



State of Alaska  
Department of Fish and Game  
Division of Sport Fish

Nomination Form  
Anadromous Waters Catalog

*ME*

Region Southeast USGS Quad(s) Craig A-2

Anadromous Waters Catalog Number of Waterway 103-25-10470-0010

Name of Waterway Hetta Lake  USGS Name  Local Name

Addition  Deletion  Correction  Backup Information

For Office Use

Nomination # <u>130023</u>	<u>[Signature]</u> Fisheries Scientist Date <u>8/27/13</u>
Revision Year: <u>2014</u>	<u>[Signature]</u> Habitat Operations Manager Date <u>8/27/13</u>
Revision to: Atlas <input type="checkbox"/> Catalog <input type="checkbox"/> Both <input checked="" type="checkbox"/>	<u>[Signature]</u> AWC Project Biologist Date <u>1/28/13</u>
Revision Code: <u>B-2</u>	<u>[Signature]</u> Cartographer Date <u>9/5/13</u>

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Sockeye Salmon	See notes	X			<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

**IMPORTANT:** Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments:

See attached documents

*Change sockeye salmon present to spawning in  
103-25-10470-0010*

Name of Observer (please print): Anthony Christianson  
Signature: [Signature]  
Agency: Hydaburg Cooperative Association  
Address: P.O. Box 349  
Hydaburg, AK 99922

Date: 1/14/13

ALASKA DEPT. OF  
FISH & GAME

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Anadromous Waters Catalog.

Signature of Area Biologist: \_\_\_\_\_ Date: \_\_\_\_\_ Revision: \_\_\_\_\_

*JAN 18 2013*

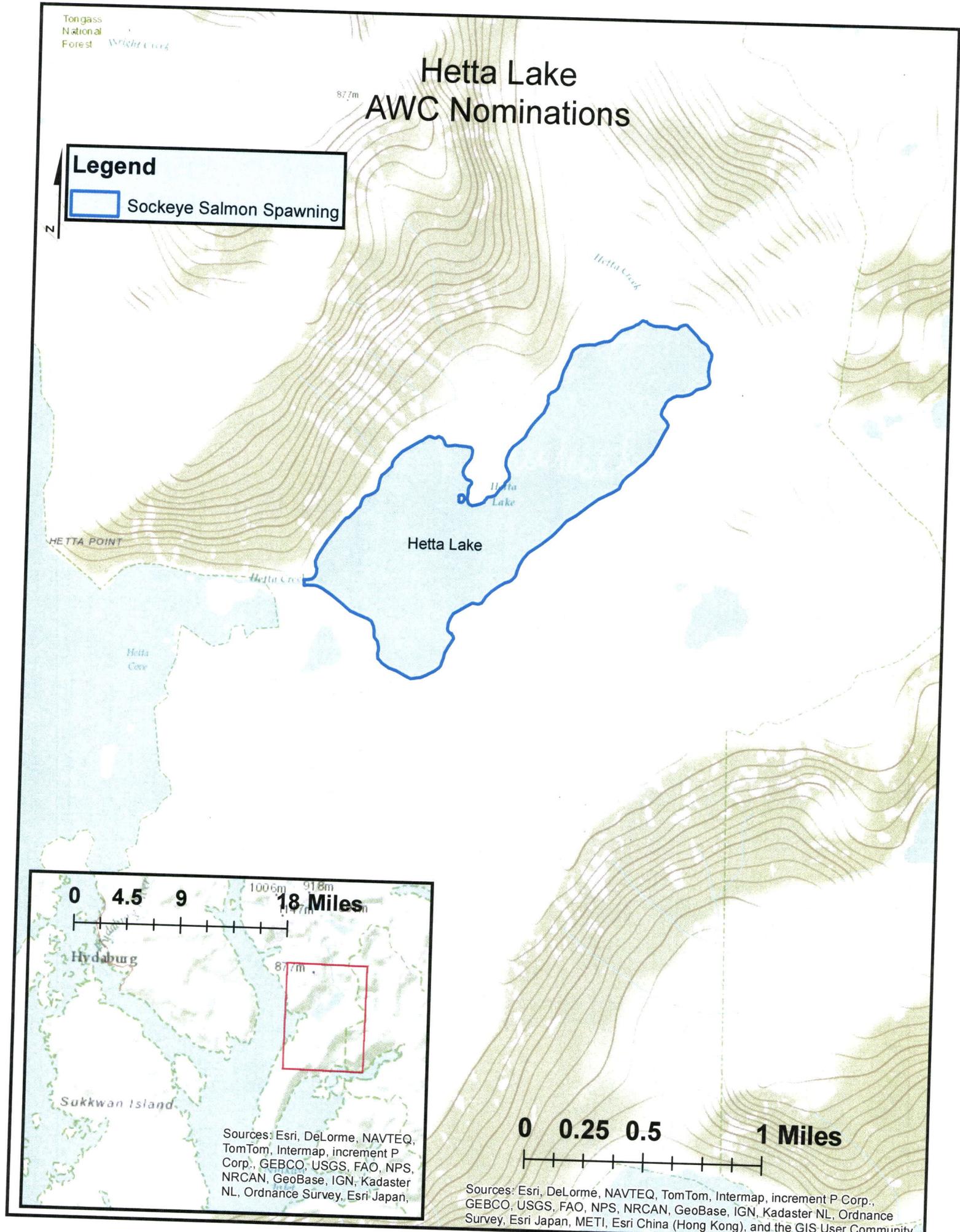
Tongass  
National  
Forest *Wright Creek*

# Hetta Lake AWC Nominations

## Legend

 Sockeye Salmon Spawning

N



HETTA POINT

Hetta Lake

Hetta Creek

Hetta  
Cove

0 4.5 9 18 Miles

Hydabug

Sukkwan Island

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,

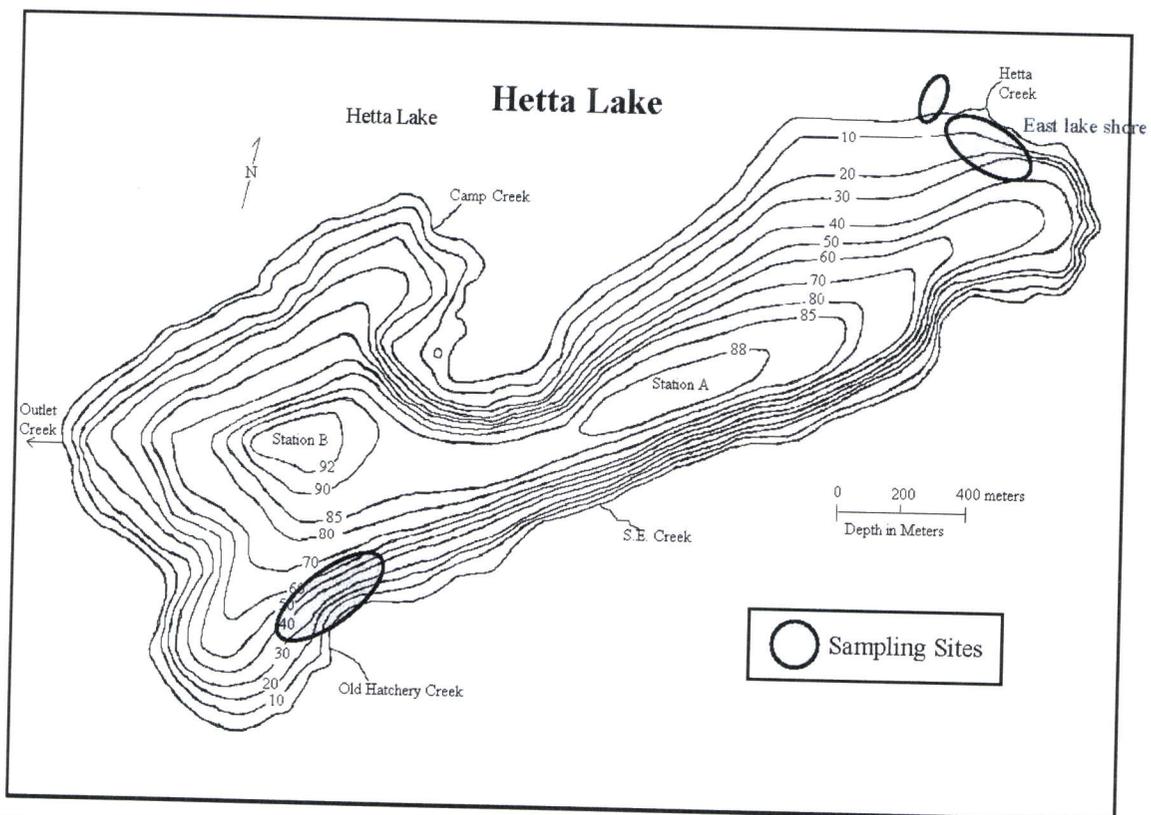
0 0.25 0.5 1 Miles

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

## Supplemental information for Hetta Lake

The Hydaburg Cooperative Association (HCA) would like to nominate the entirety of Hetta Lake (AWC 103-25-10470-0010) for sockeye salmon spawning habitat (see map). Hetta Lake is currently catalogued for the presence of chum salmon, Coho salmon, pink salmon, sockeye salmon, Dolly Varden and steelhead trout. Since 2001, HCA has been conducting the Hetta Lake Sockeye Salmon Stock Assessment project. For most years, the studies have included mark-recapture of sockeye salmon, where fish are marked at the weir site and then subsequently recaptured on the spawning grounds. These studies cite two important areas for beach/lakeshore spawning populations: Old Hatchery Creek and East Lake Shore. These locations are depicted in the graphic below, used in the studies from the references section of this document (Conitz, 2008; Blikshteyn and Conitz, 2009; Conitz and Blikshteyn, 2010; Bednarski and Heinl, 2010).

\*following figure extracted from Conitz and Blikshteyn (2010)



**Figure 2.**—Hetta Lake bathymetric map with locations of inlet and outlet streams, mark-recapture and visual counts sampling sites (Hetta Creek, east lake shore, and Old Hatchery Creek), and limnological sampling stations (A and B).

During 2012 field surveys, adult salmon foot counts were conducted in the Hetta Lake watershed on October 3<sup>rd</sup> and 4<sup>th</sup>. The field crew observed sockeye salmon around the entire lake area as they were accessing lake tributaries to conduct foot counts. While there were concentrations of spawning salmon along the lakeshore of Old Hatchery Creek and East Lake Shore (as in

previous cited studies), there were also 100-200 spawners along the west shoreline closer to an unnamed creek/tributary (AWC 103-25-10470-2003).

Between 2001 and 2012, Anthony Christianson has participated in surveys throughout the field season and has attested to seeing sockeye salmon using the entire lakeshore habitat in Hetta Lake. HCA has also deployed an underwater Remote Operating Vehicle (ROV) to classify lakeshore substrate; that study is on-going with results pending.

Traditional Ecological Knowledge (TEK) documented in Langdon and Sanderson (2009) also talked of the Hetta Lake sockeye spawning populations:

“The one tributary stream to the lake that supports sockeye spawning enters the lake on the northwest side above the outlet stream. It is a fairly short stream in which only the salmon from the June run spawn. Sockeyes that return in July, August and September spawn along the shores of the lake, in upwelling areas, near underwater springs and on the edges of the delta areas of lake tributaries (page 70)”

Based on multiple years of visual observations and TEK from literature, HCA believes the entire lakeshore is used by and important to sockeye salmon, and would therefore like to add the sockeye salmon spawning designation to the Anadromous Waters Catalog for Hetta Lake.

#### **REFERENCES:**

- Bednarski, J., and S.C. Heintz, 2010. Hetta Lake subsistence sockeye salmon project: 2009 annual and final report. Alaska Department of Fish and Game, Fishery Data Series No. 10-61, Anchorage.
- Blikshteyn, M.A. and J.M. Conitz, 2009. Hetta Lake subsistence sockeye salmon project: 2007 annual report. Alaska Department of Fish and Game, Fishery Data Series No. 09-34, Anchorage
- Conitz, J. M., 2008. Hetta Lake subsistence sockeye salmon project: 2006 Annual Report and 2004-2006 Final Report. Alaska Department of Fish and Game, Fishery Data Series No. 08-52, Anchorage.
- Conitz, J.M. and M.A. Blikshteyn, 2010. Hetta Lake subsistence sockeye salmon project: 2008 annual report. Alaska Department of Fish and Game, Fishery Data Series No. 10-12, Anchorage.
- Langdon, Stephen J. and Robert Sanderson. 2009. Customary and Traditional Knowledge of Sockeye Salmon Systems of the K'iis Xaadas (Hydaburg Haida). U.S. Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program, Final Report (Project No. 07-651), Anchorage, Alaska.



January 14, 2013

ADF&G Sportfish Division Regional Office  
ATTN: J. Johnson  
333 Raspberry Road  
Anchorage, AK 99518

Dear Mr. Johnson,

On behalf of the Hydaburg Cooperative Association (HCA) and The Nature Conservancy (TNC), I have completed and enclosed 7 nomination packages for the Anadromous Waters Catalog (AWC). In 2012, TNC received a Southeast Sustainable Salmon Fund grant from the State of Alaska, Department of Fish and Game, to conduct stream habitat surveys in two important subsistence watersheds near Hydaburg, Alaska. These watersheds include Hetta Lake (4 nominations) and Eek Lake (3 nominations). During stream habitat surveys, additional data for documenting fish and fish habitat use was also taken (in the form of minnow trapping and adult foot surveys). While 5 of the nominations are for adding the spawning and/or rearing designation to existing cataloged stream reaches and Hetta Lake, 2 of the nominations are for new stream designations. The new stream designations are in Eek Lake.

You will note that the nomination packages are signed by Tony Sanderson of Hydaburg Cooperative Association. Mr. Sanderson was the field lead for the project, and is therefore signing as the observer. My role under this collaborative project was to train the field crews, compile the data for various uses, and prepare the nomination packages. Because all of the data resides in my offices in Juneau, if you have questions, need clarification, or need additional information please do not hesitate to contact me at the phone number listed below or at [cathy@kaienvironmental.com](mailto:cathy@kaienvironmental.com). Thanks!

Sincerely,

Cathy A. Needham

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