State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

1992
Year of Revision

ALASKA DEPT. OF
FISH & GAME

APR 05 1991

REGION II
HABITAT DIVISION

Anadromous Water Catalog Volume _____

USGS Quad Valdez A-7

Name of Waterway Henderson Creek

Anadromous Water Catalog Number of Waterway 221-60-11295

Change to _____ Atlas

_____ Catalog

X Both

Addition X

Deletion _____

Correction _____

Name addition:

USGS name _____

Local name Henderson Creek

For Office Use

Nomination # 92 027

[signature] 12/4/91
Regional Supervisor Date

Ed Wein 2/20/92

FI 1/16/92
Drafted Date

Species	Date(s) Observed	Spawning	Rearing	Migration
Chum	Aug 1, 1986	X		X

Comments: Provide any clarifying information, including number of fish observed, location of fish survey data, etc.

see attached report by Dames and Moore

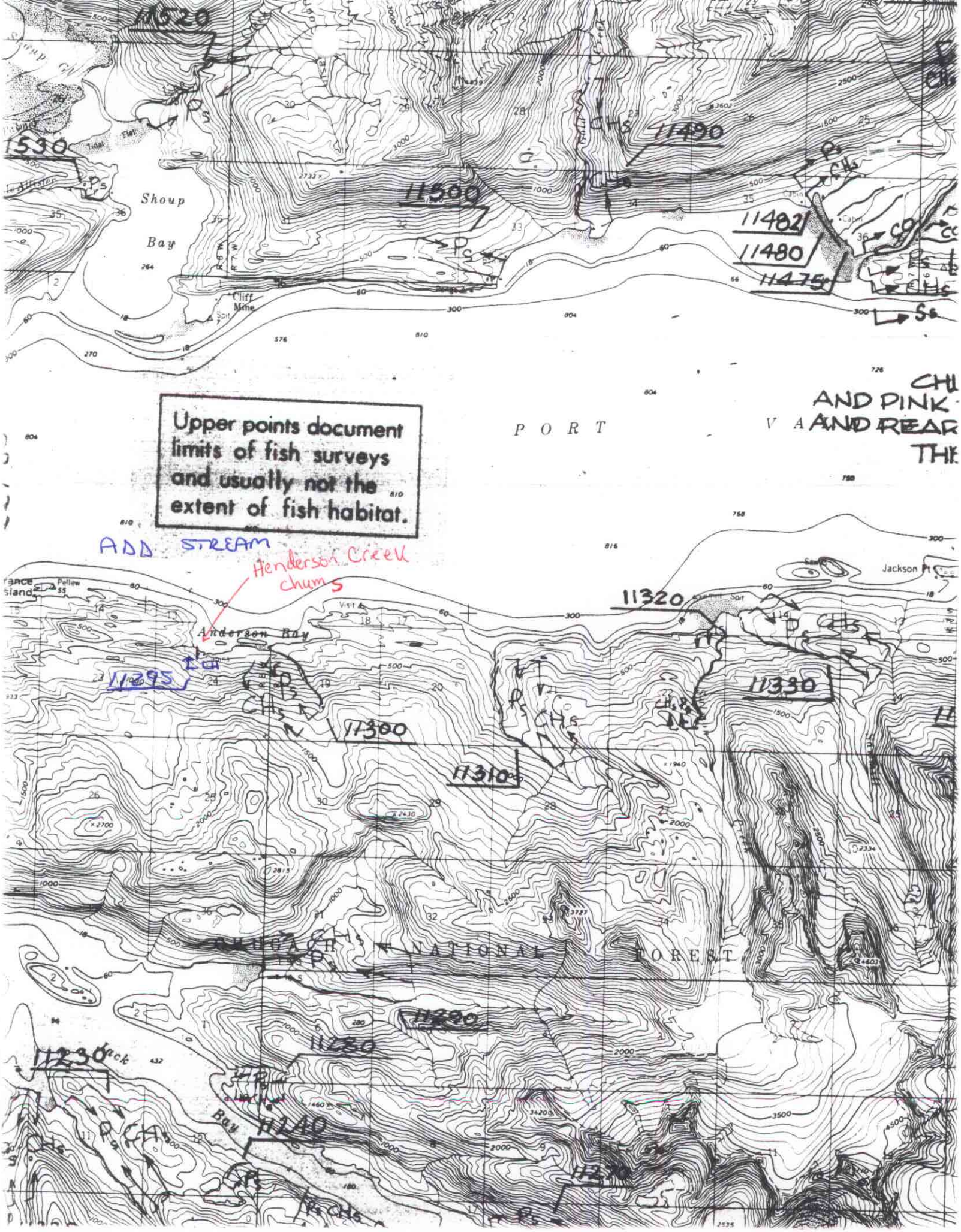
Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls. Attach a copy of the fish survey data, if available.

Name of Observer (please print) John Morsell and Jim Hemming

Date: 4/2/91 Signature: Philip J. Bond, Pipeline Supervisor

Address: 411 W. 4th Ave Suite 2C
Anchorage, AK. 99501

Signature of Area Biologist: Philip J. Bond


11520
11530
11490
11500
11482
11480
11475
Shoup
Bay
Cliff
Mine
Upper points document limits of fish surveys and usually not the extent of fish habitat.
PORT
AND PINK
AND REAR
ADD STREAM
Henderson Creek
chums
Anderson Bay
11295
11300
11310
11320
11330
Jackson Pt
NATIONAL
FOREST
11290
11280
11230
11240
Bay

YUKON PACIFIC PROJECT
ANDERSON BAY FISH & WILDLIFE SURVEY

On August 1, 1986, John Morsell and Jim Hemming travelled to Valdez to conduct a fish and wildlife survey between Alyeska Oil Terminal and Anderson Bay.

Survey conditions were excellent, high broken overcast and no rain. Oblique aerial photos were taken of the project area at an altitude of 1500 feet over Valdez Arm looking southeast from the south end of Anderson Bay.

Low level aerial surveys were flown from Entrance Island to the mouth of Ann Creek to search for eagle nests. Eagle nests were found on the point on the mainland across from the southwest corner of Entrance Island and on the point on the east side of the mouth of Nancy Creek (see attached map). Adult pairs of eagles were present at both sites but the nests were vacant. Eagles were also observed near the mouth of Terminal Creek but no nests were found.

Salmon surveys were conducted on foot at seven streams with support of a backpack electroshocker. The results of the survey are shown in Table 1.

TABLE 1
FISH RESOURCES OF
TERMINAL AREA STREAMS

Stream Name	Approximate Number of Fish		
	Pinks	Chums	Other
Jug Creek*	0	0	0
Aquaculture Creek*	0	0	0
Henderson Creek	0	2	0
Nancy Creek	200	75	0
Short Creek	50	50	0
Terminal Creek*	0	0	0
Ann Creek	2500	500	0

*Natural Barrier to fish passage at mouth.

Jug Creek and Aquaculture Creek are both small, steep streams with little or no fish habitat potential. In recent years, Aquaculture Creek has been used as a temporary fresh water supply to enhance salmon rearing within saltwater pens which are anchored in the west end of Anderson Bay (personal communication, Paul McCollum, Valdez Fisheries Development Association, Inc.). Temporary piping is evidently assembled each year to carry creek water to the rearing pens.

Henderson Creek is also steep above the high tide level. A very small amount of potential salmon spawning habitat is present within the intertidal zone and only one pair of spawning salmon was observed during the survey.

Nancy Creek supports a small run of pink and chum salmon and is listed in the ADF&G Catalog of Waters Important for the Spawning, Rearing and Migration of Anadromous Fishes as creek number 221-60-11300. All of the chum salmon and most of the pink salmon spawn within the intertidal zone. However, pink salmon were observed above the high tide line for a distance of about 1,000 feet upstream before being blocked by a natural log dam. Spawning habitat in the freshwater portion of the stream appeared to be marginal with cobble and shingle substrate and only small areas of suitable gravel.

Short Creek is very steep above tide level precluding fish passage. Chum and pink salmon were observed spawning in the lower intertidal zone at the creek mouth. Habitat did not appear to be favorable; however, the presence of spawning fish suggests that upwelling of fresh water may be occurring thus providing suitable salinity for survival of salmon eggs.

Terminal Creek spills over a steep bluff into Anderson Bay and, therefore, provides no fish habitat at its lower end. However, above the bluff the stream traverses a flat bench and leads back to a small lake. Fish habitat potential in this reach appeared to be high. A portion of the stream was examined for the presence of resident fish using the electroshocker, but no fish were observed. Terminal Creek could provide spawning and rearing habitat for silver salmon if a fish ladder were constructed. This may be a useful mitigation measure if compensatory mitigation is required by the agencies.

Ann Creek is listed in the ADF&G anadromous stream catalog as stream number 221-60-11320 and supports a substantial run of pink and chum salmon. Very dense spawning occurs within the intertidal zone and for about 1,000 feet upstream until fish are stopped by a waterfall. Sport fishing by local boaters offshore of the stream mouth was observed during the survey.

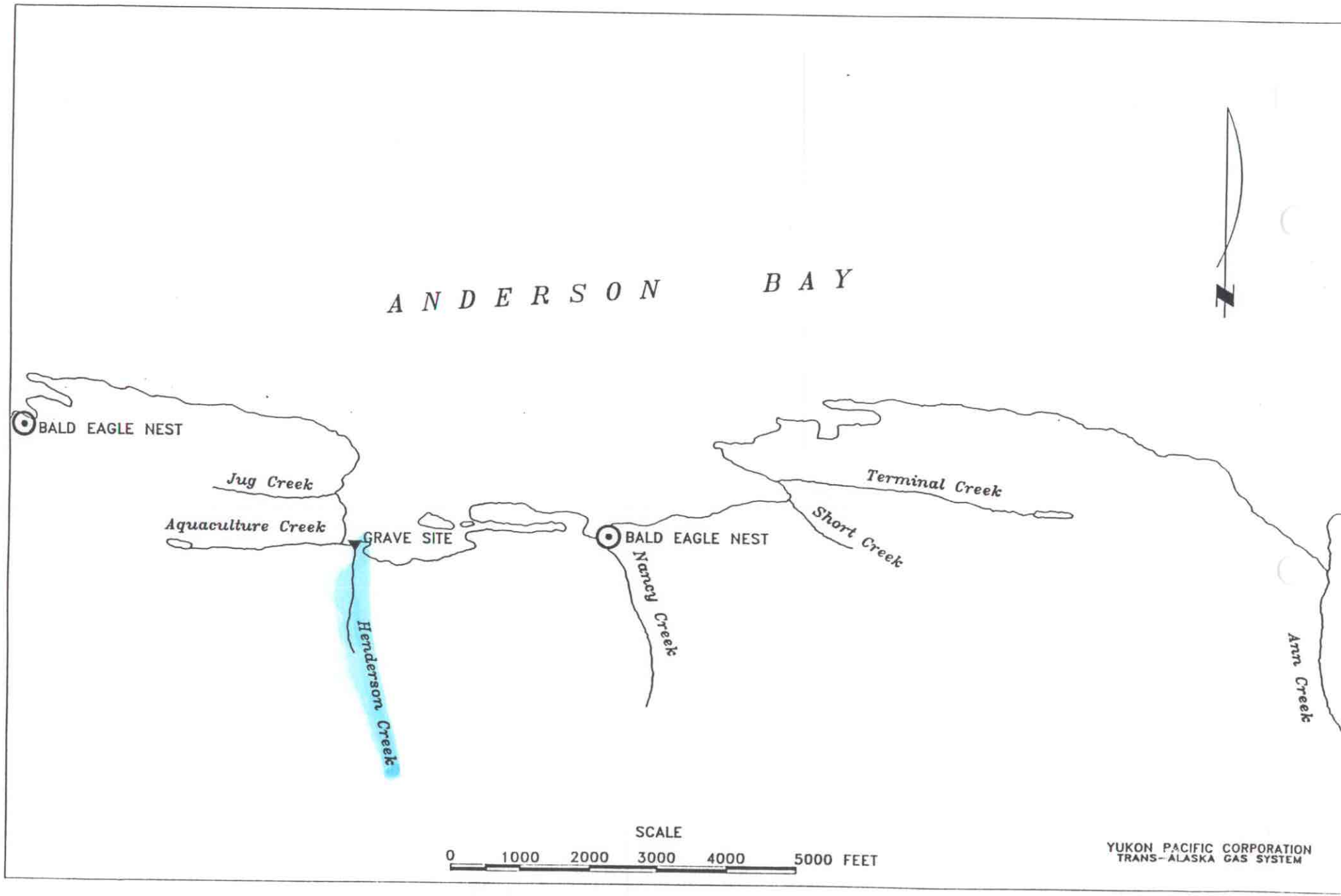
Road or pipeline construction should not be constrained if streams are crossed upstream of natural barriers to fish passage. However, the agencies may limit the timing of construction to the early summer period in Nancy and Ann Creeks to prevent siltation impact on downstream salmon resources. A minimum 300 foot buffer will be required around the eagle nest at the mouth of Nancy Creek.

At the west side of the small peninsula at the mouth of Henderson Creek is a grave monument constructed with a concrete base, large brass inscription plate and a marble headstone. The deceased is Harry Alden Henderson who died in the 1964 earthquake. Obviously special provisions would be necessary to protect this site.

Essentially, all of the sensitive areas described above are at the periphery of potential project facilities and can be largely avoided by careful project siting.

No cabins or their remains were found at Henderson Creek as shown on the USGS map, but we assume they may have been destroyed by the tidal wave from the 1964 earthquake. Special attention was given to any evidence of archeological values (such as shell middens) but none could be found.

Wildlife in the area consisted of numerous passerine birds, gulls, ravens and northwestern rows, plus sign of black bear and river otter. Except for Bald Eagles, no specially protected, rare or endangered species were observed.


ANDERSON BAY
N
BALD EAGLE NEST
Jug Creek
Aquaculture Creek
GRAVE SITE
Henderson Creek
BALD EAGLE NEST
Nancy Creek
Terminal Creek
Short Creek
Ann Creek
SCALE
0 1000 2000 3000 4000 5000 FEET
YUKON PACIFIC CORPORATION
TRANS-ALASKA GAS SYSTEM