



THE STATE  
of **ALASKA**  
GOVERNOR MIKE DUNLEAVY

**Department of Fish and Game**

Division of Sport Fish  
Research & Technical Services

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July 28, 2025

Debbie-Anne A. Reese, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

Subject: Ketchikan Lakes Hydroelectric Project (FERC No. 420-115)  
Comments on Pre-Application Document (PAD) and Study Requests

Dear Ms. Reese:

On March 31, 2025, Ketchikan Public Utilities published the Notice of Intent (NOI) to File License Application for a New License and Pre-Application Document (PAD) with the Federal Energy Regulatory Commission (FERC) for relicensing of the Ketchikan Lakes Hydroelectric Project. On May 27, 2025 FERC published the notification solicitating comments on the PAD.

The Alaska Department of Fish and Game (ADF&G) has reviewed the PAD and offers the attached comments and study requests.

If you have any questions, please contact me at (907) 267-2311. Thank you for the opportunity to comment and for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Ann Marie Larquier".

Ann Marie Larquier  
FERC Hydropower Coordinator  
Alaska Department of Fish and Game  
(907) 267-2311

Cc: J. Holstrom, KPU  
J. Klein, ADF&G  
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K. Reppert, ADF&G  
C. Mahara, USFWS  
S. McDermott, NMFS

## COMMENTS ON THE PRE-APPLICATION DOCUMENT (PAD)

The Alaska Department of Fish and Game (ADF&G) appreciates the proactive collaboration that Ketchikan Public Utilities (KPU) has had with agencies prior to filing the Notice of Intent (NOI) and Pre-Application Document (PAD) and the engagement opportunities during the Scoping Meeting and Environmental Site Visit. ADF&G values the continued commitment to the thorough evaluation of the area's natural resources in consideration of the continued operation of the Ketchikan Lakes Hydroelectric Project.

### FISH USE

Ketchikan Creek is currently listed in the Anadromous Waters Catalog (AWC; #101-47-10250) as being important for Chinook, chum, coho, and pink salmon as well as cutthroat and steelhead trout from the mouth of Ketchikan Creek up to a point just downstream of the confluence of Granite Basin Creek; this location is shown in Figure 4-12 of the PAD as "2nd 35' falls". The upper extent of the cataloged portion of Ketchikan Creek is mapped further upstream than what is believed to be the anadromous reach that fish can access, since another impassable 35-foot falls (Rainbow Falls) is located downstream.

Rainbow Falls appears to be the first full barrier in the system. However, there is a 5 ft. falls downstream of Rainbow Falls shown in Figure 4-12 that has been described as a partial barrier. This set of falls was modified by the removal of a large log in July 2002 as an improvement measure identified in Article 410 of the FERC license and included in the Ketchikan Lakes Fisheries Habitat Enhancement Plan. A subsequent assessment concluded that removal efforts were successful, and the falls were passable to steelhead and coho. Historical data from local fishermen suggests that at least steelhead trout were able to pass the 5 ft. falls prior to large logs falling in the channel. The PAD (pg. 79) notes that two new temporary barriers downstream from the five-foot falls (i.e., a debris slide and a new fallen log) were observed after removal of the log at the 5 ft. falls but it is unclear what the status of these temporary barriers is today. Documents referenced in the PAD (Fleming 2004) indicate KPU would observe the conditions of the temporary barriers and informally report to agencies their observations, but the additional correspondence was not located.

Although the habitat between the tailrace and the 5 ft. falls consists of mainly bedrock and steeper gradient, the habitat between the 5 ft. falls and Rainbow Falls is described as suitable anadromous spawning habitat and supports a population of resident trout.

For these reasons ADF&G recommends a study to survey the 5 ft. falls at a time of year (April-May) when steelhead are present in the system to determine if passage is possible. Once the upper extent of anadromous fish is determined, a nomination to shorten the anadromous portion of Ketchikan Creek should be submitted to the Anadromous Waters Catalog (see Study Request #1).

### RAMPING RATES

KPU proposes to modify the existing ramping rate to apply only to downramping (instead of both downramping and upramping rates) to improve operational flexibility of the project. Existing ramping rates limit ramping from the tailrace to Ketchikan Creek to a range of 15 to 80 cfs/hour based on month, time of day, and powerhouse discharge.

Removing upramping restrictions could result in increased flows in Ketchikan Creek that could have negative impacts on fish resources and macroinvertebrates downstream of the tailrace. Higher flows could impede fish migration, cause changes in substrate composition, and lead to increased drift of macroinvertebrates essentially sweeping them downstream and out of the system. Careful consideration is needed to assess the potential impacts of increased upramping rates. ADF&G requests a study to provide information on the potential benefits and impacts to fish resources in Ketchikan Creek.

This study should include a summary of the streamflow monitoring conducted by KPU to measure seasonal variability of flows in the bypass for a license amendment in 2009. This study was conducted upstream and downstream of the tailrace. ADF&G recommends providing a detailed analysis of limitations currently incurred by KPU due to upramping rates, including a summary of the number, magnitude, timing, duration, and cause for the upramping deviations that have occurred since the 2009 license amendment (see Study Request #2).

## LOW-LEVEL SAFETY VALVE

KPU plans to install a new low-level safety valve on one of the penstocks just below Ketchikan Lakes Dam. The valve would provide a mechanism to release water from Ketchikan Lakes into Ketchikan Creek in a controlled fashion when needed to prevent uncontrolled spill events.

The change could result in increased flows in the bypass reach of Ketchikan Creek that could have impacts on fish, fish habitat, and macroinvertebrates. ADF&G recommends a study to provide a summary of spill events from Ketchikan Lakes and requests further information on the outflow capacity of the valve once available. This information will inform discussions on the potential downstream effects of combined changes in ramping rate restrictions and controlled low-level safety valve outflows (see Study Request #2).

## ADDITIONAL INFORMATION- PUBLIC USE

In general, Ketchikan Creek is popular among resident and non-resident anglers (some cruise ship anglers, seasonal workers, etc.). Most of the sportfishing effort is from the Schoenbar culvert, Harris Street hole (near Deer Mountain Fish Hatchery), and downstream.

## STUDY REQUEST #1: Fish Species Distribution and Fish Passage Evaluation

### **§5.9(b)(1) — *Describe the goals and objectives of each study proposal and the information to be obtained.***

#### Goal:

The goals of this study are to (a) better understand fish movement and habitat use above the tailrace within the project area, and (b) enhance the understanding of how the proposed project operations will effect those resources.

#### Objectives:

For areas above the tailrace outlet on Ketchikan Creek:

1. Determine the upper extent of fish use by anadromous species including steelhead.
2. Identify/confirm barriers to fish passage above the tailrace.
  - a. Survey the 5 ft. falls at a time of year (April-May) when steelhead are present in the system to determine if passage is possible.

### **§5.9(b)(2) — *If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.***

The Fish and Game Act requires the Alaska Department of Fish and Game (ADF&G) to, among other responsibilities, "...manage, protect, maintain, improve, and extend the fish, game and aquatic plant resources of the state in the interest of the economy and general well-being of the state" (AS 16.05.020).

The ADF&G – Division of Sport Fish Mission is "to protect and improve the state's recreational and fisheries resources". According to the 2020-2027 Division of Sport Fish Strategic Plan<sup>1</sup>, the management priority is to manage Alaska's recreational fisheries for sustained yield and recreational angler satisfaction that is centered on an area-based management system. The division's fish habitat program is directed at protecting and restoring fish habitats for the benefit of fish and current and future recreational anglers.

### **§5.9(b)(3) — *If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.***

Not applicable, requestor is a resource agency.

### **§5.9(b)(4) — *Describe existing information concerning the subject of the study proposal, and the need for additional information.***

The PAD describes aquatic habitat within the project area but fish use and habitat availability has not been consistently surveyed for Ketchikan Creek. Relative species abundance data collected prior to the last relicensing is presented by reach for the whole creek. However, there are inconsistencies between the Anadromous Waters Catalog and the information included in the PAD.

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<sup>1</sup> [https://www.adfg.alaska.gov/static/fishing/PDFs/sport/Strategic\\_Plan\\_2022.pdf](https://www.adfg.alaska.gov/static/fishing/PDFs/sport/Strategic_Plan_2022.pdf)

The upper extent of the cataloged portion of Ketchikan Creek is mapped further upstream than what is believed to be the anadromous reach that fish can access, since another impassable 35-foot falls (Rainbow Falls) is located downstream. Rainbow Falls appears to be the first full barrier in the system. However, there is a 5 ft. falls downstream of Rainbow Falls shown in Figure 4-12 that has been described as a partial barrier.

This set of falls was modified by the removal of a large log in July 2002 as an improvement measure identified in Article 410 of the FERC license and included in the Ketchikan Lakes Fisheries Habitat Enhancement Plan. A subsequent assessment concluded that removal efforts were successful, and the falls were passable to steelhead and coho. The PAD (pg. 79) notes that two new temporary barriers downstream from the five-foot falls (i.e., a debris slide and a new fallen log) were observed after removal of the log at the 5 ft. falls but it is unclear what the status of these temporary barriers is today.

Historical data from local fishermen suggests that at least steelhead trout and perhaps other species were able to pass the 5 ft. falls prior to large logs falling in the channel. Although the habitat between the tailrace and the 5 ft. falls consists of mainly bedrock and steeper gradient, the habitat between the 5 ft. falls and Rainbow Falls is described as suitable spawning habitat, and is inhabited by a reproductive population of resident trout.

For these reasons ADF&G recommends a study to survey the 5 ft. falls (and areas above/below) at a time of year (April-May) when steelhead trout are present in the system to determine if passage is possible, as well as identifying any other partial or full barriers downstream. Once the upper extent of anadromous fish is determined, a nomination to shorten the anadromous portion of Ketchikan Creek should be submitted to the Anadromous Waters Catalog.

**§5.9(b)(5) — *Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.***

The proposed removal of upramping restrictions and installation of a new low-level safety valve near the Ketchikan Lake Dam could result in increased flows in various reaches of Ketchikan Creek. Those increased flows could result in direct project related impacts on migration zones of passage, accessibility to upstream habitat, and fish resources within Ketchikan Creek. The proposed study will provide current, site-specific data necessary to evaluate project related impacts to support the development of protection, mitigation, and enhancement measures.

**§5.8(b)(6) — *Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field seasons(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.***

Some combination of commonly accepted fish observation/capture techniques will likely be needed to meet the objectives (e.g. snorkeling, electrofishing, etc.).

Steelhead snorkel surveys are generally considered best to observe the highest proportion of inriver steelhead. Surveys should be conducted between mid-April and late May during expected peak inriver abundance (Schwanke and Reppert 2025)<sup>2</sup>.

ADF&G will work with the applicant to design studies that will provide information needed to inform decision-making processes.

**§5.9(b)(7) — *Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.***

Level of effort and cost will be considered as the studies are designed. There are no proposed alternatives.

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<sup>2</sup> Schwanke, C. J., and K. S. Reppert. 2025. Southeast Alaska steelhead snorkel surveys of regional index streams, 2018–2022. Alaska Department of Fish and Game, Fishery Data Series No. 25-10, Anchorage.  
<https://www.adfg.alaska.gov/FedAidPDFs/FDS25-10.pdf>

## STUDY REQUEST #2: Streamflow Assessments

### **§5.9(b)(1) — *Describe the goals and objectives of each study proposal and the information to be obtained.***

#### Goal:

The goal of this request is to provide an understanding of how resulting flow scenarios from the proposed ramping rate modifications and installation of a low-level safety valve below the dam may affect fish habitat.

#### Objectives:

1. Provide a detailed analysis of limitations currently incurred by KPU due to upramping rates, including a summary of the number, magnitude, duration, and cause for the deviations that have occurred since the 2009 license amendment.
2. Summarize spill events from Ketchikan Lakes since the last relicensing; study the impacts that could result from increased flows in the bypass reach of Ketchikan Creek with installation of a low-level safety valve.
3. Assess combined effects of changes to tailrace upramping rates with potential low-level safety valve releases.

### **§5.9(b)(2) — *If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.***

The Fish and Game Act requires ADF&G to, among other responsibilities, “...manage, protect, maintain, improve, and extend the fish, game and aquatic plant resources of the state in the interest of the economy and general well-being of the state” (AS 16.05.020).

ADF&G – Division of Sport Fish Mission is “to protect and improve the state’s recreational and fisheries resources”. According to the 2015-2020 Division of Sport Fish Strategic Plan, the management priority is to manage Alaska’s recreational fisheries for sustained yield and recreational angler satisfaction that is centered on an area-based management system. The division’s fish habitat program is directed at protecting and restoring fish habitats for the benefit of fish and current and future recreational anglers.

### **§5.9(b)(3) — *If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.***

Not applicable, requestor is a resource agency.

### **§5.9(b)(4) — *Describe existing information concerning the subject of the study proposal, and the need for additional information.***

KPU proposes to modify the existing ramping rate to apply only to downramping (instead of both downramping and upramping rates) to improve operational flexibility of the project. Existing ramping rates limit ramping from the tailrace to Ketchikan Creek to a range of 15 to 80 cfs/hour based on month, time of day, and powerhouse discharge.

Removing ramping rate restrictions for upramping could result in increased flows in Ketchikan Creek that could have negative impacts on fish, fish habitat, and macroinvertebrates downstream of

the tailrace. Higher flows could impede fish migration, cause changes in substrate composition, and lead to increased drift of macroinvertebrates essentially sweeping them downstream and out of the system. Careful consideration is needed to assess the potential impacts of increased upramping rates. ADF&G requests a study to provide information on the potential benefits and impacts to fish resources in Ketchikan creek.

KPU plans to install a new low-level safety valve on one of the penstocks just below Ketchikan Lakes Dam. The valve would provide a mechanism to release water from Ketchikan Lakes into Ketchikan Creek in a controlled fashion when needed to prevent uncontrolled spill events. The change could result in increased flows in the bypass reach of Ketchikan Creek that could have impacts on fish resources and macroinvertebrates. Additional information and analysis are needed to fully understand flow accretion from potential low-level safety valve releases in combination with the proposal to remove upramping rate restrictions.

***§5.9(b)(5) — Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.***

The proposed removal of upramping restrictions and installation of a new low-level safety valve near the Ketchikan Lake Dam could result in increased flows in various reaches of Ketchikan Creek. Those increased flows could result in direct project related impacts on migration zones of passage, accessibility to upstream habitat, and fish resources within Ketchikan Creek. The proposed study will provide current, site-specific data necessary to evaluate project related impacts to support the development of protection, mitigation, and enhancement measures.

***§5.8(b)(6) — Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field seasons(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.***

ADF&G recommends providing a detailed analysis of limitations currently incurred by KPU to upramping rates, including: a summary of the number, time, duration, and cause for the deviations that have occurred since the 2009 license amendment. This analysis should include a summary of the streamflow monitoring conducted by KPU to measure seasonal variability of flows in the bypass for a license amendment in 2009. This study was conducted upstream and downstream of the tailrace.

The summary of spill events from Ketchikan Lakes should be analyzed for the time period since the last relicensing, completed in 2000, and should describe how impacts from releases from the new low-level safety valve may impact fish and aquatic organisms.

***§5.9(b)(7) — Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.***

These requests are mainly desktop exercises therefore the level of effort at cost will be considered as the studies are designed and are expected to be commensurate with similar desktop studies conducted on other FERC hydroelectric projects. There are no proposed alternatives.