

Environmental Assessment for Codifying Recreational Fishing at Entiat National Fish Hatchery

2019

This Environmental Assessment (EA) is being prepared to evaluate the effects associated with this proposed action and complies with the National Environmental Policy Act (NEPA) in accordance with the Council on Environmental Quality regulations (40 CFR 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. NEPA requires examination of the effects of proposed actions on the natural and human environment. The purpose of the proposed action is to provide compatible wildlife-dependent recreational fishing opportunities at Entiat National Fish Hatchery. Other applicable statutes, executive orders, and regulation compliance are addressed in the Appendix section of the document.

Proposed Action:

The U.S. Fish and Wildlife Service (Service) is proposing to open recreational fishing opportunities for Pacific Salmon, Steelhead, rainbow trout, brook trout, and other cool water fish species at the Entiat National Fish Hatchery (NFH) in accordance with the State of Washington fishing regulations and the hatchery's Fishing Plan for Entiat NFH. The proposed action will codify bank fishing on Service property along the western shore of the Entiat River that will be made officially open to the general public for recreational fishing (Figure 1). These specific areas will be open for anglers to access year-round in accordance with WDFW regulations. This totals approximately 1,000-feet of accessible Entiat River shoreline and the associated 2.0 acres of hatchery property (Figure 2).

This proposed action is often iterative and evolves over time during the process as the agency refines its proposal and learns more from the public, tribes, and other agencies. Therefore, the final proposed action may be different from the original. The final decision on the proposed action will be made at the conclusion of the public comment period for this EA.

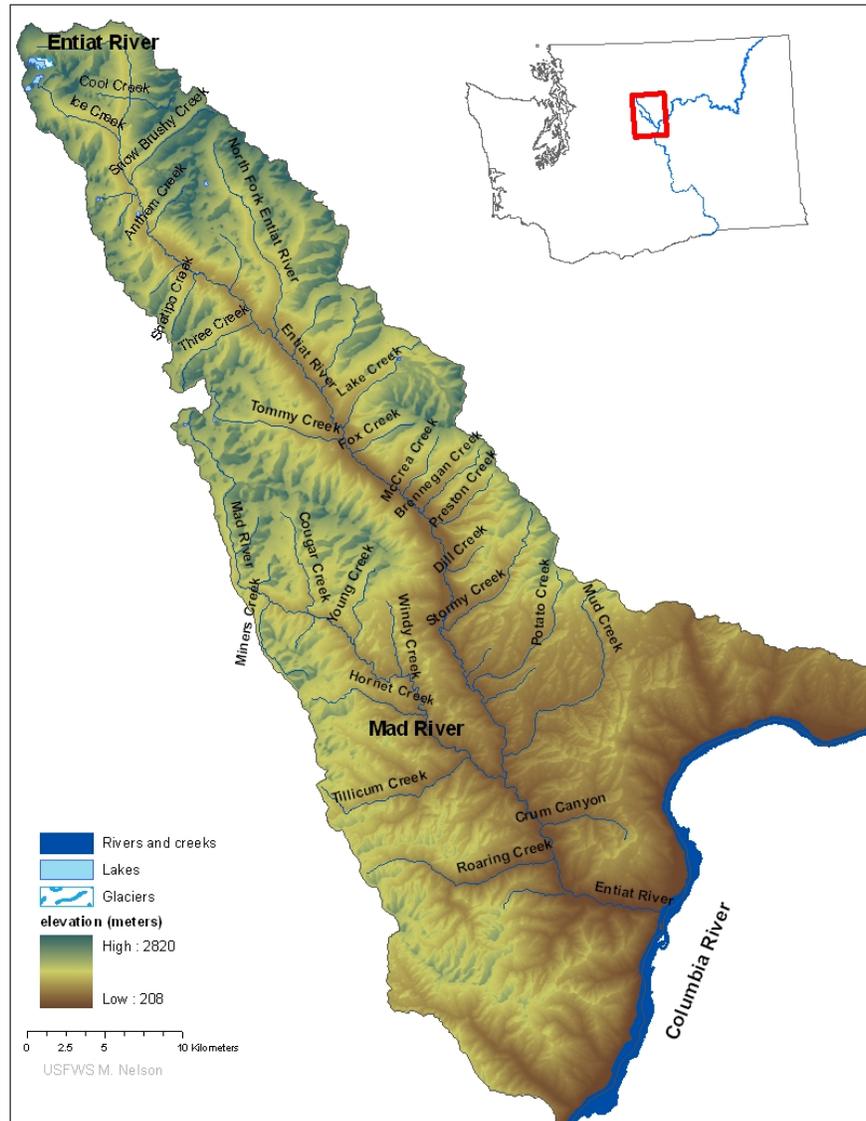


Figure 1. Overview of the Entiat River Watershed.



Figure 2. Aerial View of Entiat NFH with Fishing Access Denoted.

Background:

National Fish Hatcheries are guided by the goals and objectives of the *Strategic Plan for the U.S. Fish and Wildlife Service, Fish and Aquatic Conservation Program: FY2016-2020* (USFWS 2016), the mission and goals of the National Fish Hatchery System (NFHS), the authorized purposes of an individual hatchery, U.S. Fish and Wildlife Service (Service) policy, laws and international treaties.

The Entiat NFH consists of approximately 37-acres in Chelan County, Washington (Figure 4). The hatchery is located about 24-miles north of the town of Wenatchee, Washington, about 6.7-river miles from the confluence of the Entiat River and the Columbia River (Figure 3).

The facility was originally placed in operation following Congressional authorization of the Mitchell Act in 1938 (*52 Stat. 345*) and the subsequent Columbia Basin (Grand Coulee Dam) Act of 1943 (*57 Stat. 14*) to mitigate for the loss of habitat as a result of no fish passage capability due to the completion of the Grand Coulee Dam. Entiat NFH currently propagates summer Chinook salmon.

National Fish Hatchery lands are maintained for the fundamental purpose of propagating and distributing fish and other aquatic animal life and managed for the protection of all species of wildlife (50 CFR Ch.1 70.1).

When the Grand Coulee Dam was originally built on the Columbia River in the late 1930s, fish passage capability was not included in the design resulting in the loss of hundreds of river-miles of potential habitat that were no longer accessible to migrating salmon and steelhead. As a

consequence of no fish passage capability at Grand Coulee Dam, to compensate for the loss of potential habitat, to keep fish numbers high, and to serve tribal, commercial, and sport fisheries, three NFHs were built: Entiat, Leavenworth, and Winthrop NFHs. These three hatcheries continue this practice today, nearly 80 years later.

Entiat NFH was originally constructed during the period 1939 and 1941 and began operations in 1942 as partial mitigation for the loss of anadromous fish habitat and fish production upstream of Grand Coulee Dam (Figure 3). Between 1942 and 1975, Entiat NFH raised a variety of salmon and trout species from multiple stocks. However, the majority of effort was focused on spring and summer Chinook salmon. Entiat NFH raised and reared solely spring Chinook salmon from 1975-2007. The spring Chinook salmon program was terminated in 2007 after concerns were raised regarding the benefits of the program compared to the potential impact of Entiat NFH spring Chinook salmon production on wild/natural-origin spring Chinook salmon in the Entiat River. In response to a risk analysis conducted in 2007, Entiat NFH curtailed the release of spring Chinook salmon and initiated a new summer Chinook salmon program in 2009.

Presently, Entiat NFH lands and adjacent Entiat River in general have provided a multitude of fishing opportunities to the general public. Public access to the Entiat River allows many rod and reel anglers to use the banks of hatchery lands and adjacent lands to pursue Pacific Salmon.

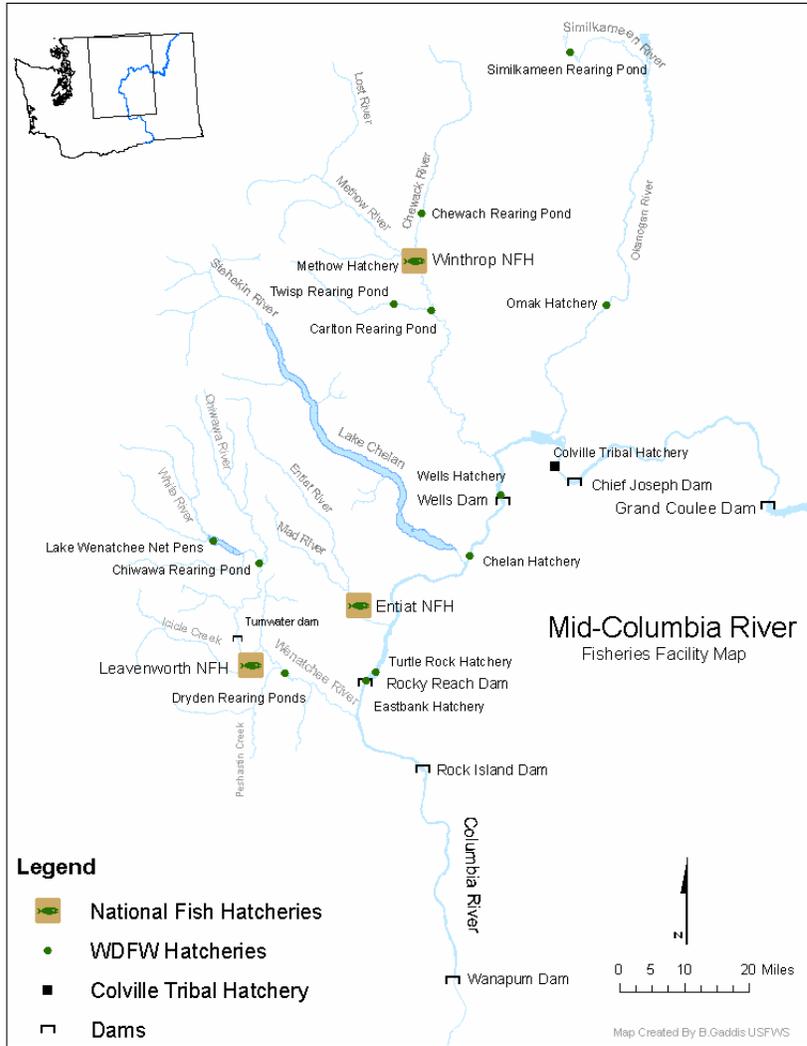


Figure 3. Map showing the LFC facilities: Leavenworth, Entiat, and Winthrop NFHs.



Figure 4. Aerial view of Entiat NFH.

Purpose and Need for the Proposed Action:

The primary purpose of this proposed action is to codify compatible wildlife-dependent recreational opportunities at Entiat NFH. The need of the proposed action is to meet the requirements of Secretarial Order 3347 involving “identifying specific actions to expand access significantly for recreational hunting and fishing on public lands as may be appropriate”.

The objective of the fishing program at the Entiat NFH is to provide:

- The public with a recreational opportunity to experience fishing on public hatchery land and increase opportunities for anglers, especially for youth and families.

Alternatives Considered

Alternative A (Preferred Alternative): Fishing access would continue at Entiat NFH as it has for the last 81 years.

Alternative B: Fishing access would be terminated after 81 years at Entiat NFH.

Affected Environment

The elevation at the headwaters of the Entiat River basin is 4,389.8 ft, drainage area is 674.2 m², and average annual precipitation is 44.9 inches (Mullan et al. 1992). The major tributaries of

the Entiat River are the Mad River (river-mile 10.4) and North Fork Entiat River (river-mile 34.2) (Figure 3). Average annual stream discharge for the Entiat River is 509 ft³/s, average low discharge is 266 ft³/s and flood discharge is 10,800 ft³/s (Mullan et al. 1992). In the Mad River, average annual discharge is 69 ft³/s and average minimum discharge is 17 ft³/s (Mullan et al. 1992).

The upper Entiat River descends in a series of steps carved by glaciers. From Entiat Falls to Box Canyon (river-mile 29.2), the stream gradient averages 2 percent, and then increases to 4.3 percent between Box Canyon and Fox Creek (river-mile 27.8). The gradient is less than 0.3 percent in the stillwater area upstream of the Potato Creek moraine, while downstream of the moraine to the mouth it averages about 1 percent per mile, and the stream lacks characteristic pools in this reach due to its steep gradient (Mullan et al. 1992).

The Mad River (major tributary of the Entiat River) flows for approximately 24 miles from Mad Lake to its mouth at river-mile 10.4 of the Entiat River. A terminal moraine lies near Maverick Saddle at river-mile 16.8 and downstream the river lies in a narrow steep canyon. The Mad River has a steep gradient and cascades over small falls for much of its course. From the mouth to Pine Flats Campground (river-mile 4) it averages a 2 percent gradient and from Pine Flats to river-mile 21.8 it averages a 4 percent gradient (Holtby 1972). Stream gradient at the falls below Cougar Creek (river-mile 13.9) is 6 to 7 percent, and there are several places in this vicinity where the gradient exceeds 7.5 percent (Holtby 1972).

A dry forest of ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), and grand fir (*Abies grandis*) are the major forest types at elevations below 3,937 ft in the Entiat River watershed. Historically, low intensity wildfire maintained dry forests that were dominated by widely spaced, large trees with little underbrush. Previous management practices of fire suppression, timber harvest, and livestock grazing have altered the forest ecology, increased tree density and underbrush, and changed the fire regime to high intensity, stand replacement, large wildfires (USFS 2000). As a result, much of the Entiat River watershed has periodically burned in large fires. In 1888, wildfires burned over most of the Mad River drainage (Holtby 1972). During the period 1970 to 1994, over 60 percent of the watershed was affected by large stand replacing wildfires, and in 1994 alone, the Tyee Wildfire burned 33 percent of the watershed (Andonaegui 1999).

Tables 1-6 provides additional, brief descriptions of each resource present in the vicinity of Entiat NFH.

Environmental Consequences of the Action

This section analyzes the environmental consequences of the action on each affected resource, including direct and indirect effects. This EA only includes the written analyses of the environmental consequences on a resource when the impacts on that resource could be more than negligible and therefore considered an “affected resource”. Any resources that will not be more than negligibly impacted by the action have been dismissed from further analyses.

Tables 1-5 provide:

1. A brief description of the affected resources in the proposed action area;

2. Impacts of the proposed action and any alternatives on those resources, including direct and indirect effects.

Table 6 provides a brief description of the cumulative impacts of the proposed action and any alternatives.

Impact Types:

- *Direct effects* are those which are caused by the action and occur at the same time and place.
- *Indirect effects* are those which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.
- *Cumulative impacts* result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions.

TABLE 1. AFFECTED NATURAL RESOURCES AND ANTICIPATED IMPACTS OF THE PROPOSED ACTION AND ANY ALTERNATIVES

NATURAL RESOURCES		
AFFECTED RESOURCE	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Pacific salmon and steelhead</p> <p>Historically, adult salmon returns to the Columbia Basin were at least 10 to 16 million fish annually. Today, across the Northwest, less than 5 percent of historic populations of wild salmon and steelhead return to local rivers and streams.</p>	<p>Overall the direct and indirect impacts on fish populations should be relatively insignificant. Fishing activities have taken place on the Entiat River for decades and fish population levels have varied widely during this period based on climate change, dam construction, water withdrawals, dredging, and a host of other extensive habitat modifications. Actual data though are lacking because the Service does not regulate fisheries in state waters and therefore has no standing to conduct creel surveys or other angler surveys. The Washington Department of Fish and Wildlife (WDFW) does have the standing to enumerate angler use and catch, but thus far no angler data have been collected at Entiat NFH due to its very limited use.</p>	<p>Eliminating fishing access at Entiat NFH could potentially increase the numbers of fished species in the Entiat River, but this increase would likely be insignificant. The proportion of anglers using Entiat NFH to access the Entiat River appears to be nominal based on staff observations, therefore access restriction would have little effect.</p>

AFFECTED RESOURCE	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Other Wildlife and Aquatic Species</p> <p>The hatchery supports a diversity of wildlife species of the Upper-Columbia River, including game and nongame species, reptiles, amphibians, and invertebrates, which are important contributors to the overall biodiversity on the hatchery. Songbirds, raptors, shorebirds and waterfowl primarily utilize the hatchery as wintering and migratory habitat.</p>	<p>Overall the direct and indirect impacts on wildlife and other aquatic species should be relatively insignificant. Fishing activities have taken place on the Entiat River for decades and populations of wildlife and aquatic species have varied widely during this period primarily due to major habitat alterations within the Entiat River.</p>	<p>Eliminating fishing access at Entiat NFH could potentially increase the numbers of wildlife and aquatic species, but these increases would likely be insignificant. Though the actual level of angler use is not known, direct observation suggests that increases or decreases in public access would result in minimal changes to this resource.</p>
<p>Threatened and Endangered Species and Other Special Status Species</p> <p>Bull Trout and CH (T); UCR Steelhead and CH (T); UCR Spring-run Chinook Salmon and CH (E)</p>	<p>Overall the direct and indirect impacts on threatened and endangered species and other special status species should be relatively insignificant. Fishing activities have taken place on the Entiat River for decades and populations of threatened and endangered species and other special status species have varied widely primarily due to major habitat alterations within the Entiat River.</p>	<p>Eliminating fishing access at Entiat NFH could potentially increase the numbers of threatened and endangered species and other special status species, but these increases would likely be insignificant. Though the actual level of angler use is not known, direct observation suggests that increases or decreases in public access would result in minimal changes to this resource.</p>
<p>Vegetation (including vegetation of special management concern)</p> <p>Vegetation encompasses shrubby and herbaceous communities, as well as forested communities with varying canopy types. Scattered ponderosa pine, lodgepole pine, and Douglas fir are the main woodland species. Among the common forest understory plants are common snowberry, Oregon grape, and Wood's rose.</p>	<p>Overall the direct and indirect impacts on vegetation should be relatively insignificant. Fishing activities have taken place on the Entiat River for decades and the areas open to fishing have been disturbed for at least that long. The area open to fishing is along the station's Red Willow Trail, which follows the river's shoreline and natural vegetation. Public use of this area has the potential to impact the amount and coverage of vegetation, but on a very small scale (i.e., trampling of vegetation, use of vegetation to assist with fishing, creation of social trails, etc.).</p>	<p>Eliminating fishing access at Entiat NFH could potentially increase the amount and coverage of natural vegetation since public impacts (i.e., trampling of vegetation, use of vegetation to assist with fishing, creation of social trails, etc.) would be reduced, but these increases would likely be insignificant. Though the actual level of angler use is not known, direct observation suggests that increases or decreases in public access would result in minimal changes to this resource.</p>

AFFECTED RESOURCE	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Geology & Soils</p> <p>There are varieties of soil types found throughout the hatchery property. The predominant soil type is Beverly (43%) composed of gravelly, loamy fine sand. The soils in this area support Douglas fir and Ponderosa pine which are the common tree species in the area of the Hatchery. The other soil types in the area consist of Tyee, Brief, and Beverly, all consisting of coarse and fine sand. These soils are generally highly erodible and sediment delivery rates are typically high along the river. Flooding and debris flows can be a significant transport processes for both sediment and organic materials. As fine-textured soils at the surface are disturbed, certain climatic conditions and coarse-textured sub-soils can create an environment that limits the amount of soil moisture available for vegetative growth.</p>	<p>Overall the direct and indirect impacts on geology and soils should be insignificant. Geology and soils were likely impacted during the initial construction phase and during subsequent major construction activities, but relatively light public access on such a robust resource should be minimal, if not negligible.</p>	<p>Eliminating fishing access at Entiat NFH could potentially decrease impacts on geology and soils; however, the robust nature of these resources suggests that eliminating this level of public access would have minimal, if not negligible impacts.</p>

AFFECTED RESOURCE	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Air Quality</p> <p>The Entiat valley is located on the east slope of the Cascade Mountains, where climate and air patterns in the valley can lead to periods of air stagnation, especially during the fall and winter months. During periods of air stagnation, air contaminants generated at the surface within the valley tend to accumulate, rather than disperse. Pollutants generated within the Entiat “airshed” more readily disperse during times of air movement.</p> <p>The Entiat airshed is impacted by many forms of outdoor burning, including forest prescribed burning and wildfire, agricultural burning, and residential burning, and is also seasonally affected by residential woodstove use. High levels of air pollution can put visual as well as air quality resources at risk. As population continues to grow and the area becomes more developed it could become increasingly difficult to protect visual resources and air quality.</p> <p>The WDOE administers an air quality registration and permitting program for commercial and industrial sources of air contaminants. There are no registered sources within the Entiat watershed adjacent the Entiat River, although there are a few regulated sources within the City of Entiat. Although WDOE monitors airsheds across the state, no monitoring data exist for the Entiat airshed. The nearest monitoring site is in the Wenatchee area, where the WDOE has been collecting information since 1998. WDOE has no immediate plans to expand their air monitoring to include the Entiat airshed.</p>	<p>Overall the direct and indirect impacts on air quality should be insignificant. Emissions resulting from a relatively small number of angler vehicles would likely be undetectable in relation to the large amount of vehicle emissions associated with State Highway 97A, the major thoroughfare in the vicinity.</p>	<p>Eliminating fishing access at Entiat NFH could potentially decrease impacts on air quality; however, the large amount of vehicle emissions associated with State Highway 97A would far overshadow any emissions associated with angler access reduction.</p>

AFFECTED RESOURCE	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Water Resources</p> <p>A substantial portion of the Entiat River watershed lies within public lands, primarily Wenatchee NF, but there are also lands held by BLM, WDNR, and WDFW. The drainage area is one-fourth of the watershed and is in public ownership. A small amount of the watershed is privately owned, most of which is located in the valley bottom and holds a large area of the riparian habitat available for anadromous salmonids.</p>	<p>Overall the direct and indirect impacts on water resources should be insignificant. Water use by a relatively small number of anglers would likely be undetectable in relation to the large amount of domestic and agricultural use in the area.</p>	<p>Eliminating fishing access at Entiat NFH could potentially decrease impacts on water resources; however, water use by a relatively small number of anglers would likely be undetectable in relation to the large amount of domestic and agricultural use in the area.</p>
<p>Wetlands</p> <p>Outside of the wetted area created by the Kid's Fishing Pond effluent, there are no significant wetland areas on the Entiat NFH.</p>	<p>N/A</p>	<p>N/A</p>
<p>Floodplains</p> <p>Being situated directly adjacent to the Entiat River, portions of the Entiat NFH lie within the 100-year floodplain.</p>	<p>Overall the direct and indirect impacts on the floodplain should be insignificant. Floodplain use by a relatively small number of anglers would likely be undetectable in relation to the large amount of domestic and agricultural use in the area.</p>	<p>Eliminating fishing access at Entiat NFH could potentially decrease impacts on the floodplain; however, floodplain use by a relatively small number of anglers would likely be undetectable in relation to the large amount of domestic and agricultural use in the area.</p>

TABLE 2. AFFECTED VISITOR USE AND EXPERIENCE AND ANTICIPATED IMPACTS OF THE PROPOSED ACTION AND ANY ALTERNATIVES

VISITOR USE AND EXPERIENCE	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
AFFECTED RESOURCE	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Recreational Fishing</p> <p>Recreational fishing is a popular sport on the Entiat River. It was very limited to non-existent for many years prior to the initiation of the summer Chinook salmon run created by the Entiat NFH. In 2018, WDFW regulations for anglers were allowing up to six summer Chinook salmon per person per day.</p>	<p>Overall the direct and indirect impacts of codifying an activity that has been taking place for decades on the Entiat River is insignificant. The public is completely unaware of such procedural requirements and couldn't care less as long as their access to a fishing experience is not interrupted.</p>	<p>Eliminating fishing access at Entiat NFH would likely increase impacts on a small but vocal community of recreational anglers. There would likely be some local outcry, but overall the impact would be minimal given the relatively small number of anglers using the hatchery property for access when compared to the larger number of anglers using other, but very limited, access points on the Entiat River.</p>

TABLE 3. AFFECTED CULTURAL RESOURCES AND ANTICIPATED IMPACTS OF THE PROPOSED ACTION AND ANY ALTERNATIVES

CULTURAL RESOURCES	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
AFFECTED RESOURCE	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>A search of records on file at the Region 1 Cultural Resources Team office and a review of the Department of Archaeology and Historic Preservation (DAHP) WISAARD database identified no previously recorded archaeological sites within the hatchery boundaries. A limited number of archaeological surveys have been conducted within the hatchery boundaries, or within a half mile.</p> <p>Because the Entiat NFH was established in 1940 and thus greater than 50 years of age, a pedestrian survey was conducted in 1996, which involved developing a historic context of the hatchery. Based on the study, it was determined that Entiat NFH is not eligible for listing on the National Register of Historic Places.</p>	<p>Overall the direct and indirect impacts on cultural resources should be insignificant. The general public’s primary focus is on fishing, not searching for and disturbing cultural resources. As a result, the vast majority of anticipated impacts would likely be accidental and trivial.</p>	<p>Eliminating fishing access at Entiat NFH would likely decrease impacts on cultural resources. Those wishing to disturb or pilfer these resources would be easier to detect and apprehend. Overall though it is anticipated that eliminating public access would have relatively minimal impacts on cultural resources.</p>

TABLE 4. AFFECTED HATCHERY MANAGEMENT AND OPERATIONS AND ANTICIPATED IMPACTS OF THE PROPOSED ACTION AND ANY ALTERNATIVES

HATCHERY MANAGEMENT & OPERATIONS		
AFFECTED RESOURCE	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Land Use</p> <p>The majority of the lands within the Entiat NFH are undeveloped natural areas. Hatchery infrastructure is located within a narrow band of land next to the Entiat River on the southeast portion of the property. Access to the land and infrastructure is via a hatchery access road which traverses hatchery property from Roaring Creek Road to the farthest hatchery building located at the surface water intake on the northwest portion of the property.</p>	<p>Overall the direct and indirect impacts on hatchery land use are insignificant. Access is provided via existing roads and trails with little dedicated infrastructure, which requires little-to-no maintenance.</p>	<p>Eliminating fishing access at Entiat NFH could potentially decrease impacts on hatchery land use, but these impacts are insignificant. Maintenance of road rights-of-way, trails, and trash collection would likely be reduced, but the facility dedicates very little time at present to these activities.</p>
<p>Administration</p> <p>The Entiat NFH has an authorized staffing level of 4 full-time equivalent (FTE) positions. At the time of this writing one of these positions is vacant.</p>	<p>Overall the direct and indirect impacts on hatchery administration are insignificant. No dedicated FTEs are assigned to public access and the only administrative duties would be to post and enforce hatchery-specific fishing and access regulations.</p>	<p>Eliminating fishing access at Entiat NFH could potentially decrease impacts on hatchery administration, but these would be insignificant since impacts are themselves insignificant.</p>

TABLE 5. AFFECTED SOCIOECONOMICS AND ANTICIPATED IMPACTS OF THE PROPOSED ACTION AND ANY ALTERNATIVES

SOCIOECONOMICS	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
AFFECTED ENVIRONMENT	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Local and regional economies</p> <p>The Entiat NFH is located in Chelan County. Chelan County is on the eastern slopes of the Cascade Mountain range in central Washington. Lake Chelan is the third deepest lake in the country. With its nearly year-round sunshine, it has developed into an all-season outdoor recreational destination. Agriculture is a dominant industry in Chelan County with 23.7% of total covered employment in 2017, followed by private health services with 14.0% of total covered employment. In addition to agriculture, tourism plays a large part in the local economy with two very popular areas for the state: Lake Chelan and Leavenworth. Lake Chelan is a great tourist area in the summer. Leavenworth provides year-round tourism with a Bavarian-themed village that hosts an Oktoberfest festival and has multiple ski resorts very close to town.</p>	<p>Fishing access at the Entiat NFH probably has little impact on the non-recreational fishing sectors of the local and regional economy. Fishing in the Columbia River at the confluence with the Entiat River and beyond does however represent a substantial portion of the local and regional economy. Recreational fishing-related economic outputs associated with hatchery access are likely higher than non-recreational fishing-related outputs, but pale in comparison to those associated with off hatchery waters.</p>	<p>Eliminating fishing access at Entiat NFH could potentially negatively impact recreational fishing-related expenditures in the local and regional economies, but these impacts would pale in comparison to other expenditures associated with the adjacent Columbia River. Impacts to non-recreational fishing sectors of the local and regional economies would likely be insignificant or non-existent.</p>

AFFECTED ENVIRONMENT	ANTICIPATED DIRECT AND INDIRECT IMPACTS	
	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Sector of the Economy (e.g. Agricultural Practices)</p> <p>The proposed action does not affect a certain sector of the economy.</p>	N/A	N/A
ENVIRONMENTAL JUSTICE		
<p>Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all Federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.</p>	<p>The Service has not identified any potential high and adverse environmental or human health impacts from this proposed action. The Service has not identified minority or low income communities within the impact area. Minority or low income communities will not be disproportionately affected by any impacts from this proposed action.</p>	<p>The Service has not identified any potential high and adverse environmental or human health impacts from this proposed alternative. The Service has not identified minority or low income communities within the impact area. Minority or low income communities will not be disproportionately affected by any impacts from this proposed alternative.</p>

Cumulative Impact Analysis:

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7).

TABLE 6. ANTICIPATED CUMULATIVE IMPACTS OF THE PROPOSED ACTION AND ANY ALTERNATIVES

Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts	
	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Fishing Fishing activities associated with this codification have taken place since 2017.</p>	<p>Though actual data regarding angler use and catch are not available for the hatchery’s portion of the Entiat River, it is reasonable to assume that fishing taking place at the facility is a tiny fraction of what takes place in the entire Entiat and Columbia Rivers combined. Therefore, this alternative is not considered to significantly add to cumulative impacts.</p>	<p>Given the relatively low level of angler use and catch compared to the entire Entiat and Columbia Rivers, elimination of fishing access at the facility would not significantly affect cumulative impacts.</p>
<p>Other wildlife-dependent recreation (i.e., road and trail development and use) The Red Willow Trail system exists on hatchery property allowing for such additional recreational uses.</p>	<p>Access to additional areas for fishing probably has increased associated opportunities for wildlife-dependent recreation, but this increase is insignificant when compared to the total amount of wildlife-dependent recreation that takes place in the entire Entiat Valley.</p>	<p>Eliminating fishing access at Entiat NFH will likely decrease the associated opportunities for wildlife-dependent recreation, but this decrease is insignificant when compared to the total amount of wildlife-dependent recreation that takes place in the entire Entiat Valley.</p>
<p>Development and Population Increase Chelan County’s population in 2017 was 76,533, growing 5.6% from April 1, 2010 to July 1, 2017. The pace of growth in the county’s population was less robust than the state’s 10.1% growth rate from April 1, 2010 to July 1, 2017. The largest city in Chelan County is Wenatchee.</p>	<p>The 2017 population growth-rate data in Chelan County indicates the potential for some growth, albeit small, in the coming decade—so it can be speculated that the number of people fishing at the hatchery will increase over time. This increase will effectively be very small considering that the higher growth percentage is applied to a population of only about 1,200 individuals. Given that only about 8% of the Pacific Northwest’s population participates in fishing activities (USFWS 2018), the actual increase in anglers will be insignificant.</p>	<p>Since the expected population increase in Chelan County is so small, elimination of fishing access at Entiat NFH will have very little if any cumulative impacts.</p>

	ALTERNATIVE A (PREFERRED ALTERNATIVE)	ALTERNATIVE B
<p>Agricultural land uses Surrounding land uses within the area include agriculture, primarily pear and apple orchards; livestock production and grazing; timber harvest; residential housing; and recreation. The Forest Service manages the largest portion of land adjacent to the town and hatchery.</p>	<p>The current use of the area surrounding the hatchery is expected to continue and fishing access should in no way contribute to any changes in agricultural land uses.</p>	<p>Elimination of fishing access at Entiat NFH should in no way contribute to any changes to surrounding agricultural land uses.</p>
<p>Use of lead tackle Lead weights and jigs are not prohibited on the Entiat River.</p>	<p>Continuing fishing access at the hatchery could possibly increase the amount of lead tackle use, but this use would be a tiny addition to the overall lead tackle use within the entire Entiat and Columbia Rivers.</p>	<p>Elimination of fishing access at Entiat NFH will likely have very little to no effect on the cumulative impacts of lead tackle given that it represents a tiny fraction of the overall lead tackle use in the entire Entiat and Columbia Rivers.</p>
<p>Climate Change Impacts of climate change have been manifested through northward range shifts, population declines, and migration and spawn timing shifts (Crozier 2016). It is anticipated that conditions will only worsen for these cold water-adapted species.</p>	<p>The proposed action is not anticipated to significantly contribute to the cumulative impacts of climate change. The impacts of fossil fuel-powered angler vehicles accessing the facility would be tiny compared to the emissions coming from a multitude of vehicles transiting the Entiat Valley Road and State Highway 97A.</p>	<p>Elimination of fishing access at Entiat NFH could potentially decrease the cumulative impacts of climate change by decreasing the number fossil fuel-powered angler vehicles, but this decrease would likely be negligible given that the public can readily access the Entiat River in other bank areas off the hatchery and the tiny fraction of Entiat Valley transiting vehicles this represents.</p>

Mitigation Measures and Conditions

Entiat NFH staff and WDFW authorities will monitor the impacts of the action according to their responsibilities and jurisdiction. Any noticeable impact on safety, the environment (habitat or human environment), facility operations, or other factors would be addressed through management actions to minimize the impacts. As there are no known substantial impacts at this time, monitoring is the main mitigation measure proposed.

Monitoring

Entiat NFH staff monitors the grounds including trails, access points, and undeveloped property of the hatchery for changes in conditions, safety concerns, property damage, ecological impact, littering, pollution, or other detrimental changes. This will be conducted as a course of standard work function throughout the normal tour of duty of management and operations by staff. Any issue that impacts resources to a notable degree will trigger a discussion and a management response, if needed.

WDFW authorities or other state and local authorities with jurisdiction may monitor resources (e.g., state waters and state fishery and wildlife) according to state regulations and in coordination with hatchery staff. If concerns or impacts are noticed by state authorities, the hatchery will work cooperatively with them to resolve any issues.

Enumeration of angler use and catch by WDFW would be helpful in case further assessments are required or if the Service wanted to document and track trends in these metrics over time.

Summary of Analysis

Codifying existing fishing on the facility will only have insignificant impacts on the natural and cultural resources and socioeconomic factors in the area of Leavenworth NFH.

List of Sources, Agencies and Persons Consulted:

Information was provided by the Managers of Entiat NFH, the Fishing Plan for the Entiat NFH, and from various environmental and socioeconomic websites focused on the State of Washington, Chelan County and surrounding areas, and the Mid-Columbia River in central Washington.

References:

Andonaegui, C. 1999. Salmon and steelhead habitat limiting factors report for the Entiat watershed. Water Resource Inventory Area (WRIA) 46. Washington State Conservation Commission, Olympia WA.

Crozier, L. 2016. Impacts of Climate Change on Salmon of the Pacific Northwest. National Marine Fisheries Service. Seattle, WA.

Holtby, R.B. 1972. Mad River Stream Survey. Wenatchee National Forest.

Mullan, J. W., K. R. Williams, G. Rhodus, T. W. Hillman, and J. D. McIntyre. 1992. Production and habitat of salmonids in mid-Columbia River tributary streams. Monograph I, U. S. Fish and Wildlife Service, Leavenworth, WA. 489 pp.

USFS (U.S. Forest Service). 2000. Strategy for management of dry forest vegetation. Okanogan and Wenatchee National Forests. April 2000.

USFWS (U.S. Fish and Wildlife Service). 2016. Strategic Plan for the U.S. Fish and Wildlife Service Fish and Aquatic Conservation Program: FY2016-2020. Falls Church, VA.

List of Preparers:

Dan Nehler (Eastside-Line Supervisor), U.S. Fish and Wildlife Service, Pacific Regional Office, Fish and Aquatic Conservation Program, Portland, Oregon.

Dave Irving (LFC Manager), U.S. Fish and Wildlife Service, Leavenworth Fisheries Complex, Fish and Aquatic Conservation Program, Leavenworth, Washington.

Craig Chisam (Entiat NFH Manager), U.S. Fish and Wildlife Service, Leavenworth Fisheries Complex, Fish and Aquatic Conservation Program, Entiat, Washington.

State Coordination:

The WDFW was notified via a letter of the hatchery's intent to codify public access and fishing on its lands. A copy of the Entiat NFH Fish Plan was provided as a courtesy to WDFW prior to its release for public comment.

Points of Contact:

WDFW District 7 Fish Biologist: Travis Maitland 509-665-3337
WDFW Enforcement Region 2: Captain Mike Jewell 509-754-4624

Tribal Consultation:

The Yakima Nation and the Confederated Tribes of the Colville Reservation were notified on the hatchery's intent to codify public access and fishing on its lands.

Points of Contact:

Yakama Nation Fisheries: Cory Kamphaus 509-548-9413 x102
Confederated Tribes of the Colville Reservation-Fisheries: Charles Brushwood 509-422-7749

Public Outreach:

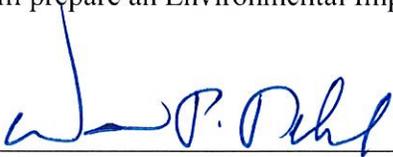
Since this action merely codifies public access and fishing that is already known and enjoyed by the general public, no further coordination was deemed necessary.

Determination:

This section will be filled out upon completion of any public comment period and at the time of finalization of the Environmental Assessment.

- The Service's action will not result in a significant impact on the quality of the human environment. See the attached "**Finding of No Significant Impact**".

- The Service's action **may significantly affect** the quality of the human environment and the Service will prepare an Environmental Impact Statement.

Preparer Signature:  Date: 8/29/2019

Name/Title/Organization: Dan Nehler, Eastside-Line Supervisor, Fish and Aquatic Conservation

Reviewer Signature:  Date: 30 Aug '19

Name/Title: Roy Elicker, Assistant Regional Director, Fish and Aquatic Conservation

APPENDIX 1
OTHER APPLICABLE STATUTES, EXECUTIVE ORDERS & REGULATIONS

STATUTES, EXECUTIVE ORDERS, AND REGULATIONS	
<p>Cultural Resources</p> <p>American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996 – 1996a; 43 CFR Part 7</p> <p>Antiquities Act of 1906, 16 U.S.C. 431-433; 43 CFR Part 3</p> <p>Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa – 470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7</p> <p>National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810</p> <p>Paleontological Resources Protection Act, 16 U.S.C. 470aaa – 470aaa-11</p> <p>Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; 43 CFR Part 10</p> <p>Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971)</p> <p>Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996)</p>	<p>Operations at the Entiat NFH strive to meet all of these statues, executive orders, and regulations.</p>
<p>Fish & Wildlife</p> <p>Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668-668c, 50 CFR 22</p> <p>Endangered Species Act of 1973, as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, and 450</p> <p>Fish and Wildlife Act of 1956, 16 U.S.C. 742 a-m</p>	

<p>Lacey Act, as amended, 16 U.S.C. 3371 et seq.; 15 CFR Parts 10, 11, 12, 14, 300, and 904</p> <p>Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21</p> <p>Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001)</p>	
<p>Natural Resources</p> <p>Clean Air Act, as amended, 42 U.S.C. 7401-7671q; 40 CFR Parts 23, 50, 51, 52, 58, 60, 61, 82, and 93; 48 CFR Part 23</p> <p>Wilderness Act, 16 U.S.C. 1131 et seq.</p> <p>Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.</p> <p>Executive Order 13112 – Invasive Species, 64 Fed. Reg. 6183 (1999)</p>	
<p>Water Resources</p> <p>Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et seq.; 15 CFR Parts 923, 930, 933</p> <p>Federal Water Pollution Control Act of 1972 (commonly referred to as Clean Water Act), 33 U.S.C. 1251 et seq.; 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323, and 328</p> <p>Rivers and Harbors Act of 1899, as amended, 33 U.S.C. 401 et seq.; 33 CFR Parts 114, 115, 116, 321, 322, and 333</p> <p>Safe Drinking Water Act of 1974, 42 U.S.C. 300f et seq.; 40 CFR Parts 141-148</p> <p>Executive Order 11988 – Floodplain Management, 42 Fed. Reg. 26951 (1977)</p>	

Executive Order 11990 – Protection of Wetlands, 42 Fed. Reg. 26961 (1977)	
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**FINDING OF NO SIGNIFICANT IMPACT
AND DECISION TO CODIFY RECREATIONAL FISHING OPPORTUNITIES**

**ENTIAT NATIONAL FISH HATCHERY
*ENTIAT, WASHINGTON***

The Service is codifying recreational fishing opportunities for Pacific salmon, Steelhead, rainbow trout, brook trout, and other cool water fish species at the Entiat National Fish Hatchery (NFH) in accordance with the State of Washington Department of Fish and Wildlife (WDFW) fishing regulations and the Entiat NFH Fishing Plan. This action officially allows bank fishing on Service property starting at the Red Willow Trailhead and extends along the western shore of the Entiat River up to the designated fishing boundary line established by WDFW that will be made officially open to the general public for recreational fishing. These specific areas will be open for anglers to access year-round in accordance with WDFW regulations. This totals approximately 1,000-foot of accessible Entiat River shoreline and the associated 2.0 acres of hatchery property.

Selected Action

Alternative A—Proposed Action Alternative:

Fishing access would continue at Entiat NFH as it has for the last 81 years. This action officially allows bank fishing on Service property starting at the Red Willow Trailhead and extends along the western shore of the Entiat River up to the designated fishing boundary line established by WDFW that will be made officially open to the general public for recreational fishing. These specific areas will be open for anglers to access year-round in accordance with WDFW regulations. This totals approximately 1,000-foot of accessible Entiat River shoreline and the associated 2.0 acres of hatchery property.

This is the Service's Preferred Alternative action because it offers the best opportunity for public fishing access that would result in a minimal additional impact on physical and biological resources, while meeting the Service's mandates under the National Wildlife Refuge System Administration Act (NWRSA) and Secretarial Order 3356. It also sustains a long history (81 years) of allowing public access to federal lands for fishing.

Other Alternatives Considered and Analyzed

Alternative B—Fishing access would be terminated after 81 years at Entiat NFH.

This action was not selected because it would terminate public access that has been available for a very long time and it would not meet the Service's mandates under the NWRSA and Secretarial Order 3356.

Summary of Effects of the Selected Action

An Environmental Assessment (EA) was prepared in compliance with the National Environmental Policy Act (NEPA) to provide decision-making framework that 1) explored a reasonable range of alternatives to meet project objectives, 2) evaluated potential issues and impacts to the hatchery, resources and values, and 3) identified mitigation measures to lessen the degree or extent of these impacts. The EA evaluated the effects associated with two alternatives/proposed actions. It is incorporated as part of this finding.

Implementation of the agency's decision would be expected to result in the following environmental, social, and economic effects:

Codifying existing fishing opportunities on the facility only has insignificant effects on environmental, social, and economic factors since it sustains activities that have been taking place on the facility for the last 81 years.

Measures to mitigate and/or minimize adverse effects have been incorporated into the selected action. These measures include:

Entiat NFH staff and WDFW authorities will monitor the impacts of the proposed action according to their responsibilities and jurisdiction. Any noticeable impact on safety, the environment (habitat or human environment), facility operations or other factors would be addressed through management actions to minimize the impacts. As there are no known substantial impacts at this time, monitoring is the main mitigation measure proposed.

While National Fish Hatcheries, by their nature, are unique areas protected for conservation of fish, wildlife and habitat, the proposed action will not have a significant impact on hatchery resources and uses for several reasons:

- In the context of local/State/hatchery fishing programs, the proposed action will result in no additional species harvested. The Service works closely with the State to ensure that additional species harvested on a hatchery are within the limits set by the State to ensure healthy populations of the species for present and future generations of Americans.
- The proposed action will result in beneficial impacts to the human environment, including the biodiversity and ecological integrity of the hatchery, as well as the wildlife-dependent recreational opportunities and socioeconomics of the local economy, with only negligible adverse impacts to the human environment as discussed above.
- The adverse direct and indirect effects of the proposed action on air, water, soil, habitat, wildlife, aesthetic/visual resources, and wilderness values are expected to be minor and short-term. The benefits to long-term ecosystem health that these efforts will accomplish far outweigh any of the short-term adverse impacts discussed in this document.
- The proposed action, along with the proposed mitigation measures, will ensure that there is a low likelihood of danger to the health and safety of refuge staff, visitors, and the hunters/fishers themselves.
- The proposed action is not in an ecologically sensitive area;

- The proposed action will not impact any threatened or endangered species; or any Federally-designated critical habitat;
- The proposed action will not impact any cultural or historical resources;
- The proposed action will not impact any wilderness areas;
- There is no scientific controversy over the impacts of this action and the impacts of the proposed action are relatively certain.
- The proposed action is not expected to have any significant adverse effects on wetlands and floodplains, pursuant to Executive Orders 11990 and 11988.

Public Review

The proposal has been thoroughly coordinated with all interested and/or affected parties. Parties contacted include:

The Washington Department of Fish and Wildlife (WDFW) Regional Director, North Central Region, was consulted about this action and to date that office has not provided any comments. The Service released the Fishing Plan and its Environmental Assessment for public comment and review during the period June 26, 2019 until August 12, 2019. The Service received one comment from the WDFW's Headquarters that their office was not consulted prior to this action and that they had to address confusion among their constituents as to the exact nature of the Service's action. The Service responded that their local office had been consulted and that this was thought to be a sufficient level of coordination since no new changes were being made, just codification of activities that have been allowed for the last 81 years. Their District Office had apparently not transmitted the proposed action up their chain of command.

Finding of No Significant Impact

Based upon a review and evaluation of the information contained in the EA as well as other documents and actions of record affiliated with this proposal, the Service has determined that the proposal to codify fishing opportunities at the Entiat National Fish Hatchery does not constitute a major Federal action significantly affecting the quality of the human environment under the meaning of section 102 (2) (c) of the National Environmental Policy Act of 1969 (as amended). As such, an environmental impact statement is not required.

Decision

The Service has decided to officially open fishing opportunities at the Entiat National Fish Hatchery, Entiat, Washington on September 1, 2019. Approximately 1,000-feet of accessible Entiat River shoreline and the associated 2.0 acres of hatchery property is officially open to the general public for recreational fishing. These specific areas will be open for anglers to access year-round in accordance with WDFW regulations.

The proposed action is consistent with applicable laws and policies.



Eastside-Line Supervisor
Fish and Aquatic Conservation Program
Pacific Region

8/30/2019
Date