

Salt Creek 101-45-038

FISHERIES REHABILITATION AND/OR ENHANCEMENT
NEW PROJECT OPPORTUNITY FORM*

1. WHAT (give a brief description): *A two step, nearly vertical falls approximately 13 feet in height. This falls is assumed to be a total barrier to pink and chum salmon and a partial barrier to sockeye, coho, and steelhead. Sockeye salmon were observed at the base of the falls in 1981.*
2. WHERE (be specific): *This falls occurs approximately 2000 feet upstream from the intertidal area. Salt Creek is located at the head end of George Inlet.*
3. BENEFITS: *Based on map estimates, an enhancement project on Salt Creek would improve access to approximately 13 acres of stream habitat and 210 acres of lake area.*
4. SUBMITTED BY (name, address, telephone, etc.):
*Mike Pease Fisheries Biologist
U.S. Forest Service
Ketchikan, Alaska 99901 907-225-3101*

Distribute this form to the following persons:

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|---|--|--|
| <p>1. Your Supervisor</p> <p>2. Regional Supervisor(s)
Appropriate ADF&G Office</p> <ul style="list-style-type: none">a. Commercial Fisheriesb. Sport Fisheriesc. F.R.E.D.d. Habitat Section | <p>Regional Office
210 Ferry Way
Juneau, AK 99801
or
Regional Office
333 Raspberry Rd.
Anchorage, AK 99502</p> | <p>4. Program Manager Fish & Wildlife
(Appropriate Forest Service)</p> <ul style="list-style-type: none">a. Stikine Area
Tongass National Forest
P.O. Box 309
Petersburg, AK 99833b. Chugach Area
Chugach National Forest
Pouch 6606
Anchorage, AK 99502c. Ketchikan Area
Tongass National Forest
Federal Building
Ketchikan, AK 99901d. Chatham Area
Tongass National Forest
P.O. Box 1980
Sitka, AK 99835 |
| <p>3. Director of Fisheries & Wildlife
USDA Forest Service
Box 1628
Juneau, AK 99802</p> | | |

* This form is to be used by Fish & Game and Forest Service personnel to identify opportunities that may be worthy to pursue to help rehabilitate and/or enhance the fisheries. Use of this form is not limited to these agencies as all persons are encouraged to help identify opportunities. Use of this form will inform the agencies that have responsibility for projects. This form is not intended to be a proposal. Development of a Project Proposal would be in subsequent documents.

WATERWAY VERIFICATION FORM

Name: Salt Creek ADF&G Cat. No.: 101-45-038
Latitude: USFS Cat. No.:
Longitude: Date: 4/27/82
Geodetic Map No.: KTN C-5 Surveyed by: Never been Surveyed
Location: Head end of George Inlet
Aerial Survey Notes:

Trails:

Ladder will primarily accommodate: Coho, Sockeye, Steelhead?

AVAILABLE ESCAPEMENT DATA:

Table with columns: Year, Pink, Chum, Coho, Sockeye, King, Steelhead. Content: No Available Escapement Data

Other species present:

TIMING:

ESTIMATED SPAWNING AREA:

1) Below Barrier: How Surveyed:
2) Above Barrier: 13 Ac Stream How Surveyed: Map Estimates
No distinction made between habitat types

REARING AREA:

1) Below Ladder: How Surveyed:
2) Above Ladder: 210 Ac. Lakes How Surveyed:

DRAINAGE AREA:

DISCHARGE:

GRADIENT:

SURVEY OF BARRIER: Measured at 13 feet in 2 steps

SKETCH MAP OF ENTIRE SYSTEM:

PHOTOGRAPHS:

DISTANCE OF LADDER SITE FROM SALT WATER: Approx. 2000 feet

DISTANCE OF LADDER SITE FROM NEAREST ROAD:

ENGINEERING CRITERIA:

1) Ladder Type: A major designed fishway is foreseen
2) Etc.:

Salt Creek - Project Verification

On July 8, 1981, Louie Bartos, Bob Aaserude, and Mike Pease traveled to Salt Creek (101-45-038) at the head end of George Inlet on Revilla Island. Approximately 2,000 feet upstream from the intertidal area, a two step, nearly vertical falls was examined. The height of the lower most step is approximately 5 feet; the upper step is approximately 8 feet in height. A small intermediate pool at least 2 feet in depth was observed.

Several sockeye salmon were observed in this stream with many fish attempting to jump at the falls. Fish were successfully jumping the lower step into the intermediate pool. All observed attempts to pass the upper step were unsuccessful.

Fish passage at this site appears to be flow limited. Flows at the time of observation were estimated at 60 cfs. It appears that additional flow would enhance the passage features for the upper step. However, such additional flow may also tend to increase the velocities in the intermediate pool and thus the difficulty of fish resting or remaining in this pool. Some attempts were made to probe the depth of the intermediate pool that resulted in inconclusive measurements. A clear picture of the flow/fish passage relationships at this site is not available at present.

The stream channel up to the falls is somewhat steep (3-7%) with small areas of lesser gradient containing suitable spawning habitat. Many white water pool and riffle areas were observed with several log and debris jams throughout the stream. The stream bed substrate was generally very coarse. This lower section of the stream appears to contain habitat that is very suitable for the rearing of juvenile steelhead trout. Very few juvenile coho salmon were observed. This stream contains a large intertidal area with high quality spawning habitat that is no doubt used extensively by pink salmon.

Walking in and along this stream was difficult due to abundant large and slippery rocks. Thick brush and windfall trees were also abundant. Evidence of bear and eagle activity along this stream is common.

The area in the immediate vicinity of the falls is difficult to negotiate. Stream banks are steep and rocky with an abundance of cliffs. The present flow conditions made crossing this stream both above and below the falls very difficult.

The area above the falls remains rocky but is of lesser gradient than the lower stream section. An aerial overview of this stream revealed abundant coho rearing areas in two small lakes and many side channels and sloughs. Abundant spawning areas were observed in the streams tributary to the lakes. No adult salmon were observed above the falls.

Some areas of cascades and/or small falls were observed in the upstream area as a result of the aerial overview. One such area was just below the outlet of the first lake. A photo of this site is available in the 1980 Assessment Report by Pease and McCall. Another such area exists between the two lakes. Neither of which were visited on the ground but appear to be of no problem for fish passage.

Numerous photographs of the falls and the up and down stream areas were taken.

Much additional evaluation surveys of this stream must be undertaken. The engineering site survey of this site will be difficult to accomplish due to the steep and rocky terrain and flow conditions. A level 4 habitat survey will no doubt require helicopter support. Landing in the lakes via fixed wing aircraft is uncertain at present.

The State of Alaska has selected land in and along the lower portions of Salt Creek. The exact location of this land ownership boundary in relation to the falls site is not known at present. However, the approximate boundary location appears to correspond very closely with the falls site.

The potential enhancement opportunities for Salt Creek appear to be quite high. Pending the determination of the land status, further investigations of this stream are warranted and should be scheduled as soon as possible. These investigations should include a level 4 habitat survey, an engineering site survey, a geotechnical examination, and both hydrologic and hydraulic assessments.

P. MICHAEL PEASE
Fisheries Biologist, S.O.

1980 Survey

Salt Creek 101-45-38

Approximately 1,000 feet above the saltwater lagoon was a two step bedrock falls. Each step was 6 feet high. There was a large pool below the falls and a small white water pool between them. There were many pink salmon below the falls and coho salmon were observed jumping at the falls. One was observed to make the lower step. These falls are a total barrier to pink salmon. They do not appear to be a barrier to coho, but possibly could be a barrier to sockeye. Adult fish remains were observed above the falls.

These falls could easily be enhanced to allow better fish passage by blasting the left side.

One hundred feet below the lake on the right fork is a 6 foot cascade on a 20° slope. This did not appear to be a barrier to salmon.

There were areas of good spawning below and above the lake.

This system warrants further investigation as it appears to have enhancement opportunities for sockeye salmon.

Steve McCall
Fisheries Technician

Surveyed 9/11/80
Moderate-Low flows.



Salt Creek 1981

