From: Kenney, Leah <leah_kenney@fws.gov>
Sent: Thursday, March 23, 2017 10:44 AM
To: Olivia Cohn
Subject: Re: Request for Scoping Comments for the Seward Airport Improvement Project Agency Scoping

Hi Olivia,

Thank you for sending this information. As you discussed during the scoping meeting, information on both migratory birds and bald eagles are included in the scoping comments letter. I see that the recommend time period for avoiding land disturbance and vegetation clearing for nesting migratory species will be implemented, and that coordination with USFWS for any active bald eagle nests will be initiated. Thus, I have no further comments at this point.

Thank you!

Leah

--
Leah Kenney
Fish and Wildlife Biologist
Ecological Services Branch
USFWS Anchorage Field Office
4700 BLM Road
Anchorage, Alaska, 99507
907-271-2440

From: Solstice AK
Sent: Wednesday, May 10, 2017 10:24 AM
To: 'cindy.heil@alaska.gov'; 'grant.lidren@alaska.gov'; 'william.ashton@alaska.gov'; 'shina.duvall@alaska.gov'; 'jimmy.smith@alaska.gov'; 'Vlitchfield@kpb.us'; 'ginny.litchfield@alaska.gov'; 'tammy.davis@alaska.gov'; 'jeff.selinger@alaska.gov'; 'LindamoodB@akrr.com'; 'Kubitzj@akrr.com'; 'dglenz@cityofseward.net'; 'spresley@kpb.us'; 'bharris@kpb.us'; 'tdearlove@kpb.us'; 'greg.balogh@noaa.gov'; 'jeanne.hanson@noaa.gov'; 'matthew.eagleton@noaa.gov'; 'Jamie.r.hyslop@usace.army.mil'; 'Douglass_cooper@fws.gov'; 'Leah_kenney@fws.gov'; 'rlong@cityofseward.net'; 'datwood@cityofseward.net'
Cc: 'mark.boydston@alaska.gov'; 'barbara.beaton@alaska.gov'; 'joy.vaughn@alaska.gov'; 'RoyceConlon@pdceng.com'; Robin Reich; 'EricaBetts@pdceng.com'; Olivia Cohn
Subject: 3/2/17 Seward Airport Project Agency Scoping Mtg. Summary
Attachments: SewardAirport_AgencyScopingMeeting_PPTPresentation_03022017.pdf; SewardAirport_AgencyScopingMtgNotes.pdf

Good afternoon:

Thank you for participating in the March 2, 2017 Seward Airport Improvement Project agency scoping meeting. We value your input on this important project. For those that were unable to attend the meeting, we appreciate your continued interest.

A meeting summary and the PowerPoint presentation referenced during the discussion are attached.

Solstice Alaska Consulting, Inc.
2607 Fairbanks Street, Suite B, Anchorage, AK 99503
907-929-5960 | solsticeak@solsticeak.com
www.solsticeak.com

Meeting Notes

Date: March 2, 2017

Time: 1:00 p.m.

Location: Kenai Peninsula College, Kenai River Campus, CTEC Building, Room 105, 156 College Rd., Soldotna, AK

Meeting Subject: Seward Airport Improvements Project (#Z548570000)
Agency Scoping Meeting

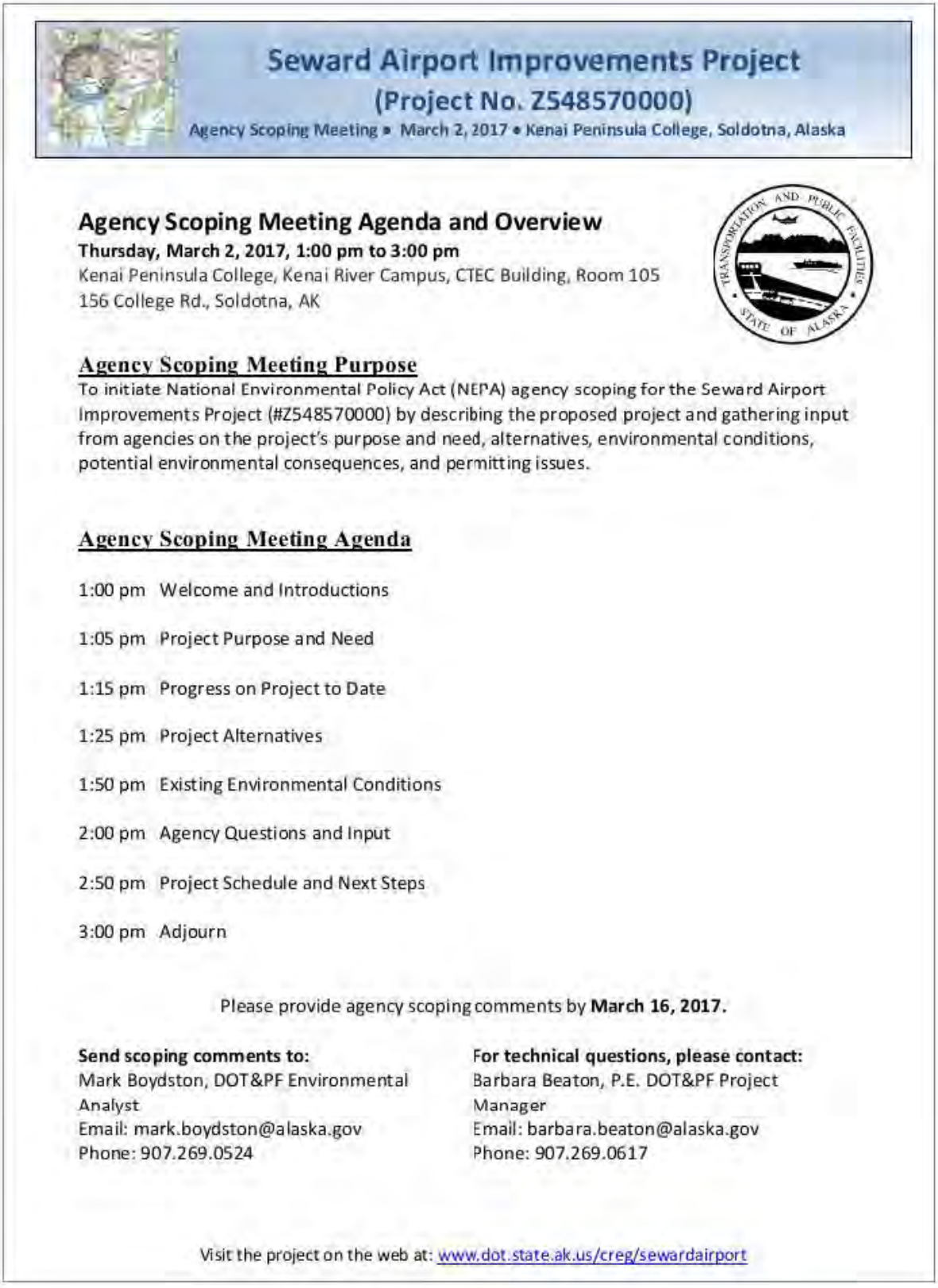
Introduction

This document provides a summary of the Seward Airport Improvements Project agency scoping meeting that was held on March 2, 2017 in Soldotna, Alaska. It began at approximately 1:00 p.m. and adjourned at approximately 2:40 p.m. Table 1 lists meeting attendees and invited agency representatives. Seven agency/stakeholder representatives were in attendance either in person or via teleconference along with seven project team members.

Table 1. Meeting Attendees

Organization	Name
Alaska Department of Fish and Game (ADF&G), Division of Habitat	Ginny Litchfield
ADF&G, Division of Habitat, Invasive Species Program	Tammy Davis (via teleconference)
City of Seward	Donna Glenz, Dwayne Atwood (via teleconference)
Kenai Peninsula Borough (KPB)	Stephanie Presley (via teleconference)
U.S. Army Corps of Engineers (USACE), Kenai Field Office Regulatory Division	Jamie Hyslop
U.S. Fish and Wildlife Service (USFWS)	Leah Kenney (via teleconference)
Alaska Department of Transportation and Public Facilities (DOT&PF) *(project team)*	Barbara Beaton, Joy Vaughn Mark Boydston, (via teleconference)
PDC Engineers, Inc. *(project team*)	Royce Conlon Erica Betts (via teleconference)
Solstice Alaska Consulting, Inc. *(project team)*	Olivia Cohn, Robin Reich (via teleconference)
Invited, but not in attendance	
Alaska Department of Environmental Conservation (ADEC), Division of Air Quality, Non-Point & Mobile Sources Program	Cindy Heil
ADEC, Division of Spill Prevention and Response, Contaminated Sites	Grant Lidren
ADEC, Division of Water, Wastewater Discharge Authorization, Stormwater and Wetlands	William Ashton
Alaska Department of Natural Resources (ADNR), Division of Parks & Outdoor Recreation (DPOR), State Historic Preservation Officer (SHPO)	Shina duVall, RPA
Alaska Department of Commerce, Community, & Economic Development (ADCCED), Division of Community & Regional Affairs	Jimmy Smith
ADF&G, Division of Wildlife Conservation	Jeff Selinger
Alaska Railroad Corporation (ARRC)	Brian Lindamood, Jim Kubitz
KPB	Bryr Harris
Kenai River Center	Tom Dearlove
National Marine Fisheries Service (NMFS)	Greg Balogh, Matt Eagleton, Jeanne Hanson
USFWS	Doug Cooper

The meeting agenda, documenting the meeting's purpose, goals, and format, is presented in Figure 1.



Seward Airport Improvements Project
(Project No. Z548570000)

Agency Scoping Meeting • March 2, 2017 • Kenai Peninsula College, Soldotna, Alaska

Agency Scoping Meeting Agenda and Overview

Thursday, March 2, 2017, 1:00 pm to 3:00 pm
Kenai Peninsula College, Kenai River Campus, CTEC Building, Room 105
156 College Rd., Soldotna, AK

Agency Scoping Meeting Purpose

To initiate National Environmental Policy Act (NEPA) agency scoping for the Seward Airport Improvements Project (#Z548570000) by describing the proposed project and gathering input from agencies on the project's purpose and need, alternatives, environmental conditions, potential environmental consequences, and permitting issues.

Agency Scoping Meeting Agenda

1:00 pm Welcome and Introductions

1:05 pm Project Purpose and Need

1:15 pm Progress on Project to Date

1:25 pm Project Alternatives

1:50 pm Existing Environmental Conditions

2:00 pm Agency Questions and Input

2:50 pm Project Schedule and Next Steps

3:00 pm Adjourn

Please provide agency scoping comments by **March 16, 2017.**

Send scoping comments to:
Mark Boydston, DOT&PF Environmental Analyst
Email: mark.boydston@alaska.gov
Phone: 907.269.0524

For technical questions, please contact:
Barbara Beaton, P.E. DOT&PF Project Manager
Email: barbara.beaton@alaska.gov
Phone: 907.269.0617

Visit the project on the web at: www.dot.state.ak.us/creg/sewardairport

Figure 1. Meeting Agenda

Welcome and Team and Agency Representative Introductions

The meeting began at approximately 1:00 p.m. with introductions led by Barbara Beaton, the DOT&PF Project Manager. Barbara welcomed meeting attendees and stated that the purpose of the meeting was to discuss environmental concerns/impacts associated with the two alternatives included in the scoping package.

Royce Conlon, Project Manager for PDC, then proceeded to review the meeting agenda (Figure 1). She noted that the conversation would also follow the PowerPoint presentation (slides are referenced throughout this document) that was distributed prior to the meeting. The agency scoping materials (distributed in January 2017 by Mark Boydston, DOT&PF), frequently asked questions (www.dot.state.ak.us/creg/sewardairport/faq.shtml), and the Resurrection River dredging memo (www.dot.state.ak.us/creg/sewardairport/documents/Resurrection-River-Excavation-Memo-final.pdf) would also be discussed.

Project Background; Purpose and Need

Project Funding. Royce explained that the Project is a DOT&PF project with funding from the Federal Aviation Administration (FAA), and FAA standards must be followed.

- Standards include runway length and width specific to a certain size aircraft and relative to aircraft use/demand. The City of Seward has investigated other funding sources, but currently this Project is funded primarily by FAA with a small State of Alaska match.

Project Team. The project team (PowerPoint slide 3) consists of the DOT&PF with PDC Engineers leading the design of the project, Shannon & Wilson for geotechnical support, Hydraulics Mapping and Modeling (HMM) for flood studies, and Solstice Alaska Consulting for public involvement and biological assessment.

- Mark Boydston, DOT&PF, is the primary contact for all environmental comments.

Purpose and Need. The project Purpose and Need was discussed (PowerPoint slide 4), was paraphrased from the agency scoping letter P&N and pictures showing recent flooding and runway damage.

Challenges. One of the biggest challenges of this project consists of flooding caused by the Resurrection River; Rivers of this size and type are hard to control. Since a significant portion of the main runway is located within the regulatory floodway (according to the FEMA FIRM map), the runway has been overtopped several times. The damage from flooding has been extensive. The history of the river's challenges was discussed (PowerPoint slide 5).

- The DOT&PF and HMM hydrologists have provided input into understanding flood constraints and potential impacts to flooding from the proposed improvements.
- The river began moving toward the airport sometime after the 1987 photo was taken; by 1996 the river was adjacent to the runway and a revetment project was completed to protect the runway from further damage; by the time the 2014 aerial photo was taken, the river had changed course and was hitting the airport perpendicularly, frequently eroding and overtopping the main runway surface.

- The 2008 Seward Airport Master Plan recommended raising the main runway and providing erosion protection. An Environmental Document was completed in conjunction with this effort and a FONSI was issued for that Action. However, since the documents were completed, flooding and erosion of the airport has become substantially worse, thus this effort to re-evaluate the options.

Project Progress. Recently, and following the 2008 Airport Master Plan recommendations, Project progress has been made (PowerPoint slide 6).

- Facility requirements were updated (www.dot.state.ak.us/creg/sewardairport/documents/SWD_Av_Activity_Fac_Rqmts_Memo_07142015.pdf).
- Two public and three Stakeholder Working Group (SWG) meetings were held.
- The purpose and need as well as project constraints were identified.
- A preliminary geotechnical evaluation, a flood study (including a dredging analysis: www.dot.state.ak.us/creg/sewardairport/documents/Resurrection-River-Excavation-Memo-final.pdf), and a wetlands delineation were completed.

Alternatives. Two alternatives are being considered, (PowerPoint slide 7). DOT&PF emphasized that this meeting should help identify whether there are fatal flaws in either option or whether both are viable options to be carried forward.

- Both alternatives would include repaving some surfaces, new lighting, creating a service road(s), acquiring property, and establishing a float plane change-out area.
- Alternative 1.1 (PowerPoint slide 9) would keep the longer, main runway in its current configuration/alignment, but it would raise the embankment as much as 7 feet in some areas (4.4 foot average) to establish a final elevation 2 feet above the 100-year flood level (i.e. 2 foot of free board). Also, additional riprap would be installed to create a less permeable runway. The additional embankment and riprap placed in the floodway would cause an increase in the base flood elevation of as much as 4 feet.
- The key advantage of Alternative 1.1 is the longer runway. Alternative 2.2 would be about 950 feet shorter.
- The need for a longer runway was discussed. A participant noted that if the existing runway were capable of handling heavier aircraft, there might be larger aircraft using the airport.
    - According to research completed during the scoping phase of the project, the historical number of larger aircraft using the airport (about 24 operations) do not come close to the number of operations (500) needed to qualify it as the design aircraft (the basis for airport geometry) for the airport. FAA may be willing to fund improvements to the existing main runway that is currently in place, but will not fund construction of a longer runway on a different alignment (i.e. Alternative 2.2). In other words, they may fund retaining the existing infrastructure as is, but are not able to fund new construction of a runway that is longer than demand warrants.
- Modeled flood boundaries are identified for each Alternative (PowerPoint slides 9 and 10). Construction within the floodway (Alternative 1.1) would cause a rise in the base flood elevation by as much as four feet and the FEMA flood map would need to be revised as a result of the increase. Alternative 2.2 does not require construction in the floodway. As a

result, a revision to the FEMA flood map will not be required. Barb noted that revising the FEMA flood map is a time-consuming process.

Agency Input/Questions

The meeting was opened to questions from the agencies.

FIRM Flooding; Mitigate/Offset Flooding. Stephanie Presley (KPB) asked what FEMA thinks about the FIRM process? Is this (the project alternatives) something that they would consider?

- DOT&PF answered that the project would have to go through the LOMAR/CLOMAR process, including a public review for Alternative 1.1 but not for Alternative 2.2. DOT&PF would let land owners know how they would be impacted.
  - The Airport Improvement Project would need to pay mitigation for properties impacted by flooding as a result of raising the runway. This would be assessed during the LOMAR/CLOMAR process. This process is expensive, and the project team would like to avoid it, unless the alternative is the best way to move forward.
- Stephanie commented that it looks like the majority of properties that would be underwater are not developed.
  - Barbara noted that information obtained from the Borough Tax Map indicated that some of the properties were developed. A Native allotment, a property type that can take up to ten years to acquire, could also be affected. Joy Vaughn, DOT&PF, added that properties would be impacted on both sides of the river.
- It was asked if there is a way to mitigate/offset floods in another area.
  - Barb answered that the state is not going to dredge. If the flooding caused by project improvements impact property, the state has to mitigate any damages. As the project advances, the project will need to look at impacts to all affected properties.
  - Barbara said that typically, when a plan involves a braided river, the river should be given as much room as possible. Currently, the river is constrained by the airport and that has been a cause of the flooding.

Runways, Entrapment, and Crosswinds.

- Stephanie asked if the existing longer runway would be closed or removed.
  - For Alternative 2.2 (PowerPoint slide 10), the main runway would be closed, the pavement and lighting system would be removed, the embankment would remain to allow nature to take its course, potentially it would be eventually breach.
  - For this alternative, the existing crosswind runway would be offset to meet standards, lengthened, raised above the 100-year flood level and protected with riprap.
- A concern was raised about fish entrapment; namely if the existing main runway was allowed to breach, could channels/ponds be created that would cause fish to become trapped/isolated? It was noted that means to avoid fish entrapment should be considered during project design.
- The alternative aims to stay out of VE flood zone in order to avoid permitting that would be required if fill was placed in this area.
- Crosswinds were discussed.

- The project team looked at wind coverage. Alternative 2.2 would allow for aircraft operation under almost all wind conditions (currently has 98% wind coverage) which exceeds the FAA desired wind coverage of 95%.

Comparing Alternatives and Environmental Issues. Environmental considerations were discussed (PowerPoint slide 11). DOT&PF asked if there are other environmental aspects to consider.

- Alternative 1.1, with the longer runway, would require substantial more erosion protection, which would involve the placement of fill within the river.
- For Alternative 2.2, there are more wetland impacts, but there are no in-river water impacts. There is a pond near this alternative, a portion of which would be filled.
  - Ginny Litchfield, ADF&G, said that, from a fish habitat perspective, the second alternative (2.2) is much more desirable.
- Alternative 1.1, because it involves fill within the floodway, will require revising the FEMA FIRM map. Fill from Alternative 2.2 would occur within the floodplain *but not* the floodway and would not require a FEMA Letter of Map Revision.
- It was asked is wetland areas of impacts for the alternatives available.
  - Preliminary impacts have been calculated (shown on slide 11); Alternative 1.1 is estimated to be 5 acres whereas Alternative 2.2 is 13.5 acres. Before doing a detailed impact analysis DOT&PF is trying to determine if Alternative 1.1 is viable to carry forward; or if the flood impacts present reason enough to eliminate it.
- Jamie Hyslop, USACE, noted that, based on purpose and need, USACE authorizes the least environmentally-damaging practical alternative based on costs, logistics, and technology. It should be proven that other alternatives are not viable if they have less wetlands impacts. He also mentioned after discussion of flooding, that perhaps it was too early for his involvement. This issue can be discussed further when USACE has received the wetlands permit application.
  - DOT&PF noted that an estimate of property costs would be determined to help with the analysis.
- DOT&PF noted that Alternative 2.2 has been discussed as the engineer-preferred alternative; however, they would like agency input on the Alternative 1.1.
  - DOT&PF emphasized that, unless there is a strong reason to move forward with Alternative 1.1, they will likely only move forward with Alternative 2.2.

Wetlands.

- It was emphasized that it would be helpful to understand the project impacts on improved riparian habitat. Ginny said that this should be included as part of the wetlands assessment.
  - DOT&PF asked USACE how impacts occurring to a low-value wet area compare to impacts to a high-value wet area. USACE said the project should look at impacts to types of wetlands based on their functions and values and whether the wetlands are common or unique within the watershed.

- It was asked whether USACE has records of permits issued over time within the Resurrection River watershed. Jamie confirmed that USACE has a record of permits, though it is not totally complete and there is not summary of past impact losses.
- DOT&PF asked whether a river/waterbody is valued more than other types of wetlands.
  - USACE responded by saying that this is determined on a case-by-case basis.
- Whether an USACE permit fell under Section 10 (of the Rivers and Harbors Act) or Section 404 (of the Clean Water Act) was discussed.

Flooding/Sedimentation.

- Jamie asked whether the airport was currently submerged.
  - The project team confirmed that areas of the airport are sometimes submerged. The river water backs up during high tide. When the tide is in, as detailed in the hydrology report, the river inundates the middle area of the airport.
- Stephanie asked whether DOT&PF has considered that sediment could fill in the section between the two runways.
  - The project team answered that there could be natural sedimentation of the area, if the river continues to overtop and erode the existing runway. The area could continue to fill with river sediment, but it is hard to predict. It was noted that Metco is mining gravel upriver.
  - With the difficulty of predicting the rivers course and sedimentation, the project is trying to come up with the best design possible.
- Stephanie asked if FEMA has been contacted to remap the area since there has been 12 years of sedimentation of the area since the FIRM map was completed in 2005.
  - The project team responded that, they did new mapping and compared it to the existing FEMA mapping to estimate sedimentation and recent changes in the river. LiDAR was completed for the land surface while in the river cross sections were surveyed in the field at the same locations as the FIRM cross sections.
    - Stephanie requested a copy of the flood study. DOT&PF agreed to provide information, and added that it was done with the best possible information to predict flood events.
    - It was also noted that in the 1990s, DOT&PF did hydrology studies that resulted in a revetment project to the runway. That improvement project held up for nearly 20 years.

Eagle Nests.

- Leah Kenney, USFWS, said that she appreciated the information, and USFWS would like to be made aware of active eagle nests in the areas and recommended that they be a project consideration. Leah can put the Project team in touch with USFWS' eagle permitter. The proximity of eagle nests and appropriate permits under the Bald and Golden Eagle Protection Act were discussed.
  - It was noted that the agency scoping packet includes information on eagle nests on pages 4 and 5. Leah requested a scoping packet and the project team agreed to share it.

Comments. Comments should be directed to Mark (mark.boydston@alaska.gov, 907-269-0524), and technical questions should be directed to Barbara (barbara.beaton@alaska.gov, 907-269-0617). Technical questions may be directed to Joy at 907-269-0812 while Barbara is out of office through March 20, 2017.

SWG. Stephanie asked whether there will be another SWG meeting.

- DOT&PF commented that there will be another SWG conference call. The SWG has been providing input throughout the process, and the two alternatives have been shared with the SWG.
  - Written comments have been received from ARRC, and ARRC has been an active SWG member. Among their comments is concern about potential airspace conflicts.
  - The SWG was made aware of a third alternative that extends the crosswind runway to 4000' in length, but there is currently inadequate demand for the longer runway to fit under this funding source, so it was not pursued further.

Adjourn

Comments and concerns were requested by about March 16, 2017. The meeting concluded at approximately 2:40pm.

Alaska Department of Transportation & Public Facilities

Seward Airport Improvements

March 2, 2017

Welcome!

- Agenda
  - (1pm) Welcome and Introductions
  - Purpose and Need
  - Progress to Date
  - Project Alternatives
  - Existing Environmental Conditions
  - Agency Questions and Input
  - Project Schedule and Next Steps
  - Adjourn (3pm)

Project team

- **ADOT&PF**
  - Barbara Beaton, P.E.
    - Project Manager
  - Joy Vaughn, P.E.
    - Consultant Coordinator
  - Mark Boydston
    - Environmental Analyst
- **PDC Engineers**
  - Royce Conlon, P.E.
    - Project Manager
  - Angela Smith, P.E.
    - Project Engineer
  - Erica Betts, AK-CESCL
    - Environmental Analyst
- **Solstice Alaska**
  - Robin Reich
    - Public Involvement Coordinator/Biologist
  - Carla SlatonBarker
    - Public Involvement Specialist
- **Hydraulics & H Modeling**
  - Ken Karle, P.E.
    - Project Hydrologist
- **Shannon & Wilson**
  - Kyle Brennen, P.E.
    - Geotechnical Engineer

Purpose and Need

- Provide reliable working airport that meets the near term demand & complies with FAA Standards.
- Airport located within the floodplain of Resurrection River - has been overtopped 18 times in the last 5 years

Hydrology is the Biggest Challenge of this Project

River flooding has caused:

- Extensive erosion that compromises the runway's pavement structure. As floodwaters recede, fines (the binding material or "glue") in the base materials are washed out, leaving voids between the large rocks under the pavement.
- Reduction of pavement strength, resulting in weight restrictions being placed on the main runway.

Why is River Hydrology an Engineering Challenge?

River Type — On the Move and Hard to Control

- The Resurrection River is a braided river, meaning that it constantly moves from channel to channel within the floodplain—as the photos above show. Where any braided river will move over time is always a guess, but this is particularly true for the Resurrection River, which carries a lot of natural sediment (gradually clogging existing channels as it settles out) and meltwater (carving new channels during peak seasonal flows). Attempts to control braided rivers provide only short-term benefits, or else require constant maintenance and demand continual funding.

Progress to Date

- 2008 Master Plan
- Update of Facility Requirements and Aviation Use Forecast
- Public Meetings (9/11/14 & 4/20/16)
- Stakeholder Working Group Meetings (11/19/14, 7/21/15, 4/20/16)
- Identified Purpose and Need as well as Constraints
- Geotechnical evaluation
- Flood analysis
- Dredging/Excavation of Resurrection River Memo
- Updated Wetlands Delineation

Project Alternatives

- Alternative 1.1 would include:
  - Reconstruct and raise R/W 13/31 above 100-yr flood lever (up to 4 feet) requiring FIRM map revisions
  - Install riprap to protect embankment. Adjust elevation of R/W 16/34 and T/Ws B and C to match the new R/W 13/31 elevation

- Alternative 2.2 would include:
  - Close R/W 13/31 and discontinue maintenance
  - Reconstruct and raise R/W 16/34 above the 100-yr flood level (less than 1 foot). Includes shifting R/W east
  - Install riprap to protect embankment from flooding

Project Alternatives cont..

- Both Alternatives include:
  - Eliminate or reconfigure T/Ws A, C, D and E to comply with new FAA guidance
  - Repave other airport surfaces
  - Install new lighting and electrical enclosure building
  - Relocate, repair, or replace navigational aids and markings
  - Construct service roads
  - Install security fencing
  - Property acquisitions
  - Construct an access road and ramp to accommodate float plane floats to wheel change-outs

ALTERNATIVE 1.1

Reconstruct Existing Main Runway (13-31) (4,249 feet x 75 feet)

- ✈ Reconstruct and raise Runway 13-31 above the 100-year flood level. Install riprap to protect the embankment.
- ✈ Adjust elevations of Runway 16-34 and Taxiways B and C to match new runway elevation. Eliminate Taxiways A, D, and E to comply with new FAA guidance.

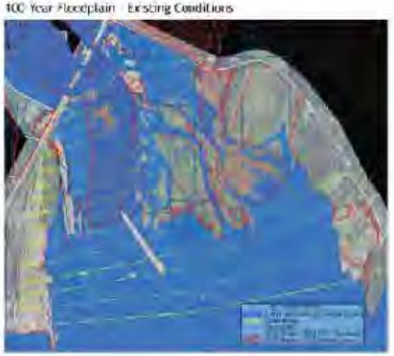
Key Advantage

+ Runway will still accommodate historical jet traffic, although it will be slightly shorter to provide the full required Runway Safety Area.

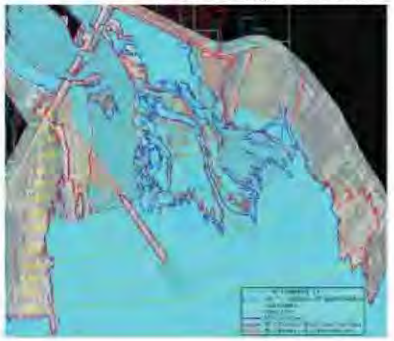
Key Disadvantages

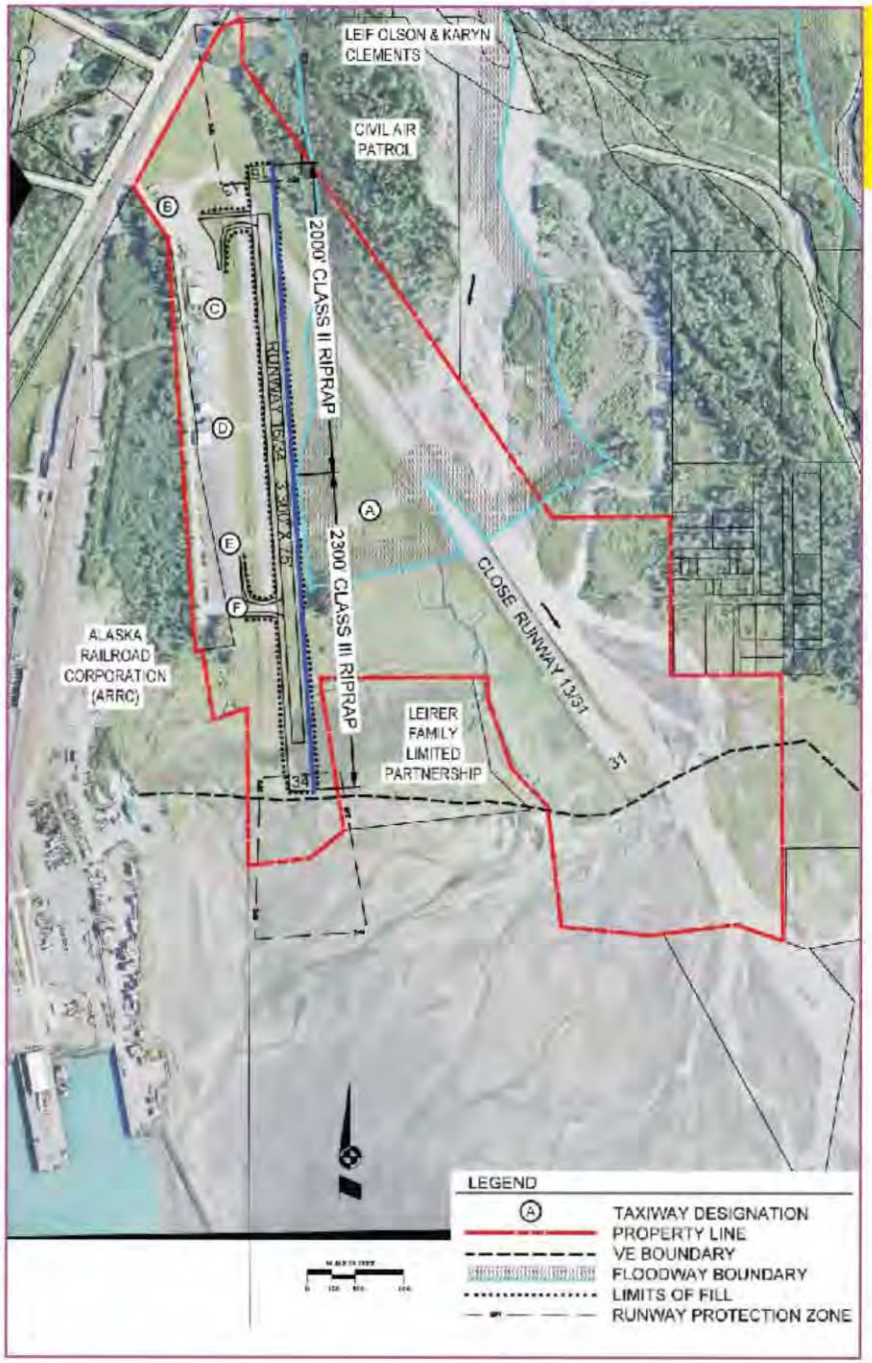
- Creates the greatest flood impacts.
  - Requires armoring and raising the runway by 4 feet on average.
  - The higher runway will redirect more flood water further to the other side of the river, impacting more properties than the other alternatives, thereby lengthening the property acquisition phase.
  - Impacts the Resurrection River floodway, requiring a revision of the FIRM (flood) map. May not be achievable due to the additional impacts to river properties. Requires a public process. The FIRM revision is expected to lengthen the permitting process by about 2 years.
- Most difficult option to permit and construct due to the work required in the river.
- Offset from the apron remains substandard for large aircraft.

100-Year Floodplain - Existing Conditions



100-Year Floodplain - Alternative 1.1





ALTERNATIVE 2.2

Shift Existing Crosswind Runway (16-34) East & Add 1,011 Feet (3,300 feet x 75 feet)

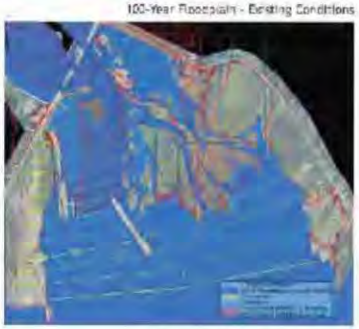
- ✈ Close Runway 13-31 and allow floodwater to overtop it.
- ✈ Reconstruct and raise Runway 16-34 above the 100-year flood level. Install riprap to protect the embankment.
- ✈ Relocate Taxiway B and adjust Taxiway F to match new runway elevation. Eliminate Taxiways A, C, D, and E to comply with new FAA guidance.

Key Advantages

+ Sufficient for current and predicted aircraft demand. Accommodates the design aircraft.
+ Less susceptible to flood damage than Alternative 1.1, since improvements are located further away from the river threat.
+ Lengthens the runway that is best aligned with the predominant wind direction.
+ Increases the runway offset from the apron to allow larger aircraft to use the apron.
+ Has the least environmental and flood impacts of all alternatives. Impacts the floodplain but not the floodway.
+ Raises the 100-year flood level by less than 1 foot, resulting in minor additional flood impacts to river properties. Fewer properties to be acquired than Alternative 1.1, and consequently, a shorter property acquisition process.
+ Could be phased to extend to a longer runway as future demand warrants.
+ Easiest option to construct.

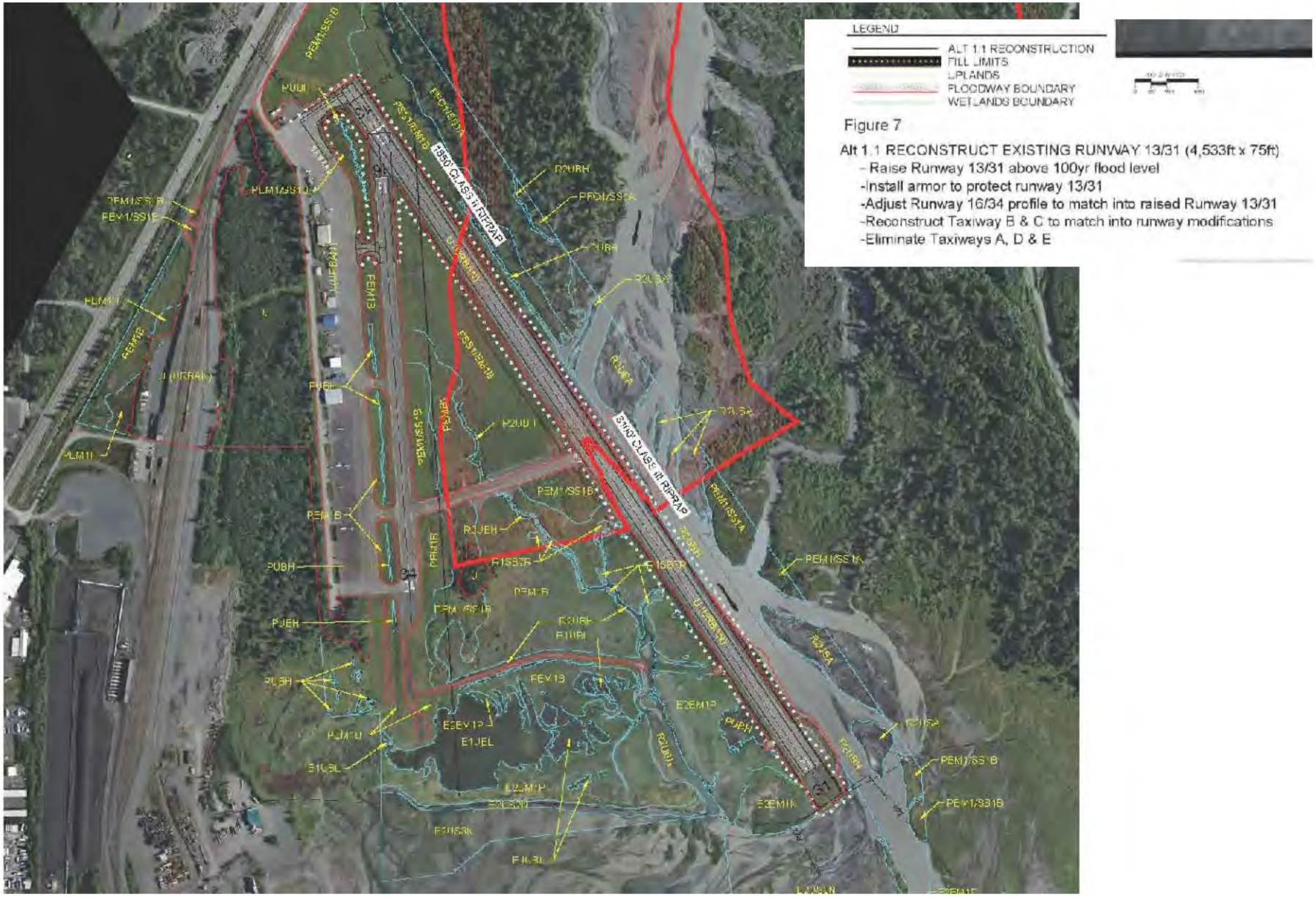
Key Disadvantages

- One runway (13-31) would be eliminated.
- The new, improved Runway 16-34 would be 949 feet shorter than the abandoned runway.



Environmental Considerations

- Anadromous fish streams in project area
  - Resurrection River, Airport Creek and 2 unnamed streams
  - Alt 1.1 will place fill in Resurrection River
- Floodplain impacts
  - Alt 1.1 - Increase in BFE up to 4 ft in some areas, would require FIRM Map revision.
  - Alt 2.2 - BFE increases < 1ft.
- Migratory Birds
  - Eagle nests near project
  - Bird watching area
- Wetlands
  - Alt 1.1 - Estimated 5 acres of impacts
  - Alt 2.2 - Estimated 13.5 acres of impacts


LEGEND
ALT 1.1 RECONSTRUCTION
FILL LIMITS
UPLANDS
FLOODWAY BOUNDARY
WETLANDS BOUNDARY
Figure 7
Alt 1.1 RECONSTRUCT EXISTING RUNWAY 13/31 (4,533ft x 75ft)
- Raise Runway 13/31 above 100yr flood level
-Install armor to protect runway 13/31
-Adjust Runway 16/34 profile to match into raised Runway 13/31
-Reconstruct Taxiway B & C to match into runway modifications
-Eliminate Taxiways A, D & E
1350' CLASS III RIPRAP
3100' CLASS III RIPRAP

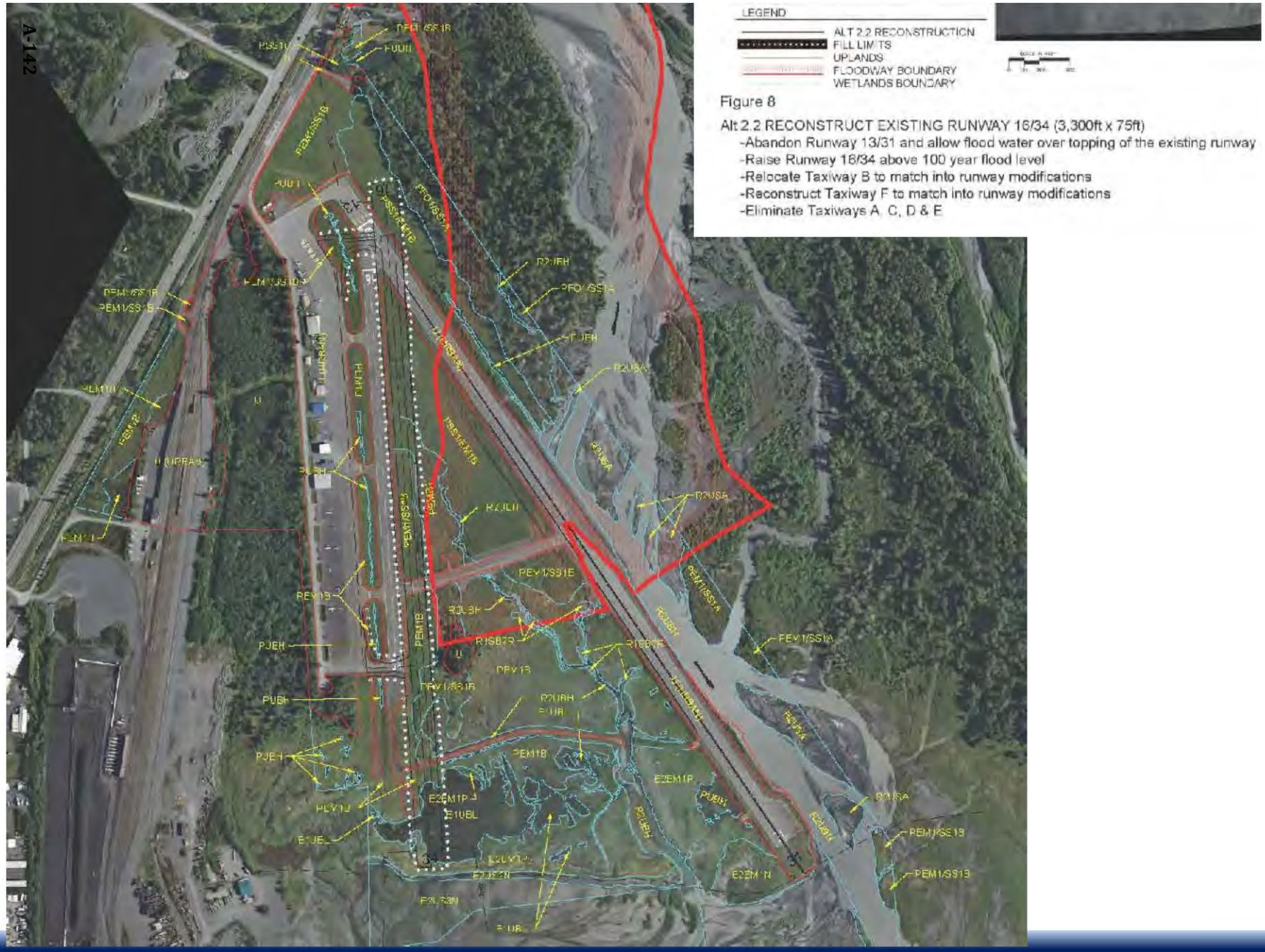


Figure 8

Alt 2.2 RECONSTRUCT EXISTING RUNWAY 16/34 (3,300ft x 75ft)

- -Abandon Runway 13/31 and allow flood water over topping of the existing runway
- -Raise Runway 16/34 above 100 year flood level
- -Relocate Taxiway B to match into runway modifications
- -Reconstruct Taxiway F to match into runway modifications
- -Eliminate Taxiways A, C, D & E

Questions?

- Agency Concerns
- Potential Permitting issues

Thank you

Please send scoping comments (by March 16) to:

Mark Boydston, DOT&PF Environmental Analyst

Mark.boydston@alaska.gov

907-269-0524

For technical questions, please contact:

Barbara Beaton, P.E., DOT&PF Project Manager

Barbara.beaton@alaska.gov

907-269-0617

From: Ken Karle [mailto:kkarle@mtaonline.net]
Sent: Thursday, July 26, 2018 10:41 AM
To: Perkins, Dwight <Dwight.Perkins@fema.dhs.gov>
Subject: Resurrection River at Seward, Alaska Airport

Hi Ted,

I have some questions regarding a project I am working on,as a subcontractor to PDC Engineers in Fairbanks, AK for an Alaska DOT project. The Seward, Alaska Airport is located within the Regulatory Floodplain of the Resurrection River. The ADOT's project manager has contacted a FEMA Map Specialist through email to get some advice. As we still need additional guidance, the ADOT PM suggested that I contact FEMA directly to get more information. I recalled from our work together on the City of Valdez/Lowe River project that you are the lead FEMA Engineer for Alaska. If there is someone else that I should contact in regard to my questions below, could you please forward this email or provide a name.

Brief project history-one of the two runways at the Seward Airport has experienced increased flooding over the past 30 years or so. Located on an alluvial fan at the river's mouth, the main channel of the Resurrection River has migrated over the years and is currently running along (and occasionally over) the embankment of Runway 13/31 (the main runway). Recent map revisions have placed much of Runway 13/31 within the Regulatory Floodway. ADOT wishes to make improvements at the airport, including closing down Runway 13/31 and raising and lengthening Runway 16/34, which is NOT in the Floodway.

Starting 4 years ago, we began hydraulic modeling to assess conditions and guide the design. We acquired the FEMA model, acquired new LiDAR and channel surveys to update the FEMA cross-sections, and arrived at a design which is based on abandoning Runway 13/31-no work to be conducted in the Floodway. Because we had the LiDAR and survey data, and because the 1D model is a very poor fit where cross-sections are up to 8,000 ft wide across a braided, vegetated floodplain, we subsequently decided to use HEC-RAS 5.0 and create a 2D model. We have an EG (existing conditions) and a preferred design (Alternative 2) model. Again, the preferred design abandons Runway 13/31, and raises and lengthens Runway 16/34, which is NOT in the Floodway. No work in the Floodway.

When compared to the EG model results, the 2D design model shows very slight increases in WSELs, generally on the order of 0.05-0.2 ft or less in most areas. In one small location, up to 0.4 ft.

We originally assumed that as we were not encroaching within the adopted Regulatory Floodway, and all flood level increases were well under 1 ft, a CLOMR was not necessary. The Map Specialist referred us to 44 CFR 60.3 (d) (4) and indicated that a CLOMR was necessary.

My questions:

1. Table 9-Floodway Data Resurrection River of the Effective FIS for the Kenai Peninsula Borough includes columns showing 1% annual chance flood WSELs for cross-sections without floodway and with floodway. If our relative modeled wsel increases (2D, Design minus EG), overlain along the cross-sections A thru Q, are all less than the allowed floodway increase shown in the right hand column, do we still need to prepare a CLOMR?
2. If we need to submit a CLOMR, can we use the results from the 2D models?
3. At what point is an actual map revision triggered? Will increases of a tenth of a foot dictate the necessity of revising the FIRMS? Will we need to submit a LOMR following completion of the project?

Any help or guidance you can offer at this point would be quite helpful. Again, if it is more appropriate for me to direct these questions elsewhere, please let me know. I'd be glad to call you at your convenience to discuss further. Thank you.

Regards,

Hydraulic Mapping and Modeling
Kenneth F. Karle, P.E.
1091 W Chena Hills Drive
Fairbanks, AK 99709
ph 907.479.5227 mobile 907.388.3450
fax 907.456.1751
mailto:kkarle@mtaonline.net

From: Perkins, Dwight [mailto:Dwight.Perkins@fema.dhs.gov]
Sent: Thursday, July 26, 2018 10:21 AM
To: Ken Karle <kkarle@mtaonline.net>
Cc: Wood-McGuiness, Karen <Karen.Wood-McGuiness@fema.dhs.gov>; Smith, Jimmy C (CED) <jimmy.smith@alaska.gov>; dglenz@cityofseward.net; Harris, Bryr <bharris@kpb.us>
Subject: RE: Resurrection River at Seward, Alaska Airport

Hi Ken,

I assume you are working with the local floodplain administrator on all of this work and have obtained the needed floodplain development permit. This would usually lay out what is needed as part of meeting the permit requirements. I primarily am in charge of the regional floodplain mapping side of things so I am not always fully versed from the regulations side of things. Karen Wood-McGuiness would be the FEMA contact for these regulations and Jimmy Smith is that contact from the state. I am cc:ing them here as well as the local floodplain administrators for the city of Seward (Donna Glenz) and the Kenai Peninsula Borough (Bryr Harris).

Where I have been generally involved with this discussion is that sometimes I get requests from the community to help them assess whether a proposal is truly a no-rise in a floodway that allows them to not require a LOMR. My general understanding is that if one is developing entirely outside of the floodway, a LOMR would not be required from the FEMA side of things. A community can still request that one submit one to represent the changed condition as a condition of the floodplain development permit but it is not a federal requirement as I understand it.

Ted Perkins, P.E.
Regional Engineer
FEMA Region 10
425-487-4684

Federal Emergency Management Agency (FEMA), Region X is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request a disability accommodation contact me at least five (5) working days in advance at 425-487-4684 or Dwight.Perkins@fema.dhs.gov

From: Wood-McGuiness, Karen [mailto:Karen.Wood-McGuiness@fema.dhs.gov]
Sent: Friday, July 27, 2018 11:05 AM
To: Ken Karle <kkarle@mtaonline.net>
Cc: dglenz@cityofseward.net; 'Smith, Jimmy C (CED)' <jimmy.smith@alaska.gov>; Perkins, Dwight <Dwight.Perkins@fema.dhs.gov>
Subject: RE: Resurrection River at Seward, Alaska Airport

Ken,
Please clarify if any of the proposed project is within the effective floodway. Any "development" laterally located within a floodway is required to determine if the project will cause a rise (encroachment) in the base flood elevation. From your email you indicate that your hydrologic analysis indicates "…modeled increases are well less than a foot,…" The requirement is there can be 0.00 foot increase in the base flood elevation of the current effective maps in the Flood Insurance Study (FIS). If there is more than a 0.00 foot rise from the project (including upstream and downstream), a CLOMR/LOMR is required if the development were to continue as designed. This is a common misinterpretation of the concept of "zero rise" in the floodway.

Please let me know if you have any additional questions.
Karen

Karen Wood-McGuiness, CFM
Senior Floodplain Mgmt. Specialist
FEMA Region 10, Mitigation Division
130 228th Street SW, Bothell, WA 98021
425-487-4675; 425-213-9918 (cell)
karen.wood-mcguiness@fema.dhs.gov

From: Ken Karle [mailto:kkarle@mtaonline.net]
Sent: Friday, July 27, 2018 11:20 AM
To: Wood-McGuiness, Karen <Karen.Wood-McGuiness@fema.dhs.gov>
Cc: dglenz@cityofseward.net; 'Smith, Jimmy C (CED)' <jimmy.smith@alaska.gov>
Subject: RE: Resurrection River at Seward, Alaska Airport

Hi Karen,

As you can see below from my email to Ted Perkins, we are seeking some guidance with respect to a project on the Resurrection River at Seward, AK. As the modeling and design efforts advance, we would like to have a better understanding of whether or not a CLOMR/LOMR might be required for this project. As described below, the planned project activities avoid the Regulatory Floodway, and modeled increases are well less than a foot, and less than those shown in the Floodway Data table for the Resurrection River in the Effective FIS.

Any guidance or insight you can provide would be appreciated. I'd be glad to call you at your convenience to discuss further. Thank you.

Regards,
Ken

Hydraulic Mapping and Modeling
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From: Ken Karle [mailto:kkarle@mtaonline.net]
Sent: Monday, July 30, 2018 11:59 AM
To: Wood-McGuiness, Karen <Karen.Wood-McGuiness@fema.dhs.gov>
Cc: dglenz@cityofseward.net; 'Smith, Jimmy C (CED)' <jimmy.smith@alaska.gov>; Perkins, Dwight <Dwight.Perkins@fema.dhs.gov>
Subject: RE: Resurrection River at Seward, Alaska Airport

Karen,
To follow up on our correspondence last Friday, we're still not quite clear from reading your response as to whether or not a proposed project, located entirely outside of the effective regulatory floodway, will require a CLOMR/LOMR. To clarify:

Our proposed project is entirely outside of the Effective Regulatory Floodway:
The proposed project is located in the flood fringe; 2D hydraulic analysis of the design indicate modeled WSEL increases are well less than one foot.

Will a CLOMR/LOMR be required? If convenient for you, I would be glad to call, so that we can be certain we're headed down the correct path. Thanks for your assistance.

Ken

From: Ken Karle <kkarle@mtaonline.net>
Sent: Wednesday, August 8, 2018 9:22 AM
To: Royce Conlon <RoyceConlon@pdceng.com>; Erica Betts <EricaBetts@pdceng.com>
Subject: CLOMR

I am having difficulty getting a clear and timely response from FEMA Region X regarding whether or not a CLOMR will be required for the Seward Airport project even if all project activities remain outside of the Regulatory Floodway. However, I spoke on the phone this morning with Jimmy Smith, who is the National Flood Insurance Program management specialist for the State of Alaska. He recommended that we proceed by contacting the City of Seward Floodplain Manager, Jackie C Wilde. See her contact info below. If she cannot provide an answer, then her course of action will be to contact Karen Wood-McGuiness at FEMA Region X for guidance.

I would be glad to follow up with Jackie, though Barb may prefer that ADOT&PF do so.

Ken

Jimmy Smith, Local Government Specialist
Department of Commerce, Community, and Economic Development
Division of Community and Regional Affairs
550 West 7th Avenue, Suite 1640
Anchorage, AK 99501
Phone: (907) 269-4132 FAX: (907) 269-4066
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Jackie C. Wilde
Community Development
Title: Planner
Phone: 907 224-4048
jwilde@cityofseward.net

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1091 W Chena Hills Drive
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fax 907.456.1751
mailto:kkarle@mtaonline.net

From: Ken Karle [mailto:kkarle@mtaonline.net]
Sent: Friday, August 10, 2018 9:53 AM
To: 'Royce Conlon' <RoyceConlon@pdceng.com>
Cc: 'Erica Betts' <EricaBetts@pdceng.com>
Subject: RE: CLOMR

Friday update; I emailed, called and left a voicemail for Jackie Wilde at the City of Seward yesterday morning and today. No response yet. Still no response from Karen Wood-Guinness at FEMA.

I did notice that the City of Seward's website for floodplain information has changed since I last looked at it earlier this year. The link to the 'floodplain development permit application' doesn't work, and there is no information at all for 'floodplain development permit/floodplain management.' That's not encouraging.

From: Ken Karle <kkarle@mtaonline.net>
Sent: Friday, August 10, 2018 10:33 AM
To: Royce Conlon; Erica Betts
Subject: FW: CLOMR

Just got a call from Andy Bacon, COS, who works for Jackie Wilde. He is going to send a floodplain permit application to Barb Beaton (cc Royce), and will contact FEMA Region X to help settle the question of whether or not a CLOMR will be required. I will forward his contact info later this afternoon, when he sends me a recap message.

MEMORANDUM

State of Alaska

Department of Transportation & Public Facilities
Design and Engineering Services – Central Region
Preliminary Design & Environmental

TO: Barbara Beaton
Project Manager
Aviation Design

DATE: August 23, 2018

TELEPHONE NO: 269-0526

PROJECT NUMBER: Z548570000
PROJECT NAME: Seward Airport Improvements

FROM: Paul Janke, PhD, PE
Regional Hydrologist

SUBJECT: FEMA Policy on Water Surface Elevation Rise in a Floodway

As requested, following is a discussion of FEMA policy regarding a water surface elevation rise in a floodway.

The 44 CFR 60.3 (d) (2) states that a regulatory floodway must be designed to carry the base flood without increasing the water surface elevation during the base flood more than one foot. The floodway for the Resurrection River adjacent the Seward airport shown on the current FEMA maps must meet this criterion or it would not have been approved. Calculations by Ken Karle show that the water surface elevation rise in the Resurrection River floodway during the regulatory discharge (or base flood) due to encroachments not in the floodway for the Seward Airport Improvements project is less than one foot. Consequently, this rise meets the FEMA requirements.

Confusion on this issue may be because the FEMA policy that allows the one foot maximum water surface elevation rise applies only if the rise is the result of an encroachment that is not in the floodway. This applies to the Seward Airport Improvements project. However, 44 CFR 60.3 (d) (3) states that an encroachment in a regulatory floodway is prohibited unless an analysis shows this will not result in any increase in the water surface elevation during the base flood. This project will cause no encroachment in the floodway and hence the no rise criterion is not required.

Additional confusion on this issue may be because of 44 CFR 60.3 (d) (4). This states that a community may permit encroachments within the floodway that result in a base flood elevation increase provided the community applies for a conditional FIRM and floodway revision, fulfills the requirements for such revision, and receives FEMA approval. However, this does not apply to the Seward Airport Improvements project because no encroachment in the floodway is proposed.

cc: Royce Conlon, PE, PDC
Ken Karle, PE, HMM

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Section 106
Comments and Correspondence

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THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Transportation and Public Facilities

PO Box 196900
Anchorage, Alaska 99519-6900
Main: 907.269.0542
Toll Free: 800.770.5263
TDD: 907.269.0473
dot.alaska.gov

In Reply Refer To:
Seward Airport Improvements
TBD/Z548570000
Consultation Initiation

January 29, 2018

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

Dear Ms. Bittner:

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA) Alaskan Airports Division, is proposing to upgrade airport facilities and protect the Seward Airport from further damage caused by recurrent flooding. The proposed project is located within Sections 34 and 35, T 1S, R1W, Seward Meridian and Sections 2 and 3, T1S, R1W, Seward Meridian on USGS Quad map Seward A-7; Latitude 60.1307, Longitude -149.4188. See enclosed Figure 1 for a location and vicinity map, Figure 2 for the project layout, and Figure 3 which illustrates the preliminary Area of Potential Effect (APE) as described below.

For purposes of the National Historic Preservation Act, we are initiating this consultation with you to assist us in determining the Area of Potential Effect (APE) and identifying historic properties that may be affected by the proposed project.

Project Description

The proposed project would (see attached Figure 2):

- Reconstruct Runway (RW) 16-34:
  - shift RW east and raise it above the 100 year flood level with 2 feet of freeboard
  - extend the length from the existing 2,289 feet to 3,300 feet
  - Install armor rock to protect RW from flooding
- Relocate Taxiway (TW) B to match proposed RW 16-34 location
- Reconstruct TW F to match proposed RW 16-34 location
- Relocate, repair, or replace navigational aids, and markings
- Install security fencing

- Property acquisitions
- Construct an access road and ramp to accommodate aircraft floats to wheel change-outs
- Relocate the Automated Surface Observation System (ASOS) and the Airport Beacon
- Remove TWs A, D and E
- Repave other airport surfaces as needed
- Install new airfield lighting and an electrical enclosure building
- Close Runway (RW) 13-31 and discontinue maintenance

Preliminary Area of Potential Effect

A previous APE was defined in the Environmental Assessment for the Seward Airport Improvements Master Plan Environmental Assessment (July 2008). The proposed project preliminary APE (Figure 3) matches the 2008 APE with the exception of the boundaries to the north and south which have been extended to include property acquisitions to accommodate the Runway Protection Zone (RPZ) for the expanded RW 16-34. The entire Civil Air Patrol parcel to the north is being acquired so as to not leave the Civil Air Patrol with an inaccessible remnant parcel as a result of the proposed improvements. The APE will be finalized after comments are received from your agency and the consulting parties.

Identification Efforts

Based on a Cultural Resources Survey conducted in 2004 by Northern Land Use Research for the Seward Airport Master Plan (2008), the following AHRS sites are in the vicinity of the Airport property:

- SEW-00007, the Russian Trail. This trails dates back to the period of time when Russian traders occupied Resurrection Bay. The exact location of this site has not been identified. A determination of eligibility has not been submitted for this site.

- SEW-00148, the Seward Moose Pass Trail (previously Iditarod National Historic Trail). This trail runs discontinuously adjacent to the railroad between Seward and Moose Pass, Alaska. Portions of this trail fell into disuse after the completion of the Alaska Railroad in 1923. This site is eligible for NHRP.

A review the OHA AHRS mapper on January 8, 2018, showed the following additional sites to those listed above within or adjacent to the preliminary APE:

- SEW-00029, Alaska Railroad. This site number is for the portion of the Alaska Railroad from Seward to mile post 64 (Potter). The Alaska Railroad was nominated to the National Register in the late 1970s under Criterion A, but the nomination was never finalized

- SEW-00835, Seward Naval Radio Station. Original buildings for the station were built in 1917. Today the only building still existing is the station powerhouse. The powerhouse has been taken over by the Resurrection River and is currently mostly destroyed. DOT&PF is currently submitting a DOE as not eligible since the powerhouse is almost completely destroyed by the river.

- SEW-01550, Seward Engine House. Seward Engine House (aka Roundhouse) is a maintenance building used to service rolling stock. It is situated within the ARRC Seward rail yard, which was established in the current location after the devastating 1964 earthquake. A determination of eligibility has not been done for this site.

- SEW-01552, Collapsed hangar. This site consists of the collapsed iron supports and sheet metal cladding of an airplane hangar and associated rubble, including a wooden storage crate and machinery parts. SEW-01552 may be the remains of a hangar destroyed during the 1964 tsunami. Site determined not eligible by the SHPO in 2014.

- SEW-01553, Isolated felled tree. This site consists of an isolated felled tree segment, believed to be Sitka spruce, measuring 8 feet in diameter and 15 feet in length and featuring squared cuts on both ends. The tree has possible logging industry associations with SEW-001554. Site determined not eligible by the SHPO in 2014.

- SEW-01554, Logged area. Tree stumps and felled trees associated from the Louisiana-Pacific Sawmill logging operations that operated in Seward until the 1960s. Site Determined not eligible by the SHPO in 2014.

- SEW-01555, Airport Bay Road. This road is the segmented remains of an earthen road that ran from Porcupine City sawmill and camp out to the naval radio station and Crawford subdivision. Site Determined not eligible by the SHPO in 2013.

- SEW-01557, Seward Highway. The Seward Highway is a 125 mile-long two-lane road that runs from Seward to Anchorage. It is owned by the Alaska DOT&PF. A determination of eligibility has not been done for this site.

Consulting Parties

DOT&PF is initiating consultation with the following parties: SHPO, City of Seward, Chugachmiut, Inc., Resurrection Bay Historical Society, and Qutekcak Native Tribe.

If you have questions or comments related to this proposed project, please contact Mark Boydston, Environmental Analyst, at the address above, by telephone at (907) 269-0524, or by e-mail at mark.boydston@alaska.gov.

Your timely response will greatly assist us in incorporating your concerns into project development. For that purpose, we respectfully request that you respond within thirty days of your receipt of this correspondence.

Sincerely,

Michael T. Wanzenried
Cultural Resources Specialist

Enclosures:
Figure 1 - Location and Vicinity Map
Figure 2 - Proposed Action
Figure 3 - Preliminary APE

Electronic cc w/ enclosures:
Barbara Beaton, Project Manager, DOT&PF Aviation Design
Brian Elliot, DOT&PF Central Region, Regional Environmental Manager
Kathy Price, DOT&PF Statewide Cultural Resources Manager