

# MEMORANDUM

# State of Alaska

Department of Fish and Game  
Division of Habitat

TO:	Jackie Timothy Southeast Regional Supervisor	DATE:	October 22, 2018
THRU:	Kate Kanouse Habitat Biologist	FILE NO:	59.3873 N, 136.3716 W
FROM:	Dylan Krull <sup>DK</sup> Habitat Biologist	SUBJECT:	Waterfall and Hangover Creeks Fish Investigations
		PHONE NO:	(907) 465-6160

On September 25, 2018, Habitat Biologist Nicole Legere and I surveyed Glacier Creek tributaries Waterfall and Hangover Creeks to investigate fish use (Figure 1; Table 1). Constantine Metal Resources is building a road and has installed culverts on Waterfall and Hangover Creeks.



Figure 1.—Survey data.

### Waterfall Creek

We electrofished from the confluence with Glacier Creek to the culvert about 500 ft upstream, capturing no fish. Channel gradient was 15–40% with step pools and numerous waterfalls (Figures 2, 3). This stream does not provide fish habitat.



Figure 2.—Confluence with Glacier Creek.



Figure 3.—Ms. Legere electrofishing.

### Hangover Creek

We electrofished about 200 ft upstream of the Hangover Creek culvert and downstream to the confluence Glacier Creek, capturing no fish (Figures 4, 5). We measured gradient throughout the reach with a Nikon Forestry Pro rangefinder, finding 35–50% gradient with boulder and cobble substrate creating step pools. This stream does not provide fish habitat.



Figure 4.—Hangover Creek, facing downstream to culvert.



Figure 5.—Ms. Legere electrofishing.

### Glacier Creek

We electrofished pools of Glacier Creek between Waterfall and Hangover Creeks (WP 2341 and 2342), capturing no fish. The channel gradient was about 10% with swift current (Figure 6).



Figure 6.–Glacier Creek, near WP 2341.

Table 1.–Survey data.

Waypoint	Latitude	Longitude	Notes	Sample Effort	Sample Results
2339	59.3874	-136.3717	Culvert over stream, 47% grade over 83 ft upstream. Boulder cobble substrate.	EF	No Fish
2340	59.3876	-136.3718	Downstream of culvert, gradient near 50%.	EF	No Fish
2341	59.3886	-136.3720	Confluence with Glacier Creek. 35% gradient for 60 ft upstream.	EF	No Fish
2342	59.3880	-136.3740	Confluence with Waterfall creek. Electrofished upstream to this WP from 2341. Main channel of Glacier Creek, about 10% grade.	EF	No Fish
2343	59.3876	-136.3744	Channel continues to steep upstream about 15% grade with boulder-cobble substrate. Step pools and cascades, steepens upstream to above 20%.	EF	No Fish
2344	59.3870	-136.3743	Conditions continue and gradient steepens.	EF	No Fish

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