

# **Environmental Assessment for Codifying Recreational Fishing at Leavenworth National Fish Hatchery**

**2019**

This Environmental Assessment (EA) is being prepared to evaluate the effects associated with the proposed action and complies with the National Environmental Policy Act (NEPA) in accordance with the Council on Environmental Quality regulations (40 CFR 1500-1509), the Department of the Interior (43 CFR 46; 516 DM 8) and the U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. NEPA requires examination of the potential effects of the proposed action on the natural and human environment. The purpose of the proposed action is to provide compatible wildlife-dependent recreational fishing opportunities at Leavenworth 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 codify recreational fishing opportunities for Pacific Salmon, Steelhead, rainbow trout, brook trout, mountain whitefish, and other cool water fish species at the Leavenworth National Fish Hatchery (NFH) in accordance with the Leavenworth NFH Fishing Plan. The proposed action will codify bank fishing on Service property along Icicle Creek that will be made officially open to the general public for recreational fishing, as well as within the Alpine Lakes Wilderness Area (Snow and Nada Lakes specifically) totaling approximately 3,000-feet of accessible shoreline and 200-acres of lake access. In addition, the action will also officially open a handicap-accessible fishing platform and access to a public boat launch. Access to these fishing opportunities will also be facilitated by officially allowing use of hatchery access roads and/or turnouts and a dedicated parking lot for the handicap fishing platform and the public boat launch.

The 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.

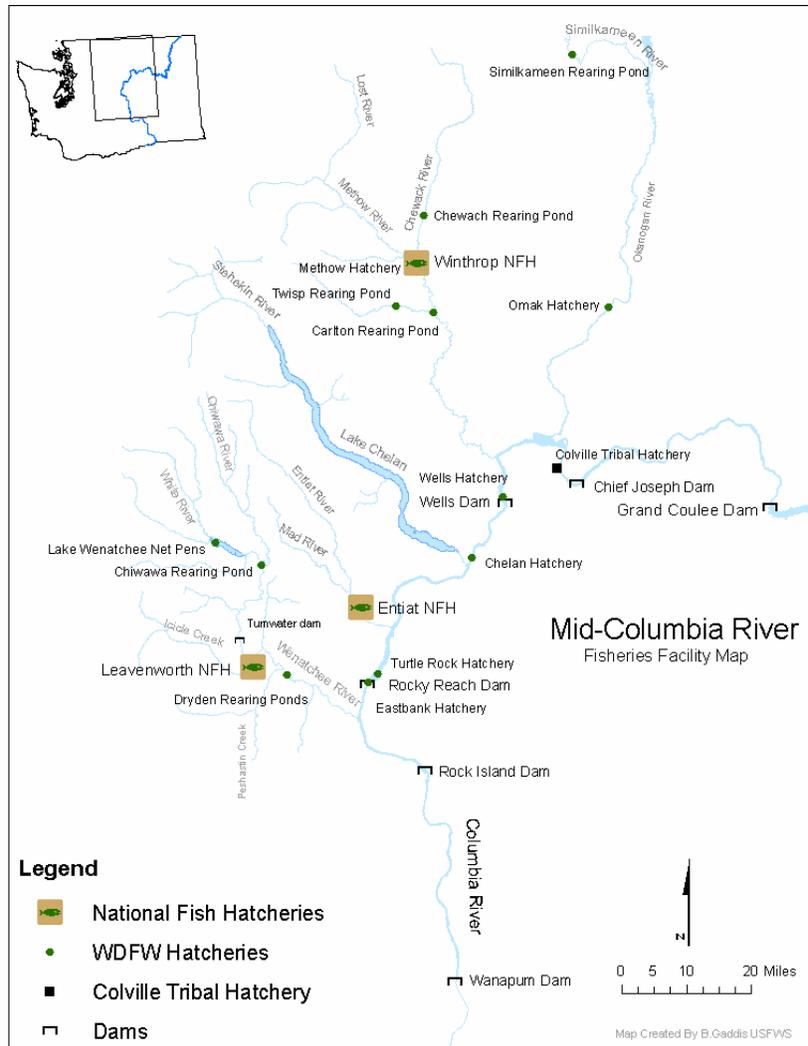


Figure 1. Map showing the LFC facilities: Leavenworth, Entiat, and Winthrop NFHs.

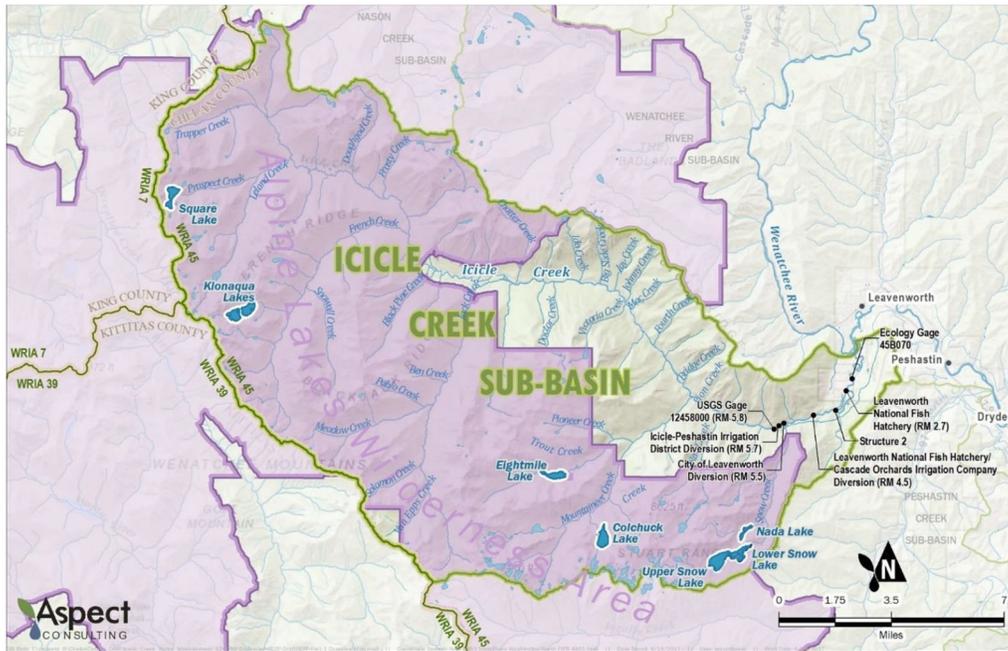


Figure 2. Overview of the Icicle Creek Sub-basin near Leavenworth NFH.

**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 Leavenworth NFH consists of 157 acres in Chelan County, Washington (Figure 3). The hatchery is located three miles south of Leavenworth, Washington, near the mouth of Icicle Canyon (Figure 2).

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. Leavenworth NFH currently propagates spring Chinook salmon and reintroduced Wenatchee River population coho 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.

Leavenworth NFH was originally constructed during the period 1939-1941, a one-mile stretch

of the Icicle Creek channel was used for holding and spawning returning adult fish. A series of dams and weirs were installed in this channel to create ponds to hold adult salmonids prior to annual spawning. Hatchery operations were conducted principally within the creek. Fish migration to areas above Leavenworth NFH were blocked by the series of dams and weirs in the historic channel and a spillway dam at the base of the canal. Currently however, neither the utilization of the former holding areas, nor blockage of upstream fish passage is required for operations (Figure 1).

Today, Leavenworth NFH is part of the Leavenworth Fisheries Complex (LFC), which is comprised of the three hatcheries: Entiat, Leavenworth, and Winthrop NFHs; as well as the Mid-Columbia Fish and Wildlife Conservation Office, which is co-located with Leavenworth NFH. The LFC was constructed by the U.S. Bureau of Reclamation (BOR) as mitigation for the loss of fish passage and potential habitat resulting from the construction and operation of Grand Coulee Dam on the Columbia River in central Washington. BOR and the Bonneville Power Administration (BPA) fund the LFC operations and maintenance, while the Service owns, manages, and operates the facility.



*Figure 3. Aerial view of Leavenworth NFH.*

**Purpose and Need for the Proposed Action:**

The primary purpose of the proposed action is to codify compatible wildlife-dependent recreational fishing opportunities at Leavenworth 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”.

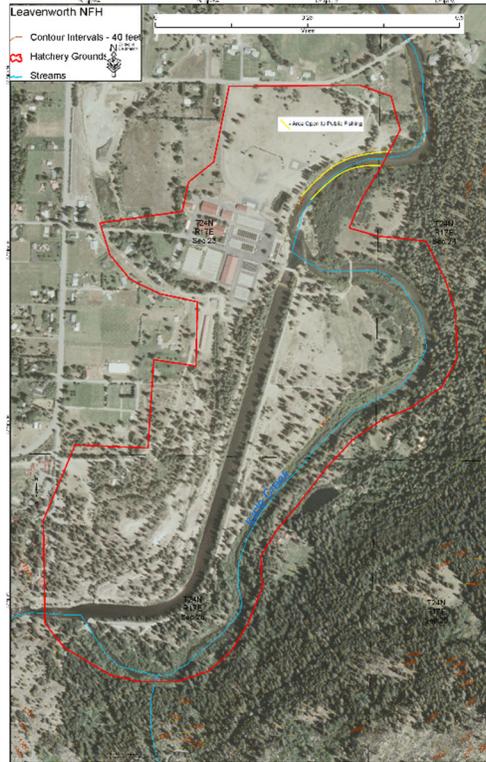
The objective of the fishing program at the Leavenworth NFH is to provide:

- 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 Leavenworth NFH as it has for the last 81 years.

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



*Figure 4. Aerial view of Leavenworth NFH with fishing access on hatchery grounds denoted.*



*Figure 5. Aerial view of Leavenworth NFH with fishing access off hatchery grounds denoted.*



*Figure 6. Aerial view of Snow and Nada lakes in the Alpine Lakes Wilderness Area, fishing access on trails around lakes.*

### **Affected Environment**

Icicle Creek originates at Josephine Lake at an elevation of 4,681 ft. near the crest of the Cascade Range in the Alpine Lakes Wilderness (Figure 2). Icicle Creek then flows east for 32 miles to join the Wenatchee River near Leavenworth, Washington. The Wenatchee River flows east 25 miles to join the Columbia River near Wenatchee, Washington. Icicle Creek's drainage (213 miles<sup>2</sup>) is mountainous and mostly undeveloped land within the Wenatchee National Forest and the Alpine Lakes Wilderness. The lower six miles of the creek are moderately developed with scattered homes and pasture, a golf course, children's camp, and the Leavenworth NFH. Icicle Creek flows are affected by artificial flow diversions created by two irrigation entities: the City of Leavenworth and the Leavenworth NFH both withdraw water for domestic, agriculture, and fish rearing purposes. Thousands of campers, rafters and fishers enjoy outdoor activity on Icicle Creek annually. The stream is primarily snow- and glacier-melt fed, with an average annual streamflow of 614-cfs (low flow 44-cfs; high flow 19,800-cfs).

Icicle Creek transitions from a relatively narrow and steep walled canyon to a broader and flat valley floor south of the City of Leavenworth, Washington. The Leavenworth NFH is located just downstream of the creek as it emerges from the canyon. Icicle Creek provides excellent habitat for spring Chinook salmon, steelhead, bull trout, and resident rainbow trout (Figure 2).

Tables 1-6 provides additional, brief descriptions of each resource present in the vicinity of Leavenworth 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**

<b>NATURAL RESOURCES</b>		
<b>AFFECTED RESOURCE</b>	<b>ANTICIPATED DIRECT AND INDIRECT IMPACTS</b>	
	<b>ALTERNATIVE A (PREFERRED ALTERNATIVE)</b>	<b>ALTERNATIVE B</b>
<p><b>Pacific salmon and steelhead</b></p> <p>Historically, adult salmon returns to the Columbia Basin were at least 10 to 16 million fish annually. Today, across the Northwest, <a href="#">less than 5 percent of historic populations</a> 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 at this facility for over 80 years and fish population levels have varied widely during this period based on climate change, dam construction, water withdrawals, 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.</p>	<p>Eliminating fishing access at Leavenworth NFH could potentially increase the numbers of fished species in Icicle Creek, but these increases would likely be insignificant. The proportion of anglers using Leavenworth NFH to access Icicle Creek appears to be minimal most years or extremely localized based on staff observations, so access restriction would have little effect.</p>
<p><b>Other Wildlife and Aquatic Species</b></p> <p>The hatchery supports a diversity of wildlife species of the Mid-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 at this facility for over 80 years and populations of wildlife and aquatic species have varied during this period primarily due to human-wildlife interactions and annual climactic variation.</p>	<p>Eliminating fishing access at Leavenworth NFH could potentially increase the numbers of wildlife and aquatic species, but these increases would likely be insignificant. Although the actual level of angler use is not known, direct observation suggests that increases or decreases in public access would result in nominal changes to this resource.</p>
<p><b>Threatened and Endangered Species and Other Special Status Species</b></p> <p>Threatened, endangered, and other special status species do occur in Icicle Creek near the hatchery. These include: spring Chinook, steelhead, and bull trout. Portions of Icicle Creek are also critical habitat for these species.</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 at this facility for over 80 years and populations of threatened and endangered species and other special status species have varied widely primarily due to major habitat alterations within the region.</p>	<p>Eliminating fishing access at Leavenworth NFH could potentially increase the numbers of threatened and endangered species and other special status species, but these increases would likely be insignificant. Although the actual level of angler use is not known, direct observation suggests that increases or decreases in public access would result in nominal changes to this resource.</p>

<p><b>Vegetation (including vegetation of special management concern)</b></p> <p>The riparian plant communities observed along Icicle Creek include: trees, shrubs, herbaceous species, and grasses. The dominant tree species in the riparian zone lining Icicle Creek include: ponderosa pine, black cottonwood, big-leaf maple, western red cedar, and red alder. The shrub layer consists of: vine maple, western serviceberry, red alder saplings, red-osier dogwood, pea-fruit rose, dull Oregon grape, black hawthorn, Scot's broom, and Himalayan blackberry. Typical herbaceous species in the understory include: bentgrass, field horsetail, and sword fern.</p>	<p>Overall the direct and indirect impacts on vegetation should be relatively insignificant. Fishing activities have taken place at this facility for over 80 years and the areas open to fishing have been disturbed for at least that long. Most areas open to fishing have been maintained in a park-like setting from the facility's beginning, so while they reflect natural vegetation types, some vegetative elements may have been eliminated to facilitate maintenance. Public use of the open areas certainly impacts 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 Leavenworth 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. Furthermore, these areas would most likely continue to be maintained in a park-like setting, so complete reversion to some historical state is not expected. Although the actual level of angler use is not known, direct observation suggests that increases or decreases in public access would result in nominal changes to this resource.</p>
<p><b>Geology &amp; Soils</b></p> <p>Icicle Creek is located in the central and eastern portions of the Cascade Mountain Range, within the sub-region of the mainstem Icicle Creek floodplain and valley from the mouth of Leland Creek near the Icicle Creek headwaters to the confluence with the Wenatchee River. Alpine glaciation carved the existing Icicle Valley that extended from the headwaters of Icicle Creek to a terminal moraine in Leavenworth and bedrock forms the walls of the Icicle Valley. Soils are formed slowly over time by the interaction between geology of the parent material, slope, climate, and natural vegetation of the area. Parent material consists of bedrock, alluvium, colluvium, loess, and volcanic ash, and soil is often a mixture of these.</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 Leavenworth 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>
<p><b>Air Quality</b></p> <p>According to the Washington Department of Ecology, the county around Leavenworth ranked in the 90<sup>th</sup> percentile for emissions of carbon monoxide and nitrogen oxides; in the 50<sup>th</sup> percentile for volatile organic compound emissions, and in the 10<sup>th</sup> percentile for sulphur dioxide emissions and air quality index. The scale runs from 0-100, while the lower percentiles representing the cleanest, best counties in the U.S. and the higher percentiles representing the dirtiest or worst.</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 other activities associated with the greater Leavenworth area.</p>	<p>Eliminating fishing access at Leavenworth NFH could potentially decrease impacts on air quality; however, the larger amount of vehicle emissions associated with State Highway 97, State Highway 2 and tourist activities in Leavenworth would far overshadow any emissions associated with angler access reduction.</p>

<p><b>Water Resources</b></p> <p>Icicle Creek is a fourth-order tributary to the Wenatchee River, which is a tributary to the Columbia River. Icicle Creek is 32-miles long and has 85 tributaries that drain a 212-mile<sup>2</sup> area. Fourteen glaciers and 102 lakes are located within this drainage basin. Icicle Creek is primarily snow melt-driven, with an estimated 21% of the flow originating from glacier melt. Four water right holders divert water from Icicle Creek: Icicle-Pershastin Irrigation District, Cascade-Irrigation Company, The City of Leavenworth, and Leavenworth NFH.</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, agricultural and industrial use in the area.</p>	<p>Eliminating fishing access at Leavenworth 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, agricultural and industrial use in the area.</p>
<p><b>Wetlands</b></p> <p>There is only one wetland adjacent to the Leavenworth NFH. This wetland is classified as a palustrine scrub/shrub wetland. Wetland Inventory map indicates that Icicle Creek at this site is classified as a riverine upper perennial open water habitat that is permanently flooded. The riparian wetland vegetation community in this area is dominated by black cottonwood, western red cedar, vine maple, Sitka alder, red-osier dogwood, pea-fruit rose, and horsetail.</p>	<p>N/A</p>	<p>N/A</p>
<p><b>Floodplains</b></p>	<p>N/A</p>	<p>N/A</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><b>Recreational Fishing</b></p> <p>Recreational fishing is a popular sport on Icicle Creek. The creek provides opportunities for both Tribal and non-tribal fishers. Many fishers fish from the stream bank, boats, and traditional Tribal platforms. The Leavenworth NFH provides a boat ramp and parking for the general public and an Americans with Disabilities Act-compliant accessible ramp and fishing platform. These areas are utilized mainly during the late spring and summer months as water flows permit.</p>	<p>Overall the direct and indirect impacts of codifying an activity that has been taking place for over 80 years 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 Leavenworth NFH would likely increase impacts on a small but very 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 large number of anglers using other access points on Icicle Creek and the Wenatchee River.</p>

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

<b>CULTURAL RESOURCES</b>	<b>ANTICIPATED DIRECT AND INDIRECT IMPACTS</b>	
<b>AFFECTED RESOURCE</b>	<b>ALTERNATIVE A (PREFERRED ALTERNATIVE)</b>	<b>ALTERNATIVE B</b>
<p>Although the hatchery began operations in 1939, many original raceways, water delivery pipelines, electrical wiring, and historic buildings need rehabilitation and updating. Some of these structures have been replaced, but the vast majority of the infrastructure is deteriorating and must be fixed.</p> <p>The Leavenworth NFH is listed 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 accidentally and nominal. Savy individuals would have access to a number of cultural resources, so there is potential for disturbance and pilfering.</p>	<p>Eliminating fishing access at Leavenworth 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**

<b>HATCHERY MANAGEMENT &amp; OPERATIONS</b>		
<b>AFFECTED RESOURCE</b>	<b>ANTICIPATED DIRECT AND INDIRECT IMPACTS</b>	
	<b>ALTERNATIVE A (PREFERRED ALTERNATIVE)</b>	<b>ALTERNATIVE B</b>
<p><b>Land Use</b></p> <p>The majority of the lands within the Leavenworth NFH are undeveloped natural areas. Hatchery infrastructure is located next to Icicle Creek on the middle portion of the property. Access to the land and infrastructure is via Icicle or East Leavenworth roads west and north of the hatchery property. The East Leavenworth Road leads to the handicap-accessible parking area, fishing platform, and public parking. Hiking trails, horseback riding, summer theater shows, winter Nordic skiing, and horse drawn sleigh rides are also available.</p>	<p>Overall the direct and indirect impacts on hatchery land use are insignificant. Access is provided via existing roads and little dedicated infrastructure and maintenance is required.</p>	<p>Eliminating fishing access at Leavenworth NFH could potentially decrease impacts on hatchery land use, but these impacts are insignificant. Maintenance of road right-of-ways, trails, and trash collection would likely be reduced, but the facility dedicates comparatively little time at present to these activities.</p>
<p><b>Administration</b></p> <p>The Leavenworth NFH has an authorized staffing level of 7 full-time equivalent (FTE) positions. At the time of this writing, two of these positions are vacant. The FY 2019 budget to fund facility operations was \$1.25M.</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 Leavenworth NFH could potentially decrease impacts on hatchery administration, but these impacts would be nominal since these type of impacts are insignificant.</p>

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

<b>SOCIOECONOMICS</b>	<b>ANTICIPATED DIRECT AND INDIRECT IMPACTS</b>	
<b>AFFECTED ENVIRONMENT</b>	<b>ALTERNATIVE A (PREFERRED ALTERNATIVE)</b>	<b>ALTERNATIVE B</b>
<p><b>Local and regional economies</b></p> <p>The Leavenworth NFH is located in Chelan County, 131-miles east of Seattle, WA (population: 3.5M) and 25-miles west of Wenatchee, WA. Chelan County’s agricultural production is a fairly large part of the county economy. Wenatchee is considered the Apple Capital of the World. Thousands of acres of fruit orchards line the lands along Icicle Creek and the Wenatchee and Columbia Rivers producing millions of tons of fruit, providing thousands of jobs, and creating a multi-billion dollar industry for the local economy. Recreation is also a big part of the local economy, bringing in additional jobs and millions of dollars.</p>	<p>Fishing access at Leavenworth NFH probably has little impact on the non-recreational fishing sectors of the local and regional economy. Fishing in Icicle Creek and the Wenatchee and Columbia Rivers outside of the hatchery lands 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 Leavenworth 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 fishing access areas. Impacts to non-recreational fishing sectors of the local and regional economies would likely be insignificant or non-existent.</p>
<p><b>Sector of the Economy (e.g. Agricultural Practices)</b></p> <p>The proposed action does not affect a certain sector of the economy.</p>	<p>N/A</p>	<p>N/A</p>
<b>ENVIRONMENTAL JUSTICE</b>		
<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**

<b>Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment</b>	<b>Descriptions of Anticipated Cumulative Impacts</b>	
	<b>ALTERNATIVE A (PREFERRED ALTERNATIVE)</b>	<b>ALTERNATIVE B</b>
<p><b>Fishing</b></p> <p>Fishing activities associated with this codification have likely been taking place since establishment of the hatchery in 1939.</p>	<p>Though actual data regarding angler use and catch are not available for the hatchery’s portion of Icicle Creek, it’s reasonable to assume that fishing taking place at the facility is a tiny fraction of what takes place in the entire Wenatchee River basin. Therefore, the cumulative impacts associated with this alternative are insignificant and nominal.</p>	<p>Given the relatively low level of angler use and catch compared to the entire Icicle Creek and Wenatchee River, elimination of fishing access at the facility altogether would not rise to a significant cumulative impacts.</p>
<p><b>Other wildlife-dependent recreation (i.e., road and trail development and use)</b></p> <p>Leavenworth NFH is a 2 ½ hour travel time east of Seattle, Washington, and is adjacent to the Alpine Lakes Wilderness Area. Numerous recreational opportunities are available in the area, including hiking, boating, white water rafting, fishing, skiing, mountain climbing, etc. As such, outdoor-based recreation is an important socio-economic driver in the local area.</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 greater Leavenworth area.</p>	<p>Eliminating fishing access at Leavenworth 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 greater Leavenworth area.</p>
<p><b>Development and Population Increase</b></p> <p>Leavenworth NFH is located in Chelan County, Washington. The County’s population was estimated to be 76,533 with a growth rate of 0.74% in the past year according to the most recent United States census data (Frey 2018).</p>	<p>Based on the calculated growth it can be speculated that the number of people fishing at Leavenworth NFH 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 76,000 individuals. Given that only about</p>	<p>Since the expected population increase in the county that Leavenworth NFH is located is so small, elimination of fishing access will have very little if any cumulative impacts.</p>

<p>Chelan County, Washington is the 17<sup>th</sup> largest county in Washington.</p>	<p>8% of the Pacific Northwest’s population participates in fishing activities (USFWS 2016), the actual increase in anglers will be insignificant.</p>	
<p><b>Agricultural land uses</b></p> <p>Apples, pears, cherries and vineyards are a major part of the local economy. In fact, Wenatchee, a city 25-miles east of Leavenworth, is considered the Apple Capital of the World. Thousands of acres of fruit orchards line the lands along Icicle Creek and the Wenatchee and Columbia Rivers producing millions of tons of fruit, providing thousands of jobs, and creating a multi-billion dollar industry for the local economy. The majority of these orchards rely on irrigation water from Icicle Creek and the Wenatchee and Columbia Rivers.</p>	<p>The current use of the area surrounding Leavenworth NFH 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 Leavenworth NFH should in no way contribute to any changes to surrounding agricultural land uses.</p>
<p><b>Use of lead ammunition/tackle</b></p> <p>Beginning on December 4, 2010, the WDFW prohibited the use of lead in fishing weights, jigs, and flies on various recreational fishing lakes, rivers, and streams in Washington.</p>	<p>Continuing fishing access at Leavenworth NFH could possibly increase the amount of lead tackle use, but this use would be a tiny addition to the overall lead tackle being utilized by fishermen accessing the entire Icicle Creek and Wenatchee River.</p>	<p>Elimination of fishing access at Leavenworth NFH will have 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 Icicle Creek and Wenatchee River.</p>
<p><b>Climate Change</b></p> <p>Impacts of climate change have been manifested through northward range shifts, population declines, as well as 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-fueled angler vehicles accessing the facility would be tiny compared to the emissions coming from a multitude of vehicles transiting the greater Leavenworth area.</p>	<p>Elimination of fishing access at Leavenworth NFH could potentially decrease the cumulative impacts of climate change by decreasing the number of fossil-fueled angler vehicles, but this decrease would likely be negligible given that the public can readily access the river from other bank areas off the hatchery and the tiny fraction of transiting vehicles this represents.</p>

## **Mitigation Measures and Conditions**

Leavenworth 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**

Leavenworth 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 Leavenworth NFH, the Fishing Plan for the Leavenworth 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:**

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

Frey, W.H. 2018. Analysis of U.S. Census Bureau Population Estimates. Metropolitan Policy Program at Brookings. Washington, DC.

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 Leavenworth 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**

<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS</b>	
<p><b>Cultural Resources</b></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 Leavenworth NFH strive to meet all of these statutes, executive orders, and regulations.</p>
<p><b>Fish &amp; Wildlife</b></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><b>Natural Resources</b></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><b>Water Resources</b></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> <p>Executive Order 11990 – Protection of Wetlands, 42 Fed. Reg. 26961 (1977)</p>	

**FINDING OF NO SIGNIFICANT IMPACT  
AND DECISION TO CODIFY RECREATIONAL FISHING OPPORTUNITIES**

**LEAVENWORTH NATIONAL FISH HATCHERY  
*LEAVENWORTH, WASHINGTON***

The Service is codifying recreational fishing opportunities for Pacific salmon, Steelhead, rainbow trout, brook trout, mountain whitefish, and other cool water fish species at the Leavenworth National Fish Hatchery (NFH) in accordance with the State of Washington Department of Fish and Wildlife (WDFW) fishing regulations and the Leavenworth NFH Fishing Plan. This action officially allows bank fishing on Service property along Icicle Creek that will be made officially open to the general public for recreational fishing, as well as within the Alpine Lakes Wilderness Area (Snow and Nada Lakes specifically) totaling approximately 3,000-feet of accessible shoreline and 200-acres of lake access. In addition, the proposed action will also officially open a handicap-accessible fishing platform and access to a public boat launch. Access to these fishing opportunities will also be facilitated by officially allowing use of hatchery access roads and/or turnouts and a dedicated parking lot for the handicap fishing platform and the public boat launch.

**Selected Action**

**Alternative A—Proposed Action Alternative:**

Fishing access would continue at Leavenworth NFH as it has for the last 81 years. This action officially allows bank fishing on Service property along Icicle Creek that will be made officially open to the general public for recreational fishing, as well as within the Alpine Lakes Wilderness Area (Snow and Nada Lakes specifically) totaling approximately 3,000-feet of accessible shoreline and 200-acres of lake access. In addition, the proposed action will also officially open a handicap-accessible fishing platform and access to a public boat launch. Access to these fishing opportunities will also be facilitated by officially allowing use of hatchery access roads and/or turnouts and a dedicated parking lot for the handicap fishing platform and the public boat launch.

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 Leavenworth 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:

*Leavenworth 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**

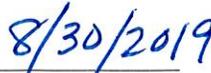
Based upon a review and evaluation of the information contained in the EA as well as other documents and actions of record affiliated with this proposal, the Service has determined that the proposal to codify fishing opportunities at the Leavenworth National Fish Hatchery does not constitute a major 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 Leavenworth National Fish Hatchery, Leavenworth, Washington on September 1, 2019. Approximately 3,000-feet of accessible shoreline along Icicle Creek and 200-acres of lake access in the Alpine Lakes Wilderness Area (Snow and Nada Lakes specifically). In addition, the proposed action will also officially open a handicap-accessible fishing platform and access to a public boat launch. Access to these fishing opportunities will also be facilitated by officially allowing use of hatchery access roads and/or turnouts and a dedicated parking lot for the handicap fishing platform and the public boat launch.

The proposed action is consistent with applicable laws and policies.

  
\_\_\_\_\_  
Eastside-Line Supervisor  
Fish and Aquatic Conservation Program  
Pacific Region

  
\_\_\_\_\_  
Date