

**FISHERIES MANAGEMENT AND EVALUATION PLAN**  
**Submitted Under ESA Section 4(d)**

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**IDFG Recreational Steelhead Fisheries Prepared by**  
**Idaho Department of Fish and Game**

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**Updated with Recent Information 2018**

**Title** Fishery Management and Evaluation Plan for the State of Idaho Anadromous Fish Species Sport Fishing Program for Steelhead Fisheries

**Responsible Management Agency.**

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**Date Completed**

The Idaho Department of Fish and Game (Department) was issued Section 10 Permit 844 by the National Marine Fisheries Service (NMFS, or NOAA Fisheries) on May 20, 1993. The purpose of Permit 844 was to allow the incidental take of Snake River salmon and steelhead listed under the Endangered Species Act (ESA) as a result of sport fishing programs in Idaho under the authority of the Department. These programs include: 1) fisheries for resident species managed under the state's General Fishing Rules, 2) fisheries for anadromous spring/summer Chinook Salmon (*Oncorhynchus tshawytscha*) managed under the state's Anadromous Salmon Fishing Rules, and 3) fisheries for summer steelhead (*O. mykiss*) managed under the state's Steelhead Fishing Rules. The permit covered the incidental take of listed Snake River Sockeye Salmon (*O. nerka*, Endangered November 1991), spring/summer Chinook Salmon and fall Chinook Salmon (*O. tshawytscha*, Threatened, April 1992) and summer steelhead (*O. mykiss*, Threatened, August, 1997). Modification 5 of Permit 844 expired April 30, 1998. Subsequently Permit 1150 was issued to the Department on May 28, 1999 to replace Permit 844. Permit 1150 expired on December 31, 1999. Permit 1233 was issued on May 26, 2000 to replace Permit 1150. Permit 1233 was modified on December 6, 2002 and expired on December 31, 2004. Permit 1481 was issued on March 10, 2005 to replace Permit 1233 and expired May 31, 2010. An application was submitted December 31, 2009 to extend incidental mortality take authorization in Permit 1481 for Departmental recreational fisheries for a one year period (June 1, 2010 to May 31, 2011). IDFG submitted a new Fishery Management and Evaluation Plan (FMEP) in 2009 prior to the expiration of permit 1481.

This FMEP is being submitted by the Department for authorization of incidental take of listed salmon and steelhead under the ESA in Idaho steelhead recreational fisheries. NMFS has approved FMEPs for the Department's Recreational Fisheries for Spring/Summer Chinook FMEP and General Fishing Rules (IDFG 2011a, IDFG 2011b).

**SECTION 1. FISHERIES MANAGEMENT**

## **1.1) General objectives of the FMEP.**

The first objective of this FMEP is to harvest adipose-clipped, hatchery-origin Snake River (SR) steelhead in a manner that does not jeopardize the survival and recovery of the listed SR steelhead DPS, the SR fall Chinook ESU, or other listed anadromous species. Fall Chinook Salmon are likely to be encountered during the steelhead fishery but SR spring/summer Chinook and SR sockeye are not likely to be encountered in these fisheries at a high rate due to a small amount of overlap in run-timing. Steelhead fishing areas addressed in this FMEP include the mainstem Snake River, mainstem Clearwater River, Middle Fork Clearwater River, North Fork Clearwater River, South Fork Clearwater River, mainstem Salmon River, and Little Salmon River.

### **1.1.1) List of the “Performance Indicators” for the management objectives.**

#### **Steelhead Fishery Performance Indicators:**

- total fishing effort and fishing opportunity (number of anglers, hours fished, days of opportunity, number of river miles open)
- harvest by fishery of adipose-clipped hatchery SR steelhead;
- numbers of caught and released adipose-clipped hatchery SR steelhead;
- numbers of caught and released adipose-intact natural and hatchery SR steelhead;
- estimated encounters and encounter rate of listed natural SR steelhead;
- estimated total mortality and mortality rate of listed natural SR steelhead;
- estimated encounters and encounter rate of listed natural SR fall Chinook adults;
- estimated total mortality and mortality rate of listed natural SR fall Chinook adults.

### **1.1.2) Description of the relationship and consistency of harvest management with artificial propagation programs.**

The relationship and consistency of the Department’s harvest management with artificial propagation programs are described in the Idaho Department of Fish and Game Fisheries Management Plan, 2013-2018 (IDFG 2013). Department harvest objectives and artificial propagation strategies (IDFG 2013) are compatible with conserving and recovering listed salmon and steelhead:

Idaho’s anadromous fish hatcheries were built to mitigate for lost natural fish production and reduced survival that resulted from hydroelectric development of Columbia Basin rivers. Management of IDFG’s salmon and steelhead hatcheries is focused on producing and releasing juvenile fish to provide harvest opportunity on adult fish returning from the juvenile releases.

Over the past two decades, hatchery-produced fish have provided the only sport fishing and harvest opportunity for salmon and steelhead in Idaho. Although the primary objective of the hatcheries is to provide harvest opportunity, fisheries can be considered only when: 1) enough hatchery adults return to ensure that hatchery broodstock needs can be met, and 2) incidental impacts to non-target stocks are minimal. Of the fishery management classifications (see Part 2, Drainage Management); “anadromous” refers to management which targets harvest opportunity

on hatchery-origin fish while protecting wild and natural fish.

A secondary objective of the anadromous mitigation hatcheries is to preserve and rebuild natural stocks. IDFG will continue to carefully assess the risks of using hatchery fish over the long term to bolster numbers of fish in the natural environment. Evaluation and implementation of supplementation programs targeting natural fish populations will be regionally coordinated. The Idaho Supplementation Studies (ISS) for Chinook salmon will be completed during this planning period and its results, along with information from other studies, will guide future hatchery actions for natural stock rebuilding. New efforts to integrate natural and hatchery production are being initiated. The purposes of these integrated brood programs are to reduce the impact of hatchery programs on wild and natural populations and to promote recovery of ESA-listed populations. However, rebuilding runs only through supplementation or other artificial production mechanisms is unlikely to succeed if life cycle survival is less than needed for spawner-to-spawner replacement.

IDFG's anadromous hatchery program will: 1) strive to produce maximize survival of juvenile fish to adulthood through effective disease control, fish culture practices, and release strategies; 2) produce sufficient numbers of fish to maintain and enhance sport and tribal salmon and steelhead fisheries; and 3) implement supplementation programs as appropriate and guided by current research and science. Anadromous hatcheries, where necessary, will be used to help preserve salmon and steelhead populations on the verge of extinction until life cycle survival permits rebuilding. IDFG will continue to mark hatchery smolts prior to release in order to maximize hatchery selective fishery opportunities and to easily identify hatchery fish to maximize broodstock management options.

The biological opinion regarding the consultation of the nine Snake River hatchery programs was completed in December of 2017 (WCR-2017-7286).

**1.1.3) General description of the relationship between the FMEP objectives and Federal tribal trust obligations.** (This will be further addressed in section 4).

The Department's Fisheries Management Plan, 2013-2018 (IDFG 2013) states that Indian treaty rights will be recognized in the management of fish and wildlife. The Department routinely coordinates at a policy and technical level with affected Tribes in the management of the Department's anadromous fisheries through participation in the U.S. *v.* Oregon process, meetings with the Nez Perce Tribal Executive Council and the Shoshone-Bannock Business Council, in-season coordination meetings, informal phone conferences with tribal fisheries staff, and Annual Operating Plan meetings regarding harvest sharing, ESA take and other management issues for hatchery and harvest programs. The Department similarly coordinates with those Federal agencies with direct tribal trust obligations (US Fish and Wildlife Service, NOAA Fisheries) through such avenues as U.S. *v.* Oregon, ESA permitting, the USFWS' Lower Snake River Compensation Plan and other coordination activities.

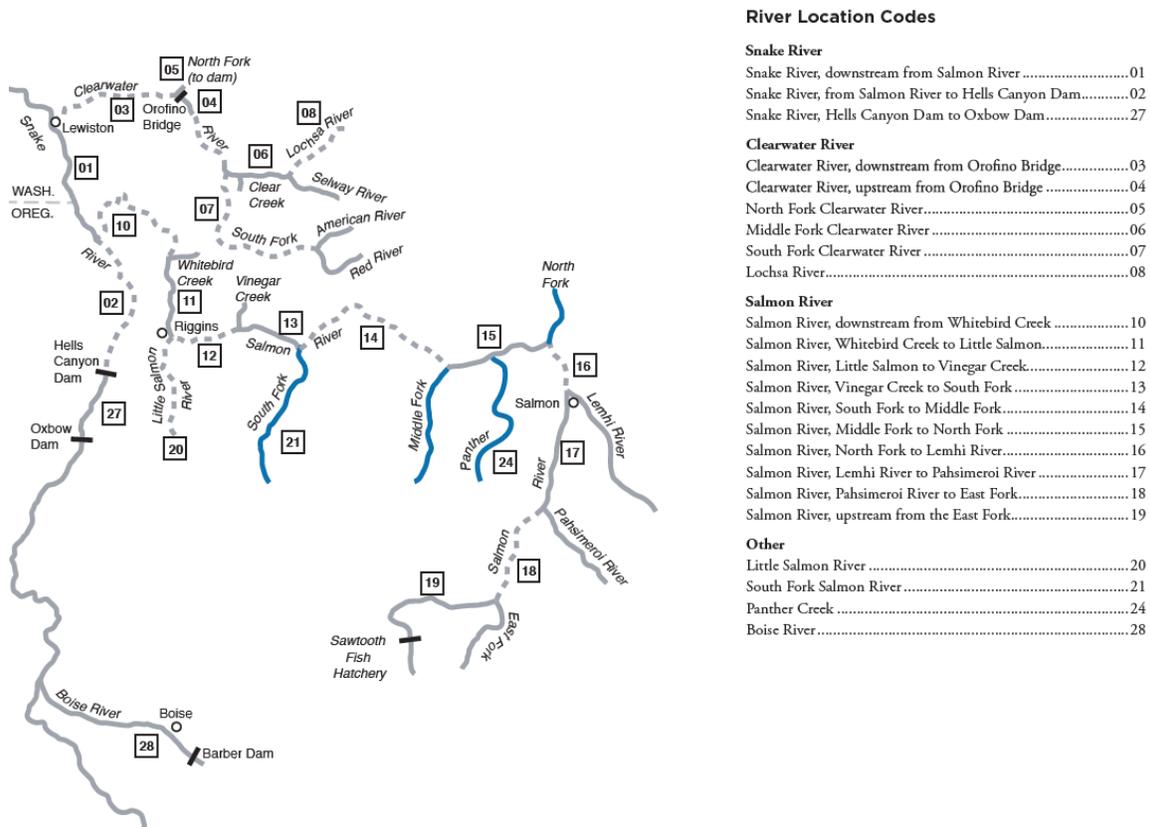
**1.2) Fishery management area(s).**

**1.2.1) Description of the geographic boundaries of the management area of this FMEP.**

**Steelhead Fishery Management Units**

Steelhead fishery management units addressed in this FMEP include the mainstem Snake River, lower mainstem Clearwater River, mainstem and Middle Fork Clearwater River, North Fork Clearwater River, South Fork Clearwater River, mainstem Salmon River, and Little Salmon River (IDFG 2016). In addition, the Department releases adult hatchery steelhead in excess of broodstock needs into non-anadromous waters to support fisheries, outside the current range of the SR steelhead DPS. Geographic boundaries of the fishery management areas are in Figure 1 and are described below.

**Figure 1. Steelhead fishery management areas and associated river location codes (IDFG 2016).**



**Mainstem Snake River:** The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the mainstem Snake River from the WA/ID state line at the confluence of the Snake and Clearwater rivers upstream to Hells Canyon Dam. This management unit contains two River Location Codes (Sections) used for harvest reporting. Section 01 includes the Snake River downstream from the Salmon River. Section 02 includes the Snake River from the Salmon River to Hells Canyon Dam.

**Lower mainstem Clearwater River:** The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the lower mainstem Clearwater River from its mouth upstream to the Memorial Bridge of U.S. Highway 12 at Lewiston. This management unit contains the lower portion of Section 03.

Mainstem and Middle Fork Clearwater River: The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the mainstem and Middle Fork Clearwater rivers from the Memorial Bridge of U.S. Highway 12 at Lewiston upstream to Clear Creek<sup>1</sup>. This management unit contains a portion of Section 03 (between the Memorial Bridge and Orofino Bridge), Section 04 (Clearwater River upstream of Orofino Bridge), and a portion of Section 06 (Middle Fork Clearwater River from its mouth upstream to Clear Creek).

North Fork Clearwater River: The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the North Fork Clearwater River from its mouth upstream to Dworshak Dam<sup>2</sup>. This management unit contains Section 05.

South Fork Clearwater River: The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the South Fork Clearwater River from its mouth upstream to the confluence of American and Red rivers. This management unit contains Section 07.

Lower mainstem Salmon River: The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the Salmon River from its mouth upstream to the Lake Creek Bridge (about 6 miles upstream from the mouth of the Little Salmon River). This management unit contains Section 10 (Salmon River, downstream from Whitebird Creek), Section 11 (Salmon River, Whitebird Creek to Little Salmon), and the lower portion of Section 12 (Salmon River, Little Salmon to Lake Creek Bridge).

Middle mainstem Salmon River: The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the Salmon River from the Lake Creek Bridge to Long Tom Creek (1/4 mile upstream from the Middle Fork Salmon River). This management unit contains the upper portion of Section 12 (Salmon River, Lake Creek Bridge to Vinegar Creek), Section 13 (Salmon River, Vinegar Creek to South Fork) and Section 14 (Salmon River, South Fork to Middle Fork).

Upper mainstem Salmon River: The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the Salmon River from Long Tom Creek upstream to posted boundary 100 yards downstream of Sawtooth Hatchery. This management unit contains Sections 15 (Salmon River, Middle Fork to North Fork), 16 (Salmon River, North Fork to Lemhi River), 17 (Salmon River, Lemhi River to Pahsimeroi River), 18 (Salmon River, Pahsimeroi River to East Fork), and 19 (Salmon River, upstream from the East Fork).

Little Salmon River: The Department plans to propose fisheries on adipose-clipped hatchery steelhead in the Little Salmon River from its mouth upstream to the U.S. Highway 95 Bridge near Smokey Boulder Road. This management unit contains Section 20.

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<sup>1</sup> Fishing is prohibited near the Nez Perce Tribal Hatchery Ladder and along the perimeter of Dworshak National Fish hatchery (see rules for specific restrictions).

<sup>2</sup> Fishing is prohibited near the Dworshak National Fish hatchery (see rules for specific restrictions)

Non-Anadromous Waters: The Department plans to propose fisheries on adipose-clipped hatchery steelhead in non-anadromous waters when fish are available in excess of broodstock. Non-anadromous waters outside the current range of the SR steelhead DPS include Snake River reservoirs upstream of Hells Canyon Dam, the Boise River and the Payette River.

**1.2.2) Description of the time periods in which fisheries occur within the management area.**

Time periods in which fisheries occur vary by management unit and are authorized by the Idaho Fish and Game Commission.

**Steelhead Fishery Time Periods**

The current steelhead fisheries season time frames (IDFG 2016) are described below.

Mainstem Snake River: Open for catch-and-release steelhead fishing August 1 - 31. Retention fisheries for adipose-clipped hatchery steelhead are open September 1- December 31 and January 1 - April 30. This management unit is closed to steelhead fishing from May 1 - July 31.

Lower mainstem Clearwater River: Open for catch-and-release steelhead fishing July 1 - 31. Retention fisheries for adipose-clipped hatchery steelhead are open August 1- December 31 and January 1 - April 30. This management unit is closed to steelhead fishing from May 1 - June 30.

Mainstem and Middle Fork Clearwater River: Open for catch-and-release steelhead fishing July 1 - October 14. Retention fisheries for adipose-clipped hatchery steelhead are open October 15 - December 31 and January 1 - April 30. This management unit is closed to steelhead fishing from May 1 - June 30.

North Fork Clearwater River: Retention fisheries for adipose-clipped hatchery steelhead are open September 1-September 1 - December 31 and January 1 - April 30. This management unit is closed to steelhead fishing from May 1 - August 31.

South Fork Clearwater River: Open for catch-and-release steelhead fishing July 1 - October 14. Retention fisheries for adipose-clipped hatchery steelhead are open October 15 - December 31 and January 1 - April 30. This management unit is closed to steelhead fishing from May 1 - June 30.

Lower mainstem Salmon River: Open for catch-and-release steelhead fishing August 1 - 31. Retention fisheries for adipose-clipped hatchery steelhead are open September 1 - December 31 and January 1 - April 30. This management unit is closed to steelhead fishing from May 1 - July 31.

Middle mainstem Salmon River: Open for catch-and-release steelhead fishing August 1 - 31. Retention fisheries for adipose-clipped hatchery steelhead are open September 1 - December 31 and January 1 - March 31. This management unit is closed to steelhead fishing from April 1 - July 31.

Upper mainstem Salmon River: Open for catch-and-release steelhead fishing August 1 - 31. Retention fisheries for adipose-clipped hatchery steelhead are open September 1 - December 31 and January 1 - April 30. This management unit is closed to steelhead fishing from May 1 - July 31.

Little Salmon River: Open for catch-and-release steelhead fishing August 1 - 31. Retention fisheries for adipose-clipped hatchery steelhead are open September 1 - December 31 and January 1 - May 15. This management unit is closed to steelhead fishing from May 16 - July 31.

Non-Anadromous Waters: Steelhead are only present when stocked by the Department.

**1.3) Listed salmon and steelhead affected within the Fishery Management Area specified in section 1.2.**

**Listed Populations Affected by Steelhead Fishery**

Listed SR steelhead populations that may be affected by Idaho recreational fisheries targeting hatchery steelhead in one or more fisheries management areas are identified in Table 1. Only hatchery steelhead with a clipped adipose fin (as evidenced by a healed scar) may be kept in Idaho recreational fisheries. Incidental mortality impacts occur from catch-and-release of listed natural origin SR steelhead in fisheries targeting adipose clipped hatchery steelhead.

Listed SR fall Chinook Salmon (from a single population) may be affected by Idaho recreational fisheries targeting hatchery steelhead primarily during August – November. Listed SR spring/summer Chinook Salmon and SR Sockeye Salmon are not expected to be affected by Idaho recreational fisheries targeting hatchery steelhead at high rates because their run timing across Lower Granite Dam has a low degree of overlap.

Mainstem Snake River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead and SR fall Chinook. Adult steelhead from 18 populations and four MPGs (Table 1) migrate through Section 01 to natal tributaries. In addition, adult steelhead from five populations of the Clearwater MPG, and strays from the Tucannon River, are likely present in Section 01 during a portion of the fall season. Adult steelhead from the (remnant) SNHCT-s population and Imnaha MPG (one population) migrate through Section 02, and adults from the Salmon MPG (12 populations) are also present in the fall season. Listed SR fall Chinook (from a single population) may be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit primarily during August – November.

Lower Mainstem Clearwater River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead and SR fall Chinook. Adult steelhead from five populations of the Clearwater MPG (Table 1) migrate through Section 03 to natal tributaries. In addition, adult steelhead from the other four MPGs are present in Section 03 during a portion of the fall season. Listed SR fall Chinook (from a single population) may be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit primarily during August - November.

**Table 1. Extant Snake River steelhead populations, organized by Major Population Groups (ICTRT 2007), which may be affected by Idaho recreational fisheries targeting hatchery steelhead.**

Major Population Group	Population	Population Acronym	A-Run or B-Run
Lower Snake River	Tucannon River	SNTUC-s	A
	Asotin Creek	SNASO-s	A
Grande Ronde River	Joseph Creek	GRJOS-s	A
	Lower Grande Ronde River	GRLMT -s	A
	Wallowa River	GRWAL-s	A
	Upper Grande Ronde River	GRUMA-s	A
Imnaha River	Imnaha River	IRMAI-s	A
Clearwater River	Lower Mainstem	CRLMA-s	A/B
	Lolo Creek	CRLOL-s	A/B
	South Fork Clearwater River	CRSFC-s	A/B
	Lochsa River	CRLOC-s	A/B
	Selway River	CRSEL-s	A/B
Salmon River	Little Salmon River	SRLSR-s	A/B
	Chamberlain Creek	SRCHA-s	A
	South Fork Salmon River	SFSFS-s	A/B
	Secesh River	SFSEC-s	A/B
	Lower Middle Fork Salmon River	MFBIG-s	A/B
	Upper Middle Fork Salmon River	MFUMA-s	A/B
	Panther Creek	SRPAN-s	A
	North Fork Salmon River	SRNFS-s	A
	Lemhi River	SRLEM-s	A
	Pahsimeroi River	SRPAH-s	A
	Upper Salmon East Fork	SREFS-s	A
	Upper Salmon Mainstem	SRUMA-s	A
Hells Canyon Tributaries	Remnant of Wild Horse/Powder R.	SNHCT-s	A

Mainstem and Middle Fork Clearwater River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead and SR fall Chinook. Adult steelhead from five populations of the Clearwater MPG (Table 1) migrate through Sections 03 and 04 to natal tributaries. In addition, adult steelhead from the other four Snake River MPGs may be present in Section 03 during a portion of the fall season. Listed SR fall Chinook (from a single population) may be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit primarily during August -November.

North Fork Clearwater River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead. No natural steelhead production occurs in or upstream of Section 05, however, adult steelhead from five populations in the Clearwater MPG may stage in this management unit. Listed SR fall Chinook occasionally spawn in the North Fork Clearwater, and may be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit primarily during September - November.

South Fork Clearwater River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead. Adult steelhead from the CRSFS-s population (Table 1) migrate through Section 07 and spawn in natal tributaries. In addition, adult steelhead

from four other populations of the Clearwater MPG may stage in this management unit. Steelhead harvest and effort are heaviest in the spring in this management unit. However, listed SR fall Chinook occasionally spawn in the South Fork Clearwater, and may be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit primarily during August - November.

Lower Mainstem Salmon River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead and SR fall Chinook. Adult steelhead from 12 populations of the Salmon MPG (Table 1) migrate through Sections 10, 11 and 12 to natal tributaries. In addition, adult steelhead from the other 4 Snake River MPGs may stage in the lower portion of Section 10 during a portion of the fall season. Listed SR fall Chinook spawn in small numbers in the lower Salmon River, and may be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit primarily during August - November.

Middle Mainstem Salmon River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead. Adult steelhead from 11 populations of the Salmon MPG (all except SRLSR-s; Table 1) migrate through Sections 13 and 14 to natal tributaries. The limited fall Chinook spawning in the Salmon River occurs downstream of Section 13; listed SR fall Chinook are not likely to be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit.

Upper Mainstem Salmon River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead. Adult steelhead from seven populations of the Salmon MPG (SRCHA-s, SRPAN-s, SRNFS-s, SRLEM-s, SRPAH-s, SREFS-s, SRUMAs; Table 1) migrate through Section 15 to natal tributaries, and steelhead from MFBIG-s and MFUMA-s may be present in the fall and winter. Steelhead from SRLEM-s, SRPAH-s, SREFS- s, and SRUMA-s migrate through Section 16. Steelhead from SRPAH-s, SREFS-s, and SRUMA-s migrate through Section 17. Steelhead from SREFS-s and SRUMA-s migrate through Section 18 and steelhead from SRUMA migrate through Section 19. Steelhead harvest and effort are heaviest in the spring in the upper portions of this management unit. Listed SR fall Chinook are not likely to be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit.

Little Salmon River: Recreational fisheries targeting hatchery steelhead in this fishery management unit may affect listed SR steelhead. Adult steelhead from the SRLSR-s population (Table 1) migrate through Section 20 and spawn in natal tributaries. Steelhead harvest and effort are heaviest in the spring in this management unit. Listed SR fall Chinook are not likely to be affected by recreational fisheries targeting hatchery steelhead in this fishery management unit.

Non-Anadromous Waters: Recreational fisheries targeting hatchery steelhead in these waters do not affect listed SR steelhead or SR fall Chinook.

**1.3.1) Description of “critical” and “viable” thresholds for each population (or management unit) consistent with the concepts in the technical document, “Viable Salmonid Populations and the Recovery of**

## **Evolutionarily Significant Units.”**

The FMEP definitions of viable thresholds and critical thresholds are based on and consistent with the Interior Columbia Technical Recovery Team’s (ICTRT) application of the guidance in “Viable Salmonid Populations and Recovery of Evolutionarily Significant Units” Technical Memorandum NMFS-NWFSC-42 June 2000 (McElhany et al. 2000). The ICTRT (2007) estimated demographic extinction risk for listed Interior Columbia Basin salmon and steelhead populations. The ICTRT population level viability criteria were expressed relative to an acceptable risk level of a 5% probability of extinction in a 100-year period. This level of risk is consistent with VSP guidelines and the conservation literature (McElhany et al. 2000; NRC 1995). In addition, the ICTRT noted that NOAA Fisheries has given previous policy guidance that a 5% risk of extinction over a 100-year period is an appropriate benchmark for population-level risk assessment. The ICTRT expressed risk relative to a 100-year time frame for several reasons; 1) it incorporates sensitivities to multiyear patterns/variability in environmental influences, 2) it is an appropriate time frame for considering recovery strategies that include habitat restoration actions that may take considerable time to result in survival improvements and 3) a 100-year time frame subsumes short time frame risks.

Under historical conditions, most populations within the region would have been rated as very low risk relative to the 5% viability curve. At the population level, recovery strategies should be targeted to achieve combinations of abundance and productivity above the 5% viability curve threshold. Alternative risk levels and time frames may be useful in assessing population status when considering short term effects of actions. Viability of an ESU or DPS ultimately depends on the viability of its component MPGs. Not all populations within an MPG need to be viable to meet MPG viability (ICTRT 2007), however, it would be risky to allow the status of any population to degrade.

The ICTRT (2007) further established minimum thresholds for abundance based on the following rationale:

“We have incorporated minimum thresholds for abundance into viability curves for application to Interior Columbia populations. Minimum abundance thresholds applied to the viability curves were based on the demographic and genetic rationale provided by McElhany et al. (2000) and reflect estimates of the relative amount of historical spawning and rearing habitat associated with each population. A minimum threshold value at or above 1.0 should also be applied to the population productivity parameter. Given a very high starting abundance, the relatively simple population model used to generate viability curves can, in some circumstances, project relatively low probabilities of extinction for average productivities below 1.0. In those cases the population would, by definition, be in long-term decline.”

“We incorporated a minimum abundance threshold of 500 spawners into the viability curves for populations in the Basic size category based on genetic and demographic considerations. Populations with fewer than 500 individuals are at higher risk for inbreeding depression and a variety of other genetic concerns (McElhany et al. 2000 and McClure et al. 2003 discuss this topic further). A minimum abundance of 500 spawners would appear adequate for compensatory processes to operate and to maintain within-population spatial structure for smaller Interior Columbia Basin salmon populations. However, for populations that cover big geographic areas

with larger intrinsic potential, the ICTRT concluded higher minimum abundance levels were necessary to meet the full range of VSP criteria.”

“Incrementally higher spawning abundance thresholds were established for the remaining three population size categories. We set thresholds for the two larger size categories (Large and Very Large) so that the expected average abundance at threshold levels was equivalent to approximately ½ of the density associated with achieving 500 spawners for a median sized population within the Basic category. Threshold levels for application to populations in the intermediate group were set so as to achieve median spawner densities at approximately half the range between the median population size for Basic and Large population groups. This density level represents a balance between using 500 as a minimum population abundance threshold regardless of the amount of spawning habitat and setting a population level threshold proportional to the amount of potential spawning habitat. Increased thresholds for larger populations promote achieving the full range of abundance objectives including utilization of multiple spawning areas, avoiding problems associated with low population densities (e.g., Allee effects) and maintaining populations at levels where compensatory processes are functional. Setting the minimum abundance threshold in strict proportion to the estimated amount of potential spawning habitat implied unrealistic precision for each specific population and resulted in very high minimum abundance levels for larger populations.”

Following the ICTRT (2007) rationale for minimum abundance thresholds, a Viable Threshold must equal at least 500 spawners for a Basic population, with larger thresholds needed for Intermediate, Large and Very Large populations. Note that the ICTRT based the population size categories on intrinsic potential (IP) of historically available habitat, and then proportionately increased the minimum abundance thresholds for larger populations to meet VSP objectives of maintaining spatial structure and compensatory processes. However, the quantity of habitat is currently greatly reduced from historic potential for three steelhead populations (CRLMA-s, SRLEM-s and SRPAH-s), and not likely to be restored in the 5-year review schedule of the FMEP. Meeting the objectives of achieving or maintaining compensatory processes and spatial structure of accessible habitat in a 5-year time frame would be based appropriately on the population’s current potential. Therefore, the Department defines the FMEP Viable Threshold as the ICTRT (2007) minimum abundance threshold for all Idaho steelhead populations except the lower Clearwater, Lemhi and Pahsimeroi, which we adjusted by the ratio of (current IP)/(historic IP) to a size category more closely matching current conditions (Table 2). However, information on abundance and productivity is very limited for most SR steelhead populations, particularly in the Clearwater and Salmon rivers (Table 2). ICTRT (2007) and the NMFS (2007) Supplemental Comprehensive Analysis inferences on recent abundance and productivity and A/P Gaps are based primarily on aggregated A-run and B-run population information collected at mainstem dams, with the exception for a couple of NE Oregon populations.

The ICTRT (2007) viability curves describe the combination of productivity and abundance that just meet a given risk (1%, 5%, or 25%) of extinction in a 100-year period (given the variance, autocorrelation and age structure of the population). Because of the uncertainty in estimating actual extinction risk, a quasi-extinction threshold (QET) was defined for use in the PVA modeling. The ICTRT (2007) implemented a QET of 50 spawners per year over a consecutive four-year period in generating viability curves for application to Interior Columbia basin ESU populations. Four consecutive years represents [close to] a full brood cycle of adult (mature male and female spawners). A quasi-extinction threshold is defined as “the minimum number of

individuals below which the population is likely to be critically and immediately imperiled” (Morris & Doaks, 2002; Ginsburg et al. 1982). The ICTRT selected 50 as a QET based on four considerations; 1) consistency with theoretical analyses of increasing demographic risks at low abundance; 2) uncertainty regarding low abundance productivity of Interior Columbia ESU populations due to the paucity of escapements less than 50 spawners in the historical record; 3) sensitivity analyses indicating that the probability of multiple very low escapements increases substantially as the QET approaches 1 spawner per year; and 4) consistency with applications by the Puget Sound and the Lower Columbia/Willamette TRTs (McElhany et al. 2003, 2006; Puget Sound TRT, 2002).

Table 2: Excerpt from the Recent Status Assessment for Snake River Steelhead (NMFS 2015). Including ICTRT minimum abundance thresholds, recent abundance and productivity.

**Table 31 - Summary of available natural origin abundance and productivity estimates for Snake River Steelhead DPS populations. Limited to populations with direct estimates (Joseph Creek and Upper Grande Ronde) or GSI stock groups with low misclassification rates and low estimated or inferred hatchery proportions. ICTRT minimum abundance thresholds summed for stock group aggregates. Methods: Redd Exp – expansion from index area and supplemental redd counts using fish per redd estimates; MRC – mark recapture study ; GSI: run reconstruction based on genetic stock identification estimates from the natural origin run at Lower Granite Dam accounting for estimated harvest and weir removals above Lower Granite Dam (e.g. Copeland *et al.* 2015).**

Major Population Group	Stock Group/ Population	ICTRT Minimum Abundance Thresholds	10 Year (2005-2014) Natural Origin Abundance (se)	20 Year (1999-2008) Brood year Intrinsic Productivity (se)	Estimation Method
<b>Grande Ronde</b>	Joseph Creek (pop)	500	1,839 (.09)	1.87 (.20)	Redd Exp/MRC
	Upper Grande Ronde (non)	1,500	1,649 (.21)	3.15 (.40)	Redd Exp
<b>Clearwater</b>	Lower Clearwater (pop)	1,500	2,099 (0.15 )	2.36(.16)	GSI
	Upper Clearwater (stkgp)	2,000			
	Lochsa R. Selway R.	1,000 1,000	1,650 (0.17)	2.33 (0.18)	GSI
<b>Salmon</b>	South Fork (stkgp)	1,500			
	Secesh R.	500	1,028 (0.17)	1.80 (.148)	GSI
	South Fork Mainstem R.	1,000			
	Middle Fork (stkgp)	2,500			
	Upper Middle Fork River	1,000	2,213 (0.16)	2.38 (.104)	GSI
	Lower Middle Fork River	1,000			
	Chamberlain Creek	500			
<b>Lower Salmon</b>	Upper Asotin Cr. (subpop)				
	Asotin Creek	500	617 (0.16)	NA	weir est.

McElhaney et al. (2000) provide four critical population size guidelines. Population abundance would be critically low: 1) if compensatory processes are likely to reduce it below replacement; 2) if it is at risk from inbreeding depression or fixation of deleterious mutations; and 3) when productivity variation becomes a substantial source of risk. The 4<sup>th</sup> guideline is that population status evaluations should take uncertainty regarding abundance into account. A QET of 50 for four consecutive years meets the first three guidelines for a Critical Threshold definition, but an additional uncertainty buffer is appropriate for management application. The Department proposes to use 30% of the Viable Threshold (or MAT) to define a Critical Threshold for the FMEP to account for uncertainty in abundance estimates. A Critical Threshold of 30% MAT is equivalent to 150 spawners for small populations and 300 spawners for large populations, similar to recommendations of the Biological Requirements Workgroup (BRWG 1994).

Catch-and-release management for natural origin steelhead and fall Chinook until populations more consistently achieve the Viable Threshold is consistent with achieving the Viable Threshold and avoiding the critically low abundance for listed natural populations while implementing retention fisheries on adipose-clipped hatchery steelhead and fall Chinook.

**1.3.2) Description of the current status of each population (or management unit) relative to its “Viable Salmonid Population thresholds” described above. Include abundance and/or escapement estimates for as many years as possible.**

It has not been possible to develop accurate steelhead redd counts in Idaho streams, and operation of adult weirs is infeasible in most streams due to high runoff during the steelhead spawning season. Current geometric mean abundance and productivity estimates have been lacking for a majority of SR steelhead populations (Table 2; ICTRT 2007); but Genetic Stock Identification (GSI) techniques applied to natural-origin adult steelhead sampled at Lower Granite Dam (LGR) has been recently able to improve the resolution and provide estimates of natural-origin adults from 10 different stock groups (NMFS 2015). IDFG initiated GSI sampling at Lower Granite Dam in 2008, coordinated with ongoing adult steelhead trapping for collection of age, length and origin data. The final recovery planning status assessments will include supporting information on abundance/productivity from a few adult weirs (i.e., Fish Cr. – CRLOC-s; Rapid River – SRLSR-s; Pahsimeroi R. – SRPAH-s; East Fork Salmon – SREFS-s; and Sawtooth – SRUMA-s) along with GSI estimates at LGR.

The 5-year status review for SR steelhead did not indicate a change in biological status (NMFS 2016). SR steelhead populations in the Clearwater, with the exception of the Lower Clearwater population (at moderate risk) and Salmon Rivers are at high risk for abundance and productivity, while those in the Grande Ronde and Imnaha are considered to be at moderate risk (ICTRT 2007, NMFS 2015). Details on current status assessments, including recent abundance and productivity estimates and spatial structure and diversity ratings can be found at the NMFS website:[http://www.westcoast.fisheries.noaa.gov/publications/status\\_reviews/salmon\\_steelhead/2016\\_status\\_review.html](http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/2016_status_review.html).

GSI at LGR has also been used to determine wild and hatchery run-sizes and make inferences

(based on fork length (FL) criteria) at the MPG/population level for A- and B-run fish (e.g., Hansen 2006, Table 3). The FL criterion is an inexact measure for delineating A-run from B-run populations because some A-run individuals exceed 78 cm, and 1-ocean B-run fish are smaller than 78 cm (e.g., Byrne 2006). Despite this limitation, the FL criterion has been useful for harvest management purposes. The 15 A-run populations upstream of LGR have a pooled Critical Threshold of 2,700 and a pooled Viable Threshold of 9,000. Since the 1997-98 run year, wild A-run (< 78cm FL) run-size averaged 21,693 (range, 7,424 – 38,861) (Table 3). The eight B-run populations upstream of LGR have a pooled Critical Threshold of 2,100, and a pooled Viable Threshold of 7,000. Since the 1997-98 run year, wild B-run (>78 cm FL) run- sizes averaged 4,330 (range, 914 – 13,623) (Table 3).

**Table 3. Lower Granite Dam steelhead counts parsed into A-run and B-run management groups.**

Run Year	Hatchery				Hatchery			Hatchery		Hatchery		Wild Total	Hatchery Total	Total Count
	Wild <78	Hatchery <78	Unclipped <78	Wild >78	Hatchery >78	Unclipped >78	Wild A	A	Wild B	B				
1997 - 1998	7,424	1,325	0	1,325	10,878	0	7,424	1,325	1,325	10,878	8,749	77,897	86,646	
1998 - 1999	7,074	2,301	0	2,301	17,455	0	7,074	2,301	2,301	17,455	9,375	61,287	70,662	
1999 - 2000	10,184	914	0	914	8,834	0	10,184	914	914	8,834	11,098	62,953	74,051	
2000 - 2001	17,689	2,886	10	2,886	17,128	0	17,689	2,896	2,886	17,128	20,575	96,727	117,302	
2001 - 2002	37,545	3,174	5,979	3,174	30,677	0	37,545	9,153	3,174	30,677	40,719	227,747	268,466	
2002 - 2003	28,308	13,623	11,734	13,623	51,358	6618	28,308	25,357	13,623	57,976	41,931	180,245	222,176	
2003 - 2004	21,892	7,254	11,840	7,254	23,058	2132	21,892	19,094	7,254	25,190	29,146	143,364	172,510	
2004 - 2005	18,297	4,774	9,166	4,774	23,179	2005	18,297	13,940	4,774	25,184	23,071	128,575	151,646	
2005 - 2006	14,586	3,544	13,903	3,544	26,143	3345	14,586	17,447	3,544	29,488	18,130	140,035	158,165	
2006 - 2007	7,877	1,633	15,234	1,633	33,332	5880	7,877	16,867	1,633	39,212	9,510	139,656	149,166	
2007 - 2008	11,242	2,924	14,643	2,924	20,513	3446	11,242	17,567	2,924	23,959	14,166	140,976	155,142	
2008 - 2009	18,216	5,659	13,079	5,659	40,713	6998	18,216	18,738	5,659	47,711	23,875	154,995	178,870	
2009 - 2010	38,210	4,529	30,385	4,529	16,555	2700	38,210	34,914	4,529	19,255	42,739	280,643	323,382	
2010 - 2011	34,549	9,584	17,721	9,584	31,574	4118	34,549	27,305	9,584	35,692	44,133	164,163	208,296	
2011 - 2012	35,240	4,198	7,930	4,198	17,801	2113	35,240	12,128	4,198	19,914	39,438	140,882	180,320	
2012 - 2013	19,806	3,337	4,767	3,337	13,695	3970	19,806	8,104	3,337	17,665	23,143	86,043	109,186	
2013 - 2014	23,470	1,885	5,328	1,885	5,546	1593	23,470	7,213	1,885	7,139	25,355	82,799	108,154	
2014 - 2015	38,861	6,928	5,755	6,928	21,067	3639	38,861	12,683	6,928	24,706	45,789	119,802	165,591	
2015 - 2016	30,806	3,130	4,045	3,130	8,465	1408	30,806	7,175	3,130	9,873	33,936	102,214	136,150	
2016 - 2017	12,575	52,825	3,556	3,001	25,724	4145	12,575	56,381	3,001	29,869	15,576	78,549	101,826	

#### 1.4) Harvest Regime

##### 1.4.1) Provide escapement objectives and/or maximum exploitation rates for each population (or management unit) based on its status.

#### Steelhead Incidental Mortality Rates

The Department has implemented mark-selective retention fisheries on adipose-clipped hatchery steelhead to minimize mortality on natural origin populations since the mid-1980s, most recently under the framework of ESA Section 10 Permit 1481. NMFS Permit 1481 authorized the Department an annual incidental take of ESA-listed naturally produced anadromous fish associated with recreational fishing. The prior application (December 2009) to extend Permit 1481 specified that an average 3.2% mortality (range 2.4 to 4.1%) of naturally produced Snake River Basin steelhead returning to Idaho, incidental to harvest of hatchery-produced steelhead, may occur.

Natural origin steelhead take limits in Permit 1481 were consistent with those in the previous Permit 1233, which specified incidental mortality up to 3.2%. The origin of the 3.2% incidental mortality of natural origin steelhead is an average value calculated from the 1990-1996 Department fisheries (Marshall 2002), which target hatchery-origin steelhead. At an assumed 95% survival of steelhead caught and released, a 64% encounter rate yields 3.2% incidental mortality. Encounter rates of natural origin steelhead are assumed equal to those of hatchery steelhead for incidental mortality accounting purposes. Department documents (Marshall 2002; Kiefer 2007; Petrosky 2009) have emphasized that these natural-origin encounter and incidental mortality rates are biased high and therefore maximum rates. Sources of positive bias include: 1) substantial portions of the Salmon and Clearwater rivers (e.g., Lochsa, Selway, Middle Fork Salmon, South Fork Salmon) are closed to steelhead fishing and provide a degree of protection to natural-origin steelhead; 2) in the spring, many anglers target large concentrations of hatchery fish such as in the upper Salmon and North Fork Clearwater rivers; 3) anglers may report more fish having been caught and released than actually occurred and 4) there is different run-timing of hatchery and wild fish in the Clearwater River. The Department is looking into alternative methods to calculate impact rates for natural-origin SR steelhead at the MPG level and to estimate encounter rates of natural-origin fish.

The Department proposes to manage the steelhead fishery based on a 3.2% incidental mortality rate of natural-origin SR steelhead returning to Idaho, with a five-year check-in for this FMEP. We use post-season phone survey data for hatchery fish encounter rates to estimate encounter rates and incidental mortality for natural- origin fish (Marshall 2002; Petrosky 2009, 2010). Any incidental mortality of steelhead during recreational retention fisheries for fall Chinook in the Snake or Clearwater Rivers or Coho in the Clearwater River would be included in this average 3.2% incidental mortality. The five-year check-in would be used to adjust management (seasons, rules, production releases) to ensure that the fishery incidental mortality impacts are not increasing appreciably over time.

### **Fall Chinook Incidental Mortality Rates**

Permit 1481 authorized the Department an annual incidental take of ESA-listed naturally produced SR fall Chinook associated with recreational fishing. The application (December 2009) to extend Permit 1481 specified an incidental mortality rate of 1% for natural-origin fall Chinook, resulting from the catch and release of 10% of adults counted over Lower Granite Dam. Permit 1481 originally specified for steelhead fisheries that no more than 1.5% of the adult, naturally produced listed Snake River fall Chinook Salmon counted passing over Lower Granite Dam shall be caught and released, of which 10% might die. The Permit 1481 fall Chinook encounter rate of 1.5% was developed when run sizes of fall Chinook were low, and without the benefit of run reconstruction data and harvest data to bracket likely incidental impacts that were actually occurring with increasing run sizes. With increased fall Chinook run sizes, the Department's recreational steelhead fisheries encountered an estimated 1.6% to 9.3% of natural-origin fall Chinook during the 2004-2016 steelhead fall season fisheries. At 10% mortality for fall Chinook caught and released, the estimated incidental mortality rate ranged from 0.16% to 0.90%. The Department had previously suggested a higher encounter rate for fall Chinook of up to 20% may be appropriate at higher run-sizes of fall Chinook (e.g., Marshall and Kiefer 2005, Petrosky 2008).

The Department proposes to manage the recreational steelhead fishery based on a 1.5% incidental mortality rate of natural-origin SR fall Chinook adults above LGR, with a five-year check-in for the FMEP. We use the interagency fall Chinook run reconstruction and the Department's creel survey data to estimate encounter rates and incidental mortality of natural-origin fall Chinook. Any incidental mortality of fall Chinook during recreational retention fisheries for fall Chinook in the Snake or Clearwater Rivers or coho in the Clearwater River would be included in this 1.5% incidental mortality. The five-year check-in would be used to adjust management (seasons, rules, production releases) to ensure that the fishery incidental mortality impacts are not increasing appreciably over time.

**1.4.1) Description of how the fisheries will be managed to conserve the weakest population or management unit.**

**Steelhead Fishery**

Department proposed fisheries target adipose-clipped hatchery populations in excess of broodstock needs, consistent with Congressionally-mandated mitigation goals of the federal and private (Idaho Power Company) hatcheries, Treaty and non-Treaty harvest sharing and ESA limitations on allowable incidental mortality from natural origin SR steelhead. Only steelhead with a clipped adipose fin (as evidenced by a healed scar) may be kept. Only barbless hooks may be used when fishing for steelhead in the Salmon and Clearwater river drainages and the Snake River below Hells Canyon.

The incidental take in the Department's FMEP proposal is consistent with minimizing effects to listed species and does not jeopardize or preclude recovery through Department fishery management and activities in the other "H's" (hatchery, hydropower, habitat). As early as the 1970s, the Department implemented several conservation actions to the recreational steelhead fishery in response to declining wild steelhead runs, coinciding with FCRPS development. Previous restrictions since the 1970s incorporated into the FMEP proposal include reduction in the times and places where fishing can occur, gear restrictions, and a complete ban on harvest of natural-origin steelhead.

The Department has not allowed harvest of natural-origin steelhead since the mid-1980s; efforts to restrict harvest of natural-origin steelhead began in the 1970s (State of Idaho 1997). Since 1986, any steelhead caught with the adipose fin intact must be released unharmed. During 1983-86, restrictive rules based on dorsal fin height were in place to help protect natural-origin steelhead in the Salmon River. No harvest seasons were also implemented in some years during the late 1970s and early 1980s to protect natural-origin steelhead prior to hatchery fish being marked differentially with an adipose fin clip (State of Idaho 1997).

The Department has set seasons and area closures to further protect adult natural-origin steelhead (Section 1.2). Fishing for or targeting steelhead is prohibited unless a season is specifically opened (IDFG 2016). Steelhead fishing is open seasonally only in mainstem river sections of the Salmon, Clearwater and Snake rivers, and in the Middle, North and South Forks of the Clearwater River and the Little Salmon River (IDFG 2016). The middle mainstem Salmon River (Sections 13, 14, and most

of 12) steelhead season closes early (March 31) to provide additional protection to natural-origin steelhead moving into the South Fork Salmon and Middle Fork Salmon rivers.

**1.4.1) Demonstrate that the harvest regime is consistent with the conservation and recovery of commingled natural-origin populations in areas where artificially propagated fish predominate.**

**Steelhead Fishery**

Department fishing rules state that only hatchery steelhead with a clipped adipose fin (as evidenced by a healed scar) may be kept. All steelhead with an intact adipose fin must be released unharmed back to the water. In addition, substantial portions of the Salmon and Clearwater rivers are managed with no hatchery steelhead programs (e.g., Lochsa, Selway, Middle Fork Salmon, and South Fork Salmon) and are closed to steelhead fishing, providing additional protection to natural-origin steelhead.

Harvest of adipose-clipped hatchery steelhead also removes potential hatchery spawners from natural spawning areas; high fractions of hatchery spawners can pose risks to diversity and long-term productivity in the receiving populations (ICTRT 2007). HGMPs have been recently approved for Idaho's hatcheries, and will address HRT and HSRG recommendations for managing the proportion of hatchery spawners in natural populations within acceptable levels. Harvest is one tool to manage for an acceptable proportion of hatchery spawners, as well as fulfilling the mandates of the mitigation hatcheries.

**1.5) Annual Implementation of the Fisheries**

The Department anticipates an implementation framework similar to that previously used under Section 10 Permit 1481. Permit 1481 required annual reporting of estimated incidental mortality of ESA listed SR steelhead and SR fall Chinook by April 15 of the year following the fishery. Permit 1481 also required NMFS approval for planned changes in fishing activities, locations, and rules.

The Idaho Fish and Game Commission has the authority to set fishing seasons and biological rules. Steelhead rules are set for a three-year period, and are published in the Idaho Fishing Seasons and Rules (e.g., IDFG 2016). Rules may change in-season based on updated run-size projections of hatchery and natural runs and seasons may be closed by the Director under Conservation Emergency Order. Coordination on fishing proposals, seasons and rules occurs pre-season and in-season with NOAA Fisheries, the Nez Perce Tribe and Shoshone-Bannock Tribes, and Oregon and Washington fishery managers.

**EFFECTS ON ESA-LISTED SALMONIDS**

**1.1) Description of the biologically-based rationale demonstrating that the fisheries management strategies will not appreciably reduce the likelihood of survival and recovery of the affected ESU(s) in the wild.**

Abundance, survival and productivity of SR steelhead populations have declined since FCRPS

development in the 1970s (Marmorek et al. 1998; Yuen and Sharma 2005). Most of the survival rate and productivity declines observed in SR steelhead since FCRPS development occurred in the smolt-to-adult return (SAR) life stage (Marmorek et al. 1998; Yuen and Sharma 2005). Escapement SARs (measured from smolts at upper dam to adult returns to upper dam) of natural-origin SR steelhead have recently averaged 1.6%, ranging from 0.3% to 2.9% (Schaller et al. 2007). In contrast, escapement SARs ranged from 3.7% to 4.2% during 1964-1969 (Marmorek et al. 1998). Factoring in mainstem harvest, the pre-harvest SARs ranged from 4.5% to 6.4% during 1964-1969 (Marmorek et al. 1998). SARs and first year ocean survival rates of wild SR steelhead were best explained by both in-river migration conditions experienced by smolts and by ocean environmental variables during the first year at sea (Petrosky and Schaller 2010; ICTRT and Zabel 2007). Lower survival rates for steelhead were associated with slower river velocities and warmer river temperatures, warmer ocean conditions, and reduced ocean upwelling in the spring (Petrosky and Schaller 2010).

The Department's FMEP recreational fishery management strategies are conservative for natural-origin SR steelhead, allowing only incidental mortality from catch-and-release fisheries. The recreational steelhead fishery targets abundant hatchery-origin adults, as legally mandated mitigation for impacts of hydrosystem development on natural steelhead populations. As noted above, population dynamics of SR steelhead are driven primarily by out-of-basin factors, especially in the FCRPS and ocean/climatic conditions. The Department responded to the declining natural steelhead runs with a reduction in the times and places where fishing can occur, gear restrictions, and a complete ban on harvest of natural-origin steelhead. Effects of the FMEP incidental mortality are small on natural-origin steelhead, with little opportunity remaining to further constrain impacts while still allowing access to harvestable hatchery steelhead.

Recovery Plan status assessments and previous NMFS status reviews (e.g., Myers et al. 1998) identified several concerns regarding Snake River fall Chinook Salmon: steady and severe decline in abundance since the 1940s; loss of primary spawning and rearing areas upstream of the Hells Canyon Dam complex; increase in non-local hatchery contribution to adult escapement over Lower Granite Dam, and relatively high aggregate harvest impacts by ocean and in-river fisheries. Department fisheries targeting steelhead may incidentally catch fall Chinook Salmon; no additional incidental mortality beyond the take from the steelhead fishery is expected for any other listed species.

#### **1.1.1) Description of which fisheries affect each population (or management unit).**

SR steelhead populations and the SR fall Chinook population which may be encountered in hatchery steelhead fisheries in each of the management units and river sections are identified in Table 4 (also see Section 1.3). Populations which spawn in or pass through a management unit are identified as "primary encounters" (X); steelhead populations which may stage in a management unit, or fall Chinook which spawn in small numbers within a management unit are identified as "minor encounters" (x).

**Table 4. SR steelhead and fall Chinook populations potentially affected by recreational fisheries targeting adipose-clipped hatchery steelhead in eight fishery management areas. (X = primary encounters, x = minor encounters).**

SR Steelhead DPS: MPG, Population	Mainstem Snake		Lower Mainstem Clearwater	Mainstem & M Fk Clearwater	N Fk Clearwater	S Fk Clearwater	Lower Mainstem Salmon	Middle Mainstem Salmon	Upper Mainstem Salmon				
	Sec 1	Sec 2	Sec 3 (part)	Sec 3 (part) & 4	Sec 7	Sec 5	Sec 10 - 12	Sec 13 & 14	Sec 15	Sec 16	Sec 17	Sec 18	Sec 19
<b>Lower Snake River</b>													
Tucannon River	x		x										
Asotin Creek	X		x				x						
<b>Grande Ronde River</b>													
Joseph Creek	X		x				x						
Lower Grande Ronde R.	X		x				x						
Wallowa R.	X		x				x						
Upper Grande Ronde R.	X		x				x						
<b>Innaha River</b>													
Innaha River	X	x	x				x						
<b>Clearwater MPG</b>													
Lower Mainstem Clearwater	x		X	X	x	x	x						
Lolo Cr.	x		X	X	x	x	x						
South Fork Clearwater	x		X	X	x	X	x						
Lochsa R.	x		X	X	x	x	x						
Selway R.	x		X	X	x	x	x						
<b>Salmon MPG</b>													
Little Salmon R.	X	x	x				X						
Chamberlain Cr.	X	x	x				X	X	X				
South Fork Salmon R.	X	x	x				X	X					
Secesh R.	X	x	x				X	X					
Lower Middle Fork Salmon R.	X	x	x				X	X	x				
Upper Middle Fork Salmon R.	X	x	x				X	X	x				
Panther Cr.	X	x	x				X	X	X				
North Fork Salmon R.	X	x	x				X	X	X	x			
Lemhi R.	X	x	x				X	X	X	X	x		
Pahsimeroi R.	X	x	x				X	X	X	X	X	x	
Upper Salmon East Fork	X	x	x				X	X	X	X	X	X	x
Upper Salmon Mainstem	X	x	x				X	X	X	X	X	X	X
<b>Hells Canyon Tributaries</b>													
Remnant of Wild Horse/ Powder	X	X	x				x						
<b>SR Fall Chinook ESU</b>	X	X	X	X	x	x	x						

**1.1.2) Assessment of how the harvest regime will not likely result in changes to the biological characteristics of the affected ESUs.**

Incidental catch-and-release mortality from the proposed FMEP would pose low to very low risk to selective change in natural processes or selective impacts to biological characteristics of the affected SR steelhead DPS and fall Chinook ESU. Selectivity would occur if an activity resulted in greater mortality on certain segment(s) of a population than others (e.g., early adult run timing, larger sizes, older ages), and if selection intensity and/or heritability of the trait is high (ICTRT 2007). Incidental mortality under the proposed FMEP is low and not directed at any particular age or size of the run.

**1.1.3) Comparison of harvest impacts in previous years and the harvest impacts anticipated to occur under the harvest regime in this FMEP.**

There is no directed harvest on natural origin SR steelhead in Department recreational fisheries. Incidental mortality is estimated using two primary assumptions: 1) encounter rates of natural-origin steelhead equal those of hatchery steelhead; and 2) 5% incidental catch-and-release mortality for natural steelhead. The origin of the Permit 1481 3.2% incidental mortality (resulting from an encounter rate of 64 percent) of natural origin steelhead is an average value calculated from the 1990-1996 Department fisheries (Table 5), which target hatchery-origin

steelhead (Marshall 2002). At an assumed 95% survival of steelhead caught and released, a 64% encounter rate yields 3.2% incidental mortality. Calculated incidental mortality rates ranged from 2.4% to 4.1% during 1990-1996 run years. As described in Section 1.4, these natural-origin encounter rates and incidental mortality rates are likely biased high and therefore maximum rates. The Department presently assumes that natural-origin steelhead encounter rates are equal to those of hatchery fish however the Department is looking into alternative methods to estimate encounter rates of natural-origin fish.

**Table 5. Estimated harvest rate on Idaho hatchery steelhead (Marshall 2002), hatchery and natural-origin steelhead encounter rates (@0.723 retention), and natural-origin incidental mortality (@0.05) used in base years (1990-1996) for Permit 1481**

Year	Harvest rate on Idaho hatchery stocks (Marshall 2002)	Encounter rate (harvest rate/0.723)	Incidental mortality@ 0.05
1990-91	0.44	0.61	0.03
1991-92	0.4	0.55	0.028
1992-93	0.46	0.64	0.032
1993-94	0.6	0.83	0.041
1994-95	0.57	0.79	0.039
1995-96	0.35	0.48	0.024
1996-97	0.41	0.57	0.028
<b>Average</b>	<b>0.46</b>	<b>0.64</b>	<b>0.032</b>

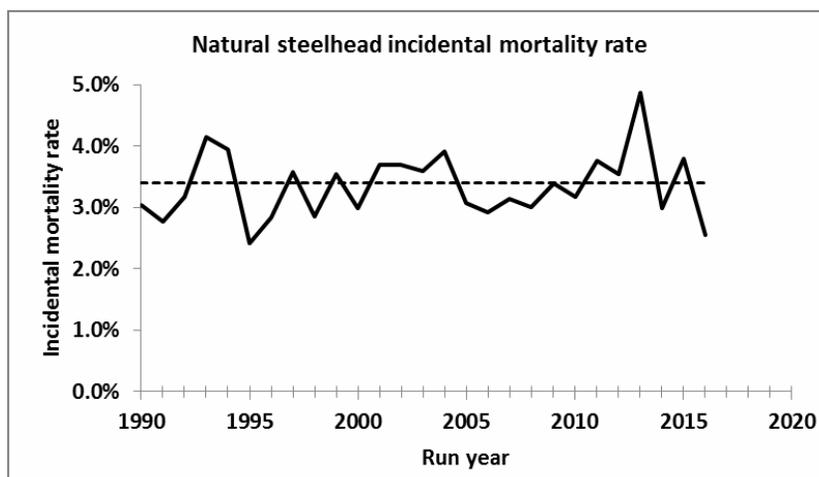
Estimated hatchery- and natural-origin run size, hatchery steelhead harvest, harvest rate, retention rate, encounter rate and natural-origin steelhead incidental mortality rate in the Idaho recreational fishery for 1990-2016 run years are shown in Table 6. Estimation methods and assumptions were the same as used by Marshall (2002), with the exception that annual estimates of retention rates (kept/caught) for hatchery fish were used beginning in 2005 (e.g., Petrosky 2010). Estimated incidental mortality rate averaged 3.3%, and ranged from 2.4% to 4.8% during 1990-2016. Since ESA listing in 1998, incidental mortality of natural-origin steelhead averaged 3.3% compared with 3.2% in the base years 1990-1996.

**Table 6. Estimated hatchery and natural steelhead run size, hatchery steelhead harvest, harvest rate, retention rate, encounter rate, and natural steelhead incidental mortality rate, Idaho recreational fishery, 1990-2016 run years.**

Run year	Total LGR steelhead	LGR Hat. steelhead	Idaho Hat. Steelhead	LGR Nat. steelhead	Nat. Idaho steelhead (.875*LGR)	Hat. harvest (anad. waters)	Hat. harvest rate	Hat. retention rate	Hat. encounter rate	Nat. incidental mort. rate
1990-91	56,865	47,579	43,541	9,286	8,125	19,054	0.440	0.723	0.609	0.030
1991-92	99,052	81,731	71,194	17,321	15,156	28,177	0.400	0.723	0.553	0.028
1992-93	128,265	108,919	96,434	19,346	16,928	44,316	0.460	0.723	0.636	0.032
1993-94	59,768	52,414	45,812	7,354	6,435	27,416	0.600	0.723	0.830	0.041
1994-95	47,302	39,786	34,272	7,516	6,577	19,601	0.570	0.723	0.788	0.039
1995-96	79,126	71,135	62,187	7,991	6,992	21,846	0.350	0.723	0.484	0.024
1996-97	86,898	79,275	66,283	7,623	6,670	26,914	0.410	0.723	0.567	0.028
1997-98	87,617	78,879	68,940	8,738	7,646	35,687	0.518	0.723	0.716	0.036
1998-99	70,721	61,335	53,607	9,386	8,213	22,166	0.413	0.723	0.572	0.029
1999-00	73,810	62,846	54,927	10,964	9,594	28,218	0.514	0.723	0.711	0.036
2000-01	115,161	95,183	83,190	19,978	17,481	35,941	0.432	0.723	0.598	0.030
2001-02	259,145	220,303	192,545	38,842	33,987	103,268	0.536	0.723	0.741	0.037
2002-03	221,935	178,834	156,301	43,101	37,713	82,992	0.531	0.723	0.734	0.037
2003-04	172,487	143,329	125,270	29,158	25,513	63,041	0.503	0.723	0.696	0.036
2004-05	151,634	128,583	112,382	23,051	20,170	63,638	0.566	0.723	0.783	0.039
2005-06	157,416	139,309	121,756	18,107	15,844	52,762	0.433	0.706	0.614	0.031
2006-07	148,981	139,511	121,933	9,470	8,286	50,122	0.411	0.703	0.584	0.029
2007-08	154,400	139,998	122,358	14,402	12,602	55,069	0.450	0.717	0.628	0.031
2008-09	178,407	154,835	135,326	23,572	20,626	59,902	0.443	0.739	0.599	0.03
2009-10	323,390	280,682	245,316	42,708	37,370	117,114	0.477	0.712	0.671	0.034
2010-11	208,926	163,457	142,861	44,839	39,235	63,004	0.441	0.695	0.635	0.0317
2011-12	180,320	140,169	119,620	40,151	22,886	66,129	0.553	0.733	0.754	0.0377
2012-13	109,182	83,009	71,747	26,173	14,421	40,550	0.565	0.796	0.71	0.0355
2013-14	108,154	82,799	67,593	23,355	13,766	36,001	0.533	0.545	0.977	0.0488
2014-15	165,591	119,802	95,500	45,789	26,816	42,500	0.445	0.743	0.599	0.0299
2015-16	136,150	102,214	68,983	33,936	18,727	37,864	0.549	0.722	0.759	0.038
2016-17	101,826	86,250	69,039	15,576	7,267	28,052	0.406	0.797	0.51	0.0255

The number of hatchery steelhead harvested was strongly correlated (0.94) with hatchery steelhead run size at Lower Granite Dam (LGR) from 1990-2016. Harvest rates, encounter rates, and incidental mortality rates were not correlated with hatchery or natural run sizes at LGR from 1990-2016. Estimated incidental mortality rates fluctuated about the 3.2% rate, showing no evidence of an increasing or decreasing trend (Figure 2).

**Figure 2. Estimated incidental mortality rate of natural steelhead in Idaho recreational fisheries, 1990-2016 run years.**

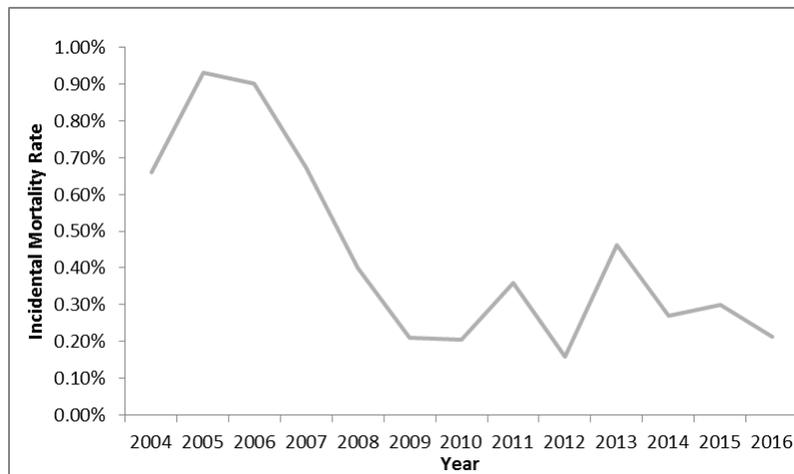


Anticipated incidental mortality rate of natural-origin SR steelhead in Department recreational fisheries under this FMEP will likely continue to average about 3.2%, similar to that observed in recent years and given the same estimation methods and assumptions.

Incidental mortality for natural-origin SR fall Chinook is estimated using two primary assumptions: 1) encounter rates of natural-origin fall Chinook equal those of total fall Chinook above Lower Granite Dam; and 2) 10% incidental catch-and-release mortality rate for natural-origin fall Chinook. The Permit 1481 0.15% incidental mortality rate (resulting from catch and release of 1.5 percent of the run) was developed when run sizes of fall Chinook were low, and without benefit of the run reconstruction data and harvest data to bracket likely incidental impacts that were actually occurring with increasing run sizes. Fall Chinook incidental mortality rates estimated for Idaho recreational fisheries for 2004-2016 (e.g., Petrosky 2010) are shown in Figure 3. Since 2004, natural-origin fall Chinook encounter rates have averaged 4.4%, and incidental mortality rates have averaged 0.44% in the steelhead fishery.

Anticipated incidental mortality rate of natural-origin SR fall Chinook in Department recreational fisheries under this FMEP will continue to be below 1.5%, similar to that observed in recent years and given the same estimation methods and assumptions. Total number of adult fall Chinook, and the estimated proportion natural-origin fall Chinook, above LGR are obtained from the U.S. v. Oregon Technical Advisory Committee (e.g., TAC 2018).

**Figure 3. Fall Chinook run sizes, encounter rates and incidental mortality rates for Idaho recreational fisheries for 2004-2016.**



**1.1.4) Description of additional fishery impacts not addressed within this FMEP for the listed ESUs specified in section 1.3. Account for harvest impacts in previous year and the impacts expected in the future.**

SR steelhead are harvested or subject to incidental mortality in fisheries outside Idaho, primarily in the mainstem Columbia River, and in Tribal fisheries within Idaho. SR steelhead are rarely caught in ocean fisheries, and are therefore not subject to management by the Pacific Fisheries

Management Council (PFMC 2003). Whatever small amount of ocean harvest occurred in the past is incorporated into the ICTRT (2007) base productivity through use of observed escapements and recruits.

Harvest impacts, including incidental mortality, of adult SR steelhead in the mainstem Columbia River are managed under the framework of *U.S. v. Oregon 2018-2027 Management Agreement* (US v. OR 2018). The recent status assessment states that available harvest information indicates that “since 2011, harvest rates have remained relatively constant at 1.3% for Snake River A-run steelhead (TAC 2011-14)” and “harvest impacts have been trending downward for Snake River B-run steelhead from 17.3% in fall treaty fisheries and 1.4% in recreational fisheries to less than 13.8% and 1.0% (TAC 2011-14, NMFS 2016)”.

Annual impact rates for natural-origin SR steelhead in the Columbia River Non-Treaty fisheries (Zone 1-5) averaged 1.6% for A-run and 1.2% for B-run during 2001 – 2007 (TAC 2008) Annual harvest rates for natural-origin SR steelhead in the Columbia River Treaty Indian fishery (Zone6) averaged 3.6% for A-run and 11.6% for B-run during 2001 – 2007 (TAC 2008) and averaged 6.2% for A-run and 15.67% for B-run during 2008 – 2017 (TAC 2018, Table 7). In contrast, Zone 6 harvest rates in the early 1980s ranged as high as 20% for wild A-run steelhead and 37% for wild B-run steelhead.

**Table 7. Fall Season Tribal Zone 6 Steelhead A-Index and B-Index Harvest Rates (TAC 2008, 2018).**

Year	Group A Index			Group B Index			Run Totals		
	Wild	Hatchery	Total	Wild	Hatchery	Total	Wild	Hatchery	Total
1985	20.7%	18.5%	18.9%	31.0%	55.1%	47.4%	22.8%	22.4%	22.5%
1986	13.8%	15.6%	15.2%	26.7%	29.7%	29.2%	15.8%	18.2%	17.8%
1987	15.7%	23.6%	20.1%	37.2%	42.6%	40.9%	18.2%	27.2%	23.4%
1988	17.1%	25.6%	22.4%	23.4%	25.9%	25.4%	18.5%	25.7%	23.4%
1989	15.9%	18.3%	17.6%	35.0%	26.3%	27.7%	19.3%	20.9%	20.5%
1990	16.0%	16.9%	16.7%	21.6%	24.7%	24.1%	17.4%	19.3%	18.8%
1991	14.7%	14.4%	14.5%	29.9%	24.5%	25.7%	16.1%	15.6%	15.7%
1992	16.2%	15.6%	15.7%	26.3%	24.9%	25.2%	18.4%	17.3%	17.5%
1993	15.2%	14.9%	14.9%	19.1%	23.7%	23.2%	15.7%	16.9%	16.7%
1994	10.3%	10.0%	10.1%	18.6%	10.6%	12.1%	11.9%	10.1%	10.5%
1995	10.4%	10.4%	10.4%	18.6%	11.8%	12.7%	11.0%	10.5%	10.6%
1996	8.9%	8.0%	8.1%	34.6%	21.7%	24.4%	12.3%	9.2%	9.7%
1997	10.4%	9.9%	10.0%	14.3%	4.2%	5.3%	10.8%	9.0%	9.3%
1998	8.8%	7.1%	7.5%	15.6%	5.1%	6.0%	9.4%	6.6%	7.2%
1999	5.4%	7.7%	6.9%	12.6%	26.0%	23.7%	5.8%	10.1%	8.8%
2000	4.3%	6.0%	5.5%	14.3%	15.9%	15.6%	5.5%	7.8%	7.1%
2001	4.0%	4.6%	4.5%	11.5%	6.4%	7.1%	4.6%	4.9%	4.9%
2002	2.7%	2.7%	2.7%	3.4%	3.9%	3.7%	2.9%	3.0%	3.0%
2003	2.5%	6.2%	5.4%	14.9%	11.2%	11.9%	3.6%	6.8%	6.1%
2004	3.2%	3.6%	3.5%	11.3%	17.6%	16.1%	4.3%	5.4%	5.1%
2005	3.8%	3.3%	3.4%	12.3%	10.0%	10.4%	5.0%	4.4%	4.6%
2006	5.2%	5.1%	5.1%	16.0%	11.0%	11.6%	6.4%	6.7%	6.6%
2007	3.6%	5.2%	4.7%	11.6%	14.6%	14.1%	4.4%	7.0%	6.3%
Ave 2001-07	3.6%	4.4%	4.2%	11.6%	10.7%	10.7%	4.5%	5.5%	5.2%

Harvest impacts in the mainstem Columbia River during 1980-2007 are incorporated into the ICTRT (2007) base abundance and productivity through use of observed escapements and recruits. Under the 2018-2027 Management Agreement total allowable harvest impacts on natural B-run SR steelhead will range from 15% to 22%, depending on run sizes of (wild and hatchery) B-run steelhead and URB fall Chinook. The fall season harvest rate schedule under the 2018-2027 Management Agreement (US v OR 2018) is shown as Table A4 below.

**Excerpted from US v. OR (2008, 2018):**

**Table A4. Fall Management Period Steelhead Harvest Rate Schedule.**

Forecast Bonneville Total B Steelhead Run Size	River Mouth URB Run Size	Treaty Total B Harvest Rate	Non- Treaty Natural Origin B Harvest Rate	Total Harvest Rate
< 20,000	Any	13%	2.0%	15.0%
20,000	Any	15%	2.0%	17.0%
35,000	> 200,000	20%	2.0%	22.0%

B Run Steelhead are defined as steelhead measuring  $\geq 78$  cm

**Footnotes for Table A4**

This harvest rate schedule applies to fall season fisheries only. These fisheries include all mainstem fisheries below the mouth of the Snake River from August 1 through October 31 and for mainstem fisheries from The Dalles Dam to the mouth of the Snake River from November 1 through December 31. Also included are fall season treaty fisheries in Drano Lake and tributary mouth sport fisheries in Zone 6 that impact Snake River steelhead.

In addition to the incidental mortality in the Department’s recreational fisheries targeting adipose-clipped hatchery SR steelhead described for the FMEP, natural-origin SR steelhead are harvested or subject to incidental mortality in Treaty Indian fisheries within Idaho, conducted by the Nez Perce Tribe and Shoshone-Bannock Tribes. Washington and Oregon recreational fisheries in the boundary waters of the Snake River, and in the lower Snake River within Washington, also result in incidental mortality on natural-origin SR steelhead.

**SECTION 2. MONITORING AND EVALUATION**

**2.1) Description of the specific monitoring of the “Performance Indicators” listed in section 1.1.3.**

The Department proposes to continue the monitoring programs to estimate the harvest, effort and incidental mortality of listed salmon and steelhead, which are routinely conducted pursuant to existing permits. Specifically:

- The kokanee fishery on Redfish Lake has been monitored and reported each year pursuant to Permit #1481. We anticipate the same monitoring and reporting to continue under the general fishing rules FMEP that was approved in 2011.
- The SRSS Chinook fisheries have been monitored pursuant to Permit 1481 using a combination of roving creel surveys and check stations. We anticipate the same monitoring and reporting to continue under the spring/summer Chinook FMEP that was approved in 2011.
- The steelhead fishery was monitored using a roving creel survey and a telephone survey. We anticipate the same monitoring and reporting to continue under the FMEP for both steelhead and Fall Chinook caught and released within the steelhead fishery.
- While there has been no annual monitoring of the resident fish fishery in the state's anadromous fish waters, past creel surveys have documented the low level of incidental encounters of listed salmon and steelhead.

Funding is available to the Department to implement monitoring programs, and minimize and mitigate impacts through; 1) the sale of fishing licenses, 2) Lower Snake River Compensation Plan, 3) contracts with the Idaho Power Company and, 4) the Dingle/Johnson Program.

**2.2) Description of other monitoring and evaluation not included in the Performance Indicators (section 3.1) which provides additional information useful for fisheries management.**

Dam counts and trap sampling at LGR for adipose-clipped and unclipped steelhead adults, and examination of dorsal fin erosion for unclipped steelhead allows for estimation of natural- and hatchery-origin run size. PBT sampling at LGR will be used to determine the proportion of hatchery- and natural-origin adults, and allows for estimation of the proportion of natural and unclipped, hatchery-origin adults annually. GSI sampling at LGR will allow for partitioning the SR steelhead natural-origin run into reporting units. GSI sampling combined with age determinations from scale sampling will allow for improved estimation of abundance and productivity. Dam counts, LGR trap sampling, and run reconstruction allows for (post-season) estimation of natural and hatchery run sizes of SR fall Chinook. PIT tagged hatchery steelhead and fall Chinook allow for estimation of specific hatchery adult run-sizes and evaluation of FCRPS management actions.

**2.3) Public Outreach**

Statutes that govern operation of the Idaho Department of Fish and Game may be accessed at <http://www3.state.id.us/idstat/TOC/36FTOC.html>. Fishing rules adopted by the Commission may be accessed at <http://fishandgame.idaho.gov/cms/fish/rules/>. In general, fishing rules limit not only harvest, but also disturbance of fish, particularly adult spawners. Gear restrictions, such as use of barbless hooks help minimize mortality when non-targeted species are caught and released. Some examples of the specialized rules that have been adopted to minimize impacts include:

1. It is unlawful to take or attempt to take adult or juvenile anadromous Sockeye Salmon.

2. It is unlawful to harass any Chinook Salmon or Sockeye Salmon by shooting at it, striking it, building an obstruction, or chasing it up or downstream in any manner.
3. It is unlawful to deposit, throw, place, allow or cause to pass any of the waters of this state any deleterious drugs, toxicants, chemicals, poisonous substances, explosives, electrical current, or other material which may tend to destroy, kill, disable, or drive away fish.
4. It is unlawful to catch, attempt to catch, or kill any species of fish whatever in any of the streams, rivers, lakes, reservoirs or waters of this state with any seine, net, spear, snag hook, weir, fence, basket, trap, gillnet, dip net, trammel net or any other contrivance.
5. Restrictive rules have been adopted for most anadromous waters, especially key production areas. These include for example Wild Trout management (e.g., 2 trout limit) and Restrictive Special Rules (e.g., Catch-and-Release, barbless hooks, artificial flies and lures only, i.e., no bait). On the Middle Fork Salmon River and in some other streams no trout may be retained.
6. The August 7 closure date of the fishery in Redfish Lake reduces the possibility of incidentally catching listed *O. nerka* (residual Sockeye Salmon) by curtailing fishing when most kokanee adults have ascended spawning streams and listed *O. nerka* remain in the lake. Disturbance of Sockeye Salmon on redds due to fishing activities is precluded by closure of the fishery prior to the onset of spawning, which occurs in October.

The Department dedicates a substantial amount of time and effort to inform anglers and non-anglers regarding the conservation of native fishes. Subjects include fishing seasons and rules, fish identification, management rationale, and major threats to populations. We use printed material, regulation pamphlets, news releases, and signs at specific locations. We also actively post and update information on the following website: <https://idfg.idaho.gov/fish/steelhead>. We host public meetings and give presentations to schools, and a variety of sportsman's organizations and local civic groups. The high degree of compliance with fishing rules, particularly the adipose-clip rule for salmon and steelhead show that anglers understand and are willing to comply with these rules. Illegal take of adult salmon and steelhead has been minimal.

#### **2.4) Enforcement**

The Department maintains law enforcement staff in each regional office. Staff is assigned patrol duties on a priority basis. Law enforcement staff patrol the recreational fisheries both in uniform, and in plain clothes. In addition Department biological staff is authorized to enforce fishing rules. The combined presence of enforcement officers and biological staff conducting creel surveys provides excellent monitoring.

The Department maintains a proactive public education program to enhance the protection of listed fish, and to ensure compliance with protective rules. The activities are summarized below:

- 1) An aquatic education program for school age children.
- 2) Publication of information on Idaho's threatened and endangered species, including where they may be encountered, and species identification guides in our Fishing Season and Rules.
- 3) Discussions with anglers on these subjects when fishing, when at check stations, and

other times and places.

4) Regional activities include posting of signs, issuing news releases, maintaining a website at <https://idfg.idaho.gov/fish/steelhead> and participating in radio programs.

The low incidence of serious violations that would adversely impact listed fish confirms that both the public education and enforcement activities conducted by the Department work effectively. In addition to law enforcement measures taken, creel survey crews and check station operations, our Citizens Against Poaching program provide a significant deterrent to deliberate illegal take of listed species.

**2.5) Schedule and process for reviewing and modifying fisheries management.**

**2.5.1) Description of the process and schedule that will be used on a regular basis (e.g. annually) to evaluate the fisheries, and revise management assumptions and targets if necessary.**

The Department proposes the following process and schedule: The Department will provide the triennial SR steelhead fishery rules and consult with NOAA Fisheries with any substantive new rule proposals. Proposals will be developed consistent with FMEP objectives. The Commission will authorize annual salmon seasons and rules. The Department will provide NOAA Fisheries with annual reports on April 15 of the following year.

**2.5.2) Description of the process and schedule that will occur every X years to evaluate whether the FMEP is accomplishing the stated objectives. The conditions under which revisions to the FMEP will be made and how the revisions will likely be accomplished should be included.**

The Department proposes a five-year review schedule to evaluate whether the FMEP is accomplishing the stated objectives. The FMEP may be revised or modified accordingly to accommodate recommendations from Recovery Plans, harvest management plans, hatchery production and management plans, Biological Opinions, or other appropriate mechanisms. The Department expects written notification by NOAA Fisheries of new information or policies related to the FMEP, and the Department in consultation with NOAA Fisheries will propose appropriate modifications to this FMEP.

**SECTION 3. CONSISTENCY OF FMEP WITH PLANS AND CONDITIONS SET WITHIN ANY FEDERAL COURT PROCEEDINGS**

The State of Idaho is party to the U.S. v. Oregon process and is affected by the 2018-2027 Management Agreement. Development of this FMEP is consistent with the expectations defined in the 2018-2027 U.S. v. Oregon Management Agreement.

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