

# Mitchell Creek Fishpass Reconstruction Project

FISH PASSAGE STRUCTURE LOCATED ON MITCHELL CREEK,  
COORDINATES: LAT: 133°8'3.399"W LONG: 56°42'24.955"N  
ADF&G CATALOG NO. 106-43-10800

**Goal:** To ensure continuation of a self-sustaining coho salmon population in Mitchell Creek that provides additional coho annually for sport, commercial, and subsistence fisheries in the Petersburg area.

**Background:** Mitchell Creek Fishpass was constructed in 1992 to help increase sport fishing opportunities in the Petersburg area. The site is popular for local guides and sport fishers because of the ease of access and strong run of coho salmon.

It is essential that the existing fish passage structure be replaced due to structural integrity issues associated with the concrete.

**Description:** Mitchell Creek is located southwest of Petersburg on Kupreanof Island and is accessed by the mainline Tonka road system. The fishpass sits 3.1 miles upstream from the mouth of Mitchell Creek. This structure provides passage over a 15 foot falls. Immediately upstream of the fishpass structure, a 13 foot high waterfall was modified by blasting a series of pools to provide adult salmon access.

The fishpass and waterfall modification was constructed to allow access to 22.7 miles and 3.4 lake acres of salmonid spawning and rearing habitat. It also increases habitat for non-target fish such as (steelhead, Dolly Varden and cutthroat). Currently, Steelhead and coho salmon are the main sport fisheries which occur on Mitchell Creek.

**Production:** Forest Service Biologists estimate that this fishpass produces upwards of 3,218 harvestable adult coho annually. This fishpass is the only one specifically constructed to target sport fishing opportunities in the Petersburg area.

**Previous Work:** During 1993-1996, coho salmon fry were released in the drainage to establish a self-perpetuating coho run upstream of the fishpass.

The fishpass has been successful in providing for adult salmon passage and in increasing the numbers of coho in the upper watershed and the area near the fishpass has become a popular sport fishing location.



Figure 1. Overall view of the Mitchell Creek dilapidated fishpass structure.

- 1996: Scour weir wall repaired.
- 1999: A damaged sill at lowest weir replaced.
- 2005: A gravel trail was constructed to improve access to the fishpass.
- 2007: A stem-wall extension was constructed to connect the existing wall with the streambank and increase the efficiency of the inlet to the fishpass.
- 2008: Eroded streambed at weir interface was repaired with stem wall.

**Current Plan:** Replace the existing fishpass with similar structure. Work involves blasting to remove the existing structure and extensive concrete work to construct the new structure within the existing footprint. Instead of using wood for upper portions of the pool and weir walls, concrete will be used for the entire structure. The new structure is expected to have a 30 year life.

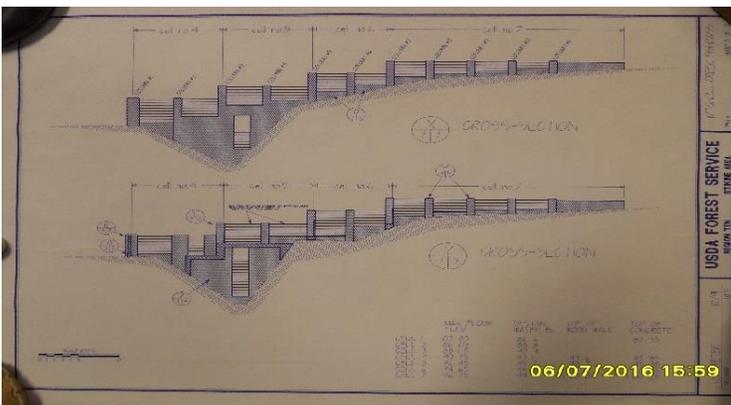


Figure 2. Existing blueprint design of fish passage structure.

**Timeline:** Complete NEPA and secure funding in winter 2016. Removal of existing fish passage structure will commence in June 2018 followed by reconstruction through the end of August, 2018.

**2018 Project Costs:** The costs for removal of existing structure and replacement with new structure is estimated at \$247,175.

Table 1. Estimated costs to remove the existing fish passage structure and replace with similar type structure.

Item	Total
SCA Interns (6)	\$63,582
FS Personnel costs	\$87,910
Helicopter/transportation/mobilization	\$30,300
Construction materials and equipment	\$53,390
Camp materials (3 wall tents, lumber, etc)	\$3,485
Travel costs	2,460
Personnel field costs	\$6,048
<b>Total</b>	<b>\$247,175</b>

**Project Monitoring:** Post-project monitoring will include the continuation of salmon fry index trapping (per established Forest coho monitoring protocols) to determine long term trends. This site will be monitored at least every third year.