Basin, bull trout occur in 21 percent of their historic range. They no longer exist in California.

A draft Recovery Plan with status information for Bull Trout in the Columbia River was published in 2002, and has received public comment and scientific peer review, but has not been finalized (USFWS 2002). The USFWS also initiated a 5-year review on the status of bull trout in April 2004. The review culminated in a report that was completed in August 2006, but was not released due to additional information needs. The review process resumed in 2007 and was completed in April 2008.

In general, the abundance trend for population in the action area is unknown.

3.2.4.2 Limiting Factors and Threats

Limiting factors and threats include ongoing destruction, modification, or curtailment of habitat or range. Most of these impacts (e.g., dewatering, sedimentation, thermal modification, water quality degradation) are human-caused and are a consequence of specific land and water

management activities. Other factors (e.g., overutilization for commercial, recreational, scientific or educational purposes; disease; predation; inadequacy of existing regulatory mechanisms) have largely been improved and are less limiting than when bull trout were first listed. A primary concern at the time of listing was the introduction of non-native species, like brook trout and lake trout, which directly compete with bull trout in overlapping habitat. This practice has largely stopped within the action area, but established non-native fish populations still compete with bull trout for available space and habitat. According to USFWS (2008), incidental harvest can occur across the range of bull trout, with the risk of incidental catch being relative to the level of target species fishing effort. The threat of harvest has not increased substantially since the time of listing, as most waters have been closed to bull trout angling since that time.

3.3 Non-listed Fish

Approximately 60 other species of fish live in the Snake River and tributaries. About one-half are native species, primarily of the families Salmonidae, Catastomidae, Cyprinidae, and Cottidae. Non-listed species in the basin include resident rainbow trout, brook trout, and whitefish. White sturgeon (*Acipenser transmontanus*) occur in the mainstems of the Snake and Salmon Rivers. The Snake River Basin also supports at least 25 introduced species, primarily representing the taxonomic families Percidae, Centrarchidae, and Ictaluridae. Most of the introduced species are considered game fish by IDFG (Simpson and Wallace 1978). Some non-listed fish may be prey species for migrating adult salmon.

THE FOLLOWING TEXT HAS BEEN ADDED TO THE FINAL EA AND WAS NOT INCLUDED IN THE DRAFT EA

3.4 Instream Fish Habitat

The draft recovery plan for the subbasins identifies the limiting factors for the three MPGs in the Salmon River Basin. Natal habitat for spring/summer Chinook salmon populations in the Salmon River Basin has been degraded by human land uses. For the South Fork Salmon River MPG, sediment loads, degraded riparian areas and processes, channel alteration, low summer flows, high water temperatures, and access to historical habitat are the primary limiting factors. Most instream habitat for the spring/summer Chinook salmon populations in the Middle Fork Salmon MPG is currently in good condition, protected from human impacts by the Frank Church River of No Return Wilderness, which encompasses much of the basin. However, a combination of sediment load, degraded riparian and floodplain function, low stream flows, passage barriers, and nutrient deficiency are limiting factors for the Middle Fork Salmon River MPG populations. For the Upper Salmon River MPG, sediment loads, degraded riparian areas and processes, channel alteration, low summer flows, high water temperatures, and passage barriers are the primary limiting factors.

END OF NEW TEXT

3.5 Wildlife

The Snake River Basin includes terrain that ranges in elevation from 700 feet above mean sea level at the confluence of the Snake and Clearwater Rivers to over 12,600 feet above mean sea level in the headwaters of the Salmon River. Ecosystem maps, wildlife distribution maps, and species lists are contained in "Atlas of Idaho's Wildlife" (Groves et al. 1997) – descriptive information is briefly summarized here. Within the varied terrain, all 25 of the identified vegetative ecosystems that have been identified in Idaho occur. These ecosystems range from alpine to urban and salt desert to temperate red cedar and hemlock rain forest and support a variety of wildlife.

The diverse habitats in the Salmon River Basin support a spectrum of terrestrial organisms including neo-tropical birds, small mammals, fur bearers, and larger mammals including beaver, whitetail and mule deer, elk, wolverine, and black bears. The state of Idaho supports 364 known species of vertebrates as reproducing populations, nearly all of which are expected to occur within the Snake River Basin. Some of these species may feed minimally during limited times of the year on juvenile salmonids after emergence (or release in the case of hatchery-origin juveniles) or on decomposing carcasses of spawned adult salmonids.

Within the action area, fish are an important part of the diets of a variety of wildlife species including giant salamander, common loon, grebes, American white pelican, double-crested cormorant, herons, turkey vulture, harlequin duck, common and Barrow's goldeneye, common and red-breasted merganser, osprey, bald eagle, golden eagle, gulls, terns, belted kingfisher, Steller's jay, black-billed magpie, American crow, common raven, and American dipper. Mammals that consume salmon include Virginia opossum, water shrew, coyote, black bear, raccoon, mink, northern river otter, and bobcat. During salmonid freshwater rearing, these wildlife species may consume salmonid eggs, juveniles, adults, and carcasses.

Wildlife habitats within the Snake River Basin consist primarily of riparian/floodplain, shrub steppe, and agricultural lands. Other important habitats include forest lands and transitional steppe areas near the mountains and foothills (SRSRB 2006). The riparian/floodplain habitat lies along the Snake River and its tributaries. The shrub steppe and agricultural habitats encompass the uplands and comprise agricultural croplands, rangeland, and undeveloped areas. Areas of healthy riparian vegetation in the lower elevations are important to wildlife because they provide refuge and habitat (SRSRB 2006). The majority of wildlife is found in riparian, forest, and transitional steppe habitats where food and refuge are plentiful. Deer and elk are often found in agricultural fields.

Riparian zones are important habitats for a variety of wildlife species (SRSRB 2006). Some species are dependent upon riparian zones and some use the areas only for specific life stages. For example, black-crowned night herons and great blue herons use riparian areas for nesting. Furbearers, such as mink, muskrat, and beaver, are found along rivers and streams in riparian zones. Deer often use riparian zones to have their fawns. Neo-tropical birds use riparian zones as they migrate back and forth from Central and South America. Finally, scavengers eat salmon carcasses in the riparian zone (SRSRB 2006).

Three mammal species that may occur in the Snake River Basin are listed under the ESA. Gray wolf (*Canis lupus*) occur as an introduced population with an Experimental/Non-essential designation. Canada lynx (*Lynx canadensis*), and Northern Idaho ground squirrel (*Spermophilus brunneus brunneus*), are listed as threatened.

Invasive species infestations impacting salmon and habitat are currently limited to invasive fish and plant species within the action area. Existing boat traffic, recreation activities, and wading in the streams pose risks as vectors of introduction of new invasive species, like the New Zealand mud snail and the zebra mussel.

3.6 Listed Plants and General Vegetation

ESA-listed plants in the action area include Spalding's catchfly (*Silene spaldingii*) and MacFarlane's four o'clock (*Mirabilis macfarlanei*), both listed as threatened under the ESA. While these plants are in the action area, they do not likely inhabit traditional SBT fishing areas, which are limited to existing access points to a limited number of sites along the riverbanks in the action area.

Spalding's catchfly is an herbaceous perennial plant in the pink family (Caryophyllaceae) (USFWS 2007). It is a regional endemic found predominantly in bunchgrass grasslands and sagebrush-steppe, and occasionally in open pine communities, in eastern Washington, northeastern Oregon, west-central Idaho, western Montana, and barely extending into British Columbia, Canada (USFWS 2007). There are currently 99 known populations of *S. spaldingii*, with two-thirds of these (66 populations) composed of fewer than 100 individuals each. There are an additional 23 populations with at least 100 or more individuals apiece, and the 10 largest populations are each made up of more than 500 plants (USFWS 2007). Occupied habitat includes five physiographic (physical geographic) regions: the Palouse Grasslands in west-central Idaho and southeastern Washington; the Channeled Scablands in eastern Washington; the Blue Mountain Basins in northeastern Oregon; the Canyon Grasslands of the Snake River and its tributaries in Idaho, Oregon, and Washington; and the Intermontane Valleys of northwestern Montana. Spalding's catchfly was listed as a threatened species under the ESA on October 10, 2001 (USFWS 2001). No critical habitat has been designated for this species (USFWS 2012a). A recovery plan was finalized by the U.S. Fish and Wildlife Service (USFWS) in September 2007 (USFWS 2007).

MacFarlane's four-o'clock (*Mirabilis macfarlanei*) is a perennial plant with a deep-seated, thick tap-root and bright magenta flowers. The flowers form in clumps of four to seven, and each flower is up to 1 inch long and 1 inch wide. This species typically blooms in May to mid-June. Based on limited monitoring conducted by the U.S. Bureau of Land Management, individual plants have been observed to live well over 20 years. MacFarlane's four-o'clock occurs in steep river canyon grassland habitats that are characterized by regionally warm and dry conditions. In these habitats, less than 12 inches of precipitation occurs annually, mostly as rain during winter and spring. Thirteen populations of MacFarlane's four-o'clock are currently known. Three of these populations are found in the Snake River Canyon area (Idaho County, Idaho, and Wallowa County, Oregon), seven in the Salmon River area (Idaho County, Idaho), and three in the Imnaha River area (Wallowa County, Oregon). The total geographic range of the species is an area of

approximately 29 by 18 miles. No critical habitat has been designated for this species (USFWS 2012b). A recovery plan was finalized by the USFWS in June 2000 (USFWS 2000).

The Salmon River Canyons is primarily arid grassland mixed with towering ponderosa pines, and along the river's edge hackberry trees, mountain mahogany, and other riparian species. The river's canyon is a distinctive vegetative region of the Pacific Northwest. The semi-arid climate features hot, dry summers and mild, moist winters. This climatic benefit allows for the longest growing season and most frost-free days of any region in Idaho. Elevations within the river canyon range from 900 feet to over 5,000 feet, which enables many plant communities to thrive. Native species common to the Salmon River Canyons include: bluebunch wheatgrass, prickly pear cactus, poison ivy, lupine, arrow leaf balsamroot, western yarrow, wooly mullen, coyote willow, curl leaf mahogany, netleaf hackberry, and ponderosa pine (http://www.salmonriverinfo.com/salmon-river-plant-life.html).

3.7 Cultural Resources

The early history of non-Indian use of fishery resources in the Columbia River Basin is described in Craig and Hacker (1940). As a general matter, prior to contact with European settlers, native peoples harvested fish from the Snake and Columbia Rivers and hunted elk, deer, bear, and waterfowl. Salmon are culturally, economically, and symbolically important to the Pacific Northwest. Historically, natural resources have been the mainstay of the economies of the Native Americans in the Columbia Basin. Salmon were an important aspect of the cultural life and subsistence of the Indian tribes that occupied the Columbia Basin. Hunting, fishing, and gathering have been important to tribes for thousands of years. These activities continue to be important today for subsistence and ceremonial purposes[6]. Cultural Resources also include any cultural artifacts in the action area.

3.8 Environmental Justice

This section was prepared in compliance with Presidential Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (EO 12898), dated February 11, 1994, and Title VI of the Civil Rights Act of 1964.

Executive Order 12898 (59 FR 7629) states that Federal agencies shall identify and address, as appropriate "…disproportionately high and adverse human health or environmental effects of [their] programs, policies and activities on minority populations and low-income populations…." While there are many economic, social, and cultural elements that influence the viability and location of such populations and their communities, certainly the development, implementation and enforcement of environmental laws, regulations and policies can have impacts. Therefore, Federal agencies, including NMFS, must ensure fair treatment, equal protection, and meaningful involvement for minority populations and low-income populations as they develop and apply the laws under their jurisdiction.

Both EO 12898 and Title VI address persons belonging to the following target populations:

[6] See also U.S. Department of the Interior, Secretarial Order No. 3206 (1997).

- Minority – all people of the following origins: Black, Asian, American Indian and Alaskan Native, Native Hawaiian or Other Pacific Islander, and Hispanic[7]
- Low income – persons whose household income is at or below the U.S. Department of Health and Human Services poverty guidelines.

Definitions of minority and low income areas were established on the basis of the Council on Environmental Quality's (CEQ's) *Environmental Justice Guidance Under the Environmental Policy Act* of December 10, 1997. CEQ's *Guidance* states that "minority populations should be identified where either (a) the minority population of the affected area exceeds 50 percent or (b) the population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographical analysis." The CEQ further adds that "The selection of the appropriate unit of geographical analysis may be a governing body's jurisdiction, a neighborhood, a census tract, or other similar unit that is chosen so as not to artificially dilute or inflate the affected minority population."

The CEQ guidelines do not specifically state the percentage considered meaningful in the case of low income populations. For this study, the assumptions set forth in the CEQ guidelines for identifying and evaluating impacts on minority populations are used to identify and evaluate impacts on low income populations. More specifically, potential environmental justice impacts are assumed to occur in an area if the percentage of minority, Hispanic, and low income populations are meaningfully greater than the percentage of minority, Hispanic, and low income populations in the general population.

In the action area, there are minority and low-income populations to which this Executive Order could apply. For analytical purposes, this EA assumes that the tribes potentially affected because of presence in the action area and/or because a TRMP was submitted by the SBT, includes the SBT and Nez Perce Tribe~~. The two tribes in the action area, and thus potentially affected, are the Shoshone-Bannock Tribes and the Nez Perce Tribe~~ (see footnote 2, above). The U.S. Census Bureau reported the race composition of Idaho State in 2010 to be 84 percent White, 11.2 percent Hispanic, 1.2 percent Asian, 0.6 percent Black or African American, and 1.4 percent Native American (U.S. Census Bureau 2012). It is likely that all ethnic groups engage in recreational fishing in the action area. The Nez Perce Tribe is developing ~~its own~~ a TRMP, which NMFS will review separately. ~~and seeking ESA authorization through a separate process.~~

4.0 Environmental Consequences

This section of the assessment evaluates the potential effects of the alternatives (including the Proposed Action) on the biological, physical, and human environments described in Chapter 3, Affected Environment. No other resources of the environment were identified that could potentially be impacted by or benefit from any of the alternatives.

As described in Subsection 2.1, No-action Alternative, it is assumed throughout the following analysis that, even if ~~the framework of~~ the SBT ~~TRMP has been~~ have implemented fisheries

[7] Hispanic is an ethnic and cultural identity and is not the same as race.

consistent with the proposed framework in recent years, for the purpose of analysis in this EA, the proposed fisheries under the TRMP would not be implemented under the No-action Alternative. However, ~~mainstem Columbia River fisheries and~~ IDFG's fisheries in the action area would occur under the No-action Alternative.

4.1 Effects on Water Quality

4.1.1 Alternative 1 (No-action) – Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

The absence of SBT's fisheries under the No-action Alternative would not affect instream flow, water temperature, levels of dissolved oxygen, and levels of toxins or contaminants described in Subsection 3.1, Water Quality, because no SBT fishing would occur, and because there is no relationship between SBT or other, ongoing fishing activity and fluctuation of these water quality parameters. Ongoing fisheries in the action area by IDFG however, would continue, and baseline water quality conditions would remain the same as they relate to other activities in the action area.

For these same reasons, the No-action Alternative would also not affect the quantity, quality, and connectivity of aquatic habitats. Further, peak or high instream flow in most areas and in lower elevation catchments would not be affected because, while no SBT fishing would occur, there is no relationship between SBT or other, ongoing fishing activity and snowmelt. The absence of SBT fisheries under the No-action Alternative would not affect spring-time flows in the lower river reaches of the Lemhi and Pahsimeroi Rivers, or summer and fall flows in the lower Lemhi River reach because, while no SBT fishing would occur, there is no relationship between SBT or other, ongoing fishing activity and the rate of water diversion for irrigation, geology, or levels of precipitation in these subbasins.

Similarly, the No-action Alternative would not affect the amount or nature of agricultural or domestic water diversions and associated diking, damming, and dredging because no SBT fishing would occur, and because there is no relationship between SBT or other, ongoing fishing activity and these land and water uses or structures. The No-action Alternative would not affect the river banks, channel pools, distribution of large woody, or mortality rates for salmonids in the egg or alevin life stage beyond any impact currently occurring in the action area by other activities because no SBT fishing would occur, and because there is no relationship between SBT or other, ongoing fishing activity and stream flows. The frequency and intensity of flood flows due to accelerated runoff or lowest flows by reducing the water storage capacity of watershed soils would not be altered by this alternative because no SBT fishing would occur, and because there is no relationship between SBT or other, ongoing fishing activity and removal of vegetation, such as clear cutting, and urbanization.

The absence of SBT's fisheries under the No-action Alternative would be beneficial to water quality with respect to the amount of marine-derived nutrients delivered to the ecosystem by Chinook salmon that would die near the spawning grounds, before or after spawning, instead of being caught in the proposed fisheries (Table 7). However, the amount of natural-origin fish that would not be harvested under the No-action Alternative and thus die near the spawning grounds is less than what is tabulated in Table 7 because that amount is cumulative and all-inclusive, and

includes harvest by ongoing IDFG's fisheries (i.e., the ESA-take limit includes take of ESA listed fish by IDFG and other ~~unpermitted~~ fisheries). A small increase in marine-derived nutrients delivered to the ecosystem would be the only logical positive effect of the No-action Alternative on water quality, but only to the extent that others do not harvest these fish. Hatchery-origin fish in the action area are generally not expected to substantially contribute marine-derived nutrients to the ecosystem under either alternative because most are removed either by fisheries or at hatchery weirs and not allowed to spawn and die in the wild (Subsection 3.1, Water Quality). Hatchery programs in Idaho would continue to require hatchery origin fish to be removed at hatchery weirs under the No-action Alternative. The only potential water quality effect that the No-action Alternative could have on marine-derived nutrients from hatchery-origin fish would be from those fish that are not harvested and that spawn below weirs comingled with natural-origin fish, and there is no information regarding what this contribution may be.

Furthermore, it is not certain if a potential small gain in the number of salmonid carcasses (fish that die after spawning) would yield measurable beneficial effects under the No-action Alternative given habitat changes that have already occurred, and that may continue to occur, due to other limiting factors in the action area such as beaver trapping, logging, irrigation, grazing, pollution, dams, urban and industrial development in the action area (Subsection 3.1, Water Quality). For example, the reduction in large woody debris as a result of past logging practices would be expected to decrease the retention of salmon carcasses in the watershed. It is likely that the amount of marine-derived nutrients under the No-action Alternative would remain primarily a function of other factors in the action area, since the lack of SBT's fishing, or other ongoing fisheries would not substantially impact the growth of riparian forests as described by Helfield and Naiman (2001) either beneficially or adversely.

The functional and quantitative relationships between carcass density and productivity of salmonid rearing habitat are poorly understood and difficult to generalize (Quinn and Peterson 1996); therefore, it is difficult to estimate these relationships under the No-action Alternative. However, it is clear that the No-action Alternative would not result in a substantial number of hatchery fish contributing to marine-derived nutrients to the ecosystem, and so would not result in a substantial increase in the total number of salmonids reaching the ecosystem compared to recent years.

There would be no other measurable effects on water quality from the No-action Alternative.

4.1.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

For the purposes of this analysis, this document assumes that the Proposed Action Alternative would result in the level of fisheries impacts as described in the TRMP (see footnote 4). All water quality and quantity impacts under the Proposed Action would be the same as those described under the No-action Alternative, with few exceptions, because the implementation of SBT's fisheries under the Proposed Action Alternative would result in the removal of a small percentage of Chinook salmon returning to the tributaries in the action area each year, relative to the expected tributary-specific returns, that would otherwise die in the streams after spawning as

under the No-action Alternative (Table 2). While instream flow and most other water quantity and quality factors are not specifically affected by the proposed action, these factors may affect the species in a way that could have implications for other factors such as marine-derived nutrients. However, since harvest for ongoing fisheries under the No-action Alternative is included in the ESA limits illustrated in Table 2, it is difficult to calculate the additional harvest of natural-origin fish resulting from the implementation of SBT's fisheries under the Proposed Action Alternative. Also, ~~most~~ many hatchery-origin fish in the action area would reach the hatchery weirs under both alternatives and these fish would be removed and would not contribute nutrients to the system. Therefore, the Proposed Action Alternative would have only a small adverse effect on water quality compared to the No-action Alternative, and result in only a small loss in the amount of marine-derived nutrients delivered to the ecosystem by natural-origin fish that would die as a result of SBT's fisheries instead of dying after spawning.

There would be no other measurable effects on water quality from the Proposed Action Alternative.

4.2 Effects on Anadromous Fish Listed Under the ESA

4.2.1 Alternative 1 (No-action) – Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

~~The~~ Even if the SBT have been implementing fisheries consistent with ~~as~~ the management framework described in their ~~SBT's~~ TRMP in the recent past, for the purpose of analysis in this EA, it is assumed that the SBT would not conduct these fisheries under the No-action Alternative. The absence of SBT's fisheries in the action area under the No-action Alternative would result in an improvement in the status and trends of the Snake River Spring/Summer Chinook Salmon ESU, described in Subsection 3.2, Anadromous Fish Listed under the ESA, in any given year, proportional to the year-specific expected take as per Table 2 and illustrated in Table 7. For the Snake River Basin Steelhead DPS, the potential harvest is limited to a maximum of 10 fish.

4.2.1.1. Snake River Spring/Summer Chinook Salmon ESU

The maximum take (harvest or indirect mortality) of natural-origin Snake River spring/summer Chinook salmon for 22 of the 28 populations of this ESU under current conditions is presented in Table 7. The increase for annual abundance under the No-action Alternative would be small, from up to1 to 8 percent of a population in any given year (Table 7), The number of fish that would not be harvested by the SBT is directly proportional to the expected run-sizes for the 22 affected spring/summer Chinook salmon populations (Table 2). However, this potential increase under the No-action Alternative is difficult to predict given that, under current conditions, the maximum harvest illustrated in Table 2 and Table 7 is shared among all fishing ~~parties~~ entities in the action area. Therefore, the potential change (positive or negative) in Status and Trends described in Subsection 3.2.1.1 under the No-action Alternative is difficult to predict because of the following reasons: (1) large returns in recent years may been a result of cyclic ocean and climatic conditions favorable to anadromous fish and improved operation of the FCRPS, (2) the amount of fish that would not be harvested under the No-action Alternative would be small (Table 7) and responsive to the expected population returns on any given year (Table 2), (3) the

allowable harvest under current conditions (with all ongoing fisheries, including SBT's fisheries) takes into account the status of all of the affected populations, and (4) it is difficult to calculate what portion of the ongoing harvest (Table 7) would be precluded under the No-action Alternative given that ongoing fisheries would continue under either alternative.

The No-action Alternative could theoretically improve the key statists described in NMFS (2008a) for the three affected Mayor Population Groups (MPGs). However, there is no available quantitative method to calculate how the absence of SBT fishing would change these parameters, particularly given the fact that is difficult to calculate how much of the ongoing harvest (e.g., Table 7) would take place under the No-action Alternative as a result of all other ongoing fisheries in the action area.

As explained in Section 3.2.1.2, Limiting Factors and Threats, ocean conditions have affected the status of the Snake River Spring/Summer Chinook salmon ESU, and its limiting factors include Federal and private hydropower projects, predation, Columbia River mainstem harvest, other harvest in the ESU, hatchery program effects, poor tributary habitat, and poor ocean conditions. Also, these conditions have been generally poor for this ESU over at least four brood cycles, improving only in the last few years. All of these factors and threats would be unaffected under the No-action Alternative, except for harvest, which would be minimally reduced given that most of the ongoing harvest that affects this ESU (mainstem Columbia River and IDFG's tributary fisheries) would remain.

The No-action Alternative would have no effect on critical habitat for Snake River spring/summer Chinook salmon because the use of hook-and-line gear, spears, hoop-nets, and other traditional and contemporary methods would have no effect on critical habitat for this ESU.

4.2.1.2 Snake River Sockeye Salmon ESU

SBT harvest monitors have not recorded any sockeye salmon harvest by tribal members since initiation of fishery monitoring in 1979. However, the current analysis assumes that the No-action Alternative would preclude the incidental harvesting of up to one percent of the expected returns of sockeye salmon to Lower Granite Dam described in Subsection 3.2, Anadromous Fish Listed under the ESA, in any given year (SBT 2011).

Current factors affecting critical habitat for Snake River sockeye salmon would continue. As explained in Section 3.2.2.2, Limiting Factors and Threats, it is believed that irrigation withdrawals, toxic pollutants, unfavorable changes in lake ecology, competition with other lake species for food resources, predation by rainbow trout, mainstem Columbia River harvest, tributary harvest, hydropower projects and dam operations, dikes and other agricultural uses of the estuary are some of the limiting factors and threats to this ESU. All of these factors and threats would be unaffected under the No-action Alternative, except for tributary harvest, which (for the purpose of this analysis) would not be allowed the one-percent harvest objective, and no sockeye salmon would be harvested in Tribal fisheries; effectively, the absence of Tribal harvest under the No-action Alternative would have the same result as recent observations, because, under current conditions, no sockeye incidental harvest has ever been reported by SBT harvest monitors.

4.2.1.3 Snake River Basin Steelhead DPS

The No-action Alternative would only preclude the incidental harvesting of fewer than 10 Snake River steelhead DPS described in Subsection 3.2, Anadromous Fish Listed under the ESA, in any given year (SBT 2011), and this number would be distributed among all of the populations affected and not skewed to either A-run or B-run fish. The No-action Alternative would not improve the key statists described in NMFS (2008a) for affected MPG because 10 fish distributed among 12 affected populations is not likely to produce any measurable difference in the calculation of these parameters under either alternative.

The No-action Alternative would have no effect on critical habitat for Snake River steelhead because the use of hook-and-line gear, spears, hoop-nets, and other traditional and contemporary methods would have no effect on critical habitat for this DPS.

The potential increase of up to 10 fish under the No-action Alternative would not have any measurable effects on the status and trends of this DPS, Subsection 3.2.2.1, because the current harvest of up to 10 fish is distributed among 12 populations of one out of five MPGs comprising the DPS. The aggregate estimates of adult abundance data series for the Snake River Basin Steelhead DPS at Lower Granite Dam would not be affected by a potential increase of up to only 10 fish given that current SBT steelhead harvest under their spring/summer Chinook salmon TRMP is less than the error of sampling and computation methods (including juvenile indices of abundance available for some areas) used to calculate these numbers.

As explained in Section 3.2.2.2, Limiting Factors and Threats, poor ocean conditions have affected the status of the Snake River steelhead DPS, and its limiting factors include Federal and private hydropower projects, predation, Columbia River mainstem harvest, other harvest in the DPS, hatchery program effects, and poor tributary habitat. All of these factors and threats would be unaffected under the No-action Alternative, except for harvest, which would potentially be reduced by only 10 fish. This small decrease in harvest would be offset by ongoing harvest that affects this DPS (mainstem Columbia River and IDFG's tributary fisheries).

4.2.1.4 Bull Trout

The No-action Alternative would not have any effects on habitat requirements of bull trout because current fishing practices by the SBT do not result in any kind of interactions with their habitat. The No-action Alternative would not have any effects on the distribution of bull trout throughout the current or historic range in Idaho because current fishing practices that would be precluded under the No-action Alternative do not affect water management practices, presence or absence of bull trout in any habitat, or connectivity or fragmentation of their habitat. The No-action Alternative would not have any effects on overutilization for commercial, recreational, scientific or educational purposes, disease, predation, or inadequacy of existing regulatory mechanisms because current fishing practices that would be excluded under the No-action Alternative do not target bull trout for commercial, recreational or research purposes, do not have any effects on disease or predation of bull trout and are deemed to incorporate adequate regulatory fishery management mechanisms. The No-action Alternative would only preclude the incidental harvesting of up to 20 bull trout described in Subsection 3.2, Anadromous Fish Listed under the ESA, in any given year (SBT 2011), and this number would be distributed among all

of the populations affected by current fisheries, so no measurable effects on the status and trends of this DPS are expected. Under the No-action Alternative, effects on bull trout by non-native fish would continue.

4.2.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

For the purposes of this analysis, this document assumes that the Proposed Action Alternative would result in the level of fisheries impacts as described in the TRMP (see footnote 4). Fisheries proposed in the TRMP would continue to be implemented under the Proposed Action Alternative as in recent years. Therefore, the Proposed Action Alternative would not result in a decrease in the abundance of ESA-listed fish in any given year compared to those described in Subsection 3.2, Anadromous Fish Listed Under the ESA, because abundance trends described for the current Affected Environment for all affected ESA-listed fish species account for fishery-related past and ongoing incidental mortality at levels comparable to those proposed in the SBT's TRMP.

4.2.2.1. Snake River Spring/Summer Chinook Salmon ESU

Unlike the No-action Alternative (the absence of tributary SBT's fisheries), where the abundance and trends described in Subsection 3.2.1, Snake River Spring/Summer Chinook Salmon ESU, could potentially increase, the Proposed Action Alternative would result in no changes over current conditions. The year-specific number of ESA-listed spring/summer Chinook salmon that would not spawn in the wild as a result of the Proposed Action Alternative would be in the same as under current conditions and equivalent to the expected harvest numbers assuming current abundance presented in Table 7. Compared to the No-action Alternative, where the SBT would not implement the proposed fisheries, the Proposed Action Alternative would result in the continuation of current maximum take (harvest or indirect mortality) of natural-origin Snake River spring/summer Chinook salmon for 22 of the 28 populations of this ESU as presented in Table 7 and ~~in a shared manner with~~ accounting for all other ongoing fisheries in the action area.

Similar to the No-action Alternative, the cyclic ocean and climatic conditions favorable to anadromous fish and improved operation of the FCRPS would continue under the Proposed Action Alternative. Compared to the No-action Alternative, the Proposed Action Alternative would have no effects on key statists described in NMFS (2008a) for the three affected MPGs because ~~proposed~~ fisheries with similar harvest levels as those described ~~included~~ in the SBT's TRMP have been ongoing are part of the environmental baseline.

As under the No-action Alternative, the Proposed Action Alternative would have no effect on limiting factors and threats to spring/summer Chinook salmon (including Federal and private hydropower projects, predation, Columbia River mainstem harvest, other harvest in the ESU, hatchery program effects, and poor tributary habitat and ocean conditions). Therefore, these limiting factors and threats would continue to affect this ESU in the action area (Section 5, Cumulative Effects) under either alternative.

The Proposed Action Alternative would result in the continuation of status quo SBT's fisheries, in conjunction with IDFG fisheries in Idaho and mainstem Columbia River fisheries, and thus

~~would~~ could result in a slight decrease in abundance to what could be realized under the No-action Alternative (the absence of ~~SBT's~~ tributary fisheries set forth in the SBT's TRMP). However, the proposed harvest levels under the Proposed Action Alternative are equivalent to current harvest levels and ESA impact levels in the action area, which are reflected in the summary of status and trends for spring/summer Chinook salmon (Subsection 3.2.2.1, Status and Trends, and Subsection 3.2.2.2, Limiting Factors and Threats).

Unlike the No-action Alternative, fishing would occur under the Proposed Action Alternative, including the use of hook-and-line gear, spears, hoop-nets, and other traditional and contemporary methods. However, as described under the No-action Alternative, gear and methods employed would have no effect on critical habitat for Snake River spring/summer Chinook salmon or steelhead. No other activities related to fisheries under the Proposed Action Alternative would affect critical habitat because of the relatively minor or negligible effects on the physical environment from fishing.

4.2.2.2 Snake River Sockeye Salmon ESU

Compared to the No-action Alternative, the Proposed Action Alternative could result in the harvest of up to 1 percent of the runsize described in Subsection 3.2, Anadromous Fish Listed under the ESA, in any given year (SBT 2011). This 1 percent harvest would be a maximum harvest under any circumstances and not a target harvest – sockeye salmon would be not a target species for SBT fisheries under the Proposed Action Alternative. The SBT would manage Chinook salmon harvest to minimize incidental impacts to sockeye salmon to the greatest extent possible under the Proposed Action Alternative (SBT 2011). Again, SBT harvest monitors have not recorded any sockeye salmon harvest by SBT tribal members since initiation of fishery monitoring in 1979 (SBT 2011). If the maximum incidental sockeye salmon harvest allowed for under the Proposed Action were achieved, this would represent an increase over the No-action Alternative of one percent of the sockeye salmon runsize. For illustration, during most of the years since sockeye salmon were listed, this harvest rate, at most, would have resulted in the harvest of less than one sockeye salmon each year; under conditions similar to 2010, this would result in a maximum incidental harvest of 22 sockeye salmon.

Similar to the No-action Alternative, the Proposed Alternative, including the proposed use of hook-and-line gear, spears, hoop-nets, and other traditional and contemporary methods, would have no effect on critical habitat for Snake River sockeye salmon because such harvest methods do not affect habitat in any lasting way.

As explained in Section 3.2.2.2, Limiting Factors and Threats, it is believed that irrigation withdrawals, toxic pollutants, unfavorable changes in lake ecology, competition with other lake species for food resources, predation by rainbow trout, mainstem Columbia River harvest, tributary harvest, hydropower projects and dam operations, dikes and other agricultural uses of the estuary are some of the limiting factors an threats to this ESU. Similar to the No-action Alternative, all of these factors and threats would be unaffected under the Proposed Action Alternative, except for tributary harvest. The small increase in harvest, assuming the maximum harvest that would be allowed under the Proposed Action were achieved, would be outweighed by all other limiting factors and threats.

4.2.2.3 Snake River Basin Steelhead DPS

Compared to the No-action Alternative, the Proposed Action Alternative would result in the harvest of fewer than 10 Snake River steelhead DPS described in Subsection 3.2, Anadromous Fish Listed under the ESA, in any given year (SBT 2011), and this number would be distributed among all of the populations affected and not skewed to either A-run or B-run fish. The Proposed Action Alternative would not improve the key statists described in NMFS (2008a) for affected MPG because 10 fish distributed among 12 affected populations is not likely to produce any measurable difference in the calculation of these parameters under either alternative.

The Proposed Action Alternative would have no effect on critical habitat for Snake River steelhead. No gear or fishing methods would be employed because there would be no SBT's fisheries, thus, there would be no risk to critical habitat.

Similar to the No-action Alternative, the potential decrease of up to 10 fish under the Proposed Action Alternative would not have any measurable effects on the Status and Trends, Section 3.2.2.1, because the current harvest of up to 10 fish is distributed among 12 populations of one out of five MPGs comprising the DPS. The aggregate estimates of adult abundance data series for the Snake River Basin Steelhead DPS at Lower Granite Dam would not be affected by a potential decrease of up to 10 fish given that current SBT steelhead harvest under its spring/summer Chinook salmon TRMP is less than the error of sampling and computation methods (including juvenile indices of abundance available for some areas) used to calculate these numbers.

As explained in Subsection 3.2.1.2, Limiting Factors and Threats, ocean conditions have affected the status of the Snake River steelhead DPS, and its limiting factors include Federal and private hydropower projects, predation, Columbia River mainstem harvest, other harvest in the DPS, hatchery program effects, and poor tributary habitat. Similar to the No-action Alternative, all of these factors and threats would be unaffected under the Proposed Action Alternative. The only difference between the No-action Alternative and the Proposed Action Alternative is that under the latter, fisheries implemented would potentially result in the mortality of up to 10 fish. As under the No-action Alternative, all of the ongoing harvest that affects this DPS (mainstem Columbia River and IDFG's tributary fisheries) would continue under the Proposed Action Alternative, and would continue to be a limiting factor in the DPS.

4.2.2.4 Bull Trout

Similar to the No-action Alternative, the Proposed Action Alternative would not have any effects on habitat requirements of bull trout because proposed fishing practices by the SBT do not result on any kind of interactions with their habitat. Similar to the No-action Alternative, the Proposed Action Alternative would not have any effects on the distribution of bull trout throughout the current or historic range in Idaho because proposed fisheries do not affect water management practices, presence or absence of bull trout in any habitat, and connectivity or fragmentation of their habitat. Similar to the No-action Alternative, the Proposed Action Alternative would not have any effects on overutilization for commercial, recreational, scientific or educational purposes; disease; predation; inadequacy of existing regulatory mechanisms because proposed fisheries do not target bull trout for commercial, recreational or research purposes, do not have

any effects on disease or predation of bull trout, and are deemed to incorporate adequate regulatory fishery management mechanisms. Compared to the No-action Alternative, the Proposed Action Alternative would result in the incidental harvesting of up to 20 bull trout described in Subsection 3.2, Anadromous Fish Listed under the ESA, in any given year (SBT 2011); this number would be distributed among all of the populations affected by the proposed fisheries, so no measurable effects on the status and trends of this DPS would be expected under the Proposed Action. The Proposed Action Alternative would not result in the introduction of non-native species; bull trout would continue to be impacted by non-native fish species to the same degree as under the No-action Alternative.

4.3 Effects on Non-listed Fish

4.3.1 Alternative 1 (No-action) –Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

Non-listed fish would continue to be impacted by other ongoing fisheries in the action area under the No-action Alternative. An increase in abundance for non-listed fish is possible under the No-action Alternative if environmental and ecological conditions are favorable for these species. If non-listed fish are prey for adult Chinook salmon (Subsection 3.3, Non-listed Fish), their abundance could decrease under the No-action Alternative given that a small increase in the number of Chinook salmon would occur in the action area. However, adult Chinook salmon or steelhead approaching the spawning grounds do not actively seeks prey during this period of their life cycle. Therefore, the No-action Alternative is not likely to result in effects, positive or negative, on non-listed fish species.

4.3.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

For the purposes of this analysis, this document assumes that the Proposed Action Alternative would result in the level of fisheries impacts as described in the TRMP (see footnote 4). The Proposed Action Alternative would ~~result in the implementation of~~ grant ESA coverage to fisheries as described in the TRMP. SBT's fisheries targeting spring/summer Chinook salmon under the Proposed Action Alternative would not result in effects on non-listed fish species, native and introduced, beyond those considered under the No-action Alternative because the methods and gears in these fisheries (hook-and-line gear, spears, hoop-nets, and other traditional and contemporary methods) would not likely result in the incidental catch of non-listed fish. Similar to the No-action Alternative, non-listed fish would continue to be impacted by other ongoing fisheries in the action area under the Proposed Action Alternative. If non-listed fish are prey for adult Chinook salmon, their abundance could increase under the Proposed Action Alternative compared to the No-action Alternative given that a small number of Chinook salmon would be removed from the action area, potentially reducing the number of predators for non-listed fish. However, adult Chinook salmon or steelhead approaching the spawning grounds do not actively seeks prey during this period of their life cycle. Therefore, similar to the No-action Alternative, the proposed Action Alternative is not likely to result in positive or negative effects on non-listed fish species.

THE FOLLOWING TEXT HAS BEEN ADDED TO THE FINAL EA AND WAS NOT INCLUDED IN THE DRAFT EA

4.4 Effects on Instream Fish Habitat

4.4.1 Alternative 1 (No-action) – Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

Because the proposed fisheries would not be implemented under the No-action Alternative, there would be no fishery-related effects on instream fish habitat. However, because (1) the current SBT's fisheries do not measurably increase sediment loads, nor result in alteration of riparian habitat, and (2) in channel morphology alterations, water flow and temperature alterations, and the current presence of SBT fisherman in the action area is limited in geographic scope, the absence of fishing by the SBT under the No-action Alternative would result in very limited beneficial effects on instream fish habitat (Subsection 3.4, Instream Fish Habitat). The only plausible positive effect would be a slight, yet potentially immeasurable, increase in marine-derive nutrients to the system due to a slight increase in fish not harvested dying after spawning.

4.4.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

For the purposes of this analysis, this document assumes that the Proposed Action Alternative would result in the level of fisheries as described in the TRMP (see footnote 4). The Proposed Action Alternative would grant ESA coverage to fisheries as described in the TRMP. SBT's fisheries targeting spring/summer Chinook salmon under the Proposed Action Alternative would not result in effects on instream fish habitat beyond those considered under the No-action Alternative because the methods, gear use, and practices in these fisheries (hook-and-line gear, spears, hoop-nets, and other traditional and contemporary methods) would not measurably increase sediment loads, nor result in alteration of riparian habitat, in channel morphology alterations, or water flow and temperature alterations. Additionally, because the presence of SBT fisherman in the action area would be limited in geographic scope, fishing by the SBT under the Proposed Action Alternative would result in very limited negative effects on instream fish habitat compared to the No-action Alternative (Subsection 3.4, Instream Fish Habitat). The only plausible negative effect of the Proposed Action Alternative would be a slight, yet potentially immeasurable, decrease in marine-derive nutrients to the system due to a slight increase in fish harvested and not dying after spawning compared to the No-action Alternative.

END OF NEW TEXT

4.5 Effects on Wildlife

4.5.1 Alternative 1 (No-action) – Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

Because the proposed fisheries would not be implemented under the No-action Alternative, there would be no fishery-related effects on wildlife species. The current SBT's fisheries do not require the building of roads or access points, and the current presence of fisherman in the action

area is limited in geographic scope. Thus, the absence of fishing by the SBT under the No-action Alternative would result in very limited beneficial effects on the vegetative ecosystems that support the 364 known species expected to occur in the action area (Subsection 3.5, Wildlife).

There would be no fishery-related effects on the spectrum of terrestrial organisms listed in Subsection 3.5, Wildlife, under the No-action Alternative. It is difficult to calculate the potential increase in salmonids spawning in the wild relative to current conditions because current Chinook salmon harvest (Table 7) is shared with other ongoing fisheries and these would continue under the No-action Alternative.

The lack of fish harvest by the SBT (fish removal from the system) under the No-action Alternative could result in a small increase of salmonids spawning in the wild, given the recent abundance of natural-origin fish (Table 7), but given the current harvest numbers by the SBT and the large geography of the action area, the No-action Alternative would not measurably affect the diet of any affected wildlife species listed in Subsection 3.5, Wildlife, that consumes juvenile salmonids after emergence or decomposing carcasses.

The No-action Alternative would not have any effect on the number of hatchery-origin juveniles. Wildlife species that rely on fish as an important part of their diets may consume salmonid eggs, juveniles, adults, and/or carcasses, and the No-action Alternative is not expected to negatively affect fish as prey by substantially altering the number of anadromous fish spawning (Table 7). Therefore, the effect on the number of eggs, juveniles, adults, or carcasses that may be available for consumption in any given year would be minimal

There would also be no new construction of fishery access points, roads, permanent camping sites, or any long-lasting habitat alterations of any kind under any alternative. Since the SBT fishery would not occur under the No-action Alternative, there would be no SBT fishery-related activities in wildlife habitat (riparian/floodplain, shrub steppe, and agricultural lands) within the action area. Therefore, the No-action Alternative would not result in any SBT's fishery-related alterations of wildlife habitat such as forest, shrub steppe, agricultural lands, floodplains, wetlands, uplands, or transitional steppes where food is abundant for many species in the action area (Subsection 3.5, Wildlife). No impacts would occur to riparian zones from this alternative that would measurably affect wildlife species dependent upon riparian zones for various life stages (Subsection 3.5, Wildlife). Any fishery-related alterations of wildlife habitat (such as riparian zones, forest, shrub steppe, agricultural lands, floodplains, wetlands, uplands, or transitional steppes) related to other, ongoing fisheries in the action area would continue under the No-action Alternative.

Under the No-action Alternative, there would be a small reduction in localized disturbances along current localized riverbanks/riparian zones used by SBT fishermen. However, this reduction in disturbances would be localized to SBT fishing areas and would be temporary in nature. Therefore, the beneficial effects on riparian zones that are important habitats for a variety of wildlife species, including migrating neo-tropical birds, under the No-action Alternative would be small or immeasurable. Any fishery-related effects of riparian zones related to other, ongoing fisheries in the action area would continue under the No-action Alternative.

There would be no negative impact to the three ESA listed mammal species and one ESA listed bird species that may occur in the action area. For reasons stated above, the No-action Alternative would not negatively impact or substantially benefit habitat used by any wildlife species known to occur in the action area. Ongoing fishing and other recreation and land use activities in the action area would occur under the No-action Alternative that would continue to potentially affect listed species.

The No-action Alternative could have a slight beneficial effect on wildlife and its habitat by reducing the risks of introduction of new invasive species by SBT fishermen, like the New Zealand mud snail and the zebra mussel through gear contamination and by wading in the streams. The potential reduction in these risks by the absence of SBT fishery activities would be mostly counteracted by the continued presence of humans engaged in other practices, including other ongoing fishing and recreational activities unrelated to the proposed TRMP.

4.5.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

For the purposes of this analysis, this document assumes that the Proposed Action Alternative would result in the level of fisheries impacts as described in the TRMP (see footnote 4). Similar to the No-action Alternative, the Proposed Action Alternative does not require the building of roads or access points, and presence of fisherman in the action area under the Proposed Action alternative would be limited in geographic scope. Thus, the presence of fishing by the SBT under the Proposed Action Alternative would result in very limited negative effects on the vegetative ecosystems that support the 364 known species expected to occur in the action area (Subsection 3.5, Wildlife). Compared to the No-action Alternative, there would be limited fishery-related effects on the spectrum of terrestrial organisms listed in Subsection 3.5, Wildlife, under the Proposed Action Alternative. Up to 10 more steelhead would be removed under the Proposed Action Alternative than under the No-action Alternative. It is difficult to calculate the potential decrease of salmonids spawning in the wild relative to No-action Alternative because the proposed Chinook salmon harvest (Table 7) would be shared with other ongoing fisheries and these would continue under either alternative. The fish harvest by the SBT (fish removal from the system) under the Proposed Action Alternative is the same as current conditions and would not result in changes of numbers of salmonids spawning in the wild given the recent abundance of natural-origin fish (Table 7). Compared to the No-action Alternative, the Proposed Action Alternative could potentially reduce the numbers of fish available for the diet of wildlife species in the action area, but would not measurably affect the diet of any affected wildlife species listed in Subsection 3.5, Wildlife, that consumes juvenile salmonids after emergence or decomposing carcasses– particularly given that the proposed harvest for the Proposed Action Alternative is shared with other ongoing fisheries.

Similar to the No-action Alternative, the Proposed Action Alternative would not have any effect on the number of hatchery-origin juveniles. Compared to the No-action Alternative, the Proposed Action Alternative's effect on the number of eggs, juveniles, adults, or carcasses that may be available for consumption in any given year is expected to be minimal.

There would also be no new construction of fishery access points, roads, permanent camping sites, or any long-lasting habitat alterations of any kind under any alternative. Since the SBT fishery would occur under the Proposed Action Alternative, there would be limited SBT fishery-related activities in wildlife habitat (riparian/floodplain, shrub steppe, and agricultural lands) within the action area compared to the No-action Alternative. However, any fishery-related alterations of wildlife habitat (such as forest, shrub steppe, agricultural lands, floodplains, wetlands, uplands, or transitional steppes) related to other, ongoing fisheries in the action area would continue under the No-action Alternative. Compared to the No-action Alternative, there would be a small increase in localized disturbances along current localized riverbanks areas used by SBT fishermen under the Proposed Action Alternative. However, this increase in disturbances would be localized to SBT fishing areas and would be temporary in nature. Therefore, compared to the No-action Alternative, the detrimental effects on riparian zones that are important habitats for a variety of wildlife species under the Proposed Action Alternative would be small. Any fishery-related effects of riparian zones related to other, ongoing fisheries in the action area would continue under either alternative.

Compared to the No-action Alternative, there would be limited additional effects on nesting and feeding habitats for birds, including migrating neo-tropical birds, in the riverbanks/riparian zones of the action area related to SBT fishing activity affecting these habitats. The potential increase in disturbance of wildlife and wildlife habitat in the riparian zones of the action area by the presence of SBT's fishery activities would be mostly counteracted by the continued presence of humans engaged in other practices, including other ongoing fisheries under either alternative.

Similar to the No-action Alternative, there would be no negative impact to the three ESA listed mammal species and one ESA listed bird species that may occur in the action area under the Proposed Action Alternative. Similar to the No-action Alternative, the Proposed Action Alternative would not negatively impact or substantially benefit habitat used by any wildlife species known to occur in the action area. Ongoing fishing and other recreation and land use activities in the action area would occur under either alternative and these activities would continue to potentially affect listed species.

Compared to the No-action Alternative, the Proposed Action Alternative could have a slight negative effect on wildlife and its habitat by increasing the risks of introduction of new invasive species by SBT fishermen, like the New Zealand mud snail and the zebra mussel through gear contamination and by wading in the streams. The potential increase in these risks by the presence of SBT fishery activities would be mostly counteracted by the continued presence of humans engaged in other practices, including other ongoing fisheries and other recreational activities under either alternative.

4.6 Effects on ESA-listed Plants and General Vegetation

4.6.1 Alternative 1 (No-action) – Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

Under the No-action Alternative, there would not be any SBT fishing activities in any listed plant habitat area such as bunchgrass grasslands, sagebrush-steppe, open pine communities or steep river canyon grassland habitats in Idaho. Other activities taking place in any of these sensitive

plant habitat areas within the action area would likely continue and would affect Spalding's catchfly and MacFarlane's four-o'clock (Subsection 3.6, Listed Plants and General Vegetation). However, impacts on these species specifically by SBT fishermen would not occur under the No-action Alternative because no SBT fishing would occur. The lack of fishing activity would not likely assist with recovery efforts for Spalding's catchfly and MacFarlane's four-o'clock identified in the USFWS recovery plan because these species are not likely located in traditional SBT fishing areas (Subsection 3.6, Listed Plants and General Vegetation).

Similarly, Under the No-action Alternative, there would not be any SBT fishing activities in any general vegetation habitat area such as arid grasslands, ponderosa pines, edge hackberry trees, mountain mahogany, and other riparian species sites. Other activities taking place within the action area would likely continue and would affect bluebunch wheatgrass, prickly pear cactus, poison ivy, lupine, arrow leaf balsamroot, western yarrow, wooly mullen, coyote willow, curl leaf mahogany, netleaf hackberry, and ponderosa pine (Subsection 3.6, Listed Plants and General Vegetation). However, impacts on these species specifically by SBT fishermen would not occur under the No-action Alternative because no SBT fishing would occur.

4.6.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

For the purposes of this analysis, this document assumes that the Proposed Action Alternative would result in the level of fisheries impacts as described in the TRMP (see footnote 4). Unlike the No-action Alternative, potential effects on ESA-listed plants under the Proposed Action Alternative could occur as the result of encounters with ESA-listed plants by SBT fishermen. However, fishing activity considered under the Proposed Action Alternative would not occur in bunchgrass grasslands, sagebrush-steppe, open pine communities, or steep river canyon grassland habitats in Idaho. Therefore, there is little or no likelihood of SBT fishermen encountering ESA-listed plants (Spalding's catchfly and MacFarlane's four-o'clock) or their habitats under the Proposed Action Alternative. Consequently, SBT fishing activities would not be incompatible with USFWS recovery plan goals for these species (Subsection 3.6, Listed Plants and General Vegetation). Other activities taking place in any of these sensitive plant habitat areas within the action area would likely continue, but would not result from the Proposed Action, and so effects resulting from the Proposed Action on ESA-listed plants would be equivalent to those expected under the No-action Alternative.

Unlike the No-action Alternative, potential effects on general vegetation under the Proposed Action Alternative could occur as the result of encounters with plants by SBT fishermen. However, fishing activity considered under the Proposed Action Alternative would occur only in riverbanks and would not affect plant communities in the elevation range of 900 feet to over 5,000 feet. Of the native species of the Salmon River Canyons (e.g., bluebunch wheatgrass, prickly pear cactus, poison ivy, lupine, arrow leaf balsamroot, western yarrow, wooly mullen, coyote willow, curl leaf mahogany, netleaf hackberry, and ponderosa pine) or their habitats, only those plants and plant communities at fishery access points may be affected under the Proposed Action Alternative. However, SBT fishing activities would only result in minimal effects on these species because such activities would not result in the construction of new access points, building of structures, or ground disturbances in addition to what already exists and to what is used for other unrelated activities within the action area. Other activities taking place in any of

these general vegetation habitat areas within the action area would likely continue, but would not result from the Proposed Action, and so effects resulting from the Proposed Action on general vegetation would be only marginally greater, localized, and temporary (only occurring during the fishing season) to those expected under the No-action Alternative.

4.7 Effects on Cultural Resources

4.7.1 Alternative 1 (No-action) – Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

The potential effects of the No-action Alternative on Cultural Resources would be low to moderately adverse, because the lack of spring/summer Chinook salmon fisheries opportunities would preclude Native Americans of the SBT from engaging in practices that are culturally and symbolically important to the Tribes (Subsection 3.7, Cultural Resources). The lack of spring/summer Chinook salmon fishing opportunities in the action area may dissuade SBT fishermen from engaging in other culturally and symbolically important practices within this action area, such as hunting and gathering other foods and resources because, absent a fishing opportunity, they would not visit this specific area..

4.7.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

For the purposes of this analysis, this document assumes that the Proposed Action Alternative would result in the level of fisheries impacts as described in the TRMP (see footnote 4). Unlike under the No-action Alternative, the Proposed Action Alternative would have low to moderate positive impacts on cultural resources in the action area. Such benefits would be realized by ensuring fishing opportunities for the SBT with ESA coverage, so that SBT members can engage in a fishing practice that is culturally and symbolically important. Additionally, under the Proposed Action Alternative, SBT fishermen may also hunt and gather other food resources of cultural importance within the same fishing action area.

4.8 Effects on Environmental Justice

4.8.1 Alternative 1 (No-action) – Issue a determination that the SBT's TRMP does not meet the criteria of the Tribal 4(d) Rule

The denial of ESA coverage for ~~The lack of~~ fishing opportunities for SBT members under the No-action Alternative would result in a disproportionate negative impact on members of SBT because any resulting negative economic or cultural effect would be specific to SBT tribal members in the action area. The recreational fisheries for spring/summer Chinook salmon for Idaho residents were approved under a separate process in 2011 (NMFS 2011b). Because the lack of fishing opportunities would negatively impact only SBT's fisheries in the action area, not all population sectors would be negatively impacted under the No-action Alternative. ~~The Nez Perce Tribe is developing its own TRMP and seeking ESA determination through a separate process and, regardless, would not be impacted by the lack of SBT fishing opportunity.~~

4.8.2 Alternative 2 (Proposed Action) – Issue a determination that the SBT's TRMP does meet the criteria of the Tribal 4(d) Rule

~~For the purposes of this analysis, this document assumes that the Proposed Action Alternative would result in the level of fisheries impacts as described in the TRMP (see footnote 4).~~ The Proposed Action Alternative would provide fishing opportunities to SBT's enrolled members and would provide its members ESA-coverage for fishery resources in common with the fisheries regulated by the IDFG. ~~The Nez Perce Tribe is developing its own TRMP and seeking ESA determination through a separate process.~~

Unlike the No-action Alternative, there are no data to suggest that any one population group would enjoy a disproportionately greater benefit from fishing opportunities under the Proposed Action in the action area than any other group (e.g., has more ceremonial, subsistence, or employment opportunity over other groups). Unlike the No-action Alternative, because the Proposed Action fishing opportunities would positively benefit SBT members, and the overall tourism and recreation-based economic and employment sector in the action area would continue to benefit from ESA-covered fisheries within the State through a separate process (NMFS 2011b), all population sectors (White, Hispanic, Asian, African American, and Native American) would potentially benefit under the Proposed Action Alternative. ~~The Nez Perce Tribe is developing its own TRMP and seeking ESA determination through a separate process. Regardless, no environmental justice effect would be realized by the Nez Perce Tribe from SBT fisheries under the Proposed Action.~~

5.0 Cumulative Impacts

5.1 Other Agency Programs, Plans, and Policies

Cumulative impacts of NMFS' Proposed Action Alternative (Alternative 2) under the Tribal 4(d) Rule would be minor, if at all measurable. Other Federal, tribal, and state actions are expected to occur within the action area, in the Snake River Basin, in other Columbia River tributaries, and in the migration corridor between the Snake River and the Pacific Ocean that would affect the fish populations considered under the Proposed Action. State and tribal fisheries occur in Idaho, Oregon, and Washington portions of the Snake River Basin and in the mainstem Columbia River. Fisheries conducted by IDFG and approved by NMFS in 2011, use a similar and compatible management framework and are included in the total ESA impacts proposed by the SBT in the TRMP being analyzed in this supplemental EA. These overall impacts are a focal point of NMFS' discussions with all entities who may propose fisheries in the same action area. ~~NMFS is working with the Nez Perce tribe to develop a TRMP in the same action area for this supplemental EA, and the ESA impacts that would result from its implementation are included in the total combined ESA limits proposed in the SBT's TRMP.~~ Land management and water-use decisions that affect these populations are made inside and outside the Snake River Basin. There are overarching concerns and legal mandates for the recovery of listed salmon and steelhead populations in the Columbia River Basin; at the same time, there are social and cultural needs for sustainable fisheries and sustainable economic use of resources.

There are numerous initiatives by state, Federal, tribal, and private entities designed to restore salmon and steelhead populations, but it is not usually clear when or by whom those initiatives would be implemented, or how effective they would be. In part, this is due to the reduced effectiveness of individually and separately implemented actions at the local scale. An exception to this uncertainty, then, would come as a result of a more broad-scale implementation of different actions across larger portions of the watersheds – such a broad-scale approach exists in several scenarios currently playing out in the Columbia and Snake River Basins. In large part, these actions are coordinated through or in association with Federal ESA recovery plans either already developed or currently in development by NMFS. These plans are intended to provide a framework by which Federal, state, local, tribal, and private actions can be designed and implemented in a manner that would most effectively restore salmon and steelhead populations. Federal actions for salmon recovery in the Columbia River Basin that are currently underway include initiatives by the Northwest Power and Conservation Council to mitigate impacts of the Federal Columbia River Power System. Council initiatives include development of subbasin plans in support of regional planning and recovery efforts. Additionally, NMFS and the USFWS are currently negotiating an ESA section 6 agreement for a state forestry program with Idaho Department of Lands that addresses listed fish species issues raised during the Snake River Basin Adjudication process. State initiatives include legislative measures to facilitate the recovery of listed species and their habitats, as well as the overall health of watersheds and ecosystems. Regional programs are being developed that designate priority watersheds and facilitate development of watershed management plans. All of these regional efforts are expected to help increase salmon and steelhead populations in the action area (and elsewhere in the region) because of compatible goals and objectives.

5.2 Conservation Management under the ESA

Fisheries that may impact listed salmon and steelhead within the action area are managed based on the impacts on ESA-listed fish that are returning to the Snake River. Because the allowable impacts on listed species are based on an abundance-based, sliding scale for allowable ESA impact in conjunction with a carefully managed conservation program, if other conservation measures are unsuccessful in returning fish to the area, fishery impacts would remain constrained. If the cumulative effects of other fisheries, pinniped predation on salmonids, ocean conditions, hydropower mortality, and conservation efforts do not allow sufficient escapement of returning adult salmon to the action area to meet conservation needs while providing for the implementation of the proposed fisheries, fishing would be constrained according to the stipulations included in the proposed TRMP. Similarly, hatchery-origin (i.e., non-ESA-listed fish) fish in the basin are managed for escapement goals; if the cumulative effects of other fisheries, pinniped predation on salmonids, ocean conditions, or hydropower mortality do not allow sufficient escapement to hatcheries in the action area, fishing would necessarily be constrained according to the stipulations included in the proposed TRMP (SBT 2011).

If the cumulative effects of salmon management efforts fail to provide harvestable fish, then impacts due to fishing in the action area would be substantially diminished. Therefore, the cumulative impacts of NMFS' current Proposed Action are expected to be minor because of reporting and monitoring requirements that would ensure compatibility with other conservation strategies. Conservative management of fishing opportunity is only one element of a large suite of regulations and environmental factors that may influence the overall health of listed salmon and steelhead populations and their habitat. The proposed fishing programs are coordinated with monitoring and adaptive management measures so that fishery managers can respond to changes in the status of affected listed species. Monitoring and adaptive management would help ensure that the affected ESU and DPS are adequately protected and would help counter-balance any potential adverse cumulative impacts. Healthy and self-sustaining Snake River salmon and steelhead populations would be an important component in long-term recovery of each of the affected species as a whole.

5.3 Climate Change

The action area – the Snake River Basin – is located in the Pacific Northwest. The climate is changing in the Pacific Northwest due to human activities, and this is affecting hydrologic patterns and water temperatures. Regionally, average air temperature rose about 1.5°F over the past century (with some areas experiencing increases up to 4°F) and is projected to increase another 3°F to 10°F during this century. Increases in winter precipitation and decreases in summer precipitation are projected by many climate models, although these projections are less certain than those for temperature (USGCRP 2009).

Higher temperatures in the cool season (October through March) are likely to increase the percentage of precipitation falling as rain rather than snow, and to contribute to earlier snowmelt. The amount of snowpack measured on April 1, a key indicator of natural water storage available for the warm season, has already declined substantially throughout the region. The average decline in snowpack in the Cascade Mountains, for example, was about 25 percent over the past 40 to 70 years, with most of this due to the 2.5°F increase in cool-season temperatures over that

period. Further declines in Northwest snowpack are likely due to additional warming this century, varying with latitude, elevation, and proximity to the coast. April 1 snowpack is likely to decline as much as 40 percent in the Cascades by the 2040s (USGCRP 2009).

High and base stream flows are likely to change with warming. Increasing winter rainfall is likely to increase winter flooding in relatively warm watersheds on the west side of the Cascade Mountains. Earlier snowmelt, and increased evaporation and water loss from vegetation, will increase stream flows during the warm season (April through September). On the western slopes of the Cascade Mountains, reductions in warm-season runoff of 30 percent or more are likely by mid-century. In some sensitive watersheds, both increased flood risk in winter and increased drought risk in summer are likely due to warming of the climate (USGCRP 2009).

In areas where it snows, a warmer climate means major changes in the timing of runoff: increased stream flows during winter and early spring, and decreased stream flows in late spring, summer, and fall. Flow timing has shifted over the past 50 years, with the peak of spring runoff shifting from a few days earlier in some places to as much as 25 to 30 days earlier in others. This trend is likely to continue, with runoff shifting 20 to 40 days earlier within this century. Major shifts in the timing of runoff are not likely in areas dominated by rain rather than snow (ISAB 2007; USGCRP 2009).

Fish habitat changes due to climate change are likely to create a variety of challenges for ESA-listed species of fish. Higher winter stream flows can scour streambeds, damaging spawning redds and washing away incubating eggs (USGCRP 2009). Earlier peak stream flows could flush young salmon and steelhead from rivers to estuaries before they are physically mature enough for the transition, increasing a variety of stresses and the risk of predation (USGCRP 2009). Lower summer stream flows and warmer water temperatures will degrade summer rearing conditions in many parts of the Pacific Northwest for a variety of salmon and steelhead species (USGCRP 2009), and are likely to reduce the survival of steelhead fry in streams with incubation in early summer. Other likely effects include alterations to migration patterns, accelerated embryo development, premature emergence of fry, and increased competition and predation risk from warm-water, non-native species (ISAB 2007). The increased prevalence and virulence of diseases and parasites that tend to flourish in warmer water will further stress salmon and steelhead (USGCRP 2009). Overall, about one-third of the current habitat for the Pacific Northwest's coldwater fish may well be no longer suitable for them by the end of this century as key temperature thresholds are exceeded (USGCRP 2009).

Climate change is also likely to affect conditions in the Pacific Ocean. Historically, warm periods in the coastal Pacific Ocean have coincided with relatively low abundances of salmon and steelhead, while cooler ocean periods have coincided with relatively high abundances (USGCRP 2009). It is likely that, as ocean conditions change, abundances of salmon and steelhead will continue to change accordingly, resulting in changes in abundance of adults returning to freshwater to spawn.

While climate change may well have impacts on the abundance and/or distribution of ESA-listed salmonids that are considered under the Proposed Action, the fishery management scheme

described in the TRMP is directly responsive to observed fish abundance, and so, as abundances change, fisheries would be adjusted accordingly.

6.0 Agencies Consulted

National Marine Fisheries Service
United States Fish and Wildlife Service

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[Minor edits to formatting, which did not change the information provided, were made and are not marked.]

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8.0 Finding Of No Significant Impact for NMFS' Approval of a Tribal Resource management Plan under the ESA Section 4(d) Tribal Rule

National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality regulations at 40 C.F.R. 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant in making a finding of no significant impact and has been considered individually, as well as in combination with the others.

The Tribal Resource Management Plan (TRMP) submitted by the Shoshone-Bannock Tribes (SBT 2011) is intended to satisfy the ESA Section Tribal 4(d) Rule with respect to fisheries in the Salmon River potentially affecting ESA-listed Snake River spring/summer Chinook salmon and Sockeye Salmon Evolutionarily Significant Units (ESUs) and the Snake River steelhead Distinct Population Segment (DPS).

NMFS' determination that the fisheries proposed in the TRMP would not appreciably reduce the likelihood of the survival and recovery of the species in the wild constitutes the Federal action that is subject to analysis as required by the National Environmental Policy Act (NEPA). The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1. **Can the proposed action reasonably be expected to jeopardize the sustainability of any target species?**

Response: The target species for the proposed fisheries are hatchery-origin and natural-origin Snake River spring/summer Chinook salmon. The effect of the proposed fisheries on hatchery-origin spring/summer Chinook salmon will have no effect on their overall range-wide abundance, distribution, and productivity because hatchery-origin fish are produced for the purpose of harvest and enough broodstock will be allowed to escape fisheries to sustain the desired hatchery production into the future. The effect of the proposed fisheries on natural-origin Snake River spring/summer Chinook salmon will have no effect on their overall range-wide abundance, distribution, and productivity because, as analyzed in detail in the associated biological opinion, the proposed level of harvest is to be kept low enough to be consistent with the maintenance of self-sustaining populations (NMFS 2012).

2. **Can the proposed action reasonably be expected to jeopardize the sustainability of any non-target species?**

Response: The proposed action is not expected to jeopardize the sustainability of non-target species for the following reasons.

Salmonids: There will be some effects on listed or non-listed salmonids from the proposed action. Impacts on listed salmonids include direct contact with fish or alteration of habitat elements. ESA-listed non-target fish include fish belonging to the Columbia River Bull Trout DPS and the Snake River Sockeye Salmon ESU, and natural-origin fish belonging to the Snake River Steelhead DPS. Impacts on listed fish are analyzed in detail in the biological opinion on

this proposed action; there, we found the impacts to be low because the TRMP is specifically designed to allow fishing while minimizing impacts on listed fish, with maximum allowable harvest limits based explicitly on the status of ESA-listed fish (NMFS 2012).

Impacts on non-listed salmonids also include direct contact with fish or alteration of habitat elements. The non-listed salmonids in the basin include resident rainbow trout rainbow trout, brook trout, and whitefish. The impacts on non-listed salmonids from the proposed action will be low and in a manner consistent with the maintenance of self-sustaining populations.

Other Fish Species: There will be no effects on non-target fish species (Subsection 3.3, Non-listed Fish) from the proposed action because the types of gear and fishing methods used in the proposed fisheries are not expected to result in encounter or handle of individuals of these species.

Avian and Terrestrial Wildlife: Impacts on avian and terrestrial wildlife would typically occur through physical contact, disruption of habitat, or avoidance of areas where human activity is high. Activities associated with the fisheries include fishers entering the water, noise associated with talking and vehicle operation, and presence of vehicles and people. It is not likely that the proposed fisheries would impact or displace wildlife because such activities would be accomplished by using existing roads and pathways, and would occur at levels similar to what currently occurs for recreational activities unrelated to the proposed fisheries. The effects on prey availability for wildlife would be low because the proposed fisheries would leave available a portion of the hatchery-origin and natural-origin fish that are not harvested, and other fish not harvested would be available for wildlife to eat. The fisheries would not include upland activities; therefore, it is not anticipated that nesting or breeding areas would be impacted by fishing activities.

3. Can the proposed action reasonably be expected to cause substantial damage to ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fisheries Management Plans?

Response: There will be no effect on ocean or coastal habitats from the proposed action because the action area is in the Salmon River, a tributary to the Snake River, many river miles from its confluence with the ocean. There will be no negative effect on the 303(d) listing impairment status of the Snake River because proposed action in the river will be localized, and will not contribute to the total contaminant load in the Snake River system.

There will be no effect on EFH for Chinook salmon[8] because there will be no impact on water quality or substrate necessary for Chinook salmon to carry out spawning, breeding, feeding, or growth to maturity and because activities associated with the proposed fisheries such as wading, inadvertently hooking instream structures are unlikely to remove or destroy habitat elements. The controlled harvest of hatchery-origin and natural-origin spring/summer Chinook salmon described in the proposed TRMP will have no effect on water quality related to marine-derived nutrients because most hatchery-origin fish that are not harvested will be removed at hatchery weirs, and the number of natural-origin fish harvest is low relative to population abundance.

[8] EFH has not been defined for steelhead.

Because the fisheries proposed by the SBT are based on a shared harvest framework with other fishing parties, the absence of SBT fisheries would potentially result in a small increase of marine-derived nutrients relative to the potential small increase of natural-origin fish spawning and dying in the action area, but only if others do not harvest the same fish.

4. Can the proposed action be reasonably expected to have a substantial adverse impact on public health or safety?

Response: The proposed action is not reasonably expected to have a substantial adverse impact on public health or safety because Tribal fisheries are not associated with any known health hazards directly or indirectly. There is a certain amount of safety risk associated with Tribal fisheries because participants are in contact with the river and sometimes inclement weather conditions. However, participation in Tribal fisheries is limited to Shoshone-Bannock enrolled Tribal members and poses no risk to public safety in general.

5. Can the proposed action reasonably be expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of the species?

Response: The proposed action will have a minor, adverse impact ESA-listed Snake River spring/summer Chinook salmon because a small fraction of natural-origin fish will be harvested during the proposed fisheries. The percent mortality resulting from the proposed fisheries will not have a discernible effect on their overall range-wide abundance, distribution, and productivity because the resulting mortality of any harvest that might occur is limited to a small fraction of the population according to an associated biological opinion (NMFS 2012). The impacts on Snake River sockeye salmon are expected to be very low and not to exceed 1% of the run on any given year. There are no expected impacts on critical habitat for endangered or threatened species because activities associated with the proposed fisheries (such as wading, anchoring boats, or inadvertently hooking instream structures) are unlikely to remove or destroy critical habitat elements.

There are no expected indirect impacts on marine mammals, such as removing fish that would otherwise be available as prey, because marine mammals are not usually present in the action area, and the fish subject to removal by the fisheries (through kept catch or incidental mortality) would not later be subject to potential predation by marine mammals because of their anadromy (i.e., the adult salmon killed in the proposed fisheries would not be returning to the ocean after spawning had they not been killed). Also, no indirect effect on marine mammal habitat is expected because shore-based activities are not inconsistent with marine mammal behavior or habitat. Because marine mammals are not usually present in the action area, no direct impacts on any marine mammal species resulting from fishing activities would occur as a result of the proposed action.

6. **Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships)?**

Response: The proposed action is not expected to have a substantial impact on biodiversity and/or ecosystem function, such as benthic productivity or predator/prey interactions, within the

affected area because of the limited scope, both in area and time, because the fish to be removed represent only a small fraction of the population-specific expected returns on any given year, and because gear used are very specific and interact almost exclusively with the target species. The harvest of natural-origin target species is managed specifically to preserve biodiversity and ecosystem function.

7. Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: Impacts on socioeconomics will be moderately beneficial for local businesses supplying recreational fishing commodities because the proposed fisheries will result in an increase in economic activity from additional purchase of recreational supplies such as fishing gear, camping equipment, consumables, and fuel at local businesses from customers visiting the area solely or primarily as a result of the proposed fisheries. The proposed fisheries are expected to draw moderate numbers of people from certain distances outside of the action area and, therefore, fisheries would be expected to add moderately to the revenue within the action area. However, considering that recreational fishing businesses are not likely responsible for a large percentage of the economy within the action area or the state, the economic increase would likely be low at this scale. Therefore, because there are no significant social or economic impacts, there is no anticipated interrelationship with other environmental effects.

8. Are the effects on the quality of the human environment likely to be highly controversial?

Response: The effects on the quality of the human environment are not likely to be highly controversial because these effects are consistent with implementation of the fishery over several prior years and are positive impacts for the affected communities. No comments were received from the public during the public comment period.

9. Can the proposed action reasonably be expected to result in substantial impacts on unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

Response: A portion of the proposed fishing activity occurs in the Middle Fork Salmon River with includes the Frank Church River of No Return Wilderness. The proposed action is not expected to result in substantial impacts on unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas or wilderness areas because it does not involve the construction of any new infrastructure, and because all of the fishing activity occurs from river bank access points already in place in Salmon River tributaries and utilized by fishers year-around.

10. Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The effects on the human environment are all known impacts, since this type of fishery has been prosecuted and evaluated in multiple locations over recent years. No unique or

unknown risks have been identified in this action area to the species potentially affected by this action.

11. Is the proposed action related to other actions with individually insignificant, but cumulatively significant, impacts?

Response: The cumulative impacts of the proposed action have been considered in the EA and in the associated biological opinion (NMFS 2012). The take of ESA-listed species would be limited to a maximum level considered to result in a no-jeopardy ESA determination when considering all existing fishery conditions, all other permits, and other actions in the area affecting these conditions and permits. The effects of this action, already determined to not be significant, are not expected to interact with each other to produce cumulatively significant impacts.

12. Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed or eligible for listing in the National Register of Historic Places or to cause loss or destruction of significant scientific, cultural, or historical resources?

Response: The proposed action is not likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources because of the limited scope of the action area, which includes none of the aforementioned structures or resources.

13. Can the proposed action reasonably be expected to result in the introduction or spread of non-indigenous species?

Response: The proposed action would not result in the introduction or spread of a non-indigenous species because the action considered in this EA is limited to impacts on ESA-listed species from fisheries in the Salmon River using gear already present in the area.

14. Is the proposed action likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

Response: The proposed action is not likely to establish a precedent for future actions with significant effects or to represent a decision in principle about a future consideration because the proposed action is similar in nature and scope to similar fisheries actions in the action area over the past several years, and has a limited, authorized implementation period before additional analyses on a subsequent fisheries request was undertaken. This is the first NEPA review for this particular proposal in the action area, but Chinook salmon fisheries in the mainstem Columbia River under the *U.S. v. Oregon* 10-year agreement were analyzed through new ESA determinations and NEPA reviews. Future take increase requests in the action area would be analyzed through new ESA determinations and NEPA reviews.

The Environmental Assessment (EA) for the proposed action was prepared pursuant to regulations implementing the NEPA (42 USC 4321), in compliance with Federal regulations for preparing an EA (40 CFR 1502), and consistent with recovery plans being developed pursuant to section 4 of the ESA by NMFS in conjunction with interested stakeholder groups. The Proposed

Action analyzed in this EA relates to other plans and policies regarding the management and restoration of anadromous fish resources in the Pacific Northwest and ESA recovery planning. Recovery plans are in place or being developed for most parts of the Columbia River system in which anadromous fish occur (for example, see NMFS 2005; NMFS 2009; SRSRB 2006; a recovery plan for the Snake River Basin is currently under development by NMFS' Northwest Regional Office). Typically, development and on-going implementation of these plans includes participation by multiple Federal, tribal, state, and local agencies and stakeholder groups. These recovery plans contain (1) measurable goals for delisting, (2) a comprehensive list of the actions necessary to achieve delisting goals, and (3) an estimate of the cost and time required to carry out those actions. Therefore, the recovery plans provide a guide to the implementation of actions, including the proposed fisheries, within a framework of broader consideration.

15. Can the proposed action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for the protection of the environment?

Response: The proposed action is not expected to threaten a violation of Federal, state, or local law or requirements imposed for the protection of the environment because the proposed action was developed in the broader context of consultations involving Federal and state agencies charged with recovery planning and implementation of the ESA. The ESA is consistent with all other laws related to species conservation at the Washington State and local levels. Fisheries permits related to this action would be issued under state laws that are also consistent with Federal and local laws related to environmental protection.

16. Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: The proposed action will not result in substantial cumulative adverse effects on target or non-target species because the take of ESA-listed species would be limited to a maximum level considered to result in a no-jeopardy ESA determination when considering all existing fishery conditions, all other permits, and other actions in the area affecting these conditions and permits. The cumulative impacts of the proposed action have been considered in the EA and in the associated biological opinion (NMFS 2012).

8.1 List of Reviewers

- Kate Hawe, NWR NEPA Coordinator
- Robert Bayley, Salmon Management Division QA/QC Coordinator
- Barry Thom, NWR Deputy Administrator
- Chris Fontecchio, General Counsel

8.2 References

NMFS (National Marine Fisheries Service). 2005. Endangered and Threatened Species; final listing determinations for 16 evolutionarily significant units of West Coast salmon, and final 4(d) protective regulations for threatened salmonid ESUs. Final rule. Federal Register 70:123(28 June 2005):37160-37204.

NMFS. 2009. Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan. November 30, 2009.

NMFS. 2012. Biological Opinion on the Effects of the Shoshone-Bannock Tribes' Tribal Resource Management Plan on Snake River Chinook Salmon and Steelhead Species Listed Under the Endangered Species Act. In preparation.

SBT (Shoshone-Bannock Tribes). 2011. Tribal Resource Management Plan for Shoshone-Bannock Tribes Snake River Spring/Summer Chinook Salmon Fisheries within the Grande Ronde and Imnaha Sub-Basins. January 6, 2011.

SRSRB (Snake River Salmon Recovery Board). 2006. Technical Document Snake River Salmon Recovery Plan for SE Washington. December 2006.

8.3 Determination

In view of the information presented in the EA and analysis prepared for the proposed action, I hereby determine that NMFS's determination – that fisheries proposed in the Shoshone-Bannock Tribes' TRMP would not appreciably reduce the likelihood of the survival and recovery of the species in the wild – will not significantly impact the quality of the human environment. In addition, all beneficial and adverse impacts of the proposed action have been considered in reaching a finding of no significant impacts. Accordingly, preparation of an Environmental Impact Statement is not necessary to further analyze the potential for significant impacts resulting from the proposed action.

Barry A. Thom, Deputy Regional Administrator

12/20/12
Date

Appendix A. Draft Environmental Assessment Comments and Responses

Nez Perce

TRIBAL EXECUTIVE COMMITTEE
P.O. BOX 305 • LAPWAI, IDAHO 83540 • (208) 843-2253

June 29, 2012

To: William W. Stelle, Jr.
Regional Administrator
NOAA Fisheries
7600 Sand Point Way, N.E., Bldg. 1
Seattle, WA 98115

Also: Via e-mail to: TribalFisheries.nwr@noaa.gov : subject line "Comments on Tribal Fishery Plan in Idaho"

Re: Nez Perce Tribe's concerns with NOAA's draft ESA and NEPA documents regarding the Shoshone-Bannock Tribe's tribal resource management for Spring/Summer Chinook fisheries in the Salmon River.

I write on behalf of the Nez Perce Tribe. The Nez Perce Tribe is writing to express its concerns with NOAA Fisheries' draft ESA and NEPA documents regarding the Shoshone-Bannock Tribes' (SBT's) proposed tribal resources management plan (TRMP) for spring/summer Chinook fisheries in the Salmon River.

1 The Tribe believes it is critical in your role as NOAA Fisheries Regional Administrator that you understand the legal and factual bases of the Nez Perce Tribe's treaty fisheries, including those in the Salmon River so as to ensure that any action NOAA takes is in accordance with applicable law, beginning with the United States' responsibilities under the 1855 Treaty with the Nez Perce Tribe.

I. The Nez Perce Tribe's Treaty Fisheries in the Salmon River Sub-basin.

The Treaty of 1855 with the Nez Perce is the foundation for the Tribe's treaty fisheries set forth in the Plan. In 1855, the Nez Perce Tribe reserved, and the United States secured to the Tribe:

2 > The exclusive right of taking fish in all the streams where running through or bordering said reservation is further secured to said [Nez Perce] Indians; as also the right of taking fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land.

12 Stat. 957 (Article III).

3 Article III of the 1855 Treaty guarantees to the Tribe the right to fish at its "usual and accustomed places." It is well established that Indian treaty fishing rights are "not a grant of rights to the Indians—but a grant of rights from them—a reservation of those not granted." U.S. v. Winans, 198 U.S. 371, 380 (1905). The "usual and accustomed" treaty fishing right held by Nez Perce Tribe, the Confederated Tribes and Bands of the Yakama Indian Nation, the Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Reservation of Oregon, under the 1855 Stevens treaties, is the basis of the case law in U.S. v. Oregon, and has well-established principles dating back to the U.S. Supreme Court decisions in U.S. v. Winans, 198 U.S. 371 (1905) and Seufert Bros.Co. v. U.S., 249 U.S. 194 (1919). As the courts in U.S. v. Oregon and U.S. v. Washington have held, these treaties secure to the Indians fishing pursuant to these 1855 treaties the right to take 50 percent of the harvestable fish destined to reach these tribes' usual and accustomed fishing places.

4 Both the legal and factual bases for the Nez Perce Tribe's usual and accustomed fishing places in the Salmon River is undisputable. Indeed, with respect to the Nez Perce Tribe's usual and accustomed fishing places in the Salmon River subbasin (and many others throughout the Snake River Basin), the United States, based on its review of the Nez Perce Tribe's 1855 Article III rights and the anthropological and historical record, acknowledged the Tribe's usual and accustomed fishing places and filed water rights claims on the Tribe's behalf in the Snake River Basin Adjudication based on these Nez Perce usual and accustomed fishing places. In re SRBA Case No. 39576 (Idaho 5th Dist. Ct.).

5 It is also important to understand that Article II of the 1855 Treaty described the Nez Perce Reservation. The maps set forth in the Tribe's fishery plan for the Salmon River sub-basin depict the 1855 Treaty boundaries, including the treaty fisheries that lie within those boundaries. The United States, by the express terms of the 1855 Treaty, recognized the exclusivity of these fisheries to the Nez Perce, most obviously as against any other Indian tribe. This is made even more plain by the 1967 decision of the Indian Claims Commission (ICC), in its findings and determination as to the geographic area of aboriginal title and "exclusive use and occupancy" of the Nez Perce Tribe. 18 Ind. Cl. Comm. 1 (1967). The ICC was created by Congress in 1946 to hear claims by Indian tribes for, among other things, compensation for the taking of aboriginal lands by the United States without fair payment. Compensable aboriginal title required proof of "actual and exclusive use and occupancy 'for a long time' prior to the cession, transfer, or loss of the property." Id. at 128 (citations omitted, emphasis added). In its Nez Perce decision, the ICC dealt in relevant part with the Tribe's claim for unconscionable compensation for land ceded to the United States in the 1855 Treaty. The ICC's comprehensive findings, based on detailed anthropological evidence, of "exclusive use and occupancy" and "aboriginal ownership" by the Nez Perce Tribe – as against any other Indian tribes – are set forth in its decision. Id. The maps set forth in the Nez Perce Tribe's fishery plan for the Salmon River sub-basin depict the ICC's determination of Nez Perce aboriginal title and "exclusive use."

6 This legal and factual reality is the foundation for the Nez Perce Tribe's treaty fisheries and is set forth in the Tribe's fishery plans, including its fishery plan (or "tribal resource management plan") for the Salmon River sub-basin. Implementation of the Tribe's fisheries is consistent with the Nez Perce Tribe's legally enforceable treaty-reserved fishing rights and with the Secretary's trust responsibilities to the Nez Perce Tribe. The fishery implementation plans are also consistent with the existing and ongoing federal court proceeding in U.S. v. Oregon.

7 The Nez Perce Tribe has indicated its willingness to voluntarily agree to harvest within overall ESA impact limits in the Salmon River sub-basin; the Nez Perce Tribe's agreement to do so, though, is premised on the legal reality that this total ESA mortality cannot and will not be impacted by Shoshone-Bannock Tribes (SBT) fishing because, as set forth in the letter used to transmit the NPT plan to NOAA, the SBT have no legally recognized fishing rights in this subbasin.

8 The Nez Perce Tribe's position, consistent with the law, is that any fishery that is proposed to be conducted by the SBT in the Salmon River sub-basin must be counted against the State of Idaho's allocation, unless and until such time as the SBT judicially establish that the Treaty of Fort Bridger entitles them to treaty fisheries in the Salmon River sub-basin.

II. Flaws in NOAA's approach to the SBT TRMP for the Salmon Sub-Basin.

9 The foundational flaw in NOAA's present consultation actions is this: the United States has never, in any capacity, recognized or acknowledged any SBT fishing rights within the Salmon River sub-basin, based on the Treaty of Fort Bridger or any other legal theory.

10 For record purposes, and for self-contained review, the Nez Perce Tribe reiterates the following fundamental points of law and fact regarding SBT assertions of fishing rights that were contained in the Nez Perce Tribe's letter to NOAA transmitting its fishery plan for the Salmon River sub-basin:

> "[T] he Shoshone-Bannock Tribes' (SBT) claims to fishing rights in the Salmon River subbasin, as asserted in their Salmon River subbasin TRMP, are judicially undetermined in nature and scope, and are not legally enforceable rights.
>
> The SBT treaty – the Treaty with the Eastern Band Shoshone and Bannock of July 3, 1868, 15 Stat. 673 – provides in Article 4 "the right to hunt on the unoccupied lands of the United States so long as game may be found thereon . . . ." This is not the "usual and accustomed" treaty fishing right held by Columbia River Tribes, including the Nez Perce Tribe, under the 1855 Stevens treaties, which is the basis of the case law in U.S. v. Oregon, and which has well-established principles dating back to the U.S. Supreme Court decisions in U.S. v. Winans, 198 U.S. 371 (1905) and Seufert Bros.Co. v. U.S., 249 U.S. 194 (1919). A "U&A" fishing right, for example, is not defeasible: it is permanent and

includes the right to cross private property as necessary to exercise the right when surrounding land ownership changes (Winans); and is it not limited to a tribe's treaty ceded area (Seufert).

The SBT right by contrast is heavily contingent (it requires the existence of multiple present realities, most obviously unoccupied land), has had little judicial explanation generally, and in the case of the exact SBT right, has no federal court determination at all (as emphasized by the disclaimer section of the present U.S. v. Oregon Management Agreement, pp. 2-3). The SBT often cite State v. Tinno, 497 P.2d 1386 (Idaho 1972), but that decision is not binding precedent (the court recognized that it lacked jurisdiction and issued an advisory opinion) and at most found that the treaty word "hunt" would have been understood to include fishing, and that some evidence had been provided of SBT fishing at the Yankee Fork of the Salmon River; it provides no judicial determination of the nature and scope of the SBT right.

10 The most probable explanation for how the SBT right would be addressed in court today is set out in State v. Buchanan, 978 P.2d 1070 (Wash. 1999), cert. denied, 120 S.Ct. 1158. Buchanan dealt with a Nooksack tribal member with a treaty right to "hunt upon open and unclaimed lands," who was arrested on state land outside his tribe's ceded area. In short, Buchanan suggests that the SBT right would be presumed to exist within its treaty ceded area (the SBT have no ceded area in their treaty but it is possible their ICC territorial boundary would be treated as equivalent) but that any claim beyond that would be tested with a standard requiring proof of "actual occupation or use" "over an extended period of time" – a standard inconceivable within the "exclusive use" areas of the Nez Perce 1855 Treaty and the Nez Perce ICC aboriginal territory; and which has never been judicially determined in the Salmon River subbasin even outside of those areas.

It is notable that the United States refused to file water rights claims on behalf of the SBT in the SRBA based on the SBT treaty right to "hunt"/fish, as the United States had done on behalf of the Nez Perce Tribe based on its U&A treaty fishing rights. This refusal occurred after the United States "discussed with the [SBT] their claims to [treaty-based] off-reservation water rights; retained a historian to determine if the Treaty might be read as the Tribes apparently viewed it; and actively sought the assistance of the Tribes and their experts." Shoshone-Bannock Tribes v. Reno, 56 F.3d 1476, 1482 (9th Cir. 1995)."

The Federal Court in U.S. v. Oregon has repeatedly emphasized that the status of the Shoshone-Bannock Tribe's assertions of treaty fishing rights are "undetermined."[1] Recently, in a U.S. v. Oregon Court Order, Judge King stated with respect to NOAA's tribal 4(d) rule:

11

> I do comment that [NOAA] engaging in the consultation process on a harvest plan to determine whether a planned fishery harvest will "not appreciably reduce the likelihood of survival and recovery of the listed salmonids," 50 C.F.R. § 223.204(a), without first determining *whether a fishery harvest may legally occur in the first place* seems to put the cart before the horse. I also underscore, as have the parties, that NOAA's review of the Shoshone-Bannock's TRMP has absolutely no bearing on the existence or scope of the Shoshone-Bannock Tribes' fishing rights.

Id. at 14 (emphasis added).

NOAA's provision of ESA "coverage"[2] – pursuant to Section 7 consultation, the 4(d) rule, or the Tribal 4(d) rule – is designed to insulate actors from civil and criminal penalties associated with the otherwise applicable prohibitions against take of listed species. 16 U.S.C. § 1540. The Tribal 4(d) rule provides:

12

> (a) *Limits on the prohibitions*. The prohibitions of § 223.203(a) of this subpart relating to threatened species of salmonids listed in § 223.102 do not apply to any activity undertaken by a tribe, tribal member, tribal permittee, tribal employee, or tribal agent in compliance with a Tribal resource management plan (Tribal Plan), provided that the Secretary determines that implementation of such Tribal Plan will not appreciably reduce the likelihood of survival and recovery of the listed salmonids. *In making that determination the Secretary* shall use the best available biological data (including any

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[1] It is important to note that the Federal Court has repeated this legal reality over the past 25 years, beginning with Judge Leavy in 1986. In ruling that the SBT motion to intervene in U.S. v. Oregon would be "allowed," Judge Leavy made it clear that he was "not at all" making any ruling on the scope or breadth of the SBT right, and noted that "They [SBT] run the risk of losing." In 1988, Judge Marsh found that "by their own statements, the Shoshone-Bannock Tribes agree that the scope of their 1868 treaty fishery rights have not been determined, nor should it have been." U.S. v. Oregon, 699 F. Supp. 1456, 1466 (D. Or. 1988), aff'd, 913 F.2d 576 (9th Cir. 1990), cert. denied, 501 U.S. 1250 (1991). On December 4, 2002, in response to a request for clarification from counsel for the SBT, the Federal Court stated "I understand that they haven't established the nature of their right" and that "They've been allowed to intervene. There have been no definitive rulings on any of the issues raised in their complaint." U.S. v. Oregon, Docket #2322; Transcript of Proceedings, December 4, 2002, at 10-12.

[2] The Nez Perce Tribe maintains that tribal Treaty fisheries are subject to limitations only under the conservation necessity standards in federal case law, including case law governing the United States v. Oregon litigation. See, e.g., U.S. v. Oregon 2008-2017 Management Agreement.

tribal data and analysis) to determine the Tribal Plan's impact on the biological requirements of the species, and will assess the effect of the Tribal Plan on survival and recovery, *consistent with legally enforceable tribal rights and with the Secretary's trust responsibilities to tribes*.

12 "Tribal rights" is one of 4 defined terms, 65 Fed. Reg. 42482:

> ***Tribal rights***—Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and which give rise to legally enforceable remedies.

Id. (emphasis added).

13 Both NOAA's draft 4(d) determination document and NOAA's draft NEPA document fail to provide a complete reading of the Tribal 4(d) rule. NOAA instead offers truncated references to selected portions of the rule that emphasize the determination of whether a planned activity would "not appreciably reduce the likelihood of survival and recovery of the listed salmonids."

14 NOAA is doing exactly what Idaho feared NOAA would do in implementing the Tribal 4(d) rule; as Idaho put it:

> Not all tribes have similar rights to fish. NMFS seems to imply that all tribes will be treated equally and defines "Indian Tribe" to include any federally recognized tribe, band, nation, pueblo, community or other organized group within the United States. It is unclear NMFS will accept the responsibility to ensure that tribal activities approved by NMFS are within a valid, adjudicated treaty right. NMFS should be careful to avoid having the Section 4(d) rule serve as a de facto means to expand off-reservation natural resources authorities of the tribes in ways that have not been recognized by the courts.

State of Idaho's Comments on the Proposed Section 4(d) Rule Limiting Section 9 Protections Applicable to Salmon For Actions Under Tribal Resource Management Plans, March 3, 2000, at 5.

15 A complete, rational reading of the Tribal 4(d) rule obligates NOAA to examine the status of existing determinations – i.e. not determine on its own, which NOAA has no authority to do, but locate a legal determination –of legally enforceable tribal rights for the geographic areas set forth in a tribal plan. The Tribal 4(d) rule does not authorize NOAA to make new determinations of legally enforceable tribal rights to fish or of the location of any such rights.

Here, NOAA can discharge its obligation under the Tribal 4(d) rule to examine the status of existing determinations of legally enforceable rights for the Salmon River sub-basin. As described above, NOAA is a party to a Federal Court Order in which the Court has emphasized that SBT fishing rights "are undetermined." The Agreement in its opening provisions
15 distinguishes the status of the SBT from the four Columbia River Treaty Tribes. Unlike the "federally secured rights" of those tribes, Agreement at 33, SBT fishing rights are agreed in Part I to be undetermined and subject to no admission or concession by any other party. Id. at 2-3. As also described above, the United States refused to file water rights claims on behalf of the SBT in the SRBA based on the SBT treaty right to "hunt"/fish (in contrast to the claims the United States filed on behalf of the Nez Perce Tribe based on the Tribe's U&A treaty fishing rights).

If NOAA were to make a determination on a SBT TRMP for the Salmon River sub-basin—a determination that must be "consistent with legally enforceable tribal rights"—in the face of the foregoing and the underlying legal and factual realities– such determination would by definition be "contrary to law," "arbitrary and capricious," and inconsistent with the law of the case in U.S.
16 v. Oregon. Similarly, if NOAA were to assert that a SBT TRMP for the Salmon River sub-basin "is consistent with plans and conditions established within any Federal court proceeding with continuing jurisdiction over tribal harvest allocations" – in the face of these Federal Court Orders set forth above and the underlying legal and factual realities – this too would be an agency action "contrary to law," "arbitrary and capricious," and inconsistent with the law of the case in U.S. v. Oregon. And, if NOAA were to make such determinations this would interject real-world
17 uncertainty where none exists, thereby harming the Nez Perce Tribe, the State of Idaho, and the general public.

NOAA's draft ESA and NEPA documents turn NOAA's 4(d) determination into an exercise of reviewing any fishery proposal—no matter whether it may legally occur or not—and
18 determining whether the fishery proposal would "appreciably reduce the likelihood of survival and recovery of listed salmonids." As the Federal Court stated, NOAA, by "engaging in the consultation process on a harvest plan to determine whether a planned fishery harvest will 'not
19 appreciably reduce the likelihood of survival and recovery of the listed salmonids,' 50 C.F.R. § 223.204(a), without first determining whether a fishery harvest may legally occur in the first place seems to put the cart before the horse."

NOAA itself recognizes the legal limits of the present consultation:

> NMFS's ESA review of tribal resource management plans does not itself permit the
> 20 operation of the described fishery.

NOAA ESA 4(d) Rule Proposed Evaluation and Pending Determination on the SBT TRMP for the Salmon River sub-basin, n. 1.

20

> The SBT assert that the fishery described in the TRMP is consistent with their treaty fishing rights. Any final determination made by NMFS pursuant to the Tribal 4(d) Rule will address [NOAA appears to mean "solely address"] whether the proposed fishery would appreciably reduce the likelihood of survival or recovery of threatened salmon species. This determination would neither expand nor limit whatever treaty fishing rights the SBT possess. See note 1, above.

Id., n. 3.

21

NOAA appears to be trying to express the position that:

> NOAA's determination pursuant to the Tribal 4(d) rule is limited to whether a proposed fishery plan "would appreciably reduce the likelihood of survival or recovery of threatened salmon species." NOAA's determination pursuant to the Tribal 4(d) rule does not take — nor should it be viewed as taking – any position on the nature or scope of the treaty fishing rights asserted by the SBT and consequently neither expand nor limit whatever treaty fishing rights the SBT may possess.

If NOAA is committed to the "disclaimers" that it sets forth in its ESA document, then NOAA needs to ensure that the remainder of its draft documents conform to NOAA's position. At present, NOAA's documents do not carry forth NOAA's position consistently and consequently give rise to confusion and uncertainty.

22

NOAA's draft ESA document correctly refers to the "proposed" fisheries described in the TRMP that NOAA is analyzing.

23

In contrast, NOAA's draft NEPA document creates substantial opportunity for misunderstanding, confusion and uncertainty in the future. Uncertainty that NOAA introduces about harvest planning in the Salmon River sub-basin poses the potential for real-world harm to the Nez Perce Tribe and the State of Idaho, and to the general public.

24

At the outset, with respect to NOAA's draft NEPA document, it is important to note that NOAA failed to consult with the Nez Perce Tribe during the scoping process of this NEPA document. This itself is contrary to law.

25

NOAA's draft NEPA document repeatedly fails to write with the same type of accuracy and precision that is found in NOAA's ESA document, by failing to use the words "proposed in" or "contemplated in" when referring to the SBT TRMP. This is a flaw that appears repeatedly throughout the draft NEPA document.

26 And, NOAA's draft NEPA document introduces jumbled concepts into the disclaimers (e.g., n.1. and n.3) that create the opportunity for confusion and misunderstanding, rather than the clear, accurate and precise disclaimer language set forth in NOAA's ESA document.

27 NOAA's draft NEPA document continues to recklessly inflame the situation with disregard for the facts and the law. NOAA's NEPA document describes the "purpose and need for the action" as "to implement SBT's fisheries as described in the TRMP in 2012 and beyond…" NOAA has no authority to pursue such a purpose, nor is such a purpose grounded in any legal basis. The statement cannot be reconciled with NOAA's disclaimer, and it cannot be reconciled with what NOAA's asserts is its task under the Tribal 4(d) rule. Again, this foundational flaw is found throughout the document.

28 NOAA's draft NEPA document is also flawed in opining as to whether the alternatives considered have an "environmental justice effect" on the Nez Perce Tribe without any consultation with the Nez Perce Tribe.

We will be providing you with additional specific examples where NOAA's failure to write with accuracy and precision creates confusion and misunderstanding in the future and fails to conform with the approach taken in NOAA's disclaimers.

Conclusion

29 The Nez Perce Tribe is extremely concerned by NOAA's failure to give meaning to the language of the 4(d) rule in its entirety. NOAA's lack of accuracy and precision (particularly in its draft NEPA document) with respect to its disclaimers, and its failure to ensure that the remainder of the documents conform to the disclaimers, may again create confusion and misunderstanding in the future. The Tribe urges NOAA to carefully consider its actions and to comply with the law.

Thank you for this opportunity to share our concerns.

Sincerely,

Silas C. Whitman
Chairman

Nez Perce Tribe June 29, 2012, Comment Letter
October 27, 2012

1. Comment Noted
2. Comment Noted
3. Comment Noted
4. Comment Noted
5. Comment Noted
6. Comment Noted
7. Comment Noted
8. Comment Noted
9. Comment Noted
10. Comment Noted
11. Comment Noted
12. Comment Noted

13. Both NOAA's draft 4(d) determination document and NOAA's draft NEPA document fail to provide a complete reading of the Tribal 4(d) rule.

NMFS provided an adequate ESA 4(d) history and discussion of the ESA's purpose in Subsection 1.1, Background, to frame the scope of the EA analyses of environmental consequences. NMFS's actions in analyzing environmental consequences pursuant to NEPA are not inconsistent with a "complete reading of the Tribal 4(d) rule." "The NEPA process is intended to help public officials make decisions that are based on an understanding of environmental consequences, and take actions that protect, restore, and enhance the environment" (40 CFR 1500.1(c)).

The purpose of the EA is to assist NMFS with planning and decision-making by analyzing impacts on environmental and social resources from fishing in the action area (40 CFR 1501.3). Although the purpose and need is to provide ESA coverage for ongoing fishing activities, NEPA requires a broader assessment of impacts based on the activities resulting from the Proposed Action. The treaty rights disputes in the action area are not pertinent to the analysis of the aggregate effects of fishing. The key issue for a NEPA analysis is how fishing, by any person, party, or entity, and by all parties collectively, would impact resources in relation to the alternatives[1]. "Relation" is used broadly because NEPA requires an assessment of direct, indirect, and cumulative effects. So, any entity/party that fishes, or who may fish, in the action area has a relationship to resource impacts.

Finally, NMFS cannot ignore an applicant's or party's request for action. In this case, the SBT sought ESA 4(d) approval from NMFS for ESA compliance with a fishery in the action area (i.e., the SBT's request for action by NMFS). NMFS properly analyzed impacts related to that request in its NEPA analysis. The issue of whether the SBT

[1] Council on Environmental Quality regulations refer to outside agency "parties" as "applicants" (40 CFR 1501.2(d)). However, NMFS Northwest Region does not consider the term "applicants" to be accurate for ESA 4(d) approvals, so the term "parties" has been applied.

possesses treaty rights to fish in the action area is outside the scope of NEPA mandates and requirements. Furthermore, the Council on Environmental Quality has affirmed that "a potential conflict with local or federal law does not necessarily render an alternative unreasonable" (CEQ 40 Most Asked Questions, 2b).

14. Comment Noted. See also response to Comment Number 13.

15. The Tribal 4(d) rule does not authorize NOAA to make new determinations of legally enforceable tribal rights to fish or of the location of any such rights.

The draft EA that analyzes the Proposed Action does not make any determination about legally enforceable tribal rights or the location of such rights, nor will the final EA or Finding of No Significant Impact (FONSI) (if such a NEPA finding is warranted). NMFS specifically notes in the EA that "NMFS takes no position on those rights in making a determination as to whether a fishery would be likely to appreciably reduce the survival and recovery of ESA-listed fish" (Subsection 1.2, Description of the Proposed Action, footnote 3). As stated above, NMFS's mandate under NEPA is not to determine or to analyze treaty rights or any other legal rights, but to analyze environmental consequences associated with a Proposed Action and its alternatives (40 CFR 1500.1(c)).

Finally, NMFS's ESA review of Tribal Resource Management Plans does not itself permit the operation of the described fisheries. The United States' treaties with Indian tribes are the supreme law of the land, and thus NMFS cannot make judicially binding determinations regarding the nature and extent of tribal treaty rights. Such determinations are the province of Federal courts. NMFS's role is solely limited to making a determination as to whether a fishery would be likely to appreciably reduce the survival and recovery of ESA-listed fish if that fishery is implemented (i.e., the ESA determination), and whether there exists a potential for significant impact on the human environment under the Proposed Action or its alternatives (i.e., the NEPA determination).

16. If NOAA were to make a determination on a SBT TRMP for the Salmon River sub-basin – a determination that must be "consistent with legally enforceable tribal rights" – in the face of the foregoing and the underlying legal and factual realities, such determination would by definition be "contrary to law," "arbitrary and capricious," and inconsistent with the law of the case in <u>U.S. v. Oregon</u>.

This comment consists of legal argument and has been noted. The EA is an analysis pursuant to NEPA, and its conclusion about potential impacts on the human environment does not affect treaty rights, as discussed above. Further, while NMFS disagrees with the legal conclusions contained in the comment, it is noted that 40 CFR 15.02.14(c) requires that the alternatives section of the NEPA document "[i]nclude reasonable alternatives not within the jurisdiction of the lead agency." The Council on Environmental Quality has affirmed that "[a]n alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered. [For example,] alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable…" (CEQ

40 Most Asked Questions, 2b). Additionally, the Council on Environmental Quality has clarified that "in determining the scope of alternatives to be considered, the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative" (CEQ 40 Most Asked Questions, 2a).

17. Comment Noted
18. Comment Noted
19. Comment Noted
20. Comment Noted. The word "solely" is included in footnote 3 in the draft EA.

21. If NOAA is committed to the "disclaimer" that it sets forth in the ESA document, then NOAA needs to ensure that the remainder of its draft documents conform to NOAA's position. At present, NOAA's documents do not carry forth NOAA's position consistently and consequently give rise to confusion and uncertainty.

This comment does not reference specific line and page numbers where inconsistencies between the ESA and NEPA documents exist.

22. Comment Noted
23. Comment Noted

24. NOAA failed to consult with the Nez Perce Tribe during the scoping process of this NEPA document. This itself is contrary to law.

NMFS did not act contrary to any law during development of the NEPA document. No public scoping was conducted for this analysis because the level of NEPA review determined by NMFS for this action was an EA. Neither the Council on Environmental Quality regulations nor NOAA's NEPA implementing regulations require public scoping for the preparation of an EA (40 CFR 1501.7; NOAA Administrative Order (NAO) 216-6 5.02(c)).

NMFS implements an internal scoping process to make its determination on the level of NEPA review for a Proposed Action – EA, environmental impact statement (EIS), or categorical exclusion. This internal scoping process does not involve the public or any interested party or applicants and is necessarily an internal decision making process. Although not required by Council on Environmental Quality regulations or NAO 216-6, the NMFS NWR publishes its draft EAs for public comment. If the EA cannot be supported by a FONSI, an EIS will be prepared for NEPA compliance. If an EIS is warranted, NMFS will follow applicable Council on Environmental Quality and NAO 216-6 requirements to invite public participation to prepare the EIS during a formal public scoping process.

25. NOAA's draft NEPA document repeatedly fails to write with the same type of accuracy and precision that is found in NOAA's ESA document, by failing to use the words "proposed in" or "contemplated in" when referring to the SBT TRMP. This is a flaw that appears repeatedly throughout the draft NEPA document.

This comment does not reference specific line and page numbers where the missing language should be inserted. The draft EA does discuss "proposed" in numerous instances (more than 25) to clarify that the action contemplated by NMFS (i.e., the SBT TRMP) is "proposed" and is not assumed to be implemented. Further, the analyses are discussed in conditional word tense (e.g., "effects *would* occur") rather than assuming any particular effect *will* occur since a decision on the Proposed Action or its alternatives has not been made. These conventions follow standard NEPA protocol for document preparation, which may differ from ESA documentation protocol. Nevertheless, additional edits have been made to provide clarification.

26. Comment Noted. See responses to Comment Number 21 and Comment Number 25.

27. NOAA's draft NEPA document continues to recklessly inflame the situation with disregard for the facts and the law. NOAA's NEPA document describes the "purpose and need for the action" as "to implement SBT's fisheries as described in the TRMP in 2012 and beyond...." NOAA has no authority to pursue such a purpose, nor is such a purpose grounded in any legal basis. The statement cannot be reconciled with NOAA's disclaimer, and it cannot be reconciled with what NOAA's asserts is its task under the Tribal 4(d) rule. Again, this foundational flaw is found throughout the document.

The purpose and need statement considers how the Proposed Action and its activities will satisfy the applicant's and parties' objectives as well as NMFS's objective to ensure that any action implemented is consistent with ESA requirements; the analysis in the EA responds to these collective objectives (40 CFR 1502.13). It is important that both purpose and need objectives are reflected so that a range of reasonable alternatives can be developed. The fisheries described in the EA are not NMFS's purposes or needs but rather those of the tribal parties and State applicants. Edits have been made to clarify this.

28. NOAA's draft NEPA document is also flawed in opining as to whether the alternatives considered have an "environmental justice effect" on the Nez Perce Tribe without any consultation with the Nez Perce Tribe.

NMFS correctly concluded that there would be no prevention of or alteration to fishing activities conducted by the Nez Perce Tribe under any alternative analyzed in this EA. Therefore, no environmental justice effects (i.e., disproportionate effects on low income or minority communities) would occur to the Tribe per the "environmental justice effects" definition and guidance for NEPA analyses (Executive Order 12898; CEQ 1997).

29. Comment Noted. See responses to Comment Number 13, Comment Number 21, and Comment Number 25.