Form No. 10-300 (Rev. 10-74) Senators Ted Stevens, Mike Gravel
Congressman Don Young

DATA SHEET

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE PHM72360

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC AA

Flood Control Project on Lowell Creek at Seward, Alaska (AHRS SEW-011)

AND/OR COMMON

Diversion Tunnel

2 LOCATION

STREET & NUMBER The Lowell Creek Flood Control Works is located west of and partly within the corporate limits of Seward, Alaska at Lowell Creek

__NOT FOR PUBLICATION

CITY, TOWN Seward __VICINITY OF

CONGRESSIONAL DISTRICT Alaska

STATE	CODE	COUNTY	CODE
Alaska	02	Seward Division	210

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	XPUBLIC	__OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	XUNOCCUPIED	__COMMERCIAL	__PARK
XSTRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	XYES RESTRICTED (see cont.	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES UNRESTRICTED sheet)	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	XOTHER Flood Control

4 OWNER OF PROPERTY

NAME City of Seward (907) 224-5214

STREET & NUMBER P.O. Box 337

CITY, TOWN Seward __VICINITY OF STATE Alaska 99664

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE REGISTRY OF DEEDS, ETC. Alaska State Office of the Bureau of Land Management

STREET & NUMBER 555 Cordova Street

CITY, TOWN Anchorage STATE Alaska 99501

6 REPRESENTATION IN EXISTING SURVEYS

TITLE Alaska Heritage Resource Survey (AHRS)

DATE May 30, 1973 __FEDERAL XSTATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS Alaska Division of Parks, 323 East 4 Avenue

CITY, TOWN Anchorage STATE Alaska

DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	XUNALTERED	XORIGINAL SITE
XGOOD (Jan. '74)	_RUINS	_ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

This project was constructed to replace the first Alaska Road Commission, 1927 flood protection facility at Seward; located on the delta of Lowell Creek, a short flashy creek which rises in the ice fields in the rugged [illegible] Mountains. Though insignificant as normal stream, Lowell Creek, almost since the beginning of Seward, produced from one to three severe floods per year, at which times large quantities of detritus, varying from small gravel to huge boulders one-half cubic yard in size, was carried to the delta from inexhaustible supplies in the vast talus slopes in the upper surrounding mountain canyons. The deposits amounted to some 27,000 cubic yards annually. On one occasion, in 1935, the stream deposited 10,000 cubic yards in 11 hours. This deposition on the delta caused periodic changes in the channel through the town as accretion elevated the areas adjacent to the stream, and property suffered continuing damage. The original flood control project provided only for a diversion dam and a timber flume which carried debris and water through the central townsite and deposited it in Resurrection Bay. This flume, in spite of heavy maintenance repairs, had so deteriorated by 1937 as to constitute a menace to the community. Because of its location and design it had never fully served its intended purpose; hence its abandonment and replacement.

New Diversion dam. The Corps of Engineers diversion dam constructed further upstream in 1937-40 across Lowell Creek, is approximately 400 feet long, with a maximum height of 25 feet. It has a crest width of 5 feet, an upstream slope of 1 vertical on 1 horizontal and a downstream slope of 1 vertical on 2 horizontal. The core portion is rock filled, the downstream slope protected by a cement rubble face, and the upstream slope faced with reinforced concrete slab. About 240 feet of the structure has a straight wing wall and the remainder is on a curve of 220.3 feet radius; including a spillway section some 70 feet long. The structure was so placed that the current would strike the curved section nearly tangentially and gradually change in direction so that its entry to the tunnel transition would be colinear with the tunnel. The transition gradually changed in shape from an open flume section to that of the tunnel. By steepening the gradient in the transition section, water was accelerated to enter the tunnel at a velocity change. The floor of the transition was paved with 40-pound railroad rails.

(b) Tunnel. The 10-foot horseshoe tunnel, 2068 feet long, was constructed on a grade of -4.2 percent. It was concrete lined throughout and the floor was armoured with 40-pound railroad rails welded to channel cross ties imbedded in the basic floor with the interstiles between rails filled with abrasion resistant concrete.

(c) Outlet works. The outlet works consisted of an open concrete flume 10 feet wide at the bottom and with side slopes of 2 vertical on 1 horizontal. It was about 109 feet long. The upstream 58 feet was laid on a -4.2 percent grade and the remainder on a -10 percent grade. The flume discharged on the precipitous slope of Bear Mountain 66.75 feet above mean lower low water in Resurrection Bay. Spaces between the rails were filled with abrasion resistant concrete.

SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	(X) __ENGINEERING	__MUSIC	__THEATER	
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION	
__1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	(2) __OTHER (SPECIFY)	
		__INVENTION		Flood Control	

SPECIFIC DATES Began 4 Aug. 1939 Completed 4 Nov. 1940

BUILDER/ARCHITECT Designed by the Corps of Engineers M. P. Butler & P. J. Somers Construction Co. builders

STATEMENT OF SIGNIFICANCE

Significance

Seward is a city of considerable significance in State and National history. It is named after Secretary of State William H. Seward who directed the arduous drive by the United States to purchase Alaska from the Russians, concluded in 1867. It came into being in June, 1902 when survey parties landed to begin surveys for the first major all-Alaska railroad to open the interior, the Alaska Central. In July of the following year the townsite was surveyed and named, a wharf constructed and streets and avenues laid out geometrically; the streets named Adams, Jefferson, Madison, Monroe and Washington, comprised the first planned city in Alaska. Meeting formidable difficulties, Alaska Central was succeeded by the Alaska Northern Railroad, and finally in 1915, by Executive order, the federal Alaska Engineering Commission continued what eventually became the Alaska Railroad, completed to Fairbanks in 1923. Although Anchorage, started as a work camp by AEC, eventually became the dominant city and seaport facility, Seward remains the terminus of Alaska's only major railroad.

This historic, 1937 flood control project represents exemplary engineering for the time and place. The Flood Control Project on Lowell Creek at Seward, Alaska, was the U.S. Corps of Engineers first completed flood control project in Alaska. This project was not only constructed to replace unsatisfactory earlier flood protection works at Seward but it solved a flood problem dating from the early 1900's which threatened the location and integrity of the original townsite. Seward, because of the ice fields in the Kenai Mountains, was continually plagued after 1903. The initial 1927 Alaska Road Commission works for alleviation provided a small diversion dam and large timber flume to carry debris through the Central townsite and deposit it in Resurrection Bay. This flume, in spite of heavy maintenance repairs, had so deteriorated by 1937 as to constitute a further menace to the community. The original intake and flume were not only beyond economical repair; but a better designed, relocated flood control project had long been evident as necessary.

The completed Corps of Engineers, 1937-40 diversion tunnel through Bear Mountain which bypassed most of Seward, has since that time effectively controlled Lowell Creek, and has eliminated flooding. This project was authorized by the Flood Control Act, approved August 25, 1937 (h. Doc. No. 154, 75th Congress, 1st Session.) The Executive Order No. 8330 for withdrawal of Public Land in Aid of Flood Control, Alaska, was signed by President Franklin Delano Roosevelt, on January 24, 1940. (F. R. Doc. 40-413; Filed January 25, 1940; 3:08 P.M.)

Form No. 10-300a
Rev. 10-74)

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Flood Control Project on Lowell Creek at Seward, Alaska
(AFS SEW-01)

CONTINUATION SHEET ITEM NUMBER 8 PAGE 1 of 2

Despite severe damage to Seward and vicinity by the great 1964 earthquake, the flood control project withstood the massive earthshocks. Two years later, with one of the heaviest run-offs of record--Lowell Creek rose to within two feet of the crest of the dam--but city damage was averted. The United States Geologic Service constantly since 1966 has circulated "Flood Prone Warning" leaflets to alert newer residents, sportsmen, visitors and tourists of a continually dangerous situation.

Placement on the National Register would call attention to the exemplary merits of this first Alaskan Corps of Engineers flood control project and the significant purpose it provides; while maintaining a higher level of pre-cautionary awareness of the ever-present flood hazzard in the area. Despite its less-than-fifty year span, the merits of this project and its significance in protecting the seaport city of the Alaska Railroad, warrant special consideration.

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Present

As of 31 January 1975: Overall, the tunnel remained in good condition with a few minor exceptions. Recommendations were made, at that time, that repair work should be done as soon as practical to alleviate any problems developing in the field of maintenance.

MAJOR BIBLIOGRAPHICAL REFERENCES

Woodman, Lyman L.: The Alaska District United States Army Corps of Engineers, 1946-1971, 1973 (in preparation)

In-house CE : Flood Control Project on Lowell Creek at Seward, Alaska, Corps of Engineers, U.S. Army, Office of the District Engineer, Seattle, Washington (copy attached)

In-house CE : 1520-03 Project O & M Basic Files LOWELL CREEK FLOOD CONTROL, Alaska District, Corps of Engineers, Anchorage, Alaska

GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 2.9

UTM REFERENCES

A 0,6 | 3 6 3-6 5 6 | 6 6 6 5 3 6 0 — ZONE EASTING NORTHING

B 0,6 | 3 6 3 6 0 2 | N.E. — ZONE EASTING NORTHING

C — D —

VERBAL BOUNDARY DESCRIPTION

Township 1 S., Range 1 West, Section 9
60°-06' 13" N
149° 27' 25" W

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

FORM PREPARED BY

NAME / TITLE
Lee Chmelik, Public Affairs Specialist

ORGANIZATION: Corps of Engineers — DATE: October 17, 1975

STREET & NUMBER: P. O. Box 7002 — TELEPHONE: 279-1333

CITY OR TOWN: Anchorage — STATE: Alaska 99510

STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS

NATIONAL ___ STATE X LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. owner notified

STATE HISTORIC PRESERVATION OFFICER SIGNATURE Russell Cahill

TITLE SHPO DATE 9/16/1976

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

Robert B. Rettig DATE 11/23/77

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE 11.17.77

KEEPER OF THE NATIONAL REGISTER