

EA – APPENDIX 3
CORRESPONDENCE



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 898
ANCHORAGE, ALASKA 99506-0898

RECEIVED

JAN 08 2002

OHA JAN -7 2002

Environmental Resources Section

State Historic Preservation Officer
Office of History and Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3565

Dear Ms. :

The U.S. Army Corps of Engineers, Alaska District (Corps) is studying the feasibility of constructing a new small boat harbor in Portage Cove, east of Haines, Alaska (USGS Skagway (A-2) Quadrangle; enclosed). On September 14, 2000, we sent a letter notifying your office of a federal undertaking that has the potential to cause effects on historic properties, and included a copy of the Cultural Resources Overview. The letter described the area of potential effect (APE) and described the undertaking. We also stated that no prehistoric sites have been identified along the cove and that properties determined eligible for the National Register of Historic Places, including the National Historic Landmark, are outside the APE. On December 12, 2000, a letter followed that stated there were no historic properties affected by the project. After receiving no reply, a third letter was sent on March 12, 2001, stating that the Corps was proceeding based on the assumption that you concurred with the Corps assessment of effect per 36 CFR 800.5(c)(1).

Since those letters were sent to your office, there have been changes in the harbor plans. Current plans are to place fill in the intertidal area adjacent to the current harbor and on the south end of the addition. There are three alternative harbor plans and each has varying amounts of fill to accommodate the different breakwater designs. We are enclosing plans for each alternative, and another copy of the Cultural Resource Overview for your information. A portion of the Cultural Resource Overview is also duplicated in this letter. There are three sites reported in or near the project area. These are from north to south, the Raven House (SKG-00110), the Louise Williams House (SKG-0011), and the Harbor Bar (SKG-00041). All three buildings are within the Haines Townsite Local Historic District (SKG-00130). The purpose of this letter is to seek your concurrence that there will be no historic properties affected by this federal undertaking.

No Historic Properties Affected
Alaska State Historic Preservation Officer
Date: 01/29/02
File No.: 2130-12 COE

Raven House:

The Raven House (SKG-00110) is on the west side of Front Street and south of View St. It is made up of one house named the Two Door House, and the Raven's Wing House. The Two Door House portion of the Raven House was built in 1898 at the village of Kluctoo (Kalwattu). A mudslide covered the village shortly after it was built. The building was taken apart and rebuilt at Yindastuki on the west side of Haines where the Haines Municipal Airport is. Yindastuki had been abandoned by the 1930s and the Two Door House was again dismantled and attached to the Raven's Wing House in Haines with the assistance of the Eagle Clan. The Raven House was given its new name in the 1960s (Upper, Diane, editor. 1983. Building History: City of Haines: Survey of Historic Structures. City of Haines, Haines, Alaska: p. 53). Upper and her colleagues noted that the Raven House may be the oldest building in Haines (1983:53).

Each plan avoids placing fill or the breakwater in front of the Raven House at the request of the owners. None of the three alternatives will affect this building.

Louise Williams House:

The Louise Williams house (SKG-00111) is believed to have been built some time around 1904 for Andre Dreher. He occupied the house until his death in the 1920s. It was bought by Louise Williams, who was still the land owner at the time the Haines historic buildings survey was conducted in the 1980s, although the building was vacant (Upper 1983:55). The Louise Williams house has been demolished since the book was written and is no longer in the project area. The house and associated structures built in the original location of the Louise Williams House are less than 50 years old and are not eligible for the National Register of Historic Places. "National Register Criteria for Evaluation exclude properties that achieved significance within the last fifty years unless they are of exceptional importance" (National Register Bulletin "How to apply the National Register Criteria for Evaluation"). There is no evidence that these residences have achieved exceptional importance.

A more recent Williams house was built on the west side of the road and is reported to have been built more than 50 years ago. This house is not within the area of potential effect and will not be affected by the fill being placed in the intertidal zone.

Several pilings are visible in the intertidal zone in front of the area the Louise Williams House once stood. These pilings will be partly covered by the fill. All the pilings have been cut off just above the base of the sediment line. They appear to be the remains of a wharf or dock. The lack of integrity of materials and workmanship make them ineligible for the National Register of Historic Places under criteria A, B, and C. There are no obvious important research

questions that could be answered by these remains under criterion D. Therefore, based on the lack of integrity, these pilings are not eligible for the National Register of Historic Places.

The Harbor Bar:

The Harbor Bar (SKG-00041) is east of the intersection of Front and Main streets. It was built in 1907 and was originally called the Gateway. It was a bar until prohibition and then became a "card room." In the 1940s it was a commissary and in the 1950s it was a grocery store. After this it was returned to its original function and converted back into a bar (Upper 1983:40). After being remodeled in 1956, additions were built onto the building in 1956, 1964 and 1980. The entrance was moved. "A restaurant was added in two stages to the rear; a shed was added to the right side; and a long, storage area added to the left side. The additions are rectangular, front to back. The two rear additions have gabled roofs similar in pitch and finish to the one on the main building" (Upper 1983:40).

Upper (1983:40) stated it is "a post-and-beam, wood-frame structure, with wood roof joists and 1-inch-diameter wood piling, is covered on the front and parking lot sides with vertical, board-and-batten siding. The older left side displays bevel siding, while rear additions sport lap siding. The gable roofs are sheet metal, and all doors are new. One metal-clad chimney stands on the original section; the first addition supports another metal chimney....The bar's interior was remodeled several times. Currently, an old, impressive, mahogany back bar dominates the original bar area's open back half." The building survey team noted that the windows and casings were original although some have been covered over (Upper 1983:40).

The Harbor Bar is currently sitting in a parking lot. The Harbor bar will not be affected by placing the additional fill around it since it does not change the buildings location, design, setting, materials, workmanship, feeling or association. Although a determination of eligibility has not been made on this building, it is an important community landmark and will not be affected by the undertaking. The additional fill, in combination with the new breakwaters, may in fact protect the building from storm surge.

The new plans for fill on intertidal area near the Haines Harbor will cause there to be **no historic properties affected** by this federal undertaking. We are seeking your concurrence through this letter. If you have any questions about this project please contact Diane K. Hanson (753-2631).

Sincerely,

Chief, Environmental Resources Section

Enclosures

cf w/ enclosures:

_____, President, Chilkoot Indian Association of Haines

_____, President, Central Council of the Tlingit and Haida Indians of Alaska

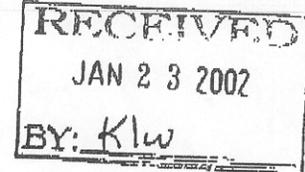
_____, Mayor, City of Haines

_____, Mayor, Haines Borough

_____, Director/Curator, Sheldon Museum and Cultural Center

Chilkoot Indian Association

An Indian Reorganization Act Tribe
under act of Congress June 15, 1934
P.O. BOX 490 • HAINES, ALASKA 99827
Phone (907) 766-2323 • Fax (907) 766-2365
Email: chilkootindianassoc.com



January 14, 2002

State Historic Preservation Officer
Office of History and Archeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3565

Re: Portage Cove Small Boat Harbor Project
Cultural Resources Review

Dear Ms.

Thank you for providing us notice that the Haines harbor plans have changed since March 12, 2001. We have reviewed the material presented, including the three alternative plans, the Cultural Resources Review and your correspondence of January 7. We have comments on both the project and the Cultural Resources Review.

Portage Cove Harbor Project

Portage Cove has provided a safe harbor and strategic transfer point throughout history. Evidence of an established community prior to the 1880's isn't known, however, there is no reason to discount its possibility. Therefore, in the planning and conduct of the proposed project, Chilkoot Indian Association expects adherence to the requirements of pertinent federal and state laws including the Historic Sites Act of 1935, the amended National Historic Preservation Act of 1966, NAGPRA, the Historical and Archeological Data Preservation Act and the Alaska Historic Preservation Act.

We have complete confidence that should discovery of properties, artifacts or any unanticipated effects unfold in the course of this project, the Army Corps of Engineers and their contractors will act in a manner consistent with 36 CFR 800.13(b).

✓ We concur that no historic *properties* will be affected by the federal undertaking as proposed. However, our concurrence in no way diminishes our sensitivity to the area of Portage Cove (Deishu) including the remaining unaffected structures and, most importantly, its historic significance as a Native enclave within the townsite of Haines.

The proposed project will change the face of our community forever. Though we believe the project will have economic benefits for tribal members and the community, we also recognize that the fill of tidelands and extension of the harbor facility will push further from contemporary minds the fact of Haines' Native heritage. Therefore, we request that you guide us in efforts to ensure that the harbor facility incorporate official recognition, perhaps by interpretative signage or display, the historic value of the Portage Cove waterfront to the development of Haines. This should include the selection of Deishu as the site for a Presbyterian Mission and the resultant migration of Chilkoot Tlingit to the area from outlying villages, and the location of salmon canneries and other ventures along the waterfront.

Cultural Resources Review

We ask for substantiation of certain statements made in the Cultural Resources Review, and if not forthcoming, we request that the Review be edited. Specifically, on page 3, paragraph 2, the Review states that

"a council was held at Yendastuki to discuss an appeal by Sheldon Jackson for a location for a Presbyterian mission in the area. The council decided to provide Dei-shu to the missionaries and the Chilkat people held a presentation ceremony for members of the Presbyterian Church soon afterwards."

CIA is currently undergoing historical research into how the Presbyterian Mission acquired rights to land. We're very interested in any documentation, oral or otherwise, of the activity you describe (the council discussion and decision, the ceremony). Our research leads us to believe there was intermittent discussion between S.H. Young, a representative of the Presbyterian Church, and Tlingit leaders including Donawaak, Shatritch and Skundoo November 5 - 6, 1879, and agreement as to where a mission could be built. However, we have no evidence of formalities or even the cultural attitude of transferring land and participating in a presentation ceremony.

We feel strongly that Native cultural attitudes about land ownership, transfer and use be acknowledged. We are concerned that information offered especially to "fill in the gaps" eventually hurts the whole community. If you can offer anything of substance for the passage identified, please reveal it to us. Otherwise, we would be happy to work with you to develop a more plausible accounting of history.

Again, thank you for the opportunity to comment on the project.

Sincerely,

Copy: Mr. Regional Director, NPS
Mr. , President, CCTH
Mr. Mayor, City of Haines
Ms. , Haines Borough
Ms. , Curator, Sheldon Museum



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99902-1668

October 19, 2000

Chief, Environmental Resource Section
U.S. Army Engineer District, Alaska
Department of the Army
P.O. Box 898
Anchorage, AK 99506-0898

Dear Mr. McConnell:

Thank you for your October 12, 2000, memo requesting species lists as mandated by Section 7 of the Endangered Species Act (ESA) of 1973, and for requesting preliminary recommendations for essential fish habitat (EFH) for the proposed Haines and Douglas harbor projects.

Endangered Species Act

ESA species that occur in Alaskan marine waters are listed in Table 1. The listed species include seven great whales, one pinniped, twelve stocks of Pacific salmon and steelhead, one sea turtle and three seabirds. The seabirds, including the short-tailed albatross, spectacled eider, and Steller's eider are under the jurisdiction of the U.S. Fish and Wildlife Service. All of the other species listed are under the jurisdiction of the National Marine Fisheries Service (NMFS). No stocks of Pacific salmon or steelhead, originating from freshwater habitat in Alaska are listed under the ESA. However, some individuals of the listed species originating from freshwaters in the State of Washington do occur in Alaskan outside waters.

Of these listed species NMFS would expect to find the steller sea lion (eastern population) and humpback whale in or near the project area. We recommend that the biological assessment for this project focus on these two species.



Table 1 Species currently listed as endangered or threatened under the ESA in the North Pacific, including Alaska marine waters.

Common Name	Scientific Name	ESA Status
Right Whale	<i>Balaena glacialis</i>	Endangered
Bowhead Whale ¹	<i>Balaena mysticetus</i>	Endangered
Sei Whale	<i>Balaenoptera borealis</i>	Endangered
Blue Whale	<i>Balaenoptera musculus</i>	Endangered
Fin Whale	<i>Balaenoptera physalus</i>	Endangered
Humpback Whale	<i>Megaptera novaeangliae</i>	Endangered
Sperm Whale	<i>Physeter macrocephalus</i>	Endangered
Steller Sea Lion (western population)	<i>Eumetopias jubatus</i>	Endangered
Steller Sea Lion (eastern population)		Threatened ²
Chinook Salmon (Puget Sound)	<i>Onchorynchus tshawytscha</i>	Threatened
Chinook Salmon (Lower Columbia River)	<i>Onchorynchus tshawytscha</i>	Threatened
Chinook Salmon (Upper Columbia River Spring)	<i>Onchorynchus tshawytscha</i>	Endangered
Chinook Salmon (Upper Willamette River)	<i>Onchorynchus tshawytscha</i>	Threatened
Chinook Salmon (Snake River spring/summer)	<i>Onchorynchus tshawytscha</i>	Threatened
Chinook Salmon (Snake River fall)	<i>Onchorynchus tshawytscha</i>	Threatened
Sockeye Salmon (Snake River)	<i>Onchorynchus nerka</i>	Endangered
Steelhead (Upper Columbia River)	<i>Onchorynchus mykiss</i>	Endangered
Steelhead (Middle Columbia River)	<i>Onchorynchus mykiss</i>	Threatened
Steelhead (Lower Columbia River)	<i>Onchorynchus mykiss</i>	Threatened
Steelhead (Upper Willamette River)	<i>Onchorynchus mykiss</i>	Threatened
Steelhead (Snake River Basin)	<i>Onchorynchus mykiss</i>	Threatened
Leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered
Short-tailed Albatross	<i>Phoebastria albatrus</i>	Endangered
Spectacled Eider	<i>Somateria fishcheri</i>	Threatened
Steller's Eider	<i>Polysticta stelleri</i>	Threatened

¹ The bowhead whale is present in the Bering Sea area only.

² Steller sea lion are listed as endangered west of Cape Suckling and threatened east of Cape Suckling.

Essential Fish Habitat

NMFS is responsible for provisions regarding EFH within the administration of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) (16 U.S.C. 1801 et seq.). The MSFCMA states that each federal agency shall consult with NMFS with respect to any federal action authorized, funded, undertaken, or proposed by such agency that may adversely affect EFH. Therefore, your review should include an EFH assessment as required by the MSFCMA and detailed in 50 CFR Part 600.920(g). EFH information is available on our website at <http://www.fakr.noaa.gov/habitat>.

Douglas Harbor Project

On July 31, 2000, NMFS provided comments, including EFH conservation recommendations to the Corps of Engineers (COE), District Engineer on COE permit number 2-2000-0495 for Douglas

Harbor 1. See the attached letter for resource information and EFH conservation recommendations as it relates to this permit. We would need additional information on the further improvements proposed for Douglas harbor in order to make specific EFH recommendations.

Haines Harbor Project

The proposed Haines harbor project seems to have the potential to be a large project and a significant change from the existing harbor. Without more details on the proposed project NMFS can not provide specific EFH conservation recommendations. In addition to the general species information in our EFH documents found on the web we can provide some local knowledge received from an Alaska Department of Fish and Game (ADF&G) biologist in Haines. According to Randy Ericksen, ADF&G sport fish biologist, the following species could expect to be found within the potential project site: dungeness, tanner and king crab; muscles; and flatfish (halibut and flounder). There would also be seasonally rearing fish such as pink and coho salmon and feeding king salmon. Marine mammals in or near the area include: harbor and dahl porpoise, harbor seals, humpback, killer and minke whales (personal communication 10-19-00).

NMFS can help provide specific biological sampling and habitat surveys through use of the Interagency Support Agreement. Through use of this agreement we may be able to utilize the expertise of our habitat scientists at the Alaska Fisheries Science Center (AFSC) Auke Bay Laboratory (ABL) and useful sampling equipment such as a remotely operated vehicle (ROV). The ROV provides a video picture of the bottom, the habitat and the species present. It also provides GPS readings giving the exact location, useful for planners, engineers and biologists. This survey information could be used in determining the location and design of the harbor; the project effects, including cumulative effects; if mitigation is necessary or feasible; and appropriate monitoring. An example of necessary baseline biological information that could be collected is the fish and habitat assessment conducted by two NMFS scientists from Auke Bay Laboratory (ABL) for the proposed Tatitlek harbor project (see attached report by Murphy and Johnson dated August 26, 1999).

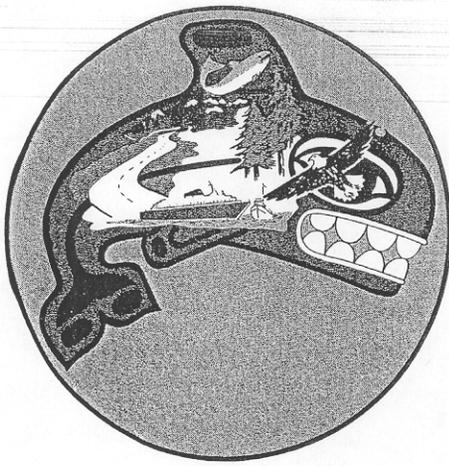
If you have any questions regarding our comments please call
Cindy Hartmann of my staff at (907) 586-7585. We appreciate the
opportunity to comment and look forward to continued coordination
with you.

Sincerely,

For Administrator, Alaska Region

cc: Michael Dahlberg, Jeep Rice, Mike Murphy, Scott Johnson (ABL)
Cindy Hartmann, Linda Shaw, Andy Grossman (HCD)
Randy Ericksen, ADF&G, Sport Fish Division, Box 330, Haines
FWS, Juneau
ADF&G Habitat Division, Juneau

Attachments (2)



CITY OF HAINES, ALASKA

P.O. BOX 1049

HAINES, ALASKA 99827

(907) 766-2231 • TOURISM (907) 766-2234 • FAX (907) 766-3179

COPY

September 12, 2001

Project Formulator
U.S. Army Corps of Engineers
Alaska District
P.O. Box 898
Anchorage, AK 99506-0898

RE: Haines Harbor Project - Tideland Fill Justification

Dear David:

The City of Haines has proposed upland fill as identified in the various Haines Harbor alternatives in order to accommodate the uses that will occur at the harbor, as identified during the economic analysis.

First of all, I note that since the last teleconference August 14, you now regularly refer to a 20% minimum uplands/moorage area ratio. Although the City has stated its preference not to fill beach tidelands between Union Street and the north breakwater, it has also pointed out that the City needs to maximize uplands in other areas, including in front of the existing harbor and to the south. We have not been able to complete precise calculations of these areas to determine the current ratio, but it likely will exceed 20%.

Standard calculations from the Department of Transportation (based on the ASCE Planning and Design Guidelines) were used in order to generate an estimate of the area necessary to accommodate the various upland needs. I have enclosed another copy of this spreadsheet for your information. As you can see, a 40% upland ratio is easily justified, just by the uses listed (estimate does not include boat ramp, travel lift, etc.). It should also be noted that certain activities, such as the water taxis, require more than the normal amount of parking/pick-up area due to the number of vehicles typically involved. The City will do the best it can to locate the space necessary to accommodate the uses identified without filling tidelands, including those between Union Street and the north breakwater, but options are very limited. A discussion of the limitations for other options follows. The enclosed diagram shows the locations of the areas described.

City land west and south of the Harbor: The City holds title to the areas identified as 1 and 2 on the enclosed diagram. The approximately two-acre parcel identified as area 1 is the location of the City's Tlingit park and the historic Tlingit Park Cemetery. The parcel is approximately 15 vertical feet above the level of Beach Road. Due to the abrupt grade change, a substantial portion of the parcel would have to be used in order to construct access to it from the Harbor. Current access from Beach Road is via a wooden stairway. Although the parcel has a right of way platted through it, its designation as a City park, its proximity to the cemetery, the location of storm drainage and utility mains, and the abrupt elevation change make this impractical. Its use as a parking or other harbor access area would be subject to these serious limitations. The parcel provides one of only two acknowledged City parks in Haines. It is the site used for 4th of July and other community festivities. Plans are well under way to construct a toddler playground on a portion of the parcel.

The City of Haines also has title to the upland portion of most of the lots south of Lookout Park on the Harbor side of Beach Road (identified as area 2 on the diagram). All of these parcels are being considered in the Harbor Development; either for improvement to the road exiting the Harbor, or for parking or other upland uses. The parcels are also important for access to the adjacent beaches.

Property to the west, owned by the Presbyterian Mission and Haines Borough: This area is identified as area 3 on the diagram. The Presbyterian Church parcel of over 5 acres is also 15 to 20 feet in elevation above Beach Road and is accessed via stairs at the lower elevations. The elevation increases to the north. The Presbyterian Church and Manse are located on the property. The owner has notified the City that it has specific development plans and is not interested in any type of transfer of the property. In addition, the title of the property is being questioned by the local Native organization because, they claim, it was granted by the Tribe to the Mission for specific purposes which are no longer in use. The north parcel in area 3 is held by the Borough and is the site of the local museum. Only a small corner of the steep perched lot is not already developed.

Parcels north of the current harbor, east of Front Street (identified as area 4 on the diagram): All upland portions of these parcels are under consideration as part of the harbor development. The City holds title to only one small parcel in this area.

Parcels north of the current harbor, west of Front Street (identified as area 5 on the diagram): Although there are two private undeveloped parcels adjacent to Front Street in this area, both of them are on a steep hillside. Both Dalton and Union Streets have approximately 15% grades, making the area impractical for most harbor related uses. Private undeveloped lots further north are also on substantially sloping terrain and are not proximate to the intended development.

September 12, 2001

Page Three

This describes the land situation in the area of the Harbor. In addition to the topographic and other issues, the expense involved in obtaining available private land from certain property owners not interested in selling, is likely to be cost prohibitive. To provide adequate uplands for the expanded boat harbor, tidal fill is necessary and justified.

Please let me know if you have additional questions, or need additional information.

Sincerely,

City Administrator

Enclosures

Cc: [redacted], U.S. Army Corps of Engineers, Environmental
[redacted], Alaska DOT&PF
[redacted] Harbormaster

Upland Requirements

Haines Harbor, Alaska

2.471 acres = 1 hectare = 100 ares = 100*100 sq meters

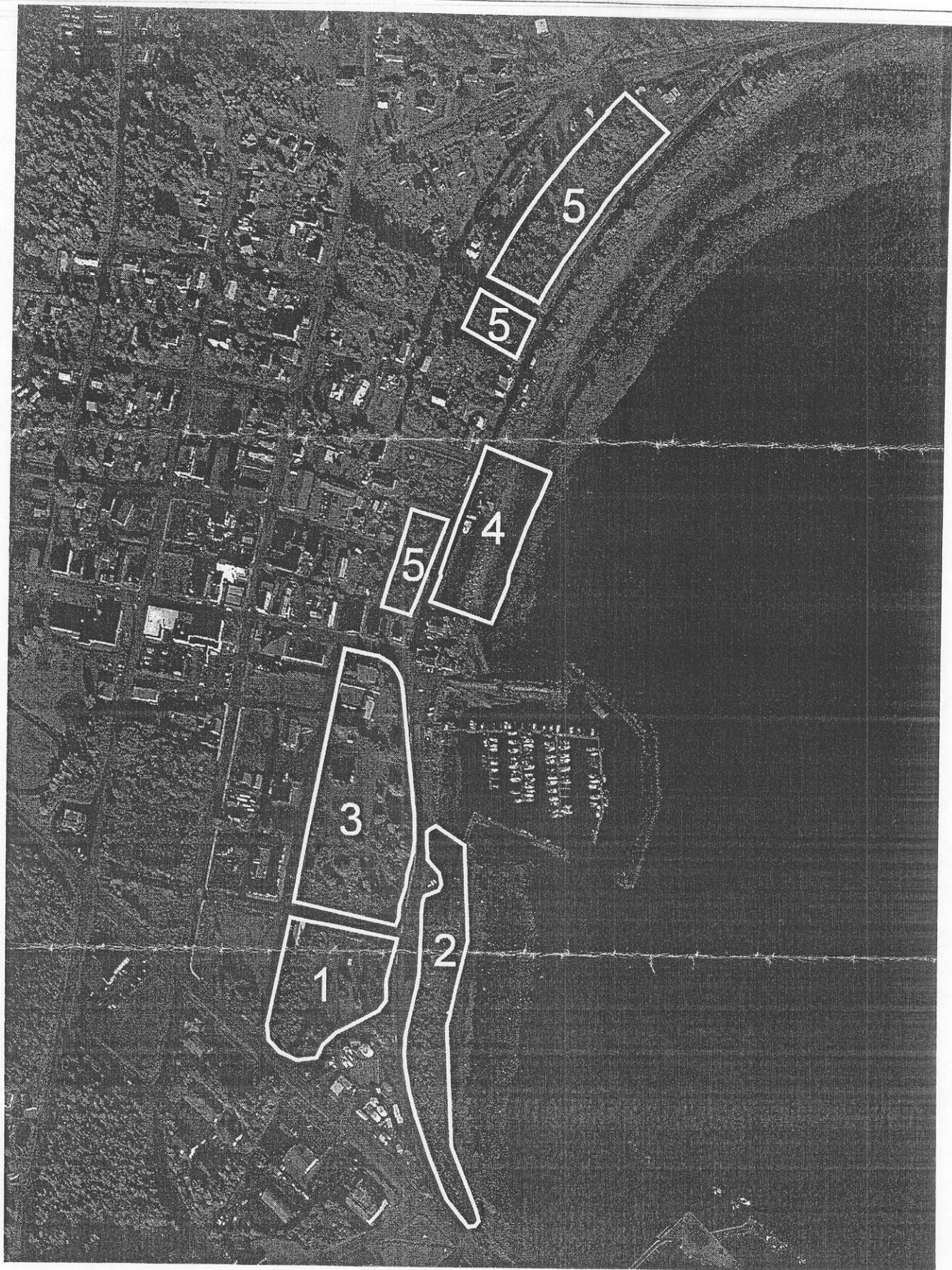
UPLAND REQUIREMENTS				
FEATURE	% of basin	Hectares	% of Harbor	
Basin (Stall Moorage)	N/A	4.7	30%	
Basin (Transient/ Parallel Moorage)	N/A	2.5	15%	
Basin (Navigation (GNF))	N/A	2.4	15%	9.6 60%
Parking	20%	1.9	12%	See Notes 1 & 2
Office, Restrooms & Storage	6%	0.6	4%	
Boat Storage	17%	1.6	10%	
Public Access/ Green Area	8%	0.8	5%	
Tidal (non-use)	10%	1.0	6%	
Other	5%	0.5	3%	6.3 40%
TOTAL UPLAND AREA	66%	6.33	100%	

RECOMMENDED HARBOR AREA (Acres)	15.9	6.4 He
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Note 1. Maximum recommended distance from nearest vehicle access to farthest stall = 600 feet
 Note 2. Maximum recommended distance from farthest vehicle parking to farthest stall = 1000 feet

Additional Upland Needs (Future Considerations)

¹ Boat haulout, repair and storage - subject to 6217 guidelines*		2.0	
² Cruise ship and ferry support (bus and vehicle access, turnaround, parking, buildings, etc.)		2.0	minimum
Convention center			



800

0

800

1600 Feet



STATE OF ALASKA

TONY KNOWLES, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION
COASTAL & HARBOR ENGINEERING SECTION

5800 E. TUDOR ROAD
ANCHORAGE, ALASKA 99507 - 1286
(907) 269-6230 (FAX 907-269-6231)

7 December, 2001

Project Environmental Specialist
U.S. Army Engineer District, Alaska
P.O. Box 898
Anchorage, Alaska 99506-0898

Re: Comments on proposed mitigation for Haines Harbor Expansion

Dear :

I have discussed your proposed mitigation with the City of Haines. We agree to your mitigation proposals.

Specifically:

Alternative layouts: Harbor expansion alternative 3 will require the use of a longer floating breakwater within the entrance to protect the basin from waves generated from the south southeast and the refracted wave from Lynn Canal. As depicted, the floating structure isn't sufficient for a fully protected harbor basin.

Tide pools: The tidal pools will enhance the city's efforts to beautify the Portage Cove waterfront without interfering in a proposed beach pathway. A copy of Chapter Two, Portage Cove Waterfront and Fort Seward, Plan for Public Use and Access in the City of Haines, June 2001, is enclosed for your information. The limits shown in the study will need modification due to the increased size of the proposed harbor expansion since the document was completed.

Waterfront: The proposed harbor alternatives and mitigation meet many aspects of the city's intent to develop the waterfront for both commerce and recreation. Issues noted in the study that may need additional consideration.

- There is a great need for additional parking to accommodate beach users as well as harbor and dock users. The city has expressed concern that the existing upland area for the harbor is insufficient.
- Aesthetics the harbor and its development should be assessed to ensure it meets the intent of the city to enhance its historic waterfront.
- The city has regulatory policies in place to guide land use in Portage Cove (*Haines Coastal Management Program amended 2000*). Additional policies may be adopted

by the harbor to guide users in best management practices. The city wants a clean, well-developed harbor area.

Circulation and flushing: Based on the tidal prisms and aspect ratios of the proposed alternatives, the harbor basins will have adequate flushing. Items C.2.3.7 and C.2.3.8 of the Project Study Plan (PSP), which identified the values for tidal prism and basin aspect ratios, are essentially complete as originally scoped.*

Fish passage: We understand why fish passages are included in the proposed breakwaters.

Comparative impact footprint areas and quantities: These appear reasonable.

Basin circulation values: Although I calculated different values for the tidal prism ratios, mine are also greater than 0.3, meeting the minimum requirement as noted on the comparative impact spreadsheet. I will discuss my numbers with Alan Jeffries to reach agreement on these.* These values can be improved or maintained through proper development of uplands, rounding corners and minimizing entrances or openings into a harbor (especially with respect to the exchange coefficient). I concur with the harbor aspect ratios.

Sincerely,

Coastal Engineer

Cc: PE, State Harbors Engineer
City Administrator, Haines

enclosure