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

Nomination Form
Anadromous Waters Catalog

M

Region: Southcentral

USGS Quad(s): Seldovia D-3, C-3

Anadromous Waters Catalog Number of Waterway: 241-14-10600

Name of Waterway: Martin River

☒ USGS Name ☐ Local Name

ALASKA DEPT. OF FISH & GAME
OCT 29 2009

☐ Addition ☐ Deletion ☐ Correction ☒ Backup Information

For Office Use

Nomination # C9-1524	Fisheries Scientist	10/30/09 Date
Revision Year: 2010	Habitat Operations Manager	10/30/09 Date
Revision to: Atlas ____ Catalog ____ Both ✓	AWC Project Biologist	2009 Date
Revision Code: B-2	Cartographer	12/17/09 Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
SOCKEYE	1993	✓		✓	✓
					☐
					☐
					☐
					☐

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: INFORMAL ~~BEAR~~ AERIAL OBSERVATIONS IN 1993 BY CURRENT AMB - NUMBERS/DATES NOT DOCUMENTED

Change sockeye salmon present to sockeye salmon spawning then cut 241-14-10600

Name of Observer (please print): LEE HAMMARSTROM

Signature: Lee Hammarstrom

Date: 10/22/09

Agency: ADFG

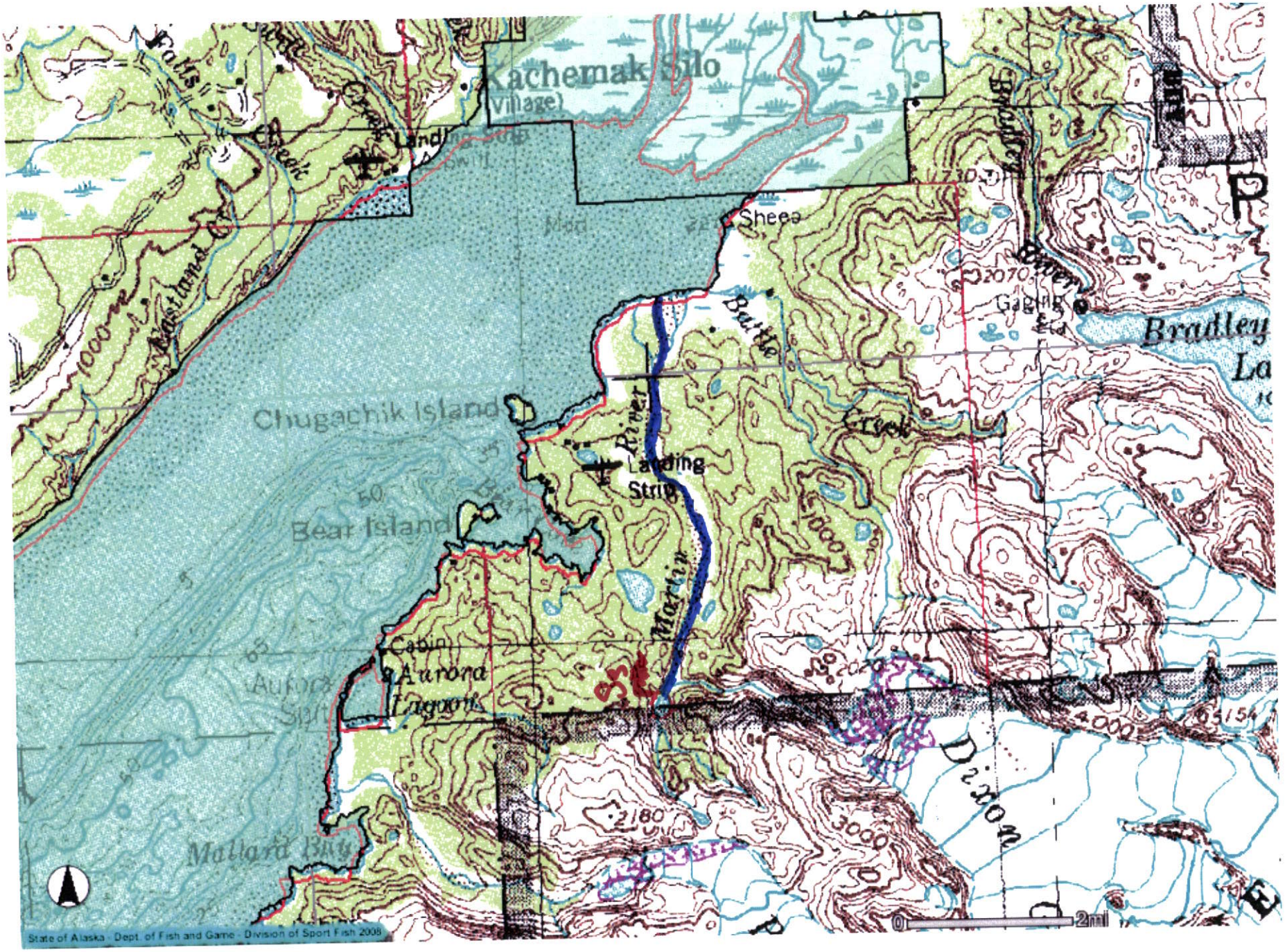
Address: 3298 Douglas Place
Homer, AK 99603

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: Lee Hammarstrom Date: 10/23/09

Revision

02/08


Kachemak Silo
(Village)
Sheep
Chugachik Island
Bear Island
Landing Strip
Martin River
Battle Creek
Bradley River
Gaging
Bradley La
Cabin
Aurora Lagoon
Aurora Spit
Mallard Bay
Dixon
2180
3000
4000
2070
1000
0
2mi
State of Alaska - Dept. of Fish and Game - Division of Sport Fish 2008

no more significant returns are expected to Fox Creek. A more intensive monitoring system is needed until the Caribou Lake stocking program is re-activated, if ever.

There is a small run of sockeye that return to Clearwater Slough in early July. Fishing pressure ranges from moderate angling to intensive illegal netting (at least before the Caribou Lake project). This sockeye run should also be monitored for potential declining trends, especially if the Caribou Lake project is not re-activated.

BRADLEY RIVER:

Due to the Bradley Lake Hydro Project's mitigation program, maintenance of consistent year round water flows in Bradley River have resulted in more stable, if not increasing production of all five species of Pacific Salmon. The more consistent instream flow availability has improved spawning and rearing survival. For annual site survey information, see Wes or Lee for reports from Northern Ecological Associates (consultant).

MARTIN RIVER:

Historically, this system has had small anadramous runs of coho, sockeye and pink salmon. As part of the Bradley Lake Hydro project's mitigation measures, a spawning/rearing channel system was constructed primarily for coho and appears to be effective. The sockeye returning to the Martin River system appear to be primarily beach spawners using Red Lake. Would estimate run @ 100 - 250 fish.

HUMPY CREEK:

Potentially the Southern District's largest pink salmon producer, this system has had poor to fair escapements in recent years, as has most of the other wild and enhanced pink salmon stocks. Small run of anadramous Dolly Varden attracts considerable angling effort, along with the pinks. There has been some public concern over the legal and illegal sport fishing taking place in this system, which is within Kachemak Bay State Park. It may be desirable to document the extent of these complaints.

GREWINK GLACIER RIVER:

There is a small anadramous run of sockeye salmon using a small clearwater tributary system that flows into the NW corner of Grewink Glacier Lake. Over the years, random surveys in August, generally revealed 15-40 fish. This endemic, remnant run is highly unusual, considering the cold temperature (<3C in Aug.) and glacial turbidity (1% light transmission zone @ <15cm) of Grewink Lake. These are not considered strays from the enhanced sockeye projects because they were observed here well before the enhancement projects were initiated.

FROM:
LCE AREA FISHERY OBSERVATIONS
1977-1996 Nick Dudiak

Thirty-one longfin smelt were taken in a variable mesh gillnet at mile 4.0 of the Bradley River in late October 1979. The mean length of the 4 males was 10.5 cm while the mean length of 27 females was 10.4 cm. All individuals captured were ripe, but spawning was not observed.

Other Fishes

Other species of fishes captured in the Bradley River during 1979 and 1980 were two species of sculpin, three-spined and nine-spined stickleback, starry flounder, and Bering cisco.

Marine Mammals

Harbor seals utilize the Bradley River Flats as hauling out areas during low tides; groups of 5 to 30 were sighted regularly in 1979 and 1980. Seals were also observed in the Bradley River up to the limit of tidal influence. As many as ten seals per tide were observed during the spring eulachon run in 1980.

Middle Fork Bradley River

The extent of fish usage of the Middle Fork Bradley River is unknown. However, the system joins the mainstem Bradley River above that section which has been identified as a hydraulic barrier to fish movement. This fact, in conjunction with the extremely turbulent nature of its entire length, suggests that the Middle Fork does not support populations of fish.

Nuka River

Very little is known about the fishery resources of the Nuka, although it is reported to support populations of pink salmon (ADF&G, 1978).

Battle Creek

The system is known to support populations of coho and sockeye salmon (ADF&G, 1978); however, detailed fishery investigations have not been conducted.

Martin River

Although specific fishery information is lacking, the system is reported to contain populations of sockeye and chum salmon (ADF&G, 1978). Approximately 350 sockeye were observed in a lake below the glacier in August 1980.

Bear Cove

Specific information relating to use of
lacking. The area does provide a viable
residents.

Bradley Lake Hydroelectric Project, Environmental Impact Statement APPENDICES 1982

Sheep Creek

Limited fishery investigations have indentified pink and coho salmon in the system (ADF&G, 1978).

inflow to upper Kachemak Bay. Both streams have runoff patterns similar to Bradley River, with the lowest flows occurring during March and highest flows occurring in July. The estimated mean annual flow at the mouths of Sheep Creek and Fox River are 1,075 cfs and 496 cfs, respectively. Water quality in both streams is generally good, similar to other streams in the area, except that the Fox River contains relatively high levels of fecal coliform bacteria, at times exceeding the limits considered safe for drinking water. The source of this bacteria is likely cattle that graze in the watershed (Alaska Power Authority, 1984b, Application, Exhibit E).

Kachemak Bay

Kachemak Bay (the Bay) is a 30-mile-long arm of Cook Inlet that extends to the northeast of Homer, with the head of the Bay immediately adjacent to the Bradley River. A detailed description of the Bay, its tidal patterns, ice formations, salinities, and important resources are described in Sections IV.A and B and Appendices B and C of the Corps' FEIS. Briefly, the Bay in the vicinity of the project area is characterized by extensive mudflats at low tide, with an average daily tidal range of about 11 feet (measured at Seldovia near the mouth of the Bay). During the summer months, the upper Bay receives a strong freshwater inflow from the Bradley River and other nearby streams. This freshwater inflow is dammed up by saline waters on incoming and high tides, but is well mixed within two tidal cycles. At low tide, the outflow from Bradley River forms a well-defined freshwater plume along the south shore of the Bay.

3.1.3.2 Fishery Resources

The fishery resources of the project area have previously been described in Section IV.B and Appendix B of the Corps' FEIS. Studies conducted since the Corps FEIS was published allow further description of these resources. The lower Bradley River, Martin River, Battle Creek, Nuka River, Sheep Creek, and the Fox River all contain populations of Pacific salmon. Of the three streams most directly affected by the project (Bradley River, Martin River, Battle Creek), the Bradley River contains the largest fish runs. About 1,000 pink salmon (Oncorhynchus gorbuscha), 50 chum salmon (O. keta), 10 sockeye (O. nerka), and 6 chinook salmon (O. tshawytscha) were observed in the Bradley River in 1983 (Alaska Power Authority, 1984b, Application, Exhibit E). Few fish were observed in either Martin River or Battle Creek in 1983, although past studies have identified sockeye and chum salmon in the Martin River, and sockeye and coho salmon (O. kisutch) in Battle Creek. Sheep Creek reportedly contains runs of pink and coho salmon, and Fox River contains runs of sockeye, coho, and pink salmon. The Nuka River also reportedly contains a small pink salmon run in its lower reaches [United States Fish and Wildlife Service (FWS), 1981].

1985. Bradley Lake Project Draft Supplemental Environmental Impact Statement.

KACHEMAK
BAY
Mud Flat
Chugachik Island
Mud
KACHEMAK BAY STATE PARK
BAY
Bear I
Bear Cove
Loon Lake
Martin River
Battle
Cabins
Cabin
VABM 22
CHp,Sp,DVp
COs,Sp,DVp
Ss
Ss
Sp
241-14-10600
241-14-10540
COs,Ps
COs,Ps
CHp,Sp,DVp
Ss,DVp
COs