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

Nomination Form
Anadromous Waters Catalog

Region: SCN

USGS Quad(s): Tyonek A-4

AWC Number of Water Body: Tributary to 247-20-100-10-2030

Name of Water body: Middle Creek, Tributary to Chuitna River

☐ USGS Name ☑ Local Name

☑ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination # 150133		
	Fisheries Scientist	Date
Revision Year: 2016		
Revision to: Atlas ____ Catalog ____ Both ____	Habitat Operations Manager	Date 27 Apr 15
	AWC Project Biologist	Date
Revision Code: F-4		
	GIS Analyst	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
sockeye salmon	29 June to 30 Sept 2008	24			☑
					☐
					☐
	SWEAS 15-032				☐
					☐

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

Sockeye salmon in spawning condition were observed passing a weir at Middle Creek during 29 June to 30 Sept. 2008, see attached supporting information and citations. No fish were observed to return downstream. To date, sockeye have not been nominated to the AWC for Middle Creek. Based on my review of the reports, data and condition of fish in photos, I am therefore submitting spawning sockeye salmon for addition to the AWC for Middle Creek, at least up to where the weir was established. Further I recommend that consultants for the project be contacted by ADFG to determine if, and how far upstream, spawning sockeye were documented and the AWC nomination extended to the uppermost point where spawning was observed.

Name of Observer (please print):

Signature:

Date: 12 March 2015

Agency: Dr. Carol Ann Woody

Address: CSP2
~~6601 Chevigny St.~~
Anchorage 99502

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: _____

Name of Area Biologist (please print):

ALASKA DEPT. OF FISH & GAME
MAR 20 2015

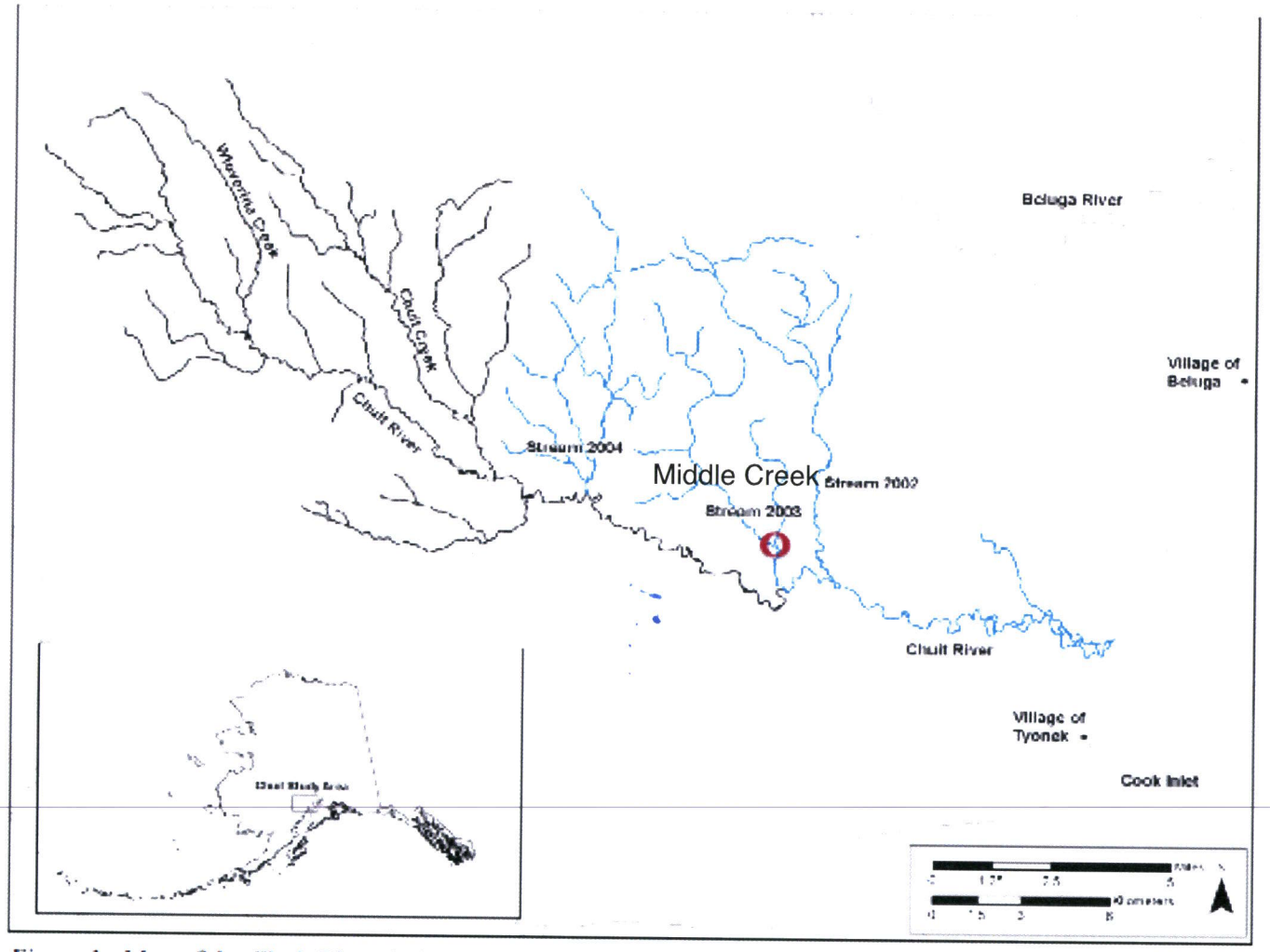

Figure 1. Map of the Chuit River drainage, showing the study tributaries in relation to the surrounding area.

Figure from pg. 77, Nemeth et al. 2009. Movement and abundance of freshwater fish in the Chuit River drainage, Alaska, May through September 2008. Final report prepared by LGL Alaska Research Associates, Inc., Anchorage, Alaska for PacRim Coal, L.P. 159 p. Red circle shows location of weir where adult sockeye salmon in spawning colors were documented moving upstream.

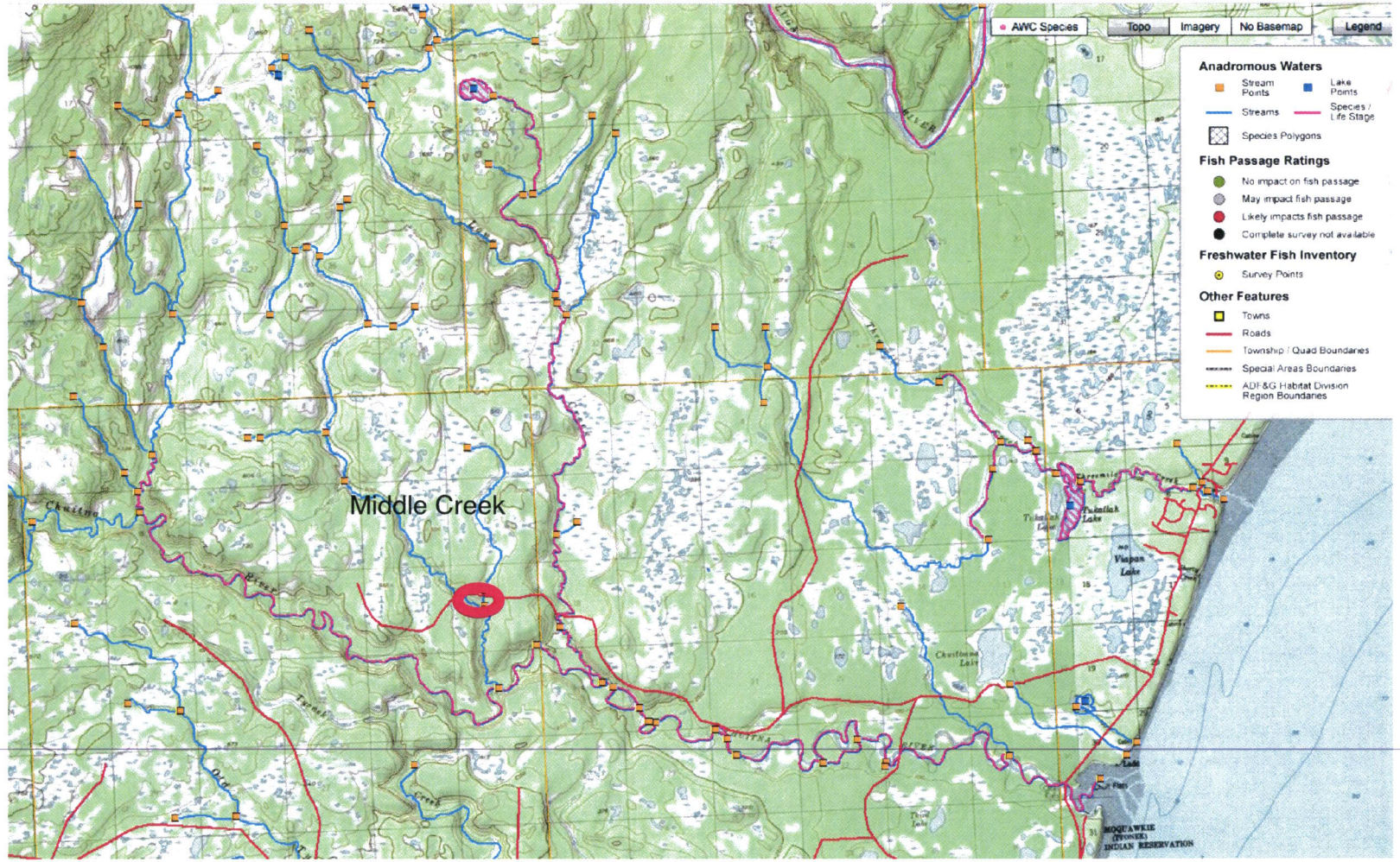

Figure 2. Current AWC distribution for sockeye salmon in the Chuitna River watershed (pink). Location of wier/video monitoring site for Middle Creek indicated by red circle. During 29 June to 30 Sept 24 2008, sockeye salmon in spawning condition were observed to pass the wier/video monitoring site in Middle Creek.

Pg. iv. Nemeth et al. 2009. Movement and abundance of freshwater fish in the Chuit River drainage, Alaska, May through September 2008. Final report prepared by LGL Alaska Research Associates, Inc., Anchorage, Alaska for PacRim Coal, L.P. 159 p.

"The upstream migrations of adult salmon differed among the three study tributaries. Low numbers of adult coho salmon moved into streams 2002 and 2003 (Middle Creek) in late July, but not into Stream 2004. A second, larger pulse of adult coho salmon moved into all three tributaries from early to late September, at nearly identical times. Total numbers of adult coho salmon were the greatest in Stream 2002 (estimated range: 2,336 to 2,903), followed by Stream 2003 (1,983 to 2,313) and Stream 2004 (269 to 726). Some fish likely entered Stream 2004 undetected. Adult Chinook salmon were more numerous in Stream 2002 (217 to 341) than in Stream 2003 (21 to 80) and Stream 2004 (77 to 153). **Low numbers (6 to 50 per stream) of adult sockeye (*O. nerka*) salmon returned to all three streams**. Adult pink (*O. gorbuscha*) and chum (*O. keta*) salmon were present mainly in Stream 2002 (4 adult chum salmon, 232 to 436 pink salmon); a few adult pink salmon were also seen in Stream 2003 (1 to 4)."

The following photo of a sockeye male in spawning condition was documented at the Middle Creek Weir. Photo from pg. 139 Nemethet al. 2009. Movement and abundance of freshwater fish in the Chuit River drainage, Alaska, May through September 2008. Final report prepared by LGL Alaska Research Associates, Inc., Anchorage, Alaska for PacRim Coal, L.P. 159 p.

Photo 23. Adult sockeye salmon caught on Stream 2003, September 1, 2008.

Table from pg. 69 of Nemeth et al. 2009. Movement and abundance of freshwater fish in the Chuit River drainage, Alaska, May through September 2008. Final report prepared by LGL Alaska Research Associates, Inc., Anchorage, Alaska for PacRim Coal, L.P. 159 p.

Note stream 2003 is Middle Creek of the Chuit River. The weir was situated at the first fork in Middle Creek. Note number of sockeye adults counted upstream.

Table 7. Number of fish, by species or group, and their direction of travel as observed in the video chute or from shore-based visual counts in Stream 2003, from June 29 through September 30, 2008. Movement was estimated by a combination of complete hourly counts and expanded 15 minute subsamples.

	Video			Visual	
Species	Up	Down	Undefined	Up	Down
Chinook salmon (adult)	80	59	1	0	0
Coho salmon (adult)	1,782	324	0	531	6
Sockeye salmon (adult)	24	0	0	0	0
Chum salmon (adult)	0	0	0	0	0
Pink salmon (adult)	4	3	0	0	0
Unknown adult salmon	8	21	0	10	0
Salmon smolt (>100 mm)	156	396	28	0	0
Salmon fingerling (45-100 mm)	936	688	264	0	0
Salmon fry (<45 mm)	632	576	232	0	0
Rainbow trout (>100 mm)	99	172	0	0	0
Rainbow trout (45-100 mm)	140	116	0	0	0
Dolly Varden (>100 mm)	306	160	1	0	0
Dolly Varden (45-100 mm)	8	4	0	0	0
Lamprey spp. (>100 mm)	1	9	0	0	0
Lamprey spp. (<100 mm)	0	52	4	0	0
Sculpin spp.	0	4	0	0	0
Unknown adult fish	23	27	0	0	0
Unknown juvenile fish	70	27	12	0	0
Total	4,269	2,638	542	541	6