

Appendix C: Fish

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KATLIAN BAY ROAD CONSTRUCTION

FIGURE C-1 Proposed Action and Fish Stream Crossings

	LTF Site		National Forest System Road
	Day Use Area		Abandoned National Forest System Road
	Milepost		Ownership Boundary
	Stream Crossing		Alignment Disturbance Area
	Streams		OHV Trail
	Anadromous Streams (ADF&G Catalog Streams - 113-44-10050-2004)		Access Road Segment

	1	2	3	4	5	6	7	8	9	10	11	12
STREAM NAME	Unnamed Tributary to South Katlian River	South Katlian River and overflow channels	Unnamed Tributary to Katlian Bay	Unnamed Tributary to Sukka Héen	Unnamed Tributary to Sukka Héen	Sukka Héen	Unnamed Tributary to Sukka Héen	Unnamed Tributary to Sukka Héen	Katlian River and overflow channels	Unnamed Tributary to Katlian River	Unnamed Tributary to Katlian River	Coxe River
ADF&G	Uncatalogued	113-44-10050	Uncatalogued	Uncatalogued	Uncatalogued	113-44-10040	Uncatalogued	Uncatalogued	113-44-10030	113-44-10030-2005	Uncatalogued	113-44-10020
MILEPOST (approx.)	MP 6.20	MP 6.24	MP 6.80	MP 7.15	MP 7.30	MP 7.39	MP 7.50	MP 8.10	MP 8.49	FR 75797	FR 75797	FR 75797
PROPOSED ACTION	Culvert upstream of fish habitat Road bed within riparian buffer	Bridge across river Culverts for 2 overflow channels	Culvert	Structural plate pipe arch	Structural plate pipe arch	Structural plate pipe arch	Replace culvert for existing road for construction access to log deck area	Road bed within riparian buffer	Bridge across river Culverts for 5 overflow channels	Replace existing log culvert for construction access	Replace existing log culvert for construction access	Permanent bridge for construction access

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MEMORANDUM

State of Alaska

Department of Fish and Game
Division of Habitat

TO: Jackie Timothy
Southeast Regional Supervisor

THRU: Kate Kanouse
Habitat Biologist

FROM: Tess Quinn *TQ*
Fish and Wildlife Tech

DATE: 5/27/2015

FILE NO: 57.1718, -135.2351

SUBJECT: Katlian Bay Road

PHONE NO: (907) 465-1635

The Alaska Department of Transportation and Public Facilities (ADOT&PF) proposes to build a one-lane, unpaved road between Starrigavan Bay and Katlian Bay, connecting Halibut Point Road in Sitka with U.S. Forest Service roads (Figure 1). The new road would be approximately 9 miles long and provide access to recreation and subsistence areas, and material sources located on private, state, and federal lands. ADOT&PF's chosen alignment includes 66 locations for culverts or bridges.

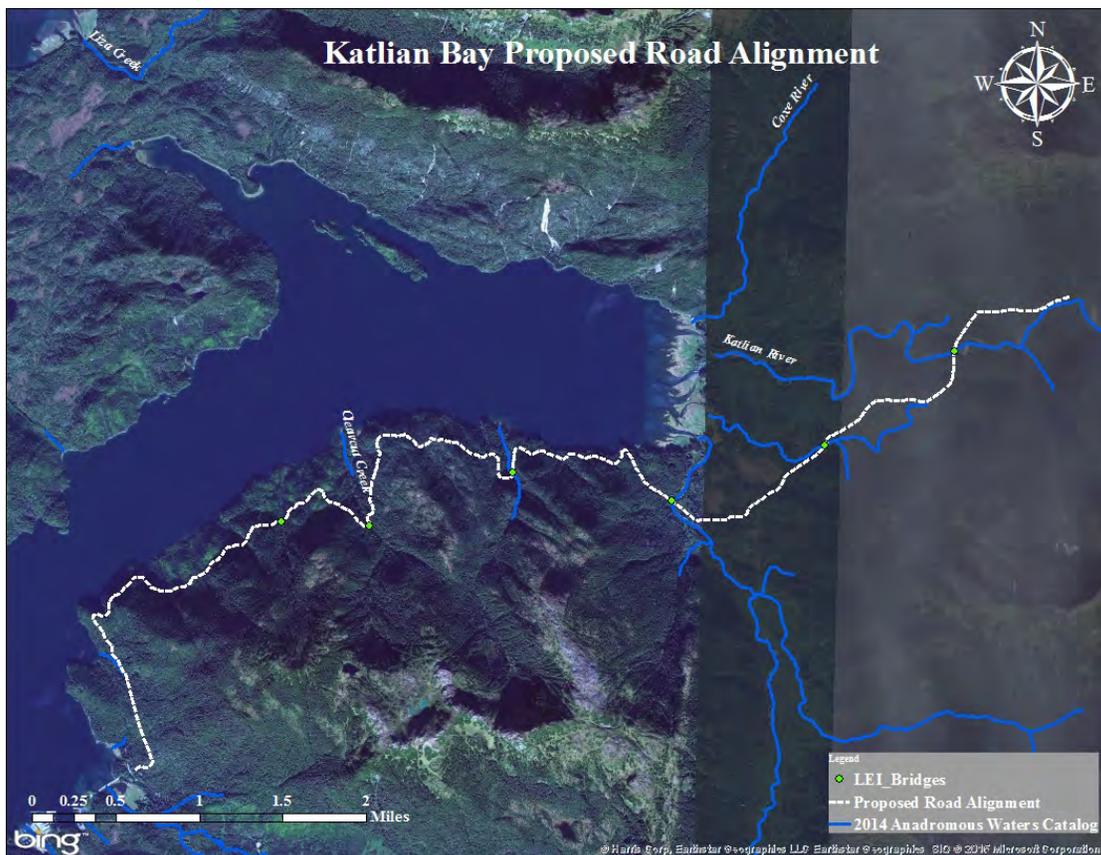


Figure 1.-Katlian Bay Road Alignment map.

During the week of May 10, 2015, Habitat biologist Gordon Willson-Naranjo and I surveyed streams along the proposed road corridor to document fish presence at stream crossings. The first 6 miles of the proposed route is in steep terrain, so we focused our efforts on the last 3 miles of the alignment where we would most likely encounter fish. We identified five uncataloged fish-bearing drainages (Table 1, Figures 2–8).

Table 1.–Uncataloged fish-bearing drainage data.

Waypoint	Latitude	Longitude	Notes	Sample Effort	Sample Results
262	57.1702	-135.237	Intermittent dry channel. 1 DV captured at the crossing. Five above the crossing.	EF	6 DV
270	57.1621	-135.2586	Small trib just before elevation gain.	EF	2 CO, 2 DV
294	57.1601	-135.2632	Very dry stream. Large cobble substrate. Water just seeping through rock. 3 DV.	EF	3 DV
274	57.1576	-135.2684	2 CO captured 20 yrds down from the crossing. Mid gradient, bedrock and cobbles. No spawning gravel. No fish at crossing, but no barrier. Visual on fish above the alignment.	EF	2 CO, 1 VI of salmonid
286	57.1582	-135.2833	Proposed road crossing anadromous stream, very low flows. We captured coho throughout this stream.	EF	Multi CO



Figure 2.—Uncataloged fish-bearing drainages map.

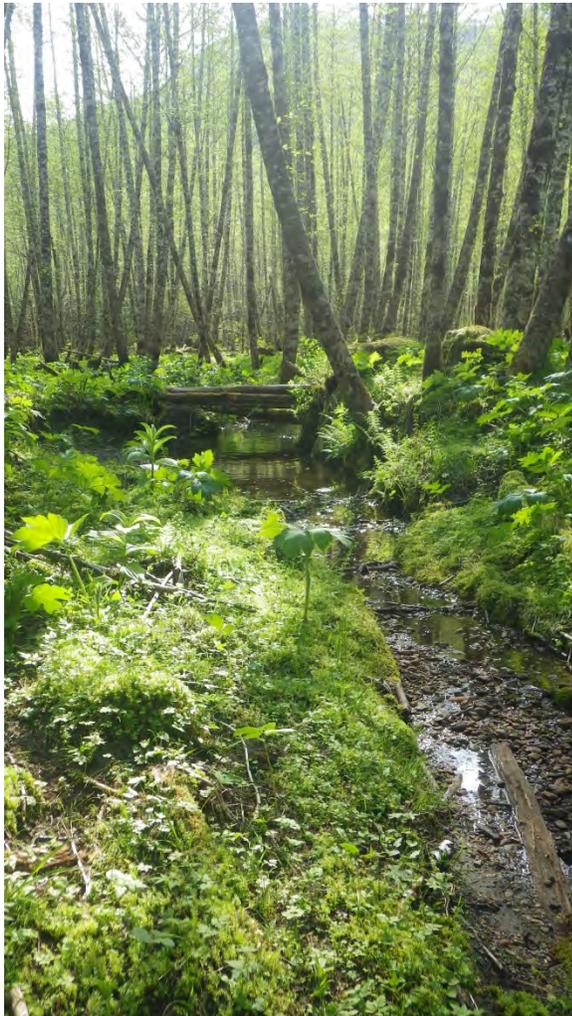


Figure 3.—Looking upstream at waypoint 262.

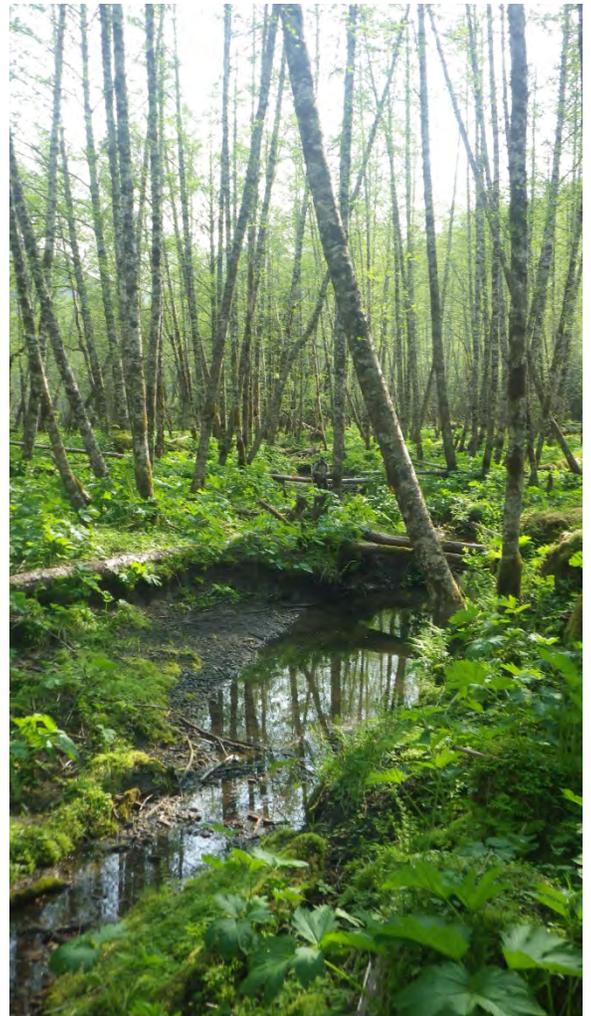


Figure 4.—Intermittent flows at waypoint 262.



Figure 5.—Looking downstream at waypoint 270.



Figure 6.—Gordon sampled a pool at waypoint 294.



Figure 7.—Gordon sampled the stream at waypoint 274.



Figure 8.—Coho captured at waypoint 286.

We surveyed three of the six bridge crossings (Table 2, Figures 9–12). At the South Katlian bridge location we found an uncataloged drainage crossing the proposed road alignment. We captured juvenile coho salmon downstream of the proposed crossing, and provide details in the Anadromous Waters Catalog nomination report (Appendix A).

Table 2.–Bridge sites sample data.

Waypoint	Latitude	Longitude	Notes	Sample Effort	Sample Results
260	57.1711	-135.2364	Multiple coho captured at the Katlian bridge crossing site.	EF	Multiple CO
269	57.163	-135.2574	Middle fork bridge crossing. 13 CO, 2 DV, 3 SC. Visual on many more coho.	EF	13 CO, 2 DV, 2 SC
277	57.1577	-135.2814	Bridge crossing. Large lovely stream. Supposedly a forest service road somewhere... 1 CO, 1 DV.	EF	1 CO, 1 DV

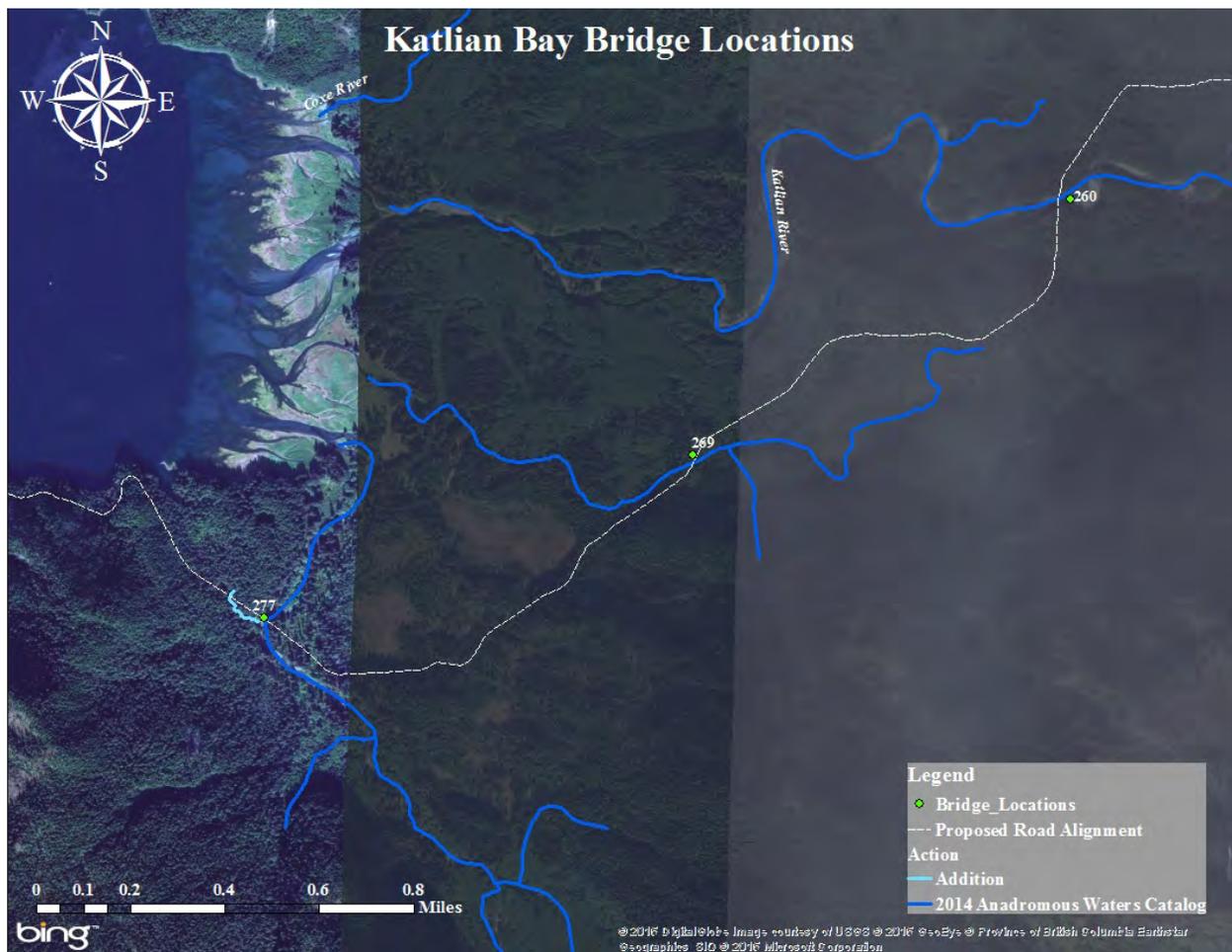


Figure 9.–Bridge site map.



Figure 10.—Katlian River bridge site at waypoint 260.



Figure 11.—Middle Fork bridge site at waypoint 269.



Figure 12.—South Katlian bridge site at waypoint 277.

Due to dry spring weather, we encountered 14 dry uncataloged drainages that may support fish when flowing (Table 3, Figures 13–18).

Table 3.–Ephemeral drainage data.

Waypoint	Latitude	Longitude	Notes	Sample Effort	Sample Results
247	57.1358	-135.3642	Stream marked as potential fish. High gradient, low flows. 40% over 40ft. No fish.	EF	0
248	57.1362	-135.3647	High gradient bedrock cascades with pockets of angular cobbles.No fish.	EF	0
249	57.1374	-135.3655	Medium gradient, cobble, gravel substrate.		0
250	57.1386	-135.3662	Low gradient small incised stream flows into muskeg. Gravels, organics, good overhanging veg and banks. No fish.	EF	0
251	57.1389	-135.3664	Intermittent flows, cobble substrate. This are is a braided forested wetland. Originates from a mainstem on the hillside.		0
252	57.1392	-135.3665	Small stream originating from a seep in the moss.		0
253	57.1393	-135.3665	Larger moderate gradient stream, cobbles, gravels, lots of large wood and small pools.		0
254	57.1403	-135.367	High gradient , no place to fish. Very low flows. Unlikely habitat.		0
255	57.1423	-135.3684	Very high gradient. Bedrock and cobble. No fish.	EF	0
256	57.1442	-135.3704	Steep bedrock cascade, Lg cobble substrate. Low flows, no fish.	EF	0

Table 3.–Continued.

Waypoint	Latitude	Longitude	Notes	Sample Effort	Sample Results
261	57.1708	-135.2369	Potential distributary marked as fish, but totally dry.		0
263	57.1694	-135.2371	Isolated pool in dry channel. No fish captured. Water is very stagnant and likely has low DO.	EF	0
264	57.169	-135.2371	Intermittent dry channel. No fish. Gravel substrate. Flanks hillside. Water clear.	EF	0
266	57.1667	-135.2444	Very tiny mucky seep. Deep organic substrate. No fish.	EF	0
267	57.1643	-135.2546	Wet lowlying area. Coming up on the middle fork bridge site. No water.		0
272	57.1609	-135.2615	Channel dries up in elevated ground. No place to fish.		0
273	57.1588	-135.2646	Steep ephemeral stream. No fish.	EF	0
276	57.1561	-135.276	Steep dry channel. No water. No fish. Cobbles.		0
287	57.159	-135.2855	Just a wet spot. Might flow sometimes. No place to fish.		0
288	57.1609	-135.2904	Steep bedrock chute. Very low flows. No fish.	EF	0
289	57.1616	-135.2929	Cove with tiny dewatered stream channel.		0
290	57.1617	-135.2986	Drainage. Not fisheable.		0
291	57.1617	-135.2988	Decent stream, at least there's water. Series of pools with boulders, large angular cobbles, and no fish.	EF	0
292	57.1617	-135.2992	small stream , goes nowhere. Seeps from gravels.		0

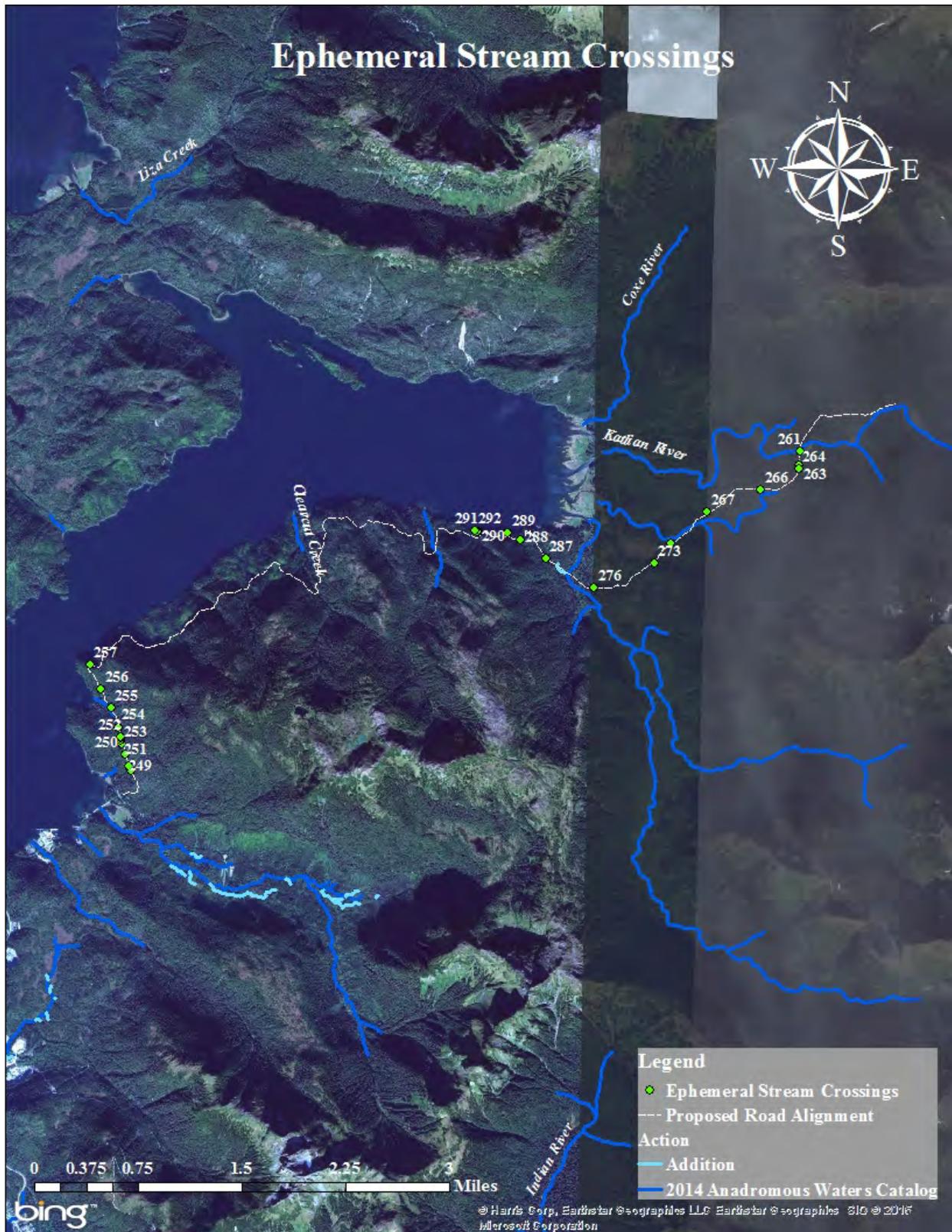


Figure 13.—Ephemeral stream crossing map.



Figure 14.—Dry channel at waypoint 261.



Figure 15.—Intermittent dry channel at waypoint 264.



Figure 16.—Dry channel at waypoint 267.



Figure 17.—Intermittent drainage at waypoint 271.



Figure 18.—Dry streambed at waypoint 276.

Recommendation

I recommend we further investigate fish use and extent in the uncataloged and ephemeral drainages during ordinary stream flows, information necessary to determine Fish Habitat Permits required for the project.

Attachment: Appendix A

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
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Troy Tydingco, ADF&G-SF, Sitka
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Phil Mooney, ADF&G-WC, Sitka
Mark Buggins, CBS, Sitka
John Barnett, ADOT&PF, Juneau
Linda Speerstra, USACE, Sitka
Cindy Hartmann Moore, NMFS, Juneau
Steve Brockmann, USFWS, Juneau

SOUTH FORK TRIBUTARY**ADDITION****Water body name:** [Click here to enter text.](#)**Survey date:** 5/13/2015**Water body number:** 113-44-10050 tributary**Species & Lifestage:** COr**Watershed:** Sitka Sound**MTR:** C054S064E **Quad:** Sitka A-4**Findings:** This stream provides excellent rearing habitat for juvenile coho salmon.**Recommendations:** Please include this stream in the Anadromous Waters Catalog.

Table 1.–South Fork Tributary Survey Data.

Waypoint	Latitude	Longitude	Notes	Sample Effort	Sample Results
277	57.1577	-135.2814	Bridge crossing. Large lovely stream. Supposedly a forest service road somewhere... 1 Co, 1 DV.	EF	1 CO, 1 DV
278	57.1577	-135.2822	4 Co in trib on RL. YOTY.	EF	4 CO
279	57.1577	-135.2825	Multiple coho.	EF	Multiple CO
280	57.1578	-135.2827	2 co just underneath road alignment.	EF	2 CO
281	57.1579	-135.283	1 CO	EF	1 CO
282	57.1581	-135.2831	2 CO	EF	2 CO
283	57.1585	-135.2831	end trib. Road crossing just below.		0
284	57.1624	-135.2736	On FS road. LSB. Intermittent dry channel filled with coho and chum salmon. Stranded.		CO, CH
285	57.1579	-135.2829	Pocket dial.		0
286	57.1582	-135.2833	Proposed road crossing anadromous stream, very low flows. We captured coho throughout this stream.	EF	Multi CO



Figure 1.-Coho captured near road crossing.



Figure 2.-Damp streambed below coho capture site.

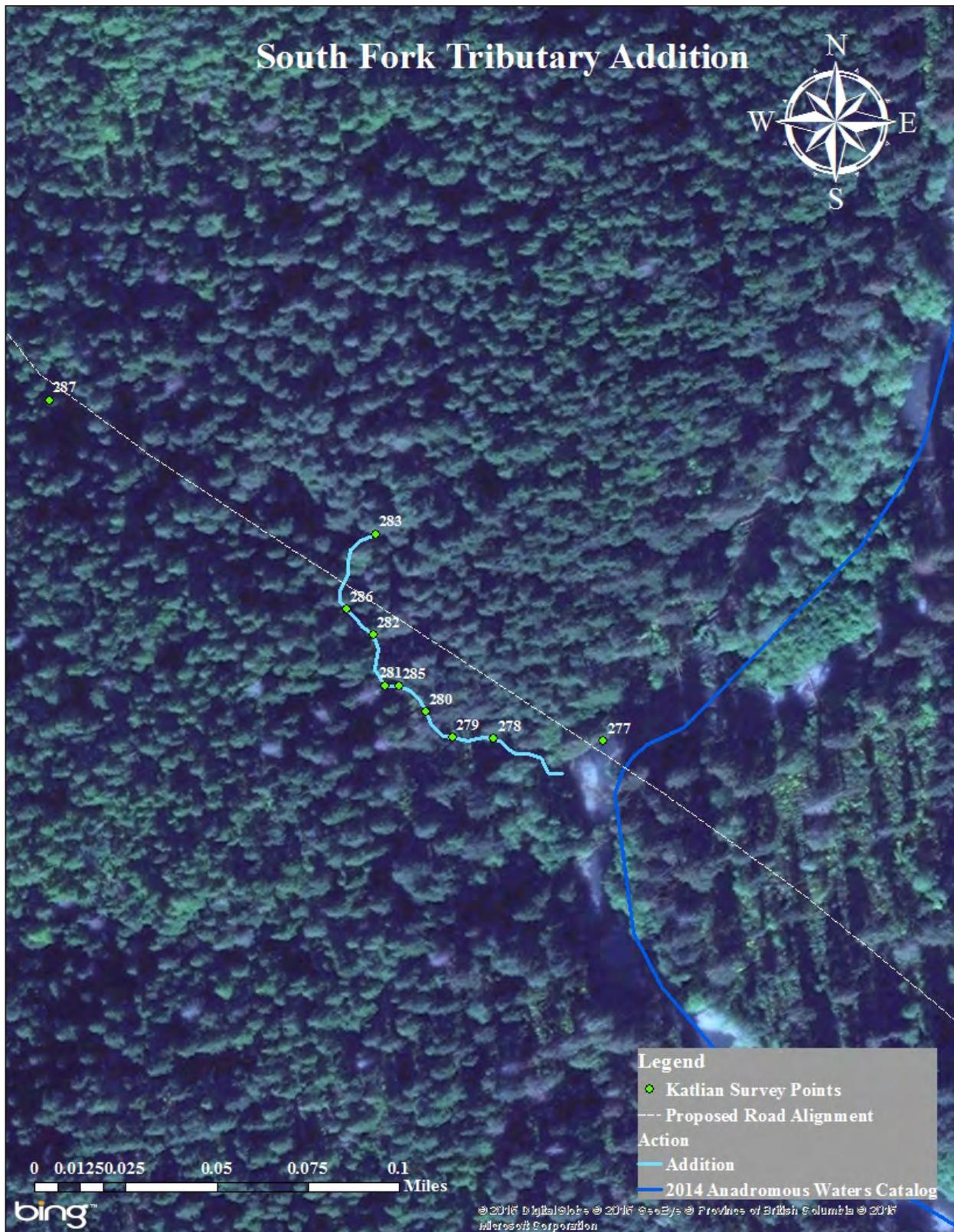


Figure 3.—South Fork Tributary Addition map.