APPENDIX 3

Environmental Coordination Correspondence

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

August 31, 2010

Colonel Reinhard W. Koenig
U.S. Army Corps of Engineers, Alaska District
P.O. Box 6898
Elmendorf AFB, AK 99506-0898

Re: Navigation Improvements
Draft Interim Integrated Feasibility
Report and Environmental Assessment
Valdez, Alaska

Attn: Michael Salyer

Dear Colonel Koenig:

The National Marine Fisheries Service (NMFS) has reviewed the above referenced report in conjunction with the Public Notice from the U.S. Army Corps of Engineers, Alaska District Civil Works Branch (Corps), regarding proposed navigation improvements in Valdez, Alaska.

The Corps proposes to construct a new small boat harbor. The Corps has identified the East Site Rubblemound, 320-Vessel alterative in their National Economic Development Plan as the preferred alternative. This alternative would provide moorage for about 320 vessels and a basin of 5.7 hectares (ha) including the entrance channel and maneuvering basin. The entrance channel depth would be -5.5 meters (m) mean lower low water (MLLW) and the mooring basin would range from -5.5 to -2.7 m MLLW. The Corps noted that the creation of the proposed harbor area is expected to greatly increase safety in the existing harbor by alleviating the current overcrowding of vessels in this area. However, the Corps does not expect an increase in overall usage of the harbor areas after the navigation improvements.

In order to protect the harbor, two breakwaters with crest elevations of +6 m would be constructed. To protect the south side of the harbor, the main south breakwater would be 473 m long. The eastern-most 70 m of the breakwater would angle to the northeast and form the west boundary of the entrance channel. The eastern boundary of the entrance channel and harbor would be formed by the east breakwater which would be approximately 240 m long, and curve from the northeast to northwest.

To allow fish and other marine biota to move into and out of the harbor near shore, both of the breakwaters would be breached at the shoreward end. The breach in the west end of the south breakwater would be protected by a small stub breakwater which would be approximately 30 m long. This alternative requires a total of 186,400 m^3 of material to be dredged for the entrance channel, maneuvering channel, and mooring basin. Some of this dredged material would be placed at Two Moon Bay, a former log transfer facility (LTF), as mitigation. The intention is to

return the bark-strewn sea bottom at Two Moon Bay to a more natural and productive site. The remaining dredged material would be used as fill to construct a 1.87 ha staging area. NMFS offers the following comments under the Endangered Species Act (ESA) and the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Threatened and Endangered Species / Marine Mammals

NMFS has management responsibility for all marine mammals in Alaska except sea otter, walrus, and polar bear, including several species listed as threatened or endangered under the Endangered Species Act. Section 7(a)(2) of the ESA directs federal interagency cooperation "to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species" or result in the destruction or adverse modification of critical habitat. Please visit our web sites http://www.nmfs.noaa.gov/pr/species/esaspecies.htm, http://www.fakr.noaa.gov/ for additional information.

The Draft Interim Integrated Feasibility Report Environmental Assessment and Finding of No Significant Impact Navigation Improvements Valdez, Alaska, Vol. 1, January 2010 states that the Corps has determined that "this action would not affect listed Steller sea lions." NMFS has met with the Corps to discuss this and offer suggestions.

The current harbor contains extremely functional fish cleaning stations. These stations allow fish waste to be contained and then emptied outside of the harbor. NMFS recommends having such stations present in the proposed harbor area to reduce and/or avoid concerns about Steller sea lions becoming a nuisance.

NMFS spoke with the Valdez harbor master who confirmed that there have been no issues of Steller sea lions hauling out onto floats within the existing harbor. NMFS suggests that the Corps evaluate whether utilizing float and pier designs similar to those in the current harbor for the new harbor area will also be adequate to avoid any such potential issues. If the Corps determines that additional methods may be needed to prevent Steller sea lions from hauling out onto floats and piers, NMFS would be willing to provide further information on specific designs for deterrence that have been tested in other harbors.

Essential Fish Habitat

Section 305(b)(2) of the Magnuson-Stevens Act requires federal agencies to consult on all actions or proposed actions authorized, funded, or undertaken by the agency that may adversely affect EFH. If a federal action agency determines that an action will not adversely affect EFH, no consultation is required, and the federal action agency is not required to contact NMFS about

their determination. Please see our website for more information: http://www.fakr.noaa.gov/habitat/efh.htm .

In 2005, NMFS worked with the Corps to survey the project's intertidal area. We also provided input on living marine resources including preliminary EFH Conservation Recommendations and proposed mitigation concepts. In 2007, NMFS provided additional ESA and EFH information to the Corps. NMFS staff has also coordinated informally with the Corps staff throughout this project. As a result of these early coordination efforts, the project incorporates several design modifications, including unattached and specially designed breakwaters, timing windows, and minimizing to the extent practicable marine intertidal fill. As a result impacts to EFH have been avoided and minimized such that NMFS does not have any further EFH recommendations at this time.

Mitigation Options

In a letter (enclosed) to the Corps dated April 23, 2007, NMFS disagreed with the selection of the Two Moon Bay mitigation project as it is unknown whether any benefits will result from its implementation. NMFS concluded that the mitigative designs within the preferred alternative, minus the Two Moon Bay LTF fill project, are sufficient to mitigate for the effects on EFH. In contrast, NMFS recommended that should the Corps determine the need to further compensate for effects, the Corps should re-evaluate on-site mitigation to construct a free span breach of the existing harbor's eastern breakwater. Such an additional mitigation option would allow tidal exchange through the current harbor, thus improving the existing poor water quality. This option would also compensate for adverse impacts to EFH resulting from the expansion of the existing Valdez Small Boat Harbor several years ago. In fact the Corps' Draft Project Modification Report and Environmental Assessment, April 1997, Habitat Improvement Project, Valdez Harbor Modification, Valdez, Alaska Section 1135 noted that "water located in the back end (away from the entrance channel) of the harbor may not be exchanged with outside waters for several days. This would allow the accumulation of pollutants, cause an increase in water temperature through solar radiation, reduce dissolved oxygen concentrations, and cause formation of thermoclines." The report also notes that "the poor water quality will continue to degrade the potentially excellent habitat for juvenile salmon and Pacific herring." In contrast to the uncertain benefits of the Two Moon Bay option, any level of improvement to water circulation in the existing harbor would be a worthy onsite mitigation effort.

If the Two Moon Bay LTF fill mitigation option is selected by the Corps, NMFS would like to reiterate the importance of site monitoring. NMFS would appreciate the opportunity to work with the Corps' environmental department as discussed previously to conduct a pre-assessment survey and some post project monitoring of the area.

We look forward to receiving future updates on the project and to offering additional comments.

Should you have any questions, please contact LT Amy Cox by email at amy.b.cox@noaa.gov, or by telephone at (907) 271-6620.

Sincerely,

Robert D. Mecum

for James W. Balsiger, Ph.D
Administrator, Alaska Region

cc: brad.smith@noaa.gov
jeanne.hanson@noaa.gov
matthew.eagleton@noaa.gov
Michael.9.salyer@usace.army.mil

References

USACOE-CW Project Modification Report and Environmental Assessment, April 1997 Habitat Improvement Project, Valdez Harbor Modification Valdez, Alaska Section 1135 (Draft).

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

April 23, 2007

Guy McConnell
Chief, Environmental Resources Section
Civil Works (CW)
U.S. Army Engineer District, Alaska
P.O. Box 898
Anchorage, Alaska 99506-0898

ATTN: Lizette Boyer

Dear Mr. McConnell:

The National Marine Fisheries Service (NMFS) offers the following information on the presence of threatened or endangered species and their designated critical habitat, which may occur within or near the proposed small boat harbor project in Valdez, Alaska. Additionally, NMFS offers comment regarding Essential Fish Habitat (EFH) under the Magnuson Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Endangered Species
Section 7(a)(2) of the Endangered Species Act (ESA) directs federal interagency cooperation "to insure that any action authorized, funded or carried out by such an agency is not likely to jeopardize the continued existence of any endangered or threatened species" or result in the destruction or adverse modification of critical habitat.

The following species listed under the ESA for which National Marine Fisheries Service (NMFS) bears responsibility are found in this area:

Steller (Northern) Sea Lion, Western population (*Eumetopias jubatus*).....Endangered

No designated critical habitat occurs near this area. As the action agency, the Corps of Engineers (Corps) should now determine whether this action may affect the Steller sea lion. Your evaluation of potential effects should include consideration of secondary effects, including vessel traffic. Should the Corps determine that this work may affect the Steller sea lion, the Corps would then enter informal consultation, during which NMFS staff would work with the Corps' staff to consider means to avoid any adverse effects.

Essential Fish Habitat
Under Section 305(b)(2) of the Magnuson-Stevens Act, federal agencies are required to consult with the Secretary of Commerce on any action that may adversely affect EFH. The Corps has

provided information that includes a list of marine fish species present in the project area. Additional information exists for these species, and their habitat associations, within Appendix F of the EFH FEIS April 2005, available online at http://www.fakr.noaa.gov/habitat/seis/final/Volume_II/Appendix_F.2.pdf.

Marine fish habitat within the project area appears to have low value. This rating is based on low density and diversity of fish, and a minimal amount of suitable habitat utilized by fish, as documented by both historical studies and recent on-site investigations by my staff. The substrates within the project area are heavily silt laden from the nearby Lowe River. These gravel, cobble, and mud substrates are not colonized with marine algae or vegetation, except for a few high-tidal, boulders extensively covered with rockweed. Eelgrass is present; however, density is extremely sparse with only a scattering of single rooted plants.

The existing Valdez Small Boat Harbor was expanded several years ago. A direct result is a long and narrow harbor that does not circulate or flush well. This created a circulation "dead-zone" for almost half of the entire harbor area. Thus, marine resources, such as juvenile salmon and forage fish, are entrained in this area and subjected to continuous exposure of marine-related contaminants. Juvenile salmonids suffer long term reproductive, and often lethal, effects from exposure to such contaminants, even when measured in the smallest amounts (parts per billion). Additionally, the eastern breakwater is paved and has allowed access and development of a group of small islets directly adjacent to the existing harbor. The islets were at one time stand alone with intertidal areas.

Mitigation

NMFS has coordinated with your office and provided comments throughout the project, including mitigation components. As a result of early coordination efforts the project incorporates several design modifications, which avoid and minimize impacts, such as unattached and specially designed breakwaters, re-utilization of large rockweed covered boulders, timing windows, and minimizing, to the extent practicable, marine inter-tidal fill. Also, meetings were held to discuss additional needs for mitigation, and options available to mitigate for the remaining impacts that could not be avoided or minimized.

Using this step-wise approach, options to mitigate for the existing detrimental water quality (likely to be exacerbated) in the harbor were discussed. Several options were discussed and identified, including a breach of the eastern man-made breakwater to allow tidal exchange through the harbor. This option would be commensurate for associated habitat impact and loss of fish habitat.

This idea has been investigated by the ACOE-CW[1]. NMFS has reviewed the harbor breach investigation report and noted it concludes: 1) only slight water quality improvements would result and 2) water quality conditions would not be restored to their original state. NMFS does not agree with these statements. Further, context for these conclusions was limited to a culvert-type breach versus a free-span design breach. NMFS considerers any flow as beneficial and likely will result in exponential benefits to the existing condition. NMFS also finds it

[1] USACOE-CW Project Modification Report and Environmental Assessment Habitat Improvement Projects Section 1135. Valdez Harbor Modification. Valdez, Alaska. April 1997.

unnecessary to compare mitigation to the natural condition. No mitigation will fully amend the environment to the natural condition. Mitigation minimizes and compensates for human effects and is *not* meant to return the area to the natural baseline. Thus, we find the report's conclusions unrealistic and applied out of context.

The mitigation option under current consideration is out-of-kind, offsite, and not commensurate with the level of effect. The alternative includes the transportation and deposition of the new dredge spoils to fill and cover an older log transfer facility (LTF) in Two Moon Bay approximately 40 nautical miles from the project site. Several important issues surround this mitigation concept. Foremost, it is unknown whether any benefits will result. In fact, the fill even may impede current on-going recovery rates.

Discussion specific to the LTF site stated that this fill would eventually create a substrate plateau for a future eelgrass bed. The LTF site is fairly exposed to wind wave energy and these environments are not normally as conducive as to eelgrass growth in more sheltered areas. Also, the dredge spoils are mostly gravels and cobbles, which are not suitable for eelgrass colonization. Further, the LTF is fairly deep and the spoils are of insufficient amount to cover the site and far from creating the photic depth needed for eelgrass to colonize. Thus, NMFS suspects that over time the area would become a depositional "mitigation bank" for future projects. This would occur with a limited understanding as to whether or not any benefit will result to the marine environment. Thus, NMFS disagrees with the selection of the Two Moon Bay mitigation project. If restoration of the site is warranted, that would be the responsibility of the parties who took the original action; not necessarily ACOE-CW.

Conclusion

Mitigative designs within the preferred alternative, minus the Two Moon Bay LTF fill project, are sufficient and commensurate for the effects on EFH. Should the COE seek further need to compensate for effects, then NMFS recommends the ACOE-CW re-evaluate on-site mitigation to construct a free-span breach of the existing harbor's eastern breakwater.

We hope this information will be useful in fulfilling your requirements under the ESA and Magnuson-Stevens Act. Please direct any endangered marine mammal questions to Brad Smith in our Anchorage office, (907) 271-3023. Any EFH questions should be directed to Matthew Eagleton, also in our Anchorage office, (907) 271-6354.

Sincerely,

Robert D. Mecum
FOR Acting Administrator, Alaska Region

cc: NMFS/PRD - kaja.brix@noaa.gov
NMFS/PRD - brad.smith@noaa.gov

USFWS - phil_brna@fws.gov
OHMP –ed.weiss@dnr.state.ak.us
Records

Navigation Improvements, Valdez, Alaska

Meeting Notes
(Revised)

Feasibility Study Rescoping Workshop
July 22, 2002
Valdez, Alaska

Introduction

The rescoping workshop was organized for the purpose of discussing the locally preferred plan features, the environmental concerns and level of effort and schedule for continuing studies. The meeting was attended by Corps and City representatives (see separate attendance list) and held at the Convention Center in Valdez from 9:30 AM to 4:00 PM on Monday July 22, 2002.

Ken Turner, Corps PM, outlined the following considerations:

a. Technical constraints, including costs
b. Needs of others, including Environmental Resource agencies
c. Corps of Engineers guidelines, Federal laws and regulations.

Dave Dengel, Valdez City Manager, expressed the following concerns:

a. The city wants and needs additional harbor space
b. A new harbor is very important to the city,
c. The city is committed to providing the necessary support to get the project completed,
d. The schedule cannot be slipped further

Workshop Notes

The existing project to date was briefly reviewed, covering the west site alternatives and east site alternatives. As the day progressed, various topics as they related to the locally preferred plan (LLP), along with the already completed alternatives, were discussed. The notes summarize the main points mentioned.

The city definitely wants the east site, east of the SERVS Dock as the locally preferred harbor location. Details about the project features were touched on during the workshop.

City concerns expressed were:

a. The city needs to resolve a strategy for meeting with the Corps HQ and Congressional delegation. When, how often, etc.
b. The city believes that moving from considering Harbor Cove should be much more strongly presented as a "mitigation" measure.

c. They are concerned about the functionality of the presently selected NED plan on the west site. The NED plan in not functional with little adjacent uplands along the north side of the harbor. The cannot service the harbor properly as related to local traffic, snow removal and other tasks.
d. The west site is constrained on all four sides. There is some room for potential expansion on the east "preferred" site. A phased approach could be utilized.
e. There is a need to relook at the west site plans to insure that there is adequate uplands and access for a fully functional and serviceable harbor.
f. The cost sharing needs to be reconsidered for all plans.
g. It is desirable from the city's perspective to have at least a 14 to 16 acre harbor capable of handling 350 to 400 vessels.
h. The environmental aspects need to be taken care of. If mitigation is required, determine what it is and incorporate into the project.

Guy McConnell reviewed the environmental requirements, especially as they would be anticipated by the resource agencies. The items included:

a. Why is project needed
b. Alternatives considered
c. Environmental consequences and impacts
d. Economic evaluation
e. Design aspects and costs
f. Environmental compliance evaluation
g. Public participation and comments
h. Answers to comments

The requirements and desirability for either an EA or EIS were discussed. Aspects such as costs for each, amount of effort required and costs, relative risk of agency acceptance and time to obtain necessary data and information was discussed. Sometimes additional alternatives with the associated time and cost impacts can be added during the process. The agencies viewpoint is to get the "best deal" for the resources. While the conclusion of the discussions/debates remains unclear, it seemed to be that the best approach would be to initiate an EIS, especially if the project is leading toward a larger basin on the east side of SERVS and/or Harbor Cove is added as a potential harbor site. It was noted that if a larger east site harbor was included, additional data would be necessary and that would add at least a year, since the data could not be obtained before next summer (2003). The agencies would need specific plan details too, ones that avoid or minimize impacts.

Regulatory representatives reviewed their requirements, which involve the local portion of the project. Section 10 covers work in on over the water as related to the mean high water line, such as floats and dredging. Section 404 work covers things such as fills in waters below the high tide line. Permits are issued primarily for "the least damaging practical alternative that meets the objectives of the project." Regulatory would be coordinating with Civil Works Branch related to this project.

Tasks

A list of tasks was developed for work over the next 3 weeks prior to the next meeting of the study team. These tasks included:

1. Make a "quick review" for suitability for further study in the feasibility study of items outlined above. (COE)

2. Consider means to "increase the NED cost" for west side alternatives. (COE)

3. Review PND and old CoE studies for harbor flushing in the existing harbor. (COE)

4. Look for obstructed fish passage locations. (VAL)

5. Pass along PND harbor flushing video and report to Corps for review. (VAL)

6. Look at education and preservation mitigation ideas. (VAL)

The above items would be discussed at the next meeting.

Schedule

The next meeting/workshop will take place about August 8th or 9th. The meeting will cover the items noted above in the "Tasks" paragraph and "solidify" the alternatives that would be included in the feasibility report.

A meeting on about August 23rd would be called to go over the scope of work and budgets for continuing work on the feasibility study.

Carl S Observations

1. While there was significant discussion, the environmental issues remain still somewhat "elusive." A list of criteria and objectives could be developed to keep us on track from an environmental perspective. We all "sort of" know what they are, but I'm not sure they have been defined specifically.

2. The west site is NOT ACCEPTABLE to the sponsor. The sponsor is committed to the east site as their locally preferred plan.

3. Sponsor wants the maximum size harbor possible and will phase construction as necessary.

4. Sponsor will accept a "reasonable" local environmental mitigation.

DRAFT

Valdez Harbor Improvements Feasibility Study
Phase II Design Meeting

January 26 & 27, 2000
Valdez, Alaska

Introduction

The feasibility study team, environmental resource agency representatives and the harbor staff from the City of Valdez met to initiate Phase II of the harbor expansion project. The format for the meeting was a design charrette, which provides a systematic approach to meet the following goals:

- Provide the study team functional information from the sponsor, users and agencies at the beginning of the project to provide focus and understanding.
- Provide a partnering environment.
- Enhance study, design and construction schedules.
- Reduce study costs by avoiding re-evaluation and re-design due to "lost" information.
- Gain buy-in by all participants at an early stage of the study/project development.
- Gain sponsor and user satisfaction with the final product.
- Identify show stoppers early and resolve or determine what needs to be done to resolve them.

As part of the design charrette process a Partnering Agreement is developed and signed by those present. Its purpose is to identify the key requirements discussed and decisions reached during the charrette process, such that continuing work can proceed in an orderly fashion through the remaining Feasibility Study period.

An agenda and attendance list are shown as Attachments 1 and 2. The agenda shows the general process for conducting the design charrette. Initially, a brief overview of the current status and results of the study are presented. This is followed by all present voicing their goals and objectives for the study as a whole and for the meeting. The process is facilitated by an experienced facilitator, who guides the discussion, keeping it on track and writing down key points under various category headings. Next the group identifies any issues and concerns, sensitive items and items that need resolution. All constraints are identified and key design assumptions specific to the project outlined. At this point the analysis phase begins. The function of the project and its features are then identified and critically reviewed in light of the overall goals, objectives and constraints; sifting through and modifying the currently conceived plan(s) to accomplish their functions in the most cost effective manner. At the conclusion of the meeting, a well defined direction should be established, with a good idea of the design considerations and issues known. The study team can then confidently proceed knowing what the direction, approaches and critical issues are.

Background

The need for expanded harbor facilities at Valdez has been known for many years While there have been other earlier studies, this effort bagan with the preparation of a Reconnaissance Study, prepared by Tryck Nyman Hayes, Inc, dated July 1998. It recommended proceeding to the feasibility study phase with a new harbor at Harbor Cove. Two areas of concern were raised: the economic evaluation and the presence of sensitive environmental areas. Early feasibility work should focus on these areas.

The Alaska District Corps of Engineers then prepared the Section 905(b), (WRDA 86) Analysis also recommending proceeding with the feasibility study. Following Corps review, authority to proceed with the feasibility study was given. A Feasibility Cost Sharing Agreement with accompanying Project Study Plan was prepared and signed by the Corps and the Sponsor, the City of Valdez. Once funding was in place, the study was started.

Prior to the start of the feasibility study, during the development of the FCSA/PSP, a scoping meeting was held on March 4, 1999 to discuss the project. All potential sites were discussed and the three sites at Harbor Cove, West of the SERVS dock and East of the SERVS dock sites were selected for continuing study. The Mineral Creek site, Old Valdez town site, Allison Creek/Allison Point site and Existing Harbor Expansion were dropped from further detailed consideration. The economic issues were again recognized and the decision made to initiate the economic studies promptly. The environmental issues were also recognized and some work was initiated to resolve them. This meeting set the basis for the feasibility study scope.

The PSP specifically identified the above three alternative harbor sites. These alternatives were to be studied in a three-phase process. Phase I – All three sites were to receive a preliminary screening with emphasis on the economic evaluation. Phase II – Assuming two alternatives were identified in Phase I, the detailed analysis and evaluation would be completed, resulting in a draft feasibility report recommending a specific project. Phase III – This phase will finalize the feasibility study completing the Corps and public review process.

Phase I was initiated in August 1999. The engineering firm of Tryck Nyman Hayes, Inc was contracted to assist the Alaska District with the feasibility study. The design team included representatives from the Corps, the City, the ADOT and TNH. Concept designs with cost estimates were developed for each site. The economic analysis started earlier, developed a higher level of detail to insure that sufficient benefits were identified early on. This provided sufficient information to make a justifiable decision to proceed with the study or not based on the Federal NED economic procedures. The results were very promising. Annual net benefits were over $400,000 for all projects and a Federal interest in proceeding was assured. A draft Checkpoint I report was completed in November 1999 and the Checkpoint I meeting held on December 2, 1999. The Checkpoint I report was finalized shortly after the meeting. As noted, there was a Federal interest and the decision was made to continue with the project as promptly as possible. The initial

design meeting was scheduled for January 2000. The results of the Checkpoint I report document the basis for this decision. Several concerns still remained. 1) History proves as studies continue, costs usually increase and benefits usually decrease. 2) The environmental issues, and especially the costs, were still not identified and would require additional effort. 3) Costs for real estate, especially for the West SERVS alternative, were unknown.

It was also recognized during Phase I, that additional hydrographic and geophysical data would be necessary to complete the feasibility study. Again TNH was contracted to provide this information. Due to a late start in the fall and deteriorating weather conditions, the decision was made to delay the field work from early November 1999 to the spring 2000. This data is critical to the technical design effort and resulting project cost, due to the high risk of encountering rock near the surface, especially in the East SERVS dock alternative. It is anticipated the data will be available by early June 2000.

Briefly, the harbor sites dropped from further consideration and reasoning follows:

Mineral Creek – The site is to be used for a different development project. Sedimentation and seismic risk were also considered negative aspects.

Old Valdez Town – A 1965 Seismic Task Force recommended no Federal monies be spent in this area. The site is also too far for the new town site and existing infrastructure. There is the possibility for impacting the Valdez Duck Flats.

Allison Creek/Allison Point – The area is heavily used for recreational sport fishing and adjacent to salmon streams. It is too far from the existing new town site and has no existing utilities or facilities and has no available uplands.

Expand Existing Harbor – Due to the existing development, the only direction the existing harbor could be expanded is toward Harbor Cove. Harbor Cove is already an alternative site.

No further work is contemplated at these sites, however, they do remain as available alternatives throughout the feasibility study process until the final NED plan is recommended.

Goals and Objectives

Goals and objectives were developed by the participants and are shown in Attachment 3. These included both for the meeting and for the project. They are shown in no specific order or priority and are all valid.

Issues and Concerns

Next the group identified the issues and concerns, again in no specific order or priority. They are shown in Attachment 4. They do indicate that the same concerns and issues that

had surface previously still were needing resolution. Some will require further study and data acquisition as would normally be part of the feasibility study.

The environmental issues were repeatedly brought up. The USF&WS and ADF&G representatives could not quantify the impacts to the alternative harbor sites at this time. Additional review of existing information and data, determining needed additional data and completing the field studies still needs to be done. Field studies are currently scheduled for the spring 2000 and are expected to include a dive survey and uplands bird surveys. Generally, it was indicated that the impacts decreased from east to west. Harbor Cove and Dock Point with the adjacent Duck Flats are considered extremely sensitive environmentally. The East SERVS dock site follows the same trend, with impacts decreasing east to west. The West SERVS dock site is the preferred site from and environmental perspective. As noted elsewhere in the attachments, an EIS would be required if Harbor Cove is considered as a harbor site. This would add 2 to 4 years to the total feasibility study schedule for a total schedule time of 3 to 5 years. Needless to say, the cost would also significantly increase for the feasibility study. An estimate of approximately $200,000 additional study cost was mentioned. The EIS would be elevated to the agency level in Washington D.C. for the final decision.

Without additional data it is unknown whether an EIS will be required for the East SERVS site. However, it was indicated that the harbor should be located as close to the GCI cable and SERVS dock as possible. Doing this would reduce the potential for an EIS, allowing for a shorter EA route. Habitat values in the West SERVS site appear to be such that only an EA would be necessary.

The environmental data and analysis is also critical to the construction of the project. Very often construction is restricted to times that will eliminate or minimize disturbance to fish and wildlife. At this location there are juvenile and adult fish migrating and rearing in the area. Birds use the area for feeding and nesting. Seals and sea otter frequent these waters. Fortunately there appears to be no endangered species. With the abundance of wildlife, construction "windows" will be very limited.

Mitigation measures were discussed also. However there was no indication of what mitigation measures would be required and no approximate cost could be attached. Mitigation would be the highest for the Harbor Cove site and would probably require at least a 2 to 1 ratio of enhanced or replaced habitat to that destroyed. These costs would become project costs and would almost certainly result in an uneconomic project from a Federal stand point. Some mitigation and/or environmental enhancements are potentially possible for the East SERVS alternative site.

Real estate costs were discussed as they related to the West SERVS site. While the City of Valdez owns some of the land adjacent to the proposed harbor, some is leased and several tracts are privately owned. Acquiring the leases or title to the property necessary to provide adequate uplands will be costly. No estimate of the dollar value was mentioned. The East SERVS and Harbor Cove sites are far less complicated from a real

estate perspective. The City of Valdez owns the tidelands and Hotel Hill already and real estate costs should be minimal.

The GCI fiber optic communications cable was recently placed adjacent to the east side of the SERVS dock. This single cable provides the sole communications link for GCI servicing the entire interior of Alaska. Significant study, effort and time were necessary to secure the permits and complete the construction. Earlier discussion with GCI representatives indicated that the harbor project could fill over the existing cable as long as it was adequately protected and several additional conduits, such as old drill stem, were placed in the fill to provide GCI with a ready capability to string a repair or expansion cable from off shore to their cable vault on shore. Discussions regarding the cable opened the concept of relocating the cable. The GCI representative at the meeting provided information that relocating the cable would be an extremely expensive operation. It would require re-mobilizing the cable laying ship and re-routing all communications while new cable was placed and tested. The studies and logistics of accomplishing the relocation quickly revealed that the costs would be so prohibitive that the project would be uneconomical. The costs would be in the many millions of dollars. Therefore, the cable will define the western boundary of the dredged basin.

The geotechnical issue was another that repeatedly surfaced. As noted above the contract for obtaining geophysical data in the East and West SERVS dock sites is scheduled to be accomplished in the spring of 2000. The scope of work includes sub-bottom profiling and hydrographic surveying of both areas. This information will indicate the character of the subsurface and the presence of rock. It is known that the east end of the SERVS dock encountered rock when piling was being driven. There is significant risk that rock will be found in the East SERVS site area, especially near Hotel Hill. There is some latitude in locating the dredged basin footprint and defining the basin depths to avoid the rock and minimize dredging and pile driving costs. While cost estimates for the Checkpoint I report included consideration for this, a more accurate evaluation is required in the feasibility study. Future geotechnical work also includes test pits in conjunction with the geophysical surveys. The information will also be used to provide guidance on seismic stability and usability of dredged material. No geotechnical surveys are scheduled for Harbor Cove at this time, but it is known that about the top five feet of dredged material is unusable and a disposal area would need to be identified. Some rock is also expected in Harbor Cove project area.

Design Considerations and Assumptions

At this point during the meeting the designs identified in the Checkpoint I report were presented and the design considerations enumerated. Additional constraints, considerations and assumptions were generated from the group. These are shown in Attachment 5. Copies of the three plans with the cost estimates and pertinent data were distributed to those present. A copy is included here as Attachment 6. Many of the issues and concerns overlap into the design considerations and constraints. The evaluation matrix factor descriptions also provide a source of design considerations and are shown as Attachment 7.

Pro and Con Development

Once the plans were described, the group looked at each plan individually and listed the good (Pro) and bad (Con) aspects of that plan. The listing of the "Pro's" and "Con's" for each site plan is shown in Attachments 8.

Analysis Phase

The "Con's" for each site were looked at to stimulate thought on methods or means to eliminate or minimize them or turn them into a "Pro".

The East SERVS dock alternative appeared to be the most acceptable. Therefore, it was analyzed first. A summary of the discussion of the "Con's" follows:

- Requires access road: The access road is necessary, however, since Hotel Hill is owned by the City, any work necessary could be done to make the shortest and least expensive route. It is anticipated Hotel Hill will eventually be developed in some manner. The access road is very likely to be a Corps haul road for project construction. Corps haul road safety standards are quite high and little additional work is likely to improve it for public use. While the east approach is preferred, it is also possible to come on the west side of Hotel Hill, but with more involvement with the SERVS facility and their snow removal plan. Adding a western approach would provide two access routes.

- Requires utilities extensions: Similar to above. The utilities could be brought to the harbor from the west with or without road access resulting in reduced length.

- Potential for encountering rock: Environmental concern resulted in moving the dredged basin as far as possible to the west. The potential for encountering rock is at least equal if not greater than if the location was further east and had more flexibility to adjust to the rock locations.

- Possible pile socketing in rock: Same as previous.

- GCI cable is constraint: The cable can not be moved, but can be filled over.

- More sensitive high value habitat & environmental concerns: As noted earlier, the further west the basin is located, the less the environmental impact. Therefore the harbor will be located as far west as the GCI cable and rock will allow. Water quality can be improved by providing rounded corners in the basin and stepping the bottom of the basin toward the shore opposite the entrance channel.

- Possible EIS requirement: Moving the harbor to the west will minimize the environmental impact and reduce the potential for an EIS requirement.

- Potential environmental cost (mitigation or enhancements): Some mitigation can be expected. The cost is unknown and can not be determined until additional studies regarding harbor siting and environmental field studies can better quantify impacts. Mitigation should be less with a westerly shift of the harbor.

- Requires inter-tidal fill for uplands: The site requires upland and filling tidelands is the only alternative other than leveling Hotel Hill. The fill does provide a nearby least cost alternative for placing basin dredged material in a beneficial manner, a significant plus. The SERVS representative indicated the fill could come over to the dock causeway and even extend under it, if necessary. The only requirement would be security, snow storage and uninterrupted operations.

- Haul road concern if local rock source: Armor rock will be needed and the two closest sources are via the road system. Local roads have been used in this manner previously and no significant concerns are known.

- Spreads environmental concerns / impacts over a larger area than West SERVS alternative.: The West SERVS area is already impacted by the two out-falls and the fact it is a filled area. The westerly shift of the harbor location is anticipated to minimize the impacts.

- Most exposed location / least natural protection: The westerly shift of the harbor will help some. Breakwaters and slope protection on the fill will be required. The use of energy absorbing beaches, which could serve as recreational sites could be an advantage.

- Potential decrease in future expansion capability due to environmental concerns: Expanding this harbor to the east is possible, but with the known environmental concerns this could be a significant future challenge.

As a side note, the SERVS representative indicated during the discussions, that an impending small boat float project on the east shore side of the SERVS dock could be stopped, if the harbor were to move forward. Their small boat would use the new harbor, since it was located adjacent to the SERVS dock, rather than the proposed new float.

Similar analyses were completed for the remaining two sites. It was evident that the East SERVS site alternative was the preferred harbor site.

As part of the analysis process, revised harbor plans were sketched and are included as Attachment 9. Two plans are shown for the West SERVS site and one for the East SERVS site.

Conclusions

The design charrette format provided a good opportunity for the major stakeholders in the project to have a forum to express their thoughts and concerns and to help in determining the direction of the project.

Harbor Cove – The Harbor Cove alternative is subject to major environmental concerns and some technical issues that substantially detract form its implementation. An EIS will be required if it is considered as the primary alternative. This will increase the time and cost for the feasibility study considerably, up to 4 years and $200,000 or more. Approval would still not be assured. Federal funding could be in jeopardy. Mitigation remains a huge unknown. Mitigation is a project cost. We know that for each acre of lost habitat, two acres would need to be replaced. The cost would be considerable and the success of the habitat replacement characteristically is often poor. These costs would easily cause the project to lose positive net benefits and a Federal interest. This alternative would then become an expensive locally preferred plan. Technically, the location is great, but there are unusable sediments that will need to be disposed of, which the old sewer out fall may have effected. There is the real potential for rock dredging, especially in the entrance channel, and pile socketing in the basin. Maintenance dredging could be higher due to littoral transport. Future harbor expansion would be limited. The one recreational beach in the City of Valdez would be less usable.

The environmental reasons, their excessive cost and the long battle to gain approval appear to make this alternative one that should be dropped from further detailed consideration.

West SERVS Dock – This alternative also has many negative factors attached. Environmentally, it is the preferred site and only an EA appears to be necessary, because it has the least environmental impact. Technically and socially, however, there are major detractors. Primary among these is the fact there is no available uplands and obtaining uplands to support the new harbor would be very expensive and potentially time consuming to acquire. It will add much more congestion to an already busy crowded area. Harbor size and plan form are restricted by surrounding features, the steep off shore drop off, the SERVS dock and upland development. Future expansion is nil. Implementation of this alternative will be a major disruption to the existing development. Costs, while not too well defined, will be heavily weighted toward the local share.

The West SERVS harbor site is not the best alternative, but it does merit continued study to the next level to better define the costs for implementation.

East SERVS Alternative – This alternative appears to have the most technical merits plus, if shifted as far west toward the GCI cable and SERVS dock as possible, acceptable environmental impacts. Some environmental consideration and mitigation is likely, however, there is a reasonably good chance that an EA will suffice rather than an EIS. The jury is still out on this issue, but the risk is worth taking to continue to work to implement this alternative. If an EIS is required, it is proposed that the study include the

preparation of the EIS and add Harbor Cove as an alternative harbor site. A major concern is the high likelihood of encountering shallow rock in the basin area. There is room to adjust the basin plan form some and limit depths to avoid the rock. Additional geophysical information is needed, which should be available in the spring 2000. Uplands can be created by disposing of the dredged material adjacent to the harbor. Fill can also extend to the SERVS dock causeway and where appropriate, beaches can be created for environmental and recreational uses. The GCI cable can be under the fill, but can not be moved or disturbed. This limits the dredged basin location. Utilities and access needs to be extended, either east or west of Hotel Hill

The East SERVS alternative has problems. It appears, however, to be the best, most workable alternative of the three under consideration.

Conclusion - Both the East and West SERVS dock alternative harbor locations should continue to be studied to the next level of detail

Action Items

During the course of the meeting a list was maintained for items that needed to be done for the feasibility study. This list along with task assignments is shown in Attachment 10. The list was earlier transmitted to those assigned tasks to permit their starting as soon as possible.

Partnering Agreement

The partnering agreement was developed at the conclusion of the meeting. An unsigned copy is included as Attachment 11. Not all participants signed the agreement, because they had left early or felt they did not have the authority to commit their agency.

Notes from Valdez Harbor Improvements Scoping meeting held March 4, 1999

The scoping meeting was held at the Alaska District Corps of Engineers building. Representatives from the City of Valdez could not attend the meeting due to weather conditions effecting air transportation. This was the second time weather had effected their attendance at the meeting so it was decided to utilize our conference call abilities to continue with the meeting as scheduled.

The meeting began at approximately 10:30 a.m. and included various Corps members and environmental agency members (See attached Phone list). A presentation was given describing the basic outline to be used for producing the Feasibility report for this study. The last half of the presentation served to aid in the discussion to establish potential sites to be investigated for the study. During the discussion issues were noted for the various previously suggested and additional sites and options. The following is a summary of the sites and the issues discussed.

Mineral Creek site: Raytheon listed this site in the 1995 Reconnaissance report produced. This site is not available for consideration for the development of a harbor. The land is to be used by others for a different project. There are also concerns about seismic risk and sedimentation from the adjacent stream. It was determined by all members at the meeting not to use this as a potential site to be studied during Feasibility.

West of SERVS dock: This site was suggested by the Dennis Gnath of USFG. The area has fewer clam beds than others considered sites and is farther away from a highly sensitive natural habitat area. It has less chance of encountering bedrock but could require extensive dredging caused by excavation of adjacent uplands. It is located close to existing harbor and to an area that could be used to facilitate parking and other harbor support facilities. This site has some limitation because of the SERVS dock and existing depths immediately south of the proposed site. It was decided to include this site for further study and gather existing geotechnical and survey information and provide for the acquisition of additional necessary information to develop alternative designs.

East of SERVS dock: This site compares with the West site and has more clam beds, is closer to highly sensitive natural habitat area, and rock is more likely to be encountered dredging here. It is in an area of high intertidal and subtidal biological value. Diving ducks use this area. It does offer more area for the development of a Harbor without interfering with the SERVS dock. It was decided to include this site for further study and gather existing geotechnical and survey information and provide for the acquisition of additional necessary information to develop alternative designs.

Harbor Cove: This site offers the least construction effort solution because of its natural harbor configuration. It is also close to the existing harbor, easily expandable, and has the most local sponsors support. The site is also the most environmentally sensitive of the proposed sites with greatest impact on fish wildlife and waterfowl. The site is cited as an Aquatic Resource of National Importance. The site is used by locals for recreation. Construction here would require a physical circulation model. It was decided to include this site for the study but not to expend effort to refine an alternative design here unless investigation of the other sites could not provide a feasible project. At that point we would renegotiate the study and costs involved with the City of Valdez if they wanted to pursue construction at this site. John Burns will pursue acquiring a written statement existing that would remove Harbor Cove from consideration.

Old Valdez site: A 1965 Seismic Task Force recommended no federal money be used for construction in this area due to seismic risk. There is high possibility of contamination/ debris from the 1964 earthquake. Too far from town or existing harbor requiring two harbor staffings. Potential for impact to duck flats area. This site was generally not preferred for study. Chuck Wilson will be tasked with providing information stating a clear rationale, policy, or law for removing the Old Town site from consideration for the development of a harbor.

Allison Creek and Allison Point: Too far away from town, no existing utilities/facilities, and no adjacent uplands available. The area is used for sport fishing and recreation. Two harbor staffs would be required. Possible fish migration impacts. Although no positive elements were expressed for this location it was

agreed upon to provide a limited study using existing data, of what it would cost to construct a harbor in this vicinity.

Expanding the Existing Harbor: this option was suggested but after closer review of the existing conditions this option was withdrawn because of the unavailability of space for expansion.

It was also discussed at the meeting that we need to incorporate the SERVS vessels into the design of the new harbor and to focus on creating the harbor to meet the needs of the larger commercial vessels.

I also suggested that we incorporate a Design Meeting to be held at the City Valdez to develop design alternatives. The participants would include members from the community that would use the facility, environmental agency team members, the State coastal engineer, and key members of the study team from the Corps. The meeting would probably occur for 2 days around the end of August.

After the meeting I contacted the City of Valdez to discuss some more issues regarding the timing for completing the study. The City would like to have the study completed in time to be included in the Water Resources Development Act for FY2000. I expressed this would require a very concentrated and event free investigation. If we can avoid developing in the Harbor Cove area this may be possible. I have requested the Economics Section of the Corps begin conducting the without project analysis immediately.

I have enclosed a copy of the study team phone numbers along with a draft schedule for the study. If there is any information that is incorrect please notify me and I will make the corrections.

VALDEZ HARBOR IMPROVEMENTS STUDY TEAM

AGENCY	PARTICIPANT	PHONE NO.	
COE. PLAN FORMULATION	DAVID MARTINSON	753-2668	david.a.martinson@poa02.usace.army.mil
COE. PLAN FORMULATION	CARL BORASH	753-2609	
COE HYDRAULICS & HYDROLOGY	KEN EISSES	753-2742	
COE HYDRAULICS & HYDROLOGY	ED SORENSON	753-2671	
COE ECONOMICS	JANIS KARA	753-2631	
COE ECONOMICS	ANDREW MILLER	753-2615	
COE ENVIRONMENTAL RESOURCES	JOHN BURNS	753-2641	
COE COST ESTIMATING	AL ARRUDA	753-5679	
COE SOILS & GEOLOGY	CHUCK WILSON	753-2687	
COE MATERIALS & INSTRUMENTS	RICHARD RAGLE	753-2683	richard.a.ragle@poa02.usace.army.mil
COE SURVEY	JERRY ZUSPAN	753-2660	
COE REAL ESTATE	GUY HOPSON	753-2858	
COE REAL ESTATE APPRAISER	ANN HARDINGE	753-2858	
COE PROJECT MANAGEMENT	BO WIERZBICKI	753-5778	
STATE DOT COASTAL ENGINEER	HARVEY SMITH	269-6239	
VALDEZ CITY MANAGER	DAVID DENGEL	835-4313	ddengel@ci.valdez.ak.us
VALDEZ HARBOR MASTER	MAC MacDONALD	835-4981	
VALDEZ PORT DIRECTOR	TIM LOPEZ	835-4564	
VALDEZ CITY ENGINEER	FLOYD SHEESLEY	835-3404	fsheesley@ci.valdez.ak.us
US FISH & WILDLIFE	MARCIA HEER	271-2440	
NATIONAL MARINE FISHERIES SERVICE	DAN VOSS	271-5006	
DEPT. OF GOVERNMENTAL COORD.	JENNIFER WING	269-7475	jennifer_wing@gov.state.ak.us
AK DEPT. OF FISH & GAME	DENNIS GNATH	267-2278	dennisgn@fishgame.state.ak.us
AK DEPT. OF FISH & GAME	TOM RUTZ	267-2164	
ENVIRONMENTAL PROTECTION AGENCY	MARK JEN	271-3411	jen.mark@epamail.epa.gov

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-6898

REPLY TO
ATTENTION OF:

Environmental Resources Section

Mr. Stewart Seaberg
Area Manager
Office of Habitat Management and Permitting
Department of Natural Resources
550 West 7th Ave., Suite 1420
Anchorage, Alaska 99501

Dear Mr. Seaberg:

Please find enclosed the current alternative harbor designs and quantities table for the Valdez Navigation Improvements project. In addition, we have drafted up a conceptual drawing of the Two Moon Bay capping mitigation plan. We would like to keep you up to date on the Valdez Harbor project and are requesting your comments, especially on construction timing windows for fish for inclusion in the environmental assessment. We appreciate your involvement in the project.

For more information, please contact Ms. Lizette Boyer at 753-2637 or by e-mail at Lizette.P.Boyer@poa02.usace.army.mil.

Sincerely,

Guy R. McConnell
Chief, Environmental Resources Section

Enclosures

LBoyer/G/ER/Lizette/ValdezHarbor/ltrtoDNRwithaltplans06
12 May 06 Concur: Walters
marks No: 1105-2-10b

Boyer, Lizette P POA

From: Mark A. Somerville [mark_somerville@dnr.state.ak.us]
Sent: Tuesday, May 23, 2006 11:57 AM
To: Boyer, Lizette P POA
Subject: RE: Valdez Harbor

Thanks Lizette. Those were the answers I expected, so no surprises. The pink salmon outmigration from Port Valdez is the source of a multimillion dollar fishery. Avoiding the smolt outmigration will be extremely important. The adult pink return has been huge in recent years (20 + million pinks), but averages about half that. I believe the project site is outside the main fishing activity, but those pinks go all over and will be a nuisance to in-water work. Secondly I'd expect a larger number of sea lions and seals in the Port capitalizing on the concentrated fish.

I believe the plan was to construct the rubble mound walls first (after relocating the fiber optic line) and then dredging/blasting inside that contained area. This seems like a good plan. Adding fill to exposed ground at low tide would work, from our standpoint, anytime as long as it doesn't created pools that will strand fish. In-water placement of fill would need to avoid the pink outmigration period. For work within the rubble mounds during adult return period, I would suggest barrier nets at all entry points to exclude adult pinks from moving into the area during high tides. I believe blasting would be limited to the winter months and will be restricted more by NOAA and USFWS requirements for marine mammals than by OHMP and the ACMP.

I don't envision any timing restrictions for dredge disposal in Two Moon Bay. I'd have to see a preliminary dumping schedule to be sure. Pinks spawn in several streams in Two Moon Bay and their timing is similar to that of the Valdez return timing. If the dump schedule is only 1 -3 barges per day or could be timed, as best possible, during outgoing tides then there should be minimal impact on the returning adults.

Take care and free feel to contact me with further questions or requests.

MAS

Mark A. Somerville
Habitat Biologist
Alaska Department of Natural Resources
Office of Habitat Management and Permitting
550 W. 7th Ave., Suite 1420
Anchorage, AK 99501
Phone: (907) 269-6969
Fax: (907) 269-5673

From: Boyer, Lizette P POA [mailto:Lizette.P.Boyer@poa02.usace.army.mil]
Sent: Tuesday, May 23, 2006 10:05 AM
To: Mark A. Somerville
Cc: Martinson, David A POA; Peterson, Merlin D POA
Subject: RE: Valdez Harbor

Answers to questions: 1. The west side design in an effort to satisfy the boat demands needed to use vertical sheet piles to extend out to the edge of the submarine trench. Going further would make the structure unstable. A rubblemound structure requires a lot more footprint reducing moorage space. The east site is much shallower. 2. Some of the dredged material is going to fill for a staging area, the rest out to Two Moon Bay. 3. The available dredged material would be placed in barge dump loads and therefore have an imprecise placement for a wide range of cover depths on an irregular bottom profile. We would expect wave action to smooth it out. The slope cover would be thicker fill. One of FWS goals was to have this area filled to an elevation so that eelgrass could be planted. The additional fill would come from other projects like mitigation banking. This project's mitigation is only to cap. Some real estate easement to set aside this area for mitigation is required. 4. The dredged material is composed of some silts, but predominantly coarse sand and large rock that would be blasted into smaller pieces.

The timing window hopefully could be refined so more work in the middle of summer could be done. Typically we can sequence the work so that the breakwaters are built first so that we can use silt curtains. This would also help because we are predicting blasting is necessary to get to moorage and entrance channel depths. Winter work is certainly doable in Valdez. I hope this helps.

From: Mark A. Somerville [mailto:mark_somerville@dnr.state.ak.us]
Sent: Monday, May 22, 2006 12:08 PM
To: Boyer, Lizette P POA
Subject: Valdez Harbor

Hi Lizette,

I have a couple of questions on the Valdez Harbor project.

1. Why does the West Side Alternative have a wave barrier rather than a rubble mound like the East Alternatives?
2. Is all the projected dredge material destined for Two Moon Bay or will some of it be used for the projected upland fill in the project?
3. Is the plan for the harbor project to achieve all the fill requirements for the Two Moon Bay capping as shown in the drawing? Why is there a minimum and maximum depth of cover?
4. Are there different fill types designed for the capping?

As for a timing window on the project, pink and coho smolt are in the area during all of May and into the first week of June. Adult pinks start showing up the first week of July and the fishery extends through that month and into the first part of August. I would say you'd have 3 - 4 weeks of opportunity for in-water work in June and then again late August/September or during the winter before April 15. Winter work would be preferable from a fisheries standpoint.

I look forward to hearing back from you.

MAS

Mark A. Somerville
Habitat Biologist
Alaska Department of Natural Resources
Office of Habitat Management and Permitting
550 W. 7th Ave., Suite 1420
Anchorage, AK 99501
Phone: (907) 269-6969
Fax: (907) 269-5673

Date: August 19, 2005

Field Summary: Valdez Small Boat Harbor Expansion (Area East of SERVS)

NOAA Field Personnel: Matthew P. Eagleton, Dennis Carlson

Tide Stage: -2.8 MLLW @ ~8:00 am

0700 Met with Larry Bartlet, COE-CW Environmental, and Mark, COE-CW Engineering.

Dennis and I surveyed the project's intertidal area; turned over rocks, dug clams, identified fish and vegetation, if present. We also assisted Larry. We worked back and forth between the high and low tide edges and continued east around the point and back towards the existing harbor.

Habitat

Intertidal Habitat Rating: Low

Silt covers the benthos, both physical and biological; nearby glacier rivers load the area. Water turbidity was extremely high. Continuous laminaria kelp bed at lower edge of tide stretched north towards the other mud flat and south towards SERVS terminal.

Substrate: hard; thin layer of silt over muddy sand; cobble; or mixture of sand, mud, and cobble (up to with 6").

Living substrate: At 0 to -1 MLLW, a small. Circular, mussel bed exists and centered within the planned harbor site. Area was about 50' in diameter. Mussels were smaller. Mussels also scattered throughout rest of site. Brown and green algae present.

Species

Fish: Gunnels, hermit crabs, small rock crabs, juvenile cancer crabs (~ 4 dead), snake prickleback(s), macoma clams, little neck clams, butter clams, 2 small anemone, small periwinkles (scattered), small acorn barnacles (coverage sporadic), welks (more near out point), amphipods, larger isopods, smaller blue mussels, and spawn phase and dead pink salmon.

- No species persisted throughout the area.
- Benthic invertebrates patchy.
- Gunnel fish were under several rocks, however not under every rock turned over.
- Silted mussel bed consists of smaller mussels.

Vegetation: laminaria, eelgrass, fucus

- A continuous laminaria bed surfaced at the low tide line (> -2' MLLW) and extended along this elevation from north to south.
- Eelgrass scattered sparsely in mud throughout the site.
- Fucus covered upper tidal boulders and rock edges along the tide line. Concentrations denser near the northern point and small island group.

Preliminary EFH Conservation Recommendations:

- **Avoid** impacts to/near northernmost point intertidal habitat areas. NMFS recommends road access maintain existing grade and continue through the hill area; as not to extend along the coastline and around the rocky northern point.

- **Avoid** disturbance (dredge spoil placement) to continuous laminaria bed habitat. NMFS recommends upland and/or other beneficial spoil use and disposal locations.

- **Mitigate** impact(s) through:

    1. Breach existing northern harbor wall

        Previous harbor circulation studies note extremely poor water quality and dissolved oxygen concentration lethal to fish. Further, discussion includes water quality improvement through a breach at the harbor's end. A UAF study offers the water quality condition improve; however, only marginally, at best.

        Although scientific, the approach lacks realistic value to improve lethal conditions for fish. Whether or not costs outweigh the benefits are likely not measurable in dollars. Quite simply stated, any water movement improves conditions.

        Improvements through breach design include: 1) increase water exchange versus stagnant conditions and 2) allow fish passage, both juvenile and adult.

        NMFS recommends mitigation focus on a breach in existing harbor wall. Waiting for an ideal design acerbates the lack of passage and lack of circulation; fish exposed to lethal dissolved oxygen concentrations.

    2. Breach breakwaters (offshore breakwater design)

        Preliminary design incorporates breached breakwaters. NMFS recommends harbor designs maintain breaches; facilitates fish passage and water movement.

    3. Contour breakwater slopes.

        Similar harbor designs incorporate contour or stepped breakwater slopes to provide shelf habitat for nearshore migratory fish. NMFS recommends use of this design.

    4. Seed breakwaters using on-site, mussel and rockweed covered boulders.

        Seeded boulders assist the growth of newly placed rip rap. NMFS recommends seeded boulders remain in place, if possible, or scattered along the newly developed breakwaters and project site edges.

Eliminated Mitigation Concepts

- Our considerations eliminated artificial reef ball creation because: 1) mitigation needs to focus on harbor associated impacts, 2) habitat lost is not reef habitat, 3) silt-laden water conditions likely produce silt-covered reef balls, and 4) rock seeding will provide similar habitat structure.

END

Matthew Eagleton, Habitat Conservation Division, Anchorage, Alaska 907.271.6354, mattthew.eagleton@noaa.gov

VAL A7

3130-1R COE/Environ

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-6898

REPLY TO
ATTENTION OF:

APR -3 2006

RECEIVED
APR 04 2006
OHA

Environmental Resources Section

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

No Historic Properties Affected
Alaska State Historic Preservation Officer
Date. 5-4-2006
File No.: 3130-1R COE/Environ. SL

Dear Ms. Bittner:

The U.S. Army Corps of Engineers, Alaska District (Corps) has been studying proposed alternatives for improving the boat harbor in Valdez, Alaska (SW1/4 Section 32, USGS Valdez (A-7) Quadrangle; enclosure 1) by adding additional moorage space for 30 to 120-foot vessels south of the exiting harbor. The preliminary reconnaissance study was completed in January 2000 and recommended a federal interest in navigation improvements at Valdez. Your office was notified of this federal undertaking with the potential to cause effects on historic properties in 2001. The purpose of this letter is to update your office on the selected alternative and to seek your concurrence on the assessment of effects.

The area of the current harbor has been modified considerably by construction associated with the relocation of Valdez after the 1964 Earthquake. Eighty percent of the original town of Valdez was destroyed after a series of tidal waves caused by a submarine slide hit the shore during the earthquake. The current town site is east of Mineral Creek, approximately 4 miles northwest of the former town site. The existing harbor was completed in September 1965, and expanded in 1966. A series of bedrock islands extended into the tidal flats and fill was placed between them and the mainland to construct a protective barrier between the boat harbor and the waves. The current small boat harbor is completely surrounded by artificial fill with the exception of one bedrock island on the southeast side of the harbor. This bedrock island is called "Hotel Hill."

The locally preferred alternative for the new Valdez boat harbor is designed to provide space for 244 additional vessels (enclosure 2). Known as the East Alternative, it is situated on the east side of the SERVS dock on the tidal flats south of Hotel Hill. Two rubble mound breakwaters will protect the basin, one on the south side and one on the east side. This will create a basin of 13.8 acres. Approximately 166,000 cubic yards of material will be dredged from the basin and entrance channel and will be deposited at Two Moon Bay (discussed below). Large rocks and slabs may be removed beside Hotel Hill. The south breakwater will be 1559 feet long and the east breakwater will be 752 feet long. The small "stub" breakwater on the west end of the harbor will be 95 feet long. Constructed breaches will be provided on the east and west sides of the basin.

The Alaska Heritage Resource Survey documents were consulted and two sites are recorded in the new Valdez town site. VAL-205 is the Ahrens-Fox Continental Steamer #131 being exhibited in the Valdez City Museum and VAL-208 is the Meals-Whalen Cabin, a two-story log cabin built before 1903 in the old Valdez town site. VAL-208 was moved to the new town site and is now sitting at the edge of the modern town. Neither of these sites is within the area of potential effect, nor would they be affected by the harbor construction.

Underwater surveys of subtidal and intertidal flora and fauna were conducted using SCUBA equipment. The intertidal areas are rocky and mud/sand flats. The subtidal area is rock and mud slopes. At 30 to 65 feet below the mean high tide the substrate was a very fine soft mud, which dropped off steeply to the south. Although the vertical shoreline did not shift as a result of the 1964 earthquake (Coulter and Migliaccio 1966:C-18), the shoreline of the area of potential effect is artificial fill with the exception of the south shore of Hotel Hill. Hotel Hill has steep, almost vertical shoreline nearly 60 feet high. Because of the disturbance from construction in 1965-66, the steep shoreline of Hotel Hill, and the absence of reported sites within the area of potential effect, it is our judgment that there is a low probability that cultural resources are present in the area of the proposed construction.

In addition, the Corps has introduced to the project new environmental mitigation efforts, which are required by various regulations. Engineering Regulation (ER) 1105-2-100 and Council on Environmental Quality regulations require federal agencies to consider environmental mitigation opportunities, including opportunities for compensatory mitigation, in the environmental assessment or environmental impact statement process for each project.

The Corps considered several different mitigation opportunities, but ultimately a compensatory project proved to be the best option for both the restoration of benthic habitat and beneficial use of dredged harbor material. The site chosen for restoration is Two Moon Bay in Port Fidalgo, in eastern Prince William Sound (NW1/4, Section 7, T13S, R07W, USGS Cordova (D-7) Quadrangle, Copper River Meridian; enclosure 3). Two Moon Bay is 26 miles south-southeast of Valdez, and the nearest community is Tatitlek, 9 miles to the north. The city of Cordova is 30 miles southwest of the bay. Dredged material from the Valdez harbor will be barged to the bay where it will be deposited over an 11.4-acre area just offshore below the mean low low water line (enclosure 4). Mitigation at Two Moon Bay is intended to restore marine habitat impacted by accumulated bark debris from a former log transfer facility within the bay. Use of the dredged material to cover bark debris will restore nearshore habitat by using fill suitable for eelgrass colonization.

Permitted for operation in 1987 and abandoned in 1997, the logging camp at Two Moon Bay consisted of a log transfer facility, mechanical building, fueling station, maintenance building, electrical generator building and fuel tank, bunkhouse/mess hall and fuel tank, and a mobile home area. The area designated for mitigation lies to the southwest of the log transfer facility, as this is where a majority of the bark has accumulated.

mobile home area. The area designated for mitigation lies to the southwest of the log transfer facility, as this is where a majority of the bark has accumulated.

In 1985 a team of biologists/divers from the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and the Alaska Department of Fish and Game (ADF&G) conducted subtidal investigations in response to a request from the Tatitlek Native Corporation. These divers surveyed three locations in Two Moon Bay, one of which was subsequently chosen for the location of the log transfer facility. This location is now the setting for the proposed project mitigation. This underwater area was again surveyed in 1990 by the USFWS, Tatitlek Native Corporation, and ADF&G as part of a bark accumulation survey. Although the goal of these investigations was to determine the ecological impacts of the log transfer station in Two Moon Bay, the survey does provide an underwater view of the deposit area. The reports generated by the divers make no mention of cultural resources (Ferrell 1985). Thus, there is a low probability that cultural resources exist within the disposal area.

Due to the low probability of encountering cultural resources at either the preferred harbor area or the Two Moon Bay dredged material disposal area, it is the Corps' determination that there will be **no historic properties affected** by this undertaking. If you have any questions, please call Margan Grover (753-5670) or Aaron Wilson (753-2631).

Sincerely,

Guy R. McConnell
Chief, Environmental Resources Section

6 enclosures

References Cited:

Combellick, R.A. 1987. Surficial and Engineering Geology of the Valdez Area, Alaska. In: Geologic studies of critical areas: Valdez, Alaska, R.A. Combellick and R.G. Updike, editors. Putlic Data File 87-29. Division of Geological and Geophysical Surveys, Department of Natural Resources, State of Alaska, Fairbanks. Pocket B.

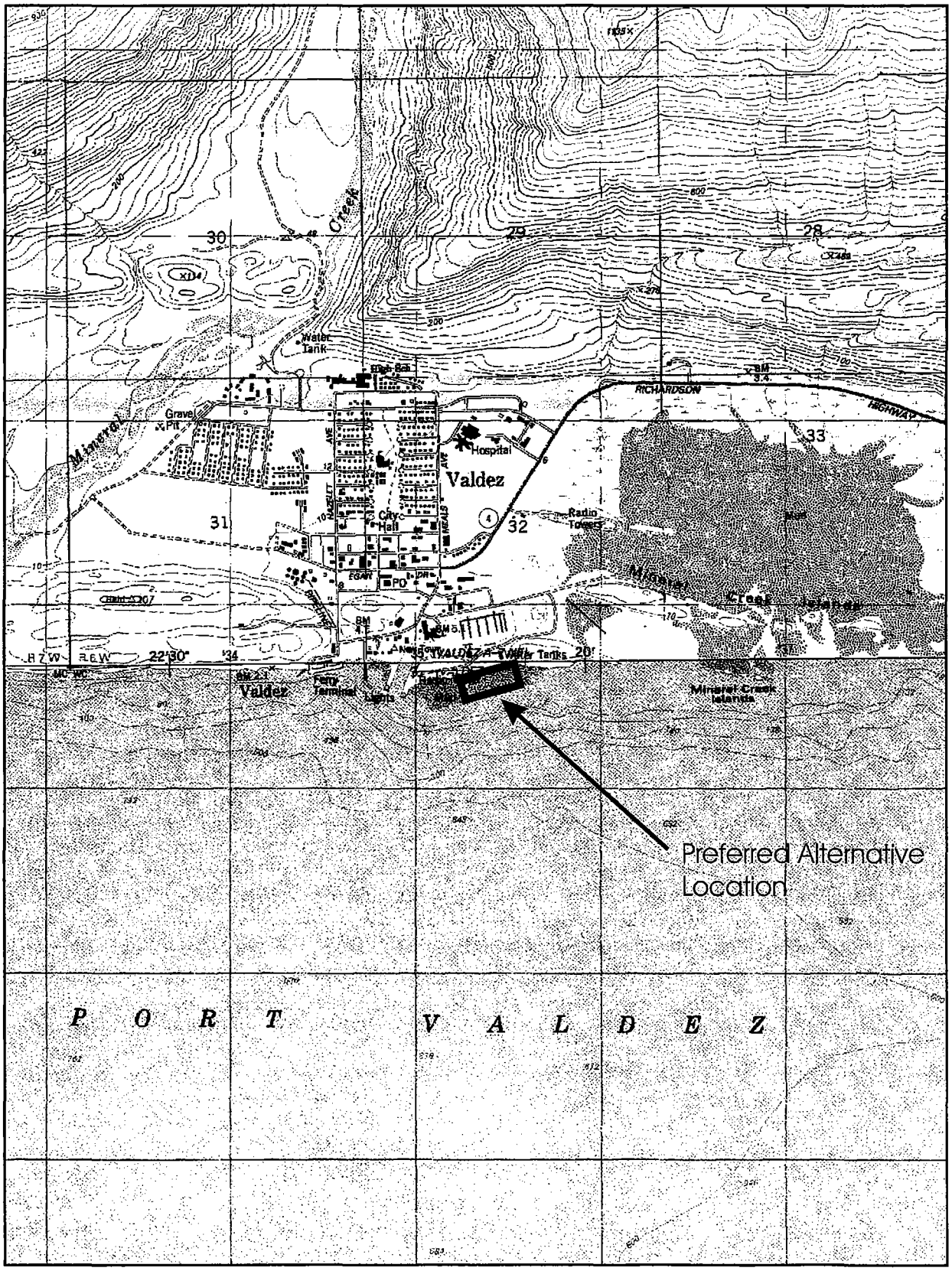
Coulter, Henry W. and Ralph R. Migliaccio. 1966. The Alaska Earthquake, March 27, 1964: Effects on Communities: Effects of the Earthquake of March 27, 1964 at Valdez, Alaska. Geological Survey Professional Paper 542-C. United States Government Printing Office, Washington, D.C.

Ferrell, David, Brad Smith, David McGillivary, and Gary Liepitz. 1985. Assessment of Alternative Log Transfer Facility Sites as Two Moon Bay, Port Fidalgo, Prince William Sound, Alaska. Prepared for the Proposed Tatitlek Native Corporation Timber Harvest of Port Fidalgo Peninsula. U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Alaska Department of Fish and Game.

Hansen, Wallace R., Edwin B. Eckel, William E. Schaem, Robert E. Lyle, Warren George, and Genie Chance. 1966. The Alaska Earthquake March 27, 1964: Field Investigations and Reconstruction Effort. Geological Survey Professional Paper 541. United States Government Printing Office, Washington, D.C.

cf w/ encl:

Mr. Bert Cottle, Mayor, City of Valdez
Gary Kompkoff, President, Native Village of Tatitlek
Benna Hughey, President, Valdez Native Tribe
Tim Joyce, Mayor, City of Cordova
Helmer Olson, President, Valdez Native Association
Barry Uhart, President & CEO, Chugach Alaska Corporation



Enclosure 1. Valdez Small Boat Harbor Preferred Alternative Location