

LAKE AND STREAM INVENTORY FORM

Name: Dog Salmon Creek Catalog no.: 102-60-38
 USGS map: Craig-R2-21 Former no(s): 1426(WR), 167(K)
 Latitude: 55° 20' 52" Drainage area: 17.5 sq. miles
 Longitude: 132° 30' 6" No. lakes in system: 4 lakes, 5 ponds
 Location description: 2.5 miles NW of head of Polk Inlet off
Stawl Arm of Kasar Bay

SIZE AND ELEVATION OF LAKES IN SYSTEM:

Lake Identification	1st lake	Pond SW of Lake	Lake NW of Lake	1st Lake Creek NW of Lake				
Size (acres)	45	4	15	4				
Elevation (feet)	200-300	500-600	1100-1200	100-200				

LENGTH AND GRADIENTS OF STREAMS IN SYSTEM:

Stream Identification	ITZ to Lake	1st Fork to West	1st Fork to East	2nd Fork to West				
Length (miles)	3.5	3.25	1.0	3.75				
Gradient (ft/mi)	70	1400	1300	1500				

SPECIES OF FISH PRESENT: Pink, chum, coho, red

SPAWNING DATA:

Species	Pink	Chum	Coho	
Escapement	see A.S.C.	4-2-IV, p.62		
Timing	September	October		

PROMINENT PHYSICAL FEATURES OF STREAM: 6' falls at steep pass,

5' falls upstream (see A.S.C. R-2-IV, p.51)
Falls 1 mile upstream are impassable (FWS Stream Catalog #2)

LAND USE OF AREA: Lower part of stream logged, U.S.F.S steep
pass around 6' falls, Clearcut around 1965

Wash. State Dept. of Ecology
Klamath Ranger District

2850 Habitat

September 10, 1969

Salmon Stream monitoring of Dog Salmon Steep pass



Files

On September 5, 1969, Gary McCoy and myself monitored the steep pass on Dog Salmon Creek in Polk Inlet.

The water level on this date was approximately three inches higher than on the August 28th inspection. The concentration of pinks was about the same, the chums were absent, and silvers were just beginning to run. The bay appeared full of silvers.

The steep pass was a greater attraction to the salmon with the additional water. Due to the foamy water and air bubbles from the upper falls, it was difficult to see the salmon go up the steep pass, but five pinks were observed for certain. Salmon couldn't begin to climb the falls next to the steep pass with the additional water flow.

In walking the stream to the forks, 140 pinks and 2 silvers were tallied. There could have easily been more in the deep holes where visibility was poor.

Daniel H. Swaney
DANIEL H. SWANEY
Forester

cc: SO

Approval to use the diversion method as outlined by Mr. Ziemer was given 12/14/65, and plans were initiated to complete the project in FY 1966. The site was visited by Carl Roser, ADF&G Area Management Biologist on 2/17/66 and the proposed treatment was outlined. A copy of the ADF&G letter of concurrence dated 2/21/66 is attached. Mr. George Cunningham, engineer for ADF&G was contacted by letter on 1/30/66 and 5/31/66, together with a personal visit by Kasana District personnel in February 1966, however, due to a trip to Prince William Sound, Mr. Cunningham was not able to assist in this work.

PROCEDURE

Anticipated low stream flow, prior to the arrival of spawning salmon, prompted the scheduling of this project the last week in June 1966. Prior to beginning the project it was determined by the ADF&G that no salmon were present in Dog Salmon Creek.

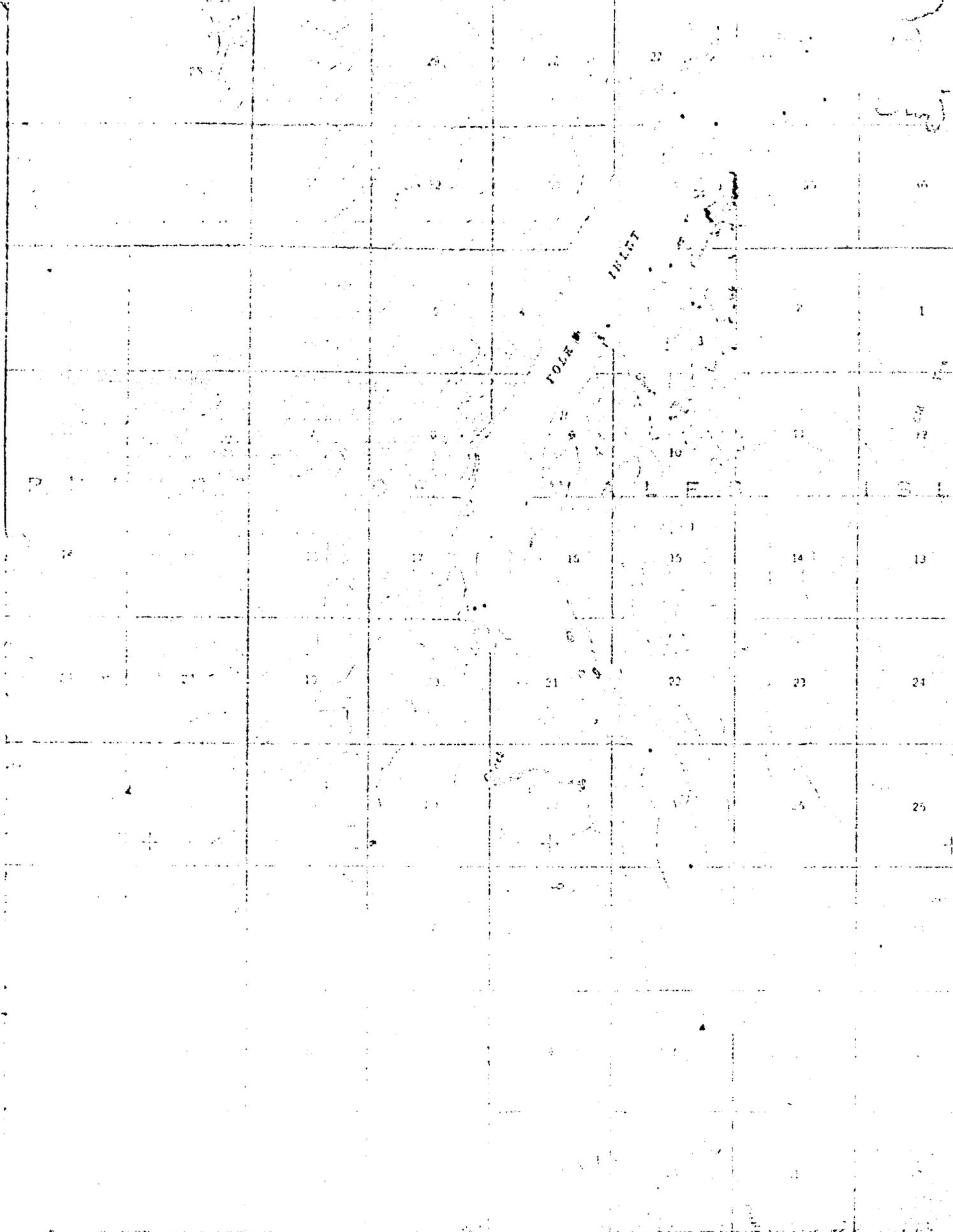
Materials and tools were transported to Dog Salmon Creek on 6/27/66. A sand bay dam was built using sand and gravels in burlap bags to divert as much water as possible from the drilling sites.

On June 28, 1966 Henry Norman from the South Tongass engineering staff, and Dale Philman from the ADF&G arrived and the first dynamite charges were set off. Dynamite holes were drilled using a 1 1/2" steel and a gasoline operated Cobra drill. Drilling proved to be very time consuming due to the rock hardness, and seams present in the granitic rock formation of the falls which contained numerous quartz veins. Charges of 40% Gallatin DuPont special dynamite 1x8" stick size varied from 1/2 to 2 sticks per charge and were detonated using instant electrical caps. Everett Joines served as powerman for this job.

Construction of a diversion ditch to the top of the natural U-shaped trench accounted for most of the work on this project. Three large rock outcrops were lowered and a small channel was cleared on this section.

Several 1/2 stick dynamite shots were made on the chute leading to the first resting pool, in an effort to concentrate all of the low flow water into one channel.

Drilling equipment and dynamite was packed to a second falls 1/2 mile from the lake, however it was not felt that the site could be improved and no rock work was initiated. (See photo #6 & 7)



111. Observe falls when salmon are in stream to determine whether or not they are able to ascend falls and which stage, of the three, they are having the most trouble with: The district plans to make another observation in August 1965. (See Ziemer's and Sheridan's reports)
- 1V. Have engineer examine falls to corroborate our thoughts on laddering. We have Ziemer's report and recommendations, but will have the Forest engineer make examination after recon reports are all in.
- V. Measure quality of spawning area above and below falls. This will be done in May 1965.

Clayton L. Simpson

one of the more promising of the pink and chum salmon habitat improvement projects examined to date.

Recommend that Mr. Ziemer, Alaska Department of Fish and Game (ADF&G) Engineer include this stream in his examination of ladderlag projects to be made on the South Tongass this summer.

It is desirable that behavior of the salmon and their numbers and species be observed in the stream below the falls during the salmon run in September and October.

Mr. G. L. Ziemer reported on Dog Salmon Creek as follows: "Dog Salmon Creek, draining into Polk Inlet on Prince of Wales Island, was surveyed on August 20. A low water migrant block is located approximately $\frac{1}{2}$ mile above high water. An existing run indicated that upstream migrants successfully negotiate this partial block at certain water stages. The low water existing at the time of our inspection is most certainly a total block.

"There is a total of 14 feet of rise in 60-lineal feet of run. The lowermost 6 feet appears to be passable in its existing condition as quite a few fish were observed above it. The next step of 6 feet in 30 feet of run is a definite block during most water stages and can be made negotiable by the installation of 30 lineal feet of steep pass at an estimated \$6,000 cost by anchoring the units to a ledge on the right bank. Two feet of rise above this point to the pool above appears to present no great problems to migrating fish. A diversion weir at this point would be very simple. It is doubtful whether any ordinary construction would enable this block to pass fish at all stages as there is evidence at the site in the form of deep kettle-holes and polished rock, indicating high stages of water at extremely high velocities.

- 4 There is a possibility of an alternate treatment of this block, which would consist of a diversion of water from the right toward the left bank at the head of the falls in order to utilize as a ladder the deeply incised V-sloped trench in the upper part of the falls. This trench would be broken up into several steps by construction of weirs and by proper shaping. This is estimated to be a \$2,500 project. It should be brought out that any construction in the middle of the falls might involve high annual maintenance costs."

Recommendation

1. None are necessary, since the project has been at least partially completed and future work awaits present evaluation.

SALMON STREAM HABITAT IMPROVEMENT

Kasaan District

ZIEMER'S REPORT

Dog Salmon Creek

Dog Salmon Creek, draining into Polk Inlet on Prince of Wales Island, was surveyed on August 20. A low water migrant block is located approximately 1/4 mile above high water. An existing run indicated that upstream migrants successfully negotiate this partial block at certain water stages. The low water existing at the time of our inspection is most certainly a total block. There is a total of 14 feet of rise in 60 lineal feet of run. The lowermost 6 feet appears to be passable in its existing condition as quite a few fish were observed above it. The next step of 6 feet in 30 feet of run is a definite block during most water stages and can be made negotiable by the installation of 30 lineal feet of steep pass at an estimated \$6,000 cost by anchoring the units to a ledge on the right bank. Two feet of rise above this point to the pool above appears to present no great problems to migrating fish. A diversion weir at this point would be very simple. It is doubtful whether any ordinary construction would enable this block to pass fish at all stages as there is evidence at the site in the form of deep kettle-holes and polished rock, indicating high stages of water at extremely high velocities. There is a possibility of an alternate treatment of this block which would consist of a diversion of water from the right toward the left bank at the head of the falls in order to utilize as a ladder the deeply incised V-sloped trench in the upper part of the falls. This trench would be broken up into several steps by construction of weirs and by proper shaping. This is estimated to be a \$2,500 project. It should be brought out that any construction in the middle of the falls might involve high annual maintenance costs.

108 Creek

108 Creek is located on North Whale Pass on Prince of Wales Island. It is considered to be a total block to pink salmon but an existing run of coho and sockeye would indicate that it is passable, at least during certain water stages. The delay which this series of rapids and falls causes to migrating coho and sockeye could very definitely be lessened by shaping, water flow regulation and the installation of certain improvement items.